

Funding women entrepreneurs

How to empower growth





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Main Report

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Funding women entrepreneurs: How to empower growth

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Forewords

Lilyana Pavlova

Vice-President, European Investment Bank

The Sustainable Development Goals call for the world to achieve gender equality and empower all women and girls. This implies equity of opportunity in all areas of our society and economy. Europe is making steady progress towards this fundamental principle and yet, at a time when more and more European citizens express the desire to launch their own businesses, women still remain underrepresented and underfunded in the field of entrepreneurship which is a key driver of innovation and growth in our society.

This report builds on the premise that putting our full weight behind female entrepreneurs makes fundamental sense. Bankers and investors increasingly see that it is not only ethically and socially the right thing to do, but also a clear-cut case of smart economics. In other words, it makes economic and business sense to ensure that women entrepreneurs gain access to the same opportunities for success as their male counterparts. This is particularly the case for the technology and innovation space where women face pronounced barriers when it comes to creating and funding their businesses. The report's recommendations propose an important role for EU institutions in ensuring that, when it comes to investing in female entrepreneurs, equity is much more than a financial term.

The new European Commission that took office in December 2019 has declared gender smart investing as a clear policy priority. EU policies and initiatives and next generation financing instruments are being designed through a gender lens to encourage the development of more female entrepreneurs, equipped with the means and capacity to grow their companies. Ensuring that investors are aware of the benefits of channelling funds into women-led businesses, and growing and empowering the cohort of female investors, is of course no less important.

For the EIB Group, the report looks to it to contribute not only to scaling up the amount of financing available to support female entrepreneurs, but also to offering advisory services which will help to overcome barriers, biases and gaps. I would like to thank our EIB InnovFin Advisory team for providing excellent recommendations for the EIB Group and its stakeholders to lead by example in the area of gender smart investment.

In 2017, the EIB Group launched its Strategy for Gender Equality and Women's Economic Empowerment with the three-pronged objective of protecting the rights of women and girls, heightening the positive impact of the full range of our activities on them, and investing in projects specifically aimed at boosting women's economic empowerment. Since the strategy's introduction, the EIB has gone on to put its financial weight behind a series of gender-focused projects, but we are well aware that much still remains to be done.

Today, we work alongside the European Commission to ensure that the strategic agenda of the European Union embeds gender equality as a central priority for our collective future.

This report could not be more timely as it provides a valuable contribution to informing the design of smart policies in favour of women entrepreneurs and women investors. The latter might suffer disproportionately from the economic consequences of the current coronavirus crisis, as evidence shows. I believe that the crisis response measures could offer a unique opportunity for EU institutions and the EIB Group to empower growth via targeted advisory support and financing for women-led businesses and put them on a stronger footing for the future. I would like to thank our colleagues at the European Commission for their continued support and senior sponsorship throughout this study and beyond.

Mabuf

The time for action is now.

Jean-Eric Paquet

Director-General for Research and Innovation, European Commission

Gender equality is a core European value enshrined in the EU treaties. Achieving gender equality is as much a matter of improving economic outcomes, and research and innovation performance, as it is of fairness and social justice. Yet, in research and innovation, women continue to face biases, which negatively affect their careers, lower their chances to succeed and contribute to the lack of awareness about the systemic nature of gender inequality.

The latest She Figures show that while in Europe the number of women with a career in research is slowly growing, women remain strongly underrepresented as inventors for all technology domains and patents, and their potential is not fully recognised nor valued. The persistence of gender stereotypes remains mostly visible in the field of science, technology, engineering and mathematics (STEM), where women are underrepresented at all levels. Such underrepresentation leads to suboptimal results since women's perspectives – biological, social or cultural – are overlooked. Thus, our society would benefit greatly in terms of innovation potential and value creation if women had equal opportunities to succeed as men.

Gender equality occupies a central role in the European Commission's agenda, highlighted as a top priority by the Commission President Ursula von der Leyen, the first woman to hold the position and who has composed the most gender-balanced College to date. Research and innovation can make an important contribution to the European Gender Equality Strategy. In particular, in terms of supporting women innovators, under the European Innovation Council (EIC) we will encourage the participation of women researchers, innovators and women-led companies and we will continue awarding the EU Prize for Women Innovators to those women who have brought game-changing innovations to the market.

Today, European societies are facing the human and economic impacts of the coronavirus pandemic, which is deepening further pre-existing inequalities, threatening to reverse the limited progress achieved to date for gender equality. This study shows us that today more than ever the actions we take, at European and national levels, for restarting our economies should embrace the gender dimension and provide an integrated framework of support measures to catalyse investment in female entrepreneurs and harness the power of women as investors to the benefit of society as a whole.

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Executive summary

Empowering women remains a common denominator and a global imperative for all those who care about fairness and diversity, but also productivity and growth of societies and economies that are more inclusive. If we can achieve this, we all gain.

Christine Lagarde, ECB President and former IMF Managing Director

Pick any of these indicators: potential increase of 26% of global annual GDP and of \$160 trillion of human capital wealth; 15% likelier better business performance; \$5.9 trillion estimated additional global market cap¹. What could we do in order to attain these indicators? The answer lies in diversity. Greater gender diversity has significant effects in terms of GDP growth, higher productivity and profitability. Moreover, gender diversity in research and innovation leads to superior results, therefore contributing to greater innovation potential and value creation. The world over, one of its best assets is underrepresented, undervalued and unevenly treated. All this despite evidence and data confirming that supporting women's economic empowerment makes not only ethical and social but also economic and business sense.

A case in point, according to a 2018 Boston Consulting Group study, is that women entrepreneurs generate more revenue than their male counterparts despite receiving lower financial backing. The study² revealed that for every \$1 of investment raised, women-owned startups generated \$0.78 in revenue, whereas men-run startups generated only \$0.31.

In September 2015, all UN Member States adopted the 2030 Agenda for Sustainable Development, which is built on an urgent call for action to achieve 17 Sustainable Development Goals. Goal 5 sets out the ambition to level the above-mentioned unequal playing field by "achiev(ing) gender equality and empower(ing) all women and girls." This study shows that the whole ecosystem needs to be adapted to empower women-driven companies and investors. Chiefly, policymakers and investors should treat investment in female entrepreneurs and improvement of market opportunities for female investors as opportunities to be seized owing to their economic benefits. We consider that important role-players, such as policymakers and investors, should mainstream the commitment to Goal 5. This would not only benefit them and bring this goal within easier reach but would also act as a catalyst for achieving other key sustainable development goals.³

In this study, we attempt to contribute to the existing body of evidence by assessing the access-to-risk-capital conditions for women-driven companies. In particular, we analyse the trends of venture capital funding for women-led and women-founded companies in the European Union and, by comparison, in the United States and Israel to contextualise emerging cross-country and regional barriers and gaps. Data from PitchBook are supplemented by interviews with market practitioners of the European venture community and other stakeholders.

We find that gender disparities persist, with women-led companies continuing to account for a small portion of deal flow and overall volume invested. However, the rate of growth has increased across every region examined in this study, and a key contributor is the unprecedented increase in late-stage investment.

However, there are structural inequities and persistent biases both in the supply of and demand for finance that continue to hinder the transition to a more balanced, accessible and ultimately better functioning funding environment.

- https://www.mckinsey.com/~/media/mckinsey/business%20functions/organization/our%20insights/delivering%20through%20diversity/deliveringthrough-diversity_full-report.ashx, https://openknowledge.worldbank.org/bitstream/handle/10986/29865/126579-Public-on-5-30-18-WorldBank-Genderlnequality-Brief-v13.pdf?sequence=1&isAllowed=y, https://www.spglobal.com/_Assets/documents/corporate/Adding-More-Women-To-The-USWorkforce.pdf
- thttps://www.bcg.com/d/press/6june2018-why-women-owned-startups-are-a-better-bet-193991
- 3 Notable goals that could benefit from focus on SDG 5 are SDGs 1-4 (no poverty, zero hunger, good health and well-being, quality education), 8 (decent work, economic growth) and 10 (reduced inequalities), among others.

For this reason, we propose and analyse a number of recommendations — both financial and policy-related — that could help to accelerate this transition.

A growing number of investors from diverse backgrounds have come to realise the benefits of actively promoting women's empowerment. And we have seen that as a result of this global step change, European institutions, European Union Member States, FTSE 100 and other blue-chip companies, International Financial Institutions, and we here at the EIB, are stepping up to the plate on gender equality.

Alexander Stubb, former Vice-President, EIB



Objective and methodology

The aim of this study is to provide a sound market overview of the venture capital funding landscape for womendriven companies⁴ and to embed it in a qualitative analysis of access-to-funding conditions for this constituency. We also analyse the state of play of women in the investor community and the role of female investors as a potential key driver to mobilise more capital for women-driven companies.

