

Gender Equality and Incorporation of Female Workforce in Higher Education, Research and University Management From Data to Policy



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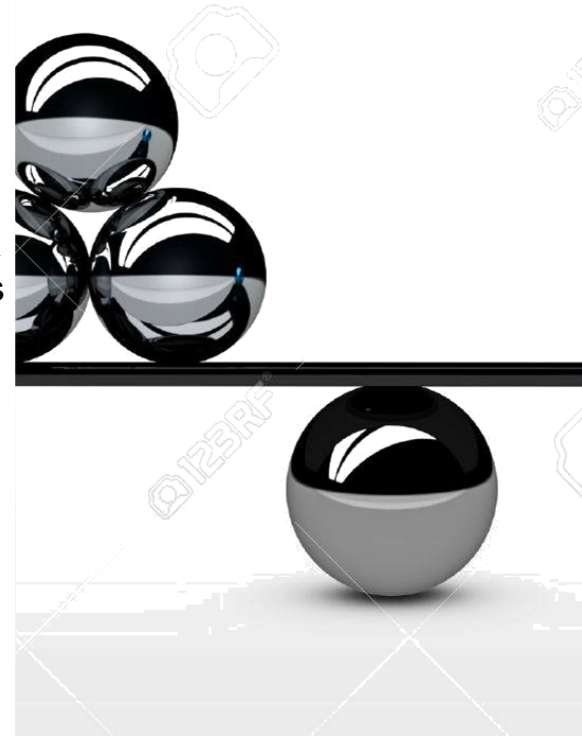
Outline



- ❑ **Gender Equality in the European Context**
- ❑ **Figures and Facts on gender imbalances: A focus on research and university contexts**
- ❑ **Main Explanations for Understanding Gender Gap**
- ❑ **Gendering Academia Research Project: Insights from the Italian context**
- ❑ **The implementation of gender equality policies in universities: The role of GEPs Gender Equality Plans**

Introduction

- ❑ Despite the progress that has been made in recent years and the increasing attention paid to the issue, for instance, in Europe with the *Lisbon Agenda* and the creation of the *European Research Area (ERA)* in 2000
- ❑ Since 2012, 'gender equality and gender mainstreaming in research' has been one of the priorities in achieving the European Research Area (ERA). The creation of the ERA represents the European Commission's ambition for a single market for research, innovation and technology across the EU.
- ❑ In the EU Communication (2020) *A union of Equality: Gender Equality Strategy 2020-2025*, there is a fundamental acknowledgment of the status of the art: **"14 of the top 20 countries worldwide on gender equality are EU Member States. Thanks to robust equal treatment legislation and jurisprudence, efforts to mainstream the gender perspective into different policy areas, and laws to address particular inequalities, the EU has made significant progress in gender equality in the last decades"**



Gender Equality Index (GEI)

Nevertheless, in term of Gender Equality, not all European countries are on the same level: «Member States on average scored 67.4 out of 100 in the EU Gender Equality Index 2019, a score which has improved by just 5.4 points since 2005» (EU 2020).

To monitor and compare progresses and slowdowns per country a useful tool, is **the Gender Equality Index (GEI)** of the European Institute of Gender Equality (EIGE).

The Index is composed by a set of indicators regarding work, money, knowledge, time, power and health (in its 2020 version it also includes two new areas: violence and intersecting inequalities).

European Union [for the 2020](#) [edition](#)



Progress on gender equality in EU since 2010

With 67.9 out of 100 points, the EU has a long way to go before reaching gender equality. The Gender Equality Index score has increased by only 4.1 points since 2010 and 0.5 points since 2017. At this pace of progress – 1 point every 2 years – it will take more than 60 years to achieve gender equality in the EU. We need to speed up.

On the main page of GEI it is stated that «Gender inequalities are most pronounced in the domain of power (53.5 points), especially in economic decision-making. The second-lowest score is in the domain of knowledge (63.6 points). Gender segregation in tertiary education is the main obstacle».

