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INVESTING IN WOMEN SCIENTISTS

A DISCUSSION PAPER

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INTRODUCTION

This discussion paper aims to stimulate debate and the development of innovative approaches which help women entrepreneurs in science, technology, engineering and mathematics (STEM) to secure investments which support the development and the growth of their spinouts and start-ups companies. We hope it will be of interest to:

- Policy makers at a national and international level who wish to maximise the potential of women entrepreneurs and their impact on their economies and society
- Current and potential investors who are interested in understanding the challenges facing women entrepreneurs and how they and the wider investment ecosystem can address them
- Entrepreneurs and founders who wish to understand what support is available, how to access it, and how other women have been successful in their entrepreneurial journeys
- Academics who are considering commercialising their research and wish to better understand the investment opportunities and challenges
- Universities wishing to support the commercialisation of their university's research and grow the opportunities for successful spinouts

The Covid-19 pandemic has brought research commercialisation under the spotlight and demonstrated the immense value of exploiting the intersections between industry and academic research to speed-up rapid results such as vaccine development and delivery. Looking beyond the pandemic, a broad range of commercialised research can help to tackle other global challenges such as the environmental crises as well as support the post-Covid recovery. For societies to benefit in full from science, engineering and technology transfer, it is necessary to tackle gender inequalities in the STEM community and develop an inclusive innovation ecosystem that captures the benefits of gender diversity. A key barrier for women in STEM to commercialise their research and innovation through the creation of either a university spinout or start-up company is access to investment funding. Research undertaken at Oxford Brookes University Centre for Diversity Policy Research and Practice suggests that investment appears to be one of main roadblock for female innovators to fully realise their ideas and potential. This is not just an issue for women scientists who have founded or are in the process of creating a university spinout or start-up company. There is ample evidence which shows how this pattern is replicated in the general economy across different countries.

This discussion paper is articulated as follows:

- Framing the problem
- What policy makers and organisations can do to tackle the problem: examples of good practice
- Movers and shakers: women investors leading change
- Final reflections and recommendations
- Appendix: an illustration of the investment ecosystem

The studies and examples of good practice included in this paper are not intended to be exhaustive but indicative of the extent of the problem and of the kind of initiatives that policy makers, individual investors and investment companies can pursue to support women entrepreneurs in STEM and more widely. We hope to uncover more examples of good practice, provide ideas and generally foster a dialogue with the investment community. This is to ensure that women's talent and innovation is not overlooked and equally that investors do not miss out opportunities for smart investments in cutting edge scientific discoveries.

We would like to thank all of those who have contributed their time, stories, thoughts and ideas to this paper.

THE PROBLEM

“We have tracked the funding for start -ups across a number of countries (USA, EU, UK, Israel) as part of our internal technology scouting and there is a clear gender gap.”

Kris Vulgan, Co Founder and Managing Partner, Ferocity Capital

Oxford Brookes research on women spinout founders show that they were more likely to report negative experiences when pitching for funding and perceived gender bias in the investment community¹. Moreover, an analysis of 789 active spinout companies in the UK highlighted that companies founded by women receive smaller amount of funding compared to those founded by men which hinders their ability to grow their companies². This is not just an issue for women scientists who have founded or are in the process of creating a university spinout or start-up company. There is ample evidence which shows how this pattern is replicated in the general economy across different countries. A report from Unconventional Ventures (2021)³ that looked at the investment ecosystem in the Nordic Countries (Denmark, Finland, Iceland, Norway, Sweden), Germany, France and the UK shows that investors deployed less than 2% of overall capital to all women-founding teams. With the exception of France, where investors deployed 2.1%, UK invested 1.1%, the Nordic Countries 0.7% and Germany a pitiful 0.3%. Gender mixed-founding teams fare better in terms of investments with 12.5% in Germany, 9.7% in France, 8.8% in the UK and 7.3% in the Nordic Countries. With regard to investment sources, the same report shows that all women-founding teams fare marginally better from funding sources such as universities 3.1% and government and non-profit 3.3% while they fare poorly from accelerators and private equity 0.7% respectively, venture capital 1.3% and Angels 1.6%. Mixed gender-teams fare better from universities 26.5%, accelerators 13.19 and Angels 10.2%.

Data from a baseline data collection exercise with signatories and reported in the Investing in Women Code's Annual Report 2021⁴ in the UK highlights the scale of the gap:

- In bank financing, 15% of applications were led by women and 56% by men (remainder mixed leadership); the average loan approved for female led businesses was around £25,000; for male led businesses it was about £33,000
- In venture capital all female teams account for only 10% of investment pitches that reach signatory firms, mixed gender teams make up 24%. This is slightly above the market average (4% and 19%) which reflects how signatories to the Code are likely to be more active in looking to invest in female entrepreneurs
- In angel investment, all female teams sought investments of less than half of the mean across all requests for angel investment
- Women are underrepresented in the financial services although VC and angel signatories have more than the sector average.

