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CATALYST FOR CHANGE

Transformative and Inclusive Strategies in Social Science Commercialisation

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EXECUTIVE SUMMARY

This report examines how inclusive innovation can be embedded within the commercialisation of social science research across UK higher education, at a moment when the UK government has positioned research commercialisation as central to its growth and innovation agenda. Mainstreaming inclusion within this space is presented not simply as a matter of fairness, but as a means of ensuring that the products, partnerships, and markets generated through university research reflect the full range of the population they are meant to serve. Where inclusion is absent from the design and commercialisation of research, the report argues, the resulting innovation is not neutral but incomplete. In particular, certain needs go unaddressed, certain markets go untapped, and certain researchers (disproportionately those from marginalised and minoritised backgrounds, and those working outside STEM) are left outside a system that increasingly determines institutional and individual value.

The report situates this argument against a longer history of marketisation in UK higher education, in which funding models have shifted since the 1990s, and particularly since the 2008 financial crisis, away from public financing and towards structures that reward institutions unevenly (Carpentier and Pickard, 2023; Carpentier, 2024). Within this environment, disciplines outside STEM, i.e. including the social sciences, arts, and humanities, face a persistent risk of being read as less relevant to the innovation and growth agenda, despite evidence that they play a distinct and necessary role. Identifying end users, translating technical advances into usable products, and opening markets that a narrowly technical approach to innovation would otherwise miss is needed.

The report draws on a substantial body of evidence examining how gender equality relates specifically to innovation capacity, from higher patent and research output where gender is accounted for in design (Schiebinger, 2014) to macroeconomic estimates of the growth foregone through women's continued underrepresentation among researchers, inventors, and entrepreneurs (European Commission, 2025; United Nations University, 2025). At the same time, the report is attentive to the limits of representation alone, noting that novel contributions from minoritised researchers are often undervalued rather than rewarded, a caution against assuming that diversity converts automatically or evenly into recognised innovation.

To understand how inclusion might be practically built into commercialisation processes, the project designed and delivered a series of three Open Studio workshops. These are participatory, design-thinking-based sessions in which stakeholders across the university innovation ecosystem work collaboratively to translate research findings into actionable strategy (Callerstig et al., 2024). Structured around the Diamond Design Model, each workshop moved participants through a divergence phase using persona-based exercises to build empathy with three composite academic profiles and surface both individual and structural barriers to participation, before converging on granular, prioritised actions organised around what change is sought, who is responsible, and what support, resources, evaluation, and revision each action requires. Recruitment of participants drew on social media outreach,

snowballing, and direct approaches to individuals identified through UK higher education institutions' own innovation and technology transfer functions.

Findings from the workshops point to a consistent set of concerns across the three workshop participant groups. One group prioritised strengthening the link between UKRI and national growth strategy, calling for sustained funding for SHAPE-discipline ventures and clearer recognition of non-traditional routes to spinout and commercialisation. A second group focused on the practical infrastructure of evidence: better sector-wide data collection, shared reporting mechanisms, and senior institutional buy-in to support evidence-informed change. A third group centred social capital, recommending clearer language around innovation, stronger recognition of commercialisation within academic career pathways, and the creation of role-model databases to build familiarity and confidence among underrepresented researchers. Across these differing emphases, three barriers to participation and engagement emerged as most salient overall: time, communication, and access to networks and funding, with strong senior leadership support repeatedly identified as the catalyst that unlocks resource and institutional attention on behalf of underrepresented groups.

The report concludes that higher education institutions need to take active leadership in facilitating collaboration between the range of stakeholders who shape the innovation ecosystem, if commercialisation is to become genuinely accessible to researchers working in non-traditional areas. It counters a narrative in which social sciences, arts, and humanities are peripheral to the UK's innovation and growth ambitions, positioning them instead as disciplines uniquely positioned to translate technical advances for the users and markets that a narrower, more technically-focused approach to innovation tends to overlook. Ultimately, the report frames inclusive innovation not as an optional add-on to the commercialisation agenda, but as a condition of its long-term relevance and reach.

1. INTRODUCTION

Recognition of the economic benefits of inclusion has led to an increased interest in the role of equality and inclusion in unlocking the potential of research commercialisation and innovation to reach new markets and socio-economic groups. Over the last ten years, inclusive innovation has thus become a vehicle for fostering a more equitable approach to economic growth. Whilst all the work to date has identified key opportunities for inclusion of traditionally under-represented groups, there remains significant obstacles in the operationalisation and mainstreaming of equality and inclusion in the innovation space (Vorley et al, 2023; Parsons, et al, 2026). Building on previous work on inclusive innovation, which points to a significant lack of diversity and inclusion in the innovation and commercialisation ecosystem (Vorley et al, 2023), this report examines the ways in which inclusion can be integrated within research commercialisation.

Inclusive innovation in the context of research commercialisation has been understood in a fairly narrow way, i.e. as the diversity in epistemic knowledge that is produced by universities and other partners within society, the local community or government. Inclusive innovation awards from UKRI define inclusive innovation as:

We define an ‘inclusive innovation’ as one that has been designed and developed with diversity, equality and inclusion in mind. These innovations are either purposefully designed for the broadest range of users, or they offer specific solutions for people who are usually excluded. (Innovate UK, n.d.)

This kind of diversity insists on the importance of collaboration, co-design, and co-production. Inclusive innovation has thus been understood within the confines of sustainable development, the progress of which has been dependent on what Pereira et al. (2023) term ‘interaction relations’, that is open innovation as a flow of both internal and external knowledge, and the existence of a subsequent degree of co-creation that might lead to potential future innovation (Oliveira et al., 2024).

In the context of this project, inclusion is defined as a process that seeks to remove barriers to the participation and engagement of minoritised and marginalised groups in innovation, research and commercialisation activities. We thus focus on structural obstacles and barriers that directly impact different groups and their ability engage within the innovation ecosystem.

Mainstreaming inclusion in the innovation space has the potential to create opportunities for growth in the UK economy and aligns with strategic ambition of the government to develop the UK into a centre for innovation and technology, with university research at its heart. The commercialisation of social science research has the potential to benefit both the university sector and wider society in ways that a narrow focus on technology overlooks. Developing a framework for integrating inclusion in the innovation and commercialisation space, particularly with a focus on social science research, has the potential to be a driver for economic growth;

an element which formed one of the key political objectives of the Labour party prior to their accession to government in July 2024 (Tobin, 2024; The Labour Party, 2024).

This report identifies three key benefits of widening the range of disciplines involved in research commercialisation and innovation activities:

- » Inclusive innovation expands the reach and impact of university research, fostering a more significant societal influence and impact
- » Enhanced collaboration with diverse stakeholders in the innovation process can lead to richer insights a more robust solutions, benefiting both the higher education sector and external partners.
- » Universities actively contributing to inclusion innovation enhance social cohesion by providing novel solutions to longstanding societal problems.

