



It's not a secret that women are underrepresented in tech. In Europe, around 28% of tech workers are women. And yet women bring invaluable perspectives and talent to tech, as well as swift and innovative change to the industry. Today, Honeypot and Le Wagon are pleased to release brand new data highlighting the percentage of female roles in the tech industry, from schooling to salary. We do so to promote awareness about the shortfall in women's representation across Europe and share insights into sore spots, as well as how leaders in the industry can encourage female growth and uptake in the world of tech. With this report, we believe we can inform, inspire and create more space for women in tech.[...]

"As our world grew increasingly digitized, [I believed] it would be important to have a more diverse set of perspectives building this new, digital world," said Mia Szarvas, a data visualization designer and developer, explaining why she herself was drawn to the tech industry. "I wanted to have a seat at the table, and to create more seats at the table."

Though much of the focus on women in tech has revolved around the US and UK, our research dives into the status quo in Europe. Focusing on the DACH (Germany, Austria and Switzerland) region and offering comparisons to the UK and global industries, this report provides startling new insight that women's representation in tech is not just less common in Europe - it is sometimes going backwards.

Correcting that imbalance and regression requires more than just acknowledgment; it requires a systematic overhaul of exactly what is going wrong and where. That's why Honeypot and Le Wagon are presenting this report. Honeypot is Europe's leading tech-focused job platform, helping tech professionals get jobs they love and companies scale up their teams. Le Wagon is a global leader in immersive tech training, teaching people the skills they need to kick-start tech careers or launch startups. Our research presents the issues and underrepresentation facing women in tech from classroom to corporation.

In combination with qualitative research interviewing women working in tech, it paints a stark picture of the situation as it stands in Europe today.

But it also offers valuable insights into pain points and the work that needs to be done, as well as what is actually working to build greater and stronger female representation in tech. As such, we're launching this report as a guide for the future, offering the data to illustrate the exact nature of the situation and the analysis to support companies and institutions in making meaningful change. Women are integral to tech-they were there at its birth and the industry needs them for its future. This report shows us how to recenter their voices, perspectives and needs.

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Key data sources in the Women In Tech report are the salary benchmarks specified by hiring companies on the Honeypot platform. The roles considered for this report were software developers, engineers, and data professionals. Interview invites missing significant information (like position or company location) as well as unusually low or high salaries were removed to ensure consistent data comparison and avoid extreme outliers. All salaries are based on the company's initial offer, rather than final negotiated and contracted amounts. Gender was determined based on both external libraries making determinations based on first names as well as a Python gender detector. Le Wagon data is provided by Le Wagon Web **Development and Data Science bootcamp** participants in the DACH* region as well as other world regions.

We also conducted a survey interviewing 27 interviewees across Germany, the UK and other parts of the world to provide qualitative insights. In this report, information is split into "by the numbers" insights (analyzing Honeypot and Le Wagon data) and "by the voices" insights (analyzing survey responses).

The DACH region refers to the three Central European countries of Germany (D), Austria (A), and Switzerland (CH). Le Wagon's locations: Berlin, Munich, Cologne, Lausanne, Zurich

LE WAGON PARTICIPANT BY GENDER PERCENTAGE IN ALL DACH COURSES, 2017-2022

Unfortunately, these numbers seem to be in keeping with general figures of complete Le Wagon participants around the world during 2017-2022. In the DACH region, women make up 32.3% of total participants. In the UK, female representation overall sits at 32.8%; globally, it is just 29.4%. And year-over-year growth is declining in the UK: female representation in courses was down to 24.6% in 2021 after an all-time high of 26.7% in 2019.





QUESTIONNAIRE: WOMEN IN TECH'S SOURCE **OF LEARNING, 2022**

This indicates that when women are given the opportunity, access and comfort to join Le Wagon's courses—or other coding bootcamps and courses-they leverage those courses into working in the tech industry. As a result, we need to look not just at female underrepresentation in Le Wagon's courses, but why women feel excluded from tech training in general.

class early in school

Source of learning

FEMALE REPRESENTATION IN LEWAG



By the numbers

Le Wagon offers immersive tech training, enabling students to launch a career as a web developer, data scientist or data analyst. Course participants have gone on to strong careers in leading companies including Google, Apple, Spendesk and many more. Other alumni have founded over 200 startups and raised a cumulative \$862 million.

But despite initiatives to diversify participants our data shows a troubling lack of uptake in our tech courses by women. Over the past six years, women consistently hover around 30% of students in Le Wagon's DACH courses. And rather than improving with time, we found a spike in 2020, when female students went up to 37.4%, followed by a rapid decline in 2021 and 2022. By 2022, female students made up only 33.8% of the course. This is a common issue across not just tech but multiple industries: during the pandemic, women in Germany reported facing more issues than men with regards to work and study, often because of increased family caregiving responsibilities.

