# The Future is Diverse: Women in the Mexican Tech Sector

<Laboratoria>



Our strength is our people.

People who share the company's values and vision, and are willing to contribute their knowledge and expertise to shape the future.



**Raquel Macias Arroyo** Head of Corporate Affairs and Social Responsibility, SAP Mexico

SAP Mexico and Laboratoria came together with a shared vision of ensuring the inclusion of women in the technology sector.

Today, that commitment is reflected in this document as an invitation for reflection and collective action.

SAP's determination to achieve gender equality is not an isolated issue. In Mexico, we have been working for more than 25 years to create a better functioning world and improves people's lives, and this requires a society with equal opportunities.

The task of eradicating inequality and ensuring equitable development is a responsibility that falls on all of society's actors. As companies, we have the opportunity - and the responsibility - to play our part in tackling this challenge. While it is true that a social responsibility initiative can be a good starting point, in order to advance at the speed the country requires, all departments, leaders, and colleagues must be involved.

Our strength is our people. People who share the company's values and vision, and are willing

to contribute their knowledge and expertise to shape the future. That is why we must ensure that they have everything they need to serve as agents of change in building a more egalitarian society.

In the case of SAP Mexico, it was through the collaboration between different departments and colleagues that our alliance with Laboratoria went the extra mile. We have not only worked to support the training of the eighth cohort of students in Mexico City - a source of great pride - but also to release this publication. This document is an invitation to acknowledge each other and on the basis of a common understanding, join forces to close the gender gap and create a more just country.

This publication was made possible through our work with key actors in the industry that contributed their experience, knowledge, and best practices for the development of female talent. Thank you to all the companies, organizations, and people from whom we have learned on this journey.

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We dedicate this publication to those women who, by challenging the status quo, become the architects of changes needed in Mexico.

### Introduction

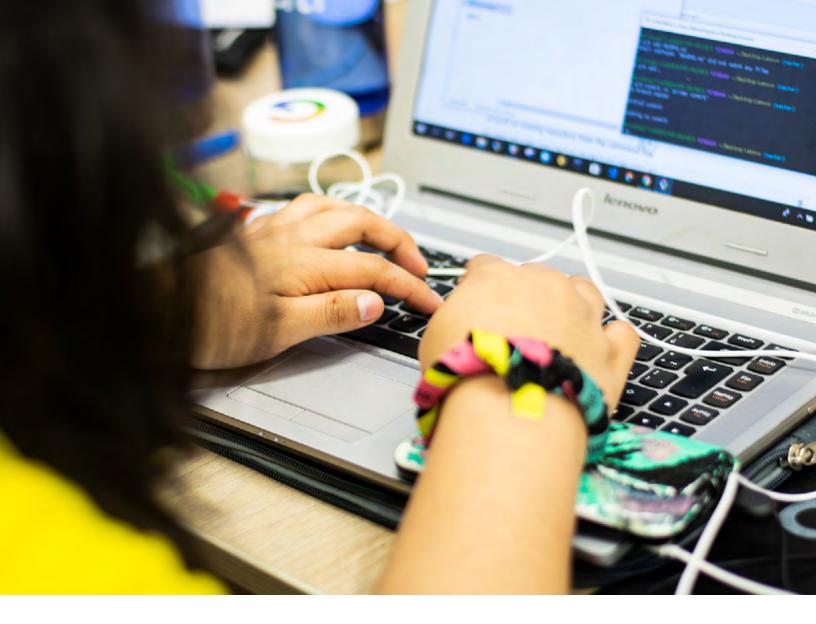
This publication is the result of collaborative work among many partners to promote diverse talent in Mexico in the digital age. The information collected demonstrates that women's participation in the labor force is low: according to the Organization for Economic Cooperation and Development (OECD), only 47% of Mexican women participate in the labor force compared to 83% of men. According to the World Economic Forum's (WEF) 2018 Global Gender Gap Report, based on this reality Mexico is ranked lower than other Latin American countries, such as Costa Rica, Argentina, and Ecuador. The results place Mexico in 50th place, out of the 149 countries analyzed and far below the global average of female labor force participation, which stands at 68%.1 The situation is even more dire in the historically male-dominated technology sector: currently only 14% of Information and Communication Technology (ICT) professionals in Mexico are women.<sup>2</sup>

While the lower participation of women in key sectors of the economy both causes and exemplifies gender inequality in the country, the case of the technology sector is, due to its massive impact, particularly alarming. Within the context of the current global digital economy, where technology has the power to enable development, excluding women - more than half of the population - would probably doom Mexico to everlasting inequality and lack of economic growth.

Our society is facing substantial transformations, and technology is the driving force behind significant changes in economic activity. The current economic model is characterized by fastpaced iterations that are reshaping our social, political, cultural, and economic systems. In this context, technology has become a tool cutting across all industries and has profoundly changed the type of skills and knowledge required of the labor force. In this regard, the new digital economy has the power to create opportunities yet to be explored: for women, to access better working conditions; for companies, to grow their businesses; and for Mexico, to become more competitive and have a more equitable society.

However, there are still various obstacles that prevent us from taking advantage of this potential. The multiple barriers to women's inclusion in the tech sector include: a traditional education system that is lagging behind, gender stereotypes, gender-based discrimination in the workplace, a deeply embedded culture of unequal allocation of domestic duties, as well as a lack of development networks and substantial gender-focused actions. To eliminate these barriers, we must first acknowledge them, and then, work to create concrete initiatives to promote diversity and inclusion.

This document exposes the difficulties faced by women hoping to enter the technology sector in Mexico, as well as the social and economic impact of discrimination against women. Based on these findings, we suggest that companies and organizations within the tech sector adopt the following strategies:



- 1. Engage in concrete actions to attract and hire female talent
- 2. Implement inclusionary policies to retain and nurture female talent
- 3. Collaborate and build bridges amongst actors
- 4. Ensure men's involvement
- 5. Collect and disaggregate data by gender

The information presented here is based on an analysis of existing literature and an assessment of information collected from interviews with leading professionals in the sector, Laboratoria graduates, human resources and diversity and inclusion teams within technology companies, and leaders

from the public and civil society sectors.