Innovation is important for the future of the higher education ecosystems as it establishes an increasingly important link between higher education and social needs, and of course, societal impact. Within this context, inclusive innovation brings diverse perspectives and needs into the innovation process, leading to the development of solutions that address a wide range of social and economic interests and needs. Moving beyond the business case for equality and diversity in business (Youth Futures Foundation, 2025; McKinsey & Co., 2015), inclusive innovation allows researchers to reach new and more diverse audiences, thus driving economic growth, creating opportunities for businesses and industries, and changing lives on a larger scale (Oxford Brookes University, 2025).

Inclusive innovation is not only a matter of increasing economic growth; it is also important to consider how promoting inclusive innovation in the commercialisation of social science research can be beneficial to society in a number of ways. It further enhances the applicability of science to wider society by embedding the interests and knowledge of diverse researchers and diverse stakeholders within research and innovation partnerships; the eventual product or research is more relevant to society as it embeds diversity from the outset. Inclusive innovation ensures that the benefits of research are distributed more equitably, reducing disparities and making advancements accessible to all. Solutions derived from inclusive innovation can contribute to social progress by addressing societal challenges, fostering inclusivity, and promoting sustainable development.

2. INCLUSIVE INNOVATION IN HIGHER EDUCATION

The expansion of higher education in last sixty years has introduced new stakeholders with influence on the kind of research and innovation taking place within universities. In the United Kingdom, this transition has translated into an increased marketisation of the sector since the 1990s (Carpentier and Pickard, 2023). This shift has had an impact on the priorities and focus of research within HEIs, much of which has been driven by changes in funding structures and mechanisms at the national and international level. Trends in public funding for universities in systems like the UK and France shifted throughout the course of the last century and most notably due to the financial crisis in 2008, which accelerated such trends away from publicly funded institutions and towards private financing models (Carpentier, 2024). In the context of the UK, like in other countries, changes to university models have arguably produced tensions between funding and expansion, resulting in ‘an increasingly unequal institutional differentiation in terms of funding, staffing and social stratification’ (Carpentier, 2024; Carpentier and Pickard, 2023).

The rise of the innovation and commercialisation agenda within the University sector needs to be understood within this broader context. Whilst innovation and commercialisation have long been part of the STEM¹ disciplines with a clear pathway to market for the development of medical and technological solutions, SHAPE² disciplines have largely been under-represented within the evolving ecosystem. This is in part the result of the ways innovation and commercialisations have been framed, with a bias in favour of technology transfer, as well as deeply rooted disciplinary preferences for more relational knowledge transfer activities in the social sciences, arts and humanities (Perkman et al, 2013; Amry et al, 2021; Olmost-Pñuela et al, 2014). The rest of this section will explore these issues in more detail, as well as the evolution of the idea of inclusive innovation.

2.1 The Growth of Innovation as part of the HE ecosystem

University systems across Europe and North America have responded to stagnated and decreasing allocations of public funding through an increased focus on innovation and commercialisation activities (Williamson, 2024; Geuna & Muscio, 2009). This so called ‘third mission’ necessitates the exploitation of research and the development of partnerships between university researchers and external stakeholders and the development of such partnerships for mutually beneficial outcomes. A movement towards similar activity is also a ‘highly policy-driven topic as governments seek some payback for their investment in

¹ STEM is used to group together disciplines falling under the umbrella of Science, Technology, Engineering and Mathematics.

² SHAPE groups together social sciences, arts and humanities. Following the British Academy definition, the acronym stands for Social Sciences, Humanities, Arts for the People and the Economy.

university science through commercialisation, with spin-offs as a highly visible aspect' (Caputo et al., 2022, p.2000).

The term '**innovation**' itself has a plethora of interpretations. Whilst innovation in mission-critical university agendas like teaching and research might signal better development in student-centred learning and eventual student outcomes, innovation is not solely the remit of traditional academic focus. As universities move towards a 'third mission' in attracting funding and maintaining financial liquidity, 'innovation' is also distinctly connected to the innovative ways in which research might be used within the public sphere, often with private sector and external partners, thus demonstrating the impact of academic research within wider society.

Entrepreneurial and enterprising activities have been fostered by and through UK universities in several different ways. University Enterprise Zones (UEZ) are 'specified areas where universities and local business work together to boost productivity, growth, innovation and investment, adding value to local enterprises and business' (Universities UK, 2023), with 23 of them in current operation (2025), across England encompassing different university management and operation structures, and each with different specific specialisms. In addition to UEZ's universities also engage with entrepreneurship and innovation through a variety of other means of localised provisions, such as Technology Transfer Offices (TTOs), research commercialisation hubs, entrepreneurship and innovation training schemes and individual university links with industry and the private sector. Universities also form strategic innovation and entrepreneurship relationships on disciplinary or field-related boundaries; the SHAPE catalyst and ARC accelerator programmes³, for example, bring together academics from different universities working in different fields to provide cross-university training and guidance on innovation activity.

2.2 Inclusive Innovation – A Sticky and Complex Concept

Whilst innovation is rapidly evolving within universities and the local ecosystems within which they operate, the notion of what 'inclusive' innovation means in the higher education setting is, as yet, understudied and under researched. The idea that innovation can be, or should be, inclusive is a relatively novel distinction, seeking to develop technological solution by created by and for groups traditionally under-represented in the research and innovation ecosystem.

This shift in focus aligns with the sector's increased concern with diversifying both the talent pool of academics from marginalised and minoritised backgrounds, but also by increasing the breadth of the population who are engaged with, and integrated within, higher education.

³ ARC is an accelerator for research translation and university led ventures. More details about ARC can be found here: <https://arcaccelerator.io/>. The SHAPE Catalyst is a partnership between ESRC, AHRC and ARC to increase research commercialisation activities in the Social Sciences, Arts and Humanities. More details about this initiative can be found here: <https://arcaccelerator.io/shape-catalyst-announcement/>.

Sector-wide approaches have therefore focused on both national policy frameworks, institutional strategies and accreditation with reference to inclusion.

In this context, inclusion has been defined as a process for widening participation:

‘inclusion embraces the concepts of awareness, acceptance, respect and understanding. Inclusion is defined by equal opportunity to participation. Each individual must be valued for his or her distinctive skills, experiences and perspectives’ (Thompson, 2017, p.2).

However, the term ‘inclusion’ has proven to be a somewhat sticky concept, with varying applications in different settings. As Knight et al., (2022) demonstrate, even within the realm of education an understanding of inclusion is far from ubiquitous. Whilst inclusion ‘is seen as the best way of addressing the increasing diversity (across a variety of dimensions) of student populations and of creating more equitable, healthy, prosperous and sustainable societies for the future’ (Knight et al., 2022, p.495). What this means is that the parameters within which inclusion can be monitored, considered and structured are largely open to interpretation depending on context.

