

ANNUAL REVIEW 2022/ 2023

The Productivity Institute is a UK-wide research organisation which aims to pinpoint the causes of the stagnation in UK productivity and focus energies to laying the foundations for a new era of sustained and inclusive productivity growth through interdisciplinary research in collaboration with businesses and policymakers.

The Productivity Institute has made great strides in its mission to lay the foundations for an era of sustained and inclusive productivity growth over the past year, with work underway in all of our research portfolios, within our eight Regional Productivity Forums and the Productivity Commission.

We are grateful for the fantastic work and support from all our affiliated researchers, partner institutions, and business leaders, Regional Productivity Forum chairs and members, support staff at our partner insitutions, our support team based at Alliance Manchester Business School; and our funder, the Economic and Social Research Council.

Bart van Ark, Managing Director
 Mary O'Mahony, Research Director (incoming)
 Tony Venables, Research Director (outgoing)
 Nicola Pike, Engagement and Impact Director
 Charlotte Jones, Head of Operations

THE PRODUCTIVITY INSTITUTE PARTNERS



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PURPOSE, OBJECTIVES, OUTCOMES AND IMPACT

OUR PURPOSE

Lay the foundations for an era of sustained and inclusive productivity growth and help policymakers and business leaders across the UK understand how to improve productivity and raise living standards

OBJECTIVES

To set an agenda and develop national capacity that will deliver research and promote actions that contribute to the improvement of productivity

To frame the productivity narrative such that it enters the classroom, boardroom, councils of government, and other civic societal groups and influences ideas at each of these levels

To work with organisations to identify obstacles to productivity at the individual, firm, and institutional level, and to formulate and evaluate private and public policy actions

To work with policymakers as part of an agenda to better understand the impact of local, regional and national policies on providing an environment supportive of productivity growth

DESIRED OUTCOMES

To discover new facts and create knowledge about the causes of and obstacles to productivity

To improve the knowledge base made available to policymakers (national, regional and local) and embed productivity as a priority across policy domains

To extend recognition across society that productivity is critical to improving living standards and tackling inequality

To develop and implement scientifically based measurement and methods to assess the effectiveness of business and policy interventions

To increase capability of researchers working directly with business to deliver an improved evidence base relating to UK productivity and provide better connection between insights and implementation

DESIRED IMPACT

Evidence-based interdisciplinary research is translated into meaningful change in practice across public and private sectors

Context specific solutions and interventions for productivity improvements are implemented based on evidence-based research (particular focus on regions, sectors, organisations and value chains)

New techniques, perspectives and methods are developed and a new generation of researchers enter this field

Public and private sector decisions are made ensuring sustained productivity improvements creating benefits for wider societal and environmental outcomes

THE PRODUCTIVITY INSTITUTE AT A GLANCE

ESTABLISHED
1ST SEPT
2020

200 INDIVIDUALS
INVOLVED
IN OUR REGIONAL
PRODUCTIVITY FORUMS

10 INSTITUTIONAL
PARTNERS

5 YEAR
GRANT

62 PAPERS &
REPORTS
PUBLISHED

8
REGIONAL
PRODUCTIVITY
FORUMS

9,000+
DOWNLOADS OF
RESEARCH PAPERS

140+
AFFILIATED RESEARCHERS

MANAGEMENT TEAM REPORT

Despite widespread recognition that productivity is the key to economic growth, improved living standards and greater well-being, the UK's track record is still disappointing. Fortunately, the direction of travel for change is getting clearer by the day, thanks to more integration of insights from research, practitioner engagement and the carving out of pathways to accelerate impact.

Over the past decade and a half the UK has become a relatively "productivity poor" economy. From 2010-2019, the annual average growth in GDP per hour was just 0.5 percent. Taking into account the last few years, which were dominated by the pandemic, high energy prices and inflation as well as domestic and global political turmoil, the trend in productivity growth has dropped even further.

While a slowdown in productivity growth is prevalent across most advanced economies, the UK finds itself in the lower half of the range from the perspective of levels and growth rates. In finding ways to raise productivity growth, The Productivity Institute's work is now zooming in on three key areas for change: (1) accelerate investment in a wide range of areas, including skills, intangibles, place-based capital and net-zero; (2) strengthen the diffusion of productivity-enhancing practices between firms, places and people, and (3) tackle the challenges of a fragmented policy and institutional landscape at all levels. The country needs to prioritise an integrated range of pro-

productivity policies, commit to them for the longer term, and flank business and public sector organisations in implementing and executing productive enhancing practices.

During the third year of the ESRC grant (2022/23) funding, covered in this report, The Productivity Institute has completed the transition of its research portfolio of research from eight broad themes to seven, more focused research programmes around the role of people, firms and institutions and the economic system to strengthen productivity growth. The research report will describe this transition in more detail. Moreover, throughout the report, we provide several research case studies reflecting on our increased focus on the role of people, firms and institutions for productivity.

Beyond academic publications in TPI's working and insights papers series, journals and books, TPI has been cited in numerous think tank publications, including reports by the Resolution Foundation, the Fabian Society, the Chartered Institute for Management Accountants (CIMA), the Chartered Institute for Professional Development (CIPD) and The Conference Board. The Productivity Lab has also begun its work to organise the data from research projects and make them accessible to users.

During 2022/23 a number of our Co-Investigators have contributed to parliamentary and government related inquiries, publications and evidence sessions. As reported below, our Productivity Commission has conducted a series of evidence sessions on the underperformance of business investment, public investment and the role of international investment.

The Institute has continued to strengthen its

engagement with key practitioners. The work with the approximately 200 members of our eight productivity forums, drawn from business, policy and academia around the country, has helped to expand the narrative on productivity to business and has already led to practical outcomes. The forums met at least three times in the past year and have helped developed business-focused research projects which are well underway.

With guidance from the Governing Council, The Productivity Institute has developed two campaigns aimed at accelerating our pathway to impact through which insights from our research will be integrated with direct participation of stakeholders. Both campaigns, which will come to fruition in the next year, focus on accelerating investment as a key driver of productivity. One campaign looks at how to tackle barriers within the firm causing low investment. The other campaign focuses on developing a broad place-based investment strategy involving stakeholders including local councils, business, education and civil society.

In 2022/23 TPI earned media mentions in national publications such as The Economist, The Financial Times, The Guardian, The Times, The Telegraph and regional publications such as North West Insider and the Belfast Telegraph. TPI also achieved coverage in trade and sector publications such as Raconteur, Prolific North, Facilities Management, FE News, Civil Service World and City AM. We also had some international mentions, including coverage in the German economic magazine, Wirtschaftswoche.

We have also engaged with people from media, policy, business, third sector and the general

public through social media and digital media channels and business conferences. In June 2020 we held a special session at the Trade Unlocked conference in Birmingham. Our Productivity Puzzles podcast grows from strength to strength. Now in its second season, it averaged 1,000 downloads per episode and reached 40,000 downloads in total across both seasons.

We are also pleased to expand our network even further, with the Institute engaging with many academics from outside our core partners in 2023. In April, we successfully launched a call inviting research proposals which would provide tested or testable frameworks, solutions or tools to address productivity at a functional level or boardroom level within organisations. From this call we have approved 14 new projects, with 11 new university relationships established. The Institute has also developed new strategic partnerships with the Chartered Institute of Management Accountants (CIMA) and the Rochdale Development Agency in addition to our existing partnership with Be The Business.

We are grateful for the expertise, advice and insights from the members of the Governing Council and Advisory Committee. Through their organisations and networks, they have ensured that what we do has is aimed at having real-world impact. Last but not least we would like to thank all of the researchers, partners and the headquarters team at The Productivity Institute for all their hard work. We are looking forward to the exciting year ahead, where we will launch a number of reports and organise an awareness week to highlight productivity research.



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TPI Head of Operations

GOVERNING COUNCIL REPORT

The UK's economic climate continues to be challenging and the need to improve our underlying economic performance is more imperative.

The Productivity Institute is halfway through its five-year grant and the hard work setting the research agenda is gathering pace. The General Council met four times over the past year, including a joint meeting with the Executive Team in December 2022, and together, and we continue to focus on ensuring the Institute's work continues to make real impact.

We have welcomed Kitty Ussher, Chief Executive of the Institute of Directors; Fiona Devine, Dean of the Faculty of Humanities at The University of Manchester, and Clare Reid from the Scottish Council for Development and Industry to the Council. Sir John Kingman, Chair of Legal and General Group plc has also joined as an observer. We are also grateful to Professor Keith Brown, who has stepped down and we thank him for

his contribution.

I welcome the campaigns looking into regional productivity focusing on left-behind places, and how firms invest in themselves. These will provide excellent case studies on the challenges and opportunities for boosting productivity on a tangible level.

The current economic climate is not all gloom and doom. There is a real opportunity to take action from the results of the Institute's work on public sector productivity and for businesses to look inwards to focus on the five drivers of firm productivity – innovation and digital; worker skills and well-being, leadership and management; marketing and communication; and access to finance.

There is also a real opportunity for firms to upskill and use available technologies. I'm pleased the Institute continues to be an authoritative source on productivity, both in the press and in policy circles and we are developing more ways to keep this vital work going.



Dame Kate Barker

Chair, The Productivity Institute Governing Council

ADVISORY COMMITTEE REPORT

The Productivity Institute's approach to better understanding, and addressing, the UK's productivity challenge is unique, as it brings together robust academic research and expertise with real-life business experiences and front-line policy makers.

This has been another exciting and busy year for the Advisory Committee, supporting the Institute as it continues to build its activities and capacity.

This year, the Advisory Committee have worked closely with The Productivity Institute's academic researchers to help them refine their research plans for the next phase.

We have been heavily involved in ensuring the research questions are focused to link explicitly to practical needs in business

and policy spheres and highlighting engagement opportunities.

There is now a stronger focus of productivity research in three main areas – People, Firms and Institutions and the Economic System.

I'm particularly grateful to the hugely knowledgeable and experienced members of the Advisory Committee for their wisdom, insights, and time, which they have contributed generously.

The Institute has benefited from the breadth, depth and diversity of the members' expertise, including the international and multidisciplinary perspectives they have brought to bear.

By offering critique, suggestions, and guidance, the Advisory Committee hopes to ensure that the Institute's research is both novel and relevant and that it will, in due course, result in actionable recommendations and real-world impact.



Tera Allas

Chair, The Productivity Institute Advisory Committee

THE RESEARCH AGENDA

In 2022/23 the transition of the Institute's broad-based thematic approach to a more focused programmatic approach has been completed. This allows for a clearer direction on the type of insights we will generate over the next few years.

Over the past years, the theme-based approach has served us very well. It made it possible to study the productivity problem from different lenses. By conducting research on three areas of investment (human capital, knowledge capital and organisational capital), the challenges of regional development and Net Zero transition, the underwhelming of macroeconomic policy and institutional reform, and need for improvement in the measurement of productivity, we have been able to sharpen up The Productivity Institute's narrative. The joining up of insights from economics in macro and regional, management and innovation, political science and public policy, and data sciences, has enriched our understanding of the issues.

In 2022/23 we published 37 working papers and 16 insights papers. Publications of TPI research in academic journals and books (30+) have increased as well. We have seen TPI research being widely referred to in other academic work and publications by think tanks as well as the media.

Beyond the three main productivity challenges referred to in the management report (accelerate broad-based investment, strengthen knowledge diffusion and tackle institutional fragmentation), much of TPI's research programme has been focused on understanding the diversity in

productivity performance across sectors, firms and regions. We find that the UK productivity slowdown since the Global Financial Crisis (GFC) has been primarily driven by three major sectors, namely financial and insurance services, manufacturing, and the information and communication sector (Goodridge and Haskel). Firms in the 5th-9th decile of productivity levels account for the major part of the productivity slowdown since the GFC (ONS). And, some of the largest regions, including West Midlands, Greater Manchester, and East Anglia, have failed to close much if any of the large productivity gap relative to London and the South East (Productivity Lab).

We also learned much from our theme-based approach about the mechanisms by which best practices in productivity spread through the economy. The combination of exports and innovation plays a critical role in driving firm's productivity performance (Jibril/Roper). Engagement through Foreign Direct Investment can be an important source of knowledge diffusion (Driffield). Institutions focused on the adoption of new technologies often provide the best results in environments where public and private sectors complement their innovation activities (Jones). We also found that FE colleges can play a key role in local and regional ecosystems to not only provide critical skills but also be a conduit for innovation strategy (Nelles/Verinder).

Finally, our policy and institutions research continues to point at critically missing elements to join up an institutional and governance fabric which is focused on long-term results and can be sustained over time. Whether related to levelling up (Newman/Westwood/Richards), industrial policy (Coyle) or science & technology policy

(Jones), the current approach remains too patchy, and calls for more systematic and integrated tactics. Some of our research has looked at the options of setting up a statutory independent commission on productivity, as in other countries (McCann, Pilat).

In going forward, our seven research programmes which are now in place for the next two to three years, are more strongly focused on finding answers to some key questions coming out of the earlier work, which can help us uncover a deeper understanding of the mechanisms by which the productivity slowdown can be turned around.

Our programmes on **People** (including labour market, human capital and wellbeing):

- How can we better measure the demand, supply and utilisation of skills? And how does better skills matching impact on productivity of firms across industries and regions? (O'Mahony and Grimshaw)
- How can we strengthen the relationship between well-being and productivity, through improved job design, enhanced worker voice and engagement, and reduce the role of precarious employment in Britain's labour market (Rafferty and Grimshaw).