In a world of co-responsibility, alliances are necessary to achieve sustainable development. A close collaboration between businesses, governments, and civil society organizations is urgently needed to ensure the implementation of concrete actions to bridge the gender gap in the technology sector and promote equality for the overall benefit of the country.

# 01

## Women in Technology: The case of Mexico

According to data from the World Bank, women make up half of the global population. In Mexico, that percentage is slightly higher, at 51%.3, That is to say, there are approximately 64 million Mexican women. However, despite making up more than half of the population, women's share in the workforce does not match this percentage. According to a recent study, although the participation of women in the formal economy rose in recent decades, Mexico still lags behind other Latin American countries in this respect:

Only four in every ten women in Mexico are in the economically active population.4

The same study indicates that, although 46% of university graduates in Mexico are women, they are underrepresented across all levels of the labor force. In principle, women's skills and knowledge are equivalent to those of their male peers. However, only 37% of female graduates manage to find employment, and only 10% are promoted to managerial positions throughout their careers.<sup>5</sup>

With regard to the Mexican technology sector, the gender gap is similarly profound. In our country, only 10% of individuals with training in programming or software development, 14% of ICT professionals, and 15% of professionals in new technologies are women.<sup>6</sup>

In academia, women are slightly more represented, but still only account for 34% of faculty members working in technological research.<sup>7</sup>

In the **technology** sector, women represent

10%

of professional programmers

14%

of ICT professionals

In leadership and business, only 20% of the top 100 tech startups in the country were founded by a woman and a mere 9% have a female CEO.8

Inequality goes beyond the percentage of employed women in the technology industry; it is also evident in salaries: female software developers earn on average 26% less than men who hold the same positions.<sup>9</sup>

The under-representation of women in the workforce also harms the economy and our society. Exclusion from the technology sector constitutes a major disadvantage for women, preventing their access to the best paid and most important jobs in today's digital economy. Hence the importance of identifying and dismantling barriers that prevent the participation of women in the industry.



# 02

## The Six Main Barriers to entering the Technology Sector

To understand why women's access to the technology sector is so limited in Mexico, we need to recognize that there are several social, cultural, and economic barriers that prevent women from pursuing a career in this industry. These obstacles often stem from values and characteristics associated with biased opinions instead of women's actual capabilities. However, these prejudices are so deeply rooted in our society that they discourage, disincentivize, and hinder the integration and inclusion of women. These barriers include:

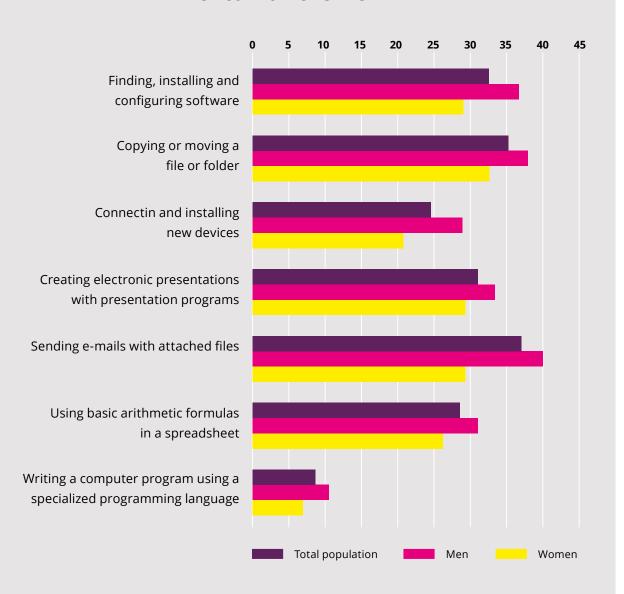
#### 1. Limitations of the education system

The challenge facing Mexico's education system is to enable students to develop the mix of technological competencies and soft skills they need to succeed in their careers. In fact, Mexico scored 2.8 (on a 1-to-7 scale) in both the quality of math and science education, and the overall quality of the education system in the World Economic Forum's Global Information Technology Report 2016, which puts Mexico far below the global average. Additionally, a survey by México Evalúa revealed that in 2017, 26% of Mexican schools did not have internet access, making it difficult for students to achieve proficiency in basic digital skills.

Furthermore, a combination of gender stereotypes, cultural norms, and societal factors that reinforce the idea that science, technology, engineering, and math (STEM) are traditionally male fields, directly impacts women's choice of academic major. While 28% of 15-year-old boys in Mexico want to become engineers or scientists, only 9% of girls do.12 This discrepancy is even larger in higher education. In 2018, less than 3% of all Mexican women entering undergraduate degree programs and less than 1% of all Mexican women enrolled in master's or doctorate degree programs chose ICT subjects, compared to over 9% and 3% of Mexican men, respectively.13 As a result, during the 2018-2019 academic year, only 30% of graduates from higher education ICT programs in Mexico were women.14

This set of circumstances not only perpetuates the division between traditionally 'male' and 'female' academic programs, but also reduces the chances for women to acquire the necessary skills to enter and grow professionally in the tech sector.<sup>15</sup>

## Proportion of youth and adults in Mexico with ICT skills



Graph: Proportion of youth and adults with ICT skills in Mexico Source: United Nations (UN). "Sustainable Development Goal (SDG) Indicator 4.4.1: Proportion of youth and adults with information and communications technology (ICT) skills, by type of skill." United Nations Sustainable Development Goals, last modified March 2, 2018, https://unstats.un.org/sdgs/metadata/

## 2. Gender stereotypes and unconscious bias

Stereotypes such as: "Technology is a male field," "women are less productive than men," "women lack the competitive spirit to succeed in tech careers," "men are inherently better at STEM than women," etc., are deeply ingrained in Mexican society and are a determining factor in women's exclusion from STEM subjects.

A study published by the National Autonomous University of Mexico (UNAM) revealed that 35% of the country's population believes that men are better suited for scientific and technological professions than women. Such beliefs hinder women's professional growth in the industry, as they permeate companies cultures and workplaces, and influence — consciously and unconsciously — recruitment, promotion, evaluation, and job-posting procedures to favor men over women.

