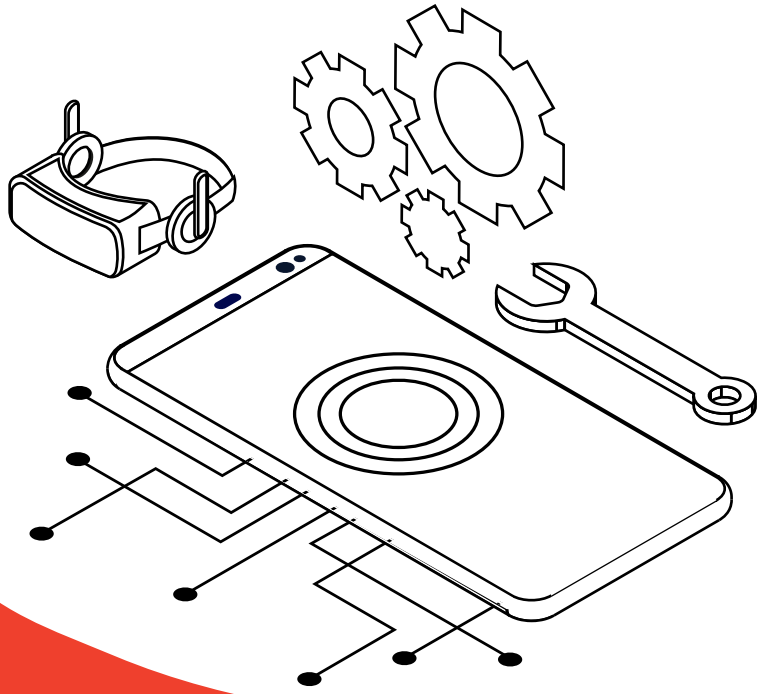

# THE POSITION OF FEMALE ENTREPRENEURS AND WOMEN IN TECH

A research aimed at identifying
obstacles and opportunities
for female entrepreneurs
and women in tech
in the Amsterdam Metropolitan Area

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WE RISE

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**In the Netherlands female entrepreneurs and women in tech have structurally less opportunities than men. The latest numbers from October 2020[2] show that only 1 percent of all venture capital went to female entrepreneurs. The percentage of non-white entrepreneurs that received financing is even below 1 percent. Remarkable numbers if we look at the demographics of the Dutch population and a clear signal that bias is a structural problem in financing start-ups. Additionally, there remains an underrepresentation of women at all levels in the tech industry[3].**

**As part of the Rise project[4], this whitepaper will focus on the question '*What needs to be done in the coming years to improve the position of female entrepreneurs and women in tech?* Building on an expert session, a review of annual reports and a short survey amongst a selected group of support organizations, we focus on the Amsterdam Metropolitan Area (MRA) and show a clear trend towards 'women only' programs for female entrepreneurs and an increase in the support structures for female tech workers. In this report, the results of a baseline analysis for the state of the field for Female Entrepreneur and Women in Tech in the Amsterdam Metropolitan Area will be presented by the professorship of Entrepreneurship from the Amsterdam University of Applied Sciences (AUAS).**

## DEFINING FEMALE ENTREPRENEURSHIP

The question 'who is an entrepreneur?' can be answered in three ways:

1. **Opportunity-driven entrepreneurs** are the founders, owners and/or managers of an innovative and/or scalable business. This definition is in line with widely accepted notions of opportunity driven entrepreneurship as the pursuit of opportunities, – i.e. novel combinations of products, processes, materials, markets, channels, that are deemed feasible and desirable – to create social and economic value for the initiator, the market in which they operate and the community in which they are embedded[5].
2. **Lifestyle entrepreneurs** can be defined as individuals who own and operate businesses closely aligned with their personal values, beliefs, interests, and passions[6] and who are neither wealth seekers nor financially independent hobbyists[7].
3. **Necessity entrepreneurs** are those who are forced into starting a business due to unfavorable circumstances, such as the inability to find and or hold onto paid employment or having difficulty juggling work with family responsibilities. In many cases, these necessity entrepreneurs tend to possess lower endowments of relevant human capital which they need to manage an innovative, scalable business.

