Ajuntament de Barcelona

GOVERNMENT MEASURE

BcnFemTech

2021—2023

For gender equity in the tech sector

BcnFemTech

Drafting and ideas:

Participating areas:

First Deputy Mayor's Office for Economy, Employment, Competition and Taxation

Fourth Deputy Mayor's Office for Social Rights, Global Justice, Feminism and LGBTI Affairs Barcelona Activa.

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1. Introduction and context

The tech sector is an expanding source of wealth and job creation best represented by an ascending growth curve. It represents **3.1% of GDP** in Spain and **7.3% of GDP** in Catalonia. Barcelona has undoubtedly consolidated its position as a key digital hub in southern Europe, with an impressively high number of tech businesses based there. However, access to and the creation and production of technology, and the wealth and assets this entails, **are reinforcing certain discriminatory gender and social dynamics**, causing gender segregation through job platforms, roles in the tech industry that surrounds the platform economy, algorithms that work based on racist, sexist and classist rules, and a level of economic concentration and economic aggression against rights and the most vulnerable groups that is worse than it was in the industrial era.

As a creator of jobs, the employment potential represented by the technological sector is undeniable. In Catalonia, the sector employs 3.8%[1] of the active population, but not equally in terms of gender. In Barcelona, the tech industry constitutes 6% of the active population and **4% of the city's businesses**. In addition, and very notably, is the fact that this is the **only sector that has created jobs during the pandemic.**

This problem is common to all global job markets where women's employment rate is significantly lower than men's. What is more, the tech job market is strongly segregated by gender: women tend to find themselves working in male-dominated environments and, as their career progresses, they progressively escape to other occupations. The gender-based differences in access to various types of work, salaries (and future pensions) and job stability operate very explicitly in a sector that is undergoing constant growth. This is the so-called **gender digital and/or technological** divide, which highlights women's under-representation in tech environments and growing gender inequality in one of the main sectors driving job creation worldwide. The gender divide in access to and the production, management and consumption of technology requires an urgent, decisive, resolute response to address the challenges and negative impacts it generates. Without intervention, this gap will not just perpetuate socioeconomic inequalities based on gender, it will accentuate them.

1. Introduction and context

Multiple institutional sources, from the United Nations to the OECD and the European Commission, recognise that there are various factors behind the gender divide in digital skills acquisition. This divide means that women only make up **approximately 16–17% of the workforce in technology development companies.**[2]

Table 1: Eurostat 2018. % of tech specialists who are women. Spain and European average.
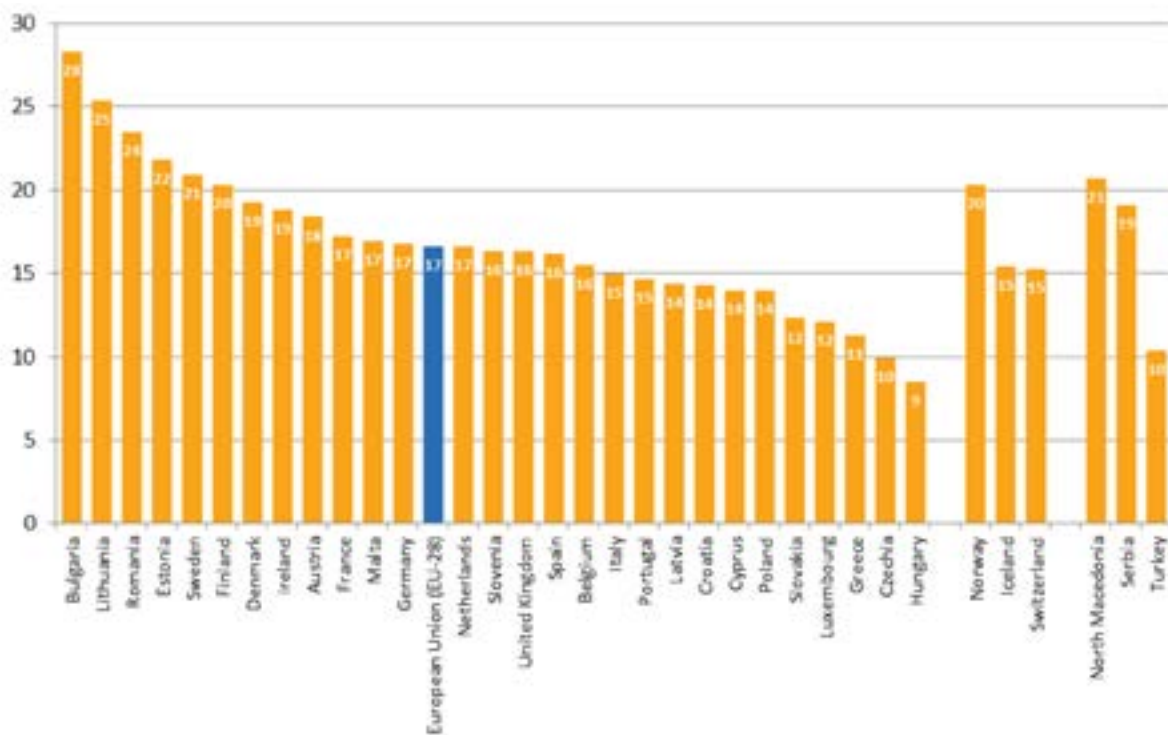
According to data on employment in Barcelona, **only 26% of jobs in the tech sector are held by women**[3]. In other words, out of the 77,000 current tech jobs in the city, only 20,000 are held by women. Furthermore, and very notably, just **8.6% of technical positions**[4] **are held by women.** The presence of women in the most qualified roles is therefore very low.

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2   Eurostat (2018).
3   Barcelona Digital Talent (2020). "Digital Talent Overview 2020". Barcelona: Mobile World Capital Barcelona.
4   Technological Circle of Catalonia Barometer 2020.

