RAND EUROPE

Evaluation of the Productivity Institute Programme

Early impact and process evaluation

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Published by the RAND Corporation, Santa Monica, Calif., and Cambridge, UK

Preface

This report sets out the findings of the third phase of an evaluation – commissioned by the UK Economic Social and Research Council (ESRC) – of the 2019 Productivity Institute Programme (PIP), comprising The Productivity Institute (TPI), the Programme on Innovation and Diffusion (POID) and a set of thematic investments. This report is likely to be of interest to research funders, policymakers and those working to tackle the UK's well-recognised productivity challenge in terms of low rates of productivity growth, which has impacted national GDP growth significantly. The report may also be of interest to members of the public concerned about productivity and research evaluation.

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Abbreviations

BEIS	Department for Business, Energy & Industrial Strategy
BIEQ	Business impact evaluation question
BoE	Bank of England
CBI	Confederation of British Industry
EDI	Equality, diversity and inclusion
ESRC	Economic and Social Research Council
FCR	Field citation ratio
FoR	Field of research
HMT	His Majesty's Treasury
ILO	International Labour Organisation
OECD	Organisation for Economic Co-operation and Development
PEQ	Process Evaluation Question
PIEQ	Policy Impact Evaluation Question
PIP	Productivity Institute Programme
POID	Programme on Innovation and Diffusion
R&D	Research and Development
R&I	Research and Innovation
RDA	Rochdale Development Agency
RIEQ	Research Impact Evaluation Question
RPF	Regional Productivity Forum
SME	Small- and medium-sized enterprise
SPF	Strategic Priorities Fund
TPI	The Productivity Institute
UKRI	UK Research and Innovation

Acknowledgements

Firstly, we would like to thank Allan Williams, Hannah Mitchell, Holly Doell and David Bowkett at ESRC for their time, ongoing support and inputs to the evaluation – this has been much appreciated. Professor Bart van Ark, Nicola Pike at TPI, and Professor John van Reenen and Dr Anna Valero at POID have also been of great assistance, for which we are grateful. We would also like to thank all interviewees for their time and inputs.

Finally, we would also like to thank Dr Jonathan Grant and Dr Daniela Rodriguez-Rincon for providing helpful comments and suggestions in reviewing the report.

Executive summary

The Economic and Social Research Council (ESRC) secured £40m in funding from the Strategic Priorities Fund (SPF) to establish the Productivity Institute Programme (PIP) in response to the UK's productivity challenges. The objectives of the programme are to: drive a step-change improvement in the UK's productivity research and innovation; improve and sustain the systematic generation and use of evidence to address the UK's productivity challenge; develop practical interventions for improving productivity based on high-quality evidence; involve all relevant stakeholders, especially those from unrepresented and underrepresented places, groups and sectors; support the formation of a dynamic multidisciplinary community working together on research and practical interventions; and form enduring and sustainable structures to facilitate mutual engagement between researchers, policymakers and businesses. The PIP comprises three separate investment streams: The Productivity Institute (TPI), Programme on Innovation and Diffusion (POID) and a series of thematic investments (see Figure 1).

Figure 1: Overview of the PIPs investments

TPI, the largest component of the PIP with a £32m investment, is located at the Alliance Manchester Business School. It serves as a research hub to drive a better understanding of the UK's productivity challenge, engaging with private and public sector stakeholders through its Regional Productivity Forums (RPFs) and a Productivity Commission.

POID, based at the London School of Economics (LSE) and funded jointly by the ESRC and LSE with a £5m investment, primarily focuses on cutting-edge research to enable the diffusion of innovative ideas and technology across the UK's economy.

PIP's **Thematic Investments** consist of seven thematic research projects, commissioned between 2022 and 2023 with initial investments of approximately £2m. These thematic investments are conducted alongside the last three years of the PIP's lifespan (from April 2022 onwards) to cover important productivity-related themes not captured by the scope of TPI and POID.

This report sets out the findings of the third phase of a five-phase evaluation of PIP. In phase 1, an evaluation framework and baseline were established, and in phase 2 a formative evaluation was conducted setting out early lessons regarding processes within PIP focused on TPI and POID. This report extends this process evaluation looking at the newly established thematic investments, and also provides an early impact assessment for TPI and POID, focusing on outputs and early outcomes from the investment. The evaluation is structured around an evaluation framework, including a set of process evaluation questions,

and impact evaluation questions structured around three areas (in alignment with the programme's theory of change): knowledge impacts; policy impacts and business impacts. Data were collected through document review, bibliometric analysis, stakeholder interviews and a workshop. Key findings and recommendations for each evaluation theme are as follows.

Process evaluation of the thematic investments

The key findings from our process evaluation of the thematic investments are as follows:

The thematic investments within the PIP share the common goal of improving productivity but they lack formalised mechanisms to facilitate synergies and avoid overlaps: The effectiveness of collaboration and complementarity among thematic investments has been mixed, with some examples of successful collaboration, but overall concerns about the lack of coordination. Informal collaboration and recognition of each other's work have occurred across some thematic investments, but this is unstructured and varies across projects. The ESRC has played a role in encouraging early conversations between the projects, but their involvement seems to have diminished over time.

Wider engagement with policy and business stakeholders is occurring and informing research agendas: The thematic investments within the PIP have engaged with policymakers at varying levels, with high-level engagement with UK and regional policy stakeholders. Engagement with policymakers has helped shape the objectives of some projects and informed their research agenda. The thematic investments have also engaged with businesses through advisory boards, direct collaboration on research projects and events, which has been instrumental in shaping their operation and priorities. However, thematic investments are not actively engaging with trade unions and worker representatives, which may be due to various factors such as the complexity of the issues being addressed and challenges in establishing effective communication channels.

Thematic investments have demonstrated a commitment to mobilising existing multi- and interdisciplinary knowledge and engaging the wider UK and international research community, although the effectiveness of these efforts varies: Some projects have made strides in assembling diverse project teams from a range of disciplines, facilitating the creation of links with various communities both within the UK and internationally. However, there appears to be limited engagement with previous productivity-related research and investments outside of PIP, such as the Productivity Insights Network.

Capacity building within the thematic investments is at an early stage: Some projects have implemented measures to support the development of junior researchers and research assistants, but the investments are still at an early stage with regard to capacity development.

Some thematic investments have demonstrated varying degrees of adaptability to changing landscapes: This includes, for example, the challenges posed by Covid-19 in government priorities such as the transition to net-zero. However, this agility to respond to a changing environment has largely yet to be tested. Many projects have not had to make significant adaptations in response to Covid-19 due to the fact that most started post-pandemic or had strong industrial engagement established before the project's start.

Environmental and social governance approaches have not been developed specifically for these investments: As for TPI and POID, the thematic investments have done very little that has been specifically

focused on environmental and social governance for this investment, but have rather operated within the requirements of their university's policies on these issues.

The Thematic Investments' engagement with ESRC has been straightforward: Governance and monitoring, evaluation and learning arrangements have been adequate and not generated an excessive burden. However, equally, we did not find any evidence to suggest these oversight processes had actively contributed to the operation of the investments.

Based on these findings, we identify **the following recommendations**:

1. **Improve coordination and collaboration across PIP**: This should be focused on creating opportunities for knowledge sharing and coordination, allowing collaborations to emerge organically. This could include:
    - **An annual event bringing Thematic Investments together with TPI and POID** to share findings, experiences and discuss opportunities for coordination. TPI have offered to host an event in the next few months, which could be the first in this series.
    - **Sharing of quarterly reports from each investment across PIP**, or a summary of these. This would provide an opportunity for the investments to be aware of what is happening across the PIP portfolio and where there might be scope for sharing ideas or contacts. This would also increase the added value of existing monitoring processes.
    - **Regular coordination process particularly for wider stakeholder (e.g. policymaker) engagement**. This could be particularly useful for engagement with trade union and worker representatives. This has proved challenging for Thematic Investments (TIs), but the larger investments (TPI and POID) may be able to facilitate contacts where relevant.
2. **ESRC should reflect on what the expectations are regarding environmental, social and governance considerations for investments**. At present, the investments rely on university policies to ensure standards are met with regard to these issues. ESRC should consider whether this is sufficient and appropriate, or whether there should be an expectation that investments reflect on any context or implications specific to their area of research, and develop more formal plans on how to put these into practice.

Knowledge impact of TPI and POID

The key findings from our review of early knowledge impacts from TPI and POID are as follows:

The key unique added value of PIP is twofold: its multidisciplinary approach, bringing together research conducted on productivity across disciplines in the UK; and its efforts to improve the accessibility of productivity research. In terms of knowledge production, the novelty of PIP research appears to stem more from how it builds on and repurposes existing research than the creation of fundamental data and concepts, though some research from PIP may do this too. Its multidisciplinary conceptualisation has elevated the topic of productivity by connecting all research on the subject and helping to reduce fragmentation.

PIP's multidisciplinary approach and synthesis of disparate evidence also makes productivity research more accessible and relevant to business and policy stakeholders. The twofold aims of PIP are synergistic. PIP investments have also pursued accessibility more directly, through engagement activities and creating outputs accessible to non-academics, including the general public. However, there is a mixed picture on coordination across the different parts of the investment. Although there are some positive examples of cross-investment working, wider stakeholders would like to see more coordination across PIP as a whole to further strengthen this synthesis and convening function.

The quality of research conducted by TPI and POID is internationally excellent. This is demonstrated by the bibliometric evidence and supported by international stakeholders, who view PIP research as excellent. However, UK academic stakeholders did not view PIP research as ground-breaking and felt the value of PIP was largely through bringing together disparate evidence as set out above.

PIP has contributed to building UK capacities and capabilities for productivity research. However, the extent to which these impacts are enduring are unclear at this stage. A gap in UK productivity research generally, which PIP could perhaps help publicise and address, is access to key UK productivity data – particularly from ONS and HMRC.

Based on these findings, we identify the following recommendations:

- **Maintain a focus on the key strengths of the investment: multidisciplinary and making evidence accessible**. These are the differentiators of the programme and are well aligned with both the programme level and the overarching SPF aims. These should remain a focus to best enable the investments to deliver on their aims and widen their impact.
- **Improved coordination**. Following the recommendations set out above in the process evaluation would enable PIP to better build on and leverage its strength in bringing together knowledge on productivity across disciplines and sectors, which external stakeholders would value.
- **Access to data**. This is outside the control of ESRC and PIP, but both could look to advocate for improved accessibility to ONS and HMRC given their role in the ecosystem.

Policy impact of TPI and POID

The key findings from our review of early policy impacts from TPI and POID are as follows:

TPI and POID have demonstrated examples of delivering high-quality, relevant and actionable policy recommendations around productivity. We see this through active engagement with regional and national stakeholders, participation in expert panels and commissions, and contributions to parliamentary committees. There has been a shift in how productivity is understood by policymakers that can be partly attributed to PIP. PIP has contributed to enhancing the understanding of productivity among policy and business stakeholders, contributing to a more informed public discourse on the topic.

PIP has had a moderate impact on the capacity and capability of policymakers to engage with productivity research, as well as on researchers' capacity to produce policy-relevant research. This impact is evidenced through various changes in the nature of engagement between policymakers and productivity researchers, as well as through the creation of a shared language and the establishment of a

central point for directing enquiries. However, the integration of productivity into policy practice may be limited by external factors and challenges in communication, visibility and the scope of certain policy stakeholders.

Based on these findings, we identify the following recommendation:

- **Position research for use and be agile in a changing political landscape**. Implementation and uptake of research evidence into policy is dependent on wider political, economic and social factors. The PIP investments need to continue to think about how to best position their research for use, maximising their potential for uptake given this wider context, while recognising that some of these factors may be outside their direct control. This will involve continuing to map and review the landscape and ensure targeted communication and relationship building with key stakeholders, who may change over time. We see evidence that the investments have the potential for this agility, and this will be crucial over the remainder of the investment to ensure a continued role and influence in the policy landscape.

Business impact of TPI and POID

The key findings from our review of early business impacts from TPI and POID are as follows:

The interaction between PIP and businesses has primarily involved TPI. This engagement has taken place primarily through the eight Regional Productivity Forums organised by TPI, and engagement with intermediary organisations. POID activities have also involved engagement with some businesses, but this appears to be, by design, much more occasional.

Engagement with the programme has been beneficial for businesses. This engagement has improved the understanding of productivity both within intermediary organisations and the businesses with which these organisations work. The programme also helped with creating structures and increasing opportunities for engagement between productivity researchers and organisations, businesses and other industry stakeholders.

We did not find evidence of new specific interventions identified by the programme that business leaders or industry bodies could take to improve productivity (or other tangible impacts of engagement). However, the design and delivery of the programme is evolving over time to support business needs more closely, increasingly focusing on more practical ways to engage small- and medium-sized enterprises.

Based on these findings, we identify the following recommendations:

- **Consider how to translate the increased engagement and knowledge of businesses on productivity into more tangible actions they can take**. This may be something that starts to emerge as research continues to progress, and given ongoing work that is more closely aligned to the needs of SMEs and others. The increased level and frequency of engagement with stakeholders is an indication that this is taking place, and stakeholders view Regional Productivity Forums (RPFs) as a key mechanism, with suggestions that increasing the frequency of RPF meetings may be helpful as work progresses.

- **Use TPI networks to help facilitate business impact across PIP**. TPI is a hub for interaction with industry. These networks and relationships should be leveraged to enable the thematic investments to engage effectively with business stakeholders and hence maximise the impact of PIP as a whole.

1. Background and context

1.1. The ESRC's Productivity Programme

The UK's productivity challenge is 'an issue of pressing public policy concern'.[1] Since 2008, the UK has sustained a systematic flatlining of its productivity growth across all measures, as defined by the Office for National Statistics (ONS).[2] This gap between the UK's expected pre-crisis trend and its actual productivity growth constitutes the UK's 'productivity puzzle'.

The ESRC secured £40m in funding from the UK Strategic Priorities Fund (UKSPF) (financed by the government's National Productivity Investment Fund (NPIF)) to establish the Productivity Institute Programme (PIP) in response to the UK's productivity challenges. The PIP, which initially spans five years, is the single largest ever investment made by the ESRC and has the following objectives:

- Drive a step-change improvement in the UK's productivity research and innovation.
- Improve and sustain the systematic generation and use of evidence to address the UK's productivity challenge.
- Develop practical interventions for improving productivity based on high-quality evidence.
- Involve all relevant stakeholders, especially those from unrepresented and underrepresented places, groups and sectors.
- Support the formation of a dynamic multidisciplinary community working together on research and practical interventions.
- Form enduring and sustainable structures to facilitate mutual engagement between researchers, policymakers and businesses.

The PIP comprises three separate investment streams: The Productivity Institute (TPI), Programme on Innovation and Diffusion (POID) and a series of thematic investments.

1.1.1. The Productivity Institute (TPI)

TPI, the largest component of the PIP, with a £32m investment, is located at the Alliance Manchester Business School. It serves as a research hub to drive a better understanding of the UK's productivity

[1] Haldane (2018).

[2] ONS (2022).

challenge. TPI engages with private and public sector stakeholders to build the UK's long-term research capacity through its Regional Productivity Forums (RPFs) and a Productivity Commission.

The RPFs, run by TPI's academic partners, address a wide range of themes, while the Productivity Commission enables policy development at a national level. TPI also collaborates with Be The Business, a business support charity, to engage with SMEs. TPI is jointly funded by the ESRC and the Alliance Manchester Business School.

1.1.2. Programme on Innovation and Diffusion (POID)

POID, based at the London School of Economics (LSE), are funded by the ESRC with a total £5m investment, and focus primarily on cutting-edge research to enable the diffusion of innovative ideas and technology across the UK's economy. POID works with stakeholders across academia, government and the private sector to understand and develop policy in line with diffusing innovation. Additionally, POID aims to create and facilitate accessibility to high-quality data to improve the UK's understanding of productivity, thereby strengthening the evidence base for businesses and policymakers. Themes covered by POID include industrial and innovation policy, wages and firms, healthcare and the economy, finance and innovation, power in the firm, and green growth and directed technical change.

1.1.3. Thematic Investments

PIP's thematic investments consist of seven thematic research projects, commissioned between 2022 and 2023 with initial investments of approximately £2m in total, focusing on:

- Productivity, Wages and the Labour Market, led by the Institute for Fiscal Studies (IFS).
- Diversity and UK Firm Performance, led by University College London (UCL).
- Diversity and Productivity: from Education to Work (DaPEW), led by LSE.
- Constraints on access to finance and underinvestment impact on productivity growth in smaller firms, led by Oxford Brookes University.
- Servitisation's[3] impact on UK economic productivity and environmental performance, led by Aston University.
- Productive and Inclusive Net Zero (PRINZ): opportunities and barriers in the transition to sustainable and equitable growth, led by Imperial College London.
- Mental health and well-being practices, outcomes and productivity: a causal analysis, led by the University of Warwick.

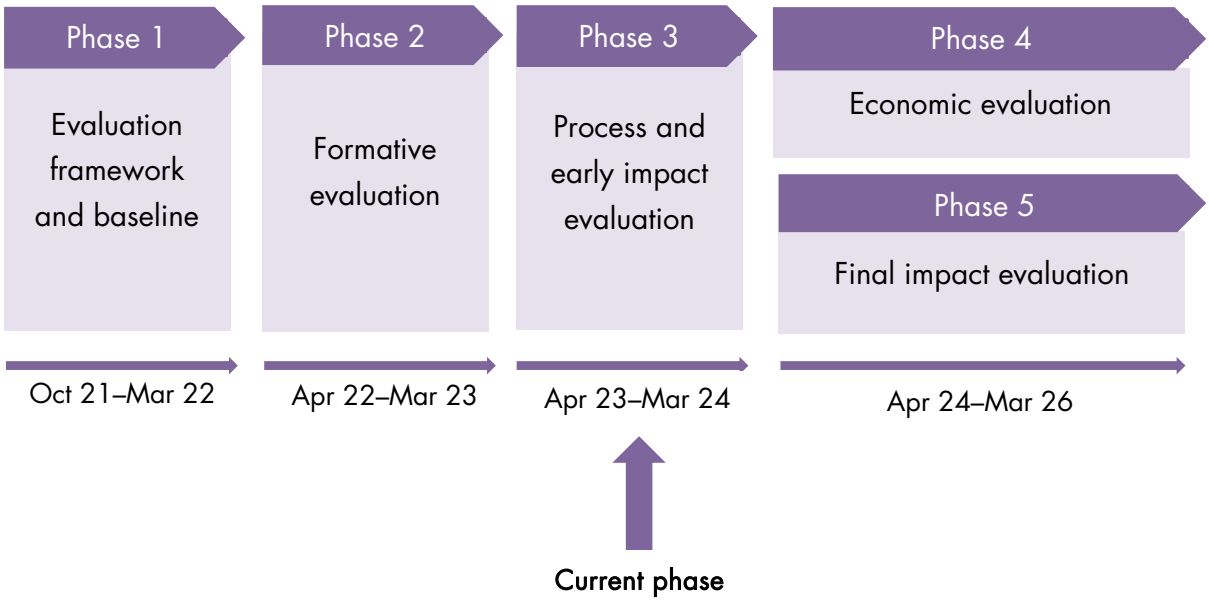
These thematic investments are conducted alongside the last three years of the PIP's lifespan (from April 2022 onwards) to cover important productivity-related themes not captured by the scope of TPI and POID.