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[2] Annemarie, Sterk, "Investeren in Startups Van Vrouwen in Nederland Loop Achter." *NRC*, October 27, 2020. nrc.nl/nieuws/2020/10/27/investeren-in-start-ups-van-vrouwen-nederland-loopt-achter-a4017592
[3] H. Chaudhry, A. E. Wall and J. L. Wall "Exploring the Gender Gap in Tech Companies: Why Aren't There More Women?" *American Society for Competitiveness*. 17/2(2019): 275-280.
[4] Rise is a pioneering movement that exists to make diversity in tech and entrepreneurship the norm by removing barriers, creating opportunities, and writing a new narrative. Visit we-rise.co for more information about the consortium.
[5a] S. Shane, and S. Venkataraman, "The promise of entrepreneurship as a field of research." *Academy of management review* 25/1(2000): 217-226.
[5b] I. Wakkee, "Ondernemen doe je niet alleen" *University for Applied Sciences Amsterdam*, (2017) Inaugural Address
[6a] "Promoting entrepreneurship and education," Ewing Marion Kauffman Foundation, April 28, 2004, emkf.org;
[6b] H. Neergaard and D. R. Christensen, "Female lifestyle entrepreneurs and their business models." In *The Routledge Companion to Global Female Entrepreneurship* (2017): 269-281.
[7] S. B. Marcketti, L. S. Niehm, and R. Fuloria "An exploratory study of lifestyle entrepreneurship and its relationship to life quality." *Family and Consumer Sciences Research Journal*, 34/3(2006): 241-259.

Whereas some overlap may exist between these three groups of entrepreneurs and although they may move from one category to the next over the course of their entrepreneurial career, the type of resources and or support they need as well as the social and economic impact they create tend to differ. For this analysis we initially focused on the first definition of female entrepreneurs, namely *opportunity-driven entrepreneurs*. While conducting this study however, we noticed that many initiatives that are undertaken by the partners of the Rise consortium are targeting not just opportunity driven female entrepreneurs, but also female business owners driven by lifestyle or necessity motives. Consequently, while our focus remains on the opportunity-driven category of female entrepreneurs we did decide to include all three categories in our analysis thus expanding our definition of female entrepreneurs to include all women who founded and are running the business – either on their own or in a team.

## FEMALE ENTREPRENEURS OPERATE IN A MALE DOMINATED FIELD

Based on the current literature the field of entrepreneurship remains a strongly male dominated domain[8] where female entrepreneurs face several challenges. These challenges include limited access to networks, limited entrepreneurial finance, limited government support, and limited role models and mentoring[9]. The entrepreneurial outcomes are different for female and male entrepreneurs because female entrepreneurs' participation within networks and access to resources aren't equal[10]. To overcome this unequal position, a 'women only' trend is seen within the support organizations for entrepreneurs[11]. Even though the aim and ambitions of these programs are positive, the concern may be that a 'women only' program doesn't connect the female entrepreneurs to the relevant people in the existing networks. The paradox exists that potentially this 'women only' development preserves gender gaps instead of closing them. Should the focus be switched from a 'helping the women' mindset towards a 'fixing the system' mindset? If the goal is to provide all entrepreneurs equal access and opportunities within their entrepreneurial journey should the aim be to create an inclusive entrepreneurial ecosystem? An inclusive ecosystem means it is open to entrepreneurs from diverse (socio-cultural, ethnic, gender) backgrounds and it provides equal opportunities to these different groups[12]. This does not only benefit female entrepreneurs but through tapping into the capabilities and efforts from all potential entrepreneurs, inclusive ecosystems enhance innovation and growth for the entire domain[13] [14].

## THE POSITION OF WOMEN IN TECH

In this report we look at female entrepreneurs but also include 'women in tech'. This group includes women who are employed in a tech-company or in a tech position and/or female founders of a tech-venture. 'Tech' in this context is defined as companies that sell and/or develop new products or services that are based on new technology or new applications of existing technology. As the group 'women in tech' is very broad and includes women active in many different sectors, career phases and positions, we decided to distinguish between three groups:

- **female tech leaders**: including both female tech entrepreneurs and women in higher and top management positions in a tech company.
- **female tech professionals**: (and high potentials) are women who typically enjoyed some form of higher education and who are active in an autonomous specialist or middle management role in a tech company.
- **female tech workers**: – include women with no or lower to middle level vocational training holding operational positions in tech companies[15].

