



# **The gender gap in the life sciences and healthcare sector**

## ***Situation, challenges and recommendations***

October 2022



- If globally we follow the current trend, the gender gap will take 136 years to close<sup>1</sup>.
- COVID-19 has raised new barriers that aggravate this projection.
- All women who innovate, invent and create face constant factors that prevent their activity in equal opportunities



**Image: "Ruby Loftus Screwing a Breech-ring". Work by Laura Knight (1943), The Imperial War Museums Collection, UK.**

[Addressing gender inequality in industry is not only an urgent moral and social issue, but also a major economic challenge. If women, who represent half of the world's working-age population, do not reach their full economic potential, the world economy will suffer. All inequalities have social and economic consequences. In the case of gender, **it can add \$12 trillion to global growth** a year, as much as the annual GDP of Japan, Germany and the United Kingdom combined<sup>2</sup>].

<sup>1</sup> <https://www.weforum.org/agenda/2021/04/136-years-is-the-estimated-journey-time-to-gender-equality/>

<sup>2</sup> <https://www.mckinsey.com/featured-insights/diversity-and-inclusion/ten-things-to-know-about-gender-equality>



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## BLOCK 1

### 1. REASON FOR THE STUDY

The gender gap is a complex phenomenon that manifests itself in wages, temporary and partiality rates, and levels of unemployment, employment, access to managerial positions and activity rate. It is the result of a series of factors that have their origin mainly in gender roles and that condition the unequal participation of men and women in the labor market and in the different remuneration for jobs of equal value. In most countries, this patent loophole has been endemic in the industrial sector for centuries. "The specialization of trades served as a pretext for valuing the work of men more than that of women... with the help of industrialization, a discourse was created that sweetened the figure of women as protectors of home"<sup>3</sup>.

Among the many aggravating factors is that women's employment is more procyclical than men's. In other words, it is more affected by recessionary periods and favored in expansionary ones, as stated in the 2018 study "Women in the industrial sector in Catalonia"<sup>4</sup>. This work pointed out "a strong masculinization of the industrial sector" and predicted that the presence of women in industry could decrease if their incorporation into technical vocational training studies and higher education studies on engineering and information technologies did not increase. In fact, throughout Europe women are only 36% of people who graduate from the STEM fields (sciences, technologies, engineering, mathematics), 23 percentage points below the total percentage of women graduates in higher education<sup>5</sup>.

There are more women in the academic sector than in the industrial sector. Often, one is a continuum of the other, and the differences can already be seen in the qualifications and research activity in the fields that nurture these industries. Faced with the urgent need to address these imbalances, the gender perspective has been included transversally in the new **National Pact for Industry (PNI) 2022-2025**<sup>6</sup>, the most recent quadruple-helix agreement to transform Catalonia's industrial model.

The previous PNI (2017-2020)<sup>7</sup> briefly mentioned this imbalance (the word *gender* appeared only twice and *man/woman* did not appear at all<sup>8</sup>), pointing out only gender as an objective in promoting the vocations of industrial professions, without a specific associated budget, nor a strategic objective quantified with a performance indicator (KPI).

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<sup>3</sup> Pujol, G.: "De 1786 a 2022: la bretxa de gènere en el sector industrial encara perviu", 2022 <https://lafabricadigital.coop/-de-1786-a-2022-la-bretxa-de-gènere-en-el-sector-industrial-encara-perviu/> (in Catalan)

<sup>4</sup> (Poveda, C. 2018)

<sup>5</sup> (Zacharia, Z.C. 2020)

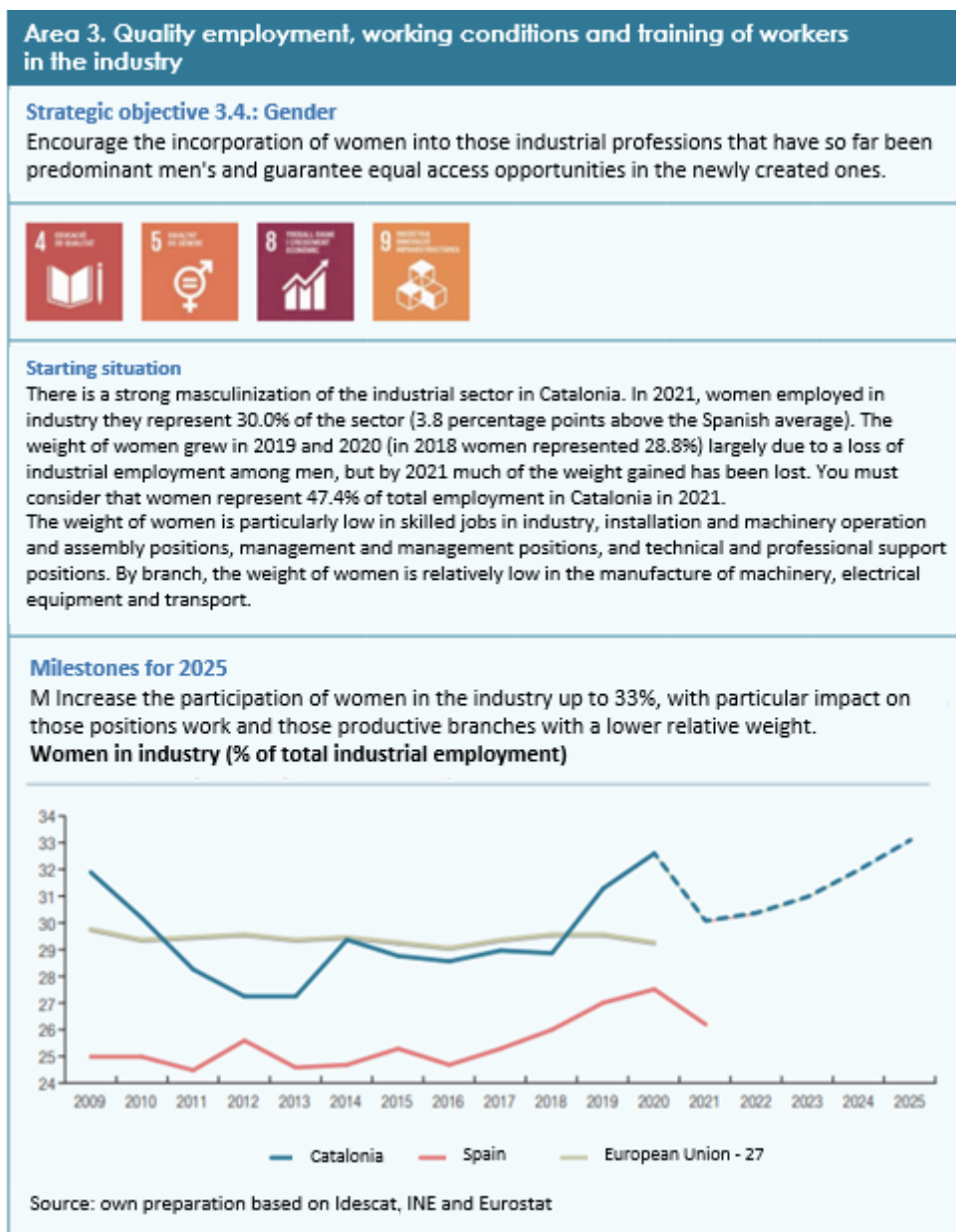
<sup>6</sup> [https://empresa.gencat.cat/web/.content/19\\_-\\_industria/documents/pacte-nacional-industria/pni-2022.pdf](https://empresa.gencat.cat/web/.content/19_-_industria/documents/pacte-nacional-industria/pni-2022.pdf)

<sup>7</sup> [https://empresa.gencat.cat/web/.content/19\\_-\\_industria/documents/pacte-nacional-industria/pni-2017.pdf](https://empresa.gencat.cat/web/.content/19_-_industria/documents/pacte-nacional-industria/pni-2017.pdf)

<sup>8</sup> **Nor to non-binary**

The current PNI 22-25 includes a strategic objective (number 10), aimed at "Creating quality industrial employment until reaching the figure of 510,000 people affiliated to Social Security, with women representing 33% of the total". In addition to deserving a specific objective, the gender perspective is incorporated transversally in the five thematic areas in which the Pact is structured, with a higher weight in the third area: "Quality employment, working conditions and training of the working people in the industry". The actions are supported by 8 initiatives, with a total budget of €655,000 for the period 2022-2025.

The working group addressing this subject for the PNI is organized on the basis of four lines: Industrial employment, Working conditions, Training and Gender.



**Figure 1:** Strategic gender objective in the PNI 2022-2025 and marked milestone of % of women in the industry by 2025 (33%). Source: National Pact for Industry (PNI) 2022-2025.

Biocat<sup>9</sup>, the organization that coordinates and promotes the life sciences and health sector in Catalonia, elaborates this report on behalf of the Department of Equality and Feminism, Government of Catalonia, in the framework of the PNI 2022-2025. The initiative responds to one of the measures included in the PNI: "Participatory process on gender impacts in the pharmaceutical / biotechnology sector: action that will develop a participatory process between stakeholders on gender impacts in the industry and that will identify the keys to success in the sector, as well as the challenges for improvement regarding the situation of women and the opportunities and good practices they encounter".

The specific objectives are to have an accurate **description of the situation of women in the sector, identify good practices and elements of value, carry out a participatory process with agents in the sector, identify the key actors to implement specific measures, involving them in the project, draw up a participatory action plan** to implement concrete measures and act as a driving instrument for different agents and companies.

The Biocat report is divided into four blocks:



**Figure 2:** Thematic blocks of the Biocat report by the Department of Equality and Feminisms.

The will of the institutions driving this initiative<sup>10</sup> is not only to deliver a situation analysis and a series of recommendations, but to propose actions for change to reduce the gender gap in the industrial sector and to identify the driving agents at various levels that must contribute to accelerating the disappearance of this imbalance.

<sup>9</sup><https://www.biocat.cat/en> and section about Biocat at the end of this report

<sup>10</sup> Initiative funded by the Department of Equality and Feminism, General Directorate of Care, Organization of Time and Equity at Work. Secretariat of Feminisms and elaborated by Biocat, the BioRegió Foundation of Catalonia



## 2. METHODOLOGY

The sources used in the descriptive and context sections are referenced in each case. The raw data used for the analysis are extracted from Biocat's CRM, which contains nearly 10,000 active entities and more than 30,000 contacts working in the field of life sciences and health in Catalonia, gathered by Biocat since 2006.

The subsectors analysed are biotechnology, pharmaceutical, medical technology and digital health. The definitions used, both for the subsectors considered and for the term startup, are available in the the Biocat Directory portal<sup>11</sup>.

Biocat directly monitors the emerging and innovative companies (startups) of the main subsectors established in the BioRegion, collecting various data, including, when possible, the composition of the teams (managers and other levels). The usual source of the data is the company itself or public sources (press releases or news, investment funds, venture capital reports, etc.). Biocat has researched various sources for the presence of women in industry, multi-sectorial and sectorial, both in Catalonia and internationally. In all cases reports and sources have been cited.

For data on female workers in companies, several sources are used in addition to Biocat's own data. One of these sources is the SABI (Sistema de Análisis de Balances Ibéricos)<sup>12</sup>, a database that extracts information from the annual accounts submitted to the Mercantile Registry. Biocat usually accounts for companies that have their registered office in Catalonia.

As stated by Biocat in the 2021 edition of the BioRegion Report (latest edition is 2022, available in [Biocat's site](#)), the **ecosystem of lifesciences and healthcare** in Catalonia has more than 1,300 companies and 91 entities and research infrastructures (of different types: 41 research centers [32 in the "CERCA" network], 19 university hospitals, 12 universities offering life science studies, 3 large scientific infrastructures [the ALBA Synchrotron, the Barcelona Supercomputing Center and the National Center for Genomic Analysis], 2 technology centers and 14 science and technology parks with activities in life sciences).

**The authors** started from the premise that what happens in the business sector is strongly linked to the academic and research context, both in terms of talent and the policies to be implemented. We therefore analyzed this area too with the intention of **providing** context and initiatives and models that can be transferred as recommendations or good practices to the private sector.

