



# **GENDER-INCLUSIVE ACADEMIC ENTREPRENEURSHIP:**

A Framework for  
Higher Education Institutions

OXFORD  
**BROOKES**  
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Engineering and  
Physical Sciences  
Research Council



# Introduction

This framework outlines how Higher Education Institutions (HEIs) can develop gender-inclusive academic entrepreneurship. It is informed by 'Promoting Equality, Diversity and Inclusion in University Spinout Companies - A Case for Action'<sup>1</sup>, a project funded by EPSRC's Inclusion Matters programme. Focusing on the under-representation of women in STEM as founders of university spinout companies and its findings has given insight into the challenges and enablers experienced by women founders. In particular these findings have highlighted structural barriers within institutions that can hinder the participation of women researchers in spinout leadership. Structural barriers are often invisible, created by and entrenched within structures and systems. They can be identified at different levels, and examples include:

- Institutional policies and practices that, although equally applied to both men and women, may disproportionately disadvantage certain groups, e.g. lack of flexible working practices disadvantaging women and men with caring responsibilities.
- Gender stereotypes that reinforce masculine notions of entrepreneurship through language, imagery and attitudes. An example would be training or communication materials that only feature men founders or stereotypical images of women scientists.
- Challenges in securing investment stemming from gender bias in the investment community.<sup>2</sup>

Structural barriers highlight the need for a comprehensive framework to help HEIs reflect on their policy and practice to promote gender-inclusive entrepreneurship.

Before presenting the framework it is important to clarify what we mean by 'academic entrepreneurship' and why 'gender-inclusive academic entrepreneurship' is important.

## WHAT DO WE MEAN BY ACADEMIC ENTREPRENEURSHIP?

We have chosen 'academic entrepreneurship' as a catch-all phrase to include a range of activities such as patenting, licensing and others which can lead to spinout creation. Moreover, our research suggests that this notion better speaks to researchers' motivation for addressing 'real world problems' to benefit society and individuals, while commercialisation of research conveys a more profit-oriented idea which may not match researchers' motivation.

## WHY IS IT IMPORTANT TO DEVELOP GENDER-INCLUSIVE ACADEMIC ENTREPRENEURSHIP?

There are compelling reasons for the STEM community to develop gender-inclusive academic entrepreneurship:

- Promoting gender equality. Under the Public Sector Equality Duty<sup>3</sup>, Higher Education Institutions are legally required to place equality at the core of all activities to achieve better equality outcomes. Action needs to be taken to ensure that both women and men in the STEM community have equal opportunities to pursue academic entrepreneurship if they wish.
- Changing the discourse and culture of academic entrepreneurship which is predominantly seen as 'a male-centric enterprise'<sup>4</sup> by challenging assumptions, behaviours, and attitudes.
- Attracting and retaining talented women researchers in STEM. This is essential for the UK to grow its R&D capacity and to achieve its aspiration of becoming a "science superpower".
- Promoting gender-inclusive innovation. Mainstreaming gender in innovation is not only important to enable talented women researchers to realise their full potential, but also ensure that science and engineering are underpinned by a rigorous 'gender-based analysis' to make sure 'the scientific quality and societal relevance of the produced knowledge/technology and/or innovation'.<sup>5</sup>

<sup>1</sup> All the research reports that inform this framework can be accessed on the project website <https://www.brookes.ac.uk/women-and-spinouts>

<sup>2</sup> A Rose, A. (2019) 'The Alison Rose Review of Female Entrepreneurship' <https://natwestbusinesshub.com/content/rosereview>

<sup>3</sup> 2010 Equality Act, S 149 Public Sector Equality Duty <https://www.legislation.gov.uk/ukpga/2010/15/section/149>

<sup>4</sup> Hayter, C.S., Nelson, A.J., Zayed, S. and O'Connor, A. (2017) *Conceptualising Academic Entrepreneurship Ecosystems: A Review, Analysis and Extension of the Literature*

<sup>5</sup> European Commission (2016) H2020 Programme, Guidance on Gender Equality in Horizon 2020 [https://ec.europa.eu/research/participants/data/ref/h2020/grants\\_manual/hi/gender/h2020-hi-guide-gender\\_en.pdf](https://ec.europa.eu/research/participants/data/ref/h2020/grants_manual/hi/gender/h2020-hi-guide-gender_en.pdf)

## Gender-Inclusive Innovation

The importance of integrating sex and gender analysis into research and development for innovation has been highlighted by the work of Professor Londa Schiebinger (<http://genderedinnovations.stanford.edu/case-studies>) and is exemplified in the development of the car seat belt. Although the three point seat belt was first developed in 1959 it took just over four decades for this technology to account for the safety of pregnant women. This adapted seatbelt was designed in 2002 by a female engineer, Laura Thackaray, to avoid crushing the unborn child in case of an accident; something no male engineer had considered in the original design.