Diversity issues in organisations have long been subject of organizational studies and cultural examinations but while organizations have made several advancements to balance the presence of female representation in their employees, there remains underrepresentation of women in the tech industry[16]. The lack of women already starts in higher education where few women are found in the STEM courses, hence STEM fields are typically impacted by cultural biases that affect interest in and abilities to pursue STEM careers. To promote diversity in tech companies, ideally there should be no gender gap in either upper management or the rest of the organization. As such, companies should implement strategies to target, recruit, and develop underrepresented groups. Additionally, research shows that women are concerned with topics related to assessing organizational and human capital that can help them advance their careers and exploit digital innovation potentials[17]. In short, this means on one side supporting women to enter the tech industry by given them the right education to develop the needed knowledge and tools to deal with potential bias within the industry itself. On the other side, it means focusing on the tech field itself becoming a more and more inclusive work environment. If these areas of focus contribute to closing the gender gap, how is the Amsterdam region doing?

## A NEED FOR COLLABORATION

The landscape of the various organizations focused on and involved in women in tech is scattered. There are many different organizations that aim to empower and advance the position of women in the tech-industry, though the active organisations have different routes to get there. Figure 1 shows that it is difficult for the support programs to name five crucial organizations in advancing women in tech. If this is already difficult for them, it means it is probably even harder for the women in tech themselves. It is important that the various parties work together because that will increase individual opportunities within the field. Due to the number of organizations active in the field, it is relevant for women to gain better insights into which organisations focus on which phase of their career path so that it is easier to know which organisation fits their needs. One of the possibilities is to visualize a timeline that shows which organization is beneficial for each phase in your career. This would also create an opportunity to identify if certain career phases are underrepresented. If the many initiatives work together, the focus should be on the shared goals and possibilities to make more impact to advance the women in tech. The many small initiatives with similar goals seem to have to win over participants or members for their own existence, which, in turn, results in overreaching their original goals, namely empowering female tech workers. Ultimately, this jeopardizes innovation in the 'system' and maintains inequality.

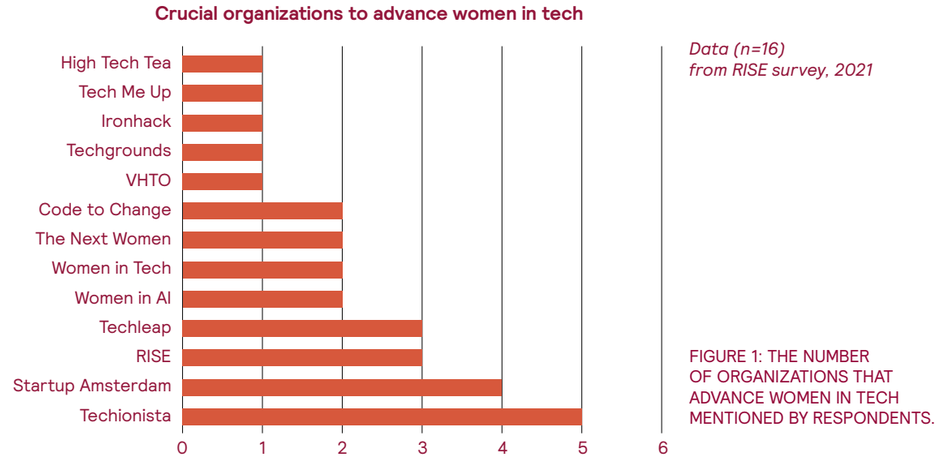


FIGURE 1: THE NUMBER OF ORGANIZATIONS THAT ADVANCE WOMEN IN TECH MENTIONED BY RESPONDENTS.