In the participatory process, we conducted focus groups and interviews with players [from the public and private organisations, including research centers and universities,](#)

<sup>11</sup> <https://biocat.force.com/Catalonialifesciencesdatabase/>

<sup>12</sup> <https://biblioteca.uoc.edu/es/Coleccion-digital-por-areas-de-estudio/coleccion/SABI-Sistema-de-Analisis-de-Balances-Ibericos/>

public institutions and companies in the sector. The aim of the participatory sessions was to actively involve the experts in the discussion and the proposed solutions, exchanging and reflecting on gender aspects in the life sciences and health sector in Catalonia but also at EU level.

Two workshops were designed to facilitate co-learning, building on the skills, knowledge and experiences of all the participants, using both reflexive and creative methods and tools, sharing information and collecting feedback, forecasting favorable and unfavorable factors for the achievement of the transformation goals. A "tower of good practices" helped review and comment proposals according to their foundations and how easily they can be implemented and accepted. WeDo Projects, a consulting firm on project management, supported Biocat in the focus groups' dynamisation<sup>13</sup>.

A thorough review of language used in the PNI 22-25 approved document was performed, using a gender-inclusive perspective following the style guide of several entities (documents available at the Department of Equality and Feminism's website) and Biocat's own guide (in development). Experts in the sector have been asked to evaluate the measures proposed in PNI 22-25, scoring them from 1 to 3 (from least to most priority). A statistical analysis of the evaluations of the participants has been carried out, with the support of the WeDo consultancy. For the foresight analysis (horizon scanning), the PESTLE methodology has been used, identifying the favorable and unfavorable elements for the achievement of the objectives set for the groups (reducing the gender gap). The analysis of Political, Economic, Social, Technological, Legal and Environmental factors defines the framework and the impact of macro-environmental factors in the face of a challenge. The model may include ethical and demographic factors, and sometimes focuses on socio-cultural, technological, economic, ecological and regulatory factors. In this study, to facilitate the debate, we used a simplified version of PESTLE<sup>14</sup>.

## BLOCK 2

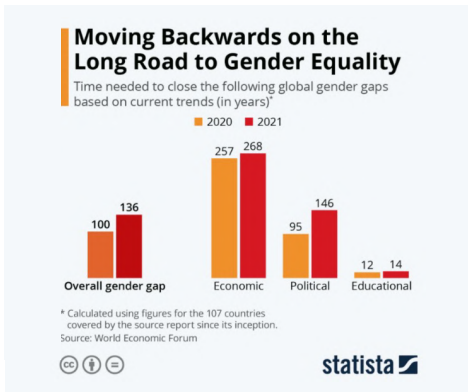
### 3. GENDER IMBALANCE IN THE GLOBAL INDUSTRY AND IN CATALONIA

The combination of gender gaps in the economic, educational and political spheres gives rise to a global inequality that would need, in a non-regressive scenario, more than a century to close. Crises and major disruptions to the economy threaten with scenarios of no turning back, as has been the case with COVID-19: the time to close the economic gender gap increased by 11 years between 2020 and 2021, according to the estimate made by the World Economic Forum in 2021, with the collaboration of Statista<sup>15</sup>, standing at 268 years

<sup>13</sup> <https://wedo-projects.com/>

<sup>14</sup> PESTEL <https://pestleanalysis.com/what-is-pestle-analysis/>

<sup>15</sup> (Armstrong, M. 2021)



(Figure 3, central columns). Pre-existing gaps asymmetrically amplify the impact of crises on men and women, even though women have been on the front lines as essential workers).

**Figure 3:** Projection of time needed to close gender gaps, based on current trends (in years). Source: WEF 2021.

There are notable differences between industries when it comes to the gender gap. In sectors more intensive in innovation, a growing trend of women's contributions is observed. Life sciences and healthcare stand out with more opportunities than other sectors such as information and communication technologies (ICT), where 67.2% of people employed in Catalonia in 2020 were men and 32.8% were women, according to data collected by the Gender Equality Observatory from the INE (National Institute of Statistics). And these sectors in turn behave better than traditional engineering<sup>16</sup>. In Europe, heavy industries have the lowest participation ratio of women (12%)<sup>17</sup>.

These are figures that distance us from the achievement of the 5th Sustainable Development Goal of the United Nations 2030 Agenda<sup>18</sup> (signed in 2015 by the 193 member countries): to achieve gender equity and empower women and girls globally before 2030. COVID scuttled aspirations to move towards that projection.



**Figure 4:** SDG 5: Achieving gender equality and empowering all women and girls<sup>18</sup>

There is no evidence of a productivity gap between innovative and creative women and innovative and creative men. Most of the perceived differences can be explained by a **lower than deserved position within the academic or corporate hierarchy**. As an indicator, female-authored patents are increasing (in the last decade there has been an increase of 6 percentage points in international patent applications by women

<sup>16</sup> [https://www.wipo.int/about-ip/en/ip\\_innovation\\_economics/gender\\_innovation\\_gap/gender\\_by\\_fields.html](https://www.wipo.int/about-ip/en/ip_innovation_economics/gender_innovation_gap/gender_by_fields.html)

<sup>17</sup> (Fohr & Sijetlanovic, 2022)

<sup>18</sup> <https://www.globalgoals.org/>

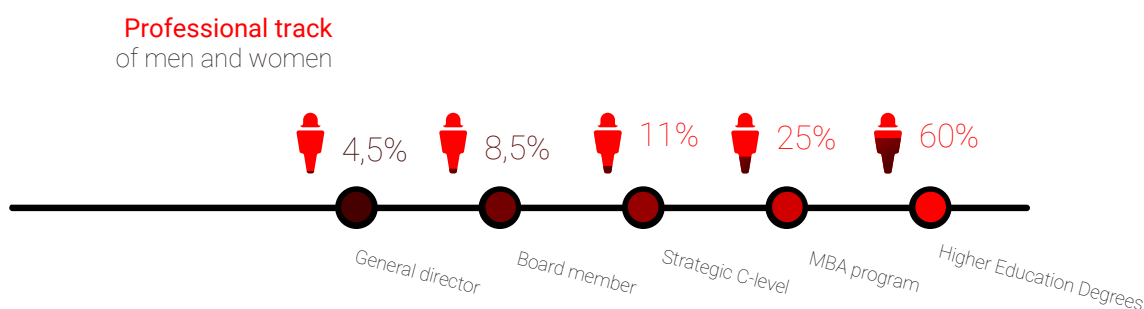
<sup>19</sup> [https://www.wipo.int/women-and-ip/en/news/2022/news\\_0001.html](https://www.wipo.int/women-and-ip/en/news/2022/news_0001.html)

<sup>20</sup> (McMillan, S., 2008) [https://www.wipo.int/about-ip/en/ip\\_innovation\\_economics/gender\\_innovation\\_gap/gender\\_by\\_fields.html](https://www.wipo.int/about-ip/en/ip_innovation_economics/gender_innovation_gap/gender_by_fields.html)

<sup>21</sup> Initiative helping African girls to invent and create disruptive ideas @sheinvents

inventors, and a 10-point increase in patents that have at least one woman author)<sup>19</sup> and despite the fact that women still patent less than men (16.5% of the total in 2021), the quality and impact of their patents (measured in citations received) tend to be higher than those of their male counterparts<sup>20</sup>. As a factor in the lower number of patents, the "She invents"<sup>21</sup> program identifies that women often believe that an invention cannot be patented if it is not perfect, and the program helps them change their perspective on perfection as a barrier.

Some observations from the study "Women in the industrial sector in Catalonia"<sup>22</sup>, collected in the above-mentioned PNI 22-25 document, follow this same line: i) the average level of education of women in industry is higher than of men, but this does not translate into a greater presence of women in decision-making positions<sup>23</sup>; ii) women with higher education are underrepresented in management and management positions and, on the other hand, are overrepresented in administrative and accounting positions; iii) an obstacle to the incorporation of more women in the industrial labor market is the masculinization of the work environment and the lack of female references; iv) women tend to earn less per hour than men, and do fewer hours of paid work. Retirements in the industrial sector will need to be covered by young people who have the required industrial qualifications (technical-professional training and engineering and science studies), an opportunity for women. According to the aforementioned study<sup>24</sup>, women **have entered** the paid labor market **faster** than the social and cultural changes that should have **occurred** it on this regard.



**Figure 5:** Professional track of men and women. Source: Carme Poveda; Business and Economy Observatory, of the Barcelona Chamber of Commerce.

<sup>22</sup> [https://www.accio.gencat.cat/web/.content/bancconeixement/documents/altres\\_publicacions/01\\_papers\\_observatori\\_industria\\_dones.pdf](https://www.accio.gencat.cat/web/.content/bancconeixement/documents/altres_publicacions/01_papers_observatori_industria_dones.pdf)

<sup>23</sup> the wage gap is higher in industry (14.8%) than in other sectors such as services (12.4%), according to [https://observatoritreball.gencat.cat/web/.content/02\\_-\\_ambits\\_tematicos/perspectiva\\_gendre/Desigualtat-salarial/arxiu/Informe-desigualtat-salarial-homes-i-dones-2018.pdf](https://observatoritreball.gencat.cat/web/.content/02_-_ambits_tematicos/perspectiva_gendre/Desigualtat-salarial/arxiu/Informe-desigualtat-salarial-homes-i-dones-2018.pdf).

<sup>24</sup> [https://www.accio.gencat.cat/web/.content/bancconeixement/documents/altres\\_publicacions/01\\_papers\\_observatori\\_industria\\_dones.pdf](https://www.accio.gencat.cat/web/.content/bancconeixement/documents/altres_publicacions/01_papers_observatori_industria_dones.pdf)

We also want to highlight in this global vision a table with 15 indicators prepared by Mckinsey to measure gender parity<sup>25</sup>.

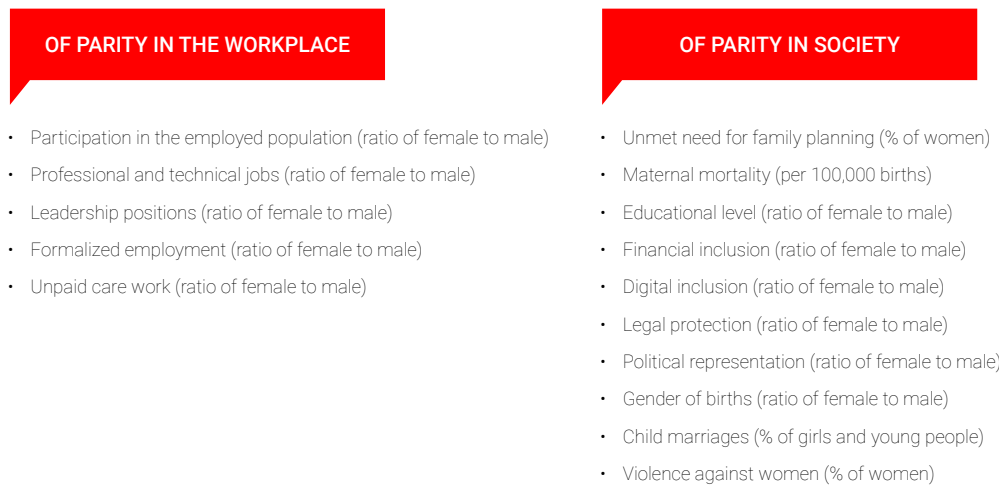


Figure 6: Adaptation of the Gender parity Score or parity table Source: McKinsey Global Institute.

For McKinsey this progress has been marginal since 2015, as can be seen in the figure below (we have only selected employment-related indicators).

### Progress toward gender equality has been marginal since 2015

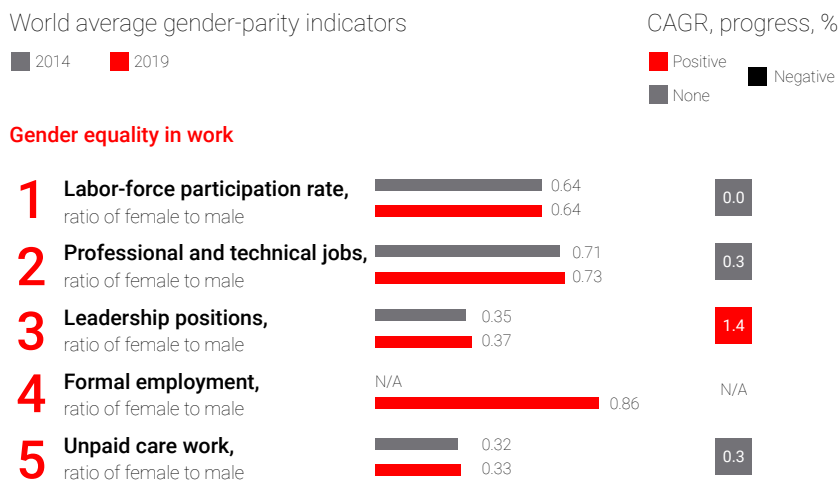


Figure 7: Progress towards gender equality at work since 2015. Source: McKinsey Global Institute.