Our programmes on **Firms** (including organisational and knowledge capital and the challenges of the transition to Net Zero):

- How do the twin digital and green transitions relate to each other? And, how will firms' digital technologies and capabilities to innovate work for environmental sustainability? (Roper and Pinkse)
- How do recent developments related to servitisation, automation and digitisation, platformisation, and digital technology

adoption change business innovation models and impact on productivity? (Velu and Driffield).

Our programmes on **Institutions and the Economic System** (including the role of macroeconomic, science, technology and innovation policies and institutions and governance):

- How effective are the UK's knowledge diffusion and transmission mechanisms between firms and regions to facilitate growth and productivity? (Ortega-Argilés, Jones).
- How can the characteristics of firms (management, control, governance and finance) and markets (structure, failures and externalities) change the orientation of businesses making investments from a short-term to a long-term perspective? (Venables, Chadha, Pabst, Millard).
- How are firms in lagging regions different from those in more prosperous places? How can improved and more efficient access to labour and capital markets help Britain's second tier cities to close their productivity gap to similar cities in other countries and narrow the gap relative to London? (McCann, Westwood)

During the Spring of 2023 the research teams on these programmes have worked out the new projects, including resourcing and staffing. In addition, three meetings (one on people, one on firms, and one on institutions) have been held with the Advisory Committee. These have helped to sharpen the questions from policy and business perspectives, and strengthen a focus on future policies and strategic interventions.



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REGIONAL FOCUS

The Productivity Institute's Productivity Scorecards are comprised of five main regional productivity drivers that need to be analysed: business performance; skills and training; policy and institutions; health and wellbeing; and investment and infrastructures.

These five regional productivity drivers are captured using 17 indicators and their past performance is analysed in the short and long-term to help develop regional strategic initiatives and objectives.

The scorecards cover each of the eight English regions and three devolved nations, with each metric including a median for the UK. Disparities between regional productivity performance are significant both across and within UK ITL1 regions.

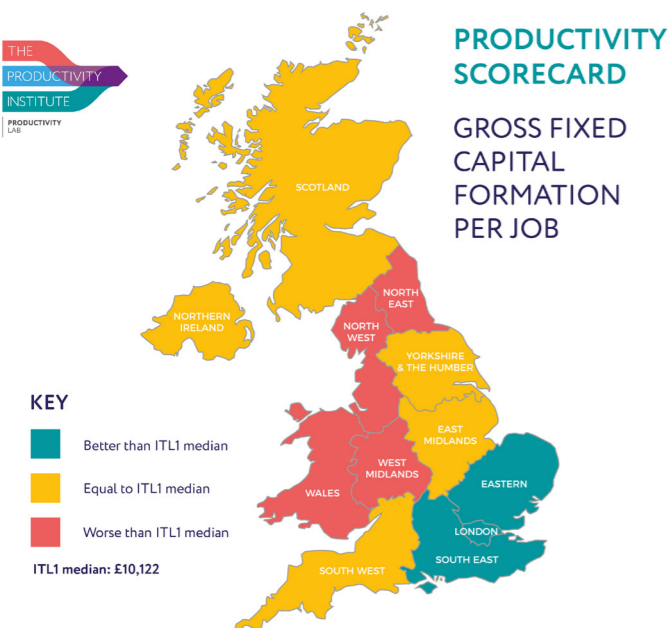
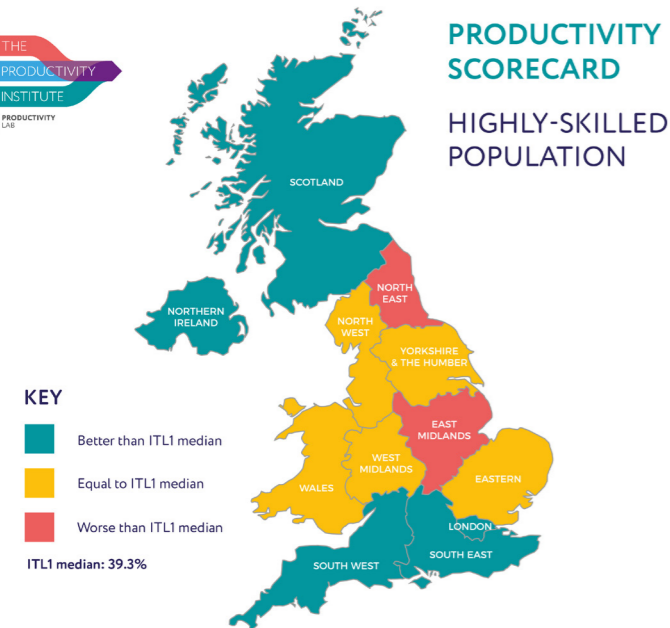
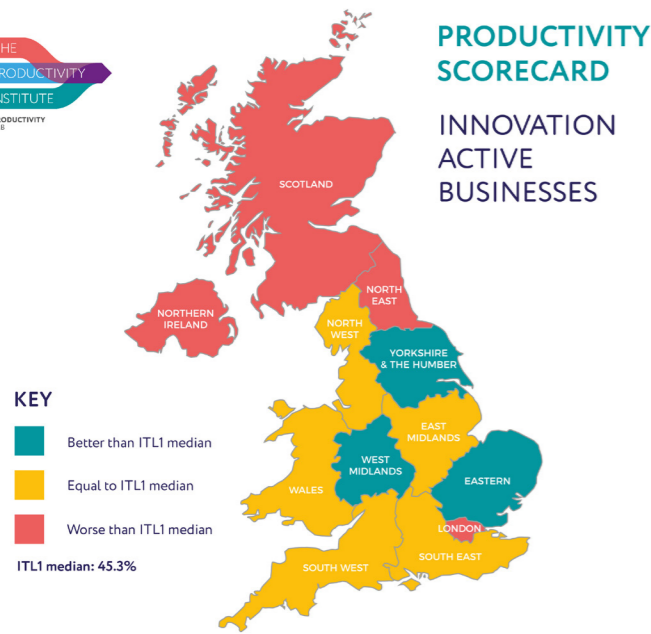
London remains the most productive part of the country in absolute terms, while Northern Ireland appears as the lowest productivity performer. However, the picture is not clear cut, with most regions having areas that are doing well and some that could be performing better.

Presenting the data as scorecards offers a clear way to help English regions, Wales, Scotland and Northern Ireland assess their relative strength and weaknesses and allow regional stakeholders to understand which policy areas might deserve further investigation to improve performance.

In August 2023, each productivity driver was also turned into a Scorecard Map (pictured left), which provides a snapshot of how each region and devolved nation has fared.

The maps offer a clear visualisation of the regional aspects of many of these drivers, such as how Wales, Scotland and the north of England suffer from lower R&D per job.

Left: Maps showing the current regional disparities in relation to innovation, highly-skilled population and gross-fixed capital formation per job.



HOW NORTHERN IRELAND INSPIRED THE SCORECARDS

Management skills and data quickly were identified as key issues hampering productivity in Northern Ireland but the nation was not included in UK productivity data. So the Northern Ireland Productivity Forum decided to collect and collate it themselves, leading to the first Productivity Dashboard.

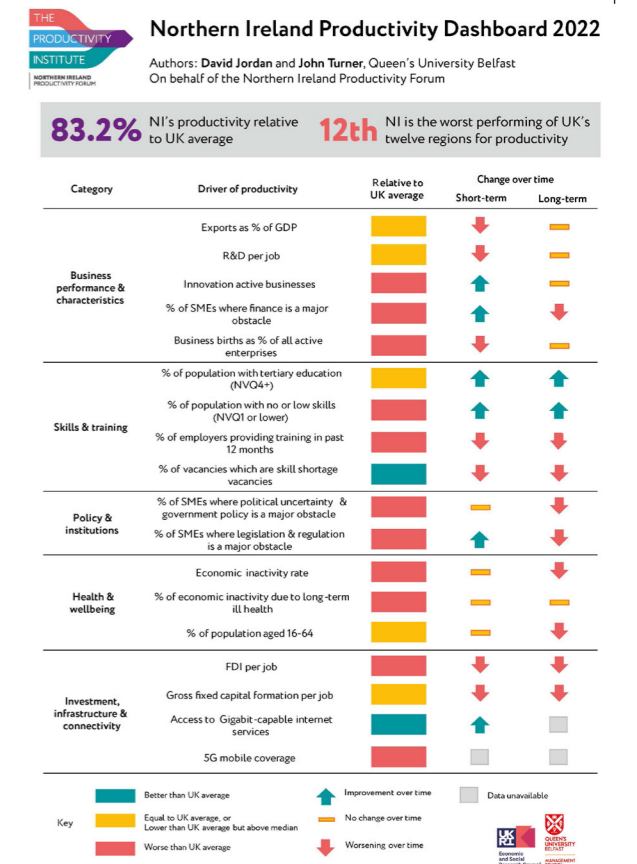
The dashboard measures how Northern Ireland performs across key drivers of productivity, relative to the UK average and other regions, and over time. It highlights where barriers to productivity growth exist, their severity, and whether progress is being made to address them.

Since it was published in November 2022, the Northern Ireland Productivity Dashboard has been showcased in meetings with the region's decision makers, including Department for the Economy NI, Department for Infrastructure NI, the Northern Ireland Office, and local politicians. It has also received considerable media coverage and has been referenced in the Independent Review of Invest Northern Ireland.

The idea emerged from a Forum working group tasked with creating policy and practice recommendations to be shared with policymakers and business leaders. The motivation came from filling the gaps - Northern Ireland often does not have the level of data around productivity as the English regions and other devolved nations that Scotland and Wales.

The group was inspired by a productivity index that had been developed for Scotland by the CBI and KPMG. Professor John Turner, the Forum's lead, along with Research Associate Dr David Jordan developed their own dashboard based on available data and by working with the group and other experts.

The dashboard has been very popular with the other Regional Forums, and in turn inspired the the development of the Productivity



Scorecards for all ITL1 regions and devolved nations by the Productivity Lab in March 2023, with work ongoing to produce scorecards on ITL2 and ITL3 levels.

THE IRISH TIMES

Northern Ireland's economic productivity worst of any UK region
 Queen's University Belfast research reviews region's performance across 18 drivers of productivity

BBC Northern Ireland is least productive region in UK

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NORTHERN IRELAND RPF RESEARCH ASSOCIATE
 David Jordan



NORTHERN IRELAND RPF LEAD
 John Turner

NORTHERN IRELAND

The Northern Ireland Forum's focus on managerial skills led to a comprehensive survey conducted by Queen's University Belfast in partnership with the Northern Ireland Productivity Forum. This survey collected data from local businesses to assess their management practices and future expectations, aiming to identify areas for improvement and establish a management practices score, while seeking to understand how management practices vary across different types of businesses and across different sectors in Northern Ireland. Participants receive benchmarked scores relative to peers and best practices. A report will be published in Q4, 2023. This work was in addition to the Northern Ireland Productivity Dashboard.

YORKSHIRE, HUMBER & NORTH EAST

In a recent in-person meeting, the Forum discussed the significance of supply chains, highlighting risks for businesses without improved management. Challenges faced by small businesses in accessing financing for forward-thinking initiatives were also addressed. The need for industry and training provider collaboration to shape curricula and offer meaningful work experience opportunities was also emphasised. The Forum maintains its focus on skill development, supply chains, and finance for micros and SMEs, with planned Innovation Labs aiming to address productivity challenges and apply academic research for growth in UK businesses.

MIDLANDS

The Midlands Forum continues to collaborate with Warwick University on innovation investment and firm location, with Aston University on exporting entrepreneurship and small firm growth, and Loughborough University on supply chain productivity. The completed Midlands Forum and CBI research project on UK investment and decision making sheds light on the UK's performance relative to global competitors, with forthcoming qualitative data analysis. The Warwick team are also working with three government departments on a project on inward investment and levelling up, and contributed to the Harrington Review on inward investment. They also continue to advise the West Midlands CA and Midlands Engine on economic strategy, particularly related to investment and productivity.

WALES

A research paper by chair Andy Henley explored the connection between small business leadership and productivity. Suggestions include refining leadership measurement, incorporating productivity into business plans, analysing leadership's role in clean productivity growth, and improving funding models for leadership development. Cardiff Business School's 'Help to Grow Programme' participants have also shared experiences and strategies for driving productivity improvement in their organisations, prompting interest from Forum members about the course's impact. The Forum submitted evidence to the Productivity Commission, highlighting challenges in FDI, capital formation, and finance for business investment, with particular attention on the Development Bank of Wales' growing effect.

SCOTLAND

Carolyn Currie, Chair of the Forum, shared insights on BBC Radio 4 Scotland in March about prioritising business investment, productivity, and fostering a strong relationship with businesses, with an emphasis on stability for investment and women's economic empowerment. The Forum organised a Gaitherin event in May, uniting business thinkers to explore the link between employee well-being and business growth, underlining the importance of ensuring productivity does not come at the cost of well-being. The Forum is also collaborating with Glasgow City Region to identify factors influencing economic performance differences among Scottish regions and cities. September's Productivity Matters Conference is a joint effort by the Institute and the Scottish Council for Development and Industry, aimed at enhancing productivity strategies across sectors.