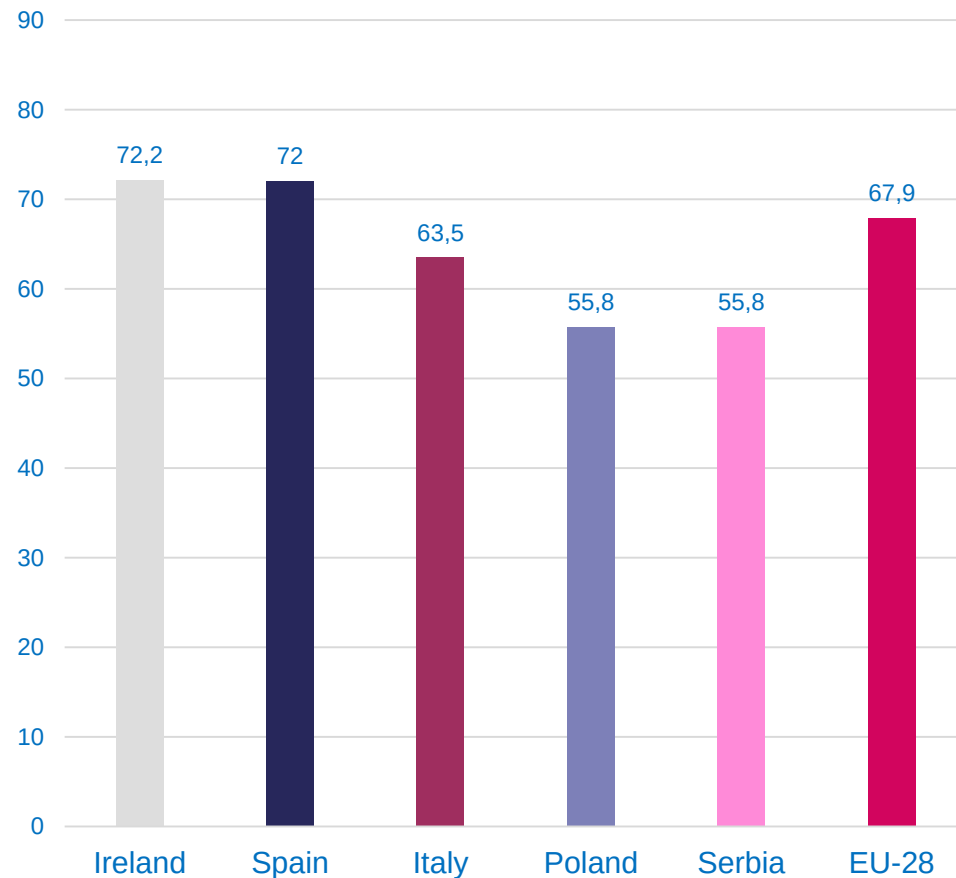
Thus, developing positive actions to tackle this unequal condition is even more urgent in universities and research organizations. RPOs, as public institutions, have a unique role to play in developing a working environment that supports gender equality, particularly when it comes to career advancement, job quality and equal representation at the top levels.

EU Directive 2006/54 states that public sector organizations must “lead by example” for the private sector in adopting positive actions devoted to the promotion and implementation of gender equality.