1. Introduction and context

Some of the factors indicated by tech experts[5] are the presence of highly defined stereotypes of women's abilities in the world of technology; a low presence of women in positions of power in tech companies; the lack of diversity plans; the invisibility of tech women and role models; the lack of awareness-raising campaigns; and an absence of subjects that develop computer skills for girls. All of these elements are leading different public bodies to implement sets of measures to combat this gender digital divide. According to the OECD,[6] gender differences become evident in adolescence: for example, at the age of fifteen, only 0.5% of girls want to be tech professionals compared to 5% of boys. In the same vein, the report indicates that twice as many teenage boys as girls aspire to becoming scientists and architects. Changing specific gender expectations regarding professions is key, and this can be achieved by raising awareness of female role models in STEAM areas. There is therefore an urgent need to **boost programmes that increase awareness of the career opportunities retraining in tech can offer girls and women**, while at the same time making it known that it is in everyone's interest to spread the message that **tech jobs have no gender.**

Public powers must take note of this and implement public policies to achieve gender equity in technology creation. The danger is that all technology may end up being produced by only part of the population. Excluding women is unacceptable and Barcelona City Council aims to reduce the danger of this happening through the various initiatives included in this government measure. Technology is not just a job creator. It also facilitates communication and the creation of services and relationships between people in the digital spheres. **We must not tolerate technology production being dominated by only part of the population as this extends and accentuates existing inequalities**.

This is why, as a way of tackling the **gender-based inequalities in employment rates in the tech sector,** the opportunities offered by the Covid-19 crisis must be leveraged. I**n Barcelona, during March, April and May 2020, more than 6,700 tech job vacancies were posted**.[7] One in ten Catalan tech companies consider that they could increase their turnover if they could find the talent they need to expand their team.[8] According to Marya Gabriel's (European Commissioner) estimates, 90% of future jobs will require digital skills (European Commission, 2019; Gabriel, 2018; European Union, 2019).[9]

In Barcelona, the economic recession caused by Covid-19 has left an unemployment rate of 13%. Over a fifth of the city's adult population is unemployed, furloughed (ERTO) and/or actively looking for work. I**n late 2020, around 50,000 women were unemployed (52.8%**

5   INTELIGENCIA ARTIFICIAL, naturally | Ontsi - Red.es. Nuria Oliver. June 2020
6   Bridging the digital gender divide. 2018. OECD
7   Digital Talent Overview 2020. Barcelona Digital Talent. 2020

1. Introduction and context

of total unemployment), with a year-on-year increase (32.8%) that was lower than the increase in unemployed men. Despite these data, when it comes to recruitment, only 35% of employment contracts signed in 2020 were for women.[10] The origin of the problem lies in horizontal segmentation, which is just another form of discrimination against women in the world of work. We can therefore conclude that there is a lack of female talent in some economic sectors and professional categories. This municipal government aims to create a city and labour market model **based on equal opportunities: an inclusive model that pursues social progress** as an essential value that inspires all municipal policies.

Table 2: Distribution of recruitment in the main economic activities in Barcelona according to sex. 2020 (%)
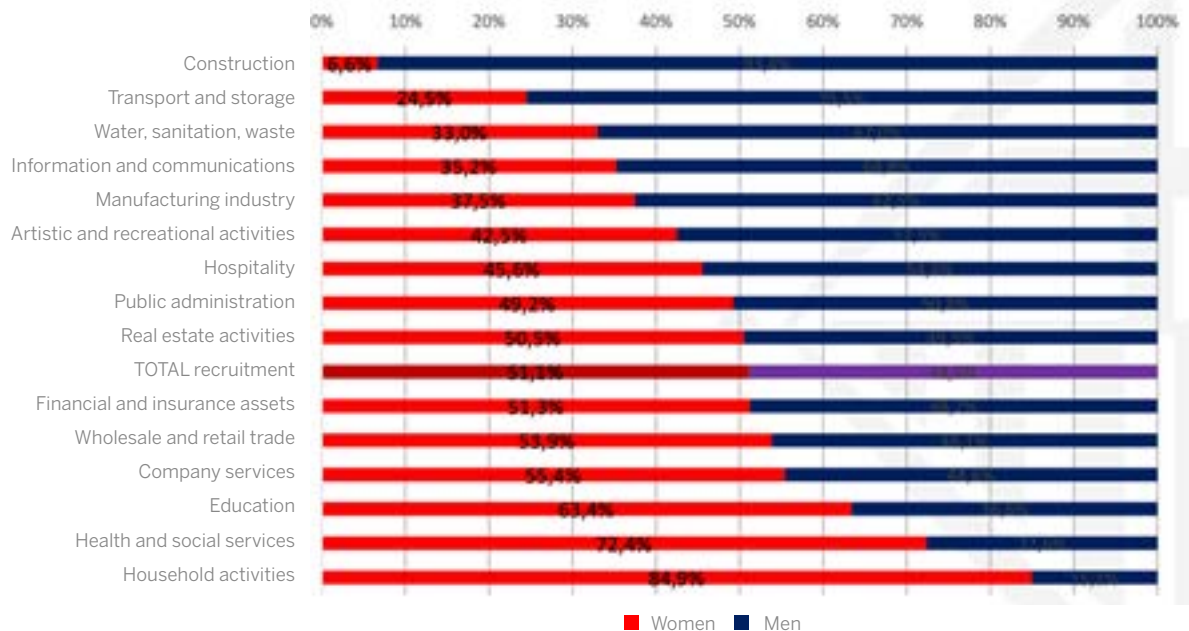
Source: Produced by the Studies Department of the Manager's Office for Economics, Resources and Economic Promotion, based on data from the Municipal Statistics and Data Dissemination Department.