LONDON & SOUTH

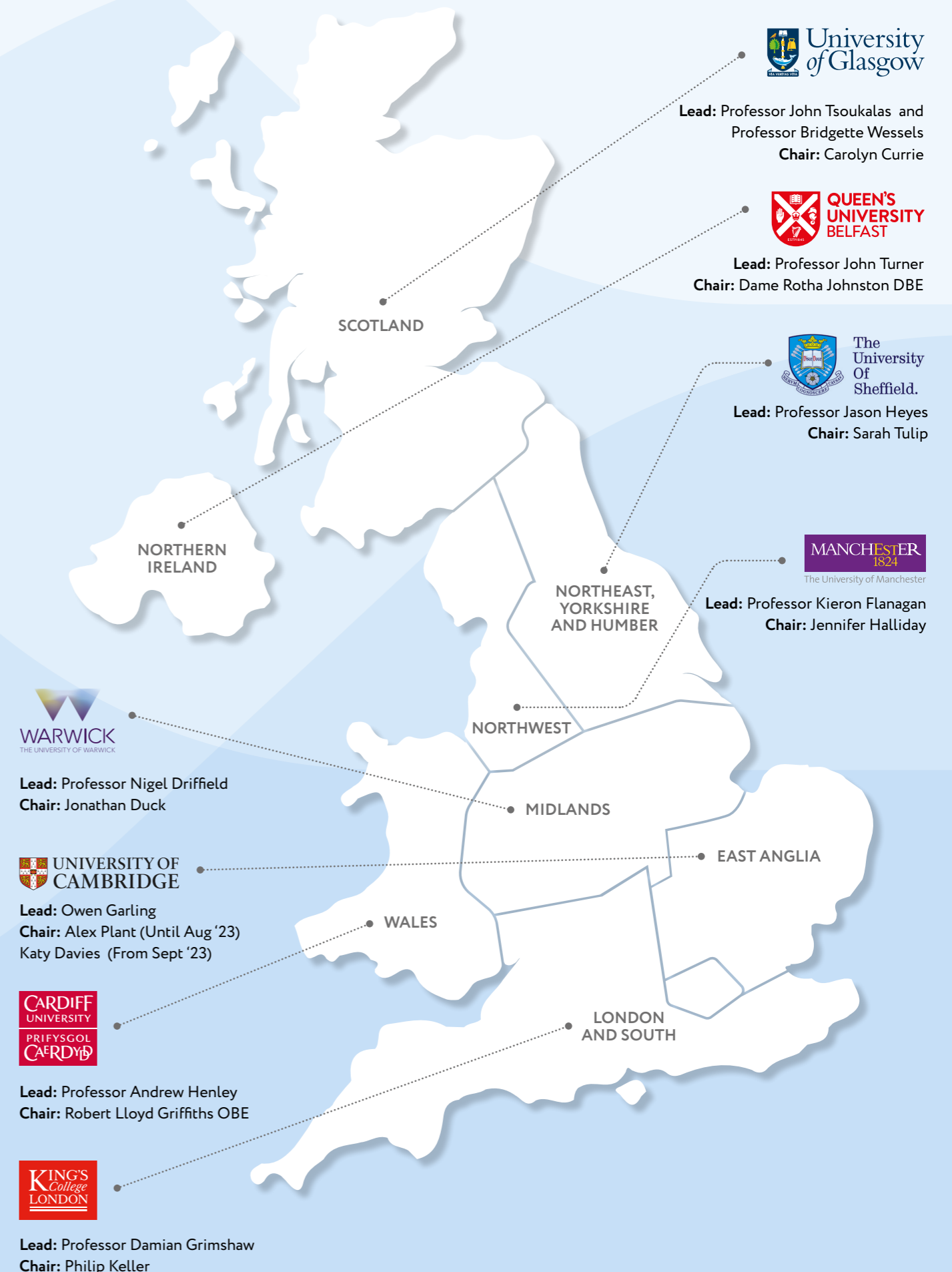
The Forum's Skills and Digital Technologies Taskforce has focuses on leveraging skills and digital technologies for productivity growth. The goal is to unite diverse perspectives to formulate a novel research question and practical engagement strategies to benefit businesses in the regions. The Taskforce on Green Business Growth examines the impact of electric vehicle (EV) adoption on SMEs' productivity, addressing challenges and potential bottlenecks in EV infrastructure rollout. The project next plans to explore coordination efforts for charging infrastructure, evaluating implications of devolved and market-based approaches. Interviews with SMEs that adopted EVs will assess productivity impacts.

EAST ANGLIA

Following the departure of Alex Plant, Katy Davies has taken over the role of chair. The Forum is currently working on a project considering approaches to public sector productivity to explore their productivity implications. Further stages of the work will focus in particular on public sector productivity in healthcare, digital tool utilisation, AI adoption, and overcoming governance barriers. The East Anglia Forum is also collaborating with The Data City to analyse the spread and connections of the region's emerging economy using a unique dataset derived from web-scraping and machine-learning techniques, mapping it against local authority boundaries, while also exploring inter-sector relationships for potential knowledge transfer. A forthcoming report will detail the results.

NORTH WEST

The Forum held an Innovation Lab focused on diversifying the North West's SME workforce, with academics and intermediaries collaborating on projects addressing firms' challenges. Ongoing projects focus on Net Zero and productivity in housing and construction. Future plans involve studying AI's broader business impact beyond ChatGPT. A pilot study will analyse firms' location choices in Cambridge and Manchester, revealing statistical similarities influencing investment attraction. Forum member Donna Edwards participated in the Trade Unlocked national conference as an Institute guest panellist.



REGIONAL INEQUALITY

Regional inequalities are a national problem for the UK. While London and the South East need to continue to strengthen as a globally competitive region, the UK also needs to tackle persistent regional inequalities. If a very large part of the country is economically weak, it offsets any gains made elsewhere.

Regional inequality is a focus of The Productivity Institute, with numerous research projects addressing the different problems, causes and solutions. No other large, developed country has as an economy that is geographically unequal as the UK's on so many measures.

Professor Philip McCann leads our Geography and Place theme and has shared his insights with policymakers, government, shadow cabinet and the media.



He was a guest on The Why?Curve podcast, discussing how to make the UK more productive, and was an independent member of the Commission on the UK's future, chaired by Gordon Brown. He is

cited in its report *A New Britain: Renewing our democracy and rebuilding our economy*.

Philip's work on the Economy 2030 Inquiry Turnaround Cities project – eight case studies of post-industrial cities around the world which have transformed their economies over the past 40-50 years – was highlighted further in an episode of the Productivity Puzzles podcast.



The Institute's Managing Director, Professor Bart van Ark, also offered his insights when speaking at the Institute for Government event *What policies can level up economic performance?* in July where he noted that areas in which 40% of UK population lived were falling behind, particularly in second-tier cities.

The Levelling Up agenda was introduced by the Conservative Party to help address regional inequality as part of its 2019 election manifesto. Institute members contributed both directly to the 2022 White Paper and analysis around it. The Productivity Puzzles episode on the topic is one of podcast's most downloaded episodes to date, continuing to find new listeners as the discussion over creating opportunities for everyone across the UK continues.

The challenges of Levelling Up were highlighted by researchers behind the Institute's The UK Productivity-Governance Puzzle project, Professors Dave Richards, Patrick Diamond and Andy Westwood and Dr. Jack Newman.

They provided evidence to the Levelling Up, Housing and Communities Committee noting centralisation, underinvestment, uncertainty, competitive bidding, siloed funding, ambiguous measures of success, and competing devolution geographies as challenges and were cited in the subsequent report.

The team have also presented about their research into the organisation and performance

of the UK's highly centralised model of policy making to a series of government departments including the Department for Levelling Up, Housing and Communities (DLUHC), Department for Education and opposition and shadow ministries as well as combined authorities and regional governance.

Other research from the Institute in this area over the past year include:

Capital Shocks and UK Regional Divergence

By Michiel Daams, Philip McCann, Paolo Veneri, Richard Barkham [↗](#)

Using uniquely-detailed large-scale commercial real estate investment data to examine how financial markets perceived the attractiveness of investing in UK regions during the last two decades, providing a new explanation to UK regional productivity gaps.

New insights on regional capital investment in the UK – 1997 to 2019

By Michael Becker, Josh Martin [↗](#)

Exploring new data from the Office for National Statistics about the capital investment in different parts of the UK.

The work-from-home revolution and the performance of cities

By Stephen Bond-Smith, Philip McCann

Examining the effects of the work-from-home and hybrid work revolution on the spatial structures and performance of cities.

Between a rock and a hard place: Trade offs between prosperity and inclusivity when implementing regional growth policies

By Simon Collinson, Nigel Driffield, Charlotte Hoole, Anatasios Kitsos

Providing initial data to explore the relationship between prosperity and inequality growth at a UK regional level.

PUBLIC SECTOR

A boost to public sector productivity could provide large benefits to society, not only helping to reduce tax burdens and supporting fiscal responsibility, but also by improving the quality of services and providing support to private enterprise and economy-wide productivity growth.

The Productivity Institute's report *Making Public Sector Productivity Practical* has connected knowledge about concepts, measurement, drivers and barriers to productivity in this sector, which includes more than 5.6 million employees, about 17.5% of the country's workforce.

The report, written by Institute Managing Director Professor Bart van Ark, recommends focusing on outcomes as the best starting point for mapping out the service delivery chain in real time and identifying the key bottlenecks for improvement.

Productivity is traditionally measured as output per unit of input, with inputs reflecting a combination of labour, capital – such as building, machinery, computers – and intermediate inputs of goods and services used. However, in the public sector, focus needs to be

on outcomes, rather than outputs. For example, in healthcare, an output is successful surgeries and the outcome is an overall better quality of life for patients.

The Public Sector delivery chain needs to incorporate “doing things right” and “doing the right things” to ensure public money is used in the best way for inputs, outputs and desired outcomes, which in turn contribute to societal productivity.

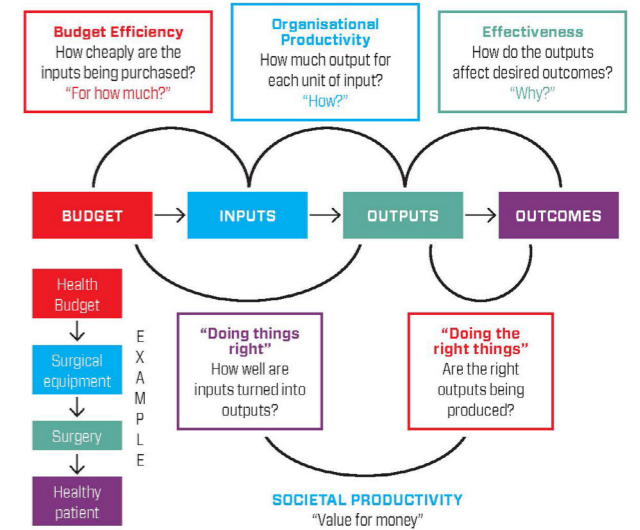
A productive public sector also boosts the private sector as they have the critical capabilities to make investments in skills, innovation, and infrastructure to benefit people at a national, regional and local level. Their services assist private businesses to grow, and contribute to the creation of jobs, higher wages, and a better quality of life.

Since 2010, public sector productivity has focused on budget efficiency, including budget cuts, a reduction in pay increases and the introduction of digital technology. While this has boosted productivity, with the ONS reporting that public sector productivity increased by an average of 0.7 percent, the report notes this is not sustainable without a significant increase in budgets.

The report recommends organisations create a robust strategy using the three key drivers of public sector productivity: adaptive business design, digital transformation, and building an agile workforce and offers recommendations to systematically identify major constraints or bottlenecks, ensure solid, real-time measurement systems and cultivate a culture

THE PUBLIC SECTOR DELIVERY CHAIN

How public money is turned into inputs, outputs and outcomes



of continuous innovation and collaboration. The report was picked up by trade and national press, including by business processes services provider Capita and *Civil Service World*, with Bart van Ark also meeting and presenting to the County Councils Network.

He also delved deeper into practical examples on an episode of the Productivity Puzzles podcast with guests Stephen Aldridge, Chief Economist and Director of Analysis and Data at the Department for Levelling Up, Housing and Communities (DLUHC); and Anna Smart, Systems Thinking/Organisational Design Lead at London Borough of Camden.

Bart has also participated in a number of meetings and roundtables with the Treasury around public sector productivity, has presented to DLUHC analysts, and his work and insights are feeding into the Chancellor's Public Sector Productivity Taskforce which was launched in June 2023.

The report follows on from earlier work by Diane Coyle for the Institute about productivity in the National Health Service during the peak of the COVID-19 pandemic and considering healthcare as social infrastructure.



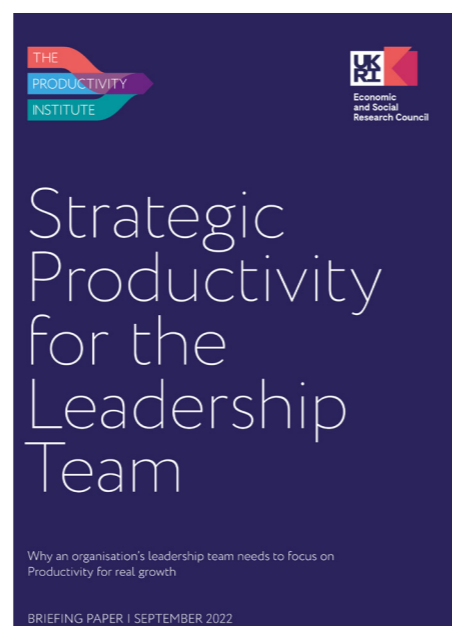
STRATEGIC PRODUCTIVITY

Businesses are the main drivers of productivity growth, yet it often remains unclear to leaders exactly how senior leadership teams and boards should be thinking about productivity, and how they can incorporate it into their everyday actions to add value.