Video Insights: gender-inclusive innovation

## About the Framework



Figure 1

This framework, informed by the work of Hayter et al. (2017) highlights the importance of adopting an ecosystem perspective accounting for the ‘many influences on academic entrepreneurship and [...] their interconnectivity.’ This tool is intended to help institutions identify, within this web of connections, those practices and dynamics that can act as barriers and those that can promote gender inclusion. Figure one represents the framework. At its core are individual researchers/teams, while the space with ‘dotted perimeters’ represents the relationship between researchers and their institution entrepreneurial environment, shaped by three key dimensions:

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**Becoming** an institution that supports and nurtures gender-inclusive academic entrepreneurship

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**Building** capacity and a deeper understanding of how to achieve gender-inclusive entrepreneurship

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**Bridging** research and business

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What happens within the three dimensions (the 3Bs) is influenced by the interaction with external domains such as businesses, at regional, national and international levels. For example, at a national level changes may be driven by policies and initiatives such as the Knowledge Exchange Framework<sup>6</sup> or the UK Innovation Strategy (2021)<sup>7</sup>, which present opportunities for a ‘STEM diversity decade of action’ as called by the All Parties Parliamentary Group Inquiry into Diversity and Inclusion in STEM (2021).<sup>8</sup> Additional resources may be provided both at national and international level to develop new initiatives to achieve transformational outcomes such as EPSRC Inclusion Matters programme that has funded 11 projects

across the country ‘to accelerate culture change with respect to equality, diversity and inclusion’<sup>9</sup> and the Horizon Europe programme.<sup>10</sup> Interactions with different domains can also present challenges. For example in the business community entrepreneurs tend to be seen as ambitious risk takers; a characteristic often seen as masculine.<sup>11</sup>

Figure two (below) maps possible interaction between an HEI entrepreneurial ecosystem and external domains. We suggest that HEIs draw their own map of interactions with external domains to identify opportunities to promote gender-inclusive entrepreneurship as well as challenges to be tackled that are specific to their own context.