This study employs qualitative analysis in the form of a literature review and interviews with market participants and quantitative analysis in the form of funding gap analysis and cross-country analysis to assess the state of the venture capital funding environment for women-led companies.

Funding gap analysis: The analysis quantitatively breaks down access-to-finance conditions for women-led companies in the European Union based on criteria such as company size, sector, funding stage and geography with reference to activity by year, median round sizes and valuations as well as average company revenues. Unless indicated otherwise, all the data used in this study are provided by PitchBook.

Cross-country analysis: To provide an insight into the funding landscape for women-led businesses in European Union countries, the analysis comparatively reviews venture capital funding activity, mainly in the United States and selected cases, such as Israel.

Literature review: The review provides a systematic review of existing academic, government and industry literature on access-to-finance conditions for women-driven companies, identifying key access-to-finance challenges to support recommendations for stakeholders.

Interviews with market participants: Investors supporting women-led businesses, female investors, publicly or privately funded programmes for female investors and networks promoting investment in women-driven companies were identified and interviewed. Using a specially designed questionnaire, 12 market participants were interviewed or submitted responses in writing between late November 2018 and early February 2019.

Specifically, this study collates the latest research on venture capital funding from the perspective of women-led startups in the Member States of the European Union. It performs a comparative breakdown of investment activity in the United States and Israel to contextualise emerging cross-country and regional barriers to finance in the European Union. The period of study spans a decade. We provide an assessment of the challenges to securing external funding from institutional investors encountered by women-led companies across industry and sector, using quantitative and qualitative analyses of the venture capital financing landscape.

Glossary: Venture capital funding is defined as equity investments in startup companies from an outside source. Investment does not necessarily have to be from an institutional investor. It can be sourced from individual angel investors, angel groups, seed funds, venture capital firms, corporate venture firms and corporate investors. Investments received as part of an accelerator programme are excluded, but further financing is included if the accelerator continues to invest in follow-on rounds.

As with any growing field of research and as depicted in Figure 1, a number of limitations exist within the body of academic, government and industry work undertaken on women's access-to-finance challenges in the European Union.

Women-led throughout the document is defined as companies having "at least one female executive," that is, at least one woman currently holding a C-level, founder/founding partner, president and/or chairman/woman position. Whenever women-driven is used, it is a direct substitute for women-led and follows this definition. Companies with at least one female founder include those companies for which the female founder(s) no longer work. Companies with at least one female founder are treated as a sub-group of women-driven companies and are characterised as such throughout the text.

Figure 1. Summary of limitations to current research

Correlation vs. causation

•Demonstrating causation has several methodological problems, including, but not limited to, a lack of longitudinal data on company and industry performance

A standardised measure of diversity does not exist

 Quantifying gender diversity remains idiosyncratic relative to industry and company, with a range of tools used to calculate various measures of inclusivity and performance. like survey data

Diversity could serve as a proxy for good governance overall

•Greater diversity, including but not limited to gender, may represent a proxy for good governance elsewhere within the enterprise that is not only worthwhile in and of its own merit but also supports the bottom line

Working assumptions and hypotheses

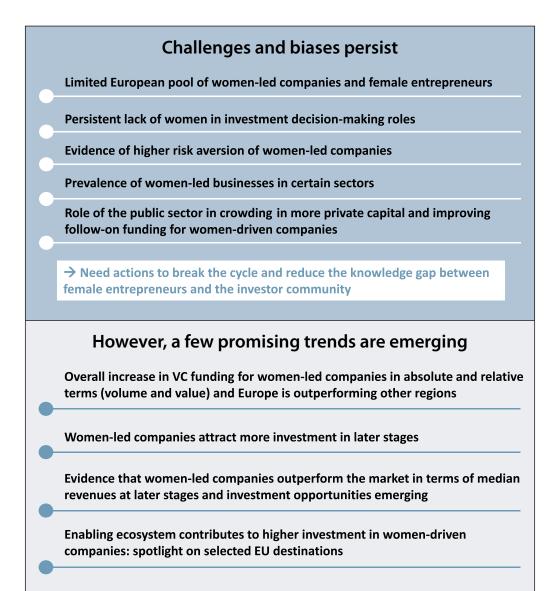
In 2017, US-based startups founded exclusively by female entrepreneurs received roughly 2% of overall venture investment. In light of this widely publicised disparity in funding between men- and women-led companies, at the outset of this study, we assumed that a comparable trend would hold for the European Union, where women secured only 11% of venture capital funding in 2017, and Israel, where women-led companies secured 28.3% of overall venture capital invested that year. Likewise, we hypothesised that levels of government-initiated investment activity would explain relative differences between national and regional venture ecosystems.

We also assumed that, by and large, the cultural roots of gender biases are sufficiently shared across the particular geographies examined. So, we did not specifically consider how country-level differences in gender biases might affect the funding gap.

Key findings

We find evidence of a persistent funding gap between male and female entrepreneurs, despite some promising trends emerging. Overall, the data suggest that the investment climate for women-led companies in the European Union is slowly improving, despite starting from a lower base than, for example, the United States. However, differences in the overall proportions still exist. Women-led startups are not funded on an equivalent basis to men-led startups, owing to structural inequalities in the population of entrepreneurs and investors as well as persistent biases. For example, since 2006, the World Economic Forum has annually issued the Global Gender Gap Report, which includes the Global

Gender Gap Index. At the current rate of progress, it will take another 108 years to close the gender gap and 202 years to reach economic gender parity, according to the 2018 report.⁵



Challenges and biases persist

A combination of lack of female representation among founders and investors, gender investment bias and risk aversion creates a vicious circle that is difficult to break.

Since 2006, the World Economic Forum has issued the Global Gender Gap Report, which includes the Global Gender Gap Index. This index examines the gap between men and women across four fundamental categories or sub-indexes: economic participation and opportunity, educational attainment, health and survival, and political empowerment. At the current rate of progress, it will take another 108 years to close the gender gap and 202 years to reach economic gender parity, according to the 2018 report: http://www3.weforum.org/docs/WEF_GGGR_2018.pdf. Likewise, the World Bank recently released its Women, Business and the Law report measuring gender discrimination in 187 countries. It found that only Belgium, Denmark, France, Latvia, Luxembourg and Sweden scored full marks on eight indicators — from receiving a pension to freedom of movement — influencing economic decisions women make during their careers: https://wbl.worldbank.org/#. It can safely be assumed that structural inequalities between men and women as investigated in the abovementioned reports translate into the domains of female entrepreneurs and investors examined by this report.

The European pool of female-led companies and female entrepreneurs is still limited

While the European Union shows some promising trends concerning venture capital funding for women-led companies, as we examine later in the study (Section *A few promising trends emerging*; subsection *Women-led companies are raising record levels of finance, with Europe outperforming other regions*), it is worth noting that venture capital funding for female-led companies in the European Union is lower than that of the more mature US venture capital market. As PitchBook data show, while women-driven companies in the European Union received a record \in 5 billion in venture capital funding in the first three quarters of 2018 (up from \in 1.1 billion in 2010), this is a fraction of the \in 34.2 billion (\in 7.2 billion in 2010) that women-driven companies received for the same period in the United States. This might contribute to the fact that the European pool of female-led companies and entrepreneurs is still limited in comparison to the North American pool in particular.

As Figure 2 shows, the share of female entrepreneurs worldwide varies considerably, but in all instances is below that of male entrepreneurs, which likely contributes to lower demand for external financing by female entrepreneurs. North America (Canada, the United States and Mexico), where women comprise 47% of entrepreneurs, most closely represents true parity in the overall supply of male and female entrepreneurs. Meanwhile, across Europe, there is a relative lack of female to male entrepreneurs: women represent roughly 52% of the overall population in Europe, according to the European Commission, but constitute 34.4% of the self-employed and 30% of startup entrepreneurs.