There is typically a gap in terms of communicating key productivity messages within a firm, making decisions and planning for the future, and then translating them into actions.

The *Strategic Productivity for the Leadership Team* briefing paper, written by Kate Penney and Jim Pendrill, aims to create a framework to involve all the aspects of boardroom functions to create a cohesive narrative for a shared productivity goal.

Following the publication of the report in September 2022, the Institute was asked by The Conference Board, a global business membership think tank, to work on developing this concept of strategic productivity with business councils focusing on individual functions including Human Resources Vice Presidents, Chief



ORGANISATIONAL FUNCTIONS



How a firm's organisational functions feed into productivity. Source: *Strategic Productivity for the Leadership Team*

Financial Officers, and Chief Technology Officers, involving large multi-national businesses.

It also led to the joint report *How Businesses Can Leverage Productivity to Generate Strategic Alignment Behind a Common Language and Drive Performance* with The Conference Board which looked at how businesses can leverage productivity to generate strategic alignment behind a common language and drive performance.

In the UK, meetings have been held with representatives of a number of professional bodies and Chartered organisations about the work. This led to a Memorandum of Understanding with the Chartered Institute of Management Accountants (CIMA) to enable cooperation on generating new insights into the problem of low productivity growth and the role of accountants and finance professionals, UK businesses and government in addressing it.

A virtual roundtable was held jointly with CIMA about inflation and the impact of firm productivity and insights were cited in their report *The role of finance professionals in driving productivity*.

Further developing this practitioner relationship, The Productivity Institute's managing director Bart van Ark contributed to an article for the Institute of Chartered Accountants in England and Wales about the need to depoliticise the UK's local regional institutions to preserve their continuity and

improve productivity.

Bart was also a keynote speaker at conferences for the worldwide Association of Executive Search and Leadership Consultants and Innovation Origins, a European platform about innovations, startups and technologies. This topic was a focus for the Institute's 2022 Business Conference.

"In our conversations with senior finance professionals, productivity was understood as modernisation, effective growth, value for money and optimisation."

AICPA & CIMA report



CIMA: *The role of finance professionals in driving productivity*

The Productivity Institute awarded a number of innovation grants this year to better understand strategic approaches adopted by organisations to improve productivity and develop the evidence base to support the conversation around productivity with business leaders. These short-term projects will use tested or testable frameworks, solutions or tools to address productivity at functional level or at the level of executive leadership teams within organisations.

Building Leaders' Entrepreneurial Mindset as a First Step Towards Better Productivity

Dr Emilee L Simmons, Leeds Trinity University

This project will provide entrepreneurial mindset training to a group of senior leaders, equipping them with the tools and skills needed to make better decisions and support integration of meaningful productivity KPIs from their strategies.

SME Leaders' Strategic Roadmap to overcome the Digital Gap in Labour Productivity

Maria Kapsali, University of the West of England

This project will help the cognitive skills of leaders in Small to Medium Enterprises (SMEs) in strategising and planning to optimise the synergy between technical and human capabilities and take the risks offered by Industry 4.0 innovations, resulting in a best practices roadmap for SME leaders.

New ways of understanding and measuring productivity: Exploring how innovative digital calculative practices shape sustainable investment decision-making and business planning processes

Dr Erik Jacobi, University of Essex

This project will collaborate with two businesses that are innovators in sustainability-focused digital technologies to uncover new insights into how novel calculative practices come to underpin important business functions and shape approaches to productivity and have a positive environmental impact.

The challenge of strategic decision making: The Case of Chief Information Officers

Dr Nina Jörden, Bennett Institute for Public Policy, University of Cambridge

In recent decades, Chief Information Officers (CIO) have emerged as the C-suite agent designated to guide organisations in the ever-complex IT landscape. The aim of this interview study is to contribute to a better understanding of the way CIOs navigate and make complex decisions regarding investments and the adoption of digital technologies and their effects on productivity.

Investigating management decision making and readiness in SMEs – how technology-driven development affects long term productivity growth of logistics operations

Dr Jie Ma, Northumbria University

The project will focus on key factors for productivity growth in logistics operations through technology adoption and the effects of management competencies and strategic decisions. It will apply a mixed-methods strategy and bridge the research gap around supply chain technology advancements in SMEs.

AI-powered knowledge management system (AI-KMS) for productivity, planning and strategic decisions in care homes in England

Dr Sajad Rezaei, Worcester Business School, University of Worcester

This study focuses on how AI-powered knowledge management systems enhance productivity, planning and strategic decisions among leadership teams of care homes in England. It seeks to gather new data to investigate the leadership team's strategic approach to shaping productivity issues and propose and empirically test an AI-KMS model incorporating personalised and tailored care services to the unique needs of elderly people.

Rochdale SME Leaders: Developing a Productivity Mindset Mentoring Framework

Maria Kutar, Salford Business School, University of Salford

This project develops understanding of how strategic decision making can be improved through the mentoring of senior management responsible for investment and decision-making regarding technology. The project will be delivered in partnership with Greater Manchester Chamber of Commerce.

Increasing the demand for external finance to create productivity gains in SMEs in the West Midlands

Professor Mark Hart, Enterprise Research Centre, Aston Business School

Due to information asymmetries, perceptions, and experiences as well as internal financial competencies, access to external finance from SMEs remains a constraint for many. This project was prompted by recent British Business Bank research which highlights that awareness of external finance options is lower in the West Midlands compared to other parts of the UK and businesses also are reluctant to use external finance to grow.

Performance indicators, motivation, and productivity: a case study in the UK's non-profit cultural heritage sector

Dr Sue M Davis, University of Hertfordshire's Business School

This research project explores performance indicators in the UK's non-profit cultural heritage sector to provide insights on how to make better use of resources. Current metrics used in museums and archives are less robust than those used in the commercial sector largely because the desired outputs and outcomes are often poorly articulated.

Digital marketing productivity: assessing what SMEs do and demonstrating how they can improve efficiency

Dr Alan Shaw, Leeds Beckett University

This project illustrates how marketing audits can become more efficient and effective in supporting strategy development. A key output will be the publication of a step-by-step how-to-guide on mapping the digital landscape as a situation analysis to facilitate strategy development and investment.

Mental health at work: a longitudinal exploration of line manager training provisions and impacts on productivity, individual and organisational outcomes

Professor Holly Blake, University of Nottingham

Mental ill-health accounts for over half of all work-related ill-health, amounting to 5% of the UK GDP. This research will explore the impact of manager training on mental health outcomes or productivity to help influence investment decision making and business planning processes.

Co-creating pathways to productivity through innovation

Dr Kate Broadhurst, Loughborough Business School, Loughborough University

This research aims to increase the understanding and competencies of SME leaders in the innovation process to boost aggregate productivity and create a package of leadership and management tools for businesses to improve innovation practices and innovativeness within their organisations.

Understanding and Enhancing Productivity in an Organizational Context: Creating Value and Inclusive Growth for UK plc

Professor Stephen Proctor, Newcastle University

The research explores in great depth the processes by which key drivers of performance, such as hierarchical and functional aspects of organisational structure, have an impact on firms' ability to create value and enhance productivity. Building on a framework developed by the industrial partners in the project, in-depth research is being undertaken in four case study companies.

Productivity for Major Infrastructure Development

Professor Graham Winch, The University of Manchester

This research will deepen understanding of the causes of poor performance by investigating productivity on the Thames Tideway major project, engaging with senior leaders in the sector, and developing decision support materials by which productivity performance can enter into the investment decision-making of project owners with respect to their suppliers.

Internationalisation is closely linked with productivity; UK firms that export are more productive on average than firms that don't, while overseas businesses that invest in the UK tend to be high-productivity enterprises. How can we best harness this productivity advantage?

In June, the Institute hosted a session at Trade Unlocked in Birmingham, a national conference that brought together businesses of all sizes to discuss and address the challenges of the current trading environment.

The session examined whether productivity can unlock the UK economic revival, with Bart van Ark putting forward his interpretation of the UK's productivity puzzle – broad chronic underinvestment, and a shortage of firms that accept and implement new ideas and technology.

A subsequent panel event featured Professor Nigel Driffield, Dr Halima Jibril, Donna Edwards, Managing Director for Business Support and Business Finance at The Growth Company; and Tera Allas, Director of Research and Economics at McKinsey.

Nigel, who is Professor of International Business at Warwick Business School and research lead on our Organisational Capital theme, offered his insights into exports and investment, building on his series of Foreign Direct Investment (FDI) reports. These briefings explore the latest intelligence on FDI flows into the UK, and what that means for productivity.

Briefing one examines the changing patterns of FDI before the Brexit referendum, variations in FDI from different countries, and trends in UK cross-border mergers and acquisitions.

Briefing two looks at the data through a regional lens, illustrating the uneven spatial distributions of investments across the country. It also explores the patterns across industrial activities for the different regions, and in turn explores what this means for productivity.

Briefing three analyses the changes in makeup of FDI that has entered the UK since the Brexit referendum, concentrating on the motives for those investments. It finds an increase in the proportion of FDI coming into the UK focused on the local market, rather than using the UK as an export platform, while also showing that re-investment by existing investors, which declined dramatically after Brexit, is starting to recover. With inward FDI to the UK now more likely to become embedded in local ecosystems, there is scope for increased spillovers of knowledge and productivity.

Nigel's expertise has also been recognised in the policy landscape. He served as a witness on the panel on inward investment for the cross-party UK Trade and Business Commission's blueprint for policy makers on bolstering UK trade, and was cited in the Chartered Institute for Personnel and Development's report on development of policy on productivity, growth and industrial strategy.

Halima is a Research Fellow at the Enterprise Research Centre, University of Warwick. Her research examines innovation, resilience and performance among small businesses, including the roles of innovation collaborations and international trade. A paper she co-wrote with Stephen Roper aims to understand why that exporters are more productive than non-exporters, and discover the links between exporting, innovation novelty and productivity.

Through analysis of the longitudinal element of the UK Innovation Survey, the study found that innovations that are truly novel and new to the market or industry drive exports, but innovations that are only new to the business do not. This suggests that invention, not adoption, drives exports. Exporting, in turn, drives both forms of innovations, encouraging both invention and adoption.

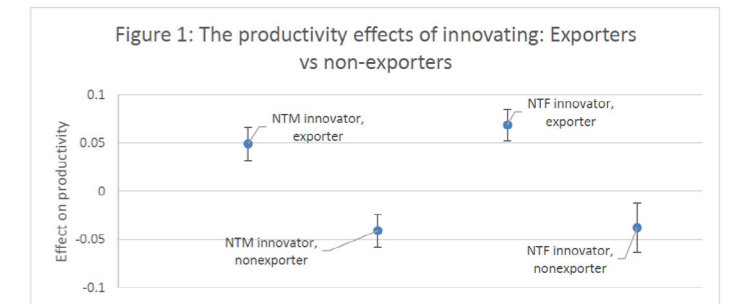


Figure showing the effects on firm productivity in relation to exporting on NTM New to Market, or radical innovations, and NTF New to Firm, or incremental innovations. Source: *Of Chicken and Eggs: Exporting, innovation novelty and productivity*, TPI Working Paper No. 027

However, not all exporting firms experience these positive interlinkages between innovation and exporting- only those that export persistently over time. This suggests that consistent exposure to foreign markets is crucial for any learning effects, and firms that export intermittently lose out.

The findings demonstrate a direct positive impact of exporting on productivity. However, innovation has only an indirect effect on productivity through its positive links with exports. That is, innovation increases productivity only for exporting firms.

For policy, this means that the UK should identify companies that are domestic market leaders but not exporting for targeted export support. This may create the greatest productivity improvements through greater and faster returns on their innovations.

Furthermore, export support policies should explicitly incorporate the exploration of foreign knowledge sources as a deliberate policy objective, since exporting enhances both new-to-market and new-to-firm innovations.



The Productivity Institute at the Trade Unlocked conference. From L-R, Professor Nigel Driffield, Dr Halima Jibril, Tera Allas, Donna Edwards and Professor Bart van Ark.

ENVIRONMENT & SUSTAINABILITY

The climate crisis and the transition to Net Zero have far-reaching ramifications and the UK's approach to the green economy could impact the way we measure productivity and economic output. We are approaching this challenge through several research strands.

The twin challenges of the economy and climate change have in the past been pitted against each other but could they instead be complementary?

Measures of environmentally-adjusted productivity and economic statistics that can simultaneously assess progress towards productivity growth and Net Zero by treating environmental protection expenditure as capital investment were examined by Matthew Agarwala and Josh Martin.

Their analysis constituted a rare 'good news story' in environmental economics: the UK is using energy more productively than ever, reducing the emissions intensity of GDP, and most importantly, there is significant room for further improvement across many industries. The paper's accompanying blog was reproduced by our partners ESCoE and the Bennett Institute.

Matthew also met with officials from UK Treasury, the Welsh government to provide analysis, was interviewed on Channel 4 noting that climate should be considered in all economic planning, and with Co-Investigator Diane Coyle, wrote about adding natural capital to the perspective of the modern wealth of nations in the Economics Observatory.

The links between the green economy and productivity were further explored in a podcast episode of *Productivity Puzzles*, featuring Institute Co-Investigator Jonatan Pinkse alongside Anna Valero and Antoine Dechezleprêtre in May 2023. They analysed the trade-offs between green initiatives and economic growth, while also considering whether the two goals can work in tandem.

Jonatan, the Institute's lead for social, economic and technological transitions, has published several research papers and is

leading a project examining how the housing sector is managing the confluence of three major policy challenges – productivity, Net Zero and affordable housing - with Graham Winch and Suzanne Peters.