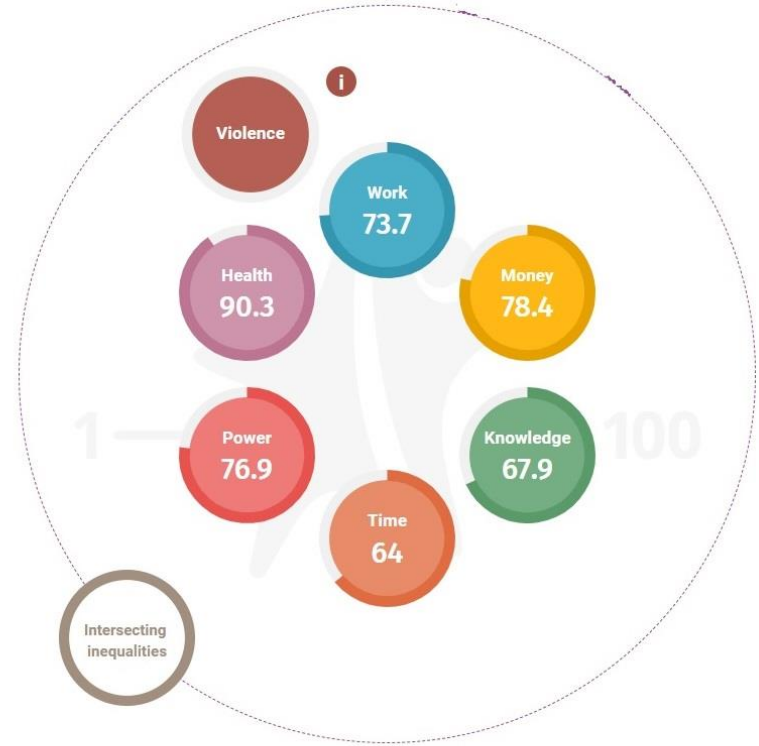
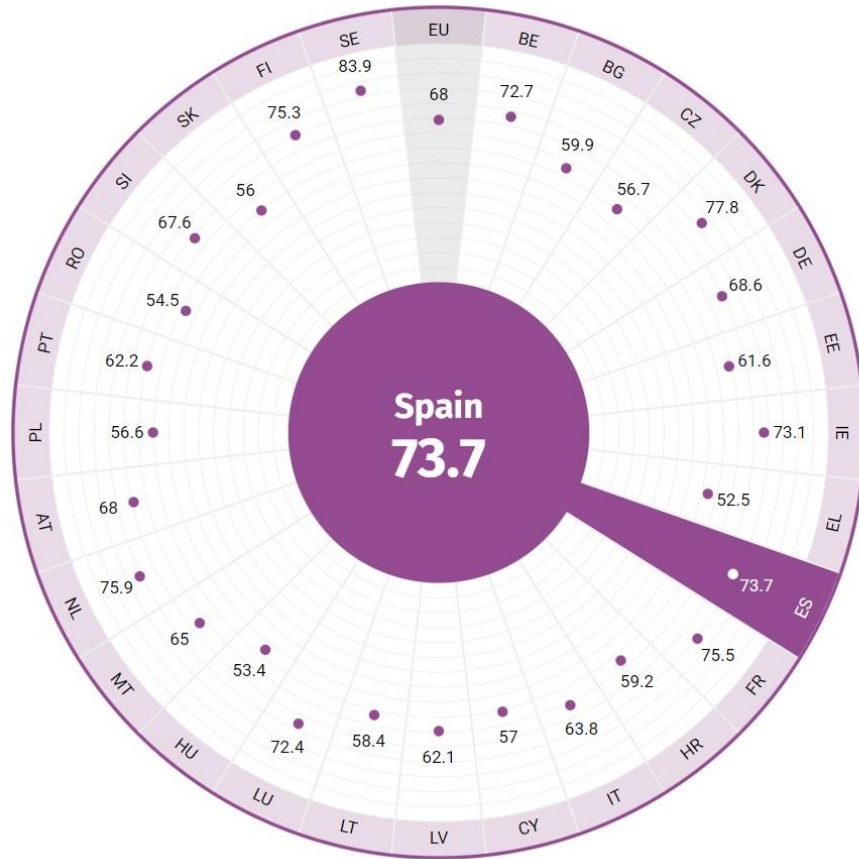
Gender Equality Index (GEI), 2020