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"We are unaccustomed to women exercising authority, making decisions or taking initiative. When a woman does take on this role, she often faces resistance. While it is true that women are increasingly present in the ICT sector, they still remain under-represented. Since these are traditionally masculine spaces, people are accustomed to having men in leadership positions, which favors the status quo."

- María Elena Estavillo Flores, Ex-Commissioner at the Federal Telecommunications Institute & Cofounder of Conectadas MX

The mere existence of these stereotypes can undermine women's self-esteem and confidence and, consequently, their desire to pursue a career in technology.<sup>17</sup> This can be explained based on the notion of "self-efficacy", or perceived abilities as opposed

to our actual abilities.<sup>18</sup> Even though at an early age girls often outperform boys in STEM subjects, they have significantly lower "self-efficacy" scores than boys – that is, lower self-perceived skills than boys.

A United Nations Educational, Scientific and Cultural Organization (UNESCO) study indicates that the "self-efficacy" gender gap is a global trend, highlighting the lower level of confidence and belief among girls when it comes to their own STEM capabilities. In fact, the OECD's PISA 2015 found a marked gender gap in "self-efficacy" in Denmark, France, Germany, Iceland and Sweden, all of which are considered developed countries.<sup>19</sup>

This phenomenon is replicated in Mexico, where girls have been found to outperform boys in STEM subjects in third grade. However, as they progress in school and due to an increased exposure to gender stereotypes, both women's performance and participation in STEM rapidly decline compared to men.<sup>20</sup>

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"At my previous job, I had a male colleague who would always say things like 'you are girls' or 'all women are the same,' and even 'women don't think logically, they are more emotional.' I disliked his remarks, which I found unpleasant and condescending; it was as if because I was a woman I could not understand logical ideas."

- Sue Herrera, Laboratoria graduate and Operations Developer at Synapbox.

#### 3. Discrimination in the workplace

In addition to fostering unconscious bias and subtle discrimination, gender-based stereotypes can also be present in the workplace in more direct ways, leading to a variety of discriminatory practices. Gender-based discrimination appears in many forms, including discriminatory hiring practices, unequal salaries for

equal work, limited responsibilities for women, biased evaluation procedures, and sexual harassment, among others. In total, 3.5 million women in Mexico have reported gender-based discrimination in the workplace.<sup>21</sup>

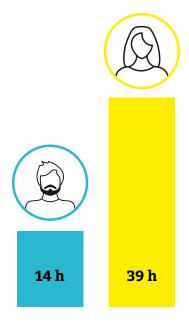
"There is a general tendency to see women as less competent than men and their accomplishments as less worthy or significant.<sup>22</sup> Consequently, for a woman to be hired or promoted within the technology sector, she usually needs to score higher than a man in all relevant criteria. Although there is a legal framework in Mexico that seeks to prevent these unfair practices, discriminatory hiring practices based on a woman's age, maternity status, or general family situation persist.

## 4. Lack of equality in the distribution of household responsibilities

Another cause of women's low participation in the formal economy is that women are traditionally responsible for performing the vast majority of domestic duties. While men are assigned the role of providers, women are given the role of caregivers, doing most of the unpaid work.

This perception about who is responsible for household chores and who is responsible for earning money places a disproportionate burden on women who want to work and raise a family. For instance, Mexican women on average undertake **39 hours of unpaid domestic work per week, approximately three times more than men.**<sup>23</sup>

Furthermore, 44% of Mexicans believe that when a mother has a paid job, her children suffer.<sup>24</sup> Thus, it is not surprising that almost 70% of mothers in Mexico are neither employed nor in education or training. In fact, only 36% of female executives in



Mexico have kids. This is less than half of the national average, according to which 77% of women over 18 are mothers.<sup>25</sup>

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"The division of domestic duties based on gender stereotypes is one of the greatest barriers to employment for women in Mexico."

- Aída Cerda, Independent Consultant specializing in gender equality and economic inclusion in the public sector.

These cultural norms are also echoed in companies' policies. According to a study by Accenture, while 73% of work centers in Mexico have clear maternity leave policies, only 42% of them have clear paternity leave policies, and just 34% of them actually encourage men to take paternity leave.<sup>26</sup> The lack of equitable parental leave policies, along with women's greater domestic responsibilities and lack of flexibility at work, makes it especially difficult for women to balance career development and family life.

On the other hand, there is an assumption that women will inevitably become mothers and be forced to leave their jobs. This belief has prevailed over time and continues to be used by employers to

explain lower hiring or promotion rates of women, thus perpetuating the labor gap.<sup>27</sup>

Against this backdrop, the private sector must work hand in hand with the public sector to create workplace policies that promote equal treatment, benefits, and opportunities for all, regardless of gender.

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- Martha Enríquez, director and associate SAP consultant, Deloitte Mexico

#### 5.Lack of female role models

It has been found that having other women as peers and professors in the technology sector considerably increases a girl's interest in STEM disciplines.<sup>28</sup> This also applies to the workplace, where, without female mentors, colleagues, and/ or leaders, women often find themselves alone in all-male environments, leading to experiences of isolation, a decreased sense of belonging, and a lower likelihood of persistence in ICT careers.<sup>29</sup>

In these male-dominated environments, many of the unwritten rules are defined from a male perspective, making it more difficult for women to develop and generate alliances.<sup>30</sup> Similarly, since hiring and promotions often depend on one's network, the lack of women in the field, specifically in top positions, poses an additional barrier for women hoping to advance their careers.<sup>31</sup>

When female networks are established at the workplace, women tend to be more proactive and vocal about their advancement interests. It has been found that when women in STEM disciplines join

these groups, they are 37% more likely to request a raise, 70% more likely to have their proposals endorsed, and 200% more likely to see their ideas implemented than women without a network.<sup>32</sup>

This lack of belonging and its effects are similar to those reported by any minority group, such as the LGBTQ+ community, people with disabilities, or migrants, making these groups feel vulnerable and without support in spaces where rules have been written by conventional majorities. The University of Dayton, Ohio, found that minority law students experience higher levels of isolation which negatively affect their motivation in class, their self-esteem, and their self-confidence. In addition to the psychological consequences, this isolation can also negatively impact students' academic performance, as exclusion from support networks, such as study groups, decreases their ability to share knowledge and solve questions in a group.33

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"Of all the engineering professors I had, only one was a female, and out of the 50 engineering students in my class, only 2 were women. I received some support from my male classmates, but I also experienced 'machismo.' Some of my male classmates would say things like 'why finish school if you are just going to get married' or 'you're just looking for a boyfriend.' Like anyone else, I just wanted some companionship, but I didn't get it"

- Gabriela Colín, Laboratoria graduate and UX designer at Citibanamex.