[8] I. Dileo and T. García-Pereiro, "The Moderate Impact of Gender Egalitarianism on Nascent Entrepreneurship at the Individual Level." *Evidence from GEM Data on Some European Countries*. L'industria. 39/3: 405-428.
[9] E. Ughetto, M. Rossi, D. Audretsch, and E. E. Lehmann, "Female entrepreneurship in the digital era." *Small Business Economics*. 55(2006): 1 – 8.
[10] C. Brush, L. F. Edelman, T. Manolova, and F. Welter, "A gendered look at entrepreneurship ecosystems." *Small Business Economics*. 53/2(2006): 393-408.
[11] S. Markussen and K. Røed, "The gender gap in entrepreneurship – The role of peer effects" *Journal of economic behavior and organization* 134(2017): 356-373.
[12] M. McAdam, R. T. Harrison, and C. M. Leitch, "Stories from the field: women's networking as gender capital in entrepreneurial ecosystems" *Small Business Economics* 53/2(2019): 459-474.
[13a] "Promoting entrepreneurship and education," Ewing Marion Kauffman Foundation
[13b] H. Neergaard and D. R. Christensen, "Female lifestyle entrepreneurs and their business models," 269-281.
[14] D. Acemoglu, J. Robinson, and T. Verdier, "Can't we all be more like Scandinavians? Asymmetric growth and institutions in an independent world." *MIT Department of Economics Working paper* (2012): 12-22.
[15] The used distinctions and the definitions are made by the Amsterdam University of Applied Sciences (AUAS)
[16] H. Chaudhry, et. al., "Exploring the Gender Gap in Tech Companies," 275-280.
[17] F. Schmitt, J. Sundermeier, N. Bohn, and A. Morassi Sasso, "Spotlight on women in tech: Fostering an inclusive workforce when exploring and exploiting digital innovation potentials." (2020)

## WOMEN'S ADVANCEMENT IN TECH

In this study we identify a few different phases in the career of women in tech. Figure 2 shows that twice as many programs that are aimed at women in tech focus on female tech workers compared to female tech professionals. There are no programs that focus on leadership positions. This reveals an opportunity for program development preparing women to work in leadership positions in the tech industry. It seems that currently more women in the tech industry may not automatically result in more women in leadership positions in the tech industry. It is difficult to measure if female tech workers know how to find their way up the career ladder but there is an opportunity here to support women within the industry and to stimulate their potential from women in tech workers towards professionals and beyond. Stimulating female tech workers to climb the career ladder can help close the gender gap sooner. An insight that stands out is that the influx of women from other industries into the tech sector can help improve diversity and representation but that it is rarely seen in this industry.

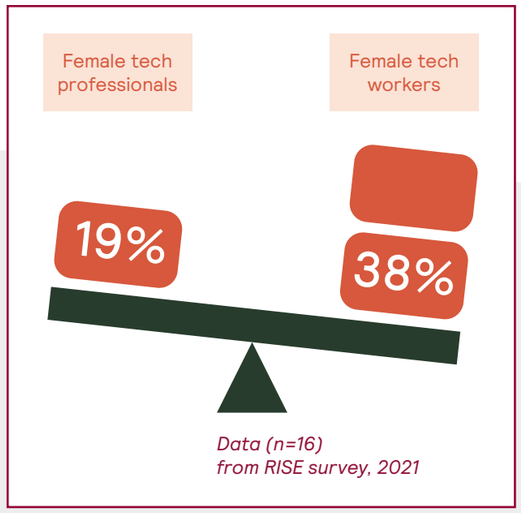


FIGURE 2: LEVEL OF PROFESSIONAL DEVELOPMENT PROGRAMS AIM AT

## 'WOMEN ONLY'

Three different variants of support programs are identified to empower female entrepreneurs. Variant one: a special women programs focused on women but targeted at both men and women. Variant two: women-only programs that are fully focused on women. Variant three: gender blind programs that have no focus on gender at all.

Figure 3 shows that five times as many programs are women only (63%) compared to initiatives with special women program (13%). Two and a half as many programs are women only (13%) compared to initiatives that are gender blind. From these insights, it is shown that most of the programs are women-only and organically derived from the needs of the female entrepreneurs in the ecosystem. But due to the excluding character of women-only programs and networks, the biggest concern with women-only programs is that their participants become a separate cluster apart from the entrepreneurial ecosystem.