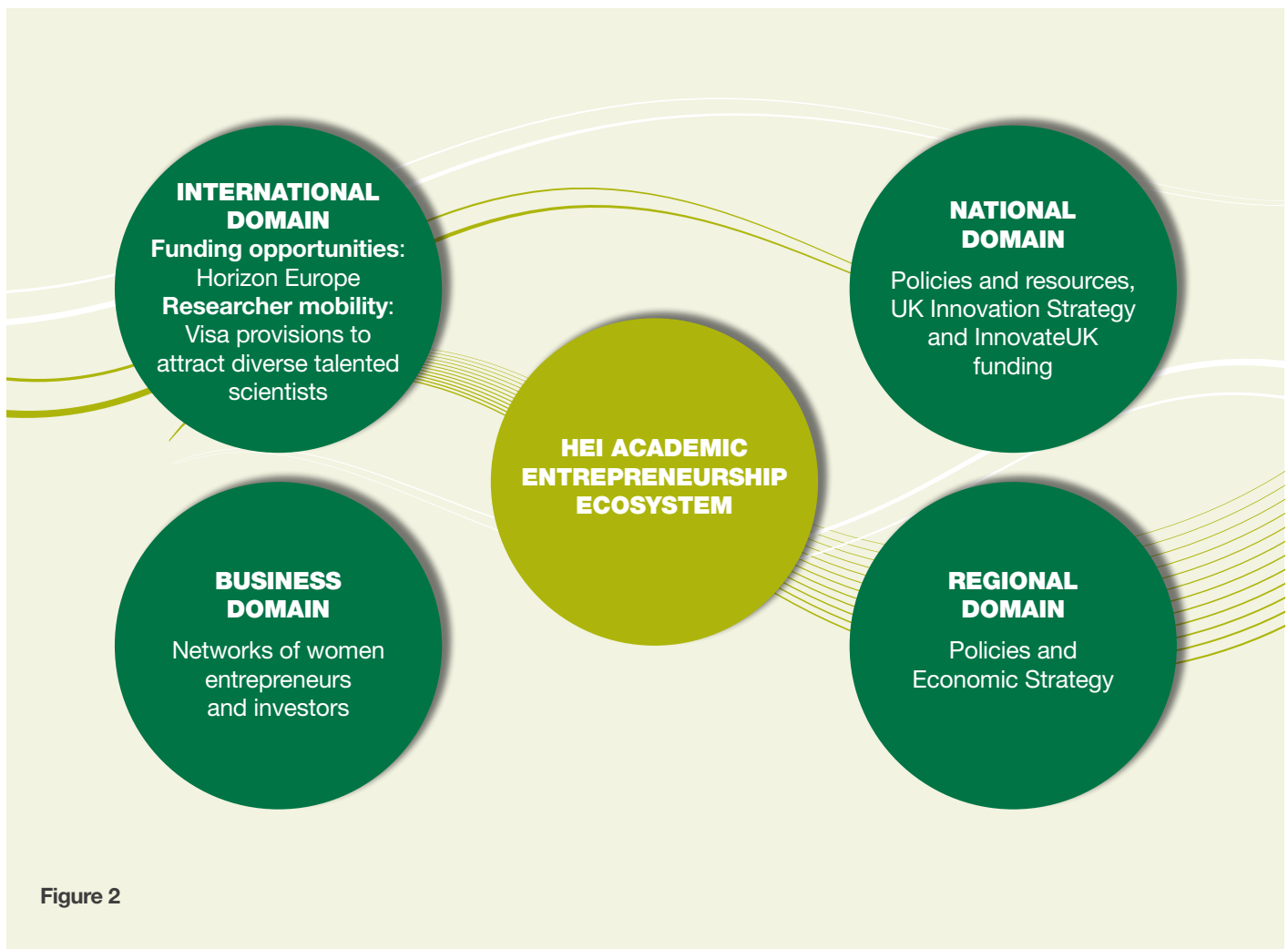


Figure 2

<sup>6</sup> <https://re.ukri.org/knowledge-exchange/knowledge-exchange-framework/>

<sup>7</sup> UK Innovation Strategy: Leading the Future by Creating it <https://re.ukri.org/knowledge-exchange/knowledge-exchange-framework/>

<sup>8</sup> <https://www.britishtscienceassociation.org/appg>

<sup>9</sup> <https://epsrc.ukri.org/funding/edi-at-epsrc/inclusion-matters/>

<sup>10</sup> [Ec.europa/info/research-and-innovation/funding/funding-opportunities/funding-programmes-and-open-calls/horizon-europe\\_en11](https://ec.europa/info/research-and-innovation/funding/funding-opportunities/funding-programmes-and-open-calls/horizon-europe_en11)

<sup>11</sup> Ahl, H. (2006). Why research on women entrepreneurs needs new directions. *Entrepreneurship theory and practice*, 30(5), 595-621. Bird, B., & Brush, C. (2002). A gendered perspective on organizational creation. *Entrepreneurship theory and practice*, 26(3), 41-65.

## CASE STUDY

# Working with business to develop a more gender-inclusive innovation ecosystem



The Oxfordshire innovation ecosystem has one of the highest level of spinout companies mainly created by the University of Oxford. We teamed up with Advanced Oxford, a not-for-profit membership group for businesses and organisations committed to working together to grow the innovation economy, and examining the issue of gender diversity within the leadership of local companies. We developed a discussion paper<sup>12</sup> that provides a snapshot of gender diversity in a sample of 110 companies, including 53 academic spinouts, selected from a list provided by Advanced Oxford of innovation/knowledge-based companies in Oxfordshire. We found that the vast majority of the companies in the sample 86.4% have been founded by men compared with only 13.6% companies with at least one female founder. There is also little gender diversity in the company leadership teams; almost 90% of them have a male Chief Executive Officer

(CEO). Moreover, companies founded by women tend to be smaller and receive less funding. The aim of this paper was to stimulate debate and raise awareness about the need to improve gender diversity by harnessing women's talent. This led to a roundtable discussion with investors on 'investing in women-led start-ups and spinouts', to explore how to close the gender investment gap.

### KEY LEARNING POINT FOR HEIs

Lack of gender diversity among company founders is a shared problem for both the business community and academic entrepreneurship. There is scope for engagement and collaboration with business networks and organisations, such as Advanced Oxford, to create a more gender-inclusive innovation ecosystem to harness women's talent both from academia and the general economy.



**Video Insights: Investing in Women-Led Start-Ups and Spinouts**

<sup>12</sup> Still, A. and Manfredi, S. (2021) A snapshot of Gender Diversity in Oxfordshire Innovation/Knowledge-Based Companies. See research reports [www.brookes.ac.uk/women-and-spinouts](http://www.brookes.ac.uk/women-and-spinouts)

# Who is this Framework for?

This Framework is aimed at different stakeholders who play a role in influencing, shaping and developing the academic entrepreneurship ecosystem within their institutions. It is important to remember that HEIs are multi-layered organisations with several hierarchical levels such as central senior management teams, faculties, departments and research groups,<sup>13</sup>

each of which helps support and foster academic entrepreneurship.<sup>14</sup> The table below provides examples of target audience, their location within an institutional structure, and how they can use this framework. This is by no means exhaustive, but it is intended to act as a prompt for institutions identify key factors responsible for delivering change for themselves.