¹Griffiths, H., Grisoni, L., Manfredi, S., Still, A. and Tzanakou, C. (2020) 'The Spinout Journey: Barriers and Enablers to Gender Inclusive Innovation', Oxford: Oxford Brookes University Centre for Diversity Policy Research and Practice <https://www.brookes.ac.uk/research/units/obbs/projects/women-and-spinouts/>

²Griffiths, H. and Humbert, A.L. (2019) 'Gender and university spinouts in the UK: geography, governance and growth', Oxford: Oxford Brookes University Centre for Diversity Policy Research and Practice <https://www.brookes.ac.uk/research/units/obbs/projects/women-and-spinouts/>

³<https://report2021.unconventional.vc/> The Startup Funding Report: the untapped potential in the Nordic Ecosystem and beyond November 2021

⁴HM Treasury (2021) Investing in Women Code Annual Progress Report 2021



WHAT LIES BEHIND THESE DISMAL FIGURES?

The European Investment Bank (2020: 11)⁵ has highlighted how ‘a lack of female representation among founders and investors, gender investment bias and risk aversion create a vicious circle that it is difficult to break’.

Moreover, women scientists are likely to face ‘sector bias’, as an additional challenge, since investors look to fund women entrepreneurs in ‘traditional feminine fields’⁶. This makes it harder for women entrepreneurs in other sectors such as science and technology to compete.

“One scientist was unable to get funding for her start up from the male investors she approached; her research on an approach to address urinary incontinence was not recognised as a priority area or big enough market; as a woman I immediately recognised the importance of the issue, and the potential of her start up.”

Kris Vulgan, Co Founder and Managing Partner, Ferocity Capita

An example of how this gender bias may be playing out is that financial support for women’s companies seems to be limited to the early stages (e.g. seed, start-up) while they receive less support to grow and scale up their companies. In 2020 research showed funding rounds for women-led companies in the EU⁷.

However, in one growth source of early stage investment, crowdfunding, women have been shown to be more successful than men. An analysis⁸ of over 450,000 seed crowdfunding campaigns across the globe shows that women-led campaigns reached their funding target more often than male-led campaigns and also achieved a greater average pledge than male-led campaigns.

“...opportunities for women entrepreneurs have not been equal, but thanks to crowdfunding, female entrepreneurs can now access the market directly – and this makes a huge difference”

⁵European Investment Bank Funding Women Entrepreneurs: how to empower growth June 2020

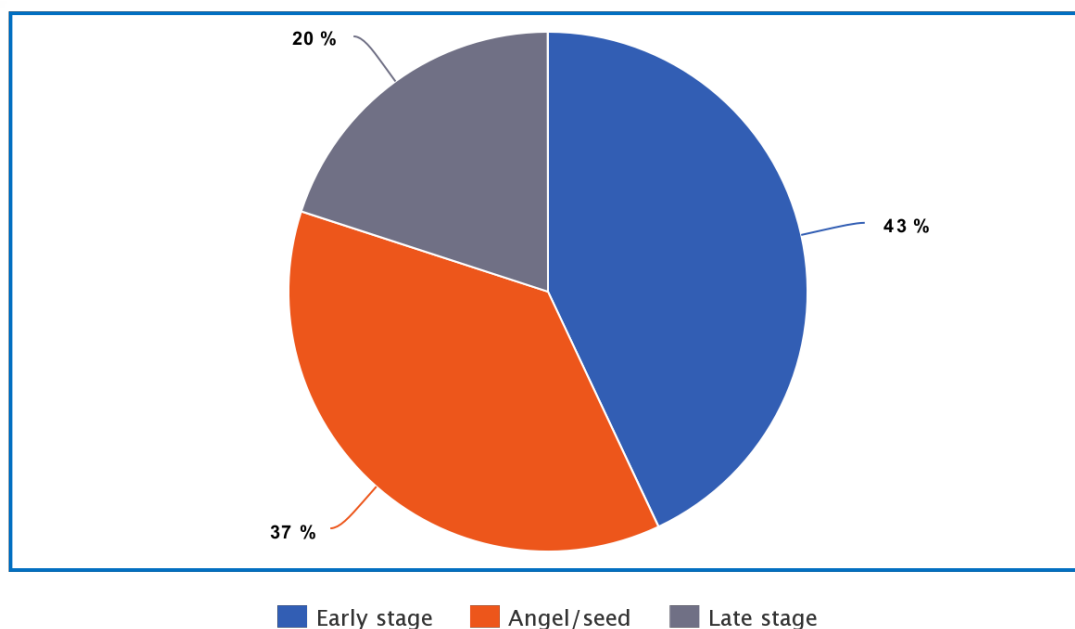
⁶Scientists and Entrepreneurs: Women Tackling Global Problems Oxford Brookes University video and written summary <https://www.brookes.ac.uk/research/units/obbs/projects/women-and-spinouts/>

⁷Why are women entrepreneurs missing out on funding? p10 https://www.eib.org/attachments/thematic/why_are_women_entrepreneurs_missing_out_on_funding_summary_en.pdf

⁸Women unbound: unleashing female entrepreneurial potential 2017 <https://www.pwc.com/gx/en/about/diversity/womenunbound.html>

⁹Women unbound: unleashing female entrepreneurial potential 2017 <https://www.pwc.com/gx/en/about/diversity/womenunbound.html> p18

EU COMPLETED FUNDING ROUNDS 2006-2020



WHAT CAN BE DONE TO BREAK THE ‘VICIOUS CIRCLE’?