Gender Equality Index

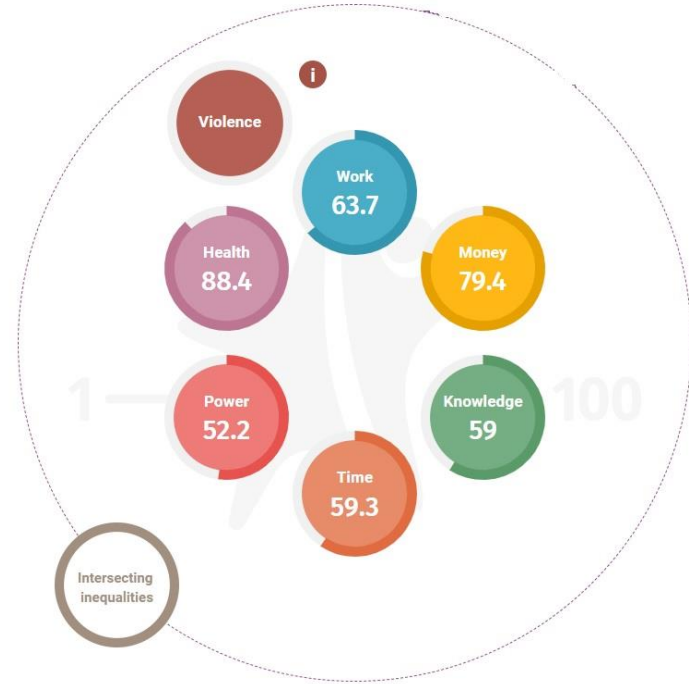
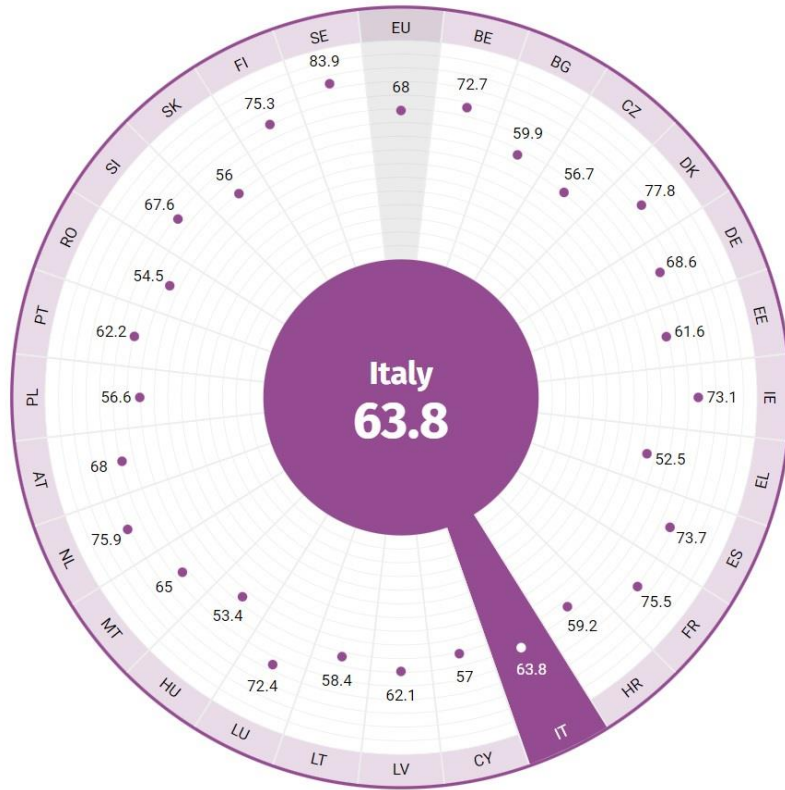
The Gender Equality Index is a composite indicator that measures the complex concept of gender equality and, based on the EU policy framework, assists in monitoring progress of gender equality across the EU over time