Jonatan's work has global influence – in June 2023, he presented to the New Zealand Treasury in their *Productivity in a Changing World* seminar series, outlining the framework of the options firms have for transitioning to Net Zero and the policy changes needed to support them.

The Green Alliance publication *The cluster effect: why the UK needs a place-based green industrial strategy*, highlighted the work of the Institute's Regional Productivity Forums, noting "The Productivity Institute has gone some way towards identifying industrial strengths across the country in its regional insight papers." It also cited research by Diane Coyle pinpointing which sectors were most responsible for the UK productivity slowdown.

The Institute is supporting two ongoing research projects into understanding the effects on productivity of the move to Net Zero, led by Frank Geels and Stephen Millard respectively. A recent paper from Frank's project focuses on climate mitigation debates on positive tipping points, and develops a socio-technical transitions perspective showing how to significantly accelerate diffusion of green technology.



GENDER & PRODUCTIVITY

Action to improve gender equality in the labour market could help reduce the UK's productivity problems.

While OECD countries have relied over recent decades on women's investments in education and steadily rising employment participation to improve growth, further changes are now needed to raise the productivity of women's employment, research from Jill Rubery, Isabelle Bi and Anthony Rafferty, released on the occasion of International Women's Day, has found.

Women's investments in education now equal or outstrip those of men but evidence indicates that their talents and capacities are underutilised and that their productive contributions may in some respects be undervalued. Gender and Productivity recommends three fronts to focus on for a more gender-equal society – changes to the way work is organised; changes to pay structures to ensure women's work is valued and rewarded; and greater investment to support working parents. It also offers policy suggestions for government and business.

The paper has been shared widely with business connections, including those associated with the Institute's Regional Productivity Forums, where Jill presented to the North West branch. The research was also highlighted in The Times after the Office for National Statistics reported that productivity growth in the UK sank to its weakest level in a decade in the first three months of 2023.

A long-term expert in the area of gender equity, Jill is also a member of ReWAGE, an independent expert advisory group, which analyses work and employment research to advise government on the challenges facing the UK's productivity and prosperity such as COVID-19, the cost-of-living crisis, and labour shortages. In February 2023, Jill gave evidence to the Women and Work APPG session focusing on Levelling Up our female workforce.

Further work on the wider research project will focus on the role of part-time work.

EDUCATION AND SKILLS

A pressing issue facing the UK is the shortage of people with the right skills, especially practical skills.

Further Education colleges (FECs) can play a critical role in identifying the demand and match it with providing tailored courses and programmes to supply the most needed skills. However, relatively little is known on how FECs and the business community are actually interacting.

The Productivity Institute recognised the importance of FECs in local or regional ecosystems and commissioned a study to better understand their operation and provision of skills, innovation, and productivity in their areas.

Firstly, a literature review from Jen Nelles, Kevin Walsh, Michalis Papazoglou and Tim Vorley found that FECs have emerged as one of the focal points for innovation ecosystem development in regions. However, the policy environment is constantly changing, leading FECs to be reactive rather than proactive, while businesses have little input into what FECs are programming.

This research was then followed by a report from Jen Nelles, Ben Verinder, Kevin Walsh and Tim Vorley, which offered six recommendations to boost skills delivery: alleviate the shortage of FE lecturers; encourage short-term skills qualifications; see FECs as part of social and economic infrastructure; encourage employer investment in skills; reduce constant policy churn; and align FEC needs across different ministries.

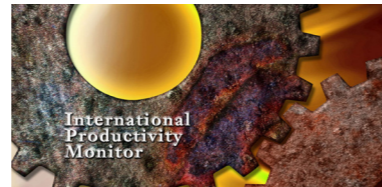
Following the publications, the authors hosted a discussion with the Department for Education's Future Skills Unit in March 2023 to talk about the research, with a subsequent discussion with the department's Skills Strategy Unit in September 2023.

Jen Nelles and Ben Verinder also joined Bart van Ark on an episode of Productivity Puzzles to discuss the research in detail in February 2023.

RESEARCH ENGAGEMENT

International Productivity Monitor

The joint flagship publication of the Centre for the Study of Living Standards (CSLS) and The Productivity Institute produced two editions over the past year



Number 43, Fall 2022 Includes the second part of the Symposium on Productivity and Well-Being and articles on productivity growth and spillover across European and American industries and trade liberalisation in India in the 1990s. [🔗](#)

Number 44, Spring 2023 Featuring articles on the review of the rise of pro-productivity institutions; a proposal for improved measures of output, input and productivity in the non-profit sector; a comparison of estimates of capital and total factor productivity growth across international databases; an analysis of productivity in West Asian Arab countries; and lessons from productivity research. [🔗](#)

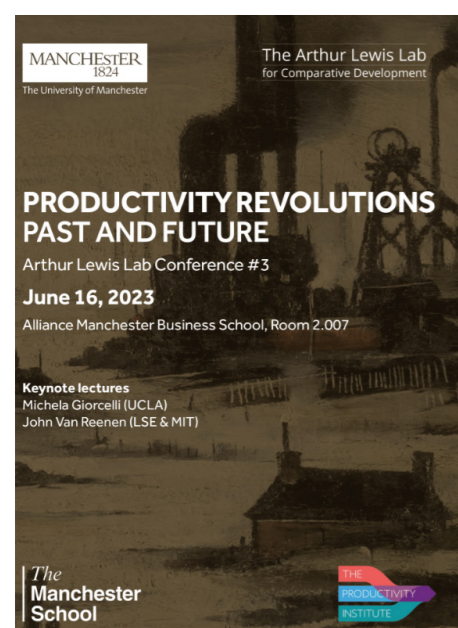
Conferences

The Productivity Institute and its members have been involved in numerous conferences over the past year, the highlights including:

KLEMS The seventh World KLEMS conference was hosted by Alliance Manchester Business School in October 2022, with 100 participants, four plenary sessions and 12-18 parallel sessions. The keynote was from Jonathan Haskel and several Institute papers were presented. Professor Bart van Ark was a keynote at the Asia KLEMS conference in June 2023.

Sustainability in Construction: Towards Net Zero Professor Jonatan Pinkse presented at the Institute of Government & Public Policy conference in February 2023, attended by practitioners, policymakers and academics involved in sustainability in the construction sector.

Royal Economic Society Conference The Institute's Productivity Lab organised a session on productivity data, focusing on access and usage of increasingly available productivity data at micro, regional, national and international level for the April 2023 conference in Glasgow.



ESCoE Conference on Economic Measurement 2023 Matthew Argawala, Josh Martin, John Lourenze Poquiz presented on Institute research at the conference, held May 2023 at King's Business School and co-organised by Professor Rebecca Riley. Other TPI affiliated academics presenting included Diane Coyle, Tera Allas, Vasco Carvalho, Carol Corrado, Martin Fleming, Kevin Fox, Jonathan Haskel, Robert Inklaar, Giordano Mion, Paul Mizen, Mary O'Mahony, Nicholas Oulton, and Graeme Roy.

Productivity Revolutions: Past & Future Conference The Institute co-hosted a conference with the Arthur Lewis Lab for Comparative Development and The Manchester School in June 2023, focusing on long-term productivity change and its implications for growth and development in the past, present, or future. Josh Martin and Dirk Pilat presented on Institute research.

RESEARCHER PROFILES

Meet some of the up-and-coming researchers contributing to The Productivity Institute's research agenda.



Elodie Andrieu
PhD student, Economics
King's College London

Elodie's research interests are in the areas of labour economics, automation, productivity and tasks/skills, building on her experience working as a consultant at the Organisation for Economic Co-operation and Development as part of the Economic, Analysis and Statistics research team. Her working paper for The Productivity Institute examines how the 2016 increase in the UK's minimum wage affected firms' hiring decisions regarding workers' education and technical skills. Using detailed online job postings data in England, the research found a higher national minimum wage results in an up-skilling effect – an estimated 11-percentage point decrease in the proportion of non-graduate vacancies and a 21-percentage point decline in the share of low-tech adverts.



Brittney Regal
Research Associate
King's College London

Britt is a postdoctoral research associate at King's Business School and for the London and the South Regional Productivity Forum. She recently completed her PhD in Public Administration and Organisation Studies at King's College London. She is currently working on the Enabling SMEs to Implement Green Business Growth project. Prior to this, she worked as a research assistant on an EU Horizon 2020 project exploring the transformation of European public agencies into innovative, open, and collaborative spaces. She has also worked in the public sector as a secondary teacher and at a non-profit supporting teacher training and development.



Dr. Nina Jörden
Research Associate,
Bennett Institute of Public
Policy, University of Cambridge

Nina's work focuses on questions around the future of work: What do employees need to be resilient and productive? What will "good work" look like in the future? How can work be meaningful and meet societal needs? Nina addresses these questions in both the private and public sectors. She was a guest on the Productivity Puzzles podcast episode Can We Make the Four-Day Week Work?, where she discussed her independent analysis of South Cambridgeshire District Council's four-day working week trial. Her data collection with Ayontala Alayande demonstrated the trial's positive impacts on individual well-being, council performance and workplace productivity.



Dr Jack Newman
Research Associate
The University of Manchester

Jack's current research sits within The Productivity Institute's Institutions & Governance theme, which asks whether UK productivity is constrained by the structure of its political institutions. He has published blogs for the Institute examining regional productivity in England and Wales, the policy barriers for the Levelling Up agenda, and more. Jack's TPI papers look at place-based inequality through the lens of multi-level metagovernance and regional policy levers.

The Productivity Institute's Productivity Lab was established in 2022 as the data science centre of excellence, the "engine room" for collecting, disseminating and producing productivity data. At the Lab, we provide data-based insights for researchers, policymakers and business strategists, employing analytical methods rooted in econometrics and data science.

The Lab's activities are overseen by an expert group, chaired by Professor Rebecca Riley and comprised of members of data-related institutions such as ONS and OECD. It provides advice on data-related topics linked with the Lab's programme of activities.

Data dissemination

The Lab serves as a hub with links to valuable data sources in the field of productivity research. We have created three collections of major databases featuring productivity-related data, regional (sub-national), national and international (cross-country level). The database overviews allow the readers to identify the correct database, understand their specifics and find relevant data.

The Lab is the primary outlet for datasets funded and produced by The Productivity Institute. These datasets are hosted on the Figshare platform, where users can access the raw data, visualisations and their methodologies. The *TPI UK Intangibles Growth Accounting dataset* exemplifies this kind of activity.

Data insights and tools

Through blogs and interactive tools, the Lab creates data-based insights for a broad audience. This year, the Lab published around 20 blogs. Some of these blogs are based on new productivity data releases and data sources and provide information on the data description, their primary uses, advantages and potential limitations.

Highlights include Nigel Driffield, Xiaocan Yuan, Fernando Gutierrez Barragan, presenting the use of the Orbis Crossborder Investment Database as a potential data source for tracking the productivity benefits of Foreign Direct Investment.

Raquel Ortega-Argilés, Olga Menukhin provided insights on the potential productivity bias from London through analysis of regional productivity in the UK using the latest release of ONS sub-national data. Finally, the blogs on the Total Economy Database and the Penn World Tables offer data insights for international productivity and income comparisons.



Professor Raquel Ortega-Argilés
Head of Productivity Lab

Collaboration and support

Part of our activities, the Productivity Measurement Analysis series, which was born as a result of the collaboration with external researchers, brings a more international perspective to our data hub. Here, the lab comments on quarterly productivity data releases not only from the UK but also from the US (by Martin Fleming) and Europe (by Klaas de Vries).

As part of the Lab's support to the eight TPI's Regional Productivity Forums, we have created and published a series of TPI Productivity Scorecards (ITL1), which have reached around 1,600 views and 760 downloads. Through our consultation meeting and survey with the RPFs, we have incorporated their feedback regarding the primary productivity drivers on the sub-national level (ITL3).

The Lab is currently engaged in activities with ESCoE, ONS, The Conference Board, EUKLEMS-Intanprod-LUISS, CompNet, OECD, and Groningen Growth and Development Centre, among other data-related partners.

The Lab has produced visualisations of several datasets:

- Menukhin, Olga; Gouma, Fokke Reitze; Ortega-Argiles, Raquel (2023). *TPI UK ITL1 Scorecards*. University of Manchester. Dataset. See Figure 1
- Gouma, Fokke Reitze (2023). *Visualisations for blog Analysing income and productivity across the globe: The Conference Board Total Economy Database*. University of Manchester. Figure. See Figure 2
- Gouma, Fokke Reitze (2023). *Visualisations for the blog Analysing sub-national productivity in the UK: Controlling for the 'London effect', ONS Subregional Productivity 2022 release*. University of Manchester. Figure. See Figure 3
- Michael Becker, Josh Martin (2023) *New insights on regional capital investment in the UK, 1997 to 2019*. Productivity Insights Paper No.016
- Gouma, Fokke Reitze (2023). *Visualisation for blog Measuring industrial intangible intensity in the UK: the TPI UK Intangibles Growth-Accounting dataset*. University of Manchester.
- Goodridge, Peter; Haskel, Jonathan (2022). *TPI UK Intangibles Growth-Accounting data set*. University of Manchester Dataset.