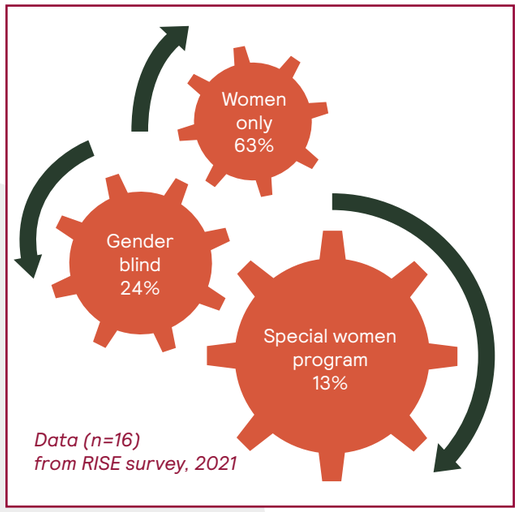


FIGURE 3: THE PERCENTAGE OF PROGRAMS AIMED AT THE DIFFERENT TARGET GROUPS.

Besides target groups, what do these programs focus on? As becomes clear in figure 4, most programs focus on mentors, advisors, and support, while only half focuses on human capital and workforce. The organisations focus on the position of women in general or on a stage within the female entrepreneurship journey (start-up vs scale-up). Overlap obviously exists in the key



focus of the support programs, which is on female empowerment. However, most of the programs find it difficult to interconnect the programs together and make the programs complementary to each other. Surprisingly enough, most organizations do not anchor the inclusion of all entrepreneurs in their KPI's. Only one organization included female empowerment in their KPI's and consequently, female empowerment and the position of women in the ecosystem remain of temporary nature.

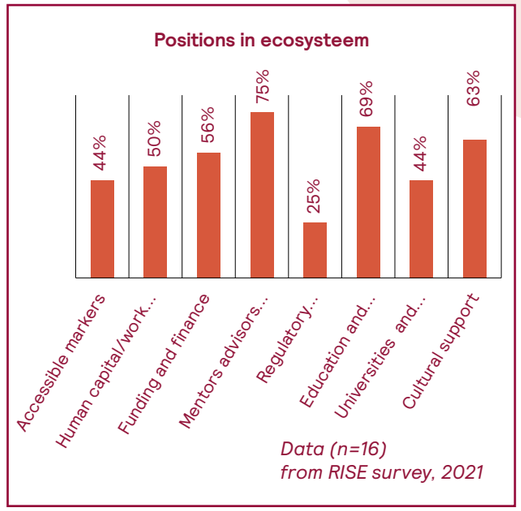


FIGURE 4: POSITION OF THE ECOSYSTEM BASED E. STAM, "ENTREPRENEURIAL ECOSYSTEMS AND REGIONAL POLICY: A SYMPATHETIC CRITIQUE" *EUROPEAN PLANNING STUDIES* 23/9 (2015): 1759 – 1769.

## CONCLUSION

While the findings presented above are based on a relatively small dataset and only provide a snapshot of the landscape, several conclusions can be drawn. From both the literature and the survey data a women-only trend in support organizations becomes visible which results in a gender-paradox. On one side these support programs empower female entrepreneurs but on the other side they might preserve gender gaps if women entrepreneurs do not connect to and participate in the overall (male dominated) ecosystem. This makes it seem as if the position of women entrepreneurs is still segregated and separate from the overall (male dominated) ecosystem.

## RECOMMENDATIONS FOR WOMEN IN ENTREPRENEURSHIP

Based on the insights from the results, a recommendation is is formulated to empower all nascent entrepreneurs and embedded them into the ecosystem.

- An integrated approach that connects women-only or special women programs with the overall ecosystem can help improve the opportunities of all nascent entrepreneurs in the current landscape.

## RECOMMENDATIONS FOR WOMEN IN TECH

Based on the insights from the results, two recommendations are formulated to empower women in tech and embedded them into the tech-sector.