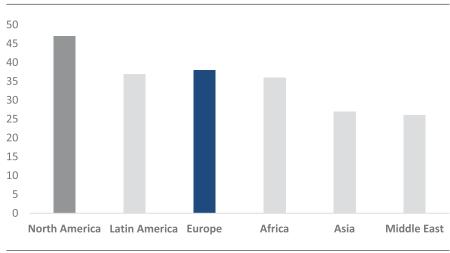


Figure 2. Female entrepreneurs as a % of total number of entrepreneurs per region

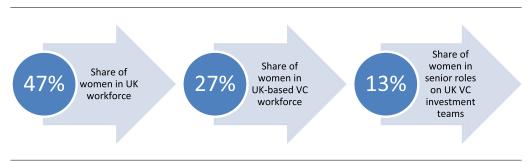
Source: Facebook, OECD and World Bank (2018)

Even though the US venture capital ecosystem overall is at a more mature stage than that of the European Union, more needs to be done in the United States to increase funding for women-driven companies. For example, only 2% of investment in startups goes to women-led startups even though 38% of startup founders are women. One outcome of the lack of female investors, which we explore in the subsection below, and the lack of funding for female-founded companies is gender imbalance among shareholders. For example, according to a 2018 study by Carta and #Angels, women comprise 35% of equity-holding employees of startups in Silicon Valley yet own only 20% of the equity. Worse, women account for 13% of startup founders but only 6% of founder equity. Even when they are on founding teams and assigned equity, women are far fewer in number than their male counterparts.⁶

⁶ https://www.ft.com/content/543a5aa4-3c37-11e9-9988-28303f70fcff

Persistent lack of women in investment decision-making roles

Figure 3. A breakdown of women's participation in the UK workforce and venture capital industry



Source: Diversity VC, British Venture Capital Association and Craft.co (2017)

Research undertaken by non-profit organisation Diversity VC and the British Venture Capital Association found that women remain underrepresented across a variety of roles at investment firms in the United Kingdom (Diversity VC, British Venture Capital Association and Craft.co 2017). Moreover, women's share of the investment decision-making roles within the investment committees of these organisations remains much smaller than men's share. Women represent just 27% of the venture capital workforce in the United Kingdom compared to 47% of the country's overall workforce. Meanwhile, 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. Finally, of the 160 firms surveyed, 66% did not employ women in any investment decision-making capacity.

In the United States, recent research has found that roughly four out of five venture capital firms have never employed a woman in a senior investment role, just one in 10 new hires are women and less than 9% of venture capitalists are women (Gompers et al. 2014; Gompers and Wang 2017). Women and minority-led funds manage just 1.3% of the €69 trillion asset management industry even though they perform just as well as, or better than, funds that are majority owned by white men (Lerner et al. 2019). Moreover, only about 10% of decision-makers at US venture capital firms are women. According to research on the US venture capital ecosystem, investment firms with women partners are more than twice as likely to invest in women-led enterprises and more than three times as likely to invest in enterprises with women chief executive officers. So, diversity of investment decision-makers should lead to more even distribution of capital.

For every stage of investment, the literature repeatedly cites the **underrepresentation of women in charge of investment decisions at venture capital firms** as the primary source of the persistent funding gap for womendriven enterprises in the European Union and elsewhere. Figure 4 below illustrates the disparity in female-to-male representation in the boardrooms of venture capital firms and therefore the potential to significantly improve female lead partner involvement in global venture capital.

⁷ https://www.institutionalinvestor.com/article/b1cwvq3mc37xwk/Asset-Managers-Owned-by-Women-and-Minorities-Have-to-Work-10X-as-Hard-for-Assets

⁸ https://news.crunchbase.com/news/the-slow-progress-of-women-in-venture/

As stated previously, women-led throughout the document is defined as companies having at least one woman currently holding a C-level, founder/founding partner, president and/or chairman/woman position whereas enterprises with women chief executive officers are defined as companies having a women holding the title of chief executive officer.

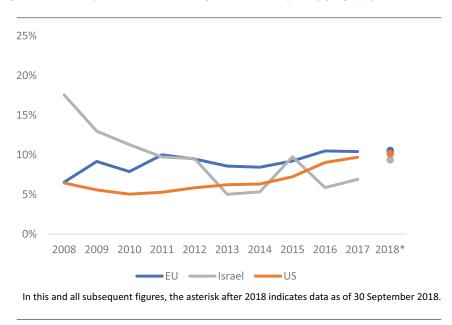


Figure 4. Percentage of female lead partner involvement in global venture capital by geography

The phenomenon of underrepresentation of women in investment decision-making roles is hardly unique to the venture capital industry. It is prevalent across asset management firms. A recent study by The Knight Foundation in collaboration with the Harvard Business School and Bella Private Markets updated earlier findings from 2017 on

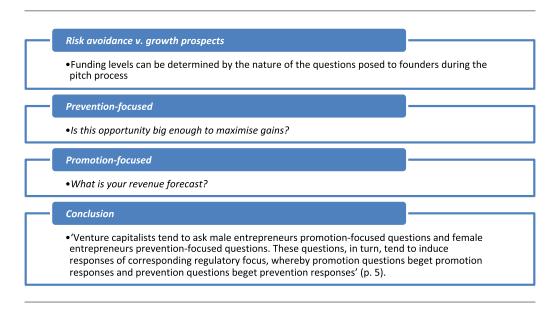
hedge funds (Lerner et al. 2017, 2019), mutual funds, private equity funds and real estate funds and found that men still dominate investment decision-making roles.

However, conscious and unconscious biases can also inform the pitch process. Underlying biases include investors' beliefs/biases about what a founder's ideal background should be, whether in terms of academic achievement, professional or business experience and technical expertise. All of these factors have a documented impact on the funding gap, which may stem from male investors' belief that women-driven ventures are riskier or simply that entrepreneurship itself is more of a male than female sphere.¹⁰

For example, research suggests that gender can prompt both male and female investors to ask female entrepreneurs questions that emphasise their capacity for loss avoidance over their growth prospects (Kanze et al. 2018) (see Figure 5 for key takeaways). For instance, "is this opportunity big enough to maximise gains?" (Kanze et al. 2018, p. 14). Questions about revenue forecasts or how customer acquisition will take shape are more promotional in nature and these are asked more frequently of men than of women, yet these sorts of questions secure "significantly higher amounts of funding" (Kanze et al. 2018, p. 14). Likewise, Lee and Huang (2018) demonstrate that women-led startups confront a "gender penalty" and consequently fare more poorly than those founded by men among evaluators of pitch presentations.

Bosse and Taylor (2012) identify "gender bias that obstructs women-owned small firms from accessing the financial capital required to start new firms and fuel the growth of existing firms" and call this phenomenon a "second glass ceiling" (p. 52).

Figure 5. Key takeaways from Kanze et al. (2018)



Similarly, several studies have demonstrated that discussions among investors about a potential target's investment worthiness tend to reinforce gendered categories (Malmström et al. 2017). These stereotypes lead investors to believe that female entrepreneurs lack competence, need greater support and, ultimately, represent a less investment-worthy target than their male counterparts. For example, investors assess men as having such attributes as "vision" and "independence" more frequently than they do female entrepreneurs during discussions in search of external funding. However, additional research on "cold pitches" via email and gender bias complicates this picture further, as the following box shows.

Preliminary findings from Gornall and Strebulaev (2018) about gender and initial contact with investors

Timeframe: Over a roughly two-week period between 30 October and 16 November 2018, researchers from the University of British Columbia and Stanford University sent 80 000 email pitches "introducing promising but fictitious startups to over 28 000 venture capitalists and business angels."

"We show an overall high rate of interested replies to cold pitches, which should give hope to budding entrepreneurs without strong networks" (p. 1).

Design: The researchers drafted 50 unique pitches and sent these to 28 449 representative venture capital and angel investors in "all of the major industry classes from energy to healthcare to information technology" (p. 12). Professional investors deemed the pitches "typical" of those they would expect from "high-potential startups." The names of all "phantom entrepreneurial senders" were gleaned from the 1 000 most frequently used first names in "the Social Security Administration (SSA) dataset of male and female baby names in 1995 (under the assumption that our entrepreneurs would have been born around that time)" and deployed various techniques to remove names that might have introduced any lingering ambiguities about the sender's gender, such as the name "Taylor" (p. 10). The researchers also controlled for combined first and last names that could be connected to real enterprises in the target industry pitched or from graduate students working in the relevant disciplinary subject based on available LinkedIn profiles and university directories.

Results: The results did not conform to the expectation that female entrepreneurs experience a higher rate of "non-trivial" gender discrimination than do men. Rather, new ventures pitched by women received an 8% greater rate of interest from prospective investors out of the roughly 6 500 manual replies that the researchers received.

"Putting it another way, for each 250 unsolicited cold calls, women can expect to get on average one additional reply" (p. 4).

The researchers proposed two possible interpretations for the result. One is that investors respond to their perceptions about the different abilities and opportunities of various groups of entrepreneurs. The other is that some investors prefer women founders, either because they are from the same group or because they support underrepresented entrepreneurs.

Timing could explain some of this surprising result, as issues surrounding the gender funding gap have garnered far greater interest from the investment industry than even two to three years ago.

Caveat: This study could not gauge the prejudice that female entrepreneurs could encounter at later stages of the investment process. In addition, the research behind this project remains ongoing.

Higher risk aversion of female-led companies?

On the demand side, interviews and anecdotal evidence suggest that women-led companies may be less inclined to pursue external financing solutions, displaying some degree of risk aversion.

Across Europe, we observe a relative lack of female to male entrepreneurs: women represent roughly 52% of the overall population in Europe, according to the European Commission, but constitute 34.4% of the self-employed in the European Union and 30% of its startup entrepreneurs. This imbalance is combined with women's self-reported preference for sources of self-funding, or "bootstrapping", and so their businesses would appear to contribute to a smaller demand for external financing at the outset of establishing a new enterprise. As several studies indicate¹¹ and Figure 6 illustrates, even when aware of their opportunities to secure external funding to jumpstart their nascent enterprises, many women in the European Union would still prefer to provide a significant level of startup capital themselves.