| Target audience   | Location  | Framework use  |
|---|---|--|
| <b>Senior leadership team</b> (e.g. VC, PVCs) responsible for institution-wide strategic directions and policies  | Institution-wide level                                    | Help set directions and identify strategic objectives to foster gender-inclusive academic entrepreneurship.  |
| <b>Knowledge-Exchange and entrepreneurship professionals</b> including <b>Technology Transfer Officers</b>  | Services/units at institution-wide level<br>Faculty level | Help reflect on their role and activities to support academic entrepreneurship from a gender-inclusive lens.   |
| <b>Senior academics</b> (e.g. Head of Departments, Heads of Research Groups and Principal Investigators) responsible for implementing policies at local level but also the development of practice that can impact directly on individual researchers | Faculty/department/<br>research group                     | Enable a gender-inclusive implementation of policies and practices at a localised level.   |
| <b>Staff developers</b>   | Institution-wide<br>staff development<br>services         | Help develop training materials from a gender-inclusive perspective and design interventions to support individual researchers.  |
| <b>Equality managers/leads</b>  | Institution-wide<br>and faculty/<br>department level      | Help identify and address structural barriers. Ensure that gender-inclusive academic entrepreneurship is part of gender equality policies and practices, Athena SWAN and Race Equality action plans. |

<sup>13</sup> Skute, I. (2019). Opening the black box of academic entrepreneurship: a bibliometric analysis. *Scientometrics*, 120(1), 237-265.

<sup>14</sup> Bienkowska, D., Klofsten, M., & Rasmussen, E. (2016). PhD students in the entrepreneurial university—perceived support for academic entrepreneurship. *European Journal of Education*, 51(1, SI), 56–72. Rasmussen, E., & Wright, M. (2015). How can universities facilitate academic spin-offs? An entrepreneurial competency perspective. *The Journal of Technology Transfer*, 40(5), 782–799.

# The Framework Core: The 3Bs Becoming, Building and Bridging

B1

## BECOMING

Becoming an institution that supports and nurtures gender-inclusive academic entrepreneurship



B2

## BUILDING

Building capacity and a deeper understanding of how to achieve gender-inclusive entrepreneurship



B3

## BRIDGING

Bridging research to business



The 3Bs refer to individual and team development phases to engage with academic entrepreneurship as well as institutional capabilities to foster an environment where academic entrepreneurship is accessible, nurtured and inclusive. In this guidance we focus on the institutional 3Bs and we have developed the *Inclusive Developmental Framework*, to support individual researchers and teams. These two sets of materials are intended to complement one another as interventions to help women researchers, and those from other under-represented groups, while institutional interventions help remove structural barriers.

This guidance highlights the need for this two-pronged approach. In what follows we look at each of the 3Bs to:

- ✓ Provide checklists to support the development of a gender-inclusive approach to academic entrepreneurship.
- ✓ Highlight points for reflection and action.
- ✓ Present illustrative case studies.

Although our guidance is focused on gender, its features can support other under-represented groups of researchers. The 3Bs checklists are not intended to be exhaustive and institutions may develop their own bespoke ones to better suit their context and needs.

### ACADEMIC ENTREPRENEURSHIP GEOGRAPHY

The level of academic entrepreneurial activities varies significantly by type of institution and geography. Our research shows that 70% of spinouts originate from Russell Group institutions and that Scotland and the so-called 'golden triangle' (Oxford, Cambridge and predominantly Imperial and University College in London) account, respectively, for 16% and 50% of all spinout activities in the UK. This is compounded by findings from focus groups with ECRs undertaken in eight institutions across the country, which suggest that HEIs differed in how they prioritised, communicate and support academic entrepreneurship. While some institutions have well-established processes to facilitate spinout creation, these may not be gender-inclusive as evidenced by the low proportion of UK spinout companies with at least one woman founder (13%). Conversely, institutions still developing their academic entrepreneurship capacity can potentially establish gender-inclusive processes from the outset.



Click here for the  
Inclusive Development  
Framework Resources

# B1 Becoming an institution that supports and nurtures gender-inclusive academic entrepreneurship

| Checklist for Academic Entrepreneurship   | Gender-Inclusive Approach  |
|---|--|
| <b>Strategy:</b> Is academic entrepreneurship part of the institutional mission, vision and strategy? Is it an institutional priority?  | Gender-inclusive academic entrepreneurship features as an objective in the institution's Knowledge Exchange strategy, Athena SWAN and Race Equality Charter action plans/applications.   |
| <b>Leadership:</b> Who is leading the development of academic entrepreneurship across the institution (e.g. Technology Transfer Office, Knowledge Exchange professionals, enterprise unit)  | They have a clear commitment to encourage more women and other under-represented groups to engage with academic entrepreneurship.  |
| <b>Communication:</b> How is the institutional commitment to develop academic entrepreneurship communicated across the institution?   | Steps are taken to ensure that commitment to develop gender-inclusive academic entrepreneurship is effectively communicated across the institution.  |
| <b>Culture:</b> What is the HEI culture towards academic entrepreneurship? To what extent does it encourage new ideas? Are there special initiatives such as HEI/departmental competitions for entrepreneurship?                      | There are initiatives to encourage academics, ECRs and PhD students from under-represented groups to find out more about academic entrepreneurship and get involved.   |
| <b>Recognition:</b> How are activities related to academic entrepreneurship recognised and rewarded in the academic promotion process?  | There are clear and transparent criteria to define and reward these activities. These criteria are effectively and consistently communicated across the institution (e.g. departments, research groups).   |
| <b>Resources:</b> Are academic entrepreneurial activities properly resourced through allocation of dedicated time within academic workloads? Where does the responsibility lie to achieve this (e.g. departmental level, team level). | There is a clear policy to ensure allocation of time for entrepreneurial activities to ensure that all academics have an equal opportunity to engage with these activities if they wish. There are effective work-life balance policies and practices to support academics with caring responsibilities which are applied consistently across the institution. |