We all agree that representation of women founders needs to increase, especially in science and technology. This requires, among other things, tackling investment gender bias which seems to be at the core of the vicious circle, highlighted above. This needs to be unpacked in order to develop appropriate interventions to tackle it.

Raise awareness among the investment community about gender biases:

Research shows that gender stereotypes can be deeply ingrained in the way men and women entrepreneurs are judged and the type of questions they are asked by investors of both genders. This depth of societal bias has been shown in research¹⁰ looking at how women are portrayed in the media when it comes to money: *“Women are portrayed as immature and unsophisticated....as financially conservative and less proactive.”* These biases can disadvantage women and lead to worse outcomes for them.

“Society is not particularly tolerant of women entrepreneurs, offering little or no support framework, particularly for those with pre-school, or young, children. Even the language used about women entrepreneurs is off-putting. The term ‘mumpreneur’ has patronising undertones, for example. It implies women entrepreneurs shouldn’t stray too far from the kitchen because they don’t stand a chance of being the next Zuckerberg.”

Anne Boden, CEO and founder of Starling Bank, Chair, Taskforce on Women-Led High-Growth Enterprises¹¹

Double standards:

Men and women entrepreneurs may be judged by double standards where women are seen as less capable of growing their business and underperforming. However, research by Malstrom et al demonstrates such disparities are not justified by empirical data which instead shows very little differences between men and women’ business outcomes. Furthermore, the work of Kanza et al (2018) suggests that different lines of questioning by investors to men and women entrepreneurs inevitably lead to elicit responses that can reinforce gender stereotypes and disadvantage women. They posit that men entrepreneurs are more likely to be asked ‘promotion focused’ questions that offer the opportunity to demonstrate their capacity to grow their business. By contrast women entrepreneurs are more likely to be asked ‘prevention-focused’ questions aimed at testing their ability to avoid losses. This research suggests that in the interaction between investors and entrepreneurs, women are more likely to be put in more defensive positions unlike men who are given better chances to showcase their business vision and plans for growth.

¹⁰Gendered representations of money in visual media, a study Starling Bank Brunel University London May 2021

¹¹<https://www.politicshome.com/members/article/driving-high-growth-women-led-enterprises>



'Sector bias':

When seeking investments female scientists and engineers may face a double bias as women and as scientists. As mentioned above investors may be more familiar with funding women entrepreneurs in 'traditional feminine fields'¹². It is therefore, really important to make women scientists and engineers visible to overcome stereotypes around women entrepreneurship being associated with 'traditional feminine fields'.

"Scaling women's participation in STEM requires building more inclusive innovation ecosystems which can be done if public institutions and private sectors put gender equality at the centre of their agenda.....women must have equal opportunities to access networks and investment funding."

Kaisa Alavuotunk, Finnfund Director of Impact and Sustainability

[Generation Equality Action Coalition on Technology and Innovation](#) event to mark UN International Day for Women and Girls in Science

Tackle the differential in access to funding:

The Investment in Women Code report (2020) highlighted that all-women teams tend to ask for less funding compared to their male counterparts: "on average, all-female teams sought investments of less than half the mean across all requests for angel investment, with £426,000 requested per team. This was 60% less than their all-male counterparts, who sought £1,020,000" (p9). This resonates with the experience of Anne Ravanona¹³, founder and CEO of Global Invest Her, who pointed out that women entrepreneurs tend to ask for the same figure which is around the equivalent of £500K. She thinks that women should ask for more, perhaps in two tranches if this approach makes them feel more comfortable. It has also been noted that women entrepreneurs are more likely to tap into family savings or borrowing money from family and friends. As highlighted by Patricia Zeegers, Board Member of Global VP Entrepreneurship¹⁴ this behaviour may reduce willingness to take the risk and grow businesses as women may be either risking family money or that of their friends: 'something that should just be a business transaction becomes something that is highly emotional transaction'. However, as we have shown, the problem is more complex than a focus on women's behaviour: the question to be addressed is what needs to be changed to ensure the investment system supports women entrepreneurs and founders.