This same source has been used to produce the following table with the "10 things you need to know about the gender gap".

<sup>25</sup> <https://www.mckinsey.com/featured-insights/diversity-and-inclusion/ten-things-to-know-about-gender-equality>

## 10 things to know about the gender gap

According to McKinsey

4

Women continue to work a double shift at home

1

Tackling the global gender gap will boost global GDP

2

Progress toward gender equality has been marginal since 2015

3

Women in advanced economies have made large gains as workers, consumers, and savers, they have faced rising costs and insecurity

5

Women face growing challenges from automation, also because of their lesser representation in STEMS

6

The challenge for women is now even greater as they experience economic fallout from COVID-19

7

We can grow our way out of some gender equality issues but not others. Today, for every 100 men in leadership positions globally, there are just 37 women

8

Companies that are gender and ethnically diverse outperform their peers

9

The corporate career pipeline for women is leaky, especially early on

10

All stakeholders need to work together to maintain and accelerate progress on gender equality

**Figure 8: 10 things to know about gender gap. Source: McKinsey Global Institute**

The industry contributes €45.462 billion annually to the Catalan economy<sup>26, 27</sup>. This gross value added (GVA) represents 20.3% of the total goods and services produced in the country annually, a higher percentage than the number of people employed (521,900), which represents 13.7% of the total economy (higher than Spain's 11.2% and lower than EU27's 16.1%). The employment data for 2019 are slightly higher than those mentioned in the PNI 22-27 (2018 data, with 519,600 people employed in the industrial sectors).

We have not found any data or indicators disaggregated by gender or any reference to women's representation in the industry in the "Annual Report on Industry in Catalonia 2021" prepared by the Industry Observatory of the Department of Enterprise and Labor<sup>29</sup> (nor in previous editions), despite the abundance of literature and statistics that address this inequality. As an example, the statistical dossiers of the Gender Observatory<sup>30</sup> (an advisory body of the Government attached to the Catalan Women's Institute) provide numerous data for analysis that deserve to transcend the thematic space and be analyzed as key factors for the country's economy<sup>31</sup>.

“We consider a scenario of full potential in which women participate in the economy identically to men. Any goal that does not consider full equity is born insufficient (Biocat, 2022).”

<sup>26</sup> Catalonia's Industry Observatory, with data from the 2021 annual accounts.

<sup>27</sup> <https://www.idescat.cat/indicadors/?id=aec&n=15340>

<sup>28</sup> Catalonia's Industry Observatory, with data from the 2019 annual accounts.

<sup>29</sup> [https://empresa.gencat.cat/web/.content/19\\_-\\_industria/documents/informe-anual/documents/informe-2021.pdf](https://empresa.gencat.cat/web/.content/19_-_industria/documents/informe-anual/documents/informe-2021.pdf)

<sup>30</sup> <https://dones.gencat.cat/ca/ambits/Observatori-de-la-Igualtat-de-Genere/>

<sup>31</sup> [https://dones.gencat.cat/web/.content/03\\_ambits/Observatori/03\\_dossiers\\_estadistics/LES-DONES-A-CATALUNYA\\_2021\\_0k.pdf](https://dones.gencat.cat/web/.content/03_ambits/Observatori/03_dossiers_estadistics/LES-DONES-A-CATALUNYA_2021_0k.pdf)

According to data provided by the PNI 22-25, women accounted for 30.0% of the workforce in the Catalan industry in 2021, a percentage that grew in 2019 and 2020 (compared to 28.8% in 2018). However, the PNI report states that much of this progress has been lost in 2021. To regain ground and accelerate progress with a gender perspective, it is necessary for all industry agents to work together.

The goal set by the PNI, of reaching 33% by 2025, can be considered insufficient when we consider that women represent 47.4% of total employment in Catalonia, and that the industry is, as mentioned, the sector that generates the most stable, qualified and well-paid jobs. The whole society would benefit from greater female participation in the industry, with special attention to decision-making positions (only 7% of people in CEO or top management positions in large companies are women). Women that innovate, invent and create face constant factors that impede them to develop their activity and contribute with their talent to society on a basis of equality of opportunities. Advancing towards a more digitalized, innovative, sustainable and job-generating industry is not possible unless this systemic imbalance is addressed.

#### 4. THE LIFE SCIENCES AND HEALTHCARE SECTOR

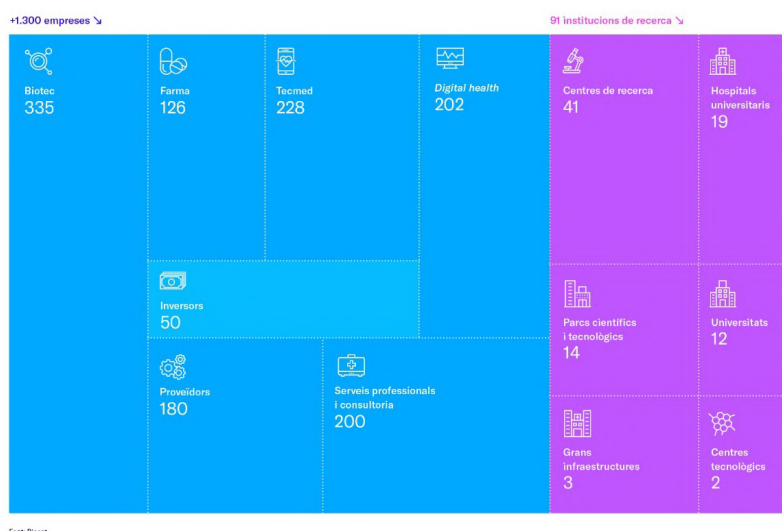
The BioRegion of Catalonia<sup>32</sup> includes + 1,300 companies in the life sciences and healthcare sector. Since 2010, on average, a new company has been created every week, and one in four of these are spinoffs from universities and research centers<sup>33</sup>. Of the more than 1,300 companies in the BioRegion, the largest group is represented by 335 biotechnology companies, 76 of which are focused on the production of new therapies and diagnostic tools, 141 offer R&D services, and 118 work on applications in other fields (such as veterinary, industrial biotechnology, food, agriculture, or the environment). In addition, the BioRegion has 228 medical technology companies (132 as their main activity and 96 as specialized suppliers and distributors), 124 pharmaceutical companies (63 pharmaceuticals and 61 specialized suppliers and distributors), and 203 companies in the digital health sector. In recent years, the digital health sector has experienced rapid growth. With more than 200 companies in 2021, investment has increased from €5.1 million in 2016 to €63 million in 2021. In 2020, biotechnology companies developing therapies set a record with 15 new startups of this type.

Regarding the size of companies, the bulk of the sector's business fabric is made up of SMEs, which represent 92% of the total. Of these, 78% are micro and small businesses, and 14% are medium-sized. The evolution of the size of companies has remained stable in recent years. In terms of location, there is a strong concentration of companies in the province of Barcelona, with 91% of the total.

<sup>32</sup> The innovative ecosystem in life sciences and health in Catalonia.

<sup>33</sup> <https://report.biocat.cat/>

The startup ecosystem continues to multiply, with a notable growth in the subsectors of medical technologies and digital health. Entrepreneurs, highly qualified research personnel, and specialized investment professionals are shaping a sector in sustainable and digital transformation, embracing new technologies in which Catalonia stands out with leading centers and infrastructures. The increasing interest of international venture capital, also committed to the SDGs (Sustainable Development Goals), is one of the numerous innovation indicators of the ecosystem that has continued to grow steadily in recent years, despite the disruption caused by COVID.



**Figure 9:** Map of the Bioregion of Catalonia ecosystem. Source: BioRegion 2021 report. A new edition has been published after the finalisation of this report. Data can be consulted in Biocat's website

### BLOCK 3

#### 5. GENDER SCENARIO IN THE SECTOR WITH OBSTACLES, OPPORTUNITIES, AND LIMITATIONS

In this section, we enter into the analysis block, with a wide review of sectoral data, of good practices, and qualitative assessments obtained from the participatory process with representatives of the main sectoral agents.

Unfortunately, not all data available are systemic, and some are either not available or are not totally coincident, but they provide a view of the situation of women in the academic environment of life sciences and healthcare companies that leaves no doubt about the existence of inequalities and the masculinization of organizational structures. We will also see signs of improvement, and that the current situation in this industry is better than in other industrial sectors. As a reference, we see that the number of women occupying managerial positions in this sector's startups has increased by 51% from the period 2011-2015 to 2016-2020<sup>34</sup>.

<sup>34</sup>Data from Biocat



## 5.1 University, academic and public research field

### Graduated students

Science, technology, engineering, and mathematics (STEM) are still fields with the lowest number of female students in classrooms. Only 35% of students enrolled worldwide in university degrees related to STEM are women. This is largely due to the fact that many girls do not feel attracted to these fields because gender stereotypes act as a barrier and make them uninterested or feel incapable. This problem significantly affects the presence of women in unique scientific infrastructures, where the number of women in scientific staff is lower.

Regarding graduates who directly seek job placement, the Agency for the Quality of the Catalan University System (AQU Catalunya) provides data from a survey on employment opportunities to higher education graduates<sup>36</sup>. The results of 2020 confirm a trend of improvement in the employment and working conditions of graduates, approaching the levels achieved in 2008. Gender differences persist: 31% of contrasts are significant, meaning there are differences in job placement between female and male graduates. 18% of contrasts related to insertion conditions indicate differences in favor of men, and 15% in favor of women.

	% of occupied people	% working in higher education	% working full time	% permanent position	% monthly earnings > 2000 €	% that would repeat studies
Philosophy and history	D	H				H
Languages and literatures						
Arts and design				H		
Economics, business and tourism			D	H	H	
Law, labor and policies	D			H		
Communication and documentation		D	D			
Education				H		H
Social intervention		H	H	H	H	
Biological and earth sciences	D					
Experimental and mathematical sciences,					D	
Nursing and health		D	D	H	D	D
Psychology and therapy	D		D			
Medicine and biomedical sciences				H	H	
Architecture, construction and civil engineering		D		H		
Industrial technologies	H	D	H	H		
ICT						H
Agricultural, forestry and fishing	D					

**Table 1:** Comparison of each broad subfield by gender of the graduate (2020). Adapted from AQU Catalunya. The highlighted box indicates the sectoral subfield of this report. Source.: [https://www.aqu.cat/doc/doc\\_42542075\\_1.pdf](https://www.aqu.cat/doc/doc_42542075_1.pdf)

<sup>35</sup> 6th edition of the study by the Women and Science Commission of the Interuniversity Council of Catalonia.

[https://universitatsirecerca.gencat.cat/web/.content/16\\_sur\\_en\\_xifres/Enllac/Documents/dona\\_Lciencia.ppsx](https://universitatsirecerca.gencat.cat/web/.content/16_sur_en_xifres/Enllac/Documents/dona_Lciencia.ppsx)

<sup>36</sup> [https://www.aqu.cat/doc/doc\\_42542075\\_1.pdf](https://www.aqu.cat/doc/doc_42542075_1.pdf)

Differences seem to balance out in job placement, but not in income, where gender disparities are widespread in favor of men, with a gender pay gap independent of the field of knowledge.

As seen in Table 1, in the field of medicine and biomedical sciences, there is a favorable situation for men even in these early job placements. This situation strongly contrasts with the fact that 69.8% of people enrolled in Health Sciences are women<sup>35</sup>.

### Teaching and research staff at Catalan universities.

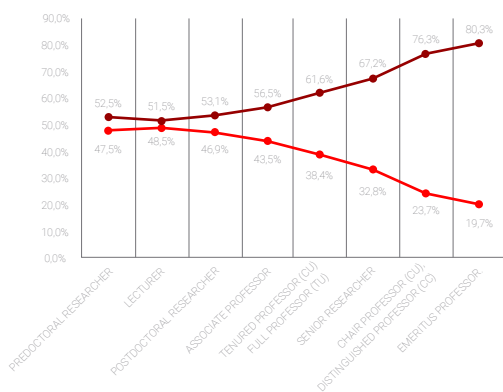
In recent years, the proportion of men and women in university staff has remained almost unchanged: around 57% of men and 42% of women in public universities, according to the report "The State of Science in Catalonia 2021" by the Catalan Foundation for Research and Innovation (FCRI)<sup>37</sup>.