8   CTecno Barometer 2020.
9   Mujeres y digitalización [Women and Digitalisation]. De las brechas a los algoritmos [Women and digitalisation. From divides to algorithms]. Institute for Women and Equal Opportunities. Ministry of Equality.

1. Introduction and context

It seems logical to promote digital skills acquisition among those currently unemployed or with little job security, directing these groups toward a sector that constantly needs to recruit new staff. There are few sectors where the demand for professionals is growing by around 80% annually, and even fewer where these positions cannot be filled due to a lack of qualified professionals, which is the case in Barcelona, where growth stands at just 23%. The tech industry is one of these sectors.

For all of these reasons, Barcelona City Council wants to take decisive action to this effect. **This is not just an opportunity to create new, quality jobs and to improve many women's work situation. It is also a chance to draw up a new framework for the relationship the city's women have with the world of technology and the future.**

The initiatives that will be promoted in this government measure revolve around what we might call the 'life cycle' of female talent, to support women throughout their professional careers right from the education stage, where girls must have access to high-quality information and role models so that they can direct their academic and professional future towards the new realities of the job market, up to the stages of professional maturity, where women must be able to find new professional retraining opportunities to deal with changes in business demands.

This trend has already emerged in cities like London, Paris and New York, where public policies aiming to promote digital skills acquisition among girls and women have been implemented. These are similar initiatives to the ones included in this government measure. In Paris, where there are clear inequalities between men and women, **theParisCode programme** boosts the creation of jobs for women in digital environments. It has brought together companies that work in the tech sphere to highlight the effort made to create jobs based on training offered by municipal institutions. In London, women's digital skills acquisition and ad hoc tech job creation policies have been in place for over two years, because the percentage of women in the city's tech workforce is low (19%).[11] Even in New York – one of the cities with the most tech companies in the world – city-wide plans are being drawn up to train local women and girls to create software and write code.

As indicated by the United Nations 2030 Agenda, public policies must ensure that girls and women have the necessary skills and knowledge to understand, develop content, participate in and benefit fully from ICTs and their applications. For this reason, in accordance with UN recommendations, Barcelona City Council wants to develop a city plan that:

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1. Introduction and context

activates IT literacy initiatives to facilitate access to tech training for women without prior links to the tech industry; implements awareness-raising campaigns regarding women and technology to break existing stereotypes and gender roles; and creates an ecosystem and new policies to guarantee gender equity in this sphere and do away with the gender digital divide.

The municipal government will promote cross-cutting action in each stage of the life cycle of female talent (generation, development and attraction) to make sure no one gets left behind, thus narrowing the gender digital divide. It is crucial that we democratise the opportunities emerging from the digital revolution, encourage the presence of women in the digital world, and ensure that older women and women with fewer resources also have the tools to participate in the digital sphere. No woman should be left behind.

► **We must narrow the first gender digital divide, which is that of access to digital knowledge and skills acquisition, to build a digitally inclusive city with equal access to digital infrastructures and tools. Women must be incorporated into the workforce in the tech sector through the promotion of specialist training, and conditions that favour real equity must be created through initiatives to break down conceptual barriers (stereotypes) and raise the visibility of and/or normalise women's presence in tech environments. These processes can provide a way out of the economic crisis and reverse the negative gender and social impacts of adopting technology in favour of intersectional gender equality.**

2. Programme framework

Municipal programme framework

This government measure will interact closely with and be coordinated with other municipal programmes, plans and strategies, whether they have already been executed or are currently being implemented. They include:

- ► Barcelona Strategy against the Feminisation of Poverty and Job Insecurity 2016–2024 BCN, City of Talent, October 2020.

- ► Gender Justice Plan 2016–2020.

- ► Strategic Plan against Sexism in the City 2017–2022.

- ► Emergency Social Action Plan, October 2020.

- ► Emergency Action Plan for Digital Inclusion.

- ► Strategy for Inclusion and Reducing Inequalities 2017–2030.

- ► BCN Green Deal. A new economic agenda for Barcelona.

- ► Employment Promotion Plan for tackling the impact of Covid-19.

- ► New Plan for Gender Justice.

- ► Barcelona STEAM Plan.

- ► Barcelona Employment Strategy.

- ► SSE Strategy 2030.

Catalonia-wide programme framework

- ► DonaTIC Plan. Government of Catalonia.

Spain-wide programme framework

- ► Equal Opportunities Plan 2018–2021. Spanish State.

3. Diagnosis

As previously mentioned, the **presence of women in tech must be strengthened** in the city through a set of initiatives that foster more intense, ongoing, comprehensive and definite improvements in different areas. The goal is for Barcelona to consolidate its position as a more equal city when it comes to the creation and production of technology. In other words, Barcelona must **become a more egalitarian city in terms of participation in its economic, social and digital fabric through technology creation**. As one of the city's most powerful economic sectors, it must be democratised and gender justice must be sought if we are to create a more digital, more feminist Barcelona.

The opportunities posed by Covid-19 must be leveraged for feminist purposes, involving a change in economic model (with life prioritised over the economy, and emphasis on the key role played by the public sector and the benefits of acting in the public good) and a reactivation of public policies concerned with job placement. These policies must promote the incorporation of women and feminist approaches into tech spaces, benefit gender equity, and help break the social and gender injustices and discriminatory dynamics that exist in digital environments.

In the present historic period, this government measure will promote **digital skills acquisition more intensely**, especially for women with little job security, thus continuing and building on the work carried out by Barcelona Activa's Cibernàrium via more intensive training, imparted by and aimed at women. The multiple technological skills acquisition courses designed by **Barcelona Activa's Cibernàrium** cover everything from basic digital education (Programa Antenes, which trained more than **26,000 Barcelona residents** between 2010 and 2019), to advanced training through the IT Academy, which aims to give 3,000 people the skills to become coders.