#### 6. A gender-neutral approach to inclusion

To fight gender-based discrimination in the recruitment and hiring process, many companies have adopted a gender-blind approach, which consists of omitting any indication of the applicant's gender. This practice is, paradoxically, counterproductive. If data is not collected or disaggregated by gender, our ability to understand existing gender gaps and the impact of specific actions designed to address them is hindered.

Several studies have shown that due to underlying gender bias in society, gender-blind hiring processes tend to favor men over women, and thus the gender-blind approach is, by itself, insufficient to guarantee inclusion.<sup>34</sup> By ignoring concrete barriers, such as women's domestic burdens or educational disadvantages as examined earlier, the application process itself creates a gender gap.

Recognizing that this scenario and its effects are exacerbated in the tech sector, the growing predominance of the genderneutral narrative of inclusion makes it increasingly difficult to implement programs targeting women to significantly increase their participation in the industry.

## 03

### The Demand for Tech Talent in Mexico

The world is currently in the midst of the Fourth Industrial Revolution, a period marked by intense political, social, economic, and cultural changes all driven by new technologies. These changes are having a direct impact on the labor market, as the number of jobs based on technology is increasing and substituting transactional activities.<sup>35</sup>

The new demands of the labor market provide invaluable opportunities for those with the right combination of technical and soft skills. However, due to the absence of technology in the educational curriculum, there is a large discrepancy between supply and demand of well-trained professionals. In Latin America, it is estimated that over 1 million software developers will be needed in the next three years.<sup>36</sup>

Mexico's reality is very similar: according to the Mexican Ministry of Education, in the next five years the country will have a deficit of 20,000 professionals trained in areas such as information technology, robotics engineering, and artificial intelligence.<sup>37</sup>

On the other hand, in 2018, the digital and technological sectors had the greatest number of job openings: more than 37,000 and 12,000 jobs, respectively.<sup>38</sup> Also, according to a study by the Inter-American Development Bank

(IDB), software development has become the top emerging occupation in the country.<sup>39</sup>

In this context, the deficit of technically trained professionals represents an opportunity, both for Mexican women to improve their status in society and for the Mexican technology sector to reach its full potential.



# 04

## The Costs of the Gender Gap in Technology

Women's exclusion from the tech sector has repercussions at various levels and impacts society as a whole. First, it negatively impacts each woman's economic and social empowerment. It is also detrimental to companies, as it deprives them of access to the benefits of diverse talent. Finally, it has wider implications for society's economic and social development by reproducing systems that exacerbate gender inequality.

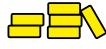
#### 1. The Cost to Women

Exclusion from the technology sector directly impacts women by limiting their opportunities to obtain a higher income, find high-quality employment, and be empowered through economic participation. The average monthly wage for programmers in Mexico is MXN 33,000, almost 3 times the average salary of professional workers in general in Mexico.<sup>40</sup> Today, the digital economy is creating unexpected market changes, demanding

Professionals in programming



Other carreers



11K

quick adjustments from the labor force to adapt to emerging and declining occupations. It is estimated that in this scenario, for every job lost, men will be four times more likely to find a new job in STEM than women.<sup>41</sup> If the current gender gap in ICT persists, women will not reap any benefits from this new economic model.

## **2.** The cost to the private sector From a business perspective, the private

a business perspective, the private sector is clearly impacted by the underrepresentation of women in technology. First, women's exclusion impairs tech companies' ability to recruit the best talent, irrespective of gender. The absence of women in the field also means that tech teams will not have the diversity required to create competitive, innovative, holistic, and solid solutions.<sup>42</sup>

Since this is a traditionally male-dominated sector, the male vision defines the "norm" when it comes to creating new technologies. Thus, the lack of gender diversity leads to bias in the development process, resulting in products that are less effective and more prone to replicate sexist stereotypes.<sup>43</sup>



"A company's ability to generate the best products in the market will be limited as long as its teams are not inclusive. Technology companies should openly strive to build diverse teams in order to have better talent and develop solutions that benefit all members of society."

 Mauricio Alvarado, Head of Digital Solutions and Transformation, SAP Mexico

A company's culture is also negatively impacted when women are not present. A recent survey found that Mexican companies with higher levels of gender diversity also had higher scores related to organizational health. A stronger female presence contributed to less attrition, better communication, and more collaborative leadership.<sup>44</sup>

According to researchers, in the Americas companies with more gender diversity are 15% more likely to have aboveaverage financial returns, which suggests that a better gender balance boosts company profits. <sup>45</sup> Similarly, a global study found that companies with at least one woman on their board experience significantly more growth than those that have none. Finally, companies with more women in management positions have 28% higher economic value, 55% greater profit margin, and 47% higher return on equity than companies without women in management positions. <sup>46</sup>

#### 3. The Cost to Society

Given this information, it should come as no surprise that the exclusion of women from the technology sector harms society as a whole.

The most significant repercussions include: (a) Waste of economic opportunities for the country; (b) Perpetuation of systems that exacerbate inequality; and (c)

Deceleration of sustainable development.