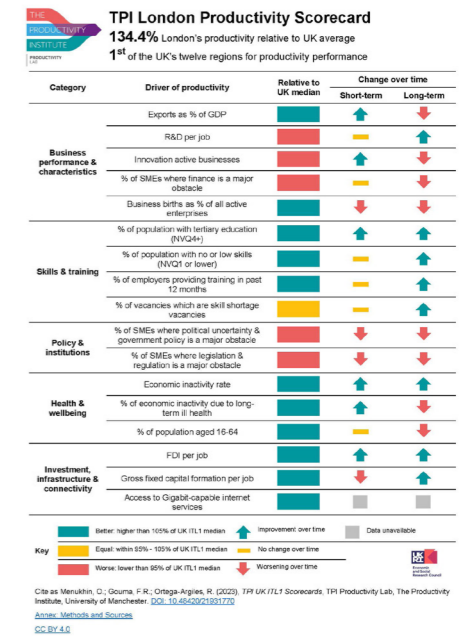
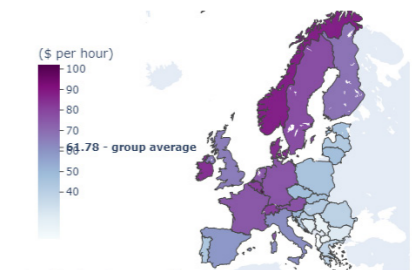


Figure 1

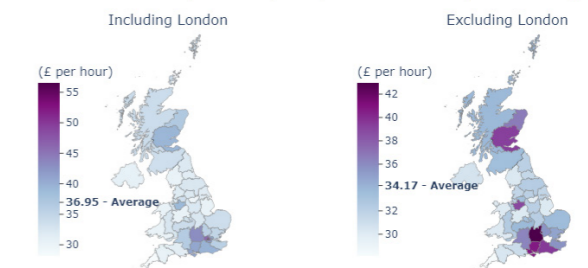
2019 Labour Productivity, PPP adjusted dollars per hour worked
Total Economy Database, April 2022



Notes: Dollar values have been PPP adjusted. The selected countries include EU27 plus the following set of countries: United Kingdom, Switzerland, Norway, Bosnia & Herzegovina, Serbia, Albania, and North Macedonia. Source: TPI visualisation, based on TCB Total Economy Database, April 2022 release

Figure 2

2019 Nominal (smoothed) GVA per hour worked by ITL2 sub-region



Notes: UK reference productivity is the weighted average productivity of the ITL2 regions included in each map. Aggregations based on TPI calculi. The excluded London region is defined as the ITL1 region with code * ONS Subregional Productivity July 2022 release

Figure 3

All of the Productivity Lab blogs can be read on our website



THE PRODUCTIVITY COMMISSION

The role that investment in the public and business sectors plays in driving productivity has been the focus for the Productivity Commission in 2023. This followed the release of our report in July 2022 which set out the scale of the UK productivity problem, through a summary of the written and oral evidence received during the Commission's first year.



Professor Jagjit Chadha
Chair, Productivity Commission

In the Spring of 2023, we conducted three evidence sessions investigating business, public, and international investments, and their impact on the UK's productivity performance.

These sessions involved gathering oral evidence from eleven witnesses and issuing two calls for written evidence. Our questions focused on a wide range of subjects related to these topics, including measuring business investment in intangibles to examining the impact of the UK fiscal framework on public investment levels. Each session started by outlining the issues, such as low business investment levels, and concluded with policy recommendations to mitigate the problems and enhance the UK's productivity performance.

Our sessions found that for all three forms of investment, the levels of investment were low relative to comparable economies. During the business investment session, we analysed investment in intangibles and the financing of business investment.

We found that ensuring there was policy consistency, the public sector increasingly acting to de-risk private investments, and adequate competition policy were perceived

as important steps forward to increasing business investment levels.

In the public investment session, priority areas for investment were discussed, focusing

on research and development, skills, housing, and technology. Special emphasis was placed on energy security and the green transition. We concluded that there needs to be considerably more public investment and more policy coordination to facilitate increased productivity performance.

During the international investment session, we recognised Brexit's significant role in reducing foreign direct investment due to decreased EU market access and the more stringent immigration rules within the UK.

We concluded that the UK must leverage any advantages it has in research and development to attract more investment. Moreover, we recommended against the establishment of investment zones, which would likely divert investments for tax benefits, rather than increase foreign direct investment.

Alongside this work, media interest has continued to grow in the Commission. Articles citing our work have been published by most broadsheet newspapers, including The Financial Times, The Times and The Guardian, as well as online through Reuters and within specialised business and investment magazines.

Our findings, and the work of the Commission has formed part of our messaging within broadcast interviews on Sky News, LBC and the BBC. It is our intention to continue to build on this work with the publication of two reports, one examining the collated economic analysis and one exploring the policy prescriptions, later in 2023.



Policy Commission sessions and witnesses

The Underperformance of Business Investment January 2023

- **Andy King** Member of the Budget Responsibility Committee, OBR
- **Frances Haque** Chief Economist, Santander
- **John Llewellyn** Consultant – formerly of University of Cambridge, OECD and Lehman Brothers

Evidence summary [🔗](#)

Public Investment May 2023

- **Urvashi Parashar** Chief Impact Officer and Chief Economist, UK National Infrastructure Bank
- **Jan in 't Veld** Head of Sector Model-based Economic Analysis, European Commission
- **Nigel Driffield** Professor of International Business, Warwick Business School
- **Gerald Holtham** Professor of Regional Economy, Cardiff Metropolitan University

Evidence summary [🔗](#)

The Role of International Investment July 2023

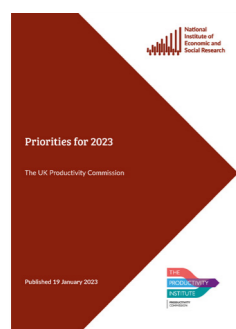
- **Davide Castellani** Professor of International Business and Strategy, Henley Business School, University of Reading
- **Riccardo Crescenzi** Professor of Economic Geography at the London School of Economics and Political Science
- **Reza Moghadam** Chief Economic Advisor at Millennium Capital Partners LLP

Evidence summary [🔗](#)

Pro-Productivity organisations

The recent analytical work and policy recommendations of eleven national productivity commissions, (Australia, Belgium, Denmark, Finland, France, Germany, Ireland, the Netherlands, New Zealand, Portugal, and the United Kingdom) were examined by Dirk Pilat in an Insights paper. It found several differences between the commissions as regards institutional set-up, composition, and degree of independence, amongst others but much in common in their analytical and policy work.

They also reflect a shared understanding of the main drivers of productivity, notably investment, human capital, innovation, digitalisation and creative destruction, and the policies affecting those drivers. The rise of productivity commissions across the OECD area provides a rich source of analysis and policy learning that should be drawn on by academics, policy makers and others interested in productivity. Dirk spoke on the topic in August's Productivity Puzzles podcast episode.



POLICY ACTIVITY

Experts from The Productivity Institute have contributed to a number of policy and government related inquiries, publications and evidence session across the UK. Here are some highlights:

Independent Review of the UK's Research, Development and Innovation Organisational Landscape [↗](#)

Professor Sir Anton Muscatelli, a member of the Productivity Commission, was on the scoping and advisory group, and Professors Kieron Flanagan, Philip McCann, Richard Jones, and Stephen Roper were all involved during the review process. The review was part of the government's new Science and Technology framework.

Delivering a UK science and technology strategy [↗](#)

Professor Richard Jones was a witness at the House of Lords Science and Technology committee evidence session on 7 February 2023.

Clarivate Highly Cited Researchers list [↗](#)

Professor Frank Geels was listed in the Social Sciences category for 2022 list for being someone who has demonstrated significant and broad influence reflected in their publication of multiple cited papers over the past decade. He has been part of the list since 2019.

An industrial strategy for the everyday economy [↗](#)

Research by the Institute has been widely cited in a policy paper by the CIPD. The report notes that TPI is one of the actors "that needs to be engaged" in the agenda to boost productivity and references the Institute's work on organisational capital, human capital, small business leadership and more.

A good life in all regions: uniting our country to end poverty [↗](#)

Four research papers from The Productivity Institute were cited in a report produced by the think tank The Fabian Society. The report references our work on the politics of productivity, Levelling Up, spatial

inequality and industrial policy, while Professors Andy Westwood and Philip McCann were also thanked specifically.

Economic growth, inflation and productivity [↗](#)

The Productivity Commission's first evidence review and Priorities for 2023 was cited in an In Focus briefing by the House of Lords ahead of a debate on "the necessity of increasing productivity" on 29 June.

Funding for Levelling Up [↗](#)

Patrick Diamond, Jack Newman, Dave Richards, Anna Sanders and Andy Westwood, from our research project The UK Productivity-Governance Puzzle gave written evidence to an inquiry by the House of Commons' Levelling Up, Housing and Communities Committee.

Trading our way to prosperity - A blueprint for policymakers [↗](#)

Professor Nigel Driffield gave evidence on inward investment to the UK Trade and Business Commission's new report. Emma Degg, CEO of North West Business Leadership Team and a member of the North West Productivity Forum, also provided evidence on Levelling Up for the report.

Spring Budget 2023 [↗](#)

Professor Diane Coyle was a witness at the Treasury Committee evidence session reviewing the 2023 Budget announcements, highlighting the policy requirements to improve productivity growth, need for long-term perspectives and greater investment in infrastructure.

Modelling productivity levels in Ireland and Northern Ireland [↗](#)

David Jordan provided comments and a reply to a study from the Economic and Social Research Institute on the sectoral productivity differences between Ireland and Northern Ireland. He joined John Turner and

Bart van Ark at an event to discuss the report on 21 March 2023.

Independent Review of Invest Northern Ireland (Invest NI) [↗](#)

Dr David Jordan was cited in the report published by The Department for the Economy in Northern Ireland. Dame Rotha Johnston, of the Northern Ireland Productivity Forum, was part of the review panel, which provided an independent assessment of Invest NI's efficiency and effectiveness.

A New Britain: Renewing our democracy and rebuilding our economy – Report of the Commission on the UK's Future [↗](#)

Diane Coyle, Richard Jones, Marianne Sensier and Andy Westwood were referenced in this Labour Party report. Philip McCann was also an adviser and a member of the commission.

Inquiry into the Levelling Up White Paper – report [↗](#)

Professors Dave Richards, Andy Westwood and Patrick Diamond contributed to the Devolution All Party Parliamentary Group's inquiry. The evidence is from a TPI research project on the UK's Productivity-Governance puzzle.

Autumn 2022 Fiscal Events [↗](#)

Jagjit Chadha gave oral evidence at the Treasury Committee meeting on 12 October 2022, where he spoke about the work of our Regional Productivity Forums and the shortage of skilled and semi-skilled labour that firms are experiencing in many areas.

2022 Greater Manchester Independent Prosperity Review [↗](#)

In the Reflections Report's foreword, Diane Coyle talked about the continued need to focus on productivity.

PRODUCTIVITY PUZZLES PODCAST



How will AI technology affect our future? What lessons can we learn from overseas cities that have successfully turned around their fortunes? What impact will the four-day week have on productivity?

Season two of Productivity Puzzles has uncovered new layers of insight and understanding into some of the biggest productivity issues currently facing the UK. Through in-depth interviews and analysis with leading experts, the podcast has gone from strength to strength, achieving 1,000 downloads per episode and reaching 40,000* downloads in total across both seasons.

Season two has been firmly grounded in The Productivity Institute's ongoing research, with episodes focused on Richard Jones' overview of the UK's research and development landscape, Jonatan Pinkse examining how we can make the economy greener while remaining productive, and Jen Nelles and Ben Verinder discussing their analyses of how further education colleges can be harnessed to narrow the UK's skills gap.

▶ Season 2, Episode 1: Global and European Productivity Outlook 2023-2030?

Catherine Mann *External member of the Monetary Policy Committee at the Bank of England*
Kitty Ussher *Chief Economist at the Institute of Directors*
Klass de Vries *Senior Economist at the Conference Board*

▶ Season 2, Episode 2: Science and Innovation Policy for Hard Times

Richard Jones *Vice-President for Innovation and Region Economic Development and Professor of Material Physics and Innovation Policy, The University of Manchester*
Professor Diane Coyle *Bennett Professor of Public Policy at the University of Cambridge*

▶ Season 2, Episode 3: Skills, Innovation, and Productivity: Further Education Colleges and Place

Jen Nelles *Senior Research Fellow with the Innovation Caucus and co-director of the Oxford Regions, Innovation and Enterprise Lab at Oxford Brookes University*
Ben Verinder *Founder and Managing Director of Chalkstream Ltd*

▶ Season 2, Episode 4: Can We Make the Four-Day Week Work?

Nina Jörden *Research Associate with the Bennett Institute for Public Policy at the University of Cambridge*
Joe Ryle *Director of the 4 Day Week Campaign and Media and Communications Lead at Autonomy*
Jon Boys *Senior Labour Market Economist at the Chartered Institute of Personnel and Development*

▶ Season 2, Episode 5: Greening Productivity

Anna Valero *Senior Policy Fellow at the Centre for Economic Performance at the LSE and Deputy Director of the Programme on Innovation and Diffusion*
Antoine Dechezleprêtre *Senior Economist in the Productivity, Innovation and Entrepreneurship Division, Directorate for Science, Technology and Innovation, OECD*
Jonatan Pinkse *Professor of Strategy, IMP Innovation, Strategy and Sustainability, at The Manchester Institute of Innovation Research, Alliance Manchester Business School*

▶ Season 2, Episode 6: Artificial Intelligence and Productivity

Erik Brynjolfsson *Jerry Yang and Akiko Yamazaki Professor and Senior Fellow at the Stanford Institute for Human-Centered AI, and Director of the Stanford Digital Economy Lab*
Tera Allas *Director of Research and Economics at McKinsey & Company, UK*
Lea Samek *Economist at the OECD Science, Technology & Innovation Directorate*

▶ Season 2, Episode 7: Turnaround Cities: Lessons learned for the UK

Philip McCann *Professor of Urban and Regional Economics at Alliance Manchester Business School*
Susanne Frick *Postdoctoral Research Associate, Blavatnik School of Government*
Ian Taylor *Research and Policy Associate, Blavatnik School of Government*

▶ Season 2, Episode 8: Does the UK need a National Productivity Board?