Figure 6. Funding challenges for female entrepreneurs. Source: European Parliament (2015)

- Women frequently start with less capital when setting up a business and pursue smaller loans. This finding is prevalent across all EU countries and is even more pronounced among smaller women-led businesses.
- Women frequently rely on family members, particularly spouses, to fund their business a financing option that in other markets is found to lead to lower growth potential.
- In lieu of conventional bank loans, women may pursue either more costly forms of finance, such as venture capital, or abandon altogether external financing of any kind.
- Women frequently encounter problems when attempting to access equity financing, including angel financing.
- Along with a greater reliance on family for financing than men, women appeal
 to family members for financial advice with greater frequency than men do.
 Men appeal more often to other business associates.

Relevant studies include: Facebook, OECD and World Bank (2018) and Eddleston (2018, pp. 1–10).

Some of the work on gender differences in borrowing patterns to support small-business growth finds that women tend to seek and secure smaller loans than men do, often at higher cost (Sena, Scott and Roper 2012).

The above-mentioned tendency for European Union-based female entrepreneurs to resort to smaller loans than those of men is also observed at a global level. Of women-owned small and medium-sized enterprises worldwide, 16% report dependence on loans from banks as a source of capital to fund their businesses compared to 22% of men. The same study found that overall, only 2% of women-led SMEs polled were found to use venture capital to fund their businesses, while 5% of men pursued this route (Facebook, OECD and World Bank 2018).

Bootstrapping, as highlighted above, appeals to women entrepreneurs generally, not only those in the European Union. Despite this, research has shown that the preference for self-funding presents greater challenges for women than men. Eddleston (2018) found that female entrepreneurs also routinely face far greater scrutiny when seeking to raise capital from family and friends to start a business than their male counterparts do.¹²

Conclusion drawn by Kimberly Eddleston (2018) on bias in access to funding from family and friends:

"[O]ur study reveals both advantages and disadvantages that women entrepreneurs experience when obtaining loans from family and close friends. Although women, on average, receive larger loans from family and close friends than their male counterparts, they must demonstrate a high personal investment in their business and number of employees in order to obtain these larger loans. Thus, while family and close friends are willing to financially support women entrepreneurs, the women must prove their business's quality and their commitment to their business to obtain larger loan amounts. Conversely, men entrepreneurs do not appear to be held to such a standard. As such, even family and close friends show some gender bias against women entrepreneurs." (pp. 8–9)

It bears mentioning, then, that the general preference observed of women entrepreneurs for bootstrapping their businesses might not represent an altogether negative trend. Rather, it may represent a smart move, depending on the nature of the enterprise in question along with the scope of the ambitions shared for the enterprise among the founding team.¹³

Prevalence of women-led businesses in certain sectors might fuel the funding gap

In addition to the evidence supporting the assumption that women-led companies may be less inclined to pursue external funding solutions, it is also believed that the specific business sector plays a part in fuelling the funding gap. This is because women more often pursue social enterprises or service areas perceived as less capital intensive, and potentially with a lower risk-return profile, which has historically corresponded to lower investment (European Parliament 2015). In addition, the Future of Business Survey conducted by Facebook, OECD and World Bank (2018) found that women tend to set up companies as a result of personal interests or hobbies more than do men, who more often report wanting to make money.

¹² Eddleston (2018) "controlled for whether the business operated in a traditional industry for women" to eliminate this factor, given that the sector a business serves has been shown to impact levels of external financing pursued and received (p. 5).

A small but growing number of founders and investors has recently expressed scepticism about the utility of venture capital investment for a number of reasons. See Erin Griffith, "More Start-Ups Have an Unfamiliar Message for Venture Capitalists: Get Lost," The New York Times, 11 January 2019: https://www.nytimes.com/2019/01/11/technology/start-ups-rejecting-venture-capital.html.

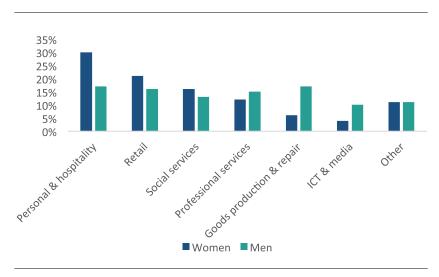


Figure 7. Global distribution of men- and women-led SMEs across industries

However, regardless of gender, software represents the primary focus for startups in general, suggesting that sector-specific differences do not emerge at high levels in any quantifiable manner, and could be more in the realm of narrative than reality. The data on deal-making by sector across the European Union provide more nuance.

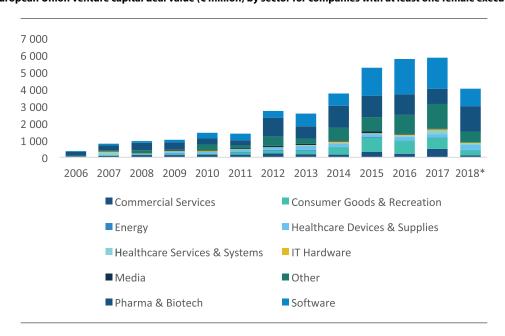


Figure 8. European Union venture capital deal value (€ million) by sector for companies with at least one female executive

Analysing venture-financing flow by deal value, there is no significant disparity between companies with at least one female executive versus the broader population, but there are some notable takeaways to suggest that certain biases may persist. For example, investors in the European Union show interest in or familiarity with funding women-led companies mainly in a restricted range of industries or vertical markets, like retail and consumer packaged goods, or social sectors, such as education and healthcare. Consumer packaged goods and the recreation industry account for a large proportion of money invested in women-driven enterprises (€1.3 billion in aggregate deal value in 2017). However, software and pharmaceuticals and biotechnology stand out in terms of funding

attracted (€0.9 billion in 2017). This result complicates the anecdotal bias that investors favour certain sectors that are identified more with stereotypically female enterprises, such as consumer goods and recreation, even as this is most likely due to very large, skewing rounds, as Figure 9 shows.

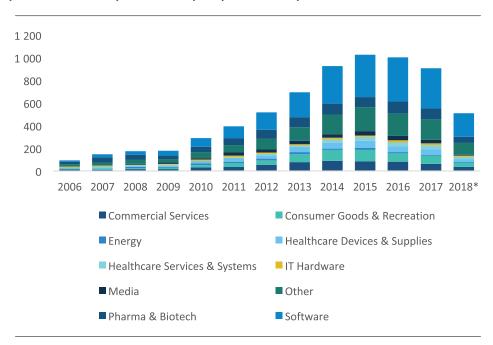


Figure 9. European Union venture capital deal activity (#) by sector for companies with at least one female executive

The sector trends in the European Union for women-led companies do not differ considerably from the broader landscape in the United States, although, of course, there is a smaller proportion of all companies overall. For example, according to PitchBook data, the comparable amount of US venture capital invested in female-led pharma and biotech companies in 2017 was €6.9 billion. By and large, although the trends in growth are the same, the proportions have stayed constant, across sectors.

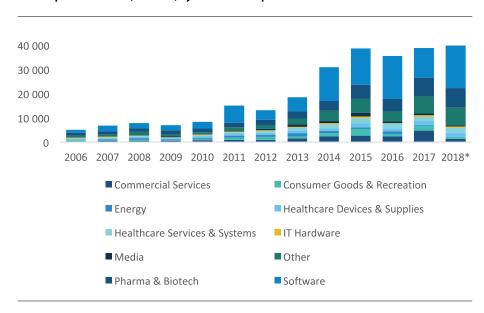


Figure 10. US venture capital deal value (€ million) by sector for companies with at least one female executive

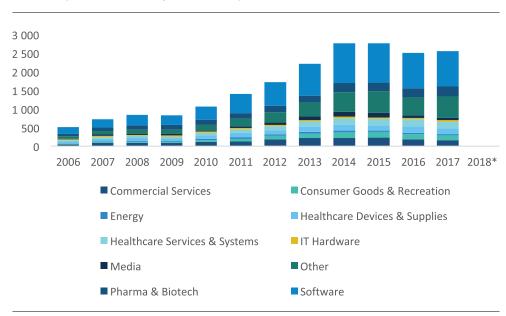


Figure 11. US venture capital deal count (#) by sector for companies with at least one female executive

Role of the public sector in crowding in more private capital and improving follow-on funding for womendriven companies

To understand better the broad differences in the roles played by government-affiliated external funding initiatives, a comparative analysis of the differences in venture capital activity between the European Union and the United States based on the top investors in women-led companies is instructive.