#### a. Waste of economic opportunities

Since technology is the fastest growing industry, enhancing women's digital skills is key to closing the gender gap in the labor force, which in turn could increase Mexico's GDP by 70%.<sup>47</sup>

In addition, many studies have shown that globally, women tend to invest a greater share of their income in their communities and families compared to men. According to the OECD, women spend 90% of their income on food and education for their children, while men only spend between 30% and 40% on these items. <sup>48</sup> Furthermore, since technology is one of the highest-paying sectors within the Mexican economy, promoting ICT skills generally accelerates economic growth. <sup>49</sup>

## b. Perpetuation of systems that exacerbate inequality

In addition to its economic impact, excluding women from the tech sector may also exacerbate existing gender inequality by perpetuating bias in technology. As mentioned earlier, technology designed by allmale teams risks creating products that replicate unconscious biases.

Technology, such as machine learning, advanced robotics, and big data analytics, offers spaces to negotiate, set, and convey social norms - including those related to gender. Thus, when technologies are designed using data that contains gender stereotypes, these biases are replicated in the technology itself, at which point they can spread throughout society and cement, or even aggravate, existing gender norms. As a result, social groups today are demanding

that governments, companies, and global leaders foster diversity in research and development, as a key means of ensuring the creation of inclusive solutions that are representative of the entire population.<sup>50</sup>

## c. The challenge for sustainable development

The Sustainable Development Goals (SDGs) included in the UN 2030 Agenda are based on a set of international human rights agreements. This means that, under the principle of universality, the SDGs apply to every country and every person without exception.

Unfortunately, when it comes to gender equality, women face greater disadvantages. A study by UN Women showed that gender inequality is pervasive in the SDGs, proving that women face systematic barriers at various levels. The report indicates that women are more affected by poverty and are more likely to experience food insecurity than men. It also indicates that Latin America and the Caribbean have the highest incidence of femicides; in Mexico alone, this crime rose 111% over the last four years.<sup>51</sup>

"The 2030 Agenda is clear: development will only be sustainable if it equally benefits women and men; and women's

rights will only become a reality if they are part of broader efforts." 52

Women's low participation in the tech sector limits the growth of companies and reduces society's ability to solve global challenges.

We must recognize that gender equality, in addition to being an objective in and of itself (SDG 5), is also a catalyst for achieving all other UN Sustainable Development Goals.

Gender inequality is a challenge that transcends borders and industries. Only if "no one is left behind" will it be possible to realize all the UN 2030 Agenda goals. Hence, collaboration among the public, private, and civil society sectors is crucial to eliminate the barriers that prevent girls and women from contributing to society and achieving their full potential.

# 05

## What Mexican Companies Can Do to Support the Inclusion of Women in Tech

Gender diversity gives companies a competitive edge and should therefore not be a task for the human resources and social responsibility departments only. Leadership teams must push this agenda as a strategic priority and ensure the implementation of policies to foster diversity and inclusion within the workplace

To make this possible, companies should:

- 1. Engage in concrete actions to attract and hire female talent
- 2. Implement inclusionary policies to retain and nurture female talent
- 3. Collaborate and build bridges amongst actors
- 4. Ensure men's involvement
- 5. Collect and disaggregate data by gender

#### 1. Engage in concrete actions to attract and hire female talent

Companies must actively engage in inclusive hiring practices. Measures to increase objectivity and reduce unconscious gender bias from the hiring process include:

- Sensitize human resources teams, and others involved in recruitment processes, on diversity and inclusive hiring practices
- Establish and meet gender distribution quotas within the candidates pool before reviewing candidates' profiles
- Eliminate masculine and/or exclusive language from job descriptions
- Consider applicants with unconventional educational backgrounds
- Remove questions about pregnancy, child rearing, and family planning from job interviews
- Create diverse hiring committees that give men and women equal say in the decision-making process

#### 2. Implement inclusionary policies to retain and nurture female talent

Aside from being knowledgeable about and following Mexico's non-discrimination laws, companies must implement concrete diversity and inclusion policies and practices. These can include:

- Design workshops and training courses for leaders and employees to discuss topics such as (i) identifying and managing unconscious biases; (ii) creating safe spaces and accepting people from different backgrounds; (iii) eliminating sexist jokes; (iv) using inclusive language; and (v) establishing formal channels for employees to report discrimination
- Implement sexual harassment policies that guarantee accessible means to reporting, proccesses that are confidential and respectful to victims, and clear sanctions for perpetrators
- Define and utilize clear and transparent performance indicators to determine salaries and promotions
- Implement internal campaigns to promote diversity and inclusion
- Organize workshops and formal training programs for female employees on leadership, salary negotiation, and digital skills, among others
- Offer flexible working hours and work from home policies regardless of gender
- Establish women's networks and mentorship programs for female employees
- Support new mothers in their transition back to work through various mechanisms, such as providing lactation rooms or in-office daycare services
- Extend paternity and maternity leave policies and encourage all employees to utilize parental leave

"Inclusion is not just about hiring someone or not, it is also about every person being able to be their authentic self. It means creating a culture where every individual is respected and valued. As companies, we need to generate awareness and show that 'machismo,' and other forms of discrimination are not acceptable.

- Julia Isaurralde, Head of Human Resources, SAP México

#### 3. Collaborate and build bridges amongst actors

The responsibility of including women in the labor market, and specifically in the technology sector, falls on society as a whole. To advance the conversation and promote collective action towards greater gender parity, stakeholders can:

- Form and cultivate communities to share data, knowledge, and best practices in favor of diversity and inclusion
- Collaborate with other organizations (governments, nonprofits, and/or other companies) that share the same commitment to combat the problem, discover other perspectives and learn from the experiences of other actors
- Establish partnerships and alliances with organizations that cultivate female talent in technology or other STEM fields



Laboratoria, an organization that is addressing the issue of women in tech www.laboratoria.la

Laboratoria is a social startup committed to shaping the women and organizations that will create a more competitive, diverse, and inclusive digital economy in Latin America that creates opportunities for all people. It does this through two lines of action:

- **1. Laboratoria for Women**, offering training to women who have not had access to quality education, so that they can start a career in technology
- **2. Laboratoria for Business**, offering help to companies seeking to enhance tech talent and boost their team members' skills in the digital era.