Another priority is to **create channels and bridges between the public and private sectors**, as well as to strengthen aspects of the **digital social economy**. In terms of the latter, the nature of the sector means there are ample opportunities to reverse the negative gender and social impacts of the adoption of technology to achieve intersectional gender equality.

3. Diagnosis

The pact will encourage the private sector to foster a diverse, inclusive corporate culture that promotes gender equity within tech corporations (or tech departments) to tackle the phenomena occurring in the tech sector as reported by the IMF: that women are 15% less likely to be professionals and managers and 19% more likely to occupy administrative roles and carry out routine tasks.[12] This pact will promote the recruitment of more women in technical roles, incentivise the achievement of and commitment to having and systematically monitoring **equality plans, and encourage commitment to training women, working on work-life balance policies and reducing the pay gap**. Though this gap is less defined in the tech sector than in other industries, men still earn **19%**[13] more than women in tech on a national level.

Another of the pact's strengths is its aim to break down the barriers constituted by gender stereotypes. Stereotypes and gender roles have a huge impact on the situation of women in terms of paid employment. To this effect, the gender-based division of work operates so that men and women work in different sectors, jobs and roles, and women are excluded from positions of responsibility and prestige. A fundamentally female reality in the world of work is thereby shaped, characterised by low-qualified work concentrated in feminised sectors, with precarious contracts, salaries and working days, and difficulties in maintaining stable employment and making progress in terms of professional development. This 'sticky floor' traps many women, and is what this government measure aims to tackle. Below are some more statistics that further support this diagnosis:

► Out of all part-time contracts, 71% are for women.[14]

► Of the people who need to work part-time because of care responsibilities, 91% are women.[15]

► In Catalonia, women occupy only 35.4% of management roles. Meanwhile, in lower-qualified categories, like elementary occupations, women represent 59% of the workforce.[16]

► The employment group with the lowest salary, Elementary Occupations, includes clearly feminised occupations such as domestic work, office and hotel cleaning, other cleaning, catering assistance, fast food preparation, shelf-filling, etc.

12   Gender, Technology, and the Future of Work, International Monetary Fund (IMF)
13   Study Department of the Workers' General Union. Mujer y Tecnología 2020 [Women and Technology 2020].
14/15   Reasons for part-time working according to age group. INE, Labour Force Survey. 2020 data. Spain.
16   Idescat based on INE data. Labour Force Survey (EPA), 2019.

3. Diagnóstico

Within this context, **the UN, the OECD and the European Commission agree on the importance of taking action that helps to raise the profile of women in tech environment,** especially through communication campaigns that raise awareness of the limitations generated by gender stereotypes. For this reason, this government measure proposes a set of initiatives that raise the visibility of tech projects by and for women in collaboration with the city's entities and institutions, through mechanisms like awards, competitions and the creation of special grant and subsidy systems.

This government measure, however, aims to go even further to create routes and mechanisms that **enable women currently employed in 'sticky floor' sectors to move into Barcelona's tech sector.**

Last, Barcelona City Council will act more forcefully, consistently and decisively in its **promotion of STEAM vocations**[17] among the city's girls to buck the increasing global trend. A well-known study published in Science magazine[18] shows the link between girls' lack of interest in science and their age. It indicates that around the age of 6–7 years stereotypes emerge, dictating that boys and men have the talent, intelligence and abilities to work in abstract subjects, while girls and women are not suitable for scientific or STEAM subjects. This is why the city's **STEAM Plan** must combat existing bias[19] and promote mathematics and science among young girls.

The objective of the plan, which has been made possible with the support from the Barcelona Education Consortium and the collaboration of a host of public and private partners, including BSM, is to promote knowledge, skills and vocations in science, technology, engineering, mathematics and the arts – given that arts and humanities are equally as important for the development of the digital sector – with a gender perspective among the whole educational community, including primary and secondary pupils, teachers and families.

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17   Science, Technology, Engineering, Arts and Mathematics acronym (CTIM)
18   Gender stereotypes about intellectual ability emerge early and influence children's interests. Bian, Leslie, and Cimpian, (2017)
19   Closing the Gap. Act Now. OECD 2012. Or also: The Pursuit of Gender Equality: An Uphill Battle. OECD. 2017

4. Goals and initiatives under this government measure

General goal

► Working towards gender equity in the tech industries.

Specific goals

► **Specific goal 1**

► Narrow the gender digital divide by generating active employment policies and a skills acquisition plan for women in the tech sector.

► **Specific goal 2**

► Give the presence of women in Barcelona's tech sector more visibility, recognition and support, and co-create initiatives.

► **Specific goal 3**

► Inspire girls from a young age to pursue technological careers.

Action plan

Below are details of the specific initiatives that will be implemented as part of the three specific goals identified.

4. Goals and initiatives under this government measure

▶ **Specific goal 1**: Narrow the gender digital divide by generating active employment policies and a skills acquisition plan for women in the tech sector.

1. Conceptualising and developing the BCNFemTech training programme, including 850 hours of full stack skills acquisition for women working in unstable work environments (women referred by social services, the Làbora programme, Barcelona Activa's inclusion services, SARA, PIADS, IMPD, etc.) at the IT Academy. Two training cycles each year, for 50 women.

2. Creating a specific training offering for women over the age of 45 to improve their technological skills.

3. Creating a series of digital skills acquisition courses for women who have had to take a career break.

4. Strengthening and extending basic digital skills acquisition programmes for women in a situation of economic instability:

   ▶ Modifying entry requirements in relation to the level of study required.
   ▶ Generating specific training for women.
   ▶ Combining technological training with learning English.
   ▶ Organising mentoring by women for women on IT Academy training courses.