Increase women investors in decision making roles:

There are suggestions that women investors in decision making roles are more likely to fund women entrepreneurs. For example, the [Investing in Women Code report](#) (2021;p 10) reported that "investment teams with greater female representation tended to invest in a higher proportion of female-led businesses" although it cautions that this finding is not conclusive and requires further investigation. It can also be added that, as the research mentioned above clearly shows, decisions of both men and women investors can be influenced by gender bias. Subject to this caveat though, there is a growing number of women investors who are aware of these issues and are committed to do something about it. Moreover, although increasing the number of women investors in decision making roles may not be sufficient, it is nonetheless necessary to change the culture in male dominated investors communities. Figures relating to women's participation in the investors' community, suggest that they have their own struggle to reach decision making positions.

Research (Diversity VC, British Venture Capital Association and Craft.co 2017) found that women represented just 27% of the venture capital workforce in the UK compared to 47% of the country's overall workforce; 18% of investment roles at UK-based venture capital firms are held by women and a mere 13% of the investment decision-making roles at these firms are occupied by women; of the 160 firms surveyed 66% did not employ women in any investment decision making capacity.

It is important to note that the investors community is not an homogeneous group as it involves different types of investors such as angel investors, venture capitalists, equity firms and banks. Therefore, career paths for women will vary depending which specific investment group they are working in.

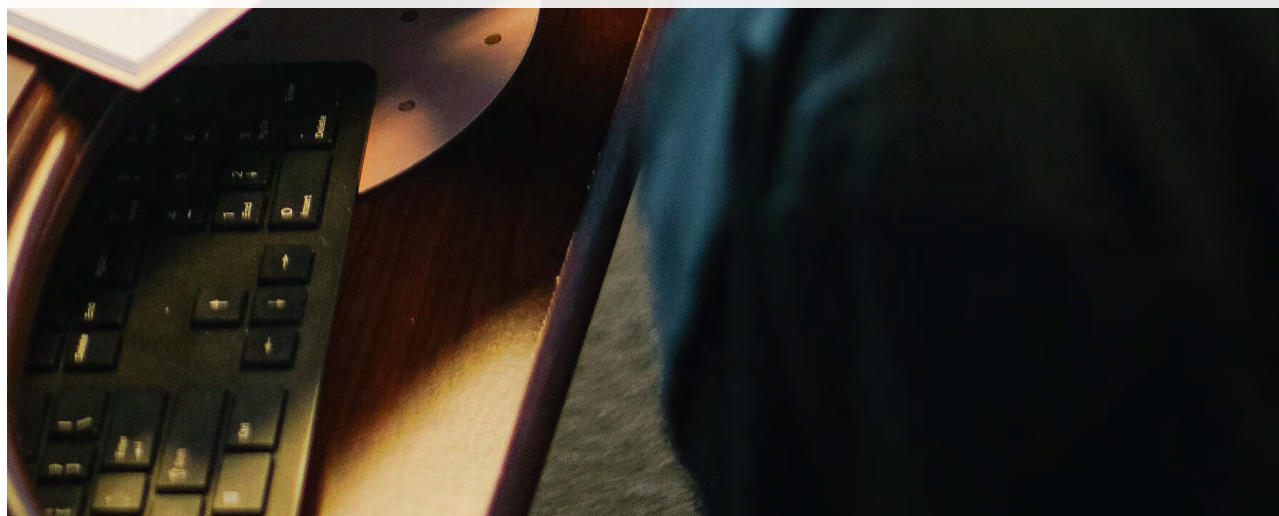
¹²Scientists and Entrepreneurs: Women Tackling Global Problems Oxford Brookes University video and written summary <https://www.brookes.ac.uk/research/units/obbs/projects/women-and-spinouts/>

¹³Oxford Brookes University - video [Connecting Women Entrepreneurs across Europe: meet the WEgate community](#)

¹⁴Oxford Brookes University - video [Connecting Women Entrepreneurs across Europe: meet the WEgate community](#)



WHAT POLICY MAKERS AND ORGANISATIONS CAN DO TO TACKLE THE PROBLEM: EXAMPLES OF GOOD PRACTICE



ACTION AT A NATIONAL LEVEL

Taskforce on Women-Led High-Growth Enterprises

The Taskforce on Women-Led High-Growth Enterprises was launched in May 2022¹⁵ and will support women entrepreneurs, tackle investing barriers, and increase the number of women-led fast-growing businesses. The British Government aims to increase the number of female entrepreneurs by half by 2030; the Taskforce Chair, Anne Boden (CEO and founder of Starling Bank) has described¹⁶ how it brings together industry, the VC community and government to deliver its three aims:

- Give women the playbook to start high growth businesses, particularly in Science, Technology, Engineering and Mathematics, and resources to scale up.
- Influence venture capitalists and the wider investment community to recognise the value of women entrepreneurs.
- Campaign to challenge negative gender stereotypes around entrepreneurship, building on Starling Bank's #MakeMoneyEqual initiative.