Dirk Pilat *Research Fellow at The Productivity Institute*

▶ Listen to Season 1, featuring 20 episodes

PUBLICATIONS

WORKING PAPERS

Authors [in blue](#) are TPI Co-Investigators

2023

[Diane Coyle](#), [John McHale](#), [Ioannis Bournakis](#), [Jen-Chung Mei](#) Working Paper 036 *Minimum Wage and Skills: Evidence from Job Vacancy Data* [↗](#)

[Michiel Daams](#), [Philip McCann](#), [Paolo Veneri](#), [Richard Barkham](#) Working Paper 035 *Capital Shocks and UK Regional Divergence* [↗](#)

[Elodie Andrieu](#), [Malgorzata Kuczera](#) Working Paper 034 *Minimum Wage and Skills: Evidence from Job Vacancy Data* [↗](#)

[Josh Martin](#), [Rebecca Riley](#) Working Paper 033 *Productivity measurement: Reassessing the production function from micro to macro* [↗](#)

[Jill Rubery](#), [Isabelle Bi](#), [Anthony Rafferty](#) Working Paper 032 *Gender and Productivity* [↗](#)

[David Jordan](#) Working Paper 031 *Failing to Level Up? Industrial policy and productivity in interwar Northern Ireland* [↗](#)

2022

[Jagjit Chadha](#), [Issam Samiri](#) Working Paper 030 *Macroeconomic Perspectives on Productivity* [↗](#)

[Miriam Fritzsche](#), [Nikolaus Wolf](#) Working Paper 029 *Fickle Fossils. Economic Growth, Coal and the European Oil Invasion, 1900-2015* [↗](#)

[Matthew Agarwala](#), [Josh Martin](#) Working Paper 028 *Environmentally-adjusted productivity measures for the UK* [↗](#)

[Halima Jibril](#), [Stephen Roper](#) Working Paper 027 *Of chicken and eggs: Exporting, innovation novelty and productivity* [↗](#)

[Stephen Bond-Smith](#), [Philip McCann](#) Working Paper 026 *The work-from-home revolution and the performance of cities* [↗](#)

[Josh Martin](#), [Jon Franklin](#) Working Paper 025 *Fuller measures of output, input and productivity in the non-profit sector: a proof of concept* [↗](#). [Also published in IPM, No 44, Spring 2023](#)

[Victor Ajayi](#), [Michael Pollitt](#) Working Paper 024 *Green growth and net zero policy in the UK: some conceptual and measurement issues* [↗](#)

[Victor Ajayi](#), [Michael Pollitt](#) Working Paper 023 *Changing times: Incentive regulation, corporate reorganisations, and productivity in Great Britain's gas networks* [↗](#). [Also published in Energy Economics](#).

Volume 115

[Peter Goodridge](#), [Jonathan Haskel](#) Working Paper 022 *Accounting for the slowdown in UK innovation and productivity* [↗](#)

[Patricia Rice](#), [Anthony J. Venables](#) Working Paper 021 *Tradability, Productivity, and Regional Disparities: theory and UK evidence* [↗](#)

[John Fernald](#), [Robert Inklaar](#) Working Paper 020 *The UK Productivity "Puzzle" in an International Comparative Perspective* [↗](#)

[Diane Coyle](#), [Adam Muhtar](#) Working Paper 019 *You're not speaking my language - policy discontinuity and coordination gaps between the UK's national economic strategies and its place-based policies* [↗](#). [Also published as Assessing policy co-ordination in government: Text and network analysis of the UK's economic strategies in European Journal of Political Economy, Volume 79, September 2023](#)

[Diane Coyle](#), [Jen-Chung Mei](#) Working Paper 018 *Diagnosing the UK Productivity Slowdown: Which Sectors Matter and Why?* [↗](#)

[Diane Coyle](#) Working Paper 017 *Healthcare as social infrastructure: productivity and the UK NHS during and after Covid-19* [↗](#)

[Victor Ajayi](#), [Karim Anaya](#), [Geoffroy Dolphin](#), [Michael Pollitt](#) Working Paper 016 *Do climate policies explain the productivity puzzle? Evidence from the Energy Sector* [↗](#)

2021

[Adrian Pabst](#), [Andrew Westwood](#) Working Paper 015 *The Politics of Productivity: institutions, governance and policy* [↗](#)

[Nigel Driffield](#), [Katuscia Lavoratori](#), [Yama Temouri](#) Working Paper 014 *Inward investment and UK productivity* [↗](#)

[Nigel Driffield](#), [Jun Du](#), [Jan Godsell](#), [Mark Hart](#), [Katuscia Lavoratori](#), [Steven Roper](#), [Irina Surdu](#), [Wanrong Zhang](#) Working Paper 013 *Understanding productivity: Organisational Capital perspectives* [↗](#)

[Victor Ajayi](#), [Karim Anaya](#), [Michael Pollitt](#) Working Paper 012 *Incentive regulation, productivity growth and environmental effects: the case of electricity networks in Great Britain* [↗](#)

[Nigel Driffield](#), [Yong Yang](#) Working Paper 011 *Leveraging the benefits of location decisions into performance: A global view from matched MNEs* [↗](#). [Also published](#)

[in Journal of Business Research Volume 139](#) [↗](#)

[Martin Fleming](#) Working Paper 010 *Productivity Growth and Capital Deepening in the Fourth Industrial Revolution* [↗](#)

[Frank W. Geels](#), [Jonatan Pinkse](#), [Dimitri Zenghelis](#) Working Paper 009 *Productivity opportunities and risks in a transformative, low-carbon and digital age* [↗](#)

[Matthew Agarwala](#), [Matt Burke](#), [Patrycja Klusak](#), [Kamiar Mohaddes](#), [Ulrich Volz](#), [Dimitri Zenghelis](#) Working Paper 008 *Climate Change and Fiscal Responsibility: Risks and Opportunities* [↗](#). [Also published as a CAMA Working Paper](#) [↗](#)

[Bart van Ark](#), [Klaas de Vries](#), [Abdul Erumban](#) Working Paper 007 *Productivity and the Pandemic - Short-Term Disruptions and Long-Term Implications. The impact of the COVID-19 pandemic on productivity dynamics by industry* [↗](#). [Also published in International Economics and Economic Policy 18](#)

[Damian Grimshaw](#), [Marcela Miozzo](#) Working Paper 006 *Human Capital and productivity: a call for new interdisciplinary research* [↗](#)

[Halima Jibril](#), [Stephen Roper](#), [Mark Hart](#) Working Paper 005 *COVID-19, business support and SME productivity in the UK* [↗](#)

[Frank Geels](#), [Guillermo Ivan Pereira](#), [Jonatan Pinkse](#) Working Paper 004 *Public investments in COVID-19 green recovery packages: A comparative analysis of scale, scope, and implementation in France, Germany, and the United Kingdom* [↗](#). [Also published as Moving beyond opportunity narratives in COVID-19 green recoveries: A comparative analysis of public investment plans in France, Germany, and the United Kingdom \(2021\) Energy Research and Social Science, Volume 84](#)

[Diane Coyle](#) Working Paper 003 *The idea of productivity* [↗](#)

[Diane Coyle](#), [Kaya Dreesbeimdieck](#), [Annabel Manley](#) Working Paper 002 *Productivity in UK healthcare during and after the Covid-19 pandemic* [↗](#)

[Bart van Ark](#), [Tony Venables](#) Working Paper 001 *A concerted effort to tackle the productivity puzzle during the post-COVID era* [↗](#). [Also published in IPM No 39, Fall 2020](#)

PRODUCTIVITY INSIGHTS PAPERS

2023

[Michael Becker](#), [Josh Martin](#) Insights Paper 016 *New insights on regional capital investment in the UK - 1997 to 2019* [↗](#)

[Dirk Pilat](#) Insights Paper 015 *The Rise of Pro-Productivity Institutions: A Review of Analysis and Policy Recommendations* [↗](#). [Also published in IPM No. 44, Spring 2023](#)

2022

[Richard Jones](#) Insights Paper 014 *Issues in UK science and innovation policy* [↗](#)

[Simon Collinson](#), [Nigel Driffield](#), [Charlotte Hoole](#), [Anastasios Kitsos](#) Insights Paper 013 *Between a rock and a hard place: Trade-offs between prosperity and inclusivity when implementing regional growth policies* [↗](#)

[Jen Nelles](#), [Kevin Walsh](#), [Michalis Papazoglou](#), [Tim Vorley](#) Insights Paper 012 *FECs, innovation, and skills: A literature review* [↗](#)

[Philip McCann](#) Insights Paper 011 *Levelling Up: The Need for an Institutionally Coordinated Approach to National and Regional Productivity* [↗](#)

[Nigel Driffield](#) Insights Paper 010 *The Midlands' Productivity Challenge: Exploring the issues* [↗](#)

[Owen Garling](#), [Yamini Cinanom Nair](#) Insights Paper 009 *East Anglia's Productivity Challenge: Exploring the issues* [↗](#)

2021

[Philip McCann](#) Insights Paper 008 *The fiscal implication of levelling up and UK governance devolution* [↗](#)

[Andrew Henley](#) Insights Paper 007 *Wales' Productivity Challenge: Exploring the issues* [↗](#)

[John Tsoukalas](#) Insights Paper 006 *Scotland's Productivity Challenge: Exploring the issues* [↗](#)

[Andrew Westwood](#), [Marianne Sensier](#), [Nicola Pike](#) Insights Paper 005 *Levelling Up, Local Growth and Productivity in England* [↗](#). [Also published as The politics of levelling up: Devolution, Institutions and Productivity in England NIER Volume 261](#)

[David Jordan](#), [John Turner](#) Insights Paper 004 *Northern Ireland's Productivity Challenge: Exploring the issues* [↗](#)

[John Holden](#), [Marianne Sensier](#), [Richard Allmendinger](#) Insights Paper 003 *The North West of England's Productivity Challenge: Exploring the issues* [↗](#)

[Diane Coyle](#), [Adam Muhtar](#) Insights Paper 002 *UK's Industrial Policy: Learning from the past?* [↗](#)

[Also published as Levelling up policies and the failure to learn Contemporary Social Science, 2023](#)

[Diane Coyle](#), [Abi Adams-Prassl](#), [Jeremias Adams-Prassl](#) Insights Paper 001 *Uber and Beyond - Policy Implications for the UK* [↗](#)

PRODUCTIVITY COMMISSION

2023

Evidence summary - The role of public investment in growth [↗](#)

Evidence summary - The underperformance business investment [↗](#)

Priorities for 2023 - The UK Productivity Commission [↗](#)

2022

Evidence Review - Productivity in the UK [↗](#)

REPORTS & BRIEFINGS

Authors [in green](#) are TPI affiliated.

2023

[Nigel Driffield](#), [Xiaocan Yuan](#), [Fernando Gutierrez Barragan](#) *The UK's Foreign Investment Position Post Brexit And Covid: Briefing 3* [↗](#)

[Kate Penney](#) *The Yorkshire and The Humber and North East Productivity Challenge* [↗](#)

[Jen Nelles](#), [Ben Verinder](#), [Kevin Walsh](#), [Tim Vorley](#) *Skills, Innovation, and Productivity - The role of Further Education Colleges in Local and Regional Ecosystems* [↗](#)

[Philip McCann](#) *Levelling-up economics IFS Deaton Review* [↗](#)

2022

[Nigel Driffield](#), [Xiaocan Yuan](#), [Fernando Gutierrez Barragan](#) *The UK's Foreign Investment Position Post Brexit And Covid: Briefing 2* [↗](#)

[Bart van Ark](#), [John Metselaar](#) and [Michel Syrett](#) *How Businesses Can Leverage Productivity to Generate Strategic Alignment Behind a Common Language and Drive Performance*, The Conference Board [↗](#)

[Nigel Driffield](#), [Xiaocan Yuan](#), [Fernando Gutierrez Barragan](#) *The UK's Foreign Investment Position Post Brexit And Covid: Briefing 1* [↗](#)

[Kate Penney](#), [Jim Pendrill](#) *Strategic Productivity for the Leadership Team* [↗](#)

[Andrew Henley](#) *Business Briefing Is there a link between Small Business Leadership and Productivity* [↗](#)

[Paul Mortimer-Lee](#), [Adrian Pabst](#) (eds) *Covid-19 and Productivity: Impact and Implications NIESR*

Occasional Paper LXII [↗](#)

[David Jordan](#), [John Turner](#) *Northern Ireland Productivity Dashboard 2022* [↗](#)

[Bart van Ark](#) *Making Public Sector Productivity Practical (2022)* [↗](#)

On Productivity Collection of essays from Manchester-based TPI researchers [↗](#)

[Ana Rincon-Aznar](#), [Larissa da Silva Marioni](#), [Francesco Venturini](#), [Catherine Robinson](#) *Investigating the Factors Driving Scotland's Productivity Gap with International Countries NIESR Report* [↗](#)

JOURNAL ARTICLES

TPI papers that have progressed to journal publications are noted earlier with underlined text. Authors [in green](#) are TPI affiliated.