5. Generating mentorship and role model programmes for women undergoing training among the city's tech groups.

6. Driving skills acquisition programmes and grants revolving around open-source software (DecidimFemDev).

7. Promoting the BcnFemTech City public-private agreement for gender equity in the tech industries.

8. Diagnosing the state of ICT in the social and solidarity economy environment with a gender perspective.

9. Fostering gender equity in the city of Barcelona's technological SSE organisations.

4. Goals and initiatives under this government measure

10. Creating resources about equality plans adapted to digital environments through the MachImpulsa programme. This way, the City Council can help to break gender stereotypes.

11. Drafting a diagnosis document on gender equity in the tech companies with contractual relationships with Barcelona City Council.

12. Incorporating gender clauses into major contracts between tech sector providers and Barcelona City Council.

13. Avoiding algorithmic bias (based on sex and gender, ethnicity, economic status) in municipal software.

14. Facilitating women's entry into tech cooperatives.

15. Creating a data observatory on the annual local data report to monitor the current state and progress of women's participation in the tech sector, the aim of which is to ensure the quality of the data and their regular update.

16. Establishing institutional relations with The European Centre for Women and Technology and other international institutions that increase women's presence in tech and support the work being done by Barcelona City Council in this area.

17. Creating an internal team of women tech experts in Barcelona City Council to run training and skills acquisition courses for other women on the Council's staff.

4. Goals and initiatives under this government measure

► **Specific goal 2**: Give the presence of women in Barcelona's tech sector more visibility, recognition and support, and co-create initiatives.

18. Generating City Council initiatives that highlight and acknowledge women in tech. This way, the City Council can help to break gender stereotypes.

19. Raising awareness of the women tutors and mentors in digital training and outreach environments, thus helping to break gender roles and stereotypes.

20. Developing communication campaigns to break gender stereotypes and make women more visible in tech environments.

21. Boosting the presence of inclusive tech talks and #allwomenpanel events within tech conferences and/or fairs in the city of Barcelona, thus encouraging parity.

22. Committing to eliminating harassment and bullying from social media and digital gender-based violence. This is a serious and growing problem that requires commitment from all public administrations.

23. Creation of a line of subsidies for tech projects developed by women, awarded by the Councillor's Office for Feminisms

24. Conceptualising and developing special initiatives during the Biennial of Thought and the City and Science Biennial to raise women's visibility in tech.

25. Incorporating the perspective of feminist co-creation and digital innovation in the Biennial of Thought and the City and Science Biennial.

26. Boosting the presence of the city's women in tech organisations and collectives at fairs and conferences.

27. Supporting the creation of open-source software developed by women. Working on open-source projects is one of the ways women's programming knowledge can be demonstrated.

28. Creating the city's BcnFemTech women's network, based on the co-creation and co-design of part of the initiatives in this government measure.

29. Creating a network of women digital entrepreneurs, modelled on and with the same goal as the Advisory Board of the lines of action of Barcelona Activa.

4. Goals and initiatives under this government measure

30. Creating a local data observatory that highlights the current state and progress of women's participation in the tech sector, monitors data quality and regularly updates them.

31. Co-creating public policies concerned with digital inclusion and gender equity through an advisory group consisting of women experts in the tech sector in the city.

32. Replicating the BarCola experience in the feminist digital economy ecosystem, through a research and action programme.

33. Drawing up a map of the feminist digital economy sector in the city of Barcelona.

34. Carrying out a study on the state of feminist digital policies in other leading European cities.

35. Creating an ad hoc digital space through an initiative on decidim.barcelona to boost networking among women in the tech sector.

36. Facilitating municipal spaces and facilities for entrepreneurial projects led by women in tech, where 42 women will develop their respective projects in a residential capacity.

37. Using municipal spaces for congresses and/or conferences that encourage gender equity.

38. Providing a physical meeting space for women in tech, where they can interact and share views on actions to feminise the tech sector.

39. Creating a movement and role models in the feminist digital economy and co-creating a political agenda.

40. Designing and executing an annual project with the ecosystem of women experts.

4. Goals and initiatives under this government measure

► **Specific goal 3**: Inspire girls from a young age to pursue technological careers.

41. Designing a STEAM Emergency Action Plan for extra-curricular education to complement the STEAM Plan for girls in primary schools, in collaboration with the MWC.

42. Fostering and supporting science and technology promotion programmes for girls in the city's Fab Labs, libraries, Cibernàrium, and other spaces.

43. Conceptualising and developing special initiatives during the Biennial of Thought and the City and Science Biennial to inspire girls' interest in technology.

44. Strengthening Barcelona City Council's Prometeus project.

45. Signing agreements with universities to explore how to incorporate girls into scientific and technological studies, based on existing ICUB interdisciplinary groups.

46. Strengthening STEAM vocation programmes for girls, such as Technovation Girls, in cultural facilities and libraries.

47. Implementing the 'Science and Technology in the Classroom' programme with the CSIJ, the Education Consortium and a network of the city's feminist schools.

5. Governance

To develop suitable management mechanisms to ensure co-governance of its implementation, monitoring and evaluation among municipal departments.

To implement the measure, lead technicians will be assigned to each planned initiative for each area, department, directorate and/or Councillor's Office at Barcelona City Council, and new leading figures will be incorporated for projects defined along the way. (Table X: Areas responsible for the government measure initiatives).

The government measure will be supported by an ongoing monitoring system to evaluate the degree of execution and the level of social innovation management of Barcelona City Council and the Deputy Mayor's Office for Social Rights, Global Justice, Feminism and LGBTI Affairs on an annual basis. The latter will coordinate this monitoring, while involving the various municipal executive areas.