Laboratoria has sites in Mexico, Peru, Chile, Brazil, and Colombia and has trained more than 1,500 women in Latin America, nearly 80 % of which are now working in the technology sector. Laboratoria has been in Mexico for over four years, working with a network of over 200 companies to provide and shape the female tech talent that today's economy requires.

#### 4. Ensure men's involvement

The private sector, the government, and civil society all have a role to play in the process of establishing gender equality in the Mexican technology sector. However, since men hold the majority of tech jobs (75%), and also most leadership positions within the sector (91%), they have a key role in implementing these recommendations and are ideally placed to do it. As such, men must recognize the importance and potential benefits of fostering gender diversity in the tech sector and then, they must play an active role in the creation of a more equal industry.



66 "Men have a very important role to play in the inclusion of women. Since they hold leadership positions, they have an undeniable power to promote inclusion. Men and women must mutually support one another."

- Janet Acosta, CFO, OptiSoft.

#### 5. Collect and disaggregate data by gender

Policies and practices aimed at increasing women's participation in the tech sector cannot be gender neutral. As such, it is critical that we collect and disaggregate data and statistics by gender in order to identify gaps and make progress towards inclusion. All actors, including companies, should work to:

- Set internal objectives for diversity and gender equity
- Design and implement a clear process to measure progress
- Analyze the gender gaps within the organization by comparing the proportion of male and female employees, as well as the distribution of salaries in every department and at every level of the organization, among other things
- Make decisions and continuously adjust the strategy based on the analysis of collected data



### **Measuring Diversity and Gender Equity within Organizations**

There are several initiatives that allow companies to measure their progress on diversity compared with other companies. These tools allow companies to collect data, implement best practices, and tackle gender inequality in the workplace. Ranking PAR, focused on gender balance, and HRC Equidad MX, focused on the inclusion of LGBTQ+ individuals, are examples of such initiatives. Additionally, ranking lists such as Great Place to Work and Top Companies include diversity-related categories.

### **Conclusions**

Currently, there are plenty of initiatives promoted by different actors to achieve greater gender diversity and inclusion. However, their outcomes have failed to meet society's needs. Given the scope of this challenge, the only path forward is collaboration. Only by working together can the civil society and the public and private sectors generate the changes that Mexico requires.

As stated earlier, the labor force participation rate of women in Mexico is severely low, placing the country below the global average in international assessments. Only 47% of women in Mexico are in the workforce, so Mexico is ranked below all OECD members besides Turkey and in a worse position compared to many other Latin American countries.

In the technology sector in Mexico, only 10% of programmers and 14% of ICT professionals are women. It is especially important to achieve gender equity in the technology sector, as most new employment opportunities are being created - particularly in today's digital economy - and the best paid jobs are found in this sector.

There are multiple reasons behind these social and economic gender gaps including: limitations of the traditional education system, lack of gender perspective in public policy, lack of equality in the distribution of household responsibilities, and negative and deeply-rooted gender stereotypes that give rise to other harmful practices, such as gender-based labor discrimination.

Additionally, belief in the gender-neutral approach and a lack of female role models limit women's opportunities for development within the tech sector.

Removing these barriers and promoting the inclusion of women - who account for just over half of Mexico's population - is essential to foster development. Respect for women's rights brings many benefits, the most tangible of which is the economic empowerment of women through access to decent, well-paid jobs

offering opportunities. This can also accelerate social development, as it has been shown that women spend up to ~90% of their income on their children's education and healthcare expenses, whereas men only spend ~40%. Thus, women's economic inclusion translates into a better quality of life for their families.

However, the family unit is not the only group directly benefiting from women's inclusion; companies and the economy also receive substantial benefits. Gender diversity in the technology sector encourages creativity in product development, creates more market opportunities, and accelerates economic growth. Mexico's GDP could increase up to 70% by closing the gender gap in the workforce.

What can be done to increase inclusion? Certainly, women must speak up, challenge the status quo, propose changes, and implement them. Every woman is responsible for her own growth, but women cannot do it alone. Gender equity is a shared responsibility, so all parties must promote initiatives and play their part in closing the existing gender gap.

For companies, we propose an initial set of recommendations:

- 1. Engage in concrete actions to attract and hire female talent;
- 2. Implement inclusionary policies to retain and nurture female talent;
- 3. Collaborate and build bridges amongst actors;
- 4. Ensure men's involvement
- 5. Collect and disaggregate data by gender

Evidently, no sector would be able to put an end to this inequality by itself; every actor must be aware of how intrinsically linked this goal is with the implementation and fulfillment of collaborative public policies.



On the path to reaching thousands of women, we have become convinced that having more of us women creating technology today is the best way to make sure that women will play a role in designing the future of our world.



Mariana Costa Checa
Laboratoria Cofounder and CEO

Laboratoria was born five years ago with the bold dream of transforming the growing Latin American technology sector into a source of opportunities for women in the region. We are driven by the belief that women deserve a space in this world and that making that possible benefits our society as a whole.

To achieve this dream, we designed a unique learning experience. What makes this experience unique is not its content or infrastructure, but the incredibly talented women it brings together, all of them willing to fight for a better future. We built a place where, more than learning how to program or design, our students learn how to learn and build the confidence and the community to make it all possible. Inspired by the strength of our students, we set out to prove to top-tier companies that, although our societies have made us think that a college degree is the only thing that gives us professional value, in today and tomorrow's world skills are much more important.

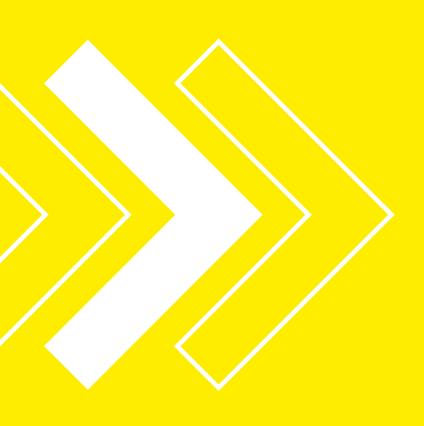
After their first strides, our graduates convinced both big and small companies that we are a great talent pipeline for their development teams. Then, we took on from leading companies throughout the region the arduous task of of finding technical talent. One step at a time, we are helping hundreds of companies to change their appearance and the way they work, supporting them to become examples of diversity and inclusion.