[3] Definition: 'The transformational processes whereby a company shifts from a product-centric to a service-centric business model and logic.' Kowalkowski, Gebauer, Kamp and Parry (2017).

1.2. Aims of the process evaluation

This evaluation is structured in five phases, as shown in Figure 2 below:

Figure 2: Evaluation structure



In the previous phase of this evaluation, we conducted a formative process evaluation of TPI and POID. This established whether the operational processes within the PIP are resulting in effective delivery and performance of the two investments. In addition, we identified areas for improvement. To achieve this, the evaluation focused on reviewing the effectiveness of processes at the investment level, their alignment to ESRC priorities, and programme and fund level aims.

This report highlighted how well initiatives have been involving stakeholders and will uncover how mechanisms for co-creation have translated from vision to practice, process and reach. It also detailed how PIP considerations have been made around equality, diversity and inclusion (EDI), environmental sustainability and good people management, and how these have been embedded into investment level processes for TPI and POID.

This phase of the evaluation involved a comprehensive process evaluation of the PIP's set of thematic investments. We will cover the same process questions as presented in the previous phase, with some additionalities. These include PEQ3 and PEQ7. A full list of process evaluation questions can be seen in Table 1.

Table 1: Process evaluation questions (thematic investments)

PEQ1	To what extent, and how effectively, are the thematic investments coordinated and together amount to a coherent programme?
PEQ2	How has the design, commissioning and delivery of the PIP's thematic investments identified, addressed and engaged with the needs of policymakers, businesses, researchers and wider academic stakeholders, and workers and worker representatives, and what has this meant for ongoing programme design and delivery?
PEQ3	How effectively has the PIP and thematic investments mobilised existing multi- and interdisciplinary knowledge and the wider UK and international research community?
PEQ4	How well have thematic investments adjusted and adapted appropriately to a changing landscape (e.g. net-zero transition)?
PEQ5	How have ESRC and thematic investment governance systems supported and enabled the timely delivery of research, engagement and training activities?
PEQ6	How has the programme used monitoring, evaluation and learning to drive continuous improvements in planning and delivery?
PEQ7	How effectively has the programme built skills and capacity across different stakeholder groups?
PEQ8	To what extent has the programme demonstrated a commitment to: o Equality, diversity and inclusion o Environmental sustainability o Good people-management practices across its approach to achieving business, policy academic impact?

This same set of evaluation questions (with the exception of PEQ3 and PEQ7), were used in the previous process evaluation of TPI and POID. They have now been reframed to target an analysis of the thematic investment processes, with additional questions to capture information pertaining to the ability of the thematic investments (and by proxy, the PIP), to leverage existing multi- and interdisciplinary knowledge and the wider UK and international research community, and how effectively the PIP has built skills and capacity through the thematic investments.

Table 2: Impact evaluation questions (TPI and POID)

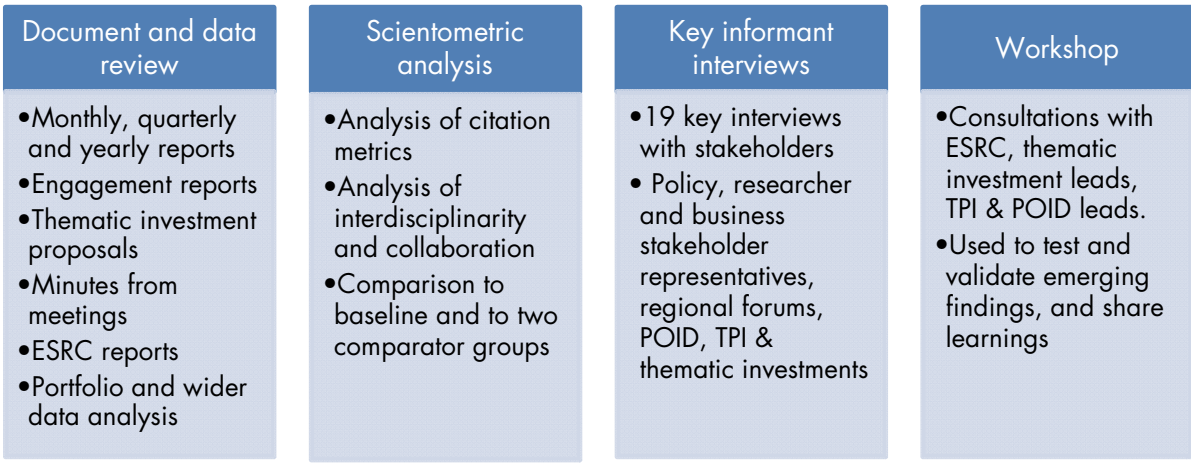
RIEQ1	To what extent has the programme delivered a step change in the quality, international recognition and multidisciplinarity of UK productivity research?
RIEQ2	Has the PIP advanced the evidence base relating to UK and regional productivity, particularly in relation to finding practical solutions to the UK's productivity challenge?
RIEQ3	To what extent has the PIP linked up effectively with wider research and innovation priorities and opportunities?
RIEQ4	What has been the impact of the PIP on academic capacities and capabilities for productivity research? How enduring are these improvements?
PIEQ1	To what extent has the programme delivered high-quality, relevant and actionable policy recommendations around productivity?
PIEQ2	Has the PIP had an impact on how productivity is understood and integrated into practice by policymakers?
PIEQ3	To what extent and how has the PIP had an enduring impact on the capacity and capability of policymakers to engage with productivity research? And conversely, how has the PIP impacted researchers' capacity to produce policy-relevant research?
BIEQ1	How has the PIP created new structures and opportunities for productivity researchers to engage with businesses and other industry stakeholders, and how enduring are these?
BIEQ2	Has the PIP identified new interventions that business leaders or industry bodies could take to improve productivity?
BIEQ3	Has the PIP had an impact on how productivity is understood by business leaders?

These evaluation questions pertain to the early impact assessment of TPI and POID, where RIEQ denotes Research Impact Evaluation Question, PIEQ represents Policy Impact Evaluation Question, and BIEQ signifies Business Impact Evaluation Question. This will form the basis of the second half of our report.

1.3. Methods

The methods used in this phase of the evaluation are summarised in Figure 3: Methods summary.

Figure 3: Methods summary



The methods used to conduct the process and early impact evaluation are summarised in Figure 3. In this report, the process evaluation will focus on the PIPs Thematic Investments, and early impacts will assess TPI and POID, given that our previous formative evaluation report has already evaluated the processes associated with the latter.

1.3.1. Document and data review

As shown in Figure 2, documents and data were reviewed at the programme and investment level, including an analysis of monthly, quarterly and annual reports TPI, POID and individual Thematic Investment projects. These reviewed documents enabled a mapping of findings to our evaluation questions as described above in Table 1 and Table 2.

1.3.2. Key informant interviews

We conducted 19 interviews with a range of thematic investment leads, policy, business and research stakeholders, with a focus on how processes contributed to the delivery of thematic investments and how TPI and POID have moved towards early impacts. Prior consultations were made with the ESRC and investments to understand which individuals were best to speak to, and how to engage with them to maximise their contribution to this evaluation. Interviewees were divided into four categories:

- Thematic investment project leads (n=4)
- Policy stakeholders (n=2)
- Research stakeholders (n=2)
- (Blended) Policy research stakeholders (n=6)
- Business stakeholders (n=4)
- Follow-up interviews with POID programme managers (n=1).

Privacy and General Data Protection Regulation (GDPR) considerations were taken into account when conducting interviews. Interviewees were informed that they would not be identified in reporting, in order to ensure they felt comfortable sharing their experiences of PIP and investment processes. Interviewees were also informed that no direct quotations would be used that could identify them or be attributed to them. Prior to conducting interviews, RAND Europe ensured that interviewees had received a privacy notice, which set out how interviewees' data would be used. This privacy notice set out interviewees' rights under GDPR, specifically their right to access, correct or erase their personal data, and to object to the processing of their personal data. In order to maintain anonymity, interviewees are identified throughout this report using the format INT_XX, where XX is an identifier given to each interview.

1.3.3. Scientometric analysis

We have conducted a detailed scientometric analysis of the publication outputs of the programme. To do this we identified a set of PIP award holders, which were then matched in Dimensions to identify award holders' publications published since 2020 after receiving the PIP grant. This dataset of publications was then used to calculate bibliometric indicators of research output, citation impact, collaboration activities and interdisciplinary research. There are some limitations in this approach in terms of disambiguation. Dimensions errs on the side of caution, so is more likely to create two profiles for one person than to wrongly merge two peoples' outputs in a single profile. Therefore, a researcher may have more than one profile. In other cases, a researcher may not have a profile at all, usually when they have too few research outputs indexed in Dimensions, e.g. a PhD student just starting their research career.[4] Matching was conducted based on the PIP investment, full name, institutional affiliation, e-mail, two publication titles and DOIs, and ORCID (where available). Of the 112 researchers identified, we were able to algorithmically match 95 PIP award holders to 151 Dimensions researcher profiles, and 17 award holders were left unmatched. Both matched and unmatched award holders were manually reviewed to ensure the validity of automated matches. This led to some deduplications and disambiguation, ultimately resulting in the identification of 106 PIP researchers, of which 99 are linked to 103 Dimensions research profiles.

Of the 103 matched researcher profiles, 98, linked to 96 award holders, contained publications published since 2020. Three researchers have awards from both TPI and POID investments, so their publications were included in the dataset for each investment, but only once for the Whole Portfolio dataset. Accordingly, the sum of publications for each investment is greater than the number of publications in the Whole Portfolio dataset. Additionally, as the award holders all engage in research related to productivity, often at the same institutions, many have co-authored publications together. In this analysis each publication has only been included once in each dataset regardless of how many PIP award holders are listed as co-authors. Indicators have been calculated for a dataset consisting of 1,262 unique publications, published since 2020, authored by 96 PIP award holders. Citation indicators account for all citations to the 1,262 publications from first publication until present.

[4] Dimensions (n.d.).

Table 3: Scientometric analysis summary

Publication dataset	Number of unique publications
Whole portfolio	1,262
The Productivity Institute (TPI)	715
Programme on Innovation and Diffusion (POID)	573

Source: Dimensions.

As well as this data set on the programme, we have used three comparator groups. The first is the benchmarking group, which consists of publications from the same group of researchers, but prior to their involvement with PIP. We have looked at their publications for the period 2014-2018 as a benchmark for their pre-PIP bibliometric performance. We also looked at two wider comparator groups: the ESRC seen as a whole, and a set of comparator awards on productivity. Details on how these were identified bibliometrically are as follows.

ESRC

The ESRC comparator dataset comprises any publication that is linked to ESRC in Dimensions published since 2020. In Dimensions, these publication-funder linkages are sourced from:

- Data from the funders, in UKRI's case Gateway to Research.
- Extracted connections based on natural language processing of funding acknowledgement text and data from PubMed, Crossref and publishers.

Data from extracted connections might not include a specific grant number. Therefore, in this analysis the ESRC publications include publications that acknowledge the funder but may not be linked to a specific grant. The ESRC comparator dataset consists of 17,723 publications.

Comparator grants

We identified, in collaboration with ESRC, 506 awards from the UKRI research councils that relate to productivity research. This dataset included information about the 506 awards, including award IDs, recipients and affiliated institutions. In our analysis, we removed 113 awards with a 2019 or later start date to be consistent with the dataset used for the previous benchmarking analysis. This left 393 rows of award data. Of the remaining awards, some were duplicates, with the same grant IDs and titles. After deduplication there was information about 341 unique awards. Award IDs were used to find the corresponding grant records in Dimensions for all 341 awards. Matches were manually reviewed by checking the consistency of the award title in Dimensions and the awards data. These 341 grant records are linked to 3,337 distinct publication records, of which 715 unique publications were published since 2020. For both the PIP awards and the comparators, we calculated the following indicators. For PIP, we also calculated breakdowns for TPI and POID.

1. **Output and normalised citation impact indicators for PIP grant holders' publications and articles published since 2020, in total and by investment**: Note that all normalised citation

impact indicators (FCR and highly-cited) are calculated for articles. Articles are the subset of publications that are most frequently peer reviewed and cited by other research publications. Policy citations are calculated for all publications as they represent attention from different, often non-academic audiences that might not be so concerned with primary research findings. Specific metrics include number of publications and articles, average field citation ratio, number and percentage of highly cited articles (top 5%), number and percentage of publications cited by policy documents, and number of citations from policy documents.

2. **Collaboration indicators for PIP grant holders' publications, published since 2020, in total and by investment**: Co-authorship of research publications is used as a proxy for collaboration. Collaborations between institutions, countries and sectors are determined by the co-authors' affiliations taken from the authors' addresses on publications. Coverage in Dimensions of companies is poor compared with academic institutions, and particularly for small- and medium-sized organisations. Thus, the total number of publications with industrial collaborators is expected to be low. Furthermore, industrial researchers publish infrequently, as their research may be commercially sensitive. We did not calculate comparator indicators for within PIP collaboration and % within PIP collaboration, as comparator publications are not linked to a single portfolio of grants. Specific indicators include the number and percentage of industry and international collaborations (at least one co-author) and the number and percentage of publications with collaboration between PIP investments.

3. **Interdisciplinary indicators for PIP grant holders' publications, published since 2020, in total and by investment**: Dimensions assigns publications to one or more first level Fields of Research (FOR). Here a publication being assigned to more than one FOR is considered an indicator of interdisciplinary research. An award holder's 'home discipline' is the first level FOR in which the majority of their publications, published since 2020, have been assigned. As publications can belong to multiple FOR, a grant holder may be assigned to multiple home disciplines. In this analysis, each home discipline will be counted once. As the PIP grant holders have been carefully matched to their researcher profile(s), we have high confidence in their set of publications and assigned home discipline. We have not undertaken such an audit of the publications produced by their co-authors. These researchers do not hold a PIP award, and manually reviewing their research outputs is beyond the scope of this project. Instead, home disciplines were assigned based on the publications (published since 2020) from the researcher profiles associated with co-authors on PIP grant holders' publications. Specific indicators include the number and percentage of publications with multiple fields of research (FOR), the mean number of FOR and home disciplines, and the number and percentage of publications with multiple home disciplines.

4. **Citation indicators for PIP grantholders' publications, published between since 2020, in total and by investment**: Analysis includes all citations gathered by PIP award holder publications from publication data to present (1 August 2023). Specific indicators include the total and mean number of citations, the number and percentage of publications with international citations, the mean number of citing FOR, the number and percentage of publications cited by more than five FOR,

the number and percentage of publications referencing more than five FOR, and the mean number of referenced FOR.

5. **First level FOR by number of PIP grant holders' publications, published since 2020, in total and by investment**: Publications can belong to multiple first level FOR, so each publication will be counted for each FOR to which it belongs. The same publications may be referenced by multiple PIP publications. In this analysis, each instance of a publication being referenced is accounted for as we are interested in how often publications in different FOR are referenced, rather than the number of unique referenced publications.
6. **First level FOR by number of publications cited by PIP grant holder publications, published since 2020, in total and by investment**: Publications can belong to multiple first level FOR; each cited publication will be counted for each FOR to which it belongs. The same publications may cite multiple PIP publications. In this analysis, each instance of a PIP publication being cited is accounted for, as we are interested in how often publications in different FOR cite PIP publications rather than the number of unique citing publications.
7. **Number of PIP award holders by home discipline**: Home discipline is the first level FOR in which grant holders have published most frequently since 2020. As publications can be assigned to multiple FOR, a grant holder may be assigned more than one home discipline. In this analysis, each home discipline will be counted once. Analysis of multidisciplinarity using FOR codes is conducted at the 2-digit FOR code level.

Workshop with key PIP stakeholders

The purpose of this virtual workshop with key PIP stakeholders was to share headline findings, and as a group, discuss gaps, reflect on the validity and interpretation of emerging findings, and engage in a shared discussion on lessons learned and potential recommendations.

A breakdown of stakeholders involved in this workshop is as follows:

- POID (n=3) and TPI (n=3)
- Thematic investments (n=6)
- ESRC (n=4)
- RAND Europe (n=2) and Frontier Economics (n=2).

The results of this workshop fed into our overarching analysis within this report. Key themes covered in this workshop included: Process evaluation findings (complementarity of investments, stakeholder engagement, adaptation and flexibility, programme governance, monitoring, evaluation and learning, environmental, social and governance, lessons learned and recommendations) and early impact findings (knowledge/research, policy and business).

1.4. Limitations

Upon the completion of the evidence collection phase of our report, our project team had gathered data through our methodology that included data analysis, conducting interviews, facilitating a workshop and performing bibliometric analysis. The subsequent stage required us to perform data triangulation, a process that enhanced the validity of our research by cross verifying the data collected from these multiple sources. This step was critical in synthesising the information we had gathered, ensuring a robust understanding of the subject matter. The triangulated data then served as a solid foundation for drafting the report, facilitating a comprehensive and accurate representation of our findings.

The key limitation of this stage of the evaluation is inherently linked to its function and objectives. An early impact evaluation misses the comprehensive detail of a full impact evaluation, which will occur in the next stage. Additionally, it is important to note that thematic investments have not reached full stages of project maturity at the time of conducting the process evaluation, meaning that some of our findings are preliminary, and in some circumstances a full picture cannot be described due to a lack of data availability. For example, while we were able to identify a number of ways in which investments have been engaging with external stakeholders, the full extent of associated impacts is not always clear.

1.5. Structure of the report

This evaluation is structured in five phases, as shown in Figure 2.

This report highlights our findings from the process and early impact section (Phase 3) of this evaluation plan. This is the third deliverable in the five-phase evaluation plan, and is structured into the following sections:

- Section 1 (current section): outlining the context and background of the report.
- Section 2: results on the effectiveness of the operational processes in thematic investments.
- Section 3: results on early impacts of POID and TPI.
- Section 4: conclusions and recommendations on the effectiveness of operational processes in thematic investments and initial impacts of TPI and POID.
- Section 5: next steps for the evaluation.

2. Process Evaluation Results (Thematic Investments)

This section presents process evaluation findings of the PIP's thematic investments covering evaluation questions targeted at understanding:

- How thematic investments complement each other.
- How thematic investments are leveraging stakeholder engagement and what this has meant for ongoing design and delivery.
- How thematic investments are mobilising existing multi- and interdisciplinary knowledge and the wider UK and international research community.
- What adaptations have been made to adjust to shifting landscapes.
- How thematic investments are governed.
- How thematic investments are leveraging monitoring, evaluating and learning processes to make continued improvements to project delivery.
- How effectively the programme has built skills and capacity across different stakeholder groups.
- The extent to which thematic investments have demonstrated a commitment to equality, diversity and inclusion (EDI).