5. Governance

Areas responsible for initiatives

► AREA RESPONSIBLE

- ► Fourth Deputy Mayor's Office for Social Rights, Global Justice, Feminism and LGBTI Affairs–Directorate of Social Innovation

► MUNICIPAL EXECUTIVE BODIES

- ► Mayor's Office
- ► Municipal Manager's Office
- ► Directorate of Gender Mainstreaming and Uses of Time
- ► Barcelona Activa
- ► Commissioner for Promotion of Employment and Policies against Job Insecurity
- ► Manager's Office for Social Rights, Global Justice, Feminism and LGBTI Affairs
- ► Directorate of Feminism and LGBTI Affairs
- ► Manager's Office of the Municipal Institute of Social Services
- ► Directorate of Social Innovation
- ► Commissioner for the Social and Solidarity Economy
- ► IMI
- ► Directorate of Democratic Innovation
- ► ICUB
- ► Communication Management at the Deputy Mayor's Office for Social Rights, Global Justice, Feminism and LGBTI Affairs
- ► Commissioner for Digital Innovation
- ► Director of the 'Ateneus de Fabricació' (Fab Lab) Network
- ► Science and Universities Delegation
- ► Neighbourhood Plan
- ► Digital Economy Chair

5. Governance

Working Group with the Women in Tech Ecosystem

For the process of formulating this government measure, a working group has been created made up of around fifty women experts in the technology sector. They have been closely monitoring the drafting of the initiative of the government measure.

This working group will now be responsible for carefully monitoring the execution stage. For this collaboration to take place, a digital infrastructure will be created, based on a Decidim.barcelona initiative. The group of women will be able to interact on this platform throughout the year to monitor the initiatives, thus collaborating in the generation of a bottom-up co-creation process alongside the city's social fabric and collectives that will be impacted by the plan.

To carry out this collaboration, a budget item of €50,000/year has been created for the design of projects under the government measure.

To evaluate the government measure, the same ecosystem of women tech experts will meet twice a year in-person on Barcelona City Council premises.

At the time of the presentation of the government measure, the ecosystem of women tech experts was made up of:

5. Governance

Ecosystem of female experts in the tech sector

- ► AllWomenTech
- ► BCN PyLadies
- ► BCN Women who Code
- ► Code Op
- ► Codebar Colectic
- ► DecidimFemDev
- ► DigitalFems
- ► Django Girls
- ► Donestech
- ► Factoria 5
- ► FemDevs
- ► Fundación i2Cat / CaLaFou
- ► Geochicas OSM
- ► Migracode
- ► R-Ladies
- ► Ruby Girls

- ► School of Feminism
- ► Telefónica Innovation Alpha Health
- ► ThoughtWorks
- ► TransparentInternet.com
- ► UOC / Dimmons / Digista UPC /
- ► Presidenta de la Sociedad Catalana de Tecnología
- ► TransparentInternet.com
- ► Vall d'Hebron / Womedd / Tech&Gender
- ► Viquidones UPF
- ► Wisibilízalas (UPF)
- ► Wikimedia España
- ► Women's Brain Project

6. Monitoring and schedule

Schedule

The Plan will cover the period of three years (2021–2023), starting from when it is presented to the committee for Social Rights, Culture and Sports at Barcelona City Council.

Goal	2021	2022	2023
► **Specific goal 1**	40%	70%	100%
Narrow the gender digital divide by generating active employment policies and a skills acquisition plan for women in the tech sector.			
► **Specific goal 2**	50%	80%	100%
Give women in Barcelona's tech sector more visibility, recognition and support, and co-create initiatives.			
► **Specific goal 3**	40%	75%	100%
Inspire girls from a young age to pursue technological careers.			

6. Monitoring and schedule

Monitoring

There will be an annual evaluation system, through which the indicators and the results of the initiatives will be reviewed in a report drawn up by the Directorate of Social Innovation at Barcelona City Council. Below is a table of the evaluation indicators.

► **Specific goal 1**
Narrow the gender digital divide by generating active employment policies and a skills acquisition plan for women in the tech sector.

RESULTS	INDICATORS
► Increased number of women accessing and completing professional training. ► Increased number of women accessing jobs linked to the training subjects. ► Greater awareness of gender diversity and more equality plans in the tech sector. ► Contribution to generating public models and a more diverse ecosystem.	Indicators: absolute and relative data + year-on-year increase. ► Creation of a diagnosis document on gender equity in the tech companies with contractual relationships. ► Number of contracts/specifications signed with major tech providers that incorporate gender clauses ► Review of algorithmic bias (based on sex and gender, ethnicity, economic status) in municipal software. ► Number of new tech cooperatives created by women. ► Creation of a local data observatory with KPIs relating to women's situation in the tech sector. ► Digital economy lines of action with a feminist and gender perspective in collaboration with the Digital Economy Chair. ► Establishment of institutional relations with The European Centre for Women and Technology and other international institutions to share perspectives. ► Creation of an internal team of women tech experts in Barcelona City Council

6. Monitoring and schedule

▶ **Specific goal 2**

Give women in Barcelona's tech sector more visibility, recognition and support, and co-create initiatives.

RESULTS	INDICATORS
▶ Change in perception of stereotypes and masculine culture in tech companies. ▶ Presence of women tech experts in the city's tech events. ▶ Promotion of a city network of women in tech.	▶ Number of awards for women in tech. ▶ Number of visibility-raising initiatives for female mentors. ▶ Number of annual communication campaigns that include this subject. ▶ Collaborations with Wikipedia to ensure more documentary presence of women on the portal. ▶ Annual monitoring and publication of data on the presence of women. ▶ Support for programmes and initiatives that help to make women's presence at tech conferences and/or fairs in the city of Barcelona more visible. ▶ Number of support initiatives to eliminate harassment and bullying from social media and digital gender-based violence. ▶ Creation of subsidies and grant programmes for projects by women in tech and measurement of their annual increase or variation. ▶ Number of talks/events led by women in tech at the City and Science Biennial. ▶ Number of entrance tickets for women in tech to tech trade fairs and conferences. ▶ Number of open-source software projects developed by women that receive recognition. ▶ Number of women attending the activities in the Lidera/BASA programme. ▶ Creation of an initiative on Decidim.Barcelona. ▶ Use of municipal facilities for the city's events involving women in tech: businesswomen, entrepreneurs, entities, etc. ▶ Co-management of a common project. ▶ Support for an environment that favours the feminist digital economy. ▶ Opening of 5 residential stays at the Canòdrom: BcnFemtech. ▶ Activation of working group with at least one annual meeting. ▶ Annual meetings in BASA spaces.