Still, that's only a 2% increase from representation in 2017, meaning that if this representation growth continues at the same rate, it will take over 40 years to reach parity. Many different factors go into growth which cannot be reflected by a simple calculation, but the data from 2021 and 2022 proves that regression is just as possible as progression.

- Men
- Women

LE WAGON TOTAL PARTICIPANTS FROM, BROKEN DOWN BY GENDER AND LOCATION, 2017-2022

What this data shows is significant female underrepresentation in coding bootcamps and courses. Yet when we interviewed women working in tech, most of them had found their way into the industry via these very same courses rather than a university degree or school-based coding class.



By the voices

Our survey of Le Wagon's alumni found a range of insights into why women were drawn to coding courses.

HIGHLIGHTS:

What this shows us is that unlike their male counterparts, who frequently kick off their careers with a degree in computer studies, women are more likely to change careers or start in a completely different field.

INSIGHTS

Erika Grossehokamp, a data consultant, was originally a research assistant with a Masters in Economics.



"I was looking for a way out of my very academicoriented career path and thought that I could do something with data, as I had a lot of training in math and statistics. I quickly realized that I would need some level of proficiency in a

programming language if I was going to make the leap. This was discouraging as I never thought that I was good at 'computer stuff', but I thought I could give it a try and started to teach myself how to code. To my astonishment, I loved it! I could understand it, I could do it and it was fun!"

> Erika never felt that she was discouraged from tech, she had just never considered it as a possibility. But unfortunately, the male-dominated field can be intimidating for many women.

went into tech because they wanted a career change

18.5%

because they wanted a higher salary or higher job security

14.8%

because they had always been interested in programming

Others cited curiosity, an interest in computer games or simply a passion for coding

33.3%

said they didn't go into tech earlier because it wasn't taught at their school

said they didn't know enough about different profiles in tech



Women who received support from loved ones or connections in the field providing support and contact found the transition much easier than those who worked alone.



Mia Szarvas said :

"I faced a lot of internalized misogyny and myths about programming when considering the transition [into tech]. Although I first tried my hand at programming in middle school, and loved it, as I grew older began to develop the belief that would not be able to understand or apply the principles of computer science. The cultural zeitgeist held that a programmer was a computer-obsessed loner with a singular focus, and I, someone who enjoys collaboration, creativity, and interdisciplinary expressions and explorations, did not see myself fitting into that image. Though I always had a nagging curiosity. which did drive me to enroll in an introductory class during my bachelor studies at UC Berkeley, I walked out of the class on the first day, after looking around the room of 700 students, and not

seeing another woman. I simply

felt like I didn't fit."

For Thomas and other women seeking to enter tech, support was crucial.

"My husband helped a lot," Thomas said.

"We usually share the workload at home, with two kids. He took over most of it during my bootcamp to let me focus and enjoy the process as much as I could."

"Find mentors." Once they'd made it through their studies, many women found that the financial risk paid off.

independence," one survey respondent said.

"I know so many FLINTA people struggling with money. The right job choice could end this misery."



Viviane Thomas, a Data Analytics Manager, said,

"The main obstacle [to transitioning into programming] was finding the confidence to take the first step: guit my job and be unemployed for the first time in my life."

Another woman urged,

"It pays very well, which gives you a lot of

WOMEN'S REPRESENTATION ET E(C) 비님 RKFO) | | |





By the numbers

Once female participants make it through their education, they face new concerns in the workplace. Honeypot's data provides crucial insight into the number of women signing up to our platform in search of tech jobs.

HONEYPOT PERCENTAGE OF SIGN-UPS 2019-2022

Once again, while an upward trend is visible, the numbers are not huge. If representation growth continues at the same rate, it will take over five years to reach parity. And once parity has been reached, new issues await.

Female applicants on Honeypot's platform received a number of interview invitations inconsistent in proportion with their presence on the platform. In 2022, despite the fact that 34% of profiles on Honeypot are female, only 16% of them received interview invites. This indicates bias towards interviewing women from tech companies.

HONEYPOT PERCENTAGE OF INTERVIEW **INVITES 2019-2022**

Even when they make it into the industry, women are still severely outnumbered in tech teams. A Honeypot survey provides the following data on female representation in a wide survey of European tech teams.



FEMALE REPRESENTATION IN TECH TEAMS

Key takeaways from this data include:

• Less than 10% of tech teams could say that they had more women than men or even parity between women and men.

• Less than 2% of tech teams were 90% or more women. That's in comparison to 38.74% of tech teams who were 90% or more men.

 The single most common category of female representation was 0-10%.



By the voices

Honeypot's investigation into a lack of interview invites for women indicates that women may struggle more to find jobs in tech than their male counterparts.