2.1. Complementarity of Thematic Investments

Evaluation question: *To what extent, and how effectively, do the thematic investments complement each other?*

Key findings:

- While thematic investments share a common productivity improvement goal, collaborations rely on informal mechanisms, resulting in mixed effectiveness of their synergy.
- ESRC facilitated initial conversations between projects, but their involvement seems to have diminished over time, leading to a decrease in coordination between projects.
- Some thematic investments, such as the IFS, have shown effective coordination with POID and TPI, sharing data and common research themes informally.
- Instances of stakeholder engagement and research dissemination across thematic investments, TPI and POID have been observed, but there is room for more structured collaboration.
- There is a need for a coordinating mechanism for the PIP, suggesting the use of quarterly reports as a potential tool for future collaboration.

The thematic investments of the PIP were designed to address specific issues that TPI/POID were not addressing, such as workplace health and wellbeing.[5] While the thematic investments share the common goal of improving productivity, the mechanisms for how they complement each other are not formalised, and the effectiveness of their collaboration to facilitate synergies and avoid overlaps has been mixed.

In practice, there have been some examples of sharing opportunities and emerging evidence across different projects, facilitated through various interactions with some other thematic investments, POID and TPI, such as webinars and engagement events.[6] However, for the most part, interviewees expressed concerns about the lack of coordination between projects, suggesting that it has not been actively occurring, and that they are not sure if the thematic investments are working together as part of a cohesive programme.[7] The absence of formalised coordinating mechanisms to assist with complementarity across the investments should be considered as a reason for this lack of synergy.

ESRC has been described by one investment lead as instrumental in encouraging early conversations between the projects, which included facilitating conversations between researchers from a variety of thematic investments, but their involvement seems to have diminished over time, and these ad hoc relationships have diminished.[8] Some thematic investment leads mentioned losing track of other investments' activities, and suggested that ESRC could improve collaboration by sharing summary reviews of the quarterly reports submitted by the PIs.[9] Despite the lack of formal communication channels, informal collaboration and recognition of each other's work have occurred across some thematic

[5] INT_TI_2.

[6] INT_TI_2, INT_TI_3.

[7] INT_TI_1, INT_TI_3.

[8] INT_TI_1, INT_TI_4, Workshop.

[9] INT_TI_2.

investments, but this is unstructured and varies across projects. It relies on the proactiveness of the investment leads and could be supported further by ESRC.

While thematic investments had poor visibility over other thematic projects, they were in some cases well-coordinated and engaged with POID and TPI. The IFS for example, worked very closely with POID and TPI on a month-to-month basis. This included the sharing of data and common research themes around workplace productivity. The communication between the two was relatively informal. After taking part in our RAND Europe hosted workshop, IFS representatives felt that there was a significant amount of information that could be shared across thematic investments, and that this highlighted a gap in the ESRC's design and governance of the thematic investments. Finding out what other thematic investments were doing was described as difficult, partly due to the fact that highlights and summaries of projects are not available, and as they currently exist, project reports are formulaic, not allowing for a succinct, useful narrative.[10]

In terms of stakeholder engagement and research dissemination, instances where thematic investments, TPI (including regional forums), and POID have used each other's networks and communication platforms to share event details have been observed.[11] For example, Aston have used RPF meetings to present on 'Servitization: An Introduction and Opportunity',[12] and have met with TPI to discuss business model innovation, manufacturing and productivity.[13] Additionally, the University of Warwick's thematic investment has presented to the ESRC programme board at an ESRC Productivity Projects meeting in Manchester.[14]

During a workshop with ESRC and various thematic leads, participants acknowledged that a coordinating mechanism for the PIP, including thematic investments, was initially expected but did not occur in practice. Thematic leads suggested using the ESRC monthly/quarterly reports as a potential mechanism for future collaboration, and proposed viewing collaboration as evolving in an ad hoc fashion, with periods of intensity, rather than as a static, regular process.[15]

In conclusion, while the thematic investments share the common goal of improving productivity, there is room to improve the mechanisms needed for complementarity and fostering more effective collaboration to avoid overlaps and to facilitate synergies in their work. These mechanisms do not have to be approached in a formalised manner and can effectively rely on ad hoc or informal discussions. The ESRC could play a more active role in facilitating transparency among thematic investments by sharing summary reviews of the quarterly reports that contain a higher degree of narrative-based information.

[10] INT_TI_4.

[11] INT_TI_1.

[12] Aston University (2023b).

[13] Aston University (2022b).

[14] University of Warwick (2022b).

[15] Workshop.

2.2. Stakeholder engagement

Evaluation question: *How have thematic investments identified, addressed and engaged with the needs of: policymakers, businesses, researchers and wider academic stakeholders, workers and worker representatives, and what has this meant for ongoing design and delivery?*

Key findings:

- Thematic investments of the PIP have shown varying levels of engagement with different stakeholder groups, with high-level engagement with UK and regional policy stakeholders, businesses and researchers, but less prominent interactions with wider academic stakeholders and worker representatives.
- The engagement with various stakeholders has helped shape the objectives of some projects and informed their research agenda. However, the result of these engagement activities is often not explicitly stated.
- The level of engagement with businesses varies across different thematic investments, and there are different challenges associated with engaging with businesses, such as disciplinary barriers and differences in knowledge bases, skill sets and perspectives.
- The call documents for the PIP's thematic investments prioritise finalising research projects over their dissemination, which may affect expectations regarding engagement.
- Thematic investments are at different stages of maturity, which may create discrepancies in terms of analysing insightful findings. Very few thematic investments are at a stage where their project-related activities can be translated into outcomes and impacts.
- Thematic investments have made efforts to engage with policymakers through various channels such as events, bilateral meetings and content production. This engagement is crucial, as it provides a platform for researchers to share their findings, influence policy decisions and ensure that their research is relevant to current policy debates.

Thematic investments displayed varying levels of engagement between different stakeholder groups. There is evidence of high-level engagement with UK and regional policy stakeholders, businesses and researchers; however, interactions with wider academic stakeholders and worker representatives have been less prominent.

In terms of influencing ongoing programme design and delivery, the engagement with various stakeholders has helped shape the objectives of some projects and informed their research agenda (e.g. as set out below). However, for most thematic investments, the result of their engagement activities is not required in monthly/quarterly reports, and is therefore not explicitly stated, and further analysis is needed to draw more conclusive details of their impacts when the projects reach higher levels of maturity.

It is important to consider a number of factors in this section:

1. The call documents for the PIP's thematic investments prioritise finalising research projects over their dissemination, which may temper expectations regarding engagement.
2. Some stakeholder groups lay outside the thematic areas of certain projects, naturally leading to low levels of engagement.
3. Thematic investments are at different stages of maturity, which may create discrepancies in terms of analysing insightful findings.

4. Very few thematic investments are at a stage where their project-related activities can be translated into outcomes and impacts.

Therefore, while this section will present evidence for various means of engagement, it will remain sensitive to the considerations presented above. Maturity considerations do, however, present the opportunity for our evaluation team to investigate outcomes and impacts during our upcoming final impact evaluation phase, when thematic investments will achieve a higher degree of development.

Policymakers

According to stakeholder interviews and documentation, thematic investments have made efforts to engage with policymakers through various channels such as events, bilateral meetings and content production.[16] This engagement is crucial, as it provides a platform for researchers to share their findings, influence policy decisions and ensure that their research is relevant to current policy debates. For example, one thematic investment has launched national reports in Ireland and the UK and has engaged with regional policymakers through TPI's RPFs.[17]

The document review provides further evidence of engagement with policymakers at a national level. For instance, the IFS has held a number of round table discussions with the Department for Work and Pensions (DWP), exploring the potential to influence policy decisions related to labour market inactivity.[18] These discussions were held with the purpose of creating a two-way dialogue between the DWP and IFS, which in turn influenced the research scope of IFS's project, as well as leading to the creation of policy papers and direct research impacts such as IFS's work to show that health is not a direct cause of productivity decline in labour markets.[19] Further examples of IFS engagements include round tables with His Majesty's Treasury (HMT), Trades Union Congress (TUC) and shadow ministers. An IFS thematic lead who was consulted described these activities as two-way events that benefit both parties involved.[20] The Social Mobility Commission have suggested that IFS hosts a series of round tables across the UK to engage local government and local policy groups in their research, based on papers submitted and presented on high productivity, successful workplaces.[21]

Similarly, LSE researchers have engaged with parliamentary members from various parties,[22] but while this engagement provides an opportunity for researchers to share their findings and potentially influence policy decisions, it is not clear how this engagement has shaped the priorities or opinions of the stakeholders involved, or how this may have influenced the design and ongoing delivery of the thematic project. It should be noted that it may be too soon for thematic investments to have seen impacts emerging from their efforts at engagement.

[16] INT_TI_2.
[17] INT_TI_1.
[18] IFS (2023).
[19] INT_TI_4.
[20] INT_TI_4.
[21] INT_TI_4.
[22] LSE (2023a).

Imperial College London has had numerous interactions with the Department for Business, Energy and Industrial Strategy (BEIS),[23] the Department for Levelling Up, Housing and Communities (DLUHC),[24] and the Government Office for Science.[25] They have also engaged with the Office for National Statistics (ONS),[26] Department for Energy Security and Net Zero (DESNZ),[27] the Green Jobs Delivery Group,[28] the Bank of England,[29] the Chancellor of the Exchequer[30] and other high-profile policymakers. These interactions indicate a high level of engagement with policy stakeholders at the UK government level. However, as with the LSE example above, the impact of these interactions on the programme's priorities or design is not explicit.

While our evidence suggests that for some thematic investments, a high degree of engagement has occurred with UK-level policymakers, the same cannot be said at the regional level, where lower levels of interactions with policy stakeholders are seen. Examples are scarce, but include Warwick's engagement with Coventry City Council,[31] and Aston's efforts to hold meetings with the Greater Birmingham Chamber of Commerce.[32] One thematic investment also formed advisory groups with a wide range of stakeholders, which included Regional Productivity Forum members in the Midlands.[33] These engagement activities provide opportunities for researchers to share their findings and potentially influence local policy decisions.

In conclusion, while many thematic investments have made efforts to engage with policymakers at a national government level, regional engagement has not seen the same attention. This can be attributed to the fact that in some cases, thematic investments do not have straightforward pathways to connect with policymakers via the work they are conducting. The impact of either level of engagement remains unclear and is perhaps limited by the level of maturity of each thematic investment.

Businesses

Thematic investments have engaged with businesses in a variety of ways, including through advisory boards, and direct collaboration on research projects and events. This engagement has been described by a thematic lead who was consulted as instrumental in shaping their operation and priorities, with businesses providing valuable input on their needs and priorities.[34]

[23] Imperial College London (2022a).
[24] Imperial College London (2022b).
[25] Imperial College London (2022b).
[26] Imperial College London (2022c).
[27] Imperial College London (2023b).
[28] Imperial College London (2022b).
[29] Imperial College London (2022c).
[30] Imperial College London (2023a).
[31] University of Warwick (2022a).
[32] Aston University (2023b).
[33] INT_TI_1.
[34] INT_TI_1.

For instance, one thematic investment reported working closely with nine multinational businesses, using them as testbeds for developing ideas.[35]

Another thematic investment reported conducting 25–30 engagement events with businesses, leading to the involvement of several thousand companies. This extensive engagement has allowed the thematic investment to make a significant impact on its thematic focus in the development of workplace mental health practices in a couple of hundred businesses.[36]

These examples have likely provided the thematic investments with a deeper understanding of the business perspective, informing the direction and focus of their research.

The level of engagement with businesses varies for one thematic investment, and there are different challenges associated with engaging businesses. For example, this thematic investment specifically noted that different disciplines find it more or less difficult to engage with firms, with economists finding it the most difficult and those with business school backgrounds finding it less difficult. This can be attributed to differences in knowledge bases, skill sets and perspectives among disciplines, as well as the unique challenges posed by specific investment themes.[37] This suggests that there may be disciplinary barriers to effective engagement with businesses. In order to overcome this barrier, the thematic investment has brought in additional expertise to assist in communicating their ideas to businesses.[38]

The document review provides further, and indeed more detailed evidence of engagement. For instance, LSE has had meetings with firms who signed the Women in Finance Charter,[39] and Imperial has held a number of meetings, discussions and expert sessions with businesses and business stakeholders such as the Institute for Apprenticeships and Technical Education (IfATE), OmniFolio, Gatsby, CBI, Oliver Wyman consultants, ProFinda, Business in the Community, Accenture and Deloitte.[40] Aston has held round table meetings with industry partners in Sweden, and Brookes is planning to visit the Swedish Business Administration to discuss issues of underinvestment and small firm performance.[41]

These examples of engagement with business stakeholders have provided opportunities for thematic investments to inform their research with real-world business perspectives and disseminate to specific target groups in the pursuit of influencing productivity policies within businesses. One interviewee stated that engagement with businesses helped to develop their project objective by gaining a sense of what would be most helpful to explore for businesses.[42] However, they also mentioned that 'It would be naïve to ask businesses to tell you about their top three or four priorities. Businesses do not think about long term projects in the way that academics do.'[43] Instead, they suggested that as a research centre it was their

[35] INT_TI_2.

[36] INT_TI_1.

[37] INT_TI_3.

[38] INT_TI_3.

[39] LSE (2022a).

[40] Imperial College London (2022c); (2023a).

[41] Aston University (2023a).

[42] INT_TI_2.

[43] INT_TI_2.

responsibility to adapt their own business agenda. It was of high importance, therefore, that their project's business research agenda were to be informed by close collaboration with businesses, cooperatively rather than being created by the businesses. More active and consistent engagement with businesses, as well as efforts to overcome disciplinary barriers to engagement, could help to ensure that the thematic investments continue to address the needs and priorities of businesses effectively.

To bridge the gap between the productivity research/academic community and businesses, industry consortia that include productivity researchers have been formed, and industry round tables have been organised with researchers and business stakeholders to share progress. Aston has conducted Knowledge Exchange workshops, one of which involved a group of microbusiness owners who took part in their WP4 'Improve Your Productivity' programme, to identify successes, sustainability and impacts resulting from the programme.[44] By engaging with wider stakeholders in policy and business, projects are able to ensure research relevance and real-world applicability, facilitate knowledge exchange, collaboration and alignment of research with the needs of the wider community. This approach helps bridge the gap between the research community and businesses, ultimately enhancing the eventual impact of the thematic investments.

Documentation highlighted that LSE's TI project has confirmed Aviva and Mastercard as supporters, providing access to 300+ workers for experiments.[45] This not only provides a practical context for the research but also facilitates the direct application of research findings, thereby enhancing the projects' potential impact.

Researchers and Wider Academic Stakeholders

There is limited evidence to suggest that thematic investments have engaged with external researchers and wider academic stakeholders specifically in relation to these projects. Some examples include meetings, presentations and collaborations; however, the extent to which these activities have led to outputs and outcomes to shape project priorities or broader processes is unclear.

For instance, documentation reviewed, including monthly/quarterly reports and annual reports made by thematic investments to ESRC, highlighted only two examples of engagement with wider academic stakeholders. Imperial researchers have met with the Geological Survey of Northern Ireland [46] and Queen's University Belfast to discuss geothermal energy and economic development, and Warwick has participated in the Midlands Engine Partnership Meeting, a network of researchers from Midlands universities, to explore connection opportunities.[47]

While the case for thematic investments engaging wider academics has not been seen as much in this context, they have made efforts to mobilise multidisciplinary researchers and wider academic stakeholders to form diverse project teams, which is further explored in Section 2.3 – Mobilising knowledge.

[44] Aston University (2022a).

[45] LSE (2022b).

[46] Imperial College London (2022c).

[47] University of Warwick (2022a).

Workers and Worker Representatives

Evidence collected from stakeholder interviews and documentation analysis suggests that thematic investments are not actively engaging with trade unions and worker representatives. It is important to highlight that while this may not have been an intended priority for thematic investments, thematic leads have highlighted that understanding the needs and urgencies of workers and their representatives is essential for ensuring that their projects address relevant issues and improve upon their ongoing programme design and delivery.[48]

During a workshop conducted with PIP stakeholders, ESRC also indicated that outreach to trade unions and worker representatives is an *'important priority'*[49] for the thematic investments. However, engaging with these stakeholders has been identified as more 'difficult' compared with other groups. This difficulty may arise from various factors, such as the complexity of the issues being addressed, and the challenges in establishing effective communication channels.[50]

2.3. Mobilising knowledge

Evaluation question: *How effectively have thematic investments mobilised existing multi- and interdisciplinary knowledge and the wider UK and international research community?*

Key findings:

- Thematic investments have demonstrated a commitment to mobilising existing multi- and interdisciplinary knowledge and engaging the wider UK and international research community, though the effectiveness of these efforts varies across projects.
- Limited engagement with previous productivity-related research and investments, such as the Productivity Insights Network (PIN), has been observed. Greater engagement with PIN could provide valuable insights, avoid duplication of efforts, and foster innovative and impactful collaborations.
- Capacity building measures have been implemented in some projects to support the development of junior researchers and research assistants, ensuring they are equipped with the necessary skills and knowledge to contribute effectively to the research.

There is some evidence to suggest that thematic investments have demonstrated a commitment to mobilising existing multi- and interdisciplinary knowledge and engaging the wider UK and international research community. The effectiveness of these efforts varies across the different projects and the thematic investments.

Upon consulting thematic investment stakeholders, it is clear that some projects have made strides in assembling diverse project teams, drawing from a range of disciplines such as psychology, business, operations management, engineering, environmental studies and economics.[51] This interdisciplinary approach has facilitated the creation of links with various communities, both within the UK and

[48] Workshop.

[49] Workshop.

[50] Workshop.

[51] INT_TI_1, INT_TI_3.

internationally. Notably, one thematic investment has established a collaboration with a health economist from Ireland and a Swedish research group for a business survey, providing valuable international perspectives and comparisons.[52]

It has been recognised that there appears to be limited engagement with previous productivity-related research and investments, such as the Productivity Insights Network (PIN).[53] Greater engagement with PIN could provide valuable insights from previous research, help avoid duplication of effort, and foster collaborations that could lead to more innovative and impactful outcomes.

In terms of capacity building, one project has implemented measures to support the development of junior researchers and research assistants.[54] This includes determining the skillsets required for the programme, and providing appropriate support, as well as specific training initiatives for those who have not previously led large projects or teams.[55]

Workshop participants acknowledged the efforts made by thematic investments to build diverse research teams and engage with other large projects in their respective field. However, they also noted that many projects are still in their early stages, making it difficult to fully assess the effectiveness of these efforts at this point. As these projects advance, further progress in mobilising multi- and interdisciplinary knowledge and engaging the wider research community is anticipated, which will be assessed further within the next phase of our evaluation.