Recognition that technological innovation requires a move towards a “one-size-fits-one” model has also led to calls for diversifying research teams in order to ensure the broadest possible representation from conceptualization to delivery⁴. However, significant barriers to participation and inclusion in higher education remain in place in 2025. As noted by Filippou et al. (2025, p. 2) ‘higher education has not been accessible to ethnic and racial minorities, women, people with disabilities and people with a working-class background, [highlighting] that there is still a long way to reach full inclusion in higher education’.

Inclusive innovation exists within the nexus of research, with some industries interpreting inclusive innovation advances in technology that will help diverse users, whereas other envisage this as building inclusion into the framework of innovative practice. As such, inclusive innovation is either related to the design, facilitation and formation of innovation, or it is related to the product and outcome or service. As Parsons et al., (2024, p. 314) note: ‘Though inclusive innovation is a term that covers a variety of approaches—varying from a participant to outcome focus, and extending from pro-poor innovations to grassroots innovations—the central idea is to consider a wider set of participants in innovation practices and a wider set of beneficiaries from innovation projects and investments (such as innovation districts at the city-region scale)’.

⁴ For examples of inclusive innovation please see the work of the Inclusive Design Research Centre (<https://idrc.ocadu.ca/>).

2.3 Gender and Inclusive Innovation

Gender is perhaps the one area that has received some attention in terms of inclusive innovation. Current research shows that gender equality is not just a social goal but also a driver of innovation capacity and links to what we already understand about broadening diversity within innovation mechanisms (Díaz-García et al., 2013; Nielson et al., 2018). For example, Restrepo et al (2021) argued that greater proportion of women on teams may enhance ‘the sort of creativity that favours innovation and encourages R&I teams to develop projects that involve important social changes’ (Restrepo et al., 2021, p. 3). Conversely, by neglecting gender-based considerations, or failing to integrate a gender sensitive perspective, societies run the risk that critical market opportunities, which might have widespread applicability, are missed. The creation of new products and services may also be inappropriate or miss the mark if they fail to fully implement a gender-based approach in the research, design and dissemination stages of the innovation lifecycle. Much of the evidence and analysis currently available draws attention on the economic benefits of gender inclusion in the research innovation and commercialisation. Whilst we recognise this to be a key driver for investment, it is important to note that such an approach ultimately commodifies equality.

Data from across global contexts reveals persistent gender gaps when it comes to innovation. Women comprise only about one-third of researchers globally, ‘a ratio that has demonstrated minimal variation over the past decade’ (UNESCO, 2024, p. 2), and a similarly low share of inventors and entrepreneurs. In Europe, for instance, **only 9% of patent inventors are women, and 98% of research projects fail to integrate any gender dimension** and there is significant cause for concern that gender equality in research and innovation not progressing fast enough (European Commission, 2025). This underrepresentation reflects deepening inequalities in who conducts and benefits from innovation, and it also signals lost opportunities for creativity, innovation in product and service design, and in market growth.

In 2014, Londa Schiebinger demonstrated that integrating sex/gender analysis in science and engineering leads to better research and technological outcomes across fields. She thus advocated for ‘integrat[ing] sex and gender analysis into all phases of basic and applied research to stimulate new knowledge and technologies. In so doing, Schiebinger (2014, p. 9) calls for gendered innovations in order to enhance creativity, innovation, and gender equality⁵. As European Commissioner for Research, Innovation and Science, Máire Geoghegan-Quinn explained ‘**gender analysis contributes to excellence; it stimulates new knowledge and technologies; opens new niches and opportunities for research teams and results in products and services that all members of society need and demand**’ (Schiebinger and

⁵ More detailed information about *Gendered Innovations* is available here: <https://genderedinnovations.stanford.edu>

Klinge 2013). In economic terms, it has long been recognised that excluding women from innovation is ‘bad for business and the economy’ (United Nations University, 2025). According to a 2025 Report by the United Nations University, the unequal access and exclusion of women from digitalisation and the growth of digital technologies has impacted the GDPs of low-income and middle-income countries significantly, ‘to the tune of a loss of \$1 trillion’ (United Nations University, 2025); without significant action, this existing loss could grow to \$1.5 trillion by the middle of the decade (United Nations University, 2025).

The power of closing gender gaps within innovation ecosystems holds enormous potential. A report by the World Economic Forum (2018) showed that by equalising women’s workforce participation and productivity alongside that of men had the potential to ‘increase GDP by an average of 35 percent’ in countries within the bottom part of their sample (World Economic Forum, 2018.) Similarly, McKinsey & Co. (2016) have also demonstrated how ‘Bridging the UK gender gap in work has the potential to create an extra £150 billion on top of business-as-usual GDP forecasts in 2025 and could translate into 840,000 additional female employees’ (McKinsey & co., 2016, p.6).

Several global frameworks have thus emerged to promote gender-inclusive innovation. Schiebinger (2014) *Gendered Innovations* discussed previously provides case studies and methods showing how accounting for sex and gender can spark discovery. For example, an often-cited case is the redesign of the standard three-point seatbelt: although invented in 1959, it was only in 2002 that a woman engineer (Laura Thackray) developed an adaptation for the bodies of pregnant women, addressing a safety need male engineers had overlooked. Automotive safety devices such as seatbelts were originally designed around the bodies of men; Thackray’s work exposed the need for gender-inclusive safety design in engineering (Schiebinger, 2010). Such examples illustrate how inclusive designs have greater relevance and applicability to wider societal markets and can be more impactful, in this case within a life-saving scenario. Likewise, the concept of inclusive innovation in policy circles stresses that products and services should reflect diverse user needs and avoid bias, often advocating a gender mainstreaming approach.

Global organizations have also pushed for structural change: UNESCO and the UN have both emphasised the importance of women’s empowerment in STEM, and the Sustainable Development Goals (SDG 5 on gender equality) include targets for women’s full participation in technology and innovation. The European Union now mandates that research institutions have Gender Equality Plans as an eligibility criterion for Horizon Europe funding, and most EU research calls require and/recommends a gender dimension embedded in project design. This policy shift embeds a gender perspective into the innovation pipeline and is seen as essential for research “excellence” and relevance (European Commission, 2025).

Inclusive innovation is increasingly viewed as both a competitiveness and a resilience issue. The World Economic Forum has warned that failing to harness diverse talent puts economies at risk commenting that ‘....despite decades of progress, investments in improving gender

parity, across multiple facets of society, remain constrained, imposing a hidden but heavy tax on global growth, weakening the very foundations of economic resilience.’ (World Economic Forum, 2025, p. 1). Inclusivity is therefore a powerful driver which enables societies to meet the challenges and needs of the new global economy. In emerging tech fields like artificial intelligence, a significant underrepresentation of women exists (Willage, 2025) which can the potential to hardwire biases into new products and the development of new large scale language models (LLMs). Ensuring women are equal stakeholders in design, innovation and implementation therefore not only has significance in terms of equity, fairness and equality but is a key determining factor in improving societal outcomes.

Whilst the focus of gender might seem limited, it is worth highlighting here as it has the most significant research base to support the positive impact of inclusion in the context of research commercialisation and innovation.