Once we earned their trust, we began to work with these same companies to accelerate the pace of their digital transformation. This is driving growth in a sector that is increasingly creating more opportunities for our graduates and that will (and we confidently say this) transform Latin America.

On the path to reach thousands of women, we have become convinced that having more of us women creating technology today is the best way to make sure that women will play a role in designing the future of our world. And a future co-designed by women and men is, without a doubt, a better future for humanity. Although we still have a long way to go, today our dream is starting to become a reality.

We are changing the rules of the game to build a competitive, diverse, and inclusive technology sector that generates opportunities for all individuals. We are extremely proud to be driving this shift together with allies such as SAP, who share our vision and commitment to implementing concrete actions to make these changes happen.

We hope that this publication can be a trigger for future collaborations amongst thousands of companies and organizations willing to play their part in this transformation; we all have a shared responsibility to achieve this.



### References

- <sup>1</sup> WEF, The Global Gender Gap Report 2018 (Geneva: World Economic Forum, 2018), 185.
- <sup>2</sup> EQUALS Research Group, Taking stock: Data and evidence on gender equality in digital access, skills, and leadership (Macau: United Nations University Institute on Computing and Society/International Telecommunications Union, 2019), 85.
- <sup>3</sup> World Bank, "Population, women (% of the total)." World Population Prospects 2018, accessed on 26 January, 2018, https://datos.bancomundial.org/indicador/SP.POP.TOTL.FE.ZS.
- <sup>4</sup> Bolio et. al., One Aspiration, Two Realities: Promoting Gender Equality in Mexico (Mexico City: McKinsey & Company, 2018), 11.
- <sup>5</sup> Bolio et. al., One Aspiration, Two Realities: Promoting Gender Equality in Mexico (Mexico City: McKinsey & Company, 2018), 7.
- <sup>6</sup> Jair López, "Sector tecnológico, el más innovador, pero con pocas mujeres." El Financiero, August, 2016, https://www.elfinanciero.com.mx/empresas/sector-tecnologico-el-mas-innovador-pero- con-pocas-mujeres; EQUALS Research Group, Taking stock: Data and evidence on gender equality in digital access, skills and leadership (Macau: United Nations University Institute on Computing and Society/International Telecommunications Union, 2019), 85.
- <sup>7</sup> INMUJERES (National Women's Institute), Boletín N3: Desigualdad en cifras (Mexico City: Instituto Nacional de las Mujeres, 2018), 1.
- <sup>8</sup> WEF, The Global Gender Gap Report 2018. (Geneva: World Economic Forum, 2018), 29; OECD, Bridging the Gender Digital Divide: Include, Upskill, Innovate (Paris: OECD Publishing, 2018), 28.
- <sup>9</sup> Global Shapers Ciudad de México, "Disparidad salarial en profesionistas de software en México: evidencia de la desigualdad de género en la industria de tecnología." Nexos, last modified November 27, 2019, https:// datos. nexos.com.mx/?author name=global-shapers-ciudad-de-mexico.
- <sup>10</sup> WEF, The Global Information Technology Report 2016: Mexico (Geneva: World Economic Forum, 2016), 139.
- <sup>11</sup> México Evalúa, "Con Internet, 26% de las escuelas." México Evalúa, last modified February 7, 2017, https://www.mexicoevalua.org/2017/02/07/con-internet-26-de-las-escuelas/.
- <sup>12</sup> Gabriela Ramos, "Apertura de la Semana Nacional de Mentoras por la Ciencia, Tecnología,

- Ingeniería y Matemáticas" (Speech, OECD, Mexico City, June 19, 2017).
- <sup>13</sup> ANUIES, Anuarios Estadísticos de Educación Superior (Mexico City: Asociación Nacional de Universidades e Instituciones de Educación Superior, 2019).
- <sup>14</sup> ANUIES, Anuarios Estadísticos de Educación Superior (Mexico City: Asociación Nacional de Universidades e Instituciones de Educación Superior, 2019).
- <sup>15</sup> Carmen García Villa and Elsa M. González y González, "Women students in engineering in Mexico: Exploring responses to gender differences." International Journal of Qualitative Studies in Education 27:8 (2014): 1045.
- <sup>16</sup> Patricia Galeana and Patricia Vargas Becerra, Géneros asimétricos: Representaciones y percepciones del imaginario colectivo (Mexico City: Universidad Nacional Autónoma de México, 2016), 65.
- <sup>17</sup> UNESCO, Cracking the code: Girls' and women's education in science, technology, engineering and mathematics (STEM) (Paris: United Nations Educational, Scientific and Cultural Organization, 2017), 43.
- <sup>18</sup> EQUALS Skills Coalition and UNESCO, I'd blush if I could: closing gender divides in digital skills through education (Paris: EQUALS, 2019), 22.
- <sup>19</sup> UNESCO, Cracking the code: Girls' and women's education in science, technology, engineering and mathematics (STEM) (Paris: United Nations Educational, Scientific and Cultural Organization, 2017), 43.
- <sup>20</sup> UNESCO, Cracking the code: Girls' and women's education in science, technology, engineering and mathematics (STEM) (Paris: United Nations Educational, Scientific and Cultural Organization, 2017), 32.
- <sup>21</sup> INMUJERES, (National Women's Institute) Boletín N3: Desigualdad en cifras (Mexico City: Instituto Nacional de las Mujeres, 2018), 1.
- <sup>22</sup> Rafael Castillo, Matteo Grazzi, and Ezequiel Tacsir, Women in Science and Technology: What Does the Literature Say? (New York: Inter-American Development Bank, 2014), 13.
- <sup>23</sup> INEGI, Mujeres y hombres en México 2018 (Aguascalientes: Instituto Nacional de Estadística y Geografía, 2018), 161.
- <sup>24</sup> Bolio et. al., One Aspiration, Two Realities: Promoting Gender Equality in Mexico (Mexico City: McKinsey & Company, 2018), 26.
- <sup>25</sup> OECD, Building an Inclusive Mexico: Policies and Good Governance for Gender Equality (Paris: OECD Publishing, 2017); Bolio et. al., One Aspiration, Two Realities: Promoting Gender Equality in Mexico (Mexico City: McKinsey & Company, 2018), 42.
- <sup>26</sup> Accenture, "Getting to Equal 2018: Mexico" (Presentation, Mexico, March, 2018).
- <sup>27</sup> Rafael Castillo, Matteo Grazzi, and Ezequiel Tacsir, Women in Science and Technology: What Does the Literature Say? (New York: Inter-American Development Bank, 2014), 5.
- <sup>28</sup> UNESCO, Cracking the code: Girls' and women's education in science, technology, engineering and