Figure 12. Top investors in European Union venture capital for	companies with at least one female executive, 2006–2018
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Investor Name	# of Deals Closed
Enterprise Ireland	191
Scottish Enterprise	99
Almi Invest	97
Bpifrance	90
High-Tech Gründerfonds	83
Index Ventures (UK)	64
Idinvest Partners	61
Balderton Capital	57
Octopus Ventures	55
Kima Ventures	54

As Figure 12 shows, a handful of European government agencies tasked with promoting national business development have been among the most active investors in women-led companies in recent years. ¹⁴ These government agencies are well placed to execute policy initiatives designed to encourage greater investment in women-led companies. By contrast, as Figure 13 shows, top investors in the United States over the same period are institutional private capital and the corporate venture arms of larger enterprises.

Enterprise Ireland supports female entrepreneurship with various programmes: https://www.enterprise-ireland.com/en/Start-a-Business-in-Ireland/Startups%20led%20by%20Ambitious%20Women/

Figure 13. Top investors in US venture capital for companies with at least one female executive, 2006–2018

Investor Name	# of Deals Closed
New Enterprise Associates	327
Kleiner Perkins	286
500 Startups	233
Accel	231
GV	230
First Round Capital	212
Andreessen Horowitz	211
Sequoia Capital	209
Khosla Ventures	192
Bessemer Venture Partners	178

These broad differences may reflect the relative fragmentation of the European venture community¹⁵ compared to the United States as well as the trend of a greater share of venture rounds in Europe going to companies at the seed and Series A level. For example, Enterprise Ireland helps to get new women-led businesses up and running but does not necessarily provide follow-on capital. By contrast, apart from the accelerator 500 Startups, the top investors in the US venture capital market for firms with at least one female executive tend to back promising tech companies throughout their lifecycles. As a result, follow-on investment could play a significant factor in the greater number of rounds joined for women-led companies among US investors.

The more prominent position of public innovation agencies and national promotional banks in Europe than that in the United States means that the public sector can play a critical role in setting the pace of change in improved funding to women-led companies in Europe. For instance, the public sector can notably play a role in mobilising more private investment in women-driven companies and in providing funding (follow-on investment and growth finance) to such companies along their lifecycles, thereby putting them on a sustainable growth path.

A few promising trends emerging

Women-led companies are raising record levels of finance, with Europe outperforming other regions

- In every region compared within this study, since approximately 2006, the rate of **funding for women-led and women-founded companies has gradually improved**. Moreover, the number of women involved as lead partners in venture funding has increased, albeit marginally, across every region except Israel.
- Comparing regions, proportionally, the European Union has slightly better compound annual growth rates for venture investment in women-led companies than those of the United States and Israel.
- Women-driven companies in the European Union received a record €5 billion in venture capital funding in the first three quarters of 2018 (up from €1.1 billion in 2010). While this is a fraction of the €34.2 billion (€7.2 billion) that women-driven companies in the United States received for the same period, the European Union is indeed catching up. Its compound annual growth rates in terms of deal value (27%) and deal volume (23%) exceed those of the United States (20% and 16%, respectively) for 2006–2017 (see Figures 14 and 15).

To overcome the fragmentation of European Union financial markets and diversify the financing of the economy, the European Commission has proposed an action plan to gradually achieve the development of the European Union Capital Markets Union by 2019: https://ec.europa.eu/info/business-economy-euro/growth-and-investment/capital-markets-union_en.

Figure 14. Compound annual growth rate in deal value of external financing for women-driven companies by region

Region	Compound annual growth rate in deal value, 2006–2017, at least one female executive (%)	Compound annual growth rate in deal value, 2006–2017, all (%)
European Union	27	19
Israel	14	15
US	20	15

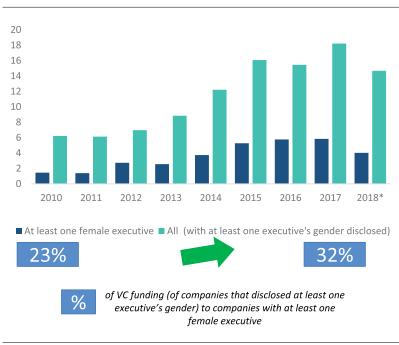
Figure 15. Compound annual growth rate in deal count of external financing for women-driven companies by region

Region	Compound annual growth rate in deal count, 2006–2017, at least one female executive (%)	Compound annual growth rate in deal count, 2006–2017, all (%)	
European Union	23	18	
Israel	10	13	
US	16	14	

• Nonetheless, the overall publicised disparity in funding between female and male founders persists. In 2017, US-based startups founded exclusively by women entrepreneurs received roughly 2% of overall venture investment by value. This figure was 11% in the European Union for companies with at least one female founder, whereas in Israel, women-led companies secured 28.3% of overall venture capital invested that year, and 21.6% of all volume.

Figure 16 illustrates the increase in venture capital deal value to women-driven companies in the European Union. In 2010, 23% of venture capital funding of companies that disclosed at least one executive's gender went to companies with at least one female executive, increasing to 32% in 2017.

Figure 16. European Union venture capital value (€ billion, 2010–2018)



Note: "At least one female executive" in this document is defined as having at least one woman currently holding a C-level, founder/founding partner, president and/or chairman/woman position

As further illustrated by Figure 17, the United States is ahead of the European Union for venture capital funding to women-driven companies in terms of absolute value, which is likely due to the more mature US venture capital market. Furthermore, in terms of relative value, the US venture capital market is ahead of the European Union for funding of women-driven companies. In 2010, 32% of venture capital funding of companies that disclosed at least one executive's gender went to companies with at least one female executive, increasing to 48% in 2017. Despite the promising trends, the European Union needs to catch up on the overall level of venture capital funding to women-driven companies.

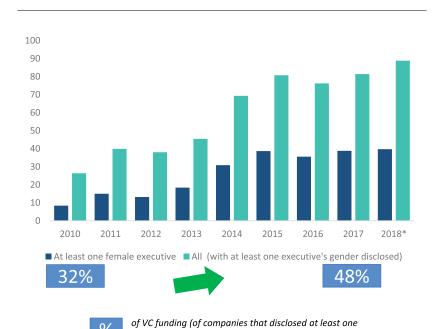


Figure 17. US venture capital value (€ billion, 2010–2018)

On a positive note, European Union women-led companies that are venture-backed have been enjoying higher exit rates in terms of deal value and volume since 2013, and 2018 in particular, as illustrated by Figure 18 below. This finding implies there is potential for more capital reflows into the ecosystem.

executive's gender) to companies with at least one female executive

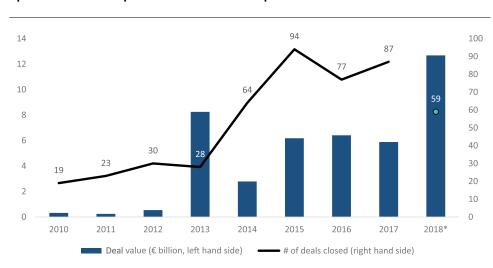


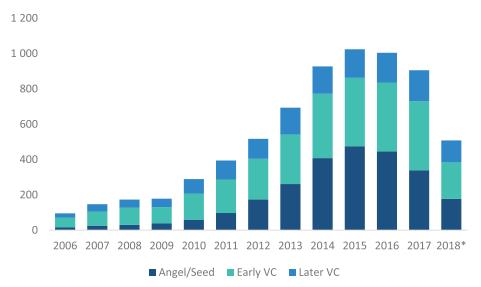
Figure 18. European Union venture capital-backed exit flow for companies with at least one female executive

Women-led companies attract more investment in later stages, but the European Union market is still maturing

- · A key contributor to the European Union growth rates in terms of deal value and deal volume has been the unprecedented increase in late-stage investment, with private capital largely replacing public markets as more funds became available. This is largely because institutional investors increase relative allocations to private equity in general. Mature private companies tend to hire more women in general simply because of their size, which contributes to the increase in funding for businesses that tend to have women in executive roles, or as founders.
- The European venture community has invested in women-led companies at a greater rate on an annual basis than the region's overall growth of capital invested. However, investment activity for women-led companies varies across financing stages. As shown by Figure 19, since 2006, completed funding rounds for women-led companies in the European Union at the early stage accounted for the greatest share of activity at 2 915 deals, followed by angel/seed investments at 2 543 in total. In terms of deal count, late-stage deals trail these figures at 1 396 funding rounds, which is in line with overall trends for venture capital activity over the same period, as the European venture ecosystem continues to mature at a slower pace relative to the United States.



Figure 19. European Union venture capital deal count (2006–2018)



Spotlight on selected European Union investment destinations¹⁶

We analyse data for women-led companies that completed Series C funding, which typically targets company scale-up, following the proven viability of the business model sustained through earlier funding rounds.