Investing in Women Code

The Investing in Women Code was launched in July 2019 by HM Treasury as a response to the Rose Review of Female Entrepreneurship and particularly the need to increase funding directed towards female entrepreneurs.

The Code aims to support industry and government to better understand the financial barrier facing female entrepreneurs through greater transparency, and to motivate signatories to take responsibility for addressing the inequality by creating a benchmark to which they can compare themselves. As of June 2022 the Code had 160¹⁸ signatory firms who commit to:

- Have a nominated member of the senior leadership team (or key individual within the angel group or network) who is responsible for supporting equality in all its interactions with entrepreneurs.
- Provide HM Treasury, or a relevant industry body designated by HM Treasury, a commonly agreed set of data concerning: all female-led businesses, mixed-gender-led businesses, and all-male-led businesses.
- Adopt internal practices which aim to improve the potential for female entrepreneurs to successfully access the tools, resources, investment and finance they need to build and grow their businesses, working with relevant players.

Innovate UK

Innovate UK is the UK Research and Innovation (UKRI)'s innovation agency with a mission to help companies to grow through new products, processes and services, alongside an innovation ecosystem that is agile, inclusive and easy to navigate; this work includes bringing in under-represented groups.

Working with partners it delivers a wide range of funding and support for businesses such as its bespoke business growth support through [Innovate UK EDGE](#). It also runs the Women in Innovation Programme supporting a community of over 9,000 members with advice, connections, resources and events. This programme includes the annual [Women in Innovation Award](#) which provides winners with a £50K cash injection as well as bespoke business support, coaching and mentoring. In 2022 there were 38 winners.

"It has continued to be a challenging year of uncertainty but these pioneering, resilient women inspire us to dream big and make an impact despite the difficulties we face. Innovate UK will work alongside these winners to ensure they have the resources and support required to turn their innovative ideas and aspirations into a reality, while encouraging a new generation of women to come forward and pursue their ambitions."

Emily Nott, Head of Equality, Diversity and Inclusion at Innovate UK

"What we want is to, at long last, create a level playing field for women entrepreneurs building and leading high-growth businesses."¹⁶

"All-female founding teams received less than 1p of every £1 of VC investment in the UK."¹⁷

¹⁵<https://www.gov.uk/government/news/government-launches-taskforce-to-boost-women-starting-fast-growing-companies>

¹⁶<https://www.politicshome.com/members/article/driving-high-growth-women-led-enterprises>

¹⁷UK VC and Female Founders Report, British Business Bank, Diversity VC and BVCA, 2019

¹⁸Investing in Women Code. Annual Report 2022 <https://www.gov.uk/government/news/report-shows-progress-in-boosting-investment-in-uks-women-entrepreneurs>



WEgate

WEgate is an online platform or gateway established by the European Commission in 2020 as its key initiative to help women entrepreneurs across Europe to start and grow their businesses through knowledge sharing and providing an engaging community.

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The platform aims to provide a one-stop online shop for existing and prospective entrepreneurs providing useful and inspiring information:

- A market place which seeks to match women entrepreneurs, products and services
- A community forum which enables networking
- A coaching programme
- Access to Finance
- Update Insights

WEgate seeks to enable skills development through offering a range of opportunities which share experience through peer learning. Opportunities include webinars such as on access to finance; a two day academy for prospective/new entrepreneurs; and an annual summit for the WEgate community which includes networking opportunities.

WEgate also seeks to influence and inform public policy, and provide recommendations for policy makers on how to improve the ecosystem.

The WEgate Community Council is the steering group for the Community and draws on a diverse active membership of 35 women representatives of several national WE communities, international networks, sectoral organisations, and access to finance providers.

Level 20

Level 20 is a not for profit organisation which seeks to improve gender diversity in the European private equity industry with the ambition that 20% senior positions are held by women. Their 2021 study showed that 10% senior investment roles were held by women (compared to 6% in 2018). They work in five areas: mentoring and development; advocacy; networking and events; outreach; and research.

Examples include:

- **The Reaping the Rewards of Retention** study of retaining senior women in investments roles looked at the issues surrounding women staying and progressing within private equity and identified 5 key drivers to retain senior women: leadership; culture; transparency and fairness; family life support; supportive working environments
- In 2021 they had seven mentoring programmes in operation across Europe with 224 mentoring pairs taking part in the 12-month programme. In addition they launched a group mentoring initiative with small groups of mentees supported by one mentor meeting to discuss key topics such as managing your career
- Their partnership with Girls Are INvestors UK ([GAIN](#)) continued, helping to recruit female students for private equity firm internships
- Their Role Models campaign to share the experience of women working in mid level and senior roles in private equity

¹⁹<https://wegate.eu/about/women-entrepreneurship-facts-and-figures>



The role of universities

Eileen Modral, Investment Manager, Oxford Innovations, Business Finance Specialist for Enterprise Europe Network, Business Angel.