## POINTS FOR REFLECTION/ACTION



**Recognition.** There was a preconception that the creation of spinouts and other forms of academic entrepreneurship were not valued as highly by institutions as more traditional forms of research. For example, a woman and a man founder, pointed out, respectively, that 'a lot more people would do this if it was better recognised in promotions' and 'there is as much intellectual endeavour in growing the business as there is in doing the science'. These quotes exemplify the issue, which also surfaced in the focus groups with ECRs. Participants, even those interested in academic entrepreneurship, were unsure if these activities would be compatible with institutional expectations of what a successful academic career looks like. There is a risk that researchers, including those from underrepresented groups, self-exclude themselves from pursuing academic entrepreneurship if they think, rightly or wrongly, that institutions do not value these activities

as much as traditional research. Thus, institutions need to communicate clearly how academic entrepreneurship is valued and rewarded.

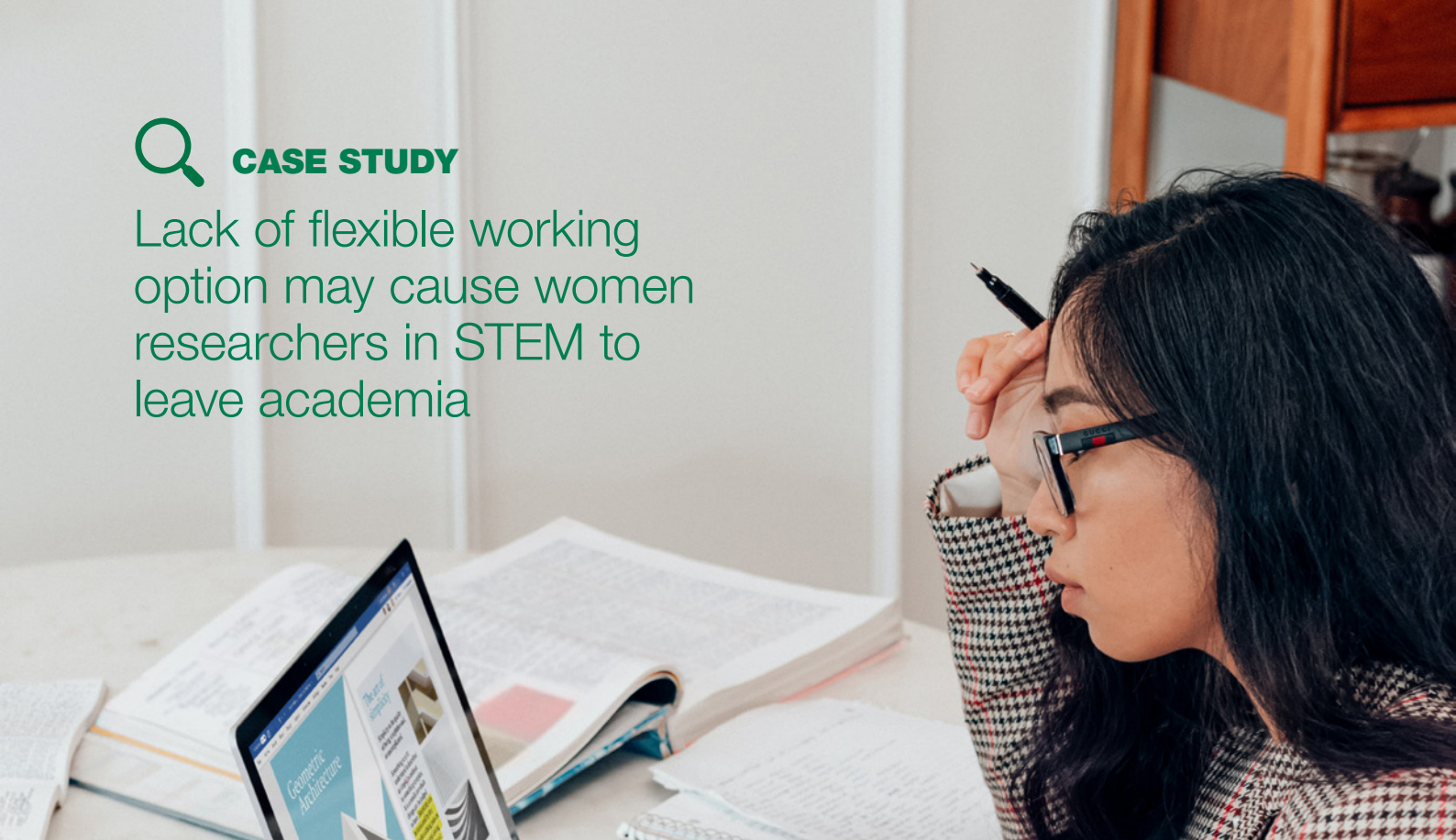
**Time management.** Time management is a key component of entrepreneurial frameworks aimed at supporting individual researchers to develop their competences. However, to enable individuals to effectively manage their time it is essential that institutions have policies and practices in place to ensure that adequate time is allocated, for example through workload planning, to entrepreneurial activities. Research<sup>15</sup> shows that there is a tension between delivering research, teaching and entrepreneurial activities and our project findings indicate that this problem persists and it is widespread across many institutions as exemplified by this founder's quote: 'One thing I would say about universities with spinouts is that they do not take into account that you've got to do all the other jobs'. Although this impacts both men and women it can disproportionately affect disadvantaged academics with caring responsibilities and disabilities.