2.4. Flexibility and adaptability

Evaluation question: *How well has the programme adjusted and adapted appropriately to a changing landscape (e.g. net-zero transition)?*

Key findings:

- Thematic investments have shown limited responsiveness to the changing political landscape and priorities, such as Brexit and the levelling up agenda. However, there are instances where the ESRC has played a role in shaping the programme to align with emerging government priorities.
- While there is limited evidence of thematic investments adapting to a changing landscape, one thematic investment has released a report on the emerging landscape of net-zero policies, indicating steps taken to address the net-zero transition and incorporate it into research.

Adaptation to Changing Political Landscape and Priorities

There is limited evidence to show thematic investments adapting to a changing landscape, including the challenges posed by government cycles and the transition to net-zero. While some projects have made key adaptations, most have remained relatively unchanged, especially in relation to the scope of the research. One interviewee mentioned that while it is challenging to change a programme half way through, they

[52] INT_TI_1.

[53] INT_TI_3.

[54] INT_TI_2.

[55] INT_TI_2.

were aware of the government's emerging priorities, and that the ESRC played a role in shaping the programme accordingly.[56] For example, the programme has started to focus on the levelling up agenda, which was not initially planned.[57] Another reported that it was down to the principal investigators (PIs) to adapt questions in project surveys to accommodate the changing political landscape.[58]

One thematic investment has released a report on the emerging landscape of net-zero policies, which could serve as useful learning material for other research projects.[59] This indicates that the PIP is taking steps to address the net-zero transition and incorporate it into its research.

2.5. Governance of the programme

Evaluation question: *How have ESRC, TPI, POID and thematic investment governance systems supported and enabled the timely delivery of research, engagement, and training activities?*

Key findings:

- Day-to-day management of TI projects has been satisfactory overall, receiving neutral to positive feedback from TIs interviewed.
- However, there were divided opinions on the quality of coordination among TIs. Some had positive experiences, but others considered this aspect as a disadvantage of the programme.

The PIP provided satisfactory day-to-day management of thematic investment (TI) projects, with feedback mostly ranging from governance having a neutral to positive impact on studies. The most favourable reviews described the PIP management team as 'very approachable and helpful'[60] and 'very supportive'.[61] Examples include a 'really good' regular dialogue with a case worker for a project,[62] 'helpful' monthly reports[63] and a 'hugely important' emphasis on dissemination of findings where the ESRC sends LinkedIn project updates to its whole network if it is tagged in the post.[64] Others portrayed governance less enthusiastically, but still overall positively, claiming management had a 'neutral' effect on projects, with reporting aspects not causing a large number of problems.[65]

There were divided opinions on the quality of the commissioning process as well as coordination among TIs. One TI described the process of commissioning the PIP as 'very well managed with lots of

[56] INT_TI_3.
[57] INT_TI_3.
[58] INT_TI_1.
[59] Workshop.
[60] INT_TI_2.
[61] INT_TI_3.
[62] INT_TI_3.
[63] INT_TI_2.
[64] INT_TI_3.
[65] INT_TI_1.

engagement',[66] but two others did not think it was particularly noteworthy.[67] Similarly, two TIs claimed to have either experienced 'no issues' with the ESRC coordination of PIP (Workshop) or that there is already a 'quite good' sharing of opportunities and evidence as they emerge'.[68] In contrast, another TI attributed the lack of networking events – barring one – as a disadvantage, and thought that more could have been done to bring researchers together, including sending back data collected in summary form to understand what other projects are doing, and identify further opportunities for collaboration.[69] This suggestion was echoed by a participant at the Workshop as good to consider to allow for higher quality research and more engagement to emerge.[70]

2.6. Monitoring, evaluation and learning (MEL)

Evaluation question: *How has the programme used monitoring, evaluation and learning to drive continuous improvements in planning and delivery?*

Key findings:

- MEL processes have been adequate to date.

TIs are required to provide a quarterly report to the ESRC on their project activities for MEL purposes. The MEL processes that TIs experienced so far were unproblematic as well as mostly helpful. Three TIs have reported 'no issues' with MEL processes[71] and one described them as 'fit for purpose'.[72] If feedback was given, it was described as a process that required 'no changes'[73] or of 'really good' quality.[74] One workshop participant mentioned that it would be helpful to send ESRC quarterly reports back to TIs to help projects improve, which was also suggested to facilitate coordination among TIs, as described earlier.[75]

[66] INT_TI_3.
[67] INT_TI_1, INT_TI_2.
[68] INT_TI_3.
[69] INT_TI_1.
[70] Workshop.
[71] INT_TI_1-3.
[72] INT_TI_1.
[73] INT_TI_2.
[74] INT_TI_3.
[75] Workshop.

2.7. Building skills and capacity

Evaluation question: *How effectively has the programme built skills and capacity across different stakeholder groups?*

Key findings:

- Academic staff training has mostly involved general research management skills rather than the ability to communicate research findings to external stakeholders.
- Within research projects, only business stakeholders have received training.
- Outside of specific research projects, only policy stakeholders have received training on engaging with research evidence, with some establishing collaborations with government departments for this purpose.

Efforts to formally grow skills or capacity across TIs, either for the project staff/academic researchers leading the projects or the stakeholders impacted by the research, have been originating within the TIs themselves in an ad hoc manner. Stakeholders directly trained to date by individual TIs are academic research staff (for both research projects and how to engage with research evidence), education and business stakeholders (with respect to research projects), and policymakers (for how to engage with research evidence).[76] For policymakers, some TIs have established collaborations with government departments to impart these skills.[77] Evidence of effectiveness (e.g. improvements in performance on certain metrics, etc.) has not yet emerged.

The training of academic staff has so far involved both the imparting of general research management skills and the ability to communicate research findings to external stakeholders. One TI made efforts to ensure both the development of researchers (e.g. on research design, conference management) and of the project manager, who attended online events on evidencing research impact, strategic engagement and how to promote research on TV.[78] The strategic engagement training featured speakers from UCL and the UK Parliament academic-policy exchange staff.[79] Another TI mentioned the training of a professor who had never led a big project or team as an instance of imparting general research management skills,[80] while a third TI only described the lack of TPI-wide training opportunities, such as bringing research fellows together for developmental events.[81]

For training business and policy stakeholders outside of specific research projects, only the latter have received training on engaging with research evidence, with some establishing collaborations with

[76] Workshop.

[77] Workshop.

[78] Aston University (2023a); (2023b).

[79] Aston University (2023a).

[80] INT_TI_3.

[81] INT_TI_1.

government departments for this purpose.[82] Business stakeholders, in contrast, have received attention akin to regular engagement, where progress of research is shared, and industry networks are spoken to.[83]

Within the context of research projects, business stakeholders and those in the education sector have received training. One TI offered nine mentorship sessions with business stakeholders on marketing, developing a business plan, presenting and pitching, among others.[84] For those in education, one TI developed training materials to train 130 student champions implementing the programme designed by the study, which was rolled out to at least 12 schools, ultimately reaching 1,100 students.[85] This training was due to be delivered by 34 partner universities.[86]

2.8. Environmental, social and governance considerations

Evaluation question: *To what extent has the programme demonstrated a commitment to: Equality, diversity and inclusion, environmental sustainability, good people management practices across its approach to achieving business, policy, academic impact?*

Key findings:

- Most TIs did not make a structured effort to integrate EDI, environmental sustainability or people management into their research or management of projects and no initiative at programme-level exists to encourage these considerations either.

Most TIs did not make a structured effort to integrate EDI, environmental sustainability or people management into their research or management of projects and no initiative at programme-level exists to encourage these considerations either. Many TIs felt this responsibility lay in the hands of the university to which they are affiliated, given that university-wide policies exist that their research projects must comply with to be approved.[87] Additional efforts beyond those required by their universities were not implemented systematically and arose at spontaneous stages of the research process. In one instance a TI ensured the research brought in a 'diverse' group of individuals for the purpose of reflecting as many different perspectives as possible, but prioritised those most able to contribute to the research in the end.[88] Another described how the research project itself touches upon EDI principles, but this inclusion did not originate from an EDI strategy developed by project management.[89] For people management efforts those mentioned consisted of common project management practice, including offering occasional off-site meetings and weekly project staff meetings,[90] or conducted only if delivery of project outputs was not

[82] Workshop.

[83] INT_TI_1, INT_TI_2.

[84] Aston University (2022a).

[85] LSE (2022a); LSE (2023b).

[86] LSE (2022b).

[87] Workshop.

[88] INT_TI_2.

[89] INT_TI_1.

[90] INT_TI_2.

proceeding smoothly.[91] Similarly, most TIs had an ad hoc approach to environmental sustainability (ES), being 'mindful' of it and using online events wherever possible.[92] One TI, however, has developed an ES strategy, formally measuring the carbon footprint of their team, which originated organically from demand by project researchers.[93]

[91] INT_TI_3.

[92] INT_TI_2; Workshop.

[93] Workshop.

3. Early Impact Evaluation Results (TPI and POID)

In the following section, we transition from examining the process evaluation of the PIP's thematic investments to an early impact evaluation of the PIP's two main investments: The Productivity Institute (TPI) and the Programme on Innovation and Diffusion (POID). The process evaluation provided valuable insights into the implementation, management and delivery of the thematic investments, shedding light on the factors that contributed to their success or challenges faced. We will now shift our focus to assess the early impacts of TPI and POID on productivity knowledge, policy and businesses to identify areas that warrant further investigation or improvement.

3.1. Knowledge impacts

This section focuses on early evidence of the productivity programme's impact on research. As noted in our baseline report, the objectives of the PIP include:

- To form an interdisciplinary community taking a coordinated, interdisciplinary approach to productivity research and policy, addressing long-term productivity challenges.
- To develop solutions and interventions for improving productivity based on high-quality evidence that can inform policy and be embedded within organisations.
- To involve un- and underexplored sectors, places and groups, including addressing strong spatial dimensions and understanding the long tail, challenges and successes of larger businesses and those at the productivity frontier.
- To forge mutual, lasting engagement between the UK productivity-related research community and policymakers, practitioners and business.
- To improve the systematic and sustained generation, use of evidence, and the capability to embed research within policy and practice across regions and sectors to improve UK productivity.
- To create a step-change improvement in productivity research and innovation in the UK by establishing sustainable world leading structures and capabilities delivering a coordinated and comprehensive programme of work directly addressing the challenge of improving UK productivity.

Specifically, for this phase of the evaluation we sought to identify initial evidence of the extent to which:

- The programme delivered a step change in the quality, international recognition and multidisciplinarity of UK productivity research.
- The PIP advanced the evidence base relating to UK and regional productivity, particularly in relation to finding practical solutions to the UK's productivity challenge.
- Productivity-related interventions and innovations developed by the PIP were perceived by and useful to policymakers, businesses, researchers and wider academic stakeholders, workers and worker representatives, considering, for example, their practicality, novelty, risk and suitability for development and/or investment.
- The PIP linked up effectively with wider research and innovation priorities and opportunities.
- The PIP has impacted academic capacities and capabilities for productivity research in an enduring way.

We use the following key sources of evidence:

- Interviews conducted with researchers and other stakeholders who are either part of PIP or who have engaged with the PIP.
- A review of quarterly reports submitted by TPI, POID and TIs to ESRC.
- Scientometric and ResearchFish data analysis.
- A workshop including representatives from TPI, POID, TIs and ESRC.

3.1.1. Research quality

Evaluation question: *To what extent has the programme delivered a step change in the quality, international recognition and multidisciplinarity of UK productivity research?*

Key findings:

- Research conducted by TPI and POID is high quality according to bibliometric analysis, though UK-based stakeholders perceived PIP research less favourably.
- The reputation that the PIP has developed internationally is also high as reported by international stakeholders. Bibliometrics do not yet reflect this stance, but it is suspected this is due to lack of elapsed time.
- The PIP's decision to unify productivity research in the UK and increase accessibility of such research contributed to an increase in multidisciplinarity, which is supported by both bibliometric and interview evidence.

PIP conducts high-quality research

Bibliometric analysis demonstrates that the research conducted by TPI and POID is internationally excellent, and comparable to the levels seen at baseline and which would be expected for the researchers that the PIP investments support. The publications associated with PIP, on average, received six times the international average numbers of citations (normalised for year and field of publication). Similarly, over 20% of publications were in the top most highly cited publications for their field of research. These levels of citation imply extremely high-quality research, and are comparable to baseline levels for this group of

researchers, and slightly higher that ESRC averages, though lower than the citation performance of a comparator group of productivity research projects (see Table 4).

This is slightly in contrast to views of UK-based stakeholders on PIP research, which is described by interviewees in this group as on an international level, but not ground-breaking. An internal PIP stakeholder viewed PIP research as 'fine' and of 'international quality', in that it was at the level of being published in international journals, but not as 'internationally impactful', 'blockbuster' or 'path breaking'.[94] Another internal stakeholder claimed PIP research was 'not bad'.[95] A UK-based external stakeholder used similar language, viewing it as on the 'same level' as international work.[96] There was also a concern that researchers based at some universities participating in the PIP did not produce high-quality work despite large efforts taken for recruitment, but this critique represents only one view.[97]

Table 4: Volume and quality of PIP outputs

Investment		Number of publications	Number of articles	Average FCR	Number of highly cited articles	% highly cited articles
PIP	POID	573	378	6.87	78	20.63
	TPI	715	448	5.9	96	21.43
	Whole portfolio	1262	809	6.23	166	20.52
Comparators	Comparator Grants	715	649	6.97	193	29.74
	ESRC	17723	15724	4.82	2988	19
Baseline	POID	602	415	7.32	87	20.96
	TPI	956	647	6.85	145	22.41
	Whole portfolio	1457	1003	6.98	216	21.54

Source: Dimensions.

The reputation that the PIP has developed internationally is also high

Two UK-based stakeholders also thought the PIP sent a signal of rigour internationally for the UK's handling of the topic, which was reflected in the perspective of the two international stakeholders interviewed. According to the UK-based stakeholders, the PIP planted a clear 'flag in the sand',[98] or put 'a flag up'[99] that the UK is investing seriously in the issue.[100] An international stakeholder consulted thought the PIP has been keeping productivity research at 'the frontier', is 'super relevant and super novel', has a 'reputation for rigour and relevance', and is 'one of the top if not the top place for studying productivity in the world'.[101] Another international stakeholder thought the research quality of PIP was 'quite high'.[102]

[94] INT_Pol_Kn_3.

[95] INT_Pol_Kn_5.

[96] INT_Pol_Kn_2.

[97] INT_Pol_Kn_3.

[98] INT_Pol_Kn_2.

[99] INT_Pol_Kn_5.

[100] INT_Pol_Kn_2; INT_Pol_Kn_5.

[101] INT_Kn_1.

[102] INT_Kn_2.

Both international stakeholders described the PIP as unique in its approach compared with similar programmes in other countries, because it did not choose to 'focus on trade or other more macro-subjects'[103] and has 'collaborated with other statistical offices around the world'.[104]

Looking at citations, over 60% of PIP publications have international citations, indicating some level of awareness and uptake. However, this is lower than baseline and other comparators, in large part due to the elapsed time – there has not yet been sufficient time for international citations to accrue and enable meaningful comparisons to be made.

The PIP's decision to unify productivity research in the UK and increase accessibility of such research contributed to an increase in multidisciplinarity

The PIP created a 'multidisciplinary' productivity

The unique value of the PIP lies principally in its attempt to unify research conducted on productivity in the UK, and its efforts to improve the accessibility of research on the topic. At times, both aims worked in synergy. By recognising the many areas that affect productivity in the UK and bringing together scholars from disparate disciplines under one body as a result, the PIP signalled that tackling the issue requires looking beyond an economic lens. Stakeholders noted how having 'all different disciplines together' and 'combining multiple perspectives' demonstrated clearly to an external audience how productivity is a multidisciplinary topic.[105] The PIP has shown productivity as 'multifaceted'[106] and affected by 'softer variables like institutions',[107] which would not have happened without the programme.[108]

This is reinforced by the bibliometric evidence that shows evidence of increases in inter- and multi-disciplinarity in the PIP portfolio relative to baseline (See Case study 1 below).

Case study 1: Multidisciplinarity in PIP

We can use multiple different metrics to look at the multidisciplinarity of PIP research. The table below provides data on PIP outputs themselves. These metrics look at two main indicators of multidisciplinarity. The first is the Fields of Research (FOR) associated with the publications resulting from the investment. Publications are individually tagged with these FOR and each publication can be associated with one or more FOR. At baseline, fewer than 20% of the publications from the researchers associated with PIP had more than one FOR, which is lower than ESRC averages, and averages for a comparator group of productivity investments. However, since being involved with PIP, this group of researchers has had a marked increase in this metric, with around 30% of their publications on average having more than one FOR – even higher, at 34% for POID. This suggests that involvement in PIP has been associated with an increase in the multidisciplinarity of those researchers.

The other metric we can use to look at multidisciplinarity in PIP's research outputs is the number of 'home disciplines' linked to PIP publications. This analysis identifies a 'home discipline' for each

[103] INT_Kn_2.

[104] INT_Kn_1.

[105] INT_Pol_Kn_1; INT_Kn_1.

[106] INT_Kn_1.

[107] INT_Pol_Kn_6.

[108] INT_Pol_Kn_1.

author on a publication, based on the field in which they most frequently publish. The number of different 'home disciplines' of the authors on the papers can then be analysed. At baseline – prior to PIP involvement – publications from the researchers involved in PIP had on average 1.75 different home disciplines, and around 45% of their publications had more than one home discipline amongst its authorship. This was similar to a comparator group of productivity investments, but lower than ESRC averages. Now we find that over 50% of the PIP portfolio has more than one home discipline – above the ESRC average – with this change particularly marked for TPI where around 55% of publications has multiple home disciplines. The change in the mean number of home disciplines is less marked, however.

Multidisciplinarity in PIP outputs

Investment		% publications with multiple FOR	Mean number of FOR	Mean number of home disciplines	% publications with multiple home disciplines
PIP	POID	34.38	1.41	1.73	46.25
	TPI	26.15	1.33	1.84	54.97
	Whole portfolio	30.03	1.37	1.79	50.87
Comparators	Comparator Grants	27.55	1.32	1.73	44.34
	ESRC	28.05	1.32	2.03	51.39
Baseline	POID	20.1	1.26	1.65	42.86
	TPI	17.68	1.26	1.8	45.29
	Whole portfolio	18.94	1.27	1.75	44.27

Source: Bibliometric data.

As well as looking at the FOR and home disciplines associated with PIP outputs, we can also look at the publications citing those outputs, as an indication of the different fields using PIP research, and the research referenced in PIP outputs, to explore how PIP researchers are drawing on different fields of research. This is shown in the table below. In terms of citations to PIP outputs, we see a decrease in the diversity of citing FOR relative to baseline, to below comparator group levels. However, this is likely due to the elapsed time since publication – there has not been sufficient time for the PIP outputs to be cited to enable meaningful comparisons to be made. These metrics should be investigated further at a later stage in the evaluation when there has been sufficient time for citations to accrue to the PIP outputs. However, looking at the different FOR of the publications referenced by PIP publications, we do see an increase relative to baseline, with around 41% of publications referencing more than five FOR, compared with 32% for those researchers at baseline (i.e., prior to their involvement with PIP). This is still lower than for a comparator group of awards (47%) and ESRC averages (59%) but indicates an increase in multidisciplinary thinking associated with participation in PIP.