In the European Union, out of 522 companies funded¹⁷ at Series C¹⁸ (2006–2018) on 30 September 2018, 110 had at least one female executive. The United Kingdom had the highest total number of companies funded (158) as well as the most women-led companies (48), while Spain, France, Sweden and Germany were other top locations for numbers of women-led companies funded. Ireland ranked sixth.

We identify the top five countries in European Union Member States in terms of total Series C funding value to women-led companies (2006–2018):

- The United Kingdom leads with €4.7 billion to women-led companies out of €10.6 billion total Series C funding (44% of total Series C funding to women-led companies). The top sectors in terms of funding to women-driven companies are information technology (34% of deal value to women-driven companies), business to consumers (24%), healthcare (17%) and financial services (15%).
- Sweden ranks second with Series C funding provided to women-led companies amounting to €2.3 billion (87%). Information technology is the leading sector in terms of deal value to women-led companies (92%).
- Germany follows with €1.9 billion out of total €8.3 billion Series C funding to women-driven companies (24%). The top sectors in terms of funding to women-driven companies are healthcare (52% of deal value to women-driven companies), business to consumers (23%) and information technology (16%).
- In France, €1.1 billion out of €3.2 billion of Series C funding went to women-driven companies (35%). The top sectors in terms of funding to women-driven companies are healthcare (53% of deal value to women-driven companies), information technology (24%) and business to consumers (19%).
- Spain occupies the fifth place with €0.6 billion out of a total of €1 billion Series C funding to women-driven companies (68%). Business to consumers is the leading sector, amounting to 78% of total deal value to women-driven companies.

Figure 20 identifies the top five countries in European Union Member States in terms of total Series C funding rounds for women-led companies:

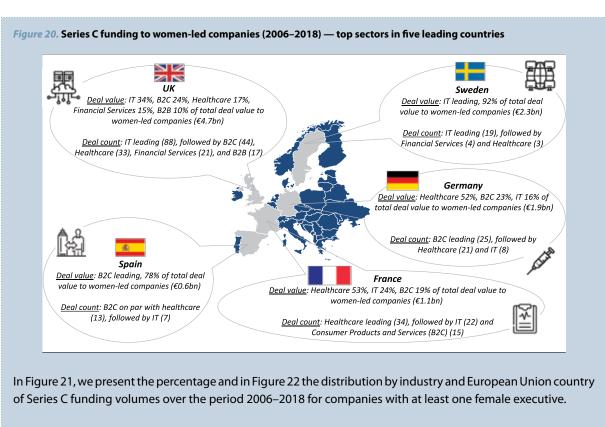
- The United Kingdom ranks first with 48 women-led companies out of a total of 158 companies funded at Series C (30%).
- France follows, with 25 women-led companies out of a total of 66 companies that received Series C funding (38%).
- In Germany, 12 women-led companies out of a total of 86 companies received Series C funding (14%).
- Spain occupies the fourth place with eight women-led companies out of 15 companies having received Series C funding (53%).
- Sweden ranks fifth with five women-led companies out of a total of 15 companies funded at Series C (33%).

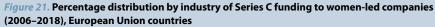
Refer to the section "An enabling ecosystem contributes to higher investment in women-driven companies" for a closer examination of what likely made these hotspots attractive for investment in women-driven companies.

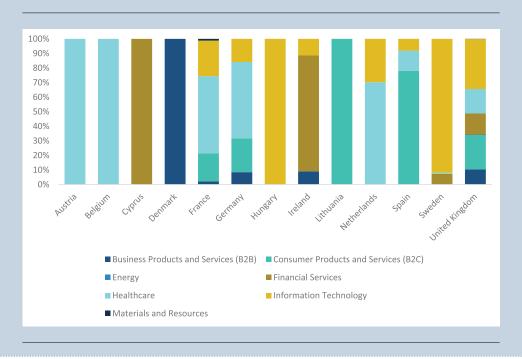
¹⁶ Companies accounted for in these data are those that disclose at least one executive's gender.

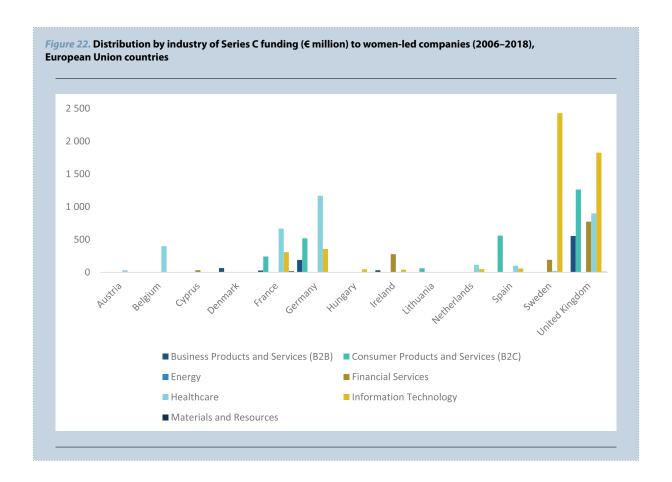
¹⁷ Companies accounted for in these data are those that disclose at least one executive's gender.

We analysed women-led companies funded at Series C to identify success stories of women-led businesses. Typically, only companies with a proven business model go beyond early-stage financing rounds (Series A or B) and complete Series C (part of late-stage financing, including Series D or later) funding rounds. Series C funding typically supports the scale-up of a company.









Women-led companies outperform the market in terms of median revenues at later stages

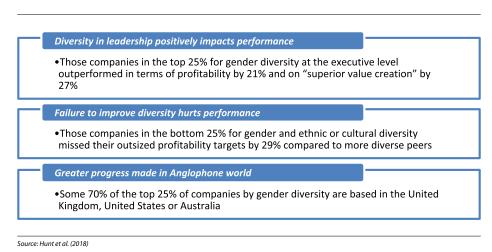
- Across every region, the median revenues of women-led companies **outperformed or were at least equivalent** to those of the broader population. Much of that can be attributed to the rising incidence of late-stage venture investment, but the more important takeaway is that there is no disparity between the performance of women-led and men-led startups if anything, guite the contrary.
- Reviewing global performance per median revenues by stage, it is even clearer that companies with at least
 one female executive begin to outperform as the stage progresses. For example, late-stage companies
 with at least one female executive outperform the entire population by increasing margins. Again, this result is
 partially due to the maturation of private companies with a greater probability of female executives as they grow
 increasingly large while remaining private. However, the trend simply underlines how such executives and talent
 base diversity help to support growth.

There is further evidence supporting the argument that investing in female business leaders makes sound economic sense. A recent report from UBS on sustainable investing recaps finding a correlation between the proportion of women in senior management and "superior sales growth, cash flow return on investment and lower debt levels" (Whittaker and Stiehler 2017, p. 2). In addition, Credit Suisse research shows that since 2005, companies with at least one female director have enjoyed compound returns per annum of 3.5% more than companies with boardrooms that are entirely male (Dawson, Kersley and Natella 2016).¹⁹

The Credit Suisse Research Institute mapped 27 000 senior managers at more than 3 000 of the largest companies globally since undertaking the original project in 2014. The institute found that between 2010 and 2016, the year of publication, women held 14.7% of board seats, representing a 54% increase. However, the study also found that, although "female overboarding seen in the US and European boardrooms enabled rapid achievement of diversity targets, it has also tended to reduce the pool of women available for senior management roles" (Dawson, Kersley and Natella 2016, p. 1).

Likewise, McKinsey & Company (see Figure 23) has found across several years of study since 2015 that positive correlations exist between financial performance and diversity, including but not limited to gender (Hunt et al. 2018).²⁰ However, regional differences in performance related to diversity, including but not limited to gender, do exist. In addition, finding comparable methods for assessing the relationship between financial performance and diversity at venture capital-backed companies presents its own problems, not least because it is common for startups to be years away from generating revenue, much less profit. This factor can make it difficult to anchor findings showing a positive correlation between gender diversity and profitability in venture investors' mainstream thinking. Overall, gender diversity, like other environmental, social and governance concerns, requires further research to translate what are currently somewhat widely documented correlations into action.

Figure 23. Summary of findings from the McKinsey report Delivering through Diversity



As the market data gathered and qualitative analysis undertaken for this study show, the news is not only bad. While a clear knowledge gap exists among key stakeholders, the investor community and female entrepreneurs, translating into a funding gap for women entrepreneurs, many metrics point in the right direction. As far as financing is concerned, the whole investor community needs to be more conscious of gender so as to avoid missing future investment opportunities.

As the following section shows, a combination of low-hanging fruit and longer-term and more innovative actions is needed. Momentum is building and the private and public sector, represented by companies, banks and institutions like the European Investment Bank, are operationalising their gender strategies. More can be done to increase investor awareness of an untapped pool of talent and business.