- A focus within programs on the advancement of women towards leadership positions is desirable since research shows that having women in leadership positions can help close the gender gap.
- The influx of women in the tech-sector from other industries can help improve diversity and representation.

For both domains (female entrepreneurs and women in tech) further research, that involves a larger share of the players in the ecosystem, and also tracks their activities and their impact over time is recommended to develop a richer and more detailed insight in matter. It is recommended that the focus in that research should switch from a 'helping women' mindset towards a 'fixing the system' mindset.

## METHOD

The aim of this research is first to identify to what extent these parties include the promotion of female entrepreneurship and women in tech in the MRA in English is Amsterdam Metropolitan Area (AMA) as an explicit objective in their business operations and if they have formulated KPIs for this. Secondly, to what extent these parties (apart from any objectives and KPIs) work with and for female entrepreneurs and women in tech (as a percentage of their clients). Therefore, an exploratory study was conducted (baseline measurement) in the period May and June 2021 which consists of a combination of desk research and field research (a survey in combination with an expert focus group). Desk research is based on a combination of analyzes of (policy and annual) reports and websites of relevant parties in the entrepreneurial ecosystem and STEM domain in the Amsterdam region. In addition, the partners (N=16) within the Rise consortium provided such reports from the period 2019 – 2021.

## A FEW CLOSING REMARKS FROM THE EXPERT SESSION WITH PLAYERS FROM THE FIELD:

"We should find ways to align and work together."

"We can create a platform where we can give women a guide for all our organisations so they can identify where their need at that moment is."

"We should take into account that there are a lot of different organizations for a reason, but let's find the sweet spot where we can work together to have more impact on the ecosystem."

"We can find the balance between empowerment and integration."



## THE ATTENDEES OF THE EXPERT SESSION WERE:

Rixt Herklots (Una Collective), Tamara Obradov (Tablomonto Ventures), Lena Hoffmann (she/her) (ASIF Ventures), Ruben Brave (Dutch Startup Association), Iffat Rose Gill (The Code to Change), Zara D. (Rockstart), Ingrid Wakkee (HvA), Saskia Stoker (Zij/Haar) (HvA), Ansa Baykuş-Wasim, PhD (Invest NL), Shirley de Wit / Sahar Yadegari (VHTO), Mercedes de Miranda (Startup Bootcamp), Kimberly Ofori (Ofori & company), Philip Hess (ScaleUp Company), Veronica Fresneau (EU Startups / Rockstart), Jeanne Martens (HvA), Mara Noto (We RISE), Suzan Steeman (WOMEN Inc.), Louise van Weerden, PhD (Saxion University), Kirsten Goes (Scale up company), Tamira van Roeyen (Techionista), Sobhi Khatib (Digital Society School & Hva), Roos Aduagyei (Trickle), Isabella Lucassen (HvA), Yeni Joseph (RISE/NL Digital), and Dieuwke van Buren (We RISE)!

## ABOUT RISE

We Rise is a female Hub project based in Amsterdam, aiming for gender equality and diversity in digital and tech-related workplaces. In collaboration with other female partner organizations, We Rise's cornerstones are to collect data, strengthen knowledge and network opportunities, in order to increase visibility and representation of female entrepreneurs and women in the tech sector. The Rise program evolves around training courses, workshops, mentor sessions, networking events and much more.

## ABOUT WOMEN INC.

WOMEN Inc. is a non-profit organisation that has been accelerating the emancipation of women in the Netherlands since 2005. We strive for a society with equal opportunities for everyone, regardless of their gender or sex. To make a change, we focus on research, campaigning, political lobby, events and training. To make a change on all levels of society we work in close cooperation with our agenda-setting network - from national to local governments, ambassadors, companies, institutions and knowledge institutes.

## ABOUT THE UNIVERSITY FOR APPLIED SCIENCES AMSTERDAM (AUAS)

The AUAS has developed a research program into the role of entrepreneurship in economic and societal changes in the Amsterdam metropolitan area, including the role of female entrepreneurship. Together with stakeholders, AUAS is finding out how entrepreneurs anticipate developments and changes in society and what new business models this results in.