#### Glass ceiling index.

It is the quotient between two ratios:

- 1) Total number of women working in any teaching category / female full professors or emeritus professors.
- 2) Total number of men working in any teaching category / male full professors or emeritus professors.

In a situation of full balance, it should be 1.



As academic and research careers progress, differences in the percentage of men and women intensify. Although they start from a very similar percentage at the beginning (predoctoral stage, with 52.5% men and 47.5% women), the gap widens until it reaches very high percentages of full professors (75.6%) and emeritus professors (80.3%) compared to female full professors (24.4%) and emeritus professors (19.7%). As of October 2022, there are no women rectors in Catalan universities<sup>38</sup>.

**Figure 10:** Professional career of research staff by category and gender (2018) Source: Figure extracted from [https://estatciencia.fundaciorecerca.cat/PDFs/Informe\\_Estat\\_ciencia\\_v12.pdf](https://estatciencia.fundaciorecerca.cat/PDFs/Informe_Estat_ciencia_v12.pdf) based on FCRI

<sup>37</sup> [https://estatciencia.fundaciorecerca.cat/PDFs/Informe\\_Estat\\_ciencia\\_v12.pdf](https://estatciencia.fundaciorecerca.cat/PDFs/Informe_Estat_ciencia_v12.pdf)

<sup>38</sup> The LOSU, the new state-level University Law, will eliminate the requirement of holding a full professorship to become a university rector. <https://www.universidades.gob.es/>

This loss of female talent, which we will also observe in research centers, has different causes, among them the disjunctive of female researchers who have to choose between private life (and family care tasks) and professional career (which in the academic field it usually requires stays abroad).

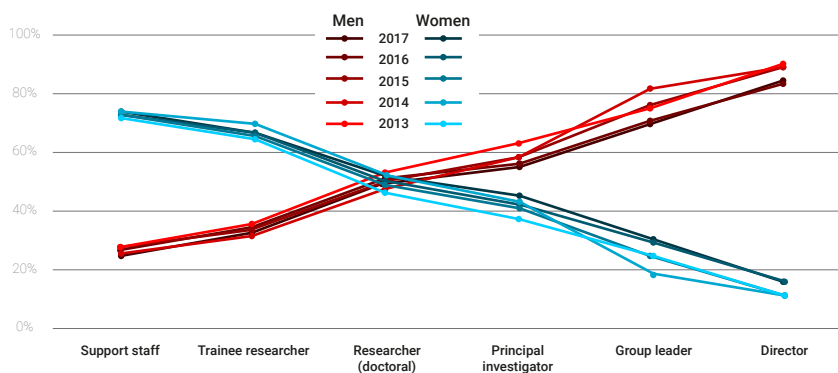
### Research Centers

32 out of 41 centers of the CERCA network of excellence are dedicated to research and innovation in life sciences and healthcare. Also in these institutions, the presence of women in the highest positions in science is not proportional to the number of qualified women, and the number of women in leadership positions is stagnant or progressing very slowly<sup>39</sup>. On the one hand, there are only two female directors of CERCA centres, but on the other, the 41 centers have a Gender Plan<sup>40</sup>. While at the pre-doctoral stages 55% are female researchers and at the most senior stage they are 46%, when we focus only on heads of group and specifically in life sciences and health, only 28% are women (FCRI 2021 data).

Field of knowledge	% male group leaders	% female group leaders
agri-food	67%	33%
social and human sciences	76%	24%
health sciences	73%	28%
science and engineering	83%	17%

**Table 2:** Gender distribution of research group leaders according to field of knowledge.

Source: [https://estatciencia.fundaciorecerca.cat/PDFs/Informe\\_Estat\\_ciencia\\_v12.pdf](https://estatciencia.fundaciorecerca.cat/PDFs/Informe_Estat_ciencia_v12.pdf)



**Figure 11:** Gender scissor-like distribution in different professional categories in health research centers/institutes (gender scissors), data for the period 2013-2017.

Source: AQuAS [https://estatciencia.fundaciorecerca.cat/PDFs/Informe\\_Estat\\_ciencia\\_v12.pdf](https://estatciencia.fundaciorecerca.cat/PDFs/Informe_Estat_ciencia_v12.pdf)

<sup>39</sup> <https://gender.cerca.cat/indicadors-dona-i-ciencia/>

<sup>40</sup> <https://gender.cerca.cat/en/cerca-equality-units/>

Although 100% of Catalan universities and research centers have a gender plan<sup>41</sup>, research institutions and universities have masculinized professional structures, where the majority of women occupy lower positions and, consequently, there is a lack of female presence in leadership and decision-making positions, as well as in professional recognitions specific to this field. For example, in the National Research Awards given by the Government of Catalonia, only three female scientists (9% of award recipients) have been highlighted in the highest category since 1990. The percentage improves in the National Research Award for Young Talent category, where 5 women have been awarded out of the 10 prizes given so far (50%)<sup>42</sup>. Similarly, projects led by female researchers represent only 24% of the total number of grants awarded by the European Research Council (ERC) to the Catalan knowledge system until 2021. Although the figure is low, it has been increasing in recent years.

In the specific case of awards, we also want to highlight the Narcís Monturiol Awards, a recognition research given by the Government of Catalonia, which ensures gender parity both in the awarding of the prizes and in the composition of its evaluation committee.

Some more specific data from AQuAS on biomedical and hospital research centers give us a similar picture: only 30.2% of women are group leaders. The remaining 70.9% perform support staff tasks or occupy junior positions in the research career. This is what we refer to as the "gender scissor"<sup>43</sup>.

### CSIC centers in Catalonia

In the case of CSIC in Catalonia, out of 1,636 people (data from 2019), 43.88% are women. The weight decreases when considering only the scientific personnel (35.88% of this group). We do not have gender-disaggregated data by field of knowledge, but a similar trend would be expected in the rest of the research community regarding health and medicine.

### Centers linked to large infrastructures

Completing the map of research in Catalonia are large infrastructures such as the Barcelona Supercomputing Center (BSC), which according to 2020 data, has a staff of 737 people, of which 26% are women. The ALBA Synchrotron, also with 2020 data, has a staff of 211 people, of which 28% are women.

## 5.2 Private and Business Sector

The industrial sector of life sciences and healthcare maintains high levels of female participation among qualified personnel, with a significant increase compared to previous periods.

<sup>41</sup> [https://recercauniversitats.gencat.cat/web/.content/11\\_ciencia\\_i\\_societat/ciencia\\_i\\_societat/dones\\_i\\_ciencia/imatges/info\\_1\\_748x422.jpg](https://recercauniversitats.gencat.cat/web/.content/11_ciencia_i_societat/ciencia_i_societat/dones_i_ciencia/imatges/info_1_748x422.jpg)

<sup>42</sup> <https://premisnacionalsrecerca.fundaciorecerca.cat/frontend/guardonats.asp#guardonats>

<sup>43</sup> AQuAS [https://estatciencia.fundaciorecerca.cat/PDFs/Informe\\_Esta\\_Lciencia\\_v12.pdf](https://estatciencia.fundaciorecerca.cat/PDFs/Informe_Esta_Lciencia_v12.pdf)

Patents

Work environments and organizational structures also explain the gender gap in innovation. Women who work in companies with overly hierarchical organizational structures are less likely to participate in patents, while women in more flexible companies, such as biotechnology or life sciences industries, are more likely to patent than in other industries. Women are more likely to patent when they are part of larger research groups. However, women are more likely to be excluded from patents than scientific publications, even when entitled to both.

Women in startups, SMEs, and venture capital

On average, in the last 5 years, 32% of health startups in Catalonia are led by women (in senior management positions or "C-Suite Level"). Bio-pharma stands out here (at 37%), followed by the medtech environment (at 35%) and digital health (at 28%). Catalonia is the second region in the European Union with the highest presence of women in founding teams of startups (or with women on their founding or executive teams), according to ACCIÓ data<sup>44</sup>.

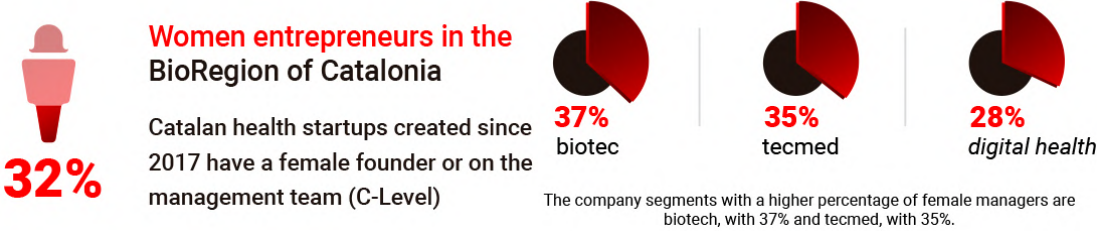


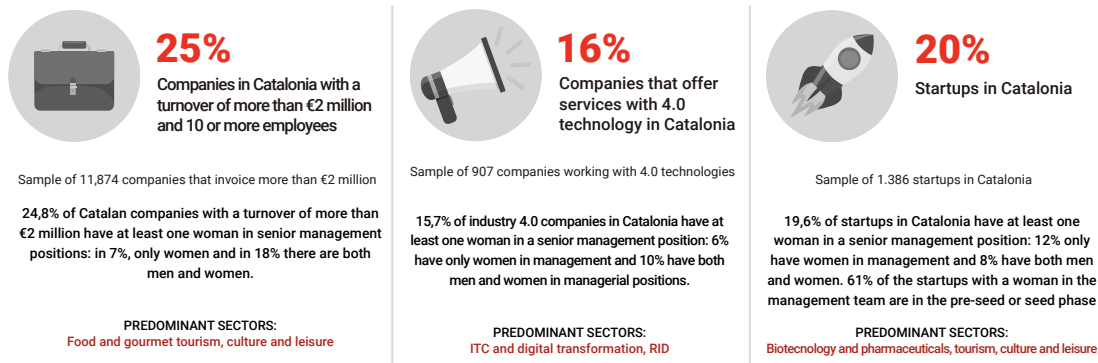
Figure 12: Women entrepreneurs in the BioRegion. Source: Biocat

It is difficult to have systematic and complete data on the business environment. For example, only 20% of companies in Spain (from which we could extract sectoral data for Catalonia) report gender distribution in SABI<sup>45</sup>.

However, we do have very accurate data from the report "Analysis of the startup ecosystem in Catalonia"<sup>44</sup> elaborated by ACCIÓ in 2021, which highlights that in the industrial group including biotech and pharma, nearly 20% of startups in Catalonia have at least one woman in a top management position.

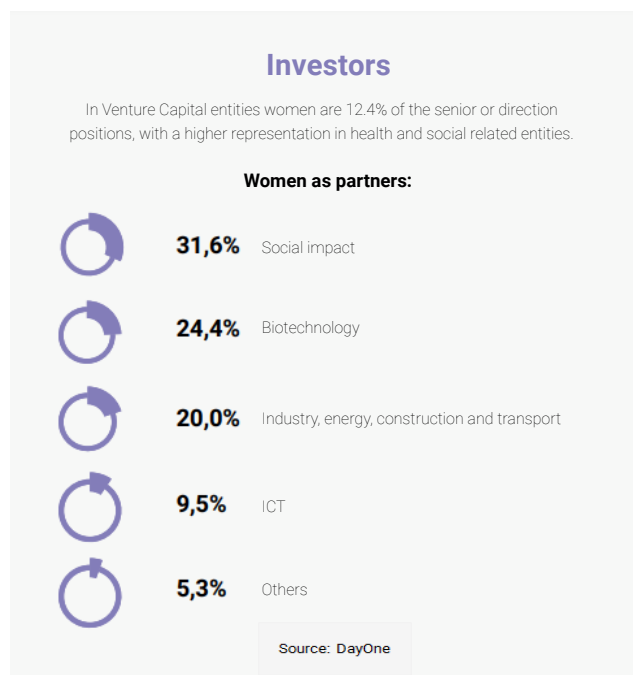
<sup>44</sup> <https://www.accio.gencat.cat/web/.content/bancconeixement/documents/pindoles/pindola-analisi-directori-startups-2021.pdf>

<sup>45</sup> Sistema de Análisis de Balances Ibéricos



**Figure 13:** Data on the situation of women in the business environment in Catalonia. Source: ACCIÓ, 2021.

In the field of startups, women in leadership positions represent 37% in biotech (therapeutics) companies and 35% in medical technology companies, possibly reflecting different degrees of imbalance in the academic fields that feed into these subsectors.