Multidisciplinarity of references in, and citations to, PIP outputs

Investment		Mean number of citing FOR	% of publications cited by > 5 FOR	Mean number of referenced FOR	% of publications referencing > 5 FOR
PIP	POID	4.49	16.93	6	42.93
	TPI	4.25	14.69	5.71	38.32
	Whole portfolio	4.34	15.61	5.87	40.73
Comparators	Comparator Grants	4.94	29.37	6.25	47.27
	ESRC	3.94	16.53	6.79	58.87
Baseline	POID	5.38	33.39	5.17	31.4
	TPI	5.65	31.38	5.34	31.69
	Whole portfolio	5.53	32.26	5.31	32.19

Source: Bibliometric data.

This new idea of productivity resulted in higher engagement with the topic

This approach resulted in helping business and policy stakeholders understand the concept better to more effectively engage with it in their respective roles. According to one stakeholder affiliated with a business representative organisation, it was easier for businesses to determine how productivity affects their day-to-day activities and find relevant contacts working on productivity because of the PIP's 'broad' approach using 'multiple perspectives' and creation of 'a body of research in one place'.[109] Similarly, due to the multidisciplinarity of the PIP, policymakers learned that resolving the productivity gap cannot be confined to one department.[110] Choosing to unify productivity research under one umbrella organisation thereby increased accessibility of the topic for external stakeholders.[111]

3.1.2. Enhancing evidence

Evaluation question: *Has the PIP advanced the evidence base relating to UK and regional productivity, particularly in relation to finding practical solutions to the UK's productivity challenge?*

Key findings:

- The PIP's 'multidisciplinary' view on productivity advanced academic work in the area in a novel manner, particularly in the way projects re-used existing research.
- The programme made direct efforts to increase the usage of its research through various engagement activities, and creating outputs accessible to non-academics, including the general public, which were both effective.
- More coordination among branches of the PIP and adjustments to the programme's scope could have contributed further to the evidence base and the usefulness of PIP.
- Future steps of the PIP should aim to improve poor access to UK productivity data, which currently impedes research in the area.

As mentioned in Section 1.1, by unifying productivity research in the UK, the PIP sent a strong message that tackling the issue requires looking beyond an economic lens. This approach resulted in several novel contributions to the evidence base, which were promoted through multiple engagement efforts and through designing outputs for a non-academic audience as well.

A 'multidisciplinary' view on productivity advanced academic work in the area

Its multidisciplinary conceptualisation 'elevated' the topic of productivity[112] by connecting all research on the subject, which avoided missing any useful studies that contributed to understanding of the concept,[113] and highlighted the different components of productivity in an organised way.[114] According to one internal stakeholder, without the PIP, research in the area would have emerged in a more 'fragmented'

[109] INT_Pol_Kn_4.

[110] INT_Pol_Kn_1.

[111] INT_Pol_Kn_2; INT_Pol_Kn_3.

[112] INT_Pol_Kn_2.

[113] INT_Pol_Kn_1.

[114] INT_Pol_Kn_2.

manner.[115] The approach also allowed for a greater variety of research to be conducted on productivity; one stakeholder appreciated working on a study at the intersection of productivity and health, a topic that likely would not have been accepted in the top academic journals for economics in their view.[116]

These advancements were novel, mainly in their manners of re-using existing research

The novelty of PIP research appears to stem more from how it builds on and repurposes existing research than the creation of fundamental data and concepts. Two stakeholders believe that PIP research had not yet created any new data,[117] another described only some parts of the PIP as 'new',[118] and the examples provided by others to highlight the programme's uniqueness focus on its selection of research projects and new presentation of existing data. Some PIP researchers believe this impression might be due to a lack of publicity on the part of projects that are contributing fundamental advancements to the field.[119]

PIP work related to regional disparities were applauded, specifically the regional insights papers, which reworked existing data.[120] These were considered useful by a business stakeholder and an academic, though the latter also contributed to one themselves.[121] The PIP's emphasis on using existing firm-level data was described as noteworthy[122] and as closing a gap in productivity research at the UK-level.[123] The PIP funded 'practical UK-oriented applied research on productivity', which filled a research space for firm-level concerns given that the other major economic research institutes currently emphasise either macroeconomics (IFS) or labour economics (CEP).[124] This inclusion is especially important for the UK, given that it lacks a ministry that focuses solely on day-to-day concerns related to investment.[125] A Scottish external stakeholder similarly viewed the PIP as 'filling a gap' in the current academic landscape in Scotland, where only government economists work on productivity.[126] The 'productivity dashboards' designed by TPI[127] and the 'really helpful' interactive map created by the Scottish RPF using existing data[128] are examples of highlighted novel PIP work with respect to presentation of data. The only PIP recommendation mentioned by stakeholders, the setting up of a 'Productivity Commission', is not an original concept, though its creation is a novel development in the UK's handling of the productivity gap.[129]

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[115] INT_Pol_Kn_6.

[116] INT_Pol_Kn_1.

[117] INT_Pol_Kn_5; INT_Pol_Kn_3.

[118] INT_Pol_Kn_2.

[119] Jan workshop.

[120] INT_Pol_Kn_4; INT_Pol_Kn_5; Jan workshop.

[121] INT_Pol_Kn_4; INT_Pol_Kn_5.

[122] INT_Kn_2.

[123] INT_Pol_Kn_3.

[124] INT_Pol_Kn_3.

[125] INT_Pol_Kn_3.

[126] INT_Pol_Kn_2.

[127] INT_Pol_Kn_5; INT_Pol_Kn_6.

[128] INT_Pol_Kn_2.

[129] INT_Pol_Kn_3.

The PIP made direct and effective efforts to increase the usage of its research

The PIP publicised these advancements through the use of various engagement activities (see Table 7 below) and creating outputs accessible to non-academics, including the general public. The PIP held conferences, workshops, 'evidence sessions' of the Productivity Commission created by the PIP, seminars as part of a 'brown bag' series, and other types of events for sharing PIP research with stakeholders. PIP researchers formally organised meetings with external stakeholders and attended external events, the majority of which were with policy stakeholders at the UK level for meetings and held by UK-level organisations or on UK-level topics for external events. PIP researchers published podcasts as part of its Productivity Puzzles series, blogs on its website or those of PIP affiliated universities, and articles or blogs in external publications. These combined engagement efforts resulted in media coverage (see Table 7 below) mainly from print/online publications, but with some TV and radio/podcast appearances as well.[130] Some academics were also 'very active' on social media according to an interviewee,[131] but no specific instances of social media activities of researchers were mentioned in interviews or in PIP documents, though some events were posted about through PIP-affiliated social media accounts on Twitter or LinkedIn.

[130] TPI (2022e); (2022f); (2022g); (2022f); (2021b); (2021f); (2021h); (2021i); (2021j); (2022a); (2022b); (2022c); (2022d).

[131] INT_Kn_2.

Table 5: PIP engagement activities

PIP events	The PIP held 5 conferences (one of which was external and hosted by TPI),[132] 3 workshops,[133] 2 'evidence sessions' of the Productivity Commission created by the PIP,[134] 19 seminars as part of a 'brown bag' series[135] and 10 other types of events[136] for sharing of PIP research with stakeholders.
Meetings	PIP researchers formally organised meetings with 14 different business organisations[137] (including four times with the CIMA),[138] 41 policy stakeholders at the UK level[139] as well as a meeting with 15 Permanent Secretaries,[140] 3 policy stakeholders at the regional level (Welsh Government, South Yorkshire Combined Authority, Northeast of England Chambers of Commerce),[141] 13 academic stakeholders external to PIP (including researchers based at think tanks and international organisations).[142]
External events	PIP researchers attended 163 external events held by UK-level organisations or on UK-level topics [143], 5 external events at regional-level organisations on regional-level topics,[144] and 73 external to PIP events organised internationally (e.g. OECD, ILO events or ones held outside of the UK).[145]
Media published by PIP	TPI researchers published 33 podcasts as part of its Productivity Puzzles series,[146] which is sponsored by Capita, a business organisation,[147] and 15 blogs on its website or those of PIP affiliated universities.[148]
Media published in external publications	PIP researchers published 52 articles or blogs in external publications, including *The Times*, Project Syndicate, and the Institute for Fiscal Studies' Deaton Review.[149]

Source: PIP summary reports.

[132] TPI (2021d); (2022e); POID (2021b).

[133] TPI (2021b); (2021i); (2022d).

[134] TPI (2022g); (2022b).

[135] TPI (2022e); (2022g); (2022f); (2021h); (2021i); (2021j); (2022d).

[136] TPI (2022e); (2022g); (2021d); (2021h); (2021j); POID (2021g); (2021h); (2021b).

[137] TPI (2022g); (2022d); (2021j); POID (2021a); (2022e); (2022f); (2022g).

[138] TPI (2021j); (2022g); (2022a); (2022c); (2022d).

[139] TPI (2022g); (2022f); POID (2021a); (2021b); (2021c); (2021d); (2021e); (2021g); (2021h); (2021i); (2021j); (2022b); (2022h); (2022e); (2022f); (2022g); (2021f).

[140] TPI (2021d).

[141] TPI (2022d); POID (2022g); (2022e).

[142] TPI (2021f); POID (2021g); (2021i); (2022h); (2021j); (2022f); (2022g).

[143] TPI (2022e); (2022f); (2022g); (2022f); (2021a); (2021k); (2021c); (2021d); (2021h); (2021j); (2022c); (2022d); POID (2021a); (2021b); (2021c); (2021d); (2021e); (2021g); (2021h); (2021i); (2021j); (2022a); (2022b); (2022h); (2022d); (2022e); (2022f); (2022g).

[144] TPI (202g); (2021j); (2022b).

[145] TPI (2022e); (2022f); (2021b); (2022c); (2022d); POID (2021a); (2021b); (2021c); (2021e); (2021g); (2021h); (2021i); (2022a); (2022b); (2022h); (2022d); (2022e); (2022f); (2022g).

[146] TPI (n.d.).

[147] TPI (2021d).

[148] TPI (2022f); (2021j); (202d); (2022g); (2021c); (2022b); (2021f); POID quarterly report, 23/06/2023.

[149] TPI (2022d); (2022c); (2022b); (2021h); (2021e); (2021c); (2021a); (2022f); (2022g); (2022e).

Table 6: Media coverage of PIP

TV	Radio/podcasts	Print/online publications
PIP researchers featured 8 times on TV channels (e.g. BBC, Sky News, Channel 4).[150]	PIP researchers featured 10 times on radio shows or podcasts.[151]	PIP researchers featured 77 times in interviews/citations/mentions for print or online publications (e.g. *Financial Times*, *The Telegraph*, *New Statesman*). [152]

Source: PIP summary reports.

Apart from these engagement activities, PIP also endeavoured to create accessible outputs. TPI's productivity dashboards were particularly appreciated by non-academics[153] and the interactive map produced by the Scottish RPF was mentioned as exemplary for its presentation of data by an external policy stakeholder.[154]

As a result of this increase in accessibility of productivity research, the PIP was successful in catching the attention of UK policymakers and public alike in the view of interviewees. According to an external stakeholder, it helped civil servants in the UK see where the productivity problems lie, what data they need, and the value of maintaining connections with the PIP.[155] An RPF member in NI attested to the influence of TPI and the NI RPF for having 'productivity on the lips of politicians in Northern Ireland'.[156] It also ensured the issue was able to be appreciated by the broader UK population, an effort both successful[157] and to a degree not previously achieved.[158] Some stakeholders noted that even more accessibility could have been reached through hiring researchers better capable of 'distilling research to two sentences'[159] and sending out gradual updates on studies as they progress rather than waiting for the finalised versions to be published.[160]

More coordination and adjustments to its scope could have contributed further to the evidence base and its usefulness as a programme

Though some coordination efforts were taken, stakeholders agree further mechanisms to facilitate them would be welcomed. Most coordination efforts concern RPFs' meeting among themselves (discussing

[150] TPI (2022g); (2022f); (2021f).

[151] TPI (2022e); (2022g); (2022f); (2021i); (2022b); (2022d).

[152] TPI (2022e); (2022f); (2022g); (2021b); (2021f); (2021h); (2021i); (2021j); (2022a); (2022b); (2022c); (2022d).

[153] INT_Pol_Kn_4; INT_Pol_Kn_6 Jan Workshop.

[154] INT_Pol_Kn_2.

[155] INT_Kn_2.

[156] INT_Pol_Kn_1.

[157] INT_Kn_2; INT_Pol_Kn_3; INT_Pol_Kn_5

[158] INT_Pol_Kn_1.

[159] INT_Pol_Kn_6.

[160] INT_Pol_Kn_2.

business innovation projects,[161] gathering RPF leads together)[162] or with other PIP organisations (TPI representative meeting individually with RPF chairs for priority-setting,[163] six TPI executives and an RPF regional lead meeting for planning purposes).[164] But they also include data sharing, specifically dissemination of PIP research to RPFs in the form of producing productivity dashboards for all International Territorial Level 1 (ITL1) regions after the success of the NI dashboard and distributing the Gender and Productivity as well as FE Colleges research to RPFs.[165] For coordination outside of RPFs, there is one example of the TPI executive team identifying cross-cutting themes to encourage interdisciplinarity in future projects through an in-person meeting.[166]

These efforts were perceived as insufficient by stakeholders interviewed who described a lack of coordination among the various branches of the PIP. This manifested in some noting that TPI and POID explored productivity from slightly different angles that yielded (implied) inefficiencies,[167] or that research projects were chosen with the wrong methodology (some viewed 'letting 1,000 flowers bloom' as the right approach for PIP research).[168] A couple of RPF affiliates lamented the lack of knowledge sharing among themselves[169] and TPIs' reticence to help RPFs collaborate with each other.[170] Looking at this through bibliometrics, we see a relatively low level of cross-investment collaboration with less than 3% of publications including authors from both TPI and POID, comparable to levels of collaboration between those authors at baseline (Table 7).

Table 7: Internal collaboration metrics for PIP

Investment		Within PP collaboration	% within PP collaboration
PIP	POID	17	2.97
	TPI	9	1.26
	Whole portfolio	20	1.58
Baseline	POID	18	2.99
	TPI	18	1.88
	Whole portfolio	22	1.51

Source: Bibliometrics.

[161] TPI (2022e).
[162] TPI (2022a).
[163] TPI (2022a).
[164] TPI (2022f).
[165] TPI (2022g).
[166] TPI (2022d).
[167] INT_Kn_2.
[168] INT_Pol_Kn_1.
[169] INT_Pol_Kn_4; INT_Pol_Kn_6.
[170] INT_Pol_Kn_6.

Complaints related to the scope of PIP reflect more the specific interests of the stakeholders who voiced them than the programme as a whole, but would merit taking into account for future planning. An academic stakeholder thought the scope was too broad in trying to pursue a green agenda and productivity in tandem,[171] but a devolved administration policymaker would have liked the scope to include devolved administrations more prominently, moving beyond the 'UK government remit'.[172] Business stakeholders of one RPF desired more business support than pure research, as in mechanisms to concretely translate research to on-the-ground progress.[173] Reflecting on whether and how to integrate these considerations could help to enhance the effectiveness of the PIP.

Poor access to UK productivity data currently impedes growth of the evidence base

A gap in UK productivity research generally, which future iterations of the PIP could perhaps help publicise and address, is the state of access to key UK productivity data. The majority of complaints centre around data access for ONS (firm-level ONS data specifically for one stakeholder)[174] and HMRC data,[175] which have been described as a 'mess' and a 'complete nightmare'.[176] One internal stakeholder claimed that both North America and small Scandinavian states in contrast have straightforward access to these data[177] and another noted that they had resorted to purchasing such data at a premium price through Moody's, a financial services company, so that research could be finalised within the allotted timeline given the quicker access the company could provide.[178] Even though this issue lies in the hands of these data holding bodies, stakeholders believe that PIP could play a role in addressing this constraint.[179]

3.1.3. Linking up with wider R&I priorities and opportunities

Evaluation question: *To what extent has the PIP linked up effectively with wider research and innovation priorities and opportunities?*

Key findings:

- There is evidence of multiple formal collaborations with UK-based and international organisations outside of the PIP.
- TPI particularly stands out for its collaboration with industry and international authors.

[171] INT_Pol_Kn_1.

[172] INT_Pol_Kn_2.

[173] INT_Pol_Kn_4.

[174] INT_Pol_Kn_5.

[175] INT_Pol_Kn_3; INT_Pol_Kn_5.

[176] INT_Pol_Kn_3; INT_Pol_Kn_6.

[177] INT_Pol_Kn_5.

[178] INT RIEQ2.

[179] Jan Workshop.

PIP has collaborated formally with at least five business bodies, two policy bodies and two international research bodies, all of which are external to the core organisations affiliated with PIP. Business bodies include Cambridge Ahead, Rochdale Development Agency, Be the Business, the Conference Board, CBI and Capita.[180] The 'Be the Business' collaboration involves business innovation projects co-developed with businesses and academics on solutions to productivity challenges.[181] The Conference Board engagement grew out of a TPI blog summarising the results of a research project and evolved into a special project with business councils that led to further engagement with business leaders in NatWest and BP.[182] Policy bodies noted as collaborators include the Australian Productivity Commission and the Bank of England.[183] Lastly, PIP researchers have collaborated with the Canadian Centre for the Study of Living Standards on the International Productivity Monitor[184] and with the OECD.[185] The PIP has also held at least three events jointly with one external organisation, the National Institute of Economic and Social Research (NIESR)[186] and one with CIMA.[187]

Looking at bibliometric data, we see relatively low levels of co-publication with industry authors, comparable to ESRC averages, though this is increased relative to baseline for TPI. Looking at international collaboration, the level of co-authorship with non-UK authors is largely consistent with the level at baseline for POID, which is below comparator group and ESRC averages, but we do see an increase in international collaboration at TPI relative to baseline, which is now more in line with comparators and ESRC averages (Table 8).

Table 8: External collaboration metrics for PIP

Investment		% industry collaborations	% international collaboration
PIP	POID	1.05	33.51
	TPI	1.68	46.01
	Whole portfolio	1.43	40.1
Comparators	Comparator Grants	1.96	50.49
	ESRC	1.35	44.06
Baseline	POID	1.66	34.22
	TPI	0.84	36.92
	Whole portfolio	1.24	36.72

Source: Bibliometrics.

[180] INT_Pol_Kn_4; INT_Pol_Kn_6; TPI (2022g); (2022e); (2022f); (2022d).

[181] TPI (2022e).

[182] TPI (2022f).

[183] INT_Pol_Kn_3.

[184] TPI (2021f).

[185] INT_Pol_Kn_3.

[186] TPI (2021b); (2022g); (2022b).

[187] TPI (2022f).

3.1.4. Capability and capacity

Evaluation question: *What has been the impact of the PIP on academic capacities and capabilities for productivity research? How enduring are these improvements?*

Key findings:

- There is evidence that PIP has improved the capabilities and capacities of UK researchers, though their sustainability is uncertain.