<sup>15</sup> Hewitt-Dundas, N. (2015). Profiling UK university spin-outs. *ERC Research Paper*, 35, 1-72.



## CASE STUDY

### Lack of flexible working option may cause women researchers in STEM to leave academia



Dr Fanya Ismail is the founder and CEO of SGMA (Sol-Gel Materials & Applications), a company that provides alternative plastic-free packaging for food and drinks. In 2019 Fanya won the UKRI Women and Innovation award and in 2020 her company won the prestigious Mass Challenge Diamond award in Switzerland.

Fanya was born in Kurdistan in North Iraq and moved to the UK in the mid-1990s. She did a Masters in 1999 at the University of Manchester. In 2000 she was awarded a PhD scholarship from the Royal Society of Chemistry and subsequently worked as a Postdoctoral researcher. Fanya decided to leave academia when she was expecting twins. She had already one child and with two more on the way she felt that she needed more flexibility in her working life. As a post-doctoral researcher, she was expected to be on university premises every day whereas aspects of her work, such as data analysis, did not require lab work. These could have been done remotely from home enabling her to keep an eye on her children while doing the same amount of work, if not more. However, institutional expectations of presenteeism

did not offer her the flexibility she needed. So, she left academia, undertook some legal qualifications, and set up her own business: a legal consultancy. In the case of Fanya her talent was lost to academia but also to the STEM community for five years while she ran her legal business. She then decided to go back to the science and started the journey that took her to setting up SGMA in 2017.

#### KEY LEARNING POINT FOR HEIS

Lack of flexible working options can act as a structural barrier and it is crucial to enable women researchers to work flexibly to better balance their family responsibilities with work. This requires institutions to encourage their departments and research groups to reflect on their working culture and practices and challenge unnecessary presenteeism. The massive shift to home working forced upon all of us by the Covid pandemic may help to rethink the way we work and balance it with other aspects of our lifecosystem to harness women's talent both from academia and the general economy.



**Video Insights:  
Women in Innovation**

# B2 Building capacity and a deeper understanding of how to achieve gender-inclusive entrepreneurship

| Checklist for Academic Entrepreneurship   | Gender-Inclusive Approach  |
|---|--|
| <b>Support:</b> What structures exist within the institution to promote and support academic entrepreneurship (e.g. Technology Transfer Offices, Innovation Units). How do they reach out to departments, research groups and individual researchers? | Information is communicated/disseminated to raise awareness about academic entrepreneurship, especially among under-represented groups, via web-pages, flyers, talks/workshops. The choice of choice of images, case studies etc. is gender-inclusive.     |
| <b>Leadership:</b> Who is leading/responsible for sharing information and raising awareness for academic entrepreneurship and encouraging cross-departmental and cross-institutional collaboration?   | They have received equality training and have a clear strategy to engage with under-represented groups and raise awareness about academic entrepreneurship opportunities.  |
| <b>Monitoring:</b> What mechanisms are in place to monitor participation in academic entrepreneurship?  | Participation in academic entrepreneurship is monitored by gender, age, ethnicity and other protected characteristics (as practicable), different career stages in relation to spinouts, patents and other activities to identify trends and future needs. |
| <b>Collaboration and sharing:</b> What formal and informal institutional opportunities exist to facilitate cross-departmental/research teams cross-fertilisation of ideas, collaborations and sharing good practice around academic entrepreneurship? | Take steps to ensure that women and other under-represented groups benefit from institutional collaborations (through establishing physical space to meet and interact, opportunities to learn about successful stories from women and ECR founders).      |
| <b>Resources:</b> What resources are committed towards academic entrepreneurship such as seed funding for exploring research potential market viability?  | Access to these resources is effectively communicated to ensure easy access for all. Distribution is monitored by gender, age, ethnicity and other protected characteristics (as practicable).   |
| <b>Sharing and learning:</b> To what extent does your institution work together with other HEIs to share and learn from each other in relation to academic entrepreneurship?  | Your institution is involved in cross-institutional initiative to learn and share how to promote gender-inclusive academic entrepreneurship.   |