**Figure 14:** Percentage of investors in risk capital entities. Font: FCRI 2022

According to data collected by the Catalan Foundation for Research and Innovation<sup>46</sup>, in a relevant field such as venture capital firms, women represent 12.4% in decision-making positions (partners or directors) with higher representation in the social and healthcare sectors. Specifically, in biotech they reach 24.4%, second only to the social impact sector."

<sup>46</sup> [https://docs.fundaciorecerca.cat/20222722\\_talent\\_femeni\\_v1.pdf](https://docs.fundaciorecerca.cat/20222722_talent_femeni_v1.pdf)

## Women in the pharmaceutical industry

According to Farmaindustria association, more than 53% of the employed people in this industry is female (67% in R&D), and the participation of women in management committees continues to grow (it is 45%)<sup>47</sup>. However, only 20.3% of executive leadership positions are held by women. It is agreed that women more often occupy support positions compared to established leadership positions held by men, also in this industry.

Regarding the gender pay gap, and still speaking at the **Spanish** level, according to data from the INE (National Institute of Industry) cited by this employer's association, the difference in the average annual salary of men and women in pharma was 10% in 2019. To get an idea of Catalonia's weight in the sector, we cite the most recent study by the same Farmaindustria, which reveals that of the 173 pharmaceutical production plants in the **Spain**, 79 are located in Catalonia (about 46%), and of the total of 36,332 employed people, 15,806 are in our country (43.5%)<sup>48</sup>.

Asebio, the National biotech companies association, published its first sector remuneration report in February 2022<sup>49</sup>. We also cite the report, given the weight of the Catalan biotech sector (50%). In this study, it is stated that women occupy 62.4% of the positions analyzed by Asebio, with the lowest representation figure in the industrial biotechnology subsector and in companies with more than 250 people. They also confirm that women are less likely to hold a managerial position than a supporting one.

## The "FemTech" concept

We could not address a report on equality in the health sector without mentioning the concept of "FemTech," a term coined in 2016 by Danish entrepreneur Ida Tin, co-founder of a menstrual cycle monitoring startup.

FemTech offers a wide range of solutions to improve health across a range of specific conditions affecting women, such as maternal health, menstrual health, pelvic and sexual health, fertility, menopause, and contraception, as well as a range of general health conditions that affect women disproportionately or differently (such as osteoporosis or cardiovascular disease).

At a practical level, FemTech is breaking taboos: these are topics that are not openly discussed and are still stigmatized in some countries. Therefore, the term FemTech helps to give voice and bring women's health to public and societal discussion and to find practical solutions.

<sup>48</sup> <https://www.accio.gencat.cat/web/.content/bancconeixement/documents/pindoles/pindola-analisi-directori-startups-2021.pdf>

<sup>49</sup> Sistema de Análisis de Balances Ibéricos

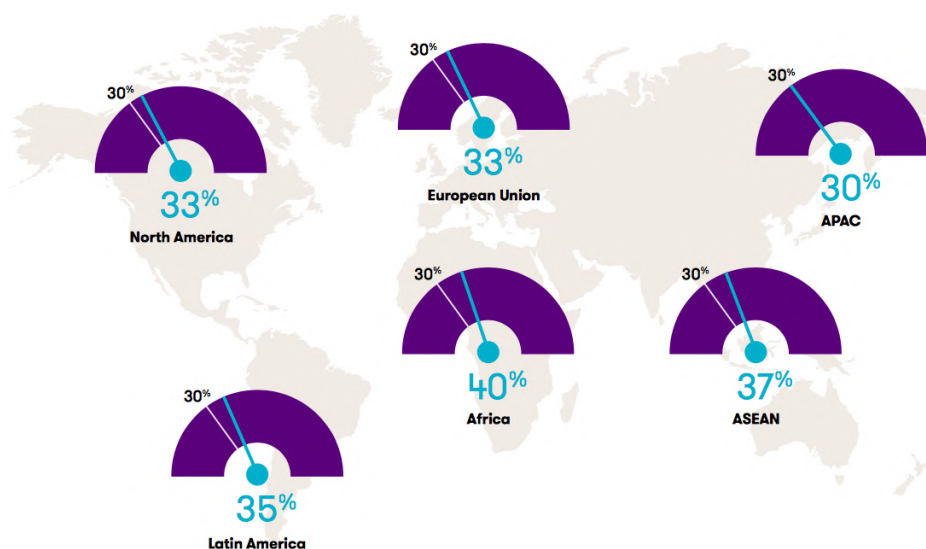
According to the latest data on this segment<sup>50</sup>, in 2021 there were only 1,500 FemTech startups worldwide: 50% in the US, 24% in Europe, 14% in Asia, and only 4% of venture capital invested in digital health dedicated to women's health solutions. The fact that 90% of decision-makers in investment are men is identified as one of the reasons contributing to this low percentage.

As for the BioRegion, the FemTech segment is emerging very strongly in the last three years. In fact, five out of 14 companies were created in 2021. Therefore, there is a lot of expectation that investments captured by this segment will increase significantly in the coming years. The total investment raised by these companies amounts to nearly €11 million, although 97% of it is taken by three companies: two biotechs and one in digital health.

There is great diversity in topics, from solutions in fertility and gynecological health, support during menstruation, maternity, pregnancy, lactation, sexual health, or prevention and diagnosis of cancer. 70% of the founders are female, a differential fact compared to other sectors.

## 6. GOOD PRACTICES IN THE PUBLIC, HEALTHCARE, AND PRIVATE/BUSINESS SECTORS, BOTH NATIONALLY AND INTERNATIONALLY

The industry's shift towards diversity is happening almost worldwide, with regional differences between America, Europe, and Asia, as shown in the figure below, as a result of the push for good practices on a global scale. The improvement in Europe is 3% from 2021 to 2022 (not the highest).



**Figure 15:** : Data on global gender pay gap reduction from 2021 to 2022. Source: Grant Thornton, Women in Business 2022

<sup>50</sup> <https://analytics.dkv.global/FemTech/FemTech-Industry-2021-Report.pdf>



The public and private sectors are full of good practices. Below we have selected some that may be less well-known or have a more international scope. We will list **11 for each sector, public and private**. The presentation of good practices identified during the implementation of the sector study by Biocat opened up a joint brainstorming session in each of the focus groups, which we will refer to when discussing the participatory process and co-creation activities with sector experts.

## 6.1 Academic, university, and public research sector

### 1. Women in Tech Barcelona

It is a non-profit international organization with the mission to break the gender gap and encourage women's access to the technology sector. It promotes the empowerment of girls and women worldwide, focusing on Sustainable Development Goal 5b: leveraging technology. The Barcelona chapter was created by the General Directorate of Digital Society and Tech Barcelona.

### 2. Mothers of Science

Initiative by BIST (Barcelona Institute of Science and Technology), which supports female scientists from leading research centers by offering leadership coaching and financial assistance (€400/month for one year).



**Figure 16:** Flyer of the Program Mothers of Science of BIST.  
Source: BIST

### 3. Commitment Letter for Gender Equality

Driven by AQuAS and signed by 19 health research centers and institutes in Catalonia, with 12 commitments to end gender inequality in the research system in Catalonia.

**4. Women Neotec and ENISA Digital** action plan for the attraction and retention of scientific and innovative talent in Spain, which includes attracting technology-based female entrepreneurs.

### 5. Women in Biology Speakers List

Initiated by Cold Spring Harbor Laboratory to increase the representation of women in leadership positions, with voices at scientific conferences and in the media, particularly on topics related to biomedical research.

## 6. Gender impact assessment

The European Institute for Gender Equality (EIGE) proposes a guide to proactively assess whether an ex-ante evaluation, analysis or assessment of a law, policy or program may have negative consequences on equality or balance between women and men. EIGE also provides guides for institutional transformation <sup>51</sup>.

## 7. Gender Equity Committee of the PRBB (Barcelona Biomedical Research Park)

**Committee and network to share resources, ideas and good practices on gender equality among centers at the PRBB.**

## 8. Gender Equality Plan requirement in Horizon Europe and guide to develop plans

For research entities, public agencies, and higher education institutions, having a Gender Equality Plan (GEP) with a series of mandatory aspects is required since 2022 to be eligible for European project calls. The European Commission provides a guide for developing gender equality plans.

## 9. Athena Swan Charter

Global network that has been supporting the transformation of gender balance in higher education and research since 2005. It encourages and recognizes the commitment of women to help them advance in their scientific careers, especially in STEM.

## 10. GenderSmart

A project funded by H2020, which has generated a guide for research entities and funders, as well as a series of actions for visibility, capacity building, driving change, and monitoring/evaluation of results.

## 11. Plan for Gender Equality" of Barcelona Supercomputing Center

We consider it relevant to highlight this initiative from the BSC. The entity, which, as we have seen in previous sections, has a low female presence related to the lack of women in STEM fields, has been making numerous efforts for some time to bring technological vocations closer to girls in schools. Now, it presents an Equality Plan to reduce segregation in selection processes, guarantee pay equality and work-life balance, and ensure a workplace free from harassment and discrimination.

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<sup>51</sup> <https://eige.europa.eu/sites/default/files/documents/mh0716094enn.pdf>

## 6.2 Private, business, entrepreneurial and investor sector

### 1. Gender indicators tracking

As collected by consulting firm Grant Thornton in their Women in Business 2022 report, based on 5,000 interviews and surveys with CEOs and other C-suite executives from all industry sectors in mid-market economies worldwide (in Europe, corresponding to SMEs with 50 to 500 employees). The question asked is which gender indicators they track. In order: 1) pay equity; 2) employee perception of inclusion; 3) % of women in senior management; 4) % of total female employees; 5) % of women promoted to higher positions; 6) % of women in new hires; 7) net promotion percentage; 8) psychological safety; 9) gender turnover and 10) other unspecified. Collecting this set of indicators is a good practice in itself

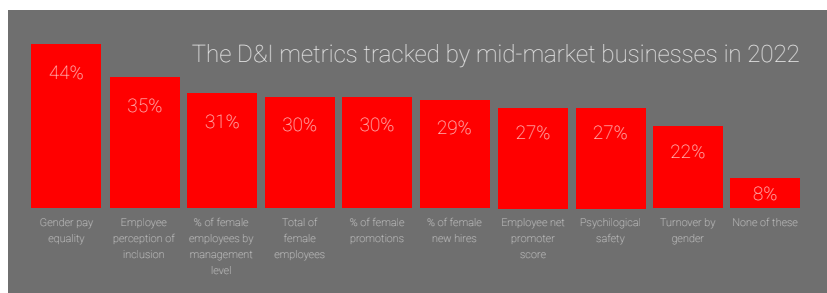


Figure 17: D&I metrics. Grant Thornton, Women in Business 2022.

### 2. Women TechEU

The European Union initiative that provides advice to female founders and specific funding (up to €75,000) to scale their business in deep tech, an area that represents more than 25% of the European startup ecosystem and is based on disruptive technologies, including biotech. Support for women entrepreneurs in this sector opens the door for women to the new wave of most innovative technologies on a European scale.

### 3. Women entrepreneurs networks WA4STEAM i WERockCapital

The first example is a global network of women business angels who invest in STEAM projects led by women. The second, WeRock, is a network of investors and mentors that was founded in Barcelona in 2018 and supports women entrepreneurs to achieve success.

In this regard, we would like to highlight another international initiative, the [Grit International Female Accelerator](#) (International Female Digital Health & Life Science Accelerator), which includes some Catalan companies among its alumni.