Gender Equality Index (GEI): Spain 2021



Gender Equality Index (GEI): Italy 2021

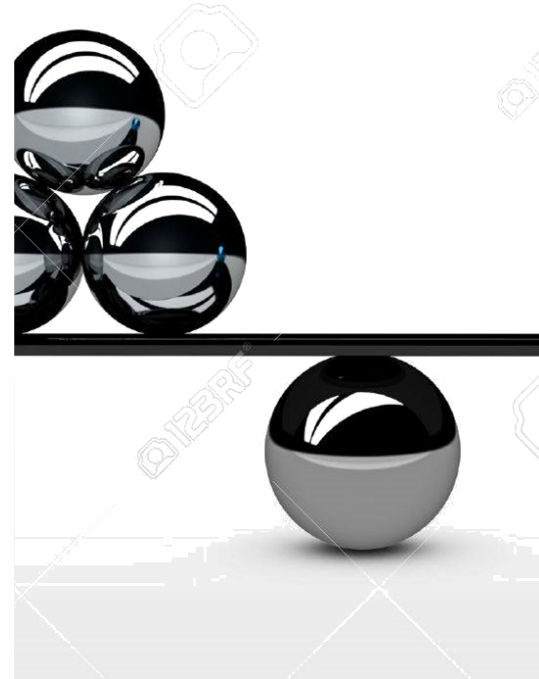


Gender Imbalances: Figures and Facts

- ❑ Which are the main challenges in higher education, academia and research?
- ❑ **Feminilization** of higher education and academia

BUT

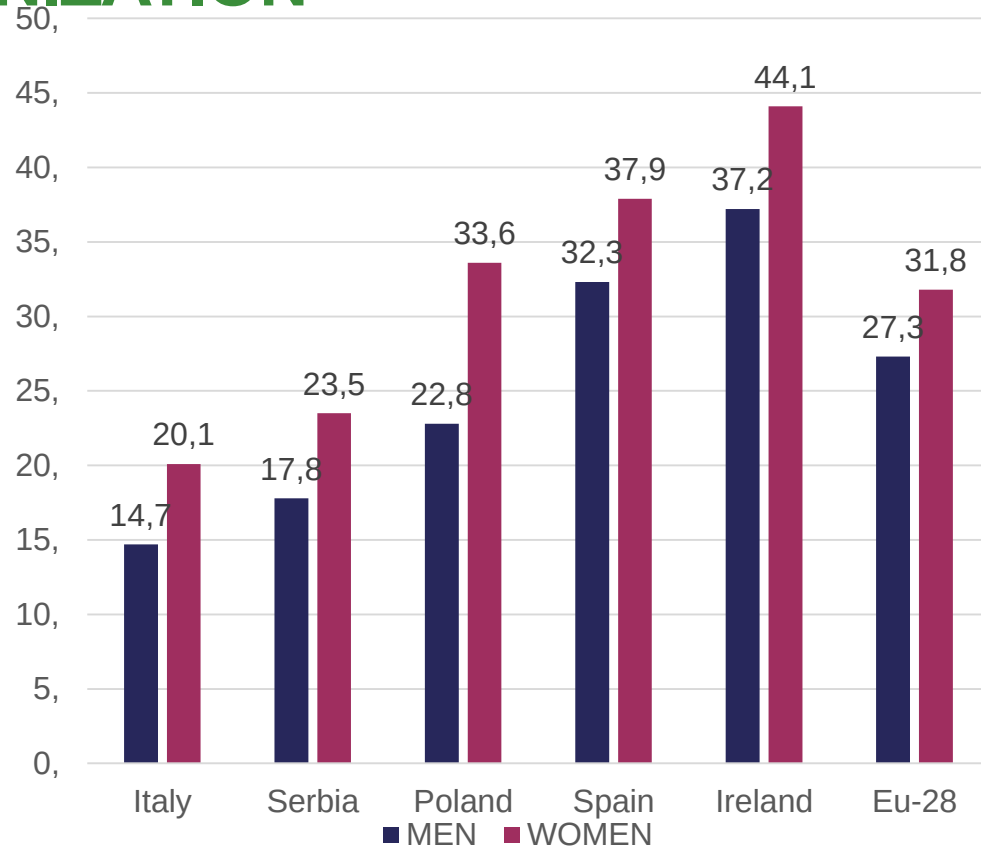
- ❑ **Horizontal** and **Vertical** segregations
- ❑ **Glass Ceiling** and **Leaky Pipeline's** effects