mathematics (STEM) (Paris: United Nations Educational, Scientific and Cultural Organization, 2017), 48.

- <sup>29</sup> Carmen García Villa and Elsa M. González y González, "Women students in engineering in Mexico: Exploring responses to gender differences." International Journal of Qualitative Studies in Education 27:8 (2014): 1045; EQUALS Skills Coalition and UNESCO, I'd blush if I could: closing gender divides in digital skills through education (Paris: EQUALS, 2019), 53.
- <sup>30</sup> UN Women, Making Innovation and Technology Work for Women (New York: UN Women, 2017), 11.
- <sup>31</sup> Rafael Castillo, Matteo Grazzi, and Ezequiel Tacsir, Women in Science and Technology: What Does the Literature Say? (New York: Inter-American Development Bank, 2014), 10.
- <sup>32</sup> Deloitte, Cracking the code: How CIOs are redefining mentorship to advance diversity and inclusion (New York: Deloitte Insights, 2018), 4.
- <sup>33</sup> Cathaleen Roach, Impact of Isolation of Minority Students (Ohio: The University of Dayton School of Law, 2006).
- <sup>34</sup> UN Women, Making Innovation and Technology Work for Women (New York: UN Women, 2017), 10.
- <sup>35</sup> OLA, "Los empleos del futuro." Observatorio Laboral, http://www.observatoriolaboral. gob.mx/static/estudios-publicaciones/Empleos\_futuro.html.
- <sup>36</sup> UNESCO, Cracking the code: Girls' and women's education in science, technology, engineering and mathematics (STEM) (Paris: United Nations Educational, Scientific and Cultural Organization, 2017), 31; IBD, Mercados laborales: ¿cuáles serán los siete empleos del futuro?, Inter-American Development Bank, December 22, 2015, YouTube Video, https://www.youtube.com/watch?time\_continue=1&v=DZtjH2CLjP4.
- <sup>37</sup> Forbes Staff, "La educación digital y la brecha de talento" Forbes MX, June, 2019, https://www.forbes.com.mx/la-educacion-digital-y-la-brecha-de-talento/.
- <sup>38</sup> Forbes Staff, "Sector tecnológico, el que cuenta con más vacantes de empleo en México" Forbes MX, August, 2018, https://www.forbes.com.mx/sector-tecnologico-el-que-cuenta-con-mas-vacantes-de-empleo-en-mexico/.
- <sup>39</sup> IDB, How Far Can Your Skills Take You? Understanding Skill Demand Changes Due to Occupational Shifts and the Transferability of Workers across Occupations (New York: Inter-American Development Bank, 2018), 29.
- <sup>40</sup> Forbes, "Casi la mitad de los recién egresados en México no gana más de 8 mil al mes." Forbes MX, January, 2019, https://www.forbes.com.mx/casi-la-mitad-de-los-recien-egresados-en-mexico-no-gana-mas-de-8000-pesos-al-mes.
- <sup>41</sup> WEF, The Future of Jobs: Employment, Skills and Workforce Strategy for the Industrial Revolution (Geneva: World Economic Forum, 2016), 40.
- <sup>42</sup> UNESCO, Cracking the code: Girls' and women's education in science, technology, engineering and mathematics (STEM) (Paris: United Nations Educational, Scientific and Cultural Organization, 2017), 14.

- <sup>43</sup> UN Women, Making Innovation and Technology Work for Women (New York: UN Women, 2017), 3.
- <sup>44</sup> Bolio et. al., One Aspiration, Two Realities: Promoting Gender Equality in Mexico (Mexico City: McKinsey & Company, 2018), 19.
- <sup>45</sup> EQUALS Skills Coalition and UNESCO, I'd blush if I could: closing gender divides in digital skills through education (Paris: EQUALS, 2019), 32.
- <sup>46</sup> EQUALS Skills Coalition and UNESCO, I'd blush if I could: closing gender divides in digital skills through education (Paris: EQUALS, 2019), 32; Bolio et. al., One Aspiration, Two Realities: Promoting Gender Equality in Mexico (Mexico City: McKinsey & Company, 2018), 10.
- <sup>47</sup> Bolio et. al., One Aspiration, Two Realities: Promoting Gender Equality in Mexico (Mexico City: McKinsey & Company, 2018), 10.
- <sup>48</sup> Organización de Crecimiento y Desarrollo Económicos, Principios rectores del CAD en materia de eficacia de la ayuda, igualdad de género y empoderamiento económico de la mujer (OECD, 2008).
- <sup>49</sup> EQUALS Skills Coalition and UNESCO, I'd blush if I could: closing gender divides in digital skills through education (Paris: EQUALS, 2019), 31.
- <sup>50</sup> EQUALS Skills Coalition and UNESCO, I'd blush if I could: closing gender divides in digital skills through education (Paris: EQUALS, 2019), 33, 34.
- <sup>51</sup> UN Women, Turning promises into action: Gender equality in the 2030 Agenda for Sustainable Development (United States of America: UN Women, 2018), 1.
- <sup>52</sup> UN Women, Turning promises into action: Gender equality in the 2030 Agenda for Sustainable Development (United States of America: UN Women, 2018), 1.

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