#### 4. Jeito Capital

This French sector fund applies gender policies, considering gender and cultural diversity as a key ingredient for the success of a company. Founded and led by a woman, Dr. Rafaèle Tordjman, the founding team is mainly composed of women. Jeito applies equal treatment between men and women regarding hiring and salaries. It promotes the development of women's careers and ensures their representation in leadership positions at Jeito and portfolio companies, such as C-level positions or board members.

#### 5. Women in Bio

The biotech supercluster located in Boston (USA), organizes actions and events for women working in the sector to support their professional development and leadership, with specific mentorship programs and a network of top-level contacts, helping women starting their careers to connect with industry veterans.

#### 6. Diversity Roadmap

The consulting firm Spencer Stuart has created this roadmap proposal for transforming companies. It is a table resulting from observations and conversations with real cases and trajectories in the industry towards greater gender balance. It starts, in the second column, by hiring a Diversity and Inclusion Manager.

Catalysts for action	Where can you start?		Potential initiatives		
<ul style="list-style-type: none"> <li>» Transformation driving the need for stronger diversity</li> <li>» Impulse from board/top leadership</li> <li>» Compliance-driven: new code of conduct</li> <li>» Government quotas or targets</li> <li>» New trends reshaping talent needs</li> </ul>	<ul style="list-style-type: none"> <li>» Appointing Head of D&amp;I</li> <li>» Compile &amp; analyse all available data</li> <li>» Run focus groups</li> <li>» Gender pay gap analysis</li> <li>» Analysis of best diversity practices in place in local branches across regions</li> </ul>	<ul style="list-style-type: none"> <li>» Create a Diversity Steering Committee</li> <li>» Interview rounds with local branches</li> <li>» Career progression/potential analysis</li> <li>» Analysis of recruitment process &amp; biases</li> </ul>	<ul style="list-style-type: none"> <li>» Set targets/ KPIs at board + several management levels</li> <li>» Recruitment: women on the short list is mandatory</li> <li>» Internal survey to get feedback</li> <li>» Training to reduce cognitive bias</li> <li>» Internship programs/ university partnerships</li> </ul>	<ul style="list-style-type: none"> <li>» Career progression: Individual development plans</li> <li>» Internal awareness-raising campaign</li> <li>» Diversity forum/networking</li> <li>» External coaching programme</li> <li>» Diversity awareness online training</li> </ul>	<ul style="list-style-type: none"> <li>» Mentorship/ ambassadors</li> <li>» Gender-neutral parental leave scheme</li> <li>» Correct pay gaps based on type of position and individual performance</li> <li>» Leadership development: 1:1 discussions with top female talent</li> </ul>

Figure 18: Proposed roadmap to transform companies. Source: Consultant Spencer Stuart

## 7. The Champions of Change Coalition

An innovative strategy in the US to achieve gender equality, advance women's leadership, and create respectful and inclusive workplaces. In this strategy, men in positions of power and influence partner with women leaders to form a high-profile coalition to lead and be accountable for change on gender equality issues in their organizations and communities, whether they are local, national or global. Members cover all major sectors of the economy and include representatives from business, government, community, academic and nonprofit organizations.

## 8. Tracking the Gender-Equality Index (GEI) by Bloomberg

This initiative tracks the performance of public companies committed to disclosing their efforts to support gender equality through policy development, representation, and transparency. The Catalan company Grifols has been listed on this index since 2021. Currently, 60% of Grifols' workforce is composed of women, and the company aims to achieve 50% women in its senior management by 2030. Grifols is also part of the Dow Jones Sustainability World Index (DJSI), Vigeo Euronext, and FTSE4Good.

## 9. Talking about Diversity, Equity, and Inclusion (DE&I)

We need to shift the focus from gender diversity to the concept of diversity, equity, and inclusion, which is equally relevant. The pillars of DE&I are: i) Diversity in the workforce, cultivating a culture of inclusion and innovation; ii) Connecting with the community, with strategic investments in global communities; iii) Diversity in suppliers, supporting different types of businesses; iv) Promoting equality policies in education and social justice.

## 10. An Alternative Silicon Valley

Pivotal Ventures is not just another fund. It is what philanthropist Melinda French Gates proposes to empower women in cutting-edge technology with great economic impact. And it is only the beginning to shake up the entire tech industry. The first \$1 billion of the fund comes from French Gates herself, with the goal of eliminating barriers to DE&I.

## 11. Startup Generation<sup>52</sup> and other Biocat content

We wanted to include in this list the "stories" of Biocat, where we give visibility and highlight the models of women entrepreneurs in the BioRegion<sup>53</sup> that have contributed to this report. In "Startup generation" we have published more than 80 profiles of startup founders, where women have played a prominent role. Biocat has been collecting data on women in the industry for over 10 years.

<sup>52</sup> <https://www.biocat.cat/ca/actualitat/start-up-generation>

<sup>53</sup> <https://www.biocat.cat/ca/actualitat/blog/encara-falten-molts-models-seguir-presencia-femenina-lecosistema-biomedic-catala>



**Figure 19:** Women entrepreneurs in the BioRegion.

Source: Biocat <https://www.biocat.cat/en/current-news/blog>

## 7. PARTICIPATORY PROCESS WITH THE LIFE SCIENCES AND HEALTH SECTOR

For the stakeholder consultation process, Biocat designed two focus groups, one with the public, academic, and healthcare sector, and another with the private, entrepreneurial, and business sector.

These are two groups of professionals who have participated as experts, as agents of change for themselves, and as members of key entities or collectives within the ecosystem. Their multiplier effect and connections within the sector have been taken into account when selecting them. The size of the groups has been kept small in favor of participation and the dynamic exchange of ideas.

Two sessions were held on consecutive days<sup>54</sup>, under the leadership of the Biocat team and with the support of the company WeDo Project Intelligence Made Easy SL. The contents of this section have been extracted from the document generated by WeDo, by authors Mireia Manent (WeDo) and Montserrat Daban (Biocat), which is attached as a featured piece at the end of this report.

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<sup>54</sup> On October 5 and 6, 2022 at the Barcelona Science Park, where Biocat is based

## FOCUS GROUPS

### COMPONENTS

#### PUBLIC AND ASSISTANCE FOCUS GROUP



**Paula Adam**

PhD in Economics, director of research at AQuAS (Quality and Health Assessment Agency of Catalonia). Previously, she worked at the OECD evaluating public policies. Adam is an expert in the impact of knowledge, and promoter of the concept of gender scissors and the Hypatia commitment letter.



**Marta Aymerich**

Doctor of Medicine and Surgery and Master's Degree in Evaluation and Management of Health Services and Public Health. She is currently Vice-Chancellor of Strategic Planning and Research at the UOC (Open University of Catalonia). She is the author of informative columns in the media, from where she talks about women and science.



**Elena Carreras**

Doctor of Medicine and Surgery, Head of Reproductive Gynecology at the Vall d'Hebron University Hospital. Referent in women's health, it has competitively funded projects to improve the safety and quality of care for women's sexual and reproductive health and to deal with emergency situations with systemic innovation and a gender perspective.



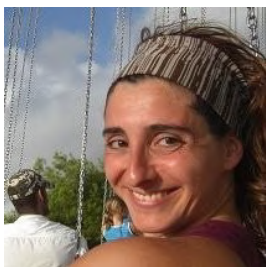
**Xavier Lasauca**

Degree in Physics, Responsible for knowledge management and R&D systems at the Department of Research and Universities, Government of Catalonia. Author of the blog "L'ase quantic" from where he deals with gender issues. Member of the Women and Science Commission of the Interuniversity Council of Catalonia.



**Anaïs Le Corvec**

Degree in Business Administration, specialized in marketing and international management. Director of the European Council of BioRegions (network of more than 40 entities promoting life sciences and health ecosystems throughout Europe) and co-founder of the social innovation company Cliclab. She is an expert in impact and social transformation processes.



**Maruxa Martínez**

PhD in Biology and communication expert. She has been working at the Barcelona Biomedical Research Park (PRBB) in this area for more than 10 years. She coordinates the Good Scientific Practices working group and the Equality, Diversity and Inclusion Committee of the PRBB. Write for the publication "The science factor".



**Sònia Saborit**

Degree in Philosophy, master's degree in Business Administration and Women's, Gender and Citizenship Studies. Pre Award Grants Section Head at the Barcelona IRB. Responsible for implementing the institute's Equality Plan. Among the center's projects, CALIPER integrates the gender perspective as a development strategy.

## PRIVATE AND BUSINESS FOCUS GROUP



**Anais Le Corvec**

Degree in Business Administration, specialized in marketing and international management. Director of the European Council of BioRegions (network of more than 40 entities promoting life sciences and health ecosystems throughout Europe) and co-founder of the social innovation company Cliclab. She is an expert in impact and social transformation processes.



**Laura Pellissé**

PhD in Economics, CEO in business management and Master in Public Health. She is Head of Policy & Government Affairs at the international biotech company Amgen, a multinational biotech with a determined gender policy and mentoring programs for female talent. Fina Lladós, the general manager of Amgen Spain was recognized as the best General Manager in the State in 2019.



**Carme Plasencia**

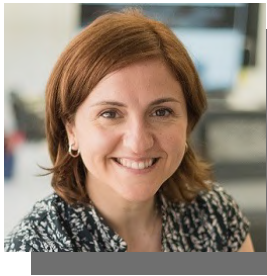
Doctor of Medicine and PhD in Biochemistry, Master in Management and Business Administration. Founder and CEO of the biotechnological company Aromics, a biotech company she founded in 2005, being since then a benchmark for female entrepreneurs in the BioRegion of Catalonia.





### Nadia Pons

Degree in Biology, Master in Human Virology, with training in business creation and management. She has led for 4 years the entrepreneurship program in Health at COMB (Barcelona Medical College). She joined the startup Nuage Therapeutics as Head of Corporate Development to accelerate its strategic growth.



### Esther Riambau

Degree in Biology and Master in Business Administration. She has more than 19 years of experience in technology transfer and entrepreneurship, intellectual property licensing and commercial development. She is co-founder and CEO of Oniria Therapeutics and co-founder and member of the Board at Gate2Brain.



### Carlos Sisternas

Degree in Biology and Master in Food Engineering and MBA by Inese Director of Fenin (Spanish Federation of Health Technology Companies) in Catalonia for more than 20 years. Before managing Fenin Catalunya, he worked for large companies in the sector such as Roche Diagnostics, Bayer and Menarini.



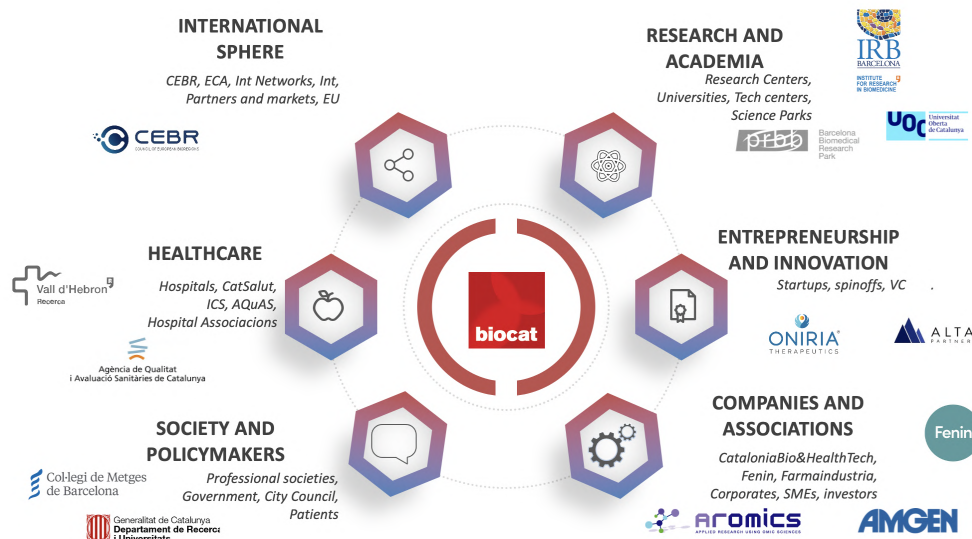
### Montserrat Vendrell

PhD in Biology, Master in Scientific Communication and PDG from IESE. She studied the Executive management program for women in senior management positions at ESADE. Vendrell has held several managerial positions, among them the management of Barcelona Science Park, Biocat and BIST. She has been an investor in Alta Life Sciences since 2016. She is a Board member of several biotechs and vice president of the Pasqual Maragall Foundation<sup>55</sup>.