6. Monitoring and schedule

► **Specific goal 3**

Inspire girls from a young age to pursue technological.

RESULTADOS	INDICADORES
► More girls in STEAM spaces.	► Number of extra-curricular grants for girls on STEAM programmes. ► Design of a STEAM Emergency Action Plan to complement the STEAM Plan. ► Number of science and technology promotion programmes for girls in the city's Fab Labs, libraries, Cibernàrium, and other spaces. ► Number of new municipal programmes specifically for girls in municipal facilities. ► Opening of the MSchools programme to extra-curricular education in the city of Barcelona. ► Number of programmes in Barcelona City Council's Prometeus project. ► Number of girls enrolled on STEAM vocational programmes. ► Number of training courses on Technovation Girls–style programmes in cultural facilities. ► In all cases: absolute number, relative number and year-on-year increase

7. Budget

Budget

The estimated budget to carry out all the initiatives described on the previous pages is 2,253,882.00 €, the details of which can be found in following table.

It is important to note that the government measure opens up the possibility of working with the city's private sector, and that the budget for future initiatives relating to this collaboration is not specified here. Instead, it will be indicated at a later date through the planned annual evaluations.

Digital promotion and professional skills acquisition	Total	Total 2021	Total 2022	Total 2023
Digital skills acquisition: intensive full stack courses	660,000.00 €	220,000.00 €	220,000.00 €	220,000.00 €
Digital skills acquisition: +45	66,000.00 €	20,000.00 €	20,000.00 €	20,000.00 €
Digital skills acquisition: refresher	66,000.00 €	20,000.00 €	20,000.00 €	20,000.00 €
Basic training for women at Canòdrom	63,000.00 €	12,600.00 €	25,200.00 €	25,200.00 €
Total Digital promotion and professional skills acquisition	843,000.00 €	272,600.00 €	285,200.00 €	285,200.00 €

Public-private agreement	Total	Total 2021	Total 2022	Total 2023
Design and promotion of the City Agreement: Barcelona Tech	45,000.00 €	15,000.00 €	15,000.00 €	15,000.00 €
Total public-private agreement	45,000.00 €	15,000.00 €	15,000.00 €	15,000.00 €

7. Budget

Visibility-raising initiatives	Total	Total 2021	Total 2022	Total 2023
Grants	105,000.00 €	35,000.00 €	35,000.00 €	35,000.00 €
Communication campaigns	115,000.00 €	35,000.00 €	35,000.00 €	35,000.00 €
Grants	135,000.00 €	35,000.00 €	50,000.00 €	50,000.00 €
Workshops, conferences and educational activities at Canòdrom	135,000.00 €	35,000.00 €	50,000.00 €	50,000.00 €
Total Visibility-raising initiatives	387,000.00 €	113,000.00 €	137,000.00 €	137,000.00 €

Initiatives with women in tech	Total	Total 2021	Total 2022	Total 2023
Creation of a digital space for co-creation	35,000.00 €	15,000.00 €	10,000.00 €	10,000.00 €
Design of a FemTech ecosystem project	150,000.00 €	50,000.00 €	50,000.00 €	50,000.00 €
Resident projects at the Canòdrom	90,720.00 €	21,600.00 €	34,560.00 €	34,560.00 €
City and Science Biennial and Biennial of Thought Raising awareness of different professions: from systems and infrastructure experts to specialists in IoT, blockchain, back end development, DevOps, etc.	15,000.00 €	5,000.00 €	5,000.00 €	5,000.00 €
Prometeus project	300,000.00 €	100,000.00 €	100,000.00 €	100,000.00 €
Digital Economy Chair	220,000.00 €	110,000.00 €	110,000.00 €	(pendiente)
STEAM for girls at the Cibernàrium	60,000.00 €	20,000.00 €	20,000.00 €	20,000.00 €
Total community initiatives	870,720.00 €	321,600.00 €	321,600.00 €	321,600.00 €
Indirect costs (5%)	108,162.00 €			
Total cost	2,253,882.00 €			

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9. Appendices

INITIATIVE	DEPARTMENT RESPONSIBLE
► Conceptualising and developing the BCNFemTech training programme, including 850 hours of full stack skills acquisition for women from unstable work environments. Two training cycles each year, for 50 women.	► Councillor's Office for Feminism and Social Innovation ► Barcelona Activa.
► Creating a specific training offering for women over the age of 45 to improve their technological skills.	► Barcelona Activa
► Creating a series of digital skills acquisition courses for women who have had to take a career break.	► Barcelona Activa
► Strengthening and extending basic digital skills acquisition programmes for women in a situation of economic instability	► Barcelona Activa
► Generating mentorship and role model programmes for women undergoing training among the city's tech	► Barcelona Activa
► Driving skills acquisition programmes and grants revolving around open-source software (DecidimFemDev).	► Directorate of Democratic Innovation.
► Raising the visibility of and recognising women in tech (in different categories) by the City Council.	► Mayor's Office ► Councillor's Office for Feminism
► Raising the visibility of women tutors and mentors in digital training and outreach environments.	► Barcelona Activa ► Communication Directorate
► Developing communication campaigns to break gender stereotypes and make women more visible in tech environments.	► Communication Directorate.