Need for action

Break the cycle and incentivise the venture capital market

To achieve greater parity of external funding between men- and women-led ventures in the European Union, no single set of policies will alter the status quo in the near term while preserving the need to drive innovation across industries on a competitive basis. However, several measures could further mitigate access-to-finance challenges, chiefly investment strategies that favour companies and investors with more robust gender diversity policies. There is a paramount need to increase the quantum of financing available to female entrepreneurs going forward, and European institutions and programmes have the means to lead the way by prioritising investments in this area and crowding in additional financing. In the recommendations section at the end of the report, we suggest a number of

The expanded 2018 McKinsey study *Delivering through Diversity* examined 1 000 companies in 12 countries "using two measures of financial performance — profitability (measured as average EBIT [earnings before interest and tax] margin) and value creation (measured as economic profit margin)" (Hunt et al. 2018, p. 1).

ways to achieve this, including, but not limited to, investments or co-investments with women-led venture funds, dedicated impact funds and funds with a female investment focus.

The case studies below highlight recent actions by the investment community to further improve funding conditions for women-founded companies.

Case studies



Female Founders Fund

- Introduced in 2014, the Female Founders Fund focuses on making seed and early-stage investments in women-led startups.
- In May 2019, F3 closed its second vehicle on \$27 million in commitments, representing more than a five-fold increase on its inaugural fund.
- F3 has backed women-led enterprises based in New York City, San Francisco and London.

"We are incredibly excited to continue building on our thesis that it is possible to achieve outsized returns by investing in women. With the support of our remarkable and successful base of investors, both institutional and strategic, we will continue to build a brand that invests in and champions female founders, while underscoring the larger conversation about the shift in dynamics within venture capital."

Anu Duggal, founding partner of F3



RED Capital Partners

- RED Ventures Fund I was established in 2018 by RED Capital Partners as a vehicle focused on investing in female-(co)founded businesses in Europe and Israel.
- The fund has a target size of €50 million, which will be used to back up companies in the technology space, including agritech/foodtech, artificial intelligence and digital health.



Karmijn Kapitaal

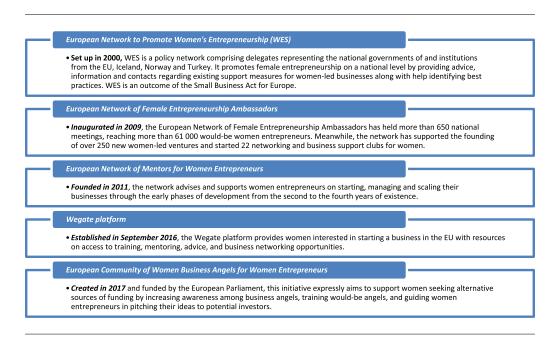
- Karmijn Kapitaal is a private equity and venture capital firm specialising in growth capital, late-stage management buyouts and buyins. The fund invests in Dutch SMEs.
- Gender diversity is among the key investment criteria of Karmijn. Relying on evidence that gender diversity leads to better decision-making, better performance and higher returns, the fund invests only in companies managed by a balanced team of men and women.
- Karmijn Kapitaal is a financial intermediary of the EIB Group. In 2016, the European Investment Fund backed the fund under the Dutch Venture Initiative, committing €12.5 million to Karmijn Kapitaal Fund II.
- Karmijn is supported by the European Union through the Competitiveness and Innovation Framework Programme.
 The fund is a signatory to the United Nations-supported Principles for Responsible Investment.

These examples may mark only the beginning of broader initiatives to improve the funding conditions for women-led companies and undoubtedly ease access-to-funding conditions for women-driven companies. However, as the next section shows, private and public sector players need to do more to better mainstream investment in women-driven companies and to enhance access-to-market opportunities for female investors.

An enabling ecosystem contributes to higher investment in women-driven companies

Enabling the ecosystem is key to sustainably improving funding conditions for women-led companies and creating a sound network of female investors. At a supranational level, the European Union has implemented several policy-driven initiatives designed to put female entrepreneurs on a more equal footing to men through a number of support tools and networks (see Figure 24). These have emerged over the past decade from European Commission efforts to back women's business activities via the Small Business Act for Europe²¹ and the Entrepreneurship 2020 Action Plan.²²

Figure 24. European Union-wide support tools and networks for women



The European Commission further contributes to promoting women-driven companies. It supports female entrepreneurs by giving them visibility, the opportunity to network with each other, and the chance to meet investors through, for instance, an Investor Day dedicated to empowering women innovators.

At this event in 2019, the finalists of the European Union Prize for Women Innovators were announced, two of which were selected to receive funding from the European Innovation Council.

The EIB, and its subsidiary, the European Investment Fund (EIF), have also adopted a strategy for embedding gender equality within investment activities to empower women's economic standing both inside and outside the European Union.

The framework, outlined in *Protect, Impact, Invest: The EIB Group Strategy on Gender Equality and Women's Economic Empowerment*,²³ reflects a number of recent policy developments to improve gender equality, such as the 2030 Agenda for Sustainable Development, the European Commission Strategic Engagement for Gender Equality 2016–2020 and the European Commission/European External Action Service Gender Action Plan.

The EIB and EIF are responsible for several European Commission mandates, through which the EIB Group has taken up the challenge of improving funding to women-led companies. Some examples of its interventions in the European Union are presented in Figure 25.

 $^{^{21} \}quad https://ec.europa.eu/growth/smes/business-friendly-environment/small-business-act_enulty-environment/small-business-act_environment/small-business-act_enulty-environment/small-business-act_enulty-environment/small-business-act_enulty-environment/smal$

²² https://ec.europa.eu/growth/smes/promoting-entrepreneurship/action-plan_en

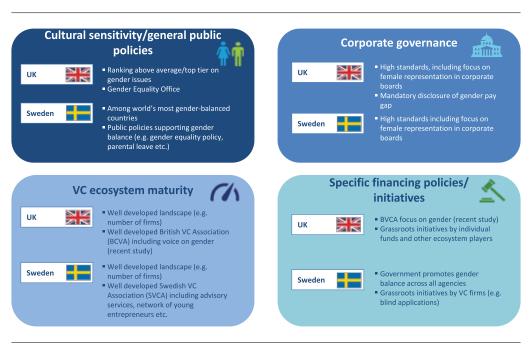
https://www.eib.org/attachments/strategies/eib_group_strategy_on_gender_equality_en.pdf. The strategy consists of the three pillars: protect, impact and invest. It aims (1) to support the protection of women's and girls' rights, (2) to enable the EIB to increase its positive impact on gender equality and (3) to help focus support on projects that increase the participation of women in the labour market and the economy.

Figure 25. Examples of EIB Group operations in support of women-driven businesses

Caixa (Cross-sector, Spain) €250m credit line focused on providing financing for projects led by female InnovFin SME entrepreneurs wishing to develop innovation-based investments. €125m of the credit Guarantee line guaranteed by the EIF, supplemented with €125m by Caixa. Nuritas (Biotech, Ireland) EIB loan of €30m to further increase and accelerate the development of artificial EGFF (European intelligence and DNA analysis to improve global healthcare. **Growth Finance** Nuritas is the first company in the world to use artificial intelligence, DNA analysis, and deep learning to identify health-benefiting molecules, peptides, from natural sources. Facility) Dr Nora Khaldi, the recipient of the "Woman of the Decade in Business and Leadership **Operation** Award" at the Women Economic Forum-EU event in January 2017, founded Nuritas in 2014 and acts as CSO of the company. Garanti Bank (Cross-sector, Romania) EIB loan of €22.3m to Garanti Bank of which a €5m tranche is devoted to female Bankentrepreneurs, matched by €5m from Garanti. intermediated Unicredit and Unicredit Leasing (Cross-sector, Italy) loans EIB loan of €200m, matched by €200m from Unicredit and Unicredit Leasing, to fund Italian SMEs that are innovative or managed and/or controlled by women. At least 25% of the credit line will fund women-led businesses.

To understand the extent to which an enabling ecosystem may contribute to higher levels of investment in womendriven companies, we examine the United Kingdom and Sweden more closely (see Figure 26). Both are high-ranked countries in terms of total late-stage funding to women-led companies, as the analysis earlier in this section shows. We identify success factors that are likely to contribute to improved levels of funding for women-driven companies.

 ${\it Figure~26.} \ Success factors of an ecosystem empowering female entrepreneurs -- examples from the United Kingdom and Sweden$



While the success factors in Figure 26 are important components of an ecosystem that over time is likely to enhance the funding conditions for women-driven companies, they by no means represent an exhaustive list of factors but are useful for illustration purposes. It is worth noting that, while the United Kingdom and Sweden ranked highly among European Union countries in terms of Series C funding to women-led companies, they start from a lower base of investment in such companies.