This was further confirmed by our survey data, where 27% of the women surveyed were not able to find a job as a programmer, despite the industry's high demand and large number of open roles.

But the good news is that for women who are able to find a job in tech, job satisfaction is high. 85% of surveyed women were satisfied with their choice to work in tech. Awareness of the issues facing them-including underrepresentation and sexism in the workplace—has not stopped many women in tech from loving their jobs. Anja Greifenberg, full stack software developer said :

"The biggest obstacle [to joining the tech industry] was to convince myself to take this step and start something completely new. [...] After that it was actually surprisingly easy and I have enjoyed every bit of it!"

Anja stressed the lack of diversity in tech as something that should motivate women, rather than discouraging them.

"There are not enough women in tech out there (at my current job less than 10% of developers are women) and the industry could definitely use more diversity,"

she said. "Even if you don't end up as a developer, code is everywhere and the knowledge and skills you acquire when learning to code will be beneficial for sure!" Other survey respondents echoed Greifenberg's rally.

And don't give up."

"Anyone can code. A-N-Y-O-N-E."

"Tech benefits from a diverse workforce and I think women benefit when their teams have [other] women on them," another respondent said. "It is a good job with flexibility and career opportunities. If you think it might be a good fit, give it a go!"

Finding a community

Nearly all surveyed women cited the importance of mentors and other female colleagues in the field.

"It's super important for me to have other colleagues and friends that identify as women in tech. I get support from them, I can be vulnerable, I can share my thoughts and struggles. It's really helpful to be part of a community."

> one respondent said. But our survey indicated that the age of women in tech is an issue when it comes to finding mentors and support. Because the majority of our female tech worker respondents are between the ages of 25 and 44, it's clear that there is a dearth of older, experienced and skilled female professionals in the tech world. The lack of older women available for mentoring and the lack of encouragement to study tech in school or university (i.e. the 18-25 age bracket) leads to a gap on both sides: both younger and older female tech colleagues are in short supply.



However, 63% of women in the age group of 25-34 does show encouraging growth for the future, as it builds a new group of female mentors working in tech. When the next generation of female coders joins the workforce, we can hope they will have much more support, mentoring and professional development available from older female colleagues. This is contingent on both those more experienced women staying in the industry and younger women taking up the mantle to study and work in tech.

Outside of female colleagues and mentors, survey respondents cited supportive bodies including the Agentur für Arbeit, the Rubycorns (a meet-up group in Berlin) and Heart of Code (a Berlin-based feminist hackspace).

"Make sure you find what brings you joy,"

Viviana Thomas advised.

"There are so many different aspects and fields linked to coding that you have the choice. There are also great communities out there that can share tips and best practices, and organize meetups."

WOMEN'S Salaries In tech

By the numbers

Nearly everyone working in tech, male or female, cites the importance of salary as a leading motivation and satisfaction in their role. Tech jobs are well-known for higher salaries and high job security, making it a great choice for financial stability and freedom. But how do female salaries stack up against their male counterparts?

Honeypot's data reveals there is a significant discrepancy between offered salaries for men and women in tech in the DACH region. The gender pay gap is still very real. Our data below offers a complete breakdown of different pay rates between men and women in Germany, Austria and the Netherlands. Some key highlights include:

• In Germany, the gender pay gap actually widened between 2021 and 2022. Male developers were consistently paid more than their female counterparts, sometimes by up to 5% more.

• In Austria, the gender pay gap between men and women has hovered at around 4% for the last two years.

• In the Netherlands, the gender pay gap is most striking, frequently at a baseline of at least 5%.



AVERAGE EXPECTED SALARY PER YEARS OF EXPERIENCE AND GENDER, HONEYPOT DATA (GERMANY, 2022)



An important point to consider as we discuss these numbers is the potential of unreliable reporting based on a lack of data about women's salaries. The data we've relied on to produce this report **consistently overrepresents men** and it can be difficult to draw exact conclusions about the severity of the pay gap simply because there are so few women in tech with salary data which we can analyze.

To illustrate this concern, we are sharing a list of average salaries from both men and women across significant DACH locations as well as what percentage of the total respondents were female. In this case, we can see that while there are **significant salary gaps**, the ratio of female respondents is also extremely low compared to male respondents.

For example, in Berlin women earn 5.9% less than men. However, they also make up only 13.1% of the total salary offers surveyed.

This lack of data is an issue in multiple directions: it prevents us from gaining an entirely accurate picture of the gender pay gap in Europe. It is also indicative, once again, of the underrepresentation of women in tech. And finally, a lack of clarity around average salaries for women makes it difficult for women to organize and advocate for better pay.

🍾 Men 🌘 Women

FURTHER INSIGHTS FROM W/C

By the voices

Our questionnaire garnered a range of learnings about the particularity of women's experiences in tech.