## POINTS FOR REFLECTION/ACTION



**Raising awareness about academic entrepreneurship.** Both founders and ECRs highlighted the lack of clarity around what support is available at an institutional level. As an ECR who took part in one of our project focus groups said: *'I hear about spinouts but I hardly know about them'*. Sometimes information is available, for example on webpages, but it may not be enough to reach researchers. It is also important to consider content; a review of university websites (see signpost below) suggests that the focus of spinout information is usually on the process itself, rather than the motivation and career paths of founders, or the lived experiences of creating a spinout. Presenting roles from under-represented groups helps raise awareness about academic entrepreneurship as this ECR quote attests:

*'It's almost like exposure to it, so if you know anyone who's gone and set up spinouts then you are more on board with the idea of doing it yourself because you've seen it's possible.'*

**Monitoring women's inventorship.** A large study undertaken by Elsevier (2020)<sup>16</sup> shows that women researchers are least represented among patent applicants. Our findings also suggest that women found patenting, particularly convincing their institution to patent their discoveries/innovation, more challenging. As one woman founder said, *'it was something of an uphill struggle to get to the point of filing a patent. Once I was able to convince those who held the purse strings that it should [be patented], things got a lot better, and of course once you've patented, you can lift the lid on publications'*. Monitoring researchers' requests for patenting at an institutional level is important to find out whether there is any gender bias in the process.

<sup>16</sup> The Research Journey through a Gender Lens (2020) Elsevier [https://www.elsevier.com/data/assets/pdf\\_file/0016/1084021/Gender-2020-Japan-English-version.pdf](https://www.elsevier.com/data/assets/pdf_file/0016/1084021/Gender-2020-Japan-English-version.pdf)



Click here for Inspiring Women Insights and Spinout Resources

| Checklist for Academic Entrepreneurship   | Gender-Inclusive Approach   |
|---|---|
| <b>Training and development:</b> What training and development opportunities are available to academics within the institution to engage with academic entrepreneurship and gain business insight?        | The content of training/development initiatives is gender-sensitive: it avoids images, language and case studies that reproduce gender stereotypes and reinforces masculine notions of entrepreneurship. It gives greater visibility to women founders as role models and provides insight into different pathways to spinouts. |
| <b>Leadership:</b> Who are the key facilitators of interaction with the business community?   | They have clear goals and a strategy to reach out to businesswomen and investors.   |
| <b>Networking:</b> How can the institution facilitate networking to help bridging academia and business?  | Fosters more diverse business networks. Ensure inclusive networking practices for example in terms of timing (e.g. avoid evenings that may be difficult for those with caring responsibilities), accessibility (e.g. online versus in person), gender-balanced representation.  |
| <b>Mentoring:</b> Do you have a pool of mentors from the business community that can support academics engaging with entrepreneurship?  | Develop a pool of diverse mentors who can better relate to women and other under-represented groups.  |
| <b>Resources:</b> What systems and processes encourage researchers to apply for opportunities such as ICURe <sup>17</sup> and Entrepreneurial Fellowships to explore commercialisation of their research? | Reach out to investors committed to improving diversity by supporting women founders and those from other under-represented groups. For example, prioritise engagement with investors who have signed up to the Investing in Women Code <sup>18</sup> .   |
| <b>Investors:</b> How do you help academic entrepreneurs reach out to investors?  | Your institution is involved in cross-institutional initiative to learn and share how to promote gender-inclusive academic entrepreneurship.  |
| <b>Alternative careers path in research and innovation:</b> Does academic entrepreneurship offers opportunity to develop alternative career paths?  | Think creatively about career paths and provide inclusive and alternative career routes that bridge academia and business (especially for ECRs).  |

## POINTS FOR REFLECTION/ACTION



**Networking.** This is of key importance in many different ways, be it helping prospective spinout founders build their company's team, finding investors, or simply to gaining useful social capital. Thus, it is important to facilitate gender-diverse networks to avoid situations like that reported by one woman founder, who highlighted that: *'when I go to meetings with investors, if everyone's in their fifties, male, white and wearing a suit, I feel quite alien'*. The timing and the conventions surrounding these events are also crucial to make them more inclusive, as one woman founder pointed out: *'why [networking] couldn't be over afternoon tea? Why does always [the networking] have to be in the evening to begin with, over wine and beer?'*.