Though the PIP has contributed to UK capacities and capabilities for productivity research, the extent to which these impacts are enduring remain unclear at this stage. Efforts taken include: holding an in-person workshop for post-docs and PhD students for presentation of research[188]; hosting a webinar on 'Productivity, Innovation and Skills' to heads and career advisors at FE colleges[189]; awarding two year-long early career fellowships, with some incorporated into PIP projects[190]; awarding a fellowship specifically for policy[191]; allowing more researchers to work on productivity than previously[192]; and creating an apprenticeship programme for early-stage researchers with 'great' supervision that is 'uncommon' in academia'.[193] An internal stakeholder mentioned that the PIP facilitated 'a lot of' capacity building through bringing 'seasoned' academics to the topics as well as PhD students, postdocs and associates.[194] The apprenticeship programme was created for RPF research associates to help respond rapidly to matters raised in forum meetings and included at least one in-person three-day development event with the Executive Team, discussing RA research and TPI strategy.[195]

Stakeholders' views on PIP's capacity building influence were overall positive, ranging from descriptions of a 'positive, modest impact'[196] to claims of 'feeding through the economics profession as a whole' to leave a legacy.[197] While an international stakeholder believed in the sustainability of PIP impacts,[198] two other internal stakeholders did not want to claim as much for the programme.[199]

[188] TPI (2022e).

[189] TPI (2021d).

[190] TPI (2022e).

[191] TPI (2022e).

[192] INT_Pol_Kn_1.

[193] INT_Kn_1.

[194] INT_Pol_Kn_1.

[195] TPI (2021h).

[196] INT_Pol_Kn_3.

[197] INT_Pol_Kn_1.

[198] INT_Kn_1.

[199] INT_Pol_Kn_1; INT_Pol_Kn_5

3.2. Policy impacts

This section focuses on early evidence of the productivity programme's impact on national and regional policy. As noted in our baseline report, the objectives of the PIP include:

- Establishing and operating a world-leading programme providing new, independent, robust, trusted and more accessible data and research evidence of the highest quality from across the social sciences to underpin policies and practices that will deliver inclusive productivity in the UK.

Specifically, for this phase of the evaluation we sought to identify initial evidence of the extent to which:

- The PIP has created high-quality, relevant and actionable policy recommendations around productivity.
- The PIP has improved how productivity is understood and integrated into practice by policymakers.
- The PIP has had an enduring impact on the capacity and capability of policymakers to engage with productivity research and vice versa.

We use the following key sources of evidence:

- Interviews conducted with organisations that have engaged with the PIP, to understand the impact of their engagement with the productivity programme on the policy community. All organisations interviewed work closely with policymakers to support them in a variety of areas from providing evidence and analysis to guide policy, or in setting policy (at a national and regional level).
- A review of quarterly reports submitted by TPI, POID and TIs to ESRC.
- A workshop including representatives from TPI, POID and ESRC.

3.2.1. Creating policy recommendations

Evaluation question: *To what extent has the programme delivered high-quality, relevant and actionable policy recommendations around productivity?*

Key findings:

- TPI and POID have demonstrated active engagement with policy stakeholders at both national and regional levels, contributing to discussions and providing insights on productivity-related issues.
- Both TPI and POID have shown commitment to influencing policy at the highest levels of government, as evidenced by their contributions to parliamentary committees and government departments, and meetings with key policymakers.
- PIP has contributed valuable insights to policy discussions and its work has been cited in policy documents.
- Nonetheless, some policy stakeholders are not aware of any direct policy changes resulting from PIP's work.
- While TPI and POID have made significant contributions, external factors such as a shifting policy environment can make achieving tangible policy impact a challenge.

Regional engagement and influence: TPI

TPI have engaged with and disseminated knowledge to a number of policy stakeholders at a national and regional level. On the latter, TPI have discussed Wales's Regional Productivity Forum (RPF) with the Welsh government to discuss their role and some of their research outputs. A joint research agenda has also been put into motion with HM Treasury's Growth Unit. Within each of these examples is a clear link towards disseminating information built through the work conducted at TPI with regional level policy stakeholders in order to influence their policies. Further discussions between TPI and regional policymakers are to take place.

TPI's project in Rochdale, focused on the Six Capitals (human, financial, social, physical, intangible and institutional)[200] set out by Michael Gove, MP, in the Levelling Up White Paper, exemplifies their ability to apply their research in a practical context. This pilot project, which is being expanded to other areas of the UK as part of the 'Investment in Places' programme, involves the analysis of existing and new data to link datasets across the capitals. TPI's collaboration with the Rochdale Development Agency (RDA) in this project demonstrates their ability to work with regional stakeholders to identify and introduce relevant data. This project is currently in progress and is expected to be delivered by early summer 2024. The academic team involved have been engaging with DLUHC on an ongoing basis around the project, and DLUHC have shared information with the team around their Levelling Up Partnership work. In addition, the team have met up with DBT to discuss the Rochdale project, and Department for Business and Trade (DBT) discussed their long-term towns plan in Heywood (local to Rochdale). The Six Capitals work has been cited by one policy stakeholder consulted to have been used in policy work and presentations, particularly in relation to productivity growth post-Covid.[201]

[200] TPI (2023a).

[201] INT_Pol_1, INT_Pol_3, TPI (2022d).

National engagement and influence: TPI

At the national level, TPI's influence is evident in various policy discussions and recommendations. Key examples include: TPI's involvement in the 2022 Greater Manchester Independent Prosperity Review, where they were part of a panel of experts who carried out the review,[202] and their involvement evidence at the House of Commons Treasury Select Committee, highlighting evidence of TPI's work to inform policy.[203] Additionally, TPI academics have been referenced in the Labour Party's report on 'A New Britain: Renewing our Democracy and Rebuilding our Economy. Report on the Commission on the UK's Future'. One TPI representative was also an advisor and a member of this commission, chaired by Gordon Brown.[204]

TPI has also contributed to parliamentary committees, submitting written evidence to the House of Commons Levelling Up Select Committee in February 2023, and providing evidence to the House of Lords Science and Technology Committee within the same month.[205] TPI has also provided evidence to the Commons Treasury Committee inquiry on jobs, growth and productivity after coronavirus.[206] These contributions demonstrate TPI's commitment to informing policy and decision making at the highest levels of government.

Based on the evidence provided, it can be concluded that TPI has demonstrated examples of delivering high-quality, relevant and actionable policy recommendations around productivity. Their active engagement with regional and national stakeholders, participation in expert panels and commissions, as well as contributions to parliamentary committees, all demonstrate their commitment to sharing knowledge and influencing policy in the area of productivity.

Regional engagement and influence: POID

POID has been actively involved in regional engagement, presenting at the National Infrastructure Commission/Onward Levelling up event that focused on regional development.[207] They also attended round tables on levelling up, hosted by Demos and the UCL Policy Lab, where they contributed to discussions on regional disparities and ways to address them.[208] Furthermore, POID members held a meeting with the South Yorkshire Combined Authority to discuss local growth, demonstrating their commitment to regional influence.[209] Their involvement in the Westminster Higher Education Forum and the RSA Core Cities Urban Futures Commission further underscores their focus on the role of universities and urban areas in regional economic growth.[210]

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[202] Greater Manchester Independent Prosperity Review (2022).

[203] TPI (2022f).

[204] TPI (2022f).

[205] TPI (2022e).

[206] TPI (2021e).

[207] POID (2021b).

[208] POID (2021g).

[209] POID (2022g).

[210] POID (2022f).

National engagement and influence: POID

At the national level, POID has demonstrated significant influence through their participation in a variety of meetings, workshops and events with key policymakers and organisations. They provided evidence to the Treasury Committee on the regional economic impacts of coronavirus, an issue of national importance.[211] Their participation in the BEIS Green Jobs Taskforce Workshop[212] and R&D Place Advisory Group meetings[213] highlights their contributions to discussions on green jobs, and research and development, both crucial aspects of the national productivity agenda.

In addition to these examples, POID has held meetings with key policymakers such as the leader of the opposition, Keir Starmer,[214] to discuss POID's work and growth policy, and with the then Chancellor of the Exchequer, Rishi Sunak, to discuss the UK's productivity gap.[215] They also participated in panel discussions with the former Business Secretary and former Universities Minister,[216] further demonstrating their influence in national policy discussions.

POID's contributions to parliamentary committees and government departments have been notable. They gave evidence to the BEIS Committee on 'Post-pandemic economic growth: Industrial Strategy',[217] contributing their expertise to discussions on the UK's economic recovery. They also met with the Cabinet Office Levelling Up unit to discuss their work on the White paper, indicating their involvement in shaping key government policies.[218] POID's presentation to the Number 10 Policy Unit on 'Policies to Raise Pay and Productivity: Innovation and Diffusion',[219] underscoring their commitment to informing policy and decision making at the highest levels of government.

POID's collaboration with international organisations such as the OECD and think tanks like Onward demonstrate their commitment to sharing knowledge and influencing policy at a broader level.[220] These interactions have allowed POID to contribute to global discussions on productivity and growth, further enhancing their influence.

POID's active engagement with regional and national stakeholders, participation in expert panels and commissions, contributions to parliamentary committees and government departments, and collaboration with international organisations and think tanks, all demonstrate their commitment to sharing knowledge and influencing productivity related policy. It shows that they have delivered crucial knowledge, expertise and with relevant and actionable contributions to policy recommendations.

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[211] POID (2021b).
[212] POID (2021a).
[213] POID (2021b).
[214] POID (2021d).
[215] POID (2021j).
[216] POID (2021d).
[217] POID (2021b).
[218] POID (2021g).
[219] POID (2022b).
[220] POID (2022f).

In addition to documenting what TPI and POID have actively delivered, it is important to understand how policy stakeholders perceive the PIP's impacts to provide an external perspective on the relevance, effectiveness and impact of their work. Evidence reveals that while some policy stakeholders recognise and value the contributions of these organisations in areas such as labour market, occupational health and childcare,[221] others may not be aware of any direct policy changes resulting from their work.[222] This could be due to a lack of communication or visibility, or it could suggest that their influence on policy changes has been indirect or limited.

Furthermore, one interviewee highlights that while some policy recommendations have come as a direct result of their work, external factors such as a shifting policy environment may limit the actionability of these recommendations.[223] This insight underscores the importance of considering stakeholder perceptions in evaluating the overall impact of POID and TPI on productivity policies and identifying potential areas for improvement in communication, visibility and addressing external challenges.

[221] INT_Pol_1, INT_Pol_3.

[222] INT_Pol_Kno_1, INT_Pol_Kno_5.

[223] INT_Pol_2.

Case study 2: DBT and Treasury engagement

Activities

POID representatives have engaged in numerous activities with the DBT and HMT. These activities include participation in conferences, holding formal advisory positions, conducting workshops and holding meetings.

Some notable activities include participation in the Government Economic Service annual conference, the DBT analytical conference and workshops across Whitehall. POID's representatives have also held positions in the Chancellor's Economic Advisory Council, and collaborated with HMT and DBT on innovation topics.

Moreover, POID has held several meetings with HMT and DBT officials, presenting work in progress, testing their thinking, and providing updates on POID's work. These interactions have been beneficial for both parties, with government officials acknowledging the usefulness of POID's work in their own research and meetings.

Outcomes

These activities have led to several notable outcomes. For example, POID's engagement with HMT and DBT has resulted in invitations to chair working groups and present at conferences. POID's work has been used extensively in governmental research, and has been referred to in support of various policies.

Moreover, POID's recommendations and evidence have been acknowledged in select committee reports and have contributed to policy reforms. For instance, POID's input fed into the Business, Energy and Industrial Strategy (BEIS) select committee's UK PLC 2050 report.

Impacts

The impacts of POID's interactions with HMT and DBT are significant. These engagements have influenced policy decisions, such as the Mansion House Pension Reforms and the full expensing on capital investment announced by the chancellor in the autumn statement.

Furthermore, POID's work has been recognised and used by government officials in their meetings and research structures, demonstrating the relevance and impact of POID's research on policy decisions. For instance, a POID representative has been able to emphasise POID research directly to the Chancellor of the Exchequer, along with discussions pertaining to a wide range of issues via formal communication channels with the Chancellor and HMT officials.

In conclusion, POID's interactions with DBT and HMT have resulted in meaningful engagement, contributing to the development of high-quality, relevant and actionable policy recommendations. This case study illustrates the potential for academic research to influence policy decisions when there is active and ongoing dialogue between researchers and policymakers.

Evidence that points towards the fact that PIP has contributed valuable insights to policy discussions, references to PIP's work in policy discussions and the adoption of its recommendations in some cases are indicative of the relevance and actionability of its research. However, it does not demonstrate a clear causal link between the citations of PIP's work and the adoption of specific policy recommendations universally. This makes it challenging to definitively assess the extent to which the PIP has delivered high-quality, relevant and actionable policy recommendations around productivity in all contexts.

In conclusion, the evidence presents a nuanced picture of the PIP's contributions to policy discussions around productivity. While its research has been cited in policy work and documents, and some

interviewees acknowledged its influence on specific policy areas, the evidence does not conclusively demonstrate that the PIP has consistently delivered high-quality, relevant and actionable policy recommendations across all areas of its work. The PIP's impact appears to be multifaceted and potentially limited by external factors, such as an unstable political environment and engagement with key stakeholders. Although the PIP has made valuable contributions to policy discussions and shaped policy discourse, more time is needed for the PIP's outcomes to reach a higher degree of maturity to evolve into the desired policy-influencing impacts. Time will enable further research and analysis to better understand its impact on policy recommendations and the factors that influence its effectiveness in this regard. One suggestion for future monitoring is the use of Overton to track policy impact.

3.2.2. Improving policymakers' understanding

Evaluation question: *Has the PIP had an impact on how productivity is understood and integrated into practice by policymakers?*

Key findings:

- The PIP's influence on policymakers' comprehension and application of productivity is diverse, covering many different areas of policy.
- Most interviewees have observed a noticeable shift in productivity perception in policy discussions since 2019, with the majority stating that PIP has contributed to this shift.
- Despite the PIP's valuable contributions, there may be barriers to fully realising the potential impact of its research on policy decisions, such as limited access to academic papers, lack of time or resources for civil service analysts to engage with research, or difficulties in translating academic findings into actionable policy recommendations.
- The PIP has facilitated a more comprehensive and nuanced understanding of productivity issues by engaging stakeholders together from different sectors and perspectives, contributing to a more informed public discourse on the topic.

Evidence collected from interviews presents diverse views on the PIP's impact on how policymakers comprehend and apply productivity. This diversity implies that the PIP's influence on understanding productivity may not be consistent across all stakeholders or policy domains.

All interviewees have observed a noticeable shift in productivity perception in policy discussions since 2019. Of these stakeholders consulted, the majority attribute this shift to the PIP's outputs to varying extents.[224] Some believe that the PIP is directly attributable to raising awareness of productivity issues and enhancing understanding among policymakers, whereas others believe it to be true only partially. One policy stakeholder was uncertain about the extent to which the PIP has directly influenced this change in productivity perception, and that it may have been attributed to past factors such as a 2016 lecture at LSE on productivity puzzles by the Bank of England's chief economist.[225] This perspective indicates that the PIP's impact on productivity perception may be more difficult to discern or attribute solely to the PIP's work, as other factors and events may have also contributed to the change. Variations in attribution could be due to differences in the level of engagement with the PIP's work, the specific

[224] INT_Pol_1, INT_Pol_Kno_1, INT_Pol_Kno_4, INT_Pol_Kno_6.

[225] INT_Pol_Kno_5.

policy areas being discussed, or the extent to which external factors, such as the political environment or other events, have influenced productivity perception.

Several interviewees highlighted the value of the PIP's work on myth-busting, understanding problems at a granular level, and conducting research on specific topics.[226] They noted that these efforts have been impactful in allowing the government to move into solution building and enhancing policymakers' understanding of productivity. This suggests that the PIP's research and activities have been effective in addressing misconceptions, providing in-depth insights and offering targeted information that has informed policy discussions and decision making processes.

However, upon consulting stakeholders from the Department for Business and Trade, it was clear that there are challenges in generating impact from research, and the need for more opportunities for civil service analysts to engage with tailored PIP outputs related to productivity.[227] This perspective indicates that despite the PIP's valuable contributions, there may be barriers to fully realising the potential impact of its research on policy decisions. It can be speculated that these barriers include limited access to academic papers, a lack of time or resources for civil service analysts to engage with research, or difficulties in translating academic findings into actionable policy recommendations.

One Regional Forum representative highlighted the impact of the PIP on local or regional stakeholders, such as members of regional forums and representatives of NHS trusts, suggesting that these local stakeholders have gained a better understanding of how the PIP's work on productivity impacts their specific areas of work.[228] This stakeholder also raised the following comment: 'It was helpful to have different perspectives in the same room to address similar problems from slightly different angles.'[229]

By engaging stakeholders together from different sectors and perspectives, the PIP may have facilitated a more comprehensive and nuanced understanding of productivity issues. This could have enabled regional forum stakeholders to enhance the quality of policy discussions and decision making processes. However, further research may be needed to fully understand the extent and nature of the PIP's impact on how productivity is integrated into practice by policymakers at the regional level. One interviewee highlighted that the PIP has had an impact on raising awareness of productivity issues in public discourse, with interviewees attributing their own evolving understanding of productivity to the PIP's work.[230] This indicates that the PIP's research, activities and communication efforts have been successful in enhancing the understanding of productivity among some stakeholders, contributing to a more informed public discourse on the topic.

This interviewee also highlights that there is still work to be done in terms of generating impact and ensuring that the right people are engaged in discussions about productivity.[231] This point emphasises the

[226] INT_Pol_1, INT_Pol_Kno_1, INT_Pol_2, INT_Pol_Kno_4.

[227] INT_Pol_1.

[228] INT_Pol_Kno_4.

[229] INT_Pol_Kno_4.

[230] INT_Pol_Kno_1.

[231] INT_Pol_1.

importance of involving key stakeholders, decision makers and influencers in productivity discussions to maximise the potential impact of the PIP's work on policy and practice.

Considering evidence provided in Section 3.2.1, TPI's collaboration with the Rochdale Development Agency (RDA) on the Six Capitals project has influenced policy work and presentations related to productivity growth post-Covid.[232] Additionally, POID's involvement in regional events and discussions has contributed to shaping key government policies and informing decision making at the highest levels of government. These examples showcase the PIP's ability to deliver high-quality, relevant and actionable policy recommendations around productivity, further supporting their impact on policymakers' understanding and integration of productivity into policy practice.

It can be concluded that the PIP has had an impact on how productivity is understood by policymakers to some extent. The shift in perception and understanding of productivity, along with the acknowledgment of the PIP's research insights, indicates that the PIP has contributed to the evolving understanding of productivity among policymakers. However, the integration of productivity into policy practice may be limited by external factors and challenges in communication, visibility and the scope of certain policy stakeholders.