3. PERSPECTIVES FROM MANAGEMENT AND SOCIAL SCIENCES

Diversity and inclusion are often presented as straightforward facilitators of creativity and problem-solving in organisations, though this link is asserted more confidently than it is demonstrated. Kou & Olah (2025) use global data to show that gender equality correlates with higher innovation through greater access to finance, human capital, and labour participation, while Alegre et al. (2024) find that diversity in research and development teams correlates with greater innovation efficiency, especially in competitive and high-intensity contexts. Business research offers a similar picture: Deore et al. (2025) find that board gender diversity is associated with innovation ambidexterity, arguing that pursuing both efficiency and radical innovation "requires a board culture that exhibits openness, flexibility, initiative, and prudence (Tushman & O'Reilly, 1996), which is facilitated by board gender diversity" (Deore et al., 2025, p. 15). This body of work tends to treat gender diversity as a reliable input to better outcomes. Yet, as Humbert et al. (2021) caution, what looks like diversity when reduced to headcounts or proportions of women can obscure rather than reveal the underlying distribution of power, status, and opportunity within a team; a composition that appears balanced on paper may still concentrate seniority, tenure, and decision-making authority unevenly. The positive associations reported above are also largely correlational, drawn from contexts where gender balance may itself be a proxy for other organisational strengths (including resourcing, governance quality, or sector) rather than a direct cause of innovation.

Social science research complicates the picture further. Using demographic experience as a lens within inclusive innovation is often assumed to sharpen researchers' perception of user needs, but the relationship between diversity and reward is neither straightforward nor necessarily positive. Hofstra et al. (2019) have shown in *The Diversity-Innovation Paradox in Science* that scientists from gender and racial minorities produce higher rates of scientific novelty, but their contributions are often under-valued and under-rewarded in academic careers. Specifically, they argue that this is evidence of structural barriers to innovation that persist despite, not because of, the absence of diverse contributions. This mirrors the caution raised by Humbert et al. (2021) that composite measures of diversity can mask attrition and unequal representation at more senior or influential levels even where overall numbers look encouraging, and that such indicators are vulnerable to being "gamed" through superficial fixes (hiring a token senior woman, for instance) that leave the underlying gendered processes untouched. Research based on cultural and gendered social conditioning does point to the real blind spots in homogenous teams, and failures to account for diverse perspectives have been linked to underperformance and market adjustments; but the inference should run cautiously in the other direction too. The presence of diversity does not guarantee inclusion, nor does inclusion reliably follow from representation alone.

4. RESEARCH DESIGN AND METHODOLOGY

The current project adopted a design thinking approach⁶ to embed inclusivity within the research process from design through to delivery. We use the ‘Open Studio’ methodological design aimed at involving key stakeholders from across the innovation ecosystem in order to co-produce solutions to improve access and inclusion in this space (SUPERA, 2022). This approach draws on co-creation methodologies that fostered collaboration (Callerstig et al, 2024), creating a community of experts who were able to actively contribute to inclusive innovation in the commercialisation of social science research. The inclusion of stakeholders during all stages of the project ensures that diverse perspectives were considered and that the resulting recommendations and actions are more likely to be effective and impactful.

In order to understand how to approach and resolve central issues around inclusivity in University innovation ecosystems, we designed a series of three workshops. Sampling for the workshops initially utilised social media outreach and snowballing, most pertinently through LinkedIn as this is deemed a space where TTOs, entrepreneurs and other key members of professional services meet to discuss and share ideas around innovation.

4.1 What’s the Problem Represented to Be?

Drawing on Carol Bacchi’s ‘What is the problem represented to be?’ framework, we sought to establish who or what was identified as the “problem” to be fixed by current approaches to inclusive innovation. Bacchi’s framework is particularly useful in our analysis as it moved the question within policy research away from a problem-solving orientation and towards a problem-questioning paradigm, **asking not what the problem is, but what the problem is represented to be by actors within the field**. The approach considers the ‘deep conceptual premises’ within which a problem is discerned by understanding the underlying assumptions that are incorporated by the representation and construction of a problem (Bacchi, 2009, p. xvii). Bacchi’s theoretical understanding of problematization has gathered significant traction in social policy, law and politics and international studies but, as Tawell and McCluskey (2020) identify, has much lower adoption in the field of education, despite being regarded as highly appropriate to understanding the conceptual nature of key questions in the field. As such, we take the methodological contribution of Tawell and McCluskey (2020), recognizing the suitability for Bacchi in understanding problems within the broader systemic constitution of higher education.

⁶ Design thinking methodologies center the experience and participation of stakeholders in the development of products and services. In the context of equality and inclusion, design thinking invites stakeholders to share their experiences in order to identify problems and devise solutions. The ambition of this approach is to encode empathy, exposing hierarchies of power, and encourage participants to engage or experiment with innovative solutions (Lietka, 2021; Johnson & Pierre, 2021). Our approach draws on the Supera Project (<https://www.superaproject.eu>), including some of their tools, resources and participatory techniques.

4.2 The View from the Ground – Open Studio Design

The Open Studio approach consists of a collaborative and participatory workshop where stakeholders - e.g. TTOs, Directors of Research etc - come together to engage with and creatively respond to the results of the research phase. It serves as a platform for brainstorming, idea generation, and collective problem-solving.

The Open Studio is designed to be an interactive space where participants actively contribute their insights, perspectives, and expertise to shape potential solutions and recommendations. It plays a crucial role in translating research findings into practical and actional strategies to promote inclusive innovation. By establishing a dialogue between different stakeholders, the Open Studios will establish ownership over the solutions and fosters a sense of shared responsibility for implementing them, in turn increasing impact potential and engagement with the broader innovation community.

Open Studios combine inclusion approaches with design thinking. As Callerstig et al. (2024, p. 73) explain, Open Studios are "a people-centred approach that involves a collective effort to understand, experiment, and act in addressing challenges". Taking an inclusive approach means paying attention to individual and structural inequalities, as well as the contexts that shape particular outcomes. The inclusion lens is applied throughout the process, from analysis to the design of solutions.

Open Studios – Main Aims
Reflect on ethics and power relations between different stakeholders and participants.
Include the voices of minoritised groups to ensure diverse perspectives.
Emphasise structural inequalities rather than focusing solely on individual ones.