[Click here to view the video interview >>](#)

Eileen discusses her experience of how universities and business angels work together, the impact this has for potential entrepreneurs, and key lessons, including:

- Universities need to have an open mind about who they could work with and how - business angels can be “out of the box” thinkers! Need to remember that one size does not fit all and different angels will bring different expertise and different views about how to take ideas forward.
- Universities may want to think about coming together as groups to support potential entrepreneurs particularly where numbers of potential spinouts each year are small.
- Universities need to create an enabling environment for entrepreneurs, and building relationships with business angels over time may help with this. Although angels will only invest once a company has spun out from the university, they can bring early support and advice including coaching potential entrepreneurs: “the right angel working with a university can be a game changer to ensure spinouts.”



PROMOTING GOOD PRACTICE

Diversity VC Standard

The Diversity VC Standard was launched in September 2020 by the non-profit organisation Diversity VC working with Diversio and OneTech, and with the support of the Investor Leadership Network and endorsed by the Rose Review. The standard provides the equivalent of the Fairtrade mark and seeks to encourage VCs to increase their diversity in sourcing and investing in diverse founders and employing diverse talent. It sends a signal that a fund follows best D&I practices to the rest of the ecosystem.

“Increasing diversity and inclusion in VC requires industry and firm level efforts which are both informed and sustained.”²⁰

The Standard was initially worked through with 11 leading UK funds and is now being promoted and adopted more widely in the UK and the USA.

Diversity VC provides an assessment and certification process that sets a benchmark for best practice on Diversity and Inclusion (D&I) in Venture Capital. The Standard has 3 stages: Assessment (looking at a fund’s policies and practices); Consultation (advice and recommendations to fund targets); Certification at level 1 or 2. Each fund is reassessed annually to ensure it is upholding policies and practices and to advise on any new ones to adopt.

UKBAA Angel Investment Awards 2022

The annual UKBAA Angel Investment awards celebrate the high growth and success in the angel and early-stage investment market—recognising the fastest growing brands and acknowledging the founders, angels, crowd funders and early-stage venture capital investors behind them. Awards include:

Investment in Diversity Champion (sponsored by Innovate UK)

This award recognises a key individual in the UK early-stage investment ecosystem that is taking a leadership role in breaking down barriers for access to equity investment for founders from diverse backgrounds, including women founders, Black and ethnic minority founders, or other overlooked groups.

The award celebrates an individual or organisation in the UK that is acting as a catalyst for change in relation to diversity in investment. Actions can be targeted at founders and/or the investment community. The nominee can be directly investing, supporting the mobilisation of investing, an intermediary, or taking a coordination role. The judges are looking for evidence of innovative approaches, good practice, or new initiatives that are aimed at increasing access to investment for entrepreneurs in key target groups and can demonstrate that they are making a difference to investment in diversity.

²⁰UK VC & Female Founders Report 2019 British Business Bank

MOVERS AND SHAKERS: WOMEN INVESTORS LEADING CHANGE

This section highlights the work of three women investors who are leading change, and is intended to provide real life examples of the initiatives being undertaken and developed to address the challenges faced by women entrepreneurs and founders. They provide illustrations of the growing number of projects and networks aiming to deliver change.

LYNNE CADENHEAD



Lynne Cadenhead is an entrepreneur and investor with over 25 years of experience of founding and working with start-up companies. She is Chair of Women's

Enterprise Scotland, Chair of Mint Ventures, a Visiting Professor in Governance and Enterprise at Edinburgh Napier University, an Ambassador and Presenter for Women on Boards and CEO of Immaculate Drinks Ltd.

"We need to take action rather than talking about needing to change."

Women's Enterprise Scotland (WES)

is a research-led, not-for-profit CIC which champions women-led and women-owned businesses. WES was established in 2011 to create a voice for women-owned businesses in Scotland and to promote policy and best practice which enables women to successfully start up and grow their own businesses.

"Strengthening the Scottish economy through women's enterprise."

The five priorities in the Women's Enterprise manifesto for change are:

- Enable greater access to finance (women start their businesses with 53% less capital than men)
- Enable a more gender aware business support structure across Scotland (71% of women's businesses in a Scottish survey agreed or strongly agreed that business support services need to be more aware of women's needs);

- Champion digital inclusion (only 16% of girls are studying Computing Science at Higher level)
- Deliver improved data collection (the gathering, analysis and publication of gender-disaggregated data is fundamental to closing the persistent gender gap in enterprise participation)
- Advocate for a more gender equal economy (investing in care would create 2.7 times as many jobs as the same investment in construction).

WES has a transformational vision to establish a national Women's Business Centre with regional hubs across the country; these will be safe places dedicated to the delivery of expert, needs-based support for women creating and growing their own businesses. The first stage is already in place with the launch in 2020 of the digital Women's Business Centre providing information and advice on a range of topics to help plan, start and grow a business.