PROCESS OF FEMINIZATION

Figure: Tertiary educational attainment by sex (15-64 years old) (Eurostat 2019)

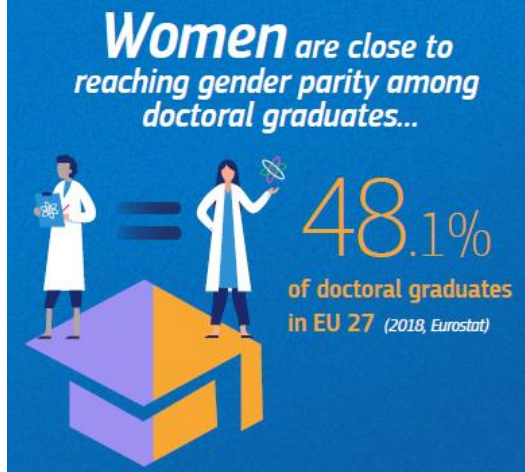
Women's tertiary educational attainment has surpassed the one of men



PROCESS OF FEMINIZATION

The academic and scientific labor market has experienced a process of **feminization** in recent years.

At the **European** level

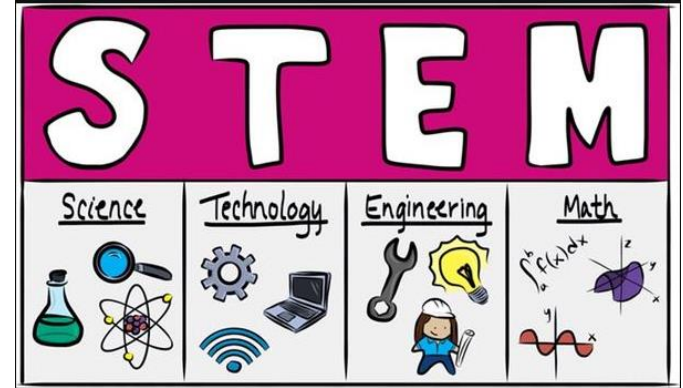


... And the overall incidence of women on the total of academics grew over time, and the number of female researchers grew faster than the number of male researchers between 2008 and 2015 (on average by 3.8 % each year, while the number of male researchers increased by 3.4 %)



Horizontal Segregation

... PERSISTENCE OF GENDER
IMBALANCES



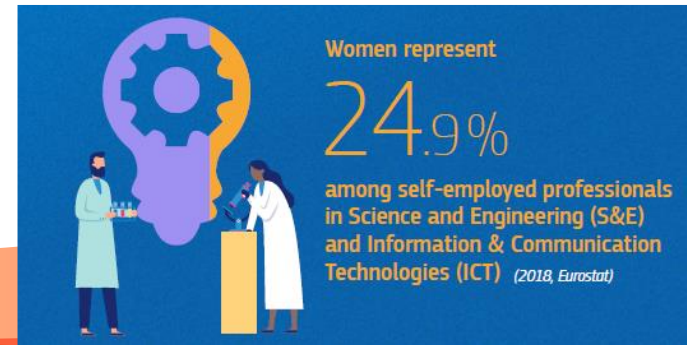
Women continue to be under-
represented in STEM disciplines