3.2.3. Policymaker – researcher engagement capability

Evaluation question: *To what extent and how has the PIP had an enduring impact on the capacity and capability of policymakers to engage with productivity research? And conversely, how has the PIP impacted researchers' capacity to produce policy-relevant research?*

Key findings:

- The PIP has fostered stronger engagement between policymakers and productivity researchers, leading to increased awareness of productivity research among policymakers.
- The PIP has improved accessibility to productivity research for policymakers, and PIP policy fellowships have facilitated mutual learning between policymakers and researchers.
- Engagement between policymakers and productivity researchers varies across regions, with civil servants often acting as translators and knowledge exchange partners.
- The PIP has enhanced the capacity of researchers to produce policy-relevant research, influencing not only established academics but also early-stage researchers. It has also facilitated better engagement between researchers and policymakers.
- The sustainability of the relationship between policymakers and PIP researchers is contingent on the continuation of the PIP or a similar coordinating device.
- The PIP could enhance its impact by focusing on specific areas of interest to policymakers, such as the green economy, the transition to net zero, performance of managers and peer learning among businesses, all of which are aspects of the investments.

In the previous Section 3.2.2, we discussed how the PIP has had an impact on policymakers' understanding and perception of productivity in the UK. In the following section, we discuss how this change in perception and understanding has enabled policymakers to engage with productivity researchers, and conversely, how productivity researchers are able to engage with policymakers to create policy-relevant research.

[232] INT_Pol_1.

Based on the collected evidence, the PIP has had an impact on the capacity and capability of policymakers to engage with productivity research, and on researchers' ability **to produce policy-relevant research**. However, the extent and sustainability of this impact varies across regions, and is influenced by the role of civil servants in knowledge exchange. According to one policy stakeholder, the PIP has fostered stronger engagement between policymakers and productivity researchers, evidenced by frequent discussions, seminars and conference attendance.[233] This engagement has led to an increased awareness of productivity research among policymakers at DBT, a case explored in further detail in the prior **Case study 2: DBT and Treasury engagement**.[234] For the DBT, the PIP's outputs have been instrumental in shaping the narrative around productivity research, enabling policymakers to prioritise efforts into specific, influential and actionable themes.[235]

The PIP has also improved accessibility to productivity research. Policymakers can now go to the institute to find information on specific topics, a feature that has been utilised by various departments, including the Treasury and DBT.[236] Furthermore, the PIP policy fellowships, which embed academics in DBT, have been found to be effective in facilitating mutual learning between policymakers and researchers.[237]

However, in regions like Scotland, engagement between policymakers and productivity researchers appears to be less active, with civil servants acting as translators and knowledge exchange partners.[238] These civil servants may draw from PIP outputs to distil and share academic information with policy colleagues, who are less likely to pick it up directly from researchers. Despite this, the information obtained by policy stakeholders in this context would increase their capacity to engage with researchers. The problem, however, is that policymakers will not have the ability to influence or guide research, or influence the abilities of researchers to engage with policymakers.

Case study 3: National Productivity Week

Background

National Productivity Week, held from 27 November to 1 December 2023, was a comprehensive event led by TPI with help from POID programme managers, that aimed to address the UK's productivity slowdown. The week comprised a diverse range of activities, including seminars, conferences, panel discussions and debates, held across the UK (National Productivity Week website). These events brought together research experts, business leaders, government officials and civic communities from around the nation to foster the sharing of insights and potential solutions to tackle productivity challenges.

Researchers funded by the ESRC's Productivity Institute Programme (PIP) were given the opportunity to present their findings during National Productivity Week, leading to spin-off conversations and further engagement.[239] The event also serves as a platform for the PIP to disseminate its research outputs and engage with a wider audience.[240]

Outcomes

National Productivity Week was successful in linking ideas of productivity to policy challenges and business problems.[241] By bringing together various stakeholders, the event facilitated a comprehensive discussion on productivity issues, allowing for the exchange of ideas and best practices.

The event has also contributed to the PIP's impact on the capacity and capability of policymakers to engage with productivity research and on researchers' ability to produce policy-relevant research. It has created opportunities for researchers to showcase their work and engage directly with policymakers and other stakeholders, fostering a productive dialogue on productivity issues.

Impacts

National Productivity Week has promoted awareness and understanding of productivity challenges among various stakeholders. By providing a platform for researchers to present their findings, the event has contributed to the PIP's overall impact on the capacity and capability of policymakers to engage with productivity research.

Furthermore, the event has enhanced researchers' ability to produce policy-relevant research by connecting them with policymakers and business leaders who can provide valuable insights into real-world challenges. This has led to more informed and targeted research outputs, ultimately contributing to the PIP's mission to improve productivity in the UK.

In conclusion, National Productivity Week is a crucial component of the PIP's strategy to foster a productive dialogue on productivity issues among various stakeholders. The event's activities, outcomes and impacts demonstrate its effectiveness in promoting awareness, understanding and engagement with productivity research among policymakers, researchers and the wider community.

[233] INT_Pol_1.

[234] INT_Pol_1.

[235] INT_Pol_1.

[236] INT_Pol_1, INT_Pol_2.

[237] INT_Pol_1.

[238] INT_Kno_Pol_3.

[239] INT_Kno_Pol_4.

[240] TPI (2023b).

[241] INT_Kno_Pol_4.

Researchers' Capacity to Produce Policy-Relevant Research

One interviewee suggests that the PIP has enhanced the capacity of researchers to produce policy-relevant research. Policymakers from DBT have noted that the PIP is good at providing concrete thinking on various subjects, thereby shaping how they think.[242] The PIP's influence extends both to established academics and to early-stage researchers, although the latter's visibility in research outputs is less apparent.[243]

According to another policy stakeholder, PIP has also facilitated better engagement between researchers and policymakers, as seen in the case of TPI events, which have been well received by leading economists in Northern Ireland.[244] This has equipped researchers with better insights into productivity challenges at the regional level.

It has also been highlighted that PIP has created a shared language between academics interested in productivity, and policymakers, which has facilitated more informed and productive conversations through engagement activities, leading to an increase in both parties' capacity to understand one another's work and priorities.[245] Furthermore, the PIP has served as a central point for directing interested groups to relevant research, as exemplified by the case of Norfolk County Council picking up a TPI report on public sector productivity.[246]

Sustainability of the Relationship and Areas for Further Enhancement

The sustainability of the relationship between policymakers and PIP researchers is contingent on the continuation of the PIP or a similar coordinating device.[247] This is echoed by other respondents who suggest that the PIP should not be afraid to explore new ways of working with the government to discuss productivity,[248] and that maintaining a network and making CPD training available could enhance the sustainability of this relationship.[249]

Furthermore, the PIP could further enhance its impact on influencing policy decisions by focusing on specific areas, such as the green economy, the transition to net zero, performance of managers, and peer learning among businesses.[250] Addressing these topics could help the PIP align more closely with the needs of policymakers.

In conclusion, the PIP has had an enduring impact on the capacity and capability of policymakers to engage with productivity research and on researchers' ability to produce policy-relevant research. However, measures need to be taken to ensure the sustainability of this relationship over time, and the PIP could further enhance its impact by focusing on specific areas of interest to policymakers.

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[242] INT_Pol_1.

[243] INT_Pol_1.

[244] INT_Kno_Pol_1.

[245] INT_Kno_Pol_4.

[246] INT_Kno_Pol_4.

[247] INT_Kno_Pol_1.

[248] INT_Pol_1.

[249] INT_Pol_2.

[250] INT_Kno_Pol_3.

3.3. Business impacts

3.3.1. Objectives of this phase of the evaluation

This section focuses on early evidence of the productivity programme's impact on UK businesses. As noted in our baseline report, the objectives of the PIP include:

- To forge mutual, lasting engagement between the UK productivity-related research community and policymakers, practitioners and business.
- To involve un- and under-explored sectors, places and groups, including addressing strong spatial dimensions and understanding the long-tail, challenges and successes of larger businesses and those at the productivity frontier.

Specifically, for this phase of the evaluation, we sought to identify initial evidence of the extent to which:

- The PIP has created new enduring structures and opportunities for productivity researchers to engage with businesses and other industry stakeholders.
- The PIP has identified new and feasible interventions that business leaders or industry bodies could take to improve productivity.
- The PIP has had an enduring impact on how productivity is understood by businesses.

We use the following key sources of evidence:

- Interviews conducted with four organisations that have engaged with the PIP, to understand the impact of their engagement with the productivity programme on the business community. All organisations interviewed work closely with businesses to support them in a variety of areas from delivering business support programmes on innovation, growth and development; providing training and advice to support business growth; to expanding SMEs' understanding of productivity and delivering practical solutions to improve this.
- A review of quarterly reports submitted by TPI, POID and TIs to ESRC.

3.3.2. Summary of findings

Our qualitative interviews and review of quarterly reports indicates that, to date, engagement between the productivity programme and businesses has primarily involved the TPI. This engagement has taken place primarily through the eight Regional Productivity Forums organised by TPI,[251] and engagement with intermediary organisations (e.g. Chartered Institute of Management Accountants, North West Business Leadership Team, Oxford Innovation Advice) working closely with TPI on a range of initiatives, as discussed further in this section.

[251] East Anglia Productivity Forum; London and the South Productivity Forum; Midlands Productivity Forum; Northern Ireland Productivity Forum; North West Productivity Forum; Scotland Productivity Forum; Wales Productivity Forum; Yorkshire, Humber and North East Productivity Forum.

POID activities have also involved engagement with some businesses, but this appears to be, by design, much more occasionally.

Some of the thematic investments involve close collaboration with businesses to shape the direction of their research. However, as described earlier in the report, it is too early to expect that any noticeable impact of these investments has materialised.

Below, we summarise the key findings by evaluation question, and these are then discussed in further detail in the following subsections.

3.3.3. Structured engagement between productivity researchers and business stakeholders

Evaluation question: *How has the PIP created new structures and opportunities for productivity researchers to engage with businesses and other industry stakeholders, and how enduring are these?*

Key findings:

- The programme has been beneficial in creating structures and increasing opportunities for engagement between productivity researchers and businesses, and other industry stakeholders.
- Most organisations felt there had been good, frequent engagement with the programme since its inception, and that the level of engagement had grown over time.

Discussions with organisations indicated the programme has been beneficial in creating structures and increasing opportunities for engagement between productivity researchers and businesses, and other industry stakeholders. Most organisations felt there had been good, frequent engagement with the programme since its inception and that the level of engagement had grown over time. One organisation noted that their engagement with TPI had 'stepped up recently' and it had become 'more formal' with a signed MOU in place.[252] Another interviewee commented that their organisation's engagement with TPI had become more frequent as they moved past the early phase of 'understanding each other's work and common ground' to 'more regular catch ups and collaborations'.[253]

Knowledge dissemination was noted as a key benefit by interviewees. In particular, the Regional Productivity Forums (RPFs) organised by TPI were cited by several organisations as a useful way of working with external organisations and disseminating knowledge effectively to businesses at a regional level. One organisation commented these forums 'have had a very positive impact',[254] further suggesting it would be very beneficial to increase the frequency of these forums, subject to available resources.

Monitoring information provided by TPI shows that, since Q1 2021, there have been 64 formal RPF meetings. The eight RPFs in total have around 200 members and attendance at the formal meetings has typically been over 80%.

As evidenced by both the document review and interviews conducted, under the PIP, there were numerous other examples of productivity researchers organising events jointly with organisations on a

[252] INT_2_B.

[253] INT_3_B.

[254] INT_2_B.

regular basis to increase understanding of productivity among the wider business community. Recent examples of such engagement that were cited by organisations include round tables on lessons to learn on productivity, webinar on inflation, and links to productivity and events planned as a part of the National Productivity Week.[255]

3.3.4. Limited evidence to date of impact on specific business stakeholder interventions

Evaluation question: *Has the PIP identified new interventions that business leaders or industry bodies could take to improve productivity?*

Key findings:

- Organisations struggled to identify any specific new and feasible interventions resulting from the programme thus far, that business leaders or industry bodies could take to improve productivity.
- While the programme had developed key research and effectively disseminated knowledge, including at a regional level, it was challenging to measure the tangible impact.
- The nature and focus of the programme were evolving over time to now support business needs more closely and have a tangible impact.

While engagement with TPI had been helpful in steering organisations' work and shaping their thinking and understanding of productivity (see Section 3.3.5. below), organisations struggled to identify any specific new and feasible interventions resulting from the programme thus far, that business leaders or industry bodies could take to improve productivity.

Feedback indicated that thus far the programme had developed key research, and effectively disseminated knowledge including at a regional level. However, it was challenging to measure the tangible impact. One business stated that while 'the knowledge they [TPI] are developing is really important for the economy, policy and where the funding goes', it remained 'very difficult to measure that impact'.[256] Another organisation commented 'they [TPI] are doing what they can to disseminate knowledge through regional forums…but whether that translates into actual productivity enhancing impacts is really difficult to say'.[257]

Organisations also noted that the nature and focus of the programme were evolving over time to now support business needs more closely and have a tangible impact. They stated that while TPI's focus had tended to be more research/academia oriented so far, they were now increasingly focusing on more practical ways to engage SMEs, and 'developing interventions that would actually make a difference on the ground for SMEs'.[258]

In this regard, examples mentioned of joint work that organisations were conducting with TPI included (1) work to understand what may be holding back productivity in specific regions and the role technology

[255] INT_1_B, INT_2_B, INT_3_B.

[256] INT_1_B.

[257] INT_3_B.

[258] INT_3_B.

might play in helping here; (2) initiatives looking at local skills plans and understanding the skills gaps; and (3) analysis comparing UK productivity with other European countries.[259] Q4 2023 also marked the start of work on Randomised Controlled Trials involving SMEs.[260]

3.3.5. The PIP has had a positive impact on business stakeholders' understanding of productivity

Evaluation question: *Has the PIP had an impact on how productivity is understood by business leaders?*

Key findings:

- Engagement with the PIP had been beneficial in improving understanding of productivity in both the intermediary organisations interviewed and among businesses they worked with, in two key ways:
  - Firstly, through a more 'direct' channel, that is, directly informing conversations that these organisations are having with their members/stakeholders and with local policymakers about initiatives that may help improve productivity in a sector/region.
  - Secondly, through a more 'indirect' channel, that is, informing these organisations' own activities such as thought leadership and business support programmes.

Interview feedback suggested that engagement with the PIP had been beneficial in improving understanding of productivity in both the organisations interviewed themselves and among businesses they worked with. Organisations stated that there were a number of indications of growing understanding and interest in productivity among businesses they worked with. Examples of this included increased engagement of businesses attending productivity focused webinars and other events organised by these intermediary organisations (including those organised jointly with TPI), and surveys conducted by organisations across their members showing growing interest in this subject area.[261]

Engagement with the programme and the opportunity to 'tap into TPI's expertise at an academic level'[262] helped shape organisations' research and thinking. Organisations commented that without this support they 'would have probably been a few months or years down the line on that'. Another interviewee commented that the TPI's activities are 'clearly adding to the knowledge base'[263] on a regular basis.

Specific examples of outputs mentioned by one interviewee[264] included the regional productivity scorecards (which prompted conversations within the interviewee's organisation and with the businesses the organisation interacts with about why the trends observed in the scorecards might arise) and presentations at the RPF meetings (e.g. providing evidence that SMEs of median productivity have reduced their investment in recent times, again prompting questions about what could be done to promote increased investment in this group of firms). Knowledge available on the TPI website was also

[259] INT_2_B, INT_4_B.

[260] TPI Quarterly Report September 2023.

[261] INT_2_B, INT_3_B.

[262] INT_2_B.

[263] INT_3_B.

[264] INT_4_B.

noted as useful in improving organisations' own understanding and providing a much needed 'evidence base' in engaging with policymakers and other stakeholders effectively.[265]

Overall, our interviews suggested that TPI is having a meaningful impact on the intermediary organisations it engages with, in two ways:

- Through a more 'direct' channel, that is, directly informing conversations that these organisations are having with their members/stakeholders and with local policymakers about initiatives that may help improve productivity in a sector/region.
- Through a more 'indirect' channel, that is, informing these organisations' own activities, such as thought leadership and business support programmes.

An intermediary organisation working closely with TPI noted that engagement with TPI had been instrumental in developing their thinking relating to productivity and work they were doing with businesses more broadly, and this had evolved and improved over time.

Following a report, the organisation authored a project to analyse UK productivity in 2021. The organisation and TPI began building a relationship in early 2022, meeting on an ongoing basis to understand each other's work and explore opportunities for joint projects. This soon developed into supporting each other with research (e.g. helping with relevant networks/contacts) and conducting joint research projects. Given the organisation's finance focus, the focus of joint work with TPI has been around the finance function and its role in productivity, and helping with research on some of the policy asks.

Engagement with TPI has stepped up further recently and includes a range of projects either conducted jointly or with input from TPI, including analysis comparing UK productivity with other European countries (current); Regional Productivity Forum organised by TPI where the organisation conducted a webinar on inflation and links to productivity; events in National Productivity Week including hosting a joint webinar with TPI; and hosting a round table with TPI on lessons to learn on productivity with some of their own members and also external policymakers (upcoming at the time of the interview).

The organisation stated that without the TPI they 'would have probably been a few months or years down the line' on work done with businesses to improve their understanding of productivity. Other benefits of engagement with TPI include:

- **Knowledge**: Access to their expertise and knowledge base, which has supported their own research and helped shape thinking.
- **Network**: TPI helped connect to organisations like Be the Business, 'which was only through TPI'.
- **Dissemination of research**: TPI supported on promotion of their material going to a wider audience and the broader industry on the whole through their own networks.

[265]INT_3_B.

- **Lobbying policymakers**: The organisation felt they were generally aligned with TPI on subject matter (e.g. importance of skills in the economy, regional growth, taxation). It was 'difficult to see a tangible impact as these things take time but it is definitely beneficial'.

Going forward, the organisation stated they would continue to expect support from TPI to help enhance their thinking and the impact of their work on productivity, and 'more generally would expect to see impacts of the PIP making their way into policy thinking'.

4. Conclusions and recommendations

In this chapter we set out our overall conclusions and recommendations, building on the findings identified across the previous chapters.

4.1. Process evaluation

Overall, the **thematic investments within the PIP share the common goal of improving productivity, but they lack formalised mechanisms to facilitate synergies and avoid overlaps**. The effectiveness of collaboration and complementarity among thematic investments has been mixed, with some examples of successful collaboration, but there are overall concerns about the lack of coordination. Informal collaboration and recognition of each other's work have occurred across some thematic investments, but this is unstructured, and varies across projects. The ESRC has played a role in encouraging early conversations between the projects, but their involvement has not continued beyond those early introductions, and it has been left with the individual investments to maintain those connections.

We also observe that **wider engagement with policy and business stakeholders is occurring and informing research agendas**. The thematic investments within the PIP have engaged with policymakers at varying levels, and there has been high-level engagement with UK and regional policy stakeholders. Engagement with policymakers has helped shape the objectives of some projects and informed their research agenda. The thematic investments have also engaged with businesses through advisory boards, direct collaboration on research projects, and events, which has been instrumental in shaping their operation and priorities. However, thematic investments are not actively engaging with trade unions and worker representatives, who also have a role in productivity, which may be due to various factors such as the complexity of the issues being addressed and challenges in establishing effective communication channels.