The Centre includes real business stories from Ambassadors - "they're quite simply great women running interesting businesses and at different stages of growth". The next stage will be to establish physical business centres, with £50m committed by the Scottish Government to support women in enterprise.

Mint Ventures is a women-led business angel investment club and network working in Scotland and beyond to democratise angel investment for women, and invest in products and services that meet the needs and interests of women with a social, ethical or environmental purpose. It invests in ambitious companies at any growth stage and within any sector that meets the needs and interests of women; to apply for funding companies must have at least one woman in a position of

leadership either in the management team or board.

"Inclusivity is an essential element of innovation."

The network is encouraging more women to become angel investors and so to create new sources of capital for growth oriented, innovative business. Barriers to more investors are not financial but cultural. Women often don't have access to the same relevant networks as men do, and it can be difficult to know where and how to start.

"Women hold 60% of the UK's wealth, yet only 14% of business angel investors in the UK are women."

Mint Ventures was launched in December 2021 and plans to have recruited 50 angels by the end of the year. Working to closely align interests of both investors and entrepreneurs at all stages of the investment process, it provides resources and information to support both, for example:

- **Mint Ventures Business Angel Online Development Programme** - a free 90 minute programme to help you understand more about business angel investment and help you decide if you want to become a business angel
- **Membership** includes a 6 month angel development programme including membership of UK Business Angels Network, as well as access to investment opportunities and networking events
- **A programme of roadshows** aimed at women entrepreneurs and potential investors in Scotland, and providing an overview of angel investment and the opportunities it can provide alongside networking sessions which include existing angels and entrepreneurs.

JENNY TOOTH



Jenny Tooth is an angel investor and Executive Chair of the UK Business Angels Association. She co-founded Angel Capital Group

which incorporates London Business Angels, one of the most established and active angel networks in the UK and which was sold to Newbale in 2017. Jenny has over 25 years' experience of facilitating SME access to investment, both in the UK and internationally. In addition to her other roles she sits on a number of Boards including the Rose review Advisory Board on Female Entrepreneurship, and Chairs the Women angel Investment Task Force, Member of the UK Government Innovation Expert Group, the Advisory board for the London Co-Investment Fund and is a founding Board member of Business Angels Europe.

"As women, our capacity is different, because we bring different talents and insights. Because the financial services sector has been an area that is largely male-dominated, with a set culture and knowledge around it, we need to enable our individual identity and personality to come through in whatever we are doing."

[UK Business Angels Association \(UKBAA\)](#) was set up by Jenny in 2012 as a way to stimulate and organise the angel ecosystem across the UK. It has over 81 Angel Groups, 600 individual Angel members, 34 Funds, 21 Accelerators and many other players involved in angel investment and support for early stage businesses. UKBAA's role is to build and grow a thriving Angel and early stage ecosystem across the UK and to address key imbalances such as diversity; to connect angel and early stage investors to quality dealflow; to support the education and professionalisation of angel investors and to promote knowledge and understanding about angel investment; to represent the voice of angel investment to government and ensure an effective policy and fiscal environment for angel investment. Its services for its members and more broadly are diverse:

- Membership directory providing the UK's most comprehensive list of early-stage investors
- Conferences and other networking opportunities including roundtables and pitching events

- The Deal Share platform including a curated pool of over 80 live investment opportunities
- Learning opportunities and access to resources

UKBAA is committed to creating a sustainable investment ecosystem, and works alongside government, leading trade bodies, universities and accelerators to design and deliver bespoke programmes which increase investment into entrepreneurs and promote diversity and inclusion. UKBAA is leading the Women Backing Women Campaign as part of the Women Angel Investment Task Force set up under the Alison Rose Review; the campaign wants to drive up the number of women investors:

"The proportion of women angels across the UK who are actively investing in innovators remains low with only 15-20% of total angel investment being female angels. There is a direct correlation between increasing the number of women investors and the proportion of women innovators accessing investment. Our research has shown among over 600 women across 5 countries in Europe that women angel investors make between 30-50% of their investments in female founders."

The Women Backing Women Campaign is organising a series of awareness raising events across the UK to enable many more women to understand the incredible opportunity they have to use their spare financial capacity and business experience to back female entrepreneurs. The campaign also includes a series of [A-Z of Angel Investing for Women workshops and webinars](#) to provide knowledge and insights on how to effectively invest, taking women through the process of angel investment and support to join Angel syndicates and start investing.

ANNE RAVANONA



Anne Ravanona is Founder and CEO of Global Invest Her. She is also a woman's advocate, TOP 50: Europe's most influential women in the

startup and venture capital space, Top 100 Influencers in Gender Equality and Diversity, and a member of the EU delegation to W20.

Global Invest Her is a global community and platform that provides the tools and connections which help women entrepreneurs get funded faster (<https://globalinvesther.com>). In addition to creating a global community of women and investors, Global Invest Her provides access to a range of masterclasses, classes and resources, including a Funding Resources Hub, which all aim to demystify funding and support women entrepreneurs to get the funding they need:

"We believe in a future where women entrepreneurs can raise funding at the same level as men."