Open Studios extend the human-centred design approach by applying principles of design justice, creating equitable solutions that prioritise inclusion and fairness. Open Studios thus focus on:

- » *Diversity in beneficiaries: avoiding one-size-fits-all solutions.*
- » *Diversity in the design team: ensuring varied perspectives.*
- » *Diversity in solutions: embedding inclusion into the outcomes themselves.*

Collaborative research offers an opportunity to conduct research with people, rather than on them. It capitalises on participants' knowledge and abilities to act as changemakers. According

to Callerstig et al. (2024), collaborative research can tap into practitioners' tacit knowledge, increase their ability to address complex societal problems, outsider validation of research results, and produce research agendas that may assist in solving pressing societal challenges. This approach combines practical relevance with impactful research outcomes. Human-Centred Design and Bias Awareness Human-Centred Design is about bringing about change. It involves three steps: creating empathy for users to deeply understand their needs, prototyping to gain insights and refine ideas, and building tolerance for failure and ambiguity to foster innovation. However, bias can creep in at various stages, and it is therefore paramount for researchers to embed reflexivity about the research process. Key considerations, based on Costanza-Chock (2018: 233), include:

1. Designer	Who gets to design?
2. Beneficiaries	Who do we design initiatives for or with?
3. Values	What values are encoded and reproduced in the objects and systems we design?
4. Scope	How do we frame and scope design problems?
5. Sites	Where do we design, and how do we include marginalized sites?
6. Ownership and accountability	Who owns and profits from design outcomes, and how do we move towards community control?
7. Discourse	What stories do we tell about the design process?

In line with these principles, our Open Studios sought to provide a space for participants to evaluate their own practice, identify obstacles to inclusion and co-create solutions to foster the participation of under-represented groups in research commercialisation. The workshops were designed to be a participatory space that encouraged deep reflection of the needs and values of all stakeholders, particularly those from minoritised groups. The Open Studios structure was designed to encourage a focus on ethical considerations, equitable power dynamics, and meaningful engagement to produce solutions that are fair and sustainable.

Open Studios follow the diamond design model, which consists of two cycles: divergence, where perspectives are expanded to explore a wide range of ideas, and convergence, where the focus is narrowed to refine and implement impactful solutions. This iterative process ensures that creativity and practicality are balanced in the pursuit of meaningful change (Callerstig et al, 2024). For us, Open Studios are a step from research towards social innovation. This approach allowed to create a space for collaborative research as well as the creation of community of practice.

4.3 Sampling

A total of three workshops were conducted as part of the project. The workshops took place in May, June, and December 2025. The workshops had differing numbers of participants in each; 5 in May 2025; 10 in June 2025 and 9 in December 2025 (a total of n=24).

The inclusion criteria for participation was as expansive as possible and included TTOs or innovation experts interested in expanding the pool of researchers engaging with research commercialisation; researchers engaged in research commercialisation; research directors or Heads of School involved in innovation activities and; funders looking to explore options with researchers for increasing engage with impact activities.

People working in innovation roles were identified, e.g. TTOs, or those who had previous experience with innovation from an academic trajectory. This identification was performed by searching publicly accessible institutional websites for centres of innovation, technology transfers offices and details of successful ventures, spin outs or consultancies. A list was drawn up from publicly available data, searching within each institutional website of all HEIs in the UK in turn. Individuals were then contacting directly, inviting them to take part, and positive responses to the invitation were then included as participants in the eventual Open Studio workshops.

The participants in the workshops engaged in phased discussion about individual challenges faced by different academics who participate or might have expressed an interest in participating in research commercialisation. The structure of the exercise and agenda for the workshop is discussed in the next section of this report.

4.4 Content of the Open Studios

The process of an Open Studio workshop focuses on understanding the nature of a problem at a deeper level and then finding granular, specific strategies and practices which have the specificity needed to create impactful change to the identified problems. In this way, solutions are not only tailored to the specific nature of the problem identified but move away from surface level concepts and towards actionable insights. The workshops followed three key steps:

Step 1 – Building Empathy Through Personas and Defining the Challenges

Participants worked with three profiles of academics positioned at different stages of their journey and with differing needs in relation to commercialization. These profiles were introduced during the Open Studio workshops. Personas of this kind function as empathy tools: by inviting participants to respond as, or on behalf of, someone else, they create a degree of distance from participants' own position and lower the stakes of contributing, thus supporting the establishment of a more psychologically safe environment for reflection. Adopting a persona also serves to activate identities other than one's own, prompting participants to consider inclusive needs they might not otherwise attend to when reasoning from their own experience alone. The profiles were deliberately left underspecified in places, leaving room for participants to project elements of their own experience onto the persona rather than treating it as a fixed, external case. Participants recorded their response to each stage of the process on a Miro board, a format that also preserved the anonymity of individual contributions.

Having familiarised themselves with the personas, participants were asked to define the “problem” or “challenges” facing the different personas. This process is designed to help participants to develop empathy for each persona and their socio-cultural background. The facilitators encouraged the participants to think about the individual characteristics of each persona as an entry point for the discussion and then move to consider the structural dimension of social and economic exclusion.

This stage led to lively and engaged discussions within small groups and subsequently with all the participants together. For many of the participants this was the first time that they were able to think about the structural nature of inequalities in relation to commercialization of (social science) research and, in so doing, they were able to consider the wider implications for organisations, and ultimately inclusive innovation.

This phase represents the “divergence” dimension of the Diamond Design Model that underpins the Open Studio approach (Callerstig et al, 2024; Design Council, n.d). At this point of the process, participants are encouraged to share views, experiences, and ideas relating to the specific “problem” in question, which in this case were obstacles to participation and engagement with the commercialisation and innovation agenda.

Step 2: From Challenges to Solutions – The Lotus Blossom

Having articulated the challenges facing each persona, participants moved from problem definition to solution generation using the Lotus Blossom technique (SUPERA, 2022), a brainstorming method chosen for its simplicity, versatility, and visual impact. Working in small groups, participants placed the defined challenge at the centre of a nine-cell grid and generated eight initial ideas addressing it, each recorded on a sticky note and arranged around the central problem. Up to eight ideas were then carried outward, each becoming the centre

of its own surrounding cell, prompting participants to generate up to a further eight related ideas from each seed. In this way, a single defined challenge could expand into as many as sixty-four interconnected ideas, moving participants from a narrow starting point towards a broad, visually structured field of possible solutions.

Keeping groups small supported the same conditions of creativity and reduced inhibition established in the earlier persona and empathy-building stages, while the time-bounded nature of the exercise helped sustain energy and focus. As with the preceding divergence phase, groups first worked independently before sharing their completed Lotus Blossoms in plenary, allowing groups to react to and build on each other's ideas and generating further insight beyond what any single group produced alone.

This stage represents the "convergence" dimension of the Diamond Design Model. Where Step 1 opened up the problem space, surfacing the widest possible range of challenges and structural barriers facing each persona, the Lotus Blossom exercise directed that same generative energy towards a defined outcome, channeling participants' ideas around a single, agreed challenge into a concrete and structured set of solution possibilities. It was used marked the transition from exploring the nature of exclusion in commercialisation and innovation to actively shaping responses to it.

Step 3: Identifying and Prioritising Solutions

In the final stage of the Open Studio workshops, participants were asked to determine the specific, granular action which needs to take place in order for change to happen. These actions fall under six specific sub-headings:

- » *What change do you seek to make?*
- » *Who is responsible?*
- » *What support [is needed]?*
- » *What resources [are needed]?*
- » *What evaluation and monitoring [needs to be implemented]?*
- » *And what revisions [need to take place]?*

As the very last action within this stage, participants were then asked to place a 'star' beside the specific action that they feel needs to be prioritised in order for change to occur.