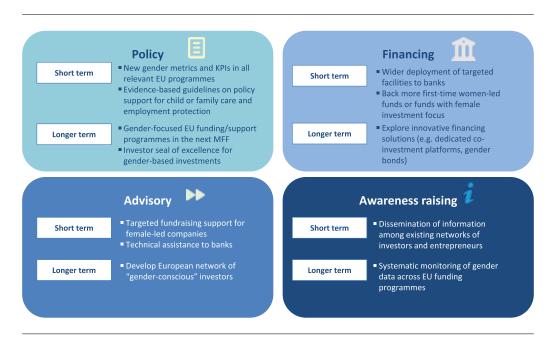
Recommendations and way forward

Based on the analysis and market consultation carried out in this study, we developed a set of potential actions — both financial and policy-related — for further consideration by the European institutions and the wider investor community. As the existing body of research on the topic shows, there is a business and economic case for gender diversity based on its benefits, such as improved profitability, value creation, growth and innovation. Given the high priority of addressing gender-related finance gaps and to tackle the issue from multiple angles, the proposed actions should not be seen in isolation, but rather should be regarded as complementary and synergistic to the design of an implementation plan. Ideally, the proposed actions could play an important role in creating an enabling ecosystem to replicate and further improve the showcased hotspots for investment in women-led companies.

European institutions are well placed to pave the way and to accelerate the transition to a more balanced, accessible and ultimately better functioning funding environment. As concluded from our analysis of top investors in the European Union versus the US venture capital market for companies with at least one female executive, public intervention is crucial for mobilising private investment in such companies, particularly follow-on investment and dedicated growth finance to help these companies to succeed. Recognising the importance of public support for gender equality in access to finance, the European Commission has placed gender equality high on the policy agenda as, among others, the InvestEU Regulation and the Political Guidelines for the next European Commission 2019–2024 show. The EIB Group is already engaged in a number of actions to facilitate funding for female entrepreneurs and female-led companies. In addition to the EIB Group operations in support of women-driven businesses, Innovation Finance Advisory aims to more proactively target European Union-based women-driven companies, especially those included in the venture capital market data analysed in this study, for advisory support. Nevertheless, there is a clear need for a more systematic and comprehensive approach to gender in investing, as well as education, training and advisory support. It is paramount that this action be taken to achieve more sustainable and inclusive growth in the European Union.

Figure 27 highlights the possible lines of action.

Figure 27. Potential actions



• **Policy** remains the area in which most impact can be achieved and where the benefits of improved gender diversity for jobs and growth can be harnessed. The existing body of research on female funding barriers and gaps already points to a number of policy initiatives (not part of this work), such as tax breaks, employment protection, childcare and science, technology, engineering and mathematics (STEM) education, all of which are conducive to a more balanced work and investment environment.²⁴ Based on the existing research, evidence-based guidelines from best practices and successfully implemented policy initiatives across the globe could be developed and made available to policy-makers.

The negotiations for the new European Union Framework Programme (Multiannual Financial Framework) can further help to put the topic under the spotlight. The InvestEU Programme, part of the 2021–2027 Multiannual Financial Framework, provides the opportunity to establish an integrated framework of actions from both the financing and advisory side for catalysing investment in female businesses and harnessing the power of women as investors. Specifically, within European Union programmes, a number of gender metrics and eligibility criteria could be introduced as pull mechanisms, thereby placing the support and financing of women-founded and women-led companies high on the agenda and incentivising banks and investors to pursue a more gender-balanced investment allocation (potentially a kind of "seal" or requirement to unlock European Union funding opportunities).

- There is a paramount need to **increase the quantum of financing** available to female entrepreneurs and womenled companies via existing and potentially dedicated innovative financing mechanisms. At the same time, efforts should be made to support a growing base of female investors on the supply side.
 - For early-stage financing, European Union programmes could establish priority paths for women-led venture funds, dedicated impact funds or funds with a female investment focus (meeting all financial and operational due diligence criteria and metrics)
 - Another option is to set up **dedicated envelopes** for fund-of-funds or other investment vehicles to mobilise funds from gender-conscious investors into women-led venture funds or funds with a female investment focus
 - Co-investment programmes with female business angels or angels with a female investment focus alongside mentorship programmes for female entrepreneurs, which could be a powerful combined action to nurture the ecosystem from the ground up

In addition, gender-related credit and guarantee facilities with selected partner banks, such as those recently deployed by the EIB Group, could be expanded.

- Design and implement a set of soft measures, such as advisory and technical assistance programmes, to support and improve the financing of female entrepreneurs and women-led companies and to nurture the ecosystem. This could include:
 - o fundraising support for female investors
 - support for first-time female business angels, investors, serial entrepreneurs and/or family offices with a view
 of making use of the increasing women's wealth for the benefit of the wider ecosystem
 - corporate finance advisory functions for individual female-led companies (InnovFin Advisory already provides such services to a wide portfolio of companies)
 - targeted assistance to intermediaries (funds and banks) for the speedy design and implementation of genderrelated European Union financing facilities
 - engagement with a wider community of potential investors, including philanthropic organisations and foundations, on gender diversity challenges

²⁴ Such actions are not part of the scope of this study. For example, the S&P Women in the Economy II report lays out how government intervention contributed to improved female labour force participation in Canada owing to three public policy interventions in the areas of tax reforms, family support and wage and income equalisation (Citi GPS: Global Perspectives & Solutions 2017, pp. 19–20).

- mentoring programmes provided by, for instance, successful female entrepreneurs and investors (also as role
 models and a source of inspiration for the younger generations)
- education and training for female investors to expand the scale of gender-balanced investing
- establishment of a network of gender-conscious investors to be made available to female founders and women-led companies to provide them with relevant connections, network and funding opportunities.

"Investors, bankers, angels, entrepreneurs and others are major sources of introductions and advice for VCs. If female founders are not well connected to these networks or are unable to traverse them successfully, then fewer will be able to reach a VC" (British Business Bank, Diversity VC and British Venture Capital Association 2019, p. 7).

Continue to inform and raise awareness among a wide community of stakeholders and investors about
persisting gaps and barriers, but especially the opportunities and prospects of a more inclusive and balanced
financing environment for female entrepreneurs and women-led companies. The gender dimension and gender
impact should be mainstreamed and measured. In the medium term, systematic tracking and monitoring
of gender-related data and metrics could be implemented across all European Union and national funding
programmes. This could serve as a basis for more informed policy decisions in the future.

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PitchBook data collection

PitchBook is a leading source of information on global trends in venture capital and is widely used by the venture capital industry. PitchBook uses a mixture of technology and an in-house research team to collate and validate the data. • PitchBook has nearly 1 million web crawlers scanning regulatory filings, news sources, websites and press releases for publicly available data, using a combination of machine learning and natural language processing. • PitchBook has a 300-person research team that collects, calculates and validates the data. Specialised data teams collect, calculate and verify additional data points, like valuations, revenue figures and fund returns, while the quality assurance team performs validations of the database to ensure its accuracy.

Annex

Glossary

Angel and seed: We define financing as angel rounds if there are no private equity or venture capital firms involved in the company to date and we cannot determine if any private equity or venture capital firms are participants. In addition, if there is a press release that states the round is an angel round, it is classified as such. Finally, if a news story or press release mentions only individuals making investments in the financing, it is also classified as angel. Seed financing is designated when the investors and/or a press release define it as such, or it is for less than \$500 000 and is the first round as reported by a government filing. If angels are the only investors, then a round is marked as seed only if it is explicitly stated.

Corporate venture capital: Financing classified as corporate venture capital includes rounds in which firms invested via established corporate venture capital arms, corporations made equity investments off balance sheet, or any other non-corporate venture capital method employed.

Early-stage: Rounds are generally classified as Series A or B (which we typically aggregate as early-stage) either by the series of stock issued in the financing or, if that information is unavailable, by a series of factors, such as the age of the company, prior financing history, company status and participating investors.

Growth equity: Growth equity data are considered separately and not included in any other venture datasets. Rounds must include at least one investor tagged as growth/expansion, while deal size must be \$15 million or more (although rounds of undisclosed size that meet all other criteria are included). In addition, the deal must be classified as growth/expansion or later-stage venture capital in the PitchBook Platform. If the financing is tagged as late-stage venture capital, it is included regardless of industry. Furthermore, if a company is tagged with any PitchBook vertical market, excepting manufacturing and infrastructure, it is retained. Otherwise, the following industries are excluded from growth equity financing calculations: buildings and property; thrifts and mortgage finance; real estate investment trusts; oil and gas equipment, utilities, exploration, production and refining. Lastly, the company in question must not have completed an M&A event, buyout, or IPO prior to the round in question.

Late-stage: Rounds are generally classified as Series C, D or later (which we typically aggregate as late-stage) either by the series of stock issued in the financing or, if that information is unavailable, by a series of factors, such as the age of the company, prior financing history, company status and participating investors.

Throughout the study, 2018 carries an asterisk to indicate that PitchBook data are provided up to 30 September 2018. For years prior to 2018 and unless otherwise indicated, the data provided refer to the full calendar year.



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