During Covid, Anna created the InvestHer Directory which is the first global directory of companies founded or co-founded by women. The purpose of this directory is to give visibility to women-led companies both with potential customers and investors. It includes women-led companies from 50 countries operating in 75 different sectors. It also enables women founders to research their competitors and potential partners, as well as share that they are looking for investments.

"I believe Women Entrepreneurs are the greatest untapped resource to reignite the global economy today. When we rebalance Access to Finance towards more women entrepreneurs, we will unleash so much talent and growth."

As a next step, Anne is to launch the InvestHer Funder Directory, the first global Directory of investors who are women-founder friendly. This will include investors with a track record of investing in women-led companies or who have publicly committed to increase their investments in women-led companies. As Anne has summed up in one sentence:

"I only want to play with the people who get it."

Anne's goal is to get 1 million women entrepreneurs funded by 2030.



WHAT NEXT?

We hope this discussion paper has provided information, food for thought and above all examples of good practice that can be shared to scale up the participation of women scientists as founders of spinouts and start-up companies. We conclude with a series of recommendations which seek to tackle structural barriers that prevent women scientists and entrepreneurs accessing investment both to support their businesses, but also deprive the economy and society of the beneficial impact of their research and inventions. We have grouped the recommendations under three key themes: understanding the problem and monitoring progress; changing perceptions; and, building capability and opportunities.

Understand the problem and monitor progress

Understanding the problem means being half way through to the solution. Research insights help to understand how gender bias manifests, for example and, as discussed earlier, through different lines of questioning being adopted for male and female founders. Research insights can help at a national level, at a system level, and also at an organisational level.

There is a lot of valuable research and we need to make this more easily available and its findings widely disseminated; for example, through producing and disseminating short, accessible papers which focus on key findings or target specific sectors, and provide impactful recommendations which are relevant to policy makers at a national or organisational level.

Individual organisations and networks need to develop an understanding of how gender bias manifests itself within their own settings, and develop and implement plans and strategies to address this. This could equally relate to players within the investment ecosystem, or to universities wishing to support their scientists and other entrepreneurial academics.

Monitoring is crucial to understand how progress is being made in addressing gender bias, and in particular how public funds and investments are being distributed between women and men founders. The Investing in Women Code offers a good example of voluntary reporting that provides benchmark data and reflection on what has been achieved as well as areas for further investigation/improvement.

There are good examples of how progress is being monitored at a national or system level, and these need to be continued and their findings widely promoted to ensure all players are aware of the scale of the problem, where progress is being made and what works in terms of delivering change.

Change needs to be made within individual organisations and networks. There are examples of standards, such as the Diversity VC Standard, which enable both assessment and monitoring. Similar approaches need to be taken within other sectors, for example within the Higher Education sector, to ensure progress is monitored as part of wider diversity monitoring, or as a targeted exercise.

Change perceptions

This paper has highlighted how perceptions of women entrepreneurship has created barriers across the system; these perceptions need to be challenged and changed.

We need to make women scientists and founders of spinouts and start-up companies more visible; we also need to raise the profile of women working in the wider investment ecosystem. We need to build on the current examples, such as the Women in Innovation Awards or the UKBAA Angel Investment Awards, understand what makes the greatest impact in terms of changing perceptions, and deliver an ongoing campaign which promotes change, including attracting more women to become investors. Campaign activities could include evidence-based training, showcasing success stories, demonstrations of research impact.

We need to raise greater awareness amongst investors about the opportunities for exploitation of women innovators in STEM. Universities can play a stronger role as hubs to enable the interface of investors with emerging opportunities in STEM -based women led research and as a source of expert knowledge and market intelligence for the investment community.

Build opportunities

There are clearly barriers and challenges for women scientists in particular to spin out their research or create start-ups. We need to create an environment which begins to address these through creating opportunities and facilitating scientific entrepreneurship whether this is through interventions within the investment ecosystem or within the higher education sector.

As we have seen in this paper, there are already opportunities for women investors or potential investors to network and build their knowledge and expertise. These need to continue and widen their reach to ensure more women can access their support. There needs to be a particular focus on women scientists becoming investors, bringing their understanding of the scientific market and the opportunities it presents.

Universities need to consider how they can facilitate their women scientists to commercialise their research by building an ongoing relationship with potential investors. This relationship needs to recognise the needs of investors and the environment within which they operate. For example, investors may prefer a critical mass of sector specific research to create a pipeline of funding opportunities; universities with similar research strengths could work together as a group to ensure there are sufficient numbers of opportunities coming through.

Universities should consider how they support academics, and particularly women scientists, wishing to commercialise their research. They should recognise the level of risk required in commercialising research, and the speed and agility of approach required to ensure opportunities are not missed.



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