5. RESEARCH FINDINGS AND ANALYSIS

Participant responses were collected anonymously using the Miro board application. The board is structured across a number of interactive pages that allow participants to contribute their reflections, based on their substantive experience without being named. Analysis of the findings below takes two forms. From the outset, when we consider ‘supporting innovation and overcoming barriers to participation’ we do so drawing from responses on the landing page of the Miro board. These responses were then collated and thematically analysed using an inductive approach. This analysis was compiled using a word document due to the small-scale nature of the data. We report below on the substantive themes associated with the central idea of supporting innovation.

5.1 Supporting innovation and overcoming barriers to participation

In the Open Studio, participants were asked to focus on one of three personas and to work through responding to the following question:

‘Considering the unique background, challenges and aspirations of Amina/Sam/Ben how can the commercialisation of their work be better supported to address their specific needs and overcome barriers?’

The focus of the discussion on supporting commercialisation and innovation activity focused on several key areas, including:

- » Providing highly technical support for innovation and commercialisation of research (Developing specific knowledge),
- » Developing social capital among academics from underrepresented backgrounds (Developing social capital)
- » Centering an equalities mainstreaming approach.

5.2 Enhancing inclusive innovation

TTOs were identified as key institutional actors for widening participation in research commercialisation. Providing them with opportunities to act “as a bridge” facilitating access to external stakeholders as well as highly technical information and training.

Types of support they can provide and/or facilitate access to are:

Commercialisation of research	• Policy support; to support commercialisation model and expert advice on guidance • Legal support; Internal and external particularly during the process of spinning out; Visa support for academics from overseas. • Financial support; Bank set up for spin out can be a challenge; Support around funding sources e.g., IAAs, internal University innovation funding, philanthropic donors, crowdfunding, British Academy, ESRC, UKRI, Sustainable. • Development funding, UN, patient capital (deferred return), Big Society, Unlimited, Impact U, School for Social Entrepreneurs. • Operational support; Administration and financial management.
Developing social capital amongst academics from underrepresented backgrounds	Here, participants focused on connections to other people both formally (through mentorships and coaching, programmes, formal networks and formal introductions) and informally (through social connections and informal networking). Both forms of connection increase the social capital of the academic within circles of innovation, commercialisation and entrepreneurship. Examples participants gave of improving support for formal connections included; <i>Formal connections</i> » Formal introductions to corporations and 'high level' connections such as Pro Vice Chancellors, alumni and RII trusts and foundations; and to diverse network of investors, supporters, advisors » Linking to Regional Networks (for support) and National Agencies (for social enterprise) » Linking with a designated coach or mentor and developing a pool of mentors » Helping the academic to building strategic partnerships » Build working relationships with professional services (trust building); inclusion of students <i>Informal networking</i> » Providing support for the academic to develop their own networks » Connect to other exemplars; role models in the same field; relatable case studies

Centering an Equalities Mainstreaming Approach	Considering specific limitations which may affect the individual researcher » Considering caring responsibilities, e.g., considering family in Kenya in the case of Amina; caring responsibilities towards her own children. » Cultural barriers, language barriers, and expectations Recognising the need for commercial and innovation activity to be factored into workload, rather than being 'add-on' activity to substantive responsibilities
Institutional Advocacy	Lobbying for change in university policy to be designed to better 'support underrepresented communities (e.g. reward & recognition; recruitment practices)'; development of inclusive ECR training.

5.3 Key Findings by Group

Group 1

This group identified several key priorities. Firstly, they sought to determine a stronger link between UKRI and the political and economic strategy of growth and innovation more broadly within the UK, calling for the commercialisation of research to be prioritised as a critical route of productivity and growth, with the primary responsibility falling on the funding lifecycle and UKRI specifically. For this to be successful, they also cited several measures which could be put into place or emphasised in order to make change possible. Here, Group 1 called on support in the form of continuation of funding for SHAPE ventures, the recognition of different types of spin out formations, further support for SHAPE disciplines (to include connection and support for PhD students and ECRs) and post-spinout work loaded allocation, funding and support at both regional and national levels.

Group 2

Stepping back from the broader innovation ecosystem as envisaged by Group 1, Group 2 determined a selection of priority strategies fundamentally based on the practice and process of data collection, the sharing and use of insights across the sector and the derivation of forwards progress from evidence-informed, empirical data. They sought to share best practice across the sector, collect better data and development measurements to be able to determine how inclusive commercialisation is. As such, they envisaged a space which utilised better reporting to enable evidence-based change. For Group 2, these priorities should be facilitated at the societal level by governmental support but also required senior buy-in in universities to

advocate for the importance of innovation and commercialisation. To ensure that these priorities were able to come to fruition, Group 2 believed these actions and ideals should be provided for by allocating financial resource, developing and supporting academic champions, providing more practical guidance for TTOs. Evaluating the progress of these priorities is something this group believed could be achieved again by better data collection and reporting mechanisms and creating a shared data platform, or the ability to pool data across institutions.

Group 3

The response of Group 3 may be categorised as elements which relate to advancing social capital, networks and familiarity. For example, they prioritised a better understanding of the use of language, broadening an awareness of opportunities and ensuring that innovation was recognised in career pathways, i.e., in the formal recognition and reward for commercialisation work in academic career trajectories. They also deemed it important that the potential of SHAPE in different forms of innovation (other than widgets and projects) was also stressed and recognised outside of traditional understandings of research innovation and commercial activity. For Group 3, responsibility for advancing these priorities sat with a much larger group of internal and external stakeholders. Whilst they agreed that government needed to take a lead on implementation and awareness, they also perceived Senior Leaders, Funders, and 'everyone' within the broader research and innovation ecosystem as being fundamental to the success of such changes. To realise change they particularly targeted the provision of time and business support networks in addition to a broader understanding of proof-of-concept funding and support to help grow initial ideas and ensure they become viable commercial activities. In alignment with strengthening social capital, Group 3 discerned that a database of role models was the most important resource in realising these changes and felt that this should be supported by evaluation and monitoring metrics which, similarly to Group One, prioritised the creation and maintenance of inclusive data metrics.

6. LIMITATIONS

One of the key limitations to the research phase of this project is the lack of diversity of roles in the sample, when compared to the initial target population. It was intended that the Open Studio workshops would feature participants who represented a broad range of the innovation ecosystem within universities, to include academics who were interested in commercial or entrepreneurial activity, funders, and research managers and heads of school. In reality, we found recruitment across these three groups proved to be incredibly difficult. The majority of the sample therefore consists of those working in roles which are primarily associated with the commercialisation or innovation of research within their fundamental job description; predominantly TTOs, Directors of entrepreneurship and innovation and research commercialisation managers. Whilst this is a key limitation of the sample (representing a distinct part of the innovation ecosystem), it is perhaps less surprising given the nature of these roles and their close association with research innovation. The Open Studios, whilst designed to be engaging and interactive, are a significant time commitment (of c.3.5 hours). It is likely, given what is known about the difficulties associated with innovation/commercialisation activity (and the lack of time buyout therein) that roles where this is not a fundamental part of their job description may have been unable to participate due to workload allocation and time constraints.