**Alternative careers paths in research and innovation.** Academic entrepreneurship offers opportunity for alternative career paths and for working across sectors (e.g. industry, NGOs, policy departments). Our research suggests that some founders were driven by a quest for freedom and flexibility that they felt could not achieve in their academic careers. This is well illustrated by the experience of a woman founder who has established two spinout companies. She reported that *'when I came back from maternity leave for the third time I was just really wondering how I was going to juggle everything. I said [to my colleague] I am not sure whether I am going to come back to work. I think I am going to have a bit of a break for a while. He said why don't we think about applying for some funding to look at commercialisation of research? I thought, ok, I could probably manage that if it was more flexible, if I could be at home a bit more and do it a bit more flexibly'*. This experience demonstrates the importance of thinking creatively about career prospects to retain women's talent in STEM.

<sup>17</sup> <https://www.setsquared.co.uk/programme/icure-programme-2>

<sup>18</sup> <https://www.gov.uk/government/publications/investing-in-women-code>



Click here to read  
Speed Mentoring for  
Spinout Success

## CASE STUDY

### RisingWISE: An enterprise course by and for women



**‘If we want to change the system, we need some fresh thinking’**, say Dr Anne Miller and Dr Shima Barakat, joint founders of RisingWISE, a programme which aims to combat the disparities between men and women in achieving leadership roles and pursuing entrepreneurship opportunities in STEM subjects. It is specifically developed to bring together women early career researchers from the universities of Oxford and Cambridge to meet with women working in industry and commerce, who face similar challenges. We have developed an innovative, collaborative programme between the two institutions, including working closely with industry to build mutual understanding and relationships, which aim to benefit STEM researcher women from both institutions, and all involved.

Women early career researchers at the Universities do not have access to the same pastoral care or development opportunities as undergraduate or postgraduate students. They have often moved from another country and culture, and research they are involved in is crucial for progress towards solving global problems and the continued success of both Universities’ Innovation Strategies. These women are often juggling parental responsibilities with short-term, unstable contracts and yet continue to strive for excellence in their fields. With a background fully rooted in academia, most of the women participants on RisingWISE have either never

thought about creating a spinout or start-up of their own, or have deemed it too risky to pursue. In addition, they do not have the opportunity to meet women working in similar fields to them in industry and therefore can feel as their career options in the apparently male-dominated STEM are limited.

The RisingWISE programme aims to help women researchers thrive in academia by enhancing their leadership and negotiation skills, and building support and collaboration, thereby increasing their confidence and self-efficacy. The programme has been developed with this specific, large group of women postdocs in mind, to enable engagement with and support for women who could otherwise be ‘invisible’, despite their vital contribution to research and future innovation. RisingWISE is carefully designed to ensure women leave feeling equipped to self-actualise through practical workshops and facilitated small group working. They also become more connected to other researchers and to industry through knowledge exchange, with a growing network at their disposal to help each participant reach their full potential in male dominated STEM subjects.

#### **KEY LEARNING POINT FOR HEIs**

Such training initiatives can facilitate culture change in both academia and industry, by growing a diverse network of visible, self-actualising women leaders and mentors, providing inspirational role models.

## THE INVESTING IN WOMEN CODE

This is an initiative launched by HM Treasury in 2019 following the findings from the Alison Rose Review on Female Entrepreneurship. Its key objective is to increase support (financial and otherwise) provided to female entrepreneurs. It aims to:

- Increase transparency around investment and develop a longitudinal view of the gender-split in finance across multiple types of finance provider.
- Create a benchmark which individual finance providers can compare themselves against and use to track their progress in supporting female entrepreneurs.
- Encourage finance providers to proactively support female entrepreneurs.
- Encourage finance providers to implement processes, such as adding 'gender' to internal reporting, that increases awareness of their organisations' role in supporting female entrepreneurs.

Financial providers are encouraged to join this voluntary initiative. Progress will be monitored on an yearly basis. Find out more at:

[www.gov.uk/government/publications/the-annual-investing-in-women-code-report](http://www.gov.uk/government/publications/the-annual-investing-in-women-code-report)



## A final word

This framework for gender-inclusive entrepreneurship is intended to be neither prescriptive or exhaustive, but rather a tool to facilitate reflection, provide insights and ideas. It is largely informed by our research and the experiences of women founders. It may be used in conjunction with other resources as signposted throughout this guidance. It is free to use and adapt to specific institutional contexts and needs. We hope it proves useful and we would like to encourage those engaging with these resources to share feedback and examples of good practice. You can contact and follow us on:

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## For further information

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