Thematic investments have demonstrated a commitment to mobilising existing multi- and interdisciplinary knowledge and engaging the wider UK and international research community, although the effectiveness of these efforts varies across the different projects. Some projects have made strides in assembling diverse project teams from a range of disciplines, facilitating the creation of links with various communities both within the UK and internationally. However, there appears to be limited engagement with previous productivity-related research and investments, such as the Productivity Insights Network (PIN).

Turning to internal processes, some projects have implemented measures to support the development of junior researchers and research assistants, contributing to **capacity building within the thematic investments**, though this is at an early stage. In terms of **agility**, many projects have not had to make significant adaptations in response to Covid-19, since most started post-pandemic or had strong industrial

engagement established before the project's start. Nonetheless, some thematic investments have demonstrated varying degrees of adaptability to changing landscapes, including the challenges posed by Covid-19 and government priorities such as levelling up and the transition to net-zero. As for TPI and POID, the thematic investments have done very little specifically focused on **environmental and social governance** for this investment, but have rather operated within the requirements of their university's policies on these issues.

In terms of **engagement with the ESRC** operationally, there has been a sense that **governance and monitoring, evaluation and learning arrangements have been adequate** and not generated excessive burden. However, equally we did not find any evidence to suggest these oversight processes had actively contributed to the operation of the investments.

Based on these conclusions, we identify **the following recommendations**:

1. **Improve coordination and collaboration across PIP**: This should be focused on creating opportunities for knowledge sharing and coordination, allowing collaborations to emerge organically. This could include:
    a. **An annual event bringing Thematic Investments together with TPI and POID** to share findings, experiences and discuss opportunities for coordination. TPI has offered to host an event in the next few months, which could be the first in this series.
    b. **Sharing of quarterly reports from each investment across PIP**, or a summary of these. This would provide an opportunity for the investments to be aware of what is happening across the PIP portfolio and where there might be scope for sharing of ideas or contacts. This would also increase the added value of existing monitoring processes.
    c. **Regular coordination process particularly for wider stakeholder (e.g. policymaker) engagement**. This could be particularly useful for engagement with trade union and worker representatives, which has proved challenging for TIs but where the larger investments (TPI and POID) may be able to facilitate contacts where relevant.
2. **ESRC should reflect on what the expectations are regarding environmental and social governance for investments**. At present, the investments are relying on university policies to ensure standards are met with regard to these issues. ESRC should consider whether this is sufficient and appropriate, or whether there should be an expectation that investments reflect on any context or implications specific to their area of research and develop more formal plans on how to put these into practice.

4.2. Impact evaluation

The key unique added value of PIP is twofold: its multidisciplinary approach, bringing together research conducted on productivity across disciplines in the UK; and its efforts to improve the accessibility of productivity research. In terms of knowledge production, the novelty of PIP research appears to stem more from how it builds on and repurposes existing research than the creation of fundamental data and concepts, though some research from PIP may do this too. Its multidisciplinary

conceptualisation has elevated the topic of productivity by connecting all research on the subject and helping to reduce fragmentation.

PIP's multidisciplinary approach and synthesis of disparate evidence also makes productivity research more accessible and relevant to business and policy stakeholders: The twofold aims of PIP are synergistic. PIP investments have also pursued accessibility more directly as well, through engagement activities and creating outputs accessible to non-academics, including the general public. However, there is a mixed picture on coordination across the different parts of the investment. Although there are some positive examples of cross-investment working, wider stakeholders would like to see more coordination across PIP as a whole to further strengthen this synthesis and convening function.

The quality of research conducted by TPI and POID is internationally excellent: This is demonstrated by the bibliometric evidence, and supported by international stakeholders, who view PIP research as excellent. UK academic stakeholders, however, did not view PIP research as ground-breaking and felt the value of PIP was largely through bringing together disparate evidence as set out above.

Though the **PIP has contributed to UK capacities and capabilities** for productivity research, the extent to which these impacts are enduring is unclear at this stage. A gap in UK productivity research generally, which PIP could perhaps help publicise and address, is the state of access to key UK productivity data – particularly from ONS and HMRC.

Turning to policy impacts, **TPI and POID have demonstrated examples of delivering high-quality, relevant and actionable policy recommendations around productivity** through active engagement with regional and national stakeholders, participation in expert panels and commissions, and contributions to parliamentary committees. The PIP has had an impact on how productivity is understood by policymakers to some extent, as evidenced by the shift in perception and understanding of productivity that can be partly attributed to PIP. The PIP has contributed to enhancing the understanding of productivity among policy and business stakeholders, contributing to a more informed public discourse on the topic.

The **PIP has had a moderate impact on the capacity and capability of policymakers** to engage with productivity research, as well as on researchers' capacity to produce policy-relevant research. This impact is evidenced through various changes in the nature of engagement between policymakers and productivity researchers, as well as through the creation of a shared language and the establishment of a central point for directing enquiries. However, the integration of productivity into policy practice may be limited by external factors and challenges in communication, visibility and the scope of certain policy stakeholders.

In terms of business engagement, the **interaction between PIP and businesses has primarily involved TPI**. This engagement has taken place primarily through the eight Regional Productivity Forums organised by TPI, and engagement with intermediary organisations. POID activities have also involved engagement with some businesses, but this appears to be, by design, much more occasional.

Overall, evidence indicates that **engagement with the programme has been beneficial for businesses**, **improving understanding of productivity** both within intermediary organisations and the businesses that these organisations work with. The programme also helped **to create structures and increase opportunities for engagement** between productivity researchers and organisations, businesses and other industry stakeholders.

We did not find evidence of new specific interventions identified by the programme that business leaders or industry bodies could take to improve productivity (or other tangible impacts of engagement). However, the design and delivery of the programme is evolving over time to support business needs more closely, increasingly focusing on more practical ways to engage SMEs.

Based on these conclusions, we identify **the following recommendations**:

- **Maintain a focus on the key strengths of the investment: Multidisciplinary and making evidence accessible**. These are the differentiators of the programme and are well aligned with both the programme level and the overarching SPF fund level aims. These should remain a focus to best enable the investments to deliver on their aims and widen their impact.
- **Improved coordination**: Following the recommendations set out above in the process evaluation – would enable PIP to better build on and leverage its strength as a 'hub' for knowledge on productivity across disciplines and sectors, which external stakeholders would value.
- **Access to data** is outside the control of ESRC and PIP but both could look to advocate for improved accessibility to ONS and HMRC given their role in the ecosystem.
- **Position research for use and be agile in a changing political landscape**: Implementation and uptake of research evidence into policy is dependent on wider political, economic and social factors. The PIP investments need to continue to think about how to best position their research for use, maximising their potential for uptake given this wider context, while recognising some of these factors may be outside their direct control. This will involve continuing to map and review the landscape and ensuring targeted communication and relationship building with key stakeholders, who may change over time. We see evidence that the investments have the potential for this agility, and this will be crucial over the remainder of the investment to ensure a continued role and influence in the policy landscape.
- **Consider how to translate increased engagement and knowledge of businesses into more tangible actions they can take**: This may be something that starts to emerge as research continues to progress and given ongoing work that is more closely aligned to the needs of SMEs and others. The increased level and frequency of engagement with stakeholders is an indication that this is taking place, and stakeholder RPFs are viewed as a key mechanism also, with suggestions that increasing the frequency of RPF meetings may be helpful as work progresses.
- **Use TPIs networks to help facilitate business impact across PIP**: TPI is a hub for interaction with industry. These networks and relationships should be leveraged to enable the thematic investments to engage effectively with business stakeholders and hence maximise the impact of PIP as a whole.

Annex. Interview protocols

A.1. Interview protocol (Thematic Investments)

PIP Governance

1. How effectively do you perceive the productivity programme and its component investments to be run? *(Prompt: what aspect of the programme, or investment's governance is enabling, or hindering, the delivery of the programmes' objectives?)*
2. How well has ESRC governed the programme and run the delivery of thematic investments?
3. How, if at all, have relationships been built between ESRC, thematic investments and wider SPF/UKRI governance bodies? How have these relationships developed from commissioning to the delivery of your project?
4. How effective are PP's governance structures at preventing overlap between the research agendas and priorities of the investments? (*Prompt: how effectively are the investments communicating and coordinating with each other to prevent overlap and foster synergies?)*
5. How well was the commissioning process governed and managed? How well were the strategic objectives of ESRC conveyed into the call for proposal and broader commissioning process?

Stakeholder engagement

1. How is your project engaging with a) businesses b) policymakers (e.g. events, bilateral meetings, content production, RPFs, etc.)? How has this engagement shaped your projects' priorities?
    a. Can you give examples of how business engagement has shaped the operation and priorities of your project?
3. How, if at all, are barriers around working and engaging with firms being overcome?
4. How, if at all, do engagement approaches differ for policymakers in Whitehall, regional and devolved authorities, or international?
5. How were policy and business stakeholders involved in the commissioning process? How were their priorities fed into the call design, implementation and selection of awardees?
6. What examples do you have of how engagement with trade unions and workers' representative groups have shaped the research priorities and outputs of PP? (*Prompt: has PP or any of its*

investments collaborated with TUs and workers' representative groups to produce research outputs or host events? Could you provide examples?)

a. How does your project engage with TU and worker representative stakeholders? (*Prompt: what structures are in place to facilitate the engagement with TUs?*)

Complementarity

1. What is the purpose of thematic investments and why were they added? How were they intended to complement and support each other? And how did this work in practice?
2. How effectively have thematic investments, (and if relevant), POID and TPI worked together to avoid overlaps and facilitate synergies in their work? (*Probe: what examples are there of initiatives to prevent overlap and foster research synergies?*)
3. How do you see thematic investments' areas of focus working together as part of the productivity programme?
4. How effective has ESRC been in fostering collaboration and preventing overlap between the work of thematic investments, POID and TPI (*Probe: specifically, what examples are there of ESRC initiatives to prevent overlap and foster synergies?*)
5. How effective have ESRC programme level oversight bodies been (e.g. Executive Team, the RPF, board of research agendas, advisory board, etc.) in fostering collaboration between thematic investments?
6. How, if at all, have thematic investments, TPI and POID used each other's stakeholder networks to expand their stakeholder engagement and research dissemination work?
7. To what extent are thematic investments, TPI and POID working as part of a single programme with a common set of aims and objectives?

MEL

1. Do you find the monitoring, reporting and evaluation processes for PP proportionate and appropriate?
2. How have MEL processes changed as the thematic investments are being delivered?
3. How effective are PP's internal monitoring, evaluation and learning processes at capturing feedback and suggested changes to investments?
    a. Can you highlight any examples of changes as a result of feedback from MEL processes, beyond those mentioned above?
4. Are there other important MEL processes we should be aware of?

Flexibility and Adaptability

1. Has your project made any key adaptations or changes; how well have these changes been implemented?

2. To what extent, and how has your project adapted to the changing political landscape and priorities? (*Prompts: Brexit/Levelling up agenda/changing government priorities*).

Skills and capacity development

1. How are junior researchers and RAs being supported in your project? (*Probe for: are there any examples of training initiatives?*)
2. How are broader research skills being developed to engage with wider stakeholders in policy and business? Can you provide any examples of new fellowships or PhDs?
3. What approaches have been taken to develop the capacity of business and policy stakeholders to engage with your research evidence? How well are these working?

Mobilising existing knowledge and wider research community

1. How has the project mobilised existing knowledge about productivity from across the UK and internationally?
2. Has the project collaborated with, or contacted, previous productivity-related research and investments (PIN, etc.).
3. To what extent is the project engaging with non-economics researchers and producing interdisciplinary outputs?

ESG

1. What has your project done to promote equality, diversity and inclusion? How, for example, have marginalised groups been included in the project? (*Probe for: gender, socio-economic and ethic equality.*)
2. How has EDI and productivity been targeted as a research theme? Was this always a priority for the project, i.e. during the commissioning process?
3. Similarly, how has environmental sustainability and net zero been dealt with as a research theme?
4. What steps, if any, has the project taken to ensure that staff and people are well managed?
5. Similarly, how is good people management considered around impacts in business, policy, academic impact?

Early impacts

1. To date, are there any examples you can provide of early impacts resulting from your project? Are there any interim results that you can share with us? (*Probe for: impacts relating to research and policy.*)

A.2. Interview protocol (Researchers)

1. Could you please provide an overview of your current role and background?
2. Have you heard of ESRC's Productivity Institute Programme? And if so, what is your understanding of it? (If interviewee has not heard of the programme, ask if they have heard of either TPI or POID. Then explain that TPI and POID have been funded by the ESRC as part of the Productivity Institute Programme.)
    a. [If so] What are the challenges and benefits that you are aware of? Challenges and benefits the PIP has tried to address? Challenges experienced by the PIP and benefits it has delivered? Were you involved with the programme at any stage? If so, how? Have you engaged with any of the programme stakeholders? If so, how?

Research quality

We are interested in hearing your perspectives on the quality of the PIP's research and by proxy, its impact on UK productivity research more broadly.

1. In your view, how has the quality of productivity research in the UK changed since the inception of the PIP? (*Probe for: quality and volume of publications; relevance and originality of research; collaborative and multi/interdisciplinary research; research recognition within the UK research community.*)
2. How does the quality of productivity research in the UK compare internationally? (Quality relating to the probes in the previous question.)
3. In your view, to what extent do you think the UK's international reputation in productivity-related research has increased since the inception of the PIP? (*Prompts: To your knowledge, has this led to any new partnerships or collaborations between the UK and international research organisations?*)
4. To what extent are the changes we've discussed related to UK productivity research attributable to the PIP?
    a. To what extent has the PIP led to new publications and citations?
    b. To what extent has the PIP enabled the UK to produce new, relevant and original research? Can you cite any note-worthy instances?
    c. To what extent has the programme enabled multi/interdisciplinary research? Can you cite any instances or evidence for this?
    d. Can you provide any examples of international collaborations resulting from the programme in relation to productivity research?

UK evidence base

Instructions for interviewer:

This section aims at understanding the interviewees' perceptions related to the impact the programme has had on the UK's evidence base pertaining to finding solutions for UK-wide and regional productivity.

1. In your view, how has the UK's understanding of productivity challenges improved?
2. Can any of these changes be attributed to the PIP?
3. From your perspective, how relevant and novel are the topics addressed by the programme's research in comparison to the existing UK evidence base? Are there any outputs from the programme that you are aware of, that you find particularly innovative or worthy of note? (*Probe for: UK-wide and regionally.*)
4. Can you highlight any new datasets or tools developed as a result of the programme that have contributed to UK-wide and/or regional productivity research?
5. (For RPFs) Are you aware of any research projects or pilot schemes that have been funded through Regional Productivity Forums? If so, are there any of note? Roughly how many have been funded?
6. (For RPFs) Are you aware of any Regional Productivity Forum submissions of evidence to the Productivity Commission?
7. In your view, to what extent has the programme's contributions to the UK's productivity evidence base translated into practical solutions for the UK's productivity challenges (if at all)?

Programme-level collaborations

Instructions for interviewer:

This section aims at understanding the interviewees' perceptions related to the collaborations formed by the PIP and wider research and innovation priorities/opportunities.

1. Are you aware of any examples of collaborations or partnerships that the PIP has established both within and beyond its own initiatives? (*Probe for: What opportunities have emerged as a result of this collaboration? (if relevant); Are there any examples of collaborations between international networks?; Do you know whether these partnerships/collaborations align in terms of research and innovation priorities?*)
2. In your view, are there opportunities, areas or particular collaborations/partnerships the programme should consider linking with in the future?

PIP's impact on academic capability and capacity

1. In your view, to what extent has the PIP had an enduring impact on academic capability and capacity for productivity research? (*Prompts: number of new PhD candidates; number of new placements, internships and fellowships; examples of follow-on funding for further productivity research; quantity and quality of next generation researchers; new research facilities; new datasets and resources.*)
2. In your opinion, how sustainable are the improvements made by the programme in building academic capability and capacity?

3. Are there any areas within academic capability and capacity that you feel the programme should or could further impact or improve on?
4. What would have happened without the PIP – what might be different?
5. Are there any additional comments or points that you'd like to make, which we haven't touched upon already?

A.3. Interview protocol (Policy stakeholders)

1. Could you please provide an overview of your current role and background?

PIP

1. Have you heard of ESRC's Productivity Institute Programme? And if so, what is your understanding of it? If interviewee has not heard of the programme, ask if they have heard of either TPI or POID. Then explain that TPI and POID have been funded by the ESRC as part of the Productivity Institute Programme. [If so] What are the challenges and benefits that you are aware of? (*Prompts: challenges and benefits the PIP has tried to address; challenges experienced by the PIP and benefits it has delivered.*)
2. Were you involved with the programme at any stage? If so, how?
3. Have you engaged with any of the programme stakeholders? If so, how?

Policy recommendations

1. Are you aware of any policy recommendations that have come as a direct result of the PIP? If so, to what extent do you think these recommendations are relevant and actionable? (*Prompts: Can you provide specific examples?; Have you or colleagues cited any of the PIP's research in policy work?; Have you often come across research outputs from the PIP that specifically involve policy recommendations?; Are you aware of any policy briefs published by the programme, that have been useful in shaping policy decisions or informing policymakers?*)

Policymaker knowledge

1. Has there been a notable shift since 2019 in how productivity is perceived in policy discussions?
2. To what extent have you engaged with the PIP's research outputs? If so, how has your understanding of productivity evolved since doing so? (*Prompts: Can you highlight specific insights from the PIP which have influenced the way you consider productivity in policy practice?*)

Policymaker capability and capacity

1. Have you noticed a change in the nature of engagement between policymakers and productivity researchers? And, to what extent do you think these changes are attributable to the PIP's outputs (if at all)? Do you feel more or less equipped to engage with productivity research as a result of the PIP? Can you provide examples of PIP initiatives which led to this change in preparedness? Do you think the PIP has improved the capability of productivity

researchers to engage with policymakers and policy-relevant research? If so, how? Can you give examples? Have yourself or colleagues had the chance to engage with PIP researchers through mechanisms including secondments and consultations? How have these interactions shaped the relevance and applicability of PIP research outputs? Are you aware of PIP policy fellowships? If so, what are your views on these? To what extent are they novel, and how effective are they?

2. Can you provide any noteworthy examples of policymakers engaging with productivity researchers from the PIP? (*Probe for: What was the context of the engagement? How effectively did the two parties engage with each other? What was the outcome?*)

3. From your perspective, how sustainable over time is the relationship between policymakers and PIP researchers? (*Probe for: What measures should be taken to enhance the sustainability of this relationship?*)

Closing

1. Are there any specific areas where you believe the PIP can further enhance its impact on influencing policy decisions and align with the needs of policymakers?

2. Are there any additional comments or points that you'd like to make which we haven't touched upon already?

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