2023

[Frank W. Geels](#), [Martina Ayoub](#) *A socio-technical transition perspective on positive tipping points in climate change mitigation: Analysing seven interacting feedback loops in offshore wind and electric vehicles acceleration* *Technological Forecasting and Social Change* Volume 193 [↗](#)

[David Richards](#), [Sam Warner](#), [Martin J Smith](#), [Diane Coyle](#) *Crisis and state transformation: Covid-19, levelling up and the UK's incoherent state* *Cambridge Journal of Regions, Economy and Society*, Volume 16, Issue 1 [↗](#)

[Helen Tilley](#), [Jack Newman](#), [Andrew Connell](#), [Charlotte Hoole](#), [Ananya Mukherjee](#) *A place-based system? Regional policy levers and the UK's productivity challenge* *Regional Studies*, Volume 57, Issue 10 [↗](#)

[Jack Newman](#), [Simon Collinson](#), [Nigel Driffield](#), [Nigel Gilbert](#), [Charlotte Hoole](#) *Mechanisms of metagovernance as structural challenges to Levelling Up in England* *Regional Studies* [↗](#)

[Patrick Diamond](#), [David Richards](#), [Anna Sanders](#), [Andy Westwood](#) *Levelling Up the UK: If not the Conservatives, will Labour Learn the Lessons from Past Policy Failings?* *The Political Quarterly*, Volume 94, Issue 3 [↗](#)

2022

[Rajat Panwar](#), [Jonatan Pinkse](#), [Valentina De Marchi](#) *The Future of Global Supply Chains in a Post-COVID-19 World* *California Management Review*, Volume 64, Issue 2 [↗](#)

[Guillermo Ivan Pereira](#), [Eva Niesten](#), [Jonatan Pinkse](#) *Sustainable energy systems in the*

making: A study on business model adaptation in incumbent utilities *Technological Forecasting and Social Change* Volume 174 [↗](#)

[Kevin Mulligan](#), [Helena Lenihan](#), [Justin Doran](#), [Stephen Roper](#) *Harnessing the science base: Results from a national programme using publicly-funded research centres to reshape firms' R&D* *Research Policy* Volume 51, Issue 4 [↗](#)

[Nigel Driffield](#), [Holger Görg](#), [Yama Temouri](#), [Xiaocan Yuan](#) *Multinational enterprises and the welfare state* *Transnational Corporations* [↗](#)

[Diane Coyle](#) *Shaping successful mega-project investments* *Oxford Review of Economic Policy*, Volume 38, Issue 2 [↗](#)

2021

[René Bohnsack](#), [Christina M. Bidmon](#), [Jonatan Pinkse](#) *Sustainability in the digital age: Intended and unintended consequences of digital technologies for sustainable development* *Business Strategy and the Environment*, Volume 31, Issue 2 [↗](#)

[Jonatan Pinkse](#), [René Bohnsack](#) *Sustainable product innovation and changing consumer behavior: Sustainability affordances as triggers of adoption and usage* *Business Strategy and the Environment*, Volume 30, Issue 7 [↗](#)

[Jane Bourke](#), [Stephen Roper](#) and [James H Love](#) *Organising for innovation in professional services firms: econometric evidence from the UK* *Journal of Business Research*, Volume 128 [↗](#)

[Areti Gkypali](#), [James H. Love](#), [Stephen Roper](#) *Export status and SME productivity: Learning-to-export versus learning-by-exporting* *International Journal of Innovation Management*, Volume 25, No. 8 [↗](#)

[Andrew Henley](#) *The rise of self-employment in the UK: entrepreneurial transmission or declining job quality?* *Cambridge Journal of Economics*, Volume 45, Issue 3 [↗](#)

[Richard Jones](#) *The R&D Roadmap - levelling up across the UK: Correcting for regional imbalance* *The Journal of The Foundation for Science and Technology*, Volume 22, Number 9 [↗](#)

[Mary O'Mahony](#), [Lea Samek](#) *Measuring the Volume of Services Industries Output and Productivity: An Audit of Services Producer Price Indices in OECD Countries* *International Productivity Monitor*, Number 4 [↗](#)

[Adrian Pabst](#) *Rethinking Regional*

Regeneration *National Institute Economic Review*, Volume 258 [↗](#)

[Wit Wannakrairoj](#), [Chander Velu](#) *Productivity growth and business model innovation* *Economics Letters*, Volume 199 [↗](#)

[Bart van Ark](#), [Klaas de Vries](#), [Abdul Erumban](#) *How to not miss a productivity revival once again* *National Institute Economic Review*, Volume 255 [↗](#)

[Carol Corrado](#), [Jonathan Haskel](#), [Cecilia Jona-Lasinio](#) *Artificial intelligence and productivity: an intangible assets approach* *Oxford Review of Economic Policy*, Volume 37, Issue 3 [↗](#)

[Peter Goodridge](#), [Jonathan Haskel](#), [Harald Edquist](#) *We See Data Everywhere Except in the Productivity Statistics* *The Review of Income and Wealth*, Volume 68, Issue 4 [↗](#)

[Patricia G Rice](#), [Anthony J Venables](#) *The persistent consequences of adverse shocks: how the 1970s shaped UK regional inequality* *Oxford Review of Economic Policy*, Volume 37, Issue 1 [↗](#)

2020

[Anthony J. Venables](#) *Why some places are left behind: urban adjustment to trade and policy shocks* *The Review of Economic Studies*, Volume 88, Issue 3 [↗](#)

[J Vernon Henderson](#), [Tanner Regan](#), [Anthony J. Venables](#) *Building the City: From Slums to a Modern Metropolis* *Oxford Review of Economic Policy*, Volume 36, Issue 3 [↗](#)

BOOKS & CHAPTERS

2022

[Stephen Bevan](#), [Cary L. Cooper](#) *The Healthy Workforce - Book* [↗](#)

[Martin Fleming](#) *Breakthrough: A growth revolution - Book* [↗](#)

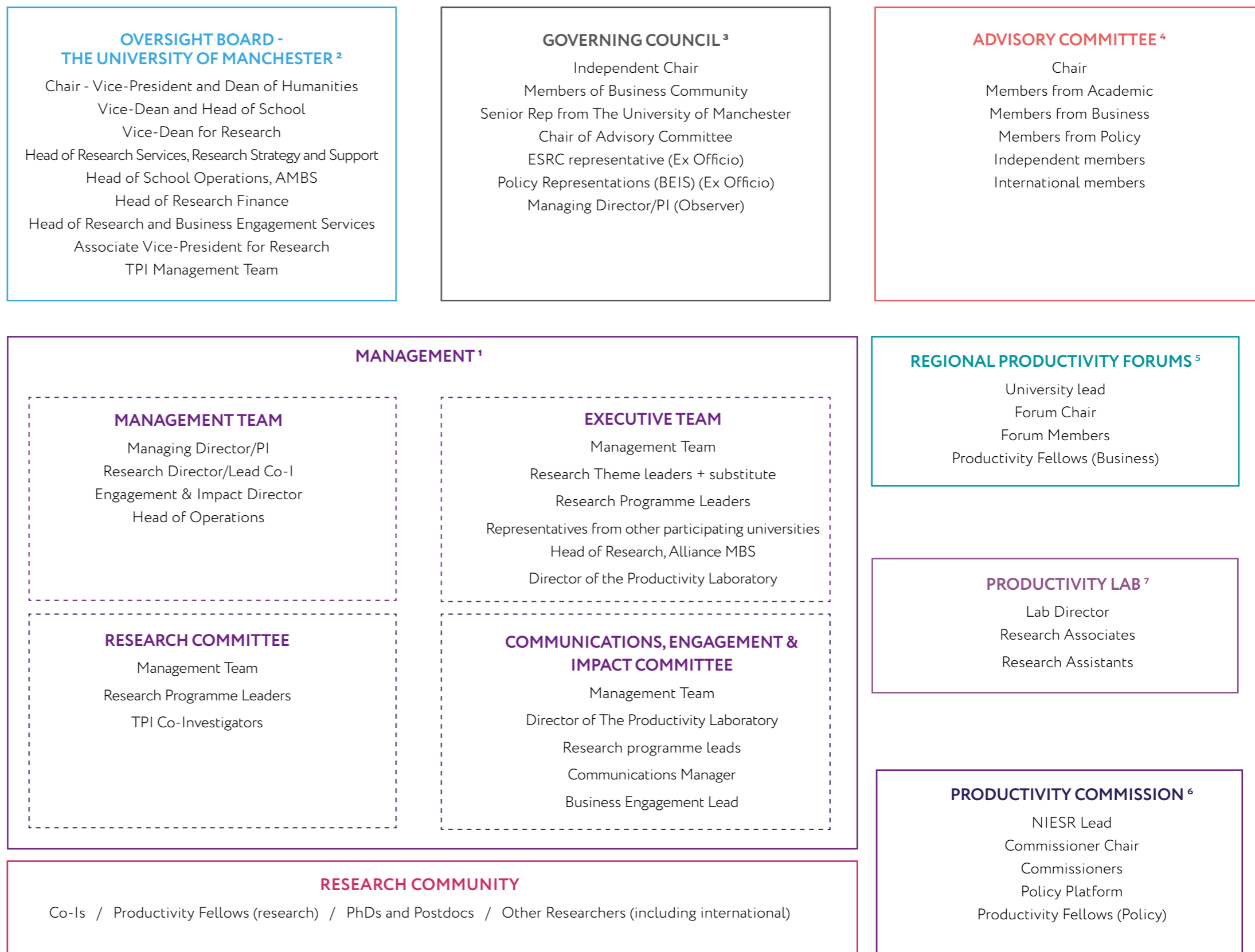
2021

[Marianne Sensier](#), [Elvira Uyarra](#) *Investigating the Governance Mechanisms that Sustain Regional Economic Resilience and Inclusive Growth (2021) Book chapter - Economic Resilience in Regions and Organisations* [↗](#)

[Gilles Duranton](#), [Anthony J. Venables](#) *Place-Based Policies: Principles and Developing Country Applications - Book Chapter, Handbook of Regional Science* [↗](#)

[Anthony J. Venables](#) *Wider Economic Impacts of Transport Investments - Book Chapter, International Encyclopedia of Transportation* [↗](#)

STRUCTURE AND GOVERNANCE



1. Management

Executive Team is responsible for Institute strategy and strategic decisions; Executive Committee is responsible for operational decisions; Management Team is responsible for daily management and tactical execution (support by programme staff).

2. Oversight Board

Provides overall oversight on internal matters to support the operational delivery of the objectives and finances of the Institute and make certain the overall success of the Institute. The Oversight Board will recommend matters, as required, to the Governing Council for further consideration.

3. Governing Council

Oversees the strategic direction of Institute, signs off on financial decisions for unallocated budgets; oversees performance of three members of management team; oversees dispute resolution (and advises ESRC where needed); represent Institute at occasions.

4. Advisory Committee

Advises Governing Council and Executive Team on any strategic issues (research agenda, engagement and implementation agenda) at request of Executive Team or Governing Council or at its own initiative; can advise and staff formation of ad-hoc committees; Chair can represent Institute as specific occasions.

5. Regional Productivity Forums

Oversees engagement and impact at regional/devolved nations level; provides input into research agenda; initiates regional innovation activities; represents regions in Productivity Commission; collaborate across regions to develop a comprehensive regional agenda on productivity.

6. Productivity Commission

Oversees policy engagement at national levels and represents Institute at policy level; develops policy proposals and provides policy advice; provides input to research agenda.

7. Productivity Lab

Acts as the Institute's hub for data processing, experimental evaluation studies, and data-driven, human-centred research. Joins data in a central repository for usage across the Institute and beyond.

GOVERNANCE AND PROGRAMME SUPPORT TEAM

HQ Team

Professor Bart van Ark
TPI Managing Director

Professor Mary O'Mahony
TPI Research Director

Operations, Finance and Governance

Charlotte Jones
TPI Head of Operations

Michael Livesey
Institute Manager

Emma Shiels
Institute Administrator

Engagement, Communications, and Impact

Nicola Pike
TPI Engagement and Impact Director

Craig Donaldson
Business Engagement Lead

Krystyna Rudzki
Communications Manager

James Wilson
Communication and Engagement Coordinator

Executive Team

Professor Bart van Ark
Managing Director,
The Productivity Institute

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TPI Research Director

Professor Jagjit Chadha
Director, National Institute of Social and Economic Research

Professor Dame Diane Coyle
Bennett Professor of Public Policy,
University of Cambridge

Professor Nigel Driffield
Professor of International Business,
Warwick Business School

Owen Garling
Knowledge Transfer Facilitator, The
Bennett Institute, University of
Cambridge

Professor Damian Grimshaw
Professor of Employment Studies,
King's Business School

Professor Andrew Henley
Professor of Entrepreneurship
and Economics, Cardiff University

Professor Jason Heyes
Professor of Employment Relations
University of Sheffield

Charlotte Jones
TPI Operations Director,
The University of Manchester

Professor Philip McCann
Chair of Urban and
Regional Economics,
The University of Manchester

Professor Nikolay Mehandjiev
Professor of Enterprise
Information Systems,
The University of Manchester

Professor Raquel Ortega-Argilés
Professor Regional Economic
Development, The University of
Manchester

Professor Adrian Pabst
Deputy Director, NIESR

Professor Jonatan Pinkse
Professor of Strategy, Innovation
and Entrepreneurship,
The University of Manchester

Nicola Pike
Engagement & Impact Director,
The University of Manchester

Professor Anthony Rafferty
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