INITIATIVE	DEPARTMENT RESPONSIBLE
▶ Boosting the presence of inclusive tech talks and #allwomenpanel events within tech conferences and/or fairs in the city of Barcelona.	▶ Councillor's Office for Feminism, ▶ 1st Municipal Manager's Office.
▶ Striving to eliminate harassment and bullying from social media and digital gender-based violence.	▶ Councillor's Office for Feminism.
▶ Creation of a set of subsidies for tech projects developed by women.	▶ Councillor's Office for Feminism.
▶ Conceptualising and developing special initiatives during the Biennial of Thought and the City and Science Biennial to raise women's visibility in tech.	▶ Municipal Science and Universities Policies.
▶ Incorporating the perspective of feminist co-creation and digital innovation in the Biennial of Thought and the City and Science Biennial.	▶ Digital Economy Chair/UOC
▶ Boosting the presence of the city's women in tech organisations and collectives at fairs and conferences.	▶ Councillor's Office for Feminism, ▶ 1st Municipal Manager's Office.
▶ Supporting the creation of open-source software developed by women	▶ Directorate of Democratic Innovation
▶ Driving public-private collaboration agreements with companies in the sector to tackle the gender digital divide in the city.	▶ Councillor's Office for Feminism, ▶ Barcelona Activa
▶ Promoting the BcnFemTech City public-private agreement for gender equity in the ICT industries.	▶ Councillor's Office for Feminism, ▶ Barcelona Activa
▶ Diagnosing the state of ICT in the social and solidarity economy environment with a gender perspective.	▶ Barcelona Activa
▶ Creating resources about equality plans adapted to digital environments through the MachImpulsa programme.	▶ Digital Economy Chair/UOC.

INITIATIVE	DEPARTMENT RESPONSIBLE
▶ Fostering gender equity in the city of Barcelona's technological SSE organisations.	▶ Barcelona Activa
▶ Creating a FemTech network of women in the city of Barcelona.	▶ Councillor's Office for Feminism
▶ Co-creation of public policies through an advisory group made up of women tech experts in the city.	▶ Councillor's Office for Feminism
▶ Creating an ad hoc digital space through an initiative on decidim.bcn to boost networking among women in the tech sector.	▶ Directorate of Democratic Innovation
▶ Replicating the BarCola experience in the feminist digital economy ecosystem, through a research and action programme.	▶ Digital Economy Chair/UOC.
▶ Drawing up a map of the feminist digital economy sector in the city of Barcelona.	▶ 1st Deputy Mayor's Office, Digital Economy Chair/UOC.
▶ Study on the situation of feminist digital policies in other leading European cities.	▶ Digital Economy Chair/UOC.
▶ Facilitating municipal spaces and facilities for entrepreneurial projects led by women in tech.	▶ Barcelona Activa
▶ Using municipal spaces for congresses and/or conferences that encourage gender equity..	▶ Barcelona Activa/ ▶ Mayor's Office
▶ Providing a physical meeting space for women in tech, where they can interact and share perspectives on action to take to feminise the tech sector.	▶ Barcelona Activa
▶ Creating a movement and role models in the feminist digital economy and co-creating a political agenda.	▶ Barcelona Activa
▶ Designing and executing an annual project with the ecosystem of women experts.	▶ Councillor's Office for Feminism and Municipal Manager`s Office

INITIATIVE	DEPARTMENT RESPONSIBLE
▶ Drafting a diagnosis document on gender equity in the tech companies with contractual relationships with Barcelona City Council.	▶ Directorate for Gender Services and Time Policies.
▶ Incorporating gender clauses into major contracts between tech sector providers and Barcelona City Council.	▶ Directorate for Gender Services and Time Policies
▶ Avoiding algorithmic bias (based on sex and gender, ethnicity, economic status) in municipal software.	▶ Councillor's Office for Feminism
▶ Facilitating women's entry into tech cooperatives.	▶ Barcelona Activa
▶ Creating an observatory that highlights the current state and progress of women's participation in the tech sector and monitors data quality and regularly updates them.	▶ Social Innovation
▶ Establishing institutional relations with The European Centre for Women and Technology and other international institutions that increase women's presence in tech and support the work being done by Barcelona City Council in this area.	▶ Social Innovation and Councillor's Office for Feminism
▶ Creating an internal team of women tech experts in Barcelona City Council to run training and skills acquisition courses for other women in the Council's staff.	▶ Municipal Manager's Office.
▶ Designing a STEAM Emergency Action Plan for extra-curricular education, to complement the STEAM Plan for girls in primary schools, in collaboration with the MWC..	▶ Social Innovation and Councillor's Office for Feminism.
▶ Fostering and supporting science and technology promotion programmes for girls in the city's Fab Labs, libraries and other spaces.	▶ Ateneus de Fabricació (Fab Lab) Network (Barcelona STEAM Plan).
▶ Conceptualising and developing special initiatives during the Biennial of Thought and the City and Science Biennial to inspire girls' interest in technology..	▶ Municipal Science and Universities Policies
▶ Strengthening Barcelona City Council's Prometeus project.	▶ Municipal Science and Universities Policies

ACTUACIÓN	DEPARTAMENTO RESPONSABLE
► Signing agreements with universities to explore how to incorporate girls into scientific and technological studies, based on existing ICUB interdisciplinary groups.	► ICUB
► Implementing the 'Science and Technology in the Classroom' programme with the CSIJ, the Education Consortium and a network of the city's feminist schools.	► Digital Economy Chair/UOC.
► Strengthening STEAM vocation programmes for girls, like Technovation Girls, in cultural facilities and libraries.	► ICUB

GOVERNMENT MEASURE

BcnFemTech

2021—2023