The participatory process described has been designed to include representatives from all stakeholder groups in the BioRegion (Figure 23), with the different types of agents in the life sciences and health ecosystem in Catalonia that Biocat connects.

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<sup>55</sup>In the case of Montserrat Vendrell, a personalized interview was carried out, the results of which were added to those of the focus groups.



**Figure 20:** Map of Biocat stakeholders, representing the different types of agents in the BioRegion of Catalonia

As described in the methodology section, the two workshops aimed to promote co-learning through sharing contextual materials and best practices, reflections, and prospective analysis. Below are listed the questions posed to both groups, the assessment of some best practices and of gender measures proposed in the National Pact for Industry, as well as the results of the PESTLE prospective analysis.

The reflections shared in the focus groups contributed to the development of the proposed **roadmap and actions launched to achieve the strategic objectives** of the National Pact for Industry in gender matters, involving key sector agents, which appears in the last section of the report.

The groups assessed this participatory process as favorable, according to the WeDo satisfaction survey. In summary: positive evaluation of the initiative, adequate selection of participants by Biocat, and need to hold more sessions of this kind.

### Aspects raised with the groups for joint reflection

- Perception/diagnosis of the gap in the sector, based on shared information and professional knowledge/experience
- Situation in the closer professional environment, with opportunities to follow and barriers to change
- Best practices, analyzing the proposals initially presented and supplementing with proposals from the groups
- Joint definition of the objective to be achieved, based on the analysis of challenges and the PESTLE exercise
- Identification of agents who can have a driving role in the change and activation proposals

## Analysis of results

Both groups agreed that a change is ongoing, although much slowly than necessary, with the aggravating factor that when a disruption occurs (such as COVID-19), there is a setback in women's rights, in this case, in the workplace. It would be necessary to accelerate the change to reduce a situation of generalized imbalance, as corrective measures are still insufficient.

According to the experts, no decisive actions have been detected that contribute to overcoming existing structural barriers. Both groups often referred to the need to give visibility to existing female role models, diversifying voices and expanding representation. And unanimously, the need for a strategic alliance with men for the success of actions and measures to reduce the gender gap was highlighted.

There are environments more resistant to change. The world of investment is highly dominated by male investors, and the perception is that it is not common for a woman to become a partner in a venture capital fund. When a woman reaches this position, she can contribute to change "from within," investing also in startups founded or led by women.

In both groups, there was agreement in defining as insufficient the planned investment for gender measures in the National Pact for Industry 2022-2025. They also considered the goals set for the percentage of women in the industry in 2025 as not ambitious enough, even if a 33% of women in the industry of Catalonia would already be a better figure than the current one. However, they requested proposals for the long term.

The authors of this report have made a critical review of the gender perspective in the drafting of the National Pact for Industry 2022-2025 document. The main observations are:

- The language used in the PNI 2022-2025 is more inclusive compared to the 2017-2020 document, predominantly using general forms such as "working people" or "workers" instead of "male workers" (the neutral term in Catalan is the male gender).
- Biases are observed in some sectors such as the automotive industry, where only the masculine term is used, thus not encouraging the incorporation of women in a sector where their presence is low.
- The document does not include the DE&I (Diversity, Equity, and Inclusion) perspective.
- Upon reviewing the list of planned actions in the PNI 2022-2025 with the two working groups and evaluating them on a scale of 1 (not a priority) to 3 (highly priority), the results of both groups were quite similar (see table below). There was agreement in considering work on three fronts as highly priority (with an average score of 2.5 or higher):
  - The plan for guidance towards industrial and technological professions in secondary education
  - The action plan to advance gender parity in the industry in all areas and levels

The "Industry opens up to schools" program from a gender perspective. The group of agents in the public sector emphasized the need to work on a gender perspective in all preventive activities, while the group of agents in the private sector prioritized criteria related to corporate social responsibility and non-discrimination in the workplace. Both groups agreed that the gender perspective in training for unemployed people in the industrial sector is less prioritized (but not unnecessary).

	Total		Focus group 1		Focus group 2	
	average	median	average	median	average	median
<b>1. Catalan Strategy for Occupational Safety and Health 2021-2026</b>						
Gender perspective in all preventive activities	2,3	2,0	2,6	3,0	2,0	2,0
<b>2. Social and labor clauses for companies receiving public aid included in the PNI</b>						
Criteria related to corporate social responsibility, non-discrimination and gender equality	2,5	3,0	2,4	2,0	2,7	3,0
<b>3. Training for employment aimed at unemployed people in the industrial sector</b>						
Priority to unemployed people and taking into account the gender perspective	1,5	1,0	1,9	2,0	1,2	1,0
<b>4. Training with commitment to employment in the industrial sector</b>						
Aid to training entities. Gender perspective and lower presence of women in industrial occupations.	2,3	2,0	2,4	2,0	2,2	2,0
<b>5. Design and implement a complete system of continuous training superior to the industry</b>						
Competent departments in work, in business, in education and in universities and with a gender perspective	2,3	2,0	2,3	2,0	2,3	2,5
<b>6. Orientation plan towards industrial and technological professions in Compulsory Secondary Education (ESO)</b>	2,9	3,0	3,0	3,0	2,8	3,0
Promote industrial and technological professions that are more invisible, highlighting whether they are tractor drivers in terms of gender						
STEMCAT program in coordination with the "Industry opens to school program in gender perspective" action						
<b>8. Action plan to advance gender parity in the industry in all areas and levels</b>	3,0	3,0	3,0	3,0	3,0	3,0
Action plan to tend towards horizontal and vertical gender parity that includes:						
- leadership training for women	2,64	3,0	2,83	3,0	2,4	3,0
- diversity and equality training for companies	2,75	3,0	3,0	3,0	2,4	2,0
- mentoring and sponsorship project for women in industry (minimum two sectors)	2,83	3,0	3,0	3,0	2,6	3,0
- establishment of positive actions and incentives, care and time measures, incorporation of measures in equality plans, review of selection criteria, members and rotation etc	2,83	3,0	3,0	3,0	2,6	3,0
<b>9. Program The industry opens to the school in a gender perspective</b>						
Bring industry closer to school, make it visible that there are also working women in these sectors	2,54	3,0	2,57	3,0	2,5	2,5
<b>10. Employment in the industry of women, especially in vulnerable situations</b>						
Employment plan aimed at hiring women, especially in vulnerable situations. includes training, network of companies, insertion plan, collaboration with SOC and similar, care services and recruitment of women etc.	2,1	2,0	2,1	2,0	2,0	2,0

**Table 3:** Summary table of the prioritization surveys of the PNI 2022-2025 measures. Scale 1-3 / n=12 (focus group 1 n=7 / focus group 2 n=6)

Regarding the analysis of good practices, a brainstorming session was generated in both groups that allowed additional initiatives to be included. They are collected in the following block, of proposals for the sector, tractor agents and road map.

## BLOCK 4

### 8. ACTION PLAN WITH SHORT AND MEDIUM-TERM MEASURES AND DRIVING AGENTS

Both Biocat's own research and the analysis with the sector make it possible to identify a series of measures that should be prioritized and the key agents in making the decision to implement and activate them.

The following table shows the measures categorized according to the PESTLE analysis tool, as well as the decision-making agents and the favorable and unfavorable factors within each area (political, economic, social, technological, legal, and environmental).

In both focus groups, the need to involve all social actors in the planning and implementation of coordinated actions is evident, generating a comprehensive list of change-driving actors:

Scope	Measures	Decisive agents
<b>Public Policies</b>	<ul style="list-style-type: none"> <li>Government action plan with a calendar, linked to funding, with economic prioritization and portfolio of measures for gender equality.</li> <li>Greater visibility of women occupying positions of reference</li> <li>Measures in the educational and academic environment that favor unbiased assessment</li> <li>Continue to implement quotas, with incentives and exemplarity</li> <li>Action framework with incentives and penalties for companies that do not achieve gender parity.</li> <li>Review by companies of their policies, such as timetables, telecommuting</li> </ul>	<ul style="list-style-type: none"> <li>Government. For example, the creation of the Department of Equality and Feminism is very favorable</li> <li>Administration, promoting the representation of women in positions at the highest level</li> <li>Administration, with implementation of transparent policies</li> <li>Administration, supporting active non-profit organizations</li> <li>Administration, to review the evaluation and meritocracy criteria</li> </ul>
<b>Economic</b>	<ul style="list-style-type: none"> <li>Financial <b>support and loans</b> with a gender perspective (taking into account obstacles and difficulties that women may encounter)</li> <li>Tax benefits for hiring women at executive levels, in B-corp companies</li> <li>Creation of a seal of quality for startups to access financing from specialized VCs</li> <li>More specialized VCs, led by women,</li> <li>Encourage Women Venture groups and female mentorships</li> <li>Implementation of quotas or positive discrimination in competitive financing funds</li> </ul>	<ul style="list-style-type: none"> <li>Administration, with monitoring of the implementation of gender policies to access funding, with special consideration to encourage them</li> <li>The managerial level of SMEs, which bet on gender plans (less widespread than in large companies)</li> </ul>
<b>Social</b>	<ul style="list-style-type: none"> <li>Widespread and institutionalized use of inclusive language</li> <li>Awareness raising and training for the population in a gender perspective</li> <li>Investment in female and feminist culture</li> <li>Women's professional networks that facilitate support and mentorship</li> </ul>	<ul style="list-style-type: none"> <li>The unions, taking decisive action at all professional levels</li> <li>Professional associations, encouraging mobilization and awareness</li> <li>The men as champions of change and allies</li> </ul>

<sup>56</sup> Companies that certify inclusive and sustainable practices

Scope	Measures	Decisive agents
<b>Technological</b>	<ul style="list-style-type: none"> <li>• Participation of women in the creation and construction of Web 3.0</li> <li>• Data collection and analysis with consideration of gender</li> <li>• Incentives for the promotion of women and deeptech companies</li> <li>• Equal access to technical training</li> <li>• Encourage the voice and presence of women in all the forums and panels where technological and industrial issues are debated</li> </ul>	<ul style="list-style-type: none"> <li>• Government: Consider the entire educational system as key (all stages and not just the later phase)</li> <li>• Education system: Expand STEM programs targeting girls and youth, and gender bias training at all educational levels for all children</li> <li>• Managers of research centers must promote the selection of women in management positions, reviewing the scientific evaluation criteria and providing training to the people who act as evaluators to prevent gender bias</li> </ul>
<b>Legal</b>	<ul style="list-style-type: none"> <li>• Positive discrimination and effective equality plans with follow-up measures</li> <li>• Birth protection</li> <li>• Salary transparency with consideration of gender</li> <li>• Retention of accounts with specific measures for the monitoring and follow-up of practices</li> </ul>	<ul style="list-style-type: none"> <li>• Administration, with implementation of transparency policies</li> <li>• Government to promote measures to protect women and their workplace</li> </ul>
<b>Environment</b>	<ul style="list-style-type: none"> <li>• Sorority, corporate volunteering where women support other women in vulnerable situations and to help prepare for better work inclusion.</li> <li>• Select more women for startup boards, formed by independent experts. They are usually from the scientific environment, where the gender gap is very marked.</li> <li>• Inclusion of men through gender bias training</li> <li>• Presence of women in decision-making committees</li> <li>• Expand criteria to facilitate the participation of women in the public space</li> <li>• In companies, time and location flexibility</li> <li>• That relevant corporate meetings and events take place during office hours</li> <li>• Training on unconscious gender bias at all business levels (HR, management, group department heads, section, etc.</li> <li>• Review of the communication of the open positions, considering the language and descriptors used</li> </ul>	<ul style="list-style-type: none"> <li>• Companies, reviewing policies, such as timetables, telecommuting</li> <li>• Managers of Boards of Directors of startups/spinoffs.</li> <li>• The media, contributing to give visibility to professional women in the sector, including them as consulted experts, participants in debates, protagonists of reports on related topics, etc.</li> <li>• Human resources managers, reviewing the criteria and skills used for selection processes</li> </ul>

**Table 4:** Proposals directly as elaborated by the focus groups. These reflections have been used to draw up the proposal for recommendations that is presented as an annex.