7. CONCLUSIONS AND RECOMMENDATIONS

This project contributes to ongoing work on inclusive innovation by examining the ways in which different stakeholders in UK higher education can facilitate the participation and engagement of a diverse group of researchers in the innovation space. Whilst there is growing recognition that researchers face diverse challenges to participation in non-standard academic activities, e.g. commercialisation (Liyanage et al, 2024; Vorley et al, nd), the project demonstrates that HEIs need to take leadership in facilitating collaboration between different stakeholders if innovation is to thrive in non-traditional areas, e.g. social sciences, arts and humanities.

At a time when the contribution, and by extension value, of non-STEM disciplines in increasingly called into question, engagement with the commercialisation and innovation landscape provides an important signal about the impact of social sciences, arts and humanities to the UK economy. Far from being less important or impactful, these subjects facilitate translation of key technological advances, providing entry points to new markets and helping to identify end users often ignored when innovation focuses too narrowly on the technical side. The impact of this is to expand the reach of new and existing research, ensuring that the benefits of investment in Research and Development are felt as widely as possible.

This study highlights the complexity of working within the commercialisation space. In particular the Open Studios identify a number of key obstacles to participation as well as actors that can facilitate engagement. Three issues emerged as most highly salient for the participants:

1. **Time;**
2. **Communication;**
3. **Access to networks and funding.**

In addition to this, strong institutional support for the innovation agenda is also identified as an enabler. Specifically, our participants highlighted **senior level support as a catalyst for mainstreaming the innovation agenda**. It is the support of senior leaders within institutional that allows resources and support to be unlocked, benefiting the community as a whole but specifically enabling under-represented groups.

Obstacles	Solution	Key Actors
Competing demands on time	Inclusion of commercialisation in workload allocations Inclusion of innovation and commercialisation in progression and promotion criteria	Heads of Unit Research Directors HR
Lack of “know how”	Commercialisation and innovation training Mentoring programmes Operation support aimed at demystifying participation in commercialisation activities Provide toolkits to support inclusive innovation at an institutional and local level	Central Services TTOs EDI officers
Access to Funding	Unit level workshops mapping funding opportunities available	TTOs Research Directors
Uneven access	Communication and information campaign Toolkits for researchers to support engagement Monitoring access and participation	TTOs Central Services

REFERENCES

- Bacchi, C. (2012). Why study problematisations? Making politics visible. *Open journal of political science*, 2 (1), 1–8. doi:<https://doi.org/10.4236/ojps.2012.21000>.
- Bacchi, C. (2009). *Analysing policy: what's the problem represented to be?* Frenchs Forest: Pearson.
- Callerstig, A.-C., Denis, A., Kerremans, A., & Tzanakou, C. (2024). Open studios as a methodology: Exploring opportunities and challenges in design thinking for collaborative feminist research approaches. In *Resisting the pandemic: Better stories and innovation in times of crisis* (pp. 73–100). Peter Lang Verlag.
https://www.researchgate.net/publication/384897070_Open_studios_as_a_methodology_Exploring_opportunities_and_challenges_in_design_thinking_for_collaborative_feminist_research_approaches
- Carpentier, V., & Picard, E. (2023). Academic workforce in France and the UK in historical perspectives. *Comparative Education*, 60(2), 217–238.
<https://doi.org/10.1080/03050068.2023.2258676>
- Carpentier, V. (2021) Three stories of Institutional Differentiation: Resource, Mission and Social Inequalities in Higher Education. *Policy Reviews in Higher Education* 5(2) 197-241. DOI: [10.1080/23322969.2021.1896376](https://doi.org/10.1080/23322969.2021.1896376)
- Design Council (n.d.) *The Double Diamond: A Universally Accepted Depiction of the Design Process*. <https://www.designcouncil.org.uk/resources/the-double-diamond>
- Díaz-García, C., González-Moreno, A., & Sáez-Martínez, F. J. (2013). *Gender diversity within R&D teams: Its impact on radicalness of innovation*. *Technological Forecasting and Social Change*, 80(7), 1454–1461. <https://doi.org/10.1016/j.techfore.2012.11.009>
- European Commission. (2025). *She figures 2024: Gender in research and innovation — Statistics and indicators* (Report No. KI-01-25-131-EN-N). Publications Office of the European Union. <https://op.europa.eu/en/publication-detail/-/publication/c246671a-78b6-11f0-9af8-01aa75ed71a1>
- European Commission. (2025, February 11). *Gender equality in research and innovation not progressing fast enough, according to new She Figures report*. Directorate-General for Research and Innovation. https://research-and-innovation.ec.europa.eu/news/all-research-and-innovationnews/gender-equality-research-and-innovation-not-progressing-fast-enough-according-new-shefigures-report-2025-02-11_en
- European Institute for Gender Equality. (n.d.). *Horizon Europe gender equality plan eligibility criterion*. European Institute for Gender Equality. Retrieved December 17, 2025, from

https://eige.europa.eu/gender-mainstreaming/toolkits/gear/horizon-europe-gepcriterion?language_content_entity=en

- European Institute for Gender Equality. (n.d.). *Equal funding of innovations – VINNOVA (SE)*. European Institute for Gender Equality. <https://eige.europa.eu/gender-mainstreaming/toolkits/gear/equal-funding-innovations-vinnova-se>
- Geuna, A. and Muscio, A. (2009) “The Governance of University Knowledge Transfer: A Critical Review of the Literature” *Minerva: A Review of Science, Learning and Technology*, Vol 47, 93-114.
- Hofstra, B., Kulkarni, V. V., Munoz-Najar Galvez, S., He, B., Jurafsky, D., & McFarland, D. A. (2020). The Diversity-Innovation Paradox in Science. *Proceedings of the National Academy of Sciences of the United States of America*, 117(17), 9284–9291. <https://doi.org/10.1073/pnas.1915378117>
- Hughes, G., Upsher, R., Nobili, A., Kirkman, A., Wilson, C., Bowers-Brown, T., Foster, J., Bradley, S., & Byrom, N. (2022). Education for mental health: Enhancing Student Mental Health through Curriculum and Pedagogy. *Advance HE*, p. 35 https://s3.eu-west-2.amazonaws.com/assets.creode.advancehe-document-manager/documents/advancehe/AdvHE_Education%20for%20mental%20health_online_1644243779.pdf
- Humbert, A.L., Guenther, E.A. and Müller, J. (2021) “Not Simply Counting Heads: A Gender Diversity Index for the Team Level”, *Social Indicators Research*, Vol. 157, 689-707. <https://doi.org/10.1007/s11205-021-02635-5>
- Innovate UK (n.d.) *Putting the User at the Centre of Innovation*. <https://iuk-business-connect.org.uk/programme/inclusive-innovation/> (last accessed 23 July 2026)
- Johnson, L. and Pierre, Y. (2021) “Solving Wicked Diversity, Equity and Inclusive Problems From a Design Thinking Lens” in Peck, A. and DeSawall, D. (eds) *Applying Design Thinking to the Measurement of Experiential Learning*. IGC Global.
- Knight, C., Conn, C., Crick, T., & Brooks, S. (2023). Divergences in the framing of inclusive education across the UK: a four nations critical policy analysis. *Educational Review*, 77(2), 495– 511. <https://doi.org/10.1080/00131911.2023.2222235>
- Krishnan, M., Orlando, C., & Cook, J. (2025, June). *What works to promote employer action and behaviour change in relation to equality, diversity and inclusion (EDI): A rapid evidence assessment* (Youth Futures Foundation). Institute for Employment Studies. https://www.employment-studies.co.uk/system/files/resources/files/YouthFuturesIES_REA_Nov2025.pdf