LOCATIONS:

Most of our respondents came from Germany, offering an acute insight into the status quo in Europe.

ROLES:

Female representation was split fairly evenly across a range of tech roles, with a slight lean toward data science and software engineering.

CONCERNS:

Two patterns appeared in most responses about women's concerns as they enter the tech industry.

They are:

• Imposter Syndrome, not being "good enough" or lacking sufficient information about the field.

• The fact that tech is a male-dominated field.

The good news? While the second point continues to be an issue for many women working in tech, the feeling of Imposter Syndrome seems to melt away as women actually take on rewarding roles in the tech industry. Support from colleagues, managers, other organisations and, of course, other women in tech is crucial.



77.8%

of our respondents came from Germany

3.7%

of our respondents came from UK

18.5%

of our respondents came from other countries



6. of women were **Data Scientist / Data Analyst** / Data Engineer

of women were **Software Engineer**

of women were unemployed/job hunting



of women were Product Manager

of women were Student

of women were

Intern

of women were

UI/UX Designer



of women were Tech Lead

of women were **Research Assistant**



of women were System Engineer / Dev Evangelist



experience."



Erika Grossehokamp said of her career path:

"The biggest challenges were mostly psychological, [...] I sometimes felt like an imposter

when applying to jobs! I felt maybe nobody would be interested in me because I didn't have a degree or a long history in this profession. Then I found my current employer who did not care so much for my background but rather whether I was able to learn. I was able to prove this through a technical challenge and now it's been over 1.5 years working together, and it's been a great

> Viviane Thomas found that finding a job in tech was:

"surprisingly easy. After the first week full of doubt if I would ever get a job in my new field, I managed to get three offers in the month after the bootcamp finished."

> For women, getting your foot in the door is crucial. But after that momentous first step, real success and fulfillment awaits.

CONCLUSION

Europe is seeing a slow upward trend of more women in tech. But it is not as steep as it should be or could be, and it has not recovered from the extra burdens the pandemic placed on women.

As this data shows, the problem of women's underrepresentation in tech is systemic and has a snowball effect. Not enough women are encouraged to study computer science or coding in university or other courses, and therefore there are not enough young female tech graduates. As a result, fewer women sign up for platforms like Honeypot, receive fewer interview invites and take up less roles in tech teams which are consistently overpopulated with men. Lower salaries, less representation and less advocacy all follow naturally, and it becomes easier at every level for fresh discrimination to rear its head.

But the snowball effect can work in positive

ways, too. In our research, women continually affirmed how support and referrals drove them into coding. Women are not expected to get into coding, but just one woman changes that vision of a male-dominated field, and the more women join, the greater we can expect representation and equity to grow. As a result, we need more organized

structures to support women going into tech, providing them with mentors, assistance in the transition, empowerment and more. Europe lies on the cusp of change, but our report has shown that regression is just as possible as progression. We need to push for greater representation for women in tech at every level to counter with a positive snowball effect.

Part of that push involves reinventing how the tech industry sees itself to make space for women. And tech companies themselves need to take actiosn to turn the tide. Offering more opportunities to women in tech, interviewing more female applicants and giving female employees fair and equal pay is the first step!

Mia Szarvas enthused:



"Software engineering, coding, programming, can be extremely collaborative, creative, and rewarding. [...] Coding is a tool, not a job. You can use it to accomplish diverse goals, in any field, and in a multitude of applications.

Curiosity is one of the most important traits a programmer can possess - and if you're reading this, then you already have it. When you picture a programmer, picture yourself - you can do it!"



Honeypot is Europe's leading tech-focused job platform. With a mission to help tech professionals get jobs they love and companies scale up their teams, Honeypot is matching companies in Germany, Netherlands, Austria, Switzerland, and Spain with Software Developers, DevOps & Testing Engineers, Engineering Leaders, and Data Professionals.

Over 35,000 tech professionals have found jobs via Honeypot, and over 2,000 companies have found their match.

Honeypot is an integral part of the developer community, nourishing it with <u>articles</u>, reports, and crowd-pleasing original <u>documentaries</u> that are known all over the world!

WANT TO TALK ABOUT IT?

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Le Wagon is a global leader in immersive tech training. The school teaches people the skills they need to change their lives by kickstarting their tech careers or launching their own startups.

Le Wagon offers web development and data courses in more than 40 cities worldwide. Founded in Paris in 2013, Le Wagon now boasts a community of 18,000+ graduates from all walks of life, including many entrepreneurs who built 200+ tech startups and raised \$850M+ globally.

With a recognised **pedagogy** and **humancentric** approach, Le Wagon is the world's most acclaimed coding bootcamp according to <u>student reviews</u> on Switchup and Coursereport, and has partnered with leading higher education institutions such as HEC Paris, IAE Business School in Argentina and Imperial College London.

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