## 9. ROADMAP OF RECOMMENDATIONS AND ACTIONS FOR THE SECTOR

Without a commitment to reducing the gender gap, inequality will not be reversed. This requires a conscious analysis of data and actions to mitigate it. There must always be a first step, followed by another, or even all at once, if the reduction of the gap is to be accelerated.

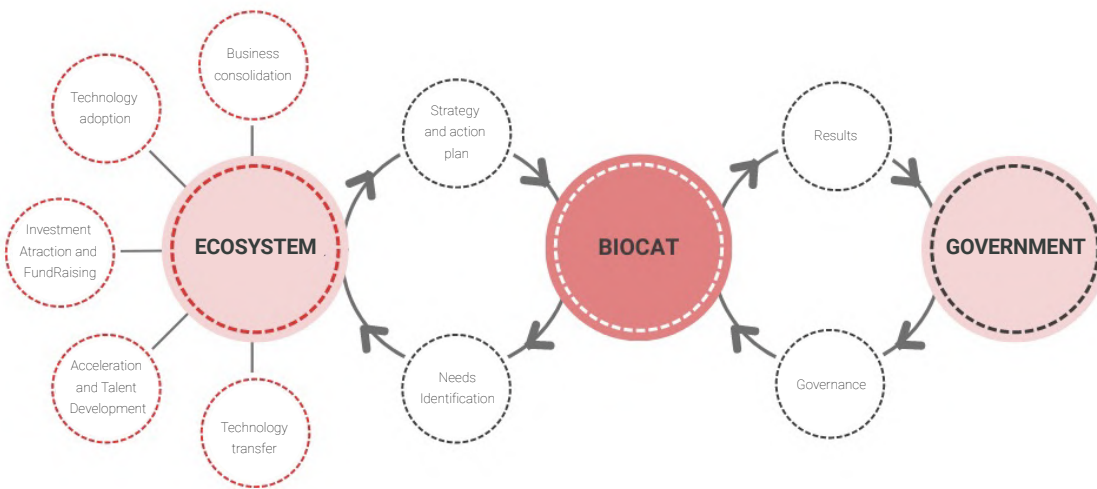
Biases are often difficult to identify and rectify. A conscious effort is required to eradicate them from evaluation, promotion, and decision-making processes in order to promote gender diversity in industry and all areas of activity.

Based on the proposals above, the authors have compiled a list of measures that could be implemented by 2025 (aligning with the time frame of the 22-25 National Plan for Industry). 10 aspects are prioritised below, along with key players that can contribute to implement or amplify the impact of these initiatives.



## About Biocat

Biocat was created in 2006 as a public-private foundation by the Government of Catalonia and the Barcelona City Council, along with the private sector, to identify the needs of the BioRegion and implement a strategy and action plan to maximize the economic and social impact of Catalonia's life sciences and healthcare innovation ecosystem. Biocat brings together representatives from all the stakeholders that make up the BioRegion of Catalonia in its governing bodies: government, companies (biotech, pharmaceutical, medical technology and services), universities, hospitals, research centers and institutes, science parks and associations.



Biocat works to promote innovation, foster entrepreneurship and business development. It promotes training and talent development, promotes and disseminates the assets and capabilities of public and private entities in the BioRegion to the international community and connects the ecosystem with key international markets and environments in life sciences and healthcare. Biocat acts as a generator of knowledge and reflection for the Catalan life sciences and healthcare ecosystem and promotes it with a series of strategic projects at different levels with the aim of positioning the BioRegion as one of the main innovation hubs nationally and internationally.



## Authorship and acknowledgements

This report on gender gap in the life sciences and healthcare sector is fully aligned with Biocat's strategy to generate knowledge and reflection for the BioRegion of Catalonia and promote its transformation.

The report has been elaborated by Biocat on behalf of the Department of Equality and Feminisms, Government of Catalonia.

Support in **production and** co-creation activities: WeDo Projects.

We would like to express our special thanks to the experts in the sector who participated in the focus groups for their generous contribution, providing valuable information, professional perspective and invaluable reflections. The authors also want to thank the entire Biocat team for their contribution.





Annex 1:

# **10 Recommendations for the life sciences and health industry in Catalonia**



# 10 Recommendations for the life sciences and health industry in Catalonia

1

Awareness and elimination of gender biases in educational and professional fields

2

Determined action with policies and funding instruments to apply the gender perspective in all areas, public and private

3

Actively encourage the presence of girls in STEM

4

Elimination of the glass ceiling and reduction of the gender gap in the academic and research fields

5

Strengthen the role of women in environments developing technologies for the future

6

More women in leadership and decision-making positions in industry

7

More startups founded by women growing and scaling up

8

More transparency in gender perspective in companies, from startups to SMEs

9

Monitoring of compliance with the measures in the public and private sector from the Government

10

Acknowledging and rewarding good gender practices throughout the value chain





Measures for the lifesciences and healthcare sector, both public and private, to advance towards systemic change by promoting effective actions with decisive policies, involving key stakeholders and monitoring results throughout the value chain. We indicate actors involved in the front line, without forgetting that transformation depends on everyone.

# 1 Awareness and elimination of gender biases in educational and professional fields

## MEASURES AND INSTRUMENTS

- Raise awareness and provide gender perspective education, with a focus on early academic and school levels.
- Promote training to identify unconscious gender biases and micro-machismo. Provide training on gender biases for companies and institutions. Training sessions aimed at men to foster responsible masculinities. Prizes or calls for primary and secondary schools for identifying biases and visibility of female role models.
- Continuing education on gender perspective for companies and the public sector, with associated accreditations and benefits.
- Encourage the widespread and institutionalized use of inclusive language, such as revising communication on job positions offered, language, and descriptors used.
- Review work environments or educational centers to ensure they are not hostile to female presence. Involve men in reflection spaces to create more inclusive work environments for women.
- Create networking spaces during office hours to promote team cohesion and parity in access to job promotion opportunities.
- Provide figures or reference spaces within the company for emotional management and conflict resolution.

## KEY ACTORS INVOLVED

-  Administration
-  Businesses associations
-  Professional teaching centers
-  Social agents

# 2 **Determined action with policies and funding to apply gender perspective in all areas, public and private**

## MEASURES AND INSTRUMENTS

- Include gender perspective in the Government action plan with a schedule, funding, and economic prioritization, with specific funds allocated to all departments.
- Incentives and penalties for companies that do not achieve gender parity, focusing on the entire company's organizational structure, with a particular emphasis on leadership (HR, general and departmental management, boards of administration, etc.).
- Expand criteria to facilitate women's participation in public spaces.

## KEY ACTORS INVOLVED



Administration



Institutions



Decision-makers







# 3 Promoting female presence in STEM

## MEASURES AND INSTRUMENTS

- Strengthen education and training of new generations in equality, highlighting female role models.
- Workshops, talks, and congresses in collaboration with universities and professional education centers to awaken interest in STEM among girls; for example, digital or STEM training workshops that prioritize the presence of girls and women (without a minimum percentage of girls, the workshop will not begin).

## KEY ACTORS INVOLVED

-  Departments (Education; Research and Universities, Professional associations)
-  Media
-  Communication associations
-  FCRI

# 4 Removal of the glass ceiling and reduction of the gender gap in academic and research environments

## MEASURES AND INSTRUMENTS

- Promoting the evaluation of competencies and achievements with a gender perspective, reviewing rubrics and applying weighting to evaluations if necessary.
- Implementation of quotas or positive discrimination in competitive funding sources.
- Proposals for shared leadership, promoting a woman as the leader, as opposed to shared leadership where the woman is in a supporting role.
- Generalized and institutionalized use of inclusive language in calls for applications.
- Effective positive discrimination and equality plans with internal monitoring measures in all institutions and evaluation by governing bodies.
- Ensuring quotas in all processes (internal and external), and only advancing in processes to achieve positions of responsibility when a minimum percentage of female candidates is achieved.

## KEY ACTORS INVOLVED



Administration



Universities and centers



Governing bodies



Research teams

# 5 Empowering the role of women in environments developing technologies for the future

## MEASURES AND INSTRUMENTS

- Corporate and administrative incentives for promoting women in deeptech companies. Promoting awards and accreditations.
- Equal technical training opportunities for women.
- Promoting the voice and presence of women in all fora and panels discussing technology and industry-related issues.
- Ensuring that events organized by public institutions cannot take place without parity between participating individuals. This applies to events, panels, programs, and courses.
- Promoting and highlighting that positions funded with public funds reject participation in any private event that respects parity.
- Training and capacity-building for women interested in joining the technology sector (from the administration and locally).

## KEY ACTORS INVOLVED



Public Administration



Companies



Educational centers

# 6

## More women in directive and decisive positions in industry measurers and instruments

### MEASURES AND INSTRUMENTS

- Actively making women in reference positions visible from companies.
- Promoting professional networks and meeting spaces for women, making them visible from the company, not just from women's groups, on social networks.
- Promoting female mentoring and corporate volunteering where women support other women in vulnerable situations and help prepare for better job inclusion.
- Specific leadership training.
- Selecting more women from independent expert groups for the management boards of startups, as they usually come from the scientific environment where the gender gap is very marked.
- Internal mechanisms or tools where situations of discrimination or lack of parity can be reported, reviewing incentives and opportunities available to the company.
- Training for women who currently hold executive positions, as they may have achieved these positions by adopting "male" roles and leadership.

### KEY ACTORS INVOLVED



Public administration



Companies



Professional networks



Professional associations

# 7

## More women-led startups growing and scaling up

### MEASURES AND INSTRUMENTS

- Foster the presence of women with gender education in decision-making committees.
- Benefits for Women Ventures and specialized venture capital led by women with a focus on gender or femtech.
- Women Fast track: specific instruments from the Public Administration to provide short- and long-term support for the creation and consolidation of startups led by women.
- Temporary economic support to supplement or ensure a salary for women who want to start a business until they begin to generate profits, to counteract the economic risk involved in female entrepreneurship.
- Cooperative platform, with B2Match-type tools for startups led by women to support each other and their companies, connecting at an international level.
- Visibility of startups promoted or led by women, locally and internationally, ensuring their presence in forums, debates, and public presentations.

### KEY ACTORS INVOLVED



Public administration



Companies



Professional networks



Professional associations



Event organizers



VCs.

# 8

## More transparency in the gender perspective in companies, from startups to SMEs

### MEASURES AND INSTRUMENTS

- Implement gender quotas in all selection processes. Stop and review the processes if the quota is not met.
- Actively monitor salary equity and be transparent in its implementation.
- In the realm of family reconciliation, provide economic and labor assistance, sabbaticals or reduced work hours with substitutions without penalties, protection of the right to maternity, and decision-making in family and personal projects.
- Review company policies (schedules, permits, telecommuting...).
- Positive discrimination and effective equality plans with monitoring measures.
- Presence of women with gender training in decision-making committees.
- Companies should offer flexibility in scheduling and location, with relevant corporate meetings and events held during business hours.
- Provide training in physical and psychosocial risk prevention with a gender perspective.

### KEY ACTORS INVOLVED



Public Administration



Companies



Employers' associations



Unions

# 9 Monitoring of compliance with gender measures in the public and private sectors

## MEASURES AND INSTRUMENTS

- Activate a table with social agents to analyze barriers and make progress in this area visible.
- Capacitate entities such as gender observatories to monitor and ensure compliance with gender policies.
- Inspection mechanism in the public sector that evaluates the wage gap between men and women for similar positions and responsibilities, particularly to prevent discrimination with public funds.
- In the case of the private sector, a monitoring framework agreed upon by all business actors.

## KEY ACTORS INVOLVED



Government



Institutions



Decision-makers

# 10 Acknowledging and rewarding good gender practices throughout the value chain

## MEASURES AND INSTRUMENTS

- Incentives for the implementation of gender quotas.
- Visibility of best practices in centers and companies, with successful examples and awards granted by the Government or local administrations. Explicit recognition and visibility for those companies that promote female leadership through fair and non-discriminatory processes.
- Financial credits with a gender perspective (taking into account the obstacles and difficulties that women may face).
- Tax benefits for hiring women in executive positions in B-corporations.
- Creation of a quality seal for startups to access funding from specialized VCs.
- Accountability with specific measures for monitoring and following up on practices.

## KEY ACTORS INVOLVED



Government



Institutions



Decision-maker agents







[www.biocat.cat](http://www.biocat.cat)

Annex to the report "The gender gap in the life sciences and  
healthcare sector" Biocat, October 2022