- Liedtka, J. (2021) "Can Design Thinking Contribute to Equity and Inclusion?" *Columbia University Press Blog*. <https://cupblog.org/2021/07/30/can-design-thinking-contribute-to-fostering-equity-and-inclusion-by-jean-liedtka/>
- Liyanage, C., Villalba Romero, F., & Carmichel, (2024) "Fairness in Higher Education Research and Innovation Funding in the UK" *Trends in Higher Education* 3, 1031–1052. <https://doi.org/10.3390/higheredu3040060>
- Nielsen, M. W., Bloch, C. W., & Schiebinger, L. (2018). *Making gender diversity work for scientific discovery and innovation*. *Nature Human Behaviour*, 2, 726–734. <https://doi.org/10.1038/s41562-018-0433-1>
- Oxford Brookes University. (2025, March 26). *Why commercialising social sciences could be the next big thing*. <https://www.brookes.ac.uk/about-brookes/news/news-from-2025/03/commercialising-social-sciences>
- Restrepo, N., Unceta, A., Barandiaran, X. (2021). Gender Diversity in Research and Innovation Projects: The Proportion of Women in the Context of Higher Education. *Sustainability*, 13, 5111. <https://doi.org/10.3390/su13095111>
- Schiebinger, L. (2010). *Gendered innovations in science and engineering* (Background paper). United Nations Division for the Advancement of Women, Expert Group Meeting on Gender, Science and Technology. https://www.un.org/womenwatch/daw/egm/gst_2010/SchiebingerBP.1-EGM-ST.pdf
- Schiebinger, L. (2014). Gendered innovations: harnessing the creative power of sex and gender analysis to discover new ideas and develop new technologies. *Triple Helix*, 1(9). <https://doi.org/10.1186/s40604-014-0009-7>
- Schiebinger, L., & Klinge, I. (2013). *Gendered innovations: how gender analysis contributes to research*. Publications Office of the European Union, Luxembourg.
- Sukhera J. (2022). Narrative Reviews: Flexible, Rigorous, and Practical. *Journal of Graduate Medical Education*, 14(4), 414–417. <https://doi.org/10.4300/JGME-D-22-00480.1>
- Suska, A. (2023) "Design Process Step by Step: Double Diamond Model Explained"
- Tawell, A., & McCluskey, G. (2021). Utilising Bacchi's what's the problem represented to be? (WPR) approach to analyse national school exclusion policy in England and Scotland: a worked example. *International Journal of Research & Method in Education*, 45(2), 137–149. <https://doi.org/10.1080/1743727X.2021.1976750>
- The Labour Party. (2024). *Change: The Labour Party manifesto 2024*. <https://labour.org.uk/wpcontent/uploads/2024/06/Labour-Party-manifesto-2024-large-print.pdf>

- Thompson, S. (2017). *Defining and measuring 'inclusion' within an organisation*. Knowledge, Evidence and Learning for Development UK Department for International Development.
https://assets.publishing.service.gov.uk/media/5bace6fb40f0b62dd732c49f/123_Defining_and_measuring_inclusion_within_an_organisati.pdf
- Tobin, J. (2024, July 10). *King's Speech 2024: Science, technology and innovation* (House of Lords Library Research Briefing No. LLN-2024-0040). UK Parliament. <https://lordslibrary.parliament.uk/research-briefings/lln-2024-0040/>
- SUPERA (2022) *Participatory Techniques: Participatory Approaches towards GEP Design and Implementation Guide*. <https://www.superaproject.eu/participatory-techniques/>
- UNESCO. (2024). *Call to action: Closing the gender gap in science*. UNESCO.
https://www.sciencecentres.org.uk/documents/752/UNESCO_Call_to_action_closing_the_gender_gap_in_science.pdf
- United Nations Economic and Social Council. (1997). *Gender mainstreaming: Conceptual framework, methodology and presentation of good practices* (Report of the Expert Group Meeting). United Nations.
<https://www.un.org/womenwatch/daw/followup/main.htm>
- United Nations University. (2025). *5 Reasons Why Gender Must Be Considered in Innovation*. United Nations University. <https://unu.edu/vie/news/5-reasons-why-gender-must-be-consideredinnovation>
- Vorley, T., Lawton Smith, H., Coogan, T., Owalla, B., Wing, K. (nd) *Supportive Diversity and Inclusion in Innovation*, Innovation Caucus.
https://assets.publishing.service.gov.uk/media/5f18378bd3bf7f596b135a90/InnovateUK_Supporting_Diversity_and_Inclusion_in_innovation_WEBVERSION.pdf
- Williamson, T.R. (2024) "Overhauling Research Commercialisation at UK universities" *Perspectives: Policy and Practice in Higher Education*, Vo. 29(4),
<https://doi.org/10.1080/13603108.2024.2351798>
- Willige, A. (2025, March 26). *Can AI fix the gender gap in STEM? Here's what the data says*. World Economic Forum. <https://www.weforum.org/stories/2025/03/ai-stem-women-gendergap/#:~:text=Global%20Gender%20Gap%20Report%202025,strategies%20to%20reverse%20this%20trend>
- World Economic Forum a. (2025, June 11). *Global Gender Gap Report 2025: Labour markets, political leadership and supporting frameworks*. World Economic Forum.
<https://www.weforum.org/publications/global-gender-gap-report-2025/in-full/labour-marketspolitical-leadership-and-supporting-frameworks/>

World Economic Forum (2018a, December). *When more women join the workforce, everyone benefits. Here's why*. World Economic Forum.

<https://www.weforum.org/agenda/2018/12/economic-gains-from-gender-inclusion-even-greaterthan-you-thought/>

World Economic Forum. (2018b). *Assessing gender gaps in artificial intelligence* (Global Gender Gap Report 2018). World Economic Forum.

<https://www.weforum.org/publications/readerglobal-gender-gap-report-2018/in-full/assessing-gender-gaps-in-artificial-intelligence/>

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