Horizontal segregation

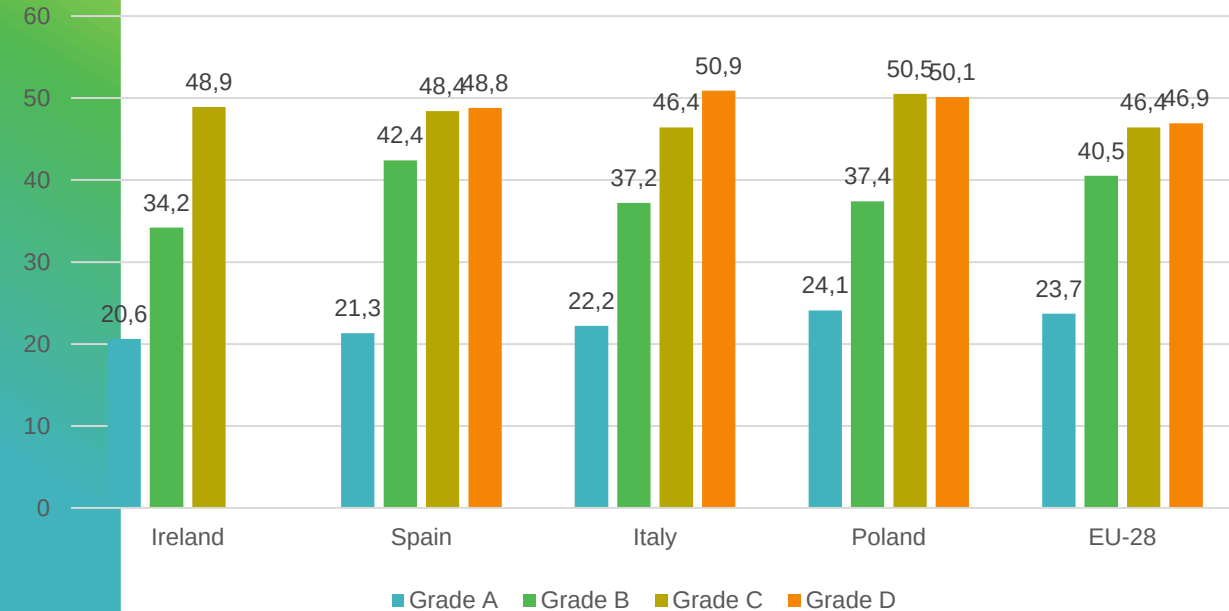
EUROPE

- Academic staff by scientific field: women are the minority in STEM disciplines and...
- ...are still under-represented in technical professions.



Vertical Segregation

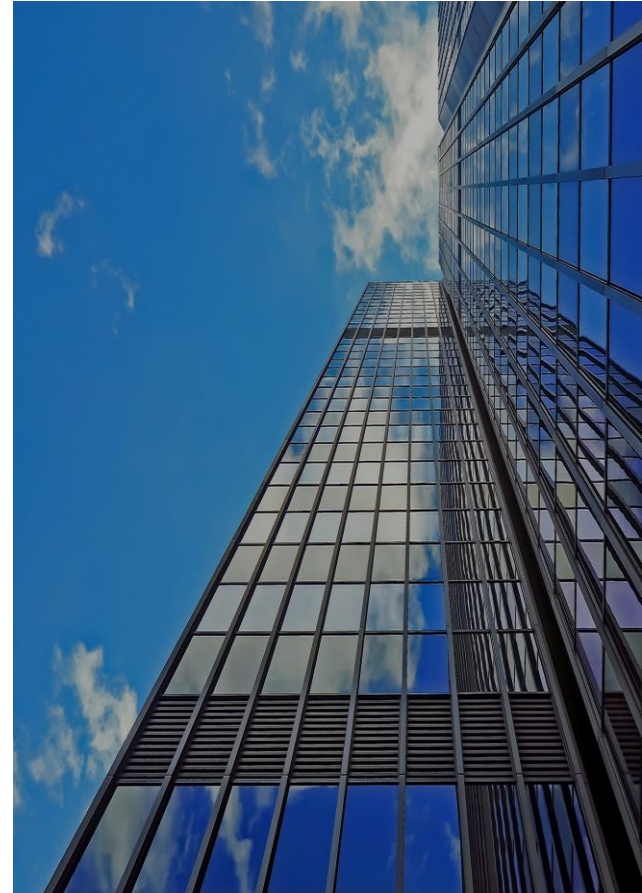
Proportion (%) of women among academic staff, by grade and total (Source: She figures, 2018)



The *glass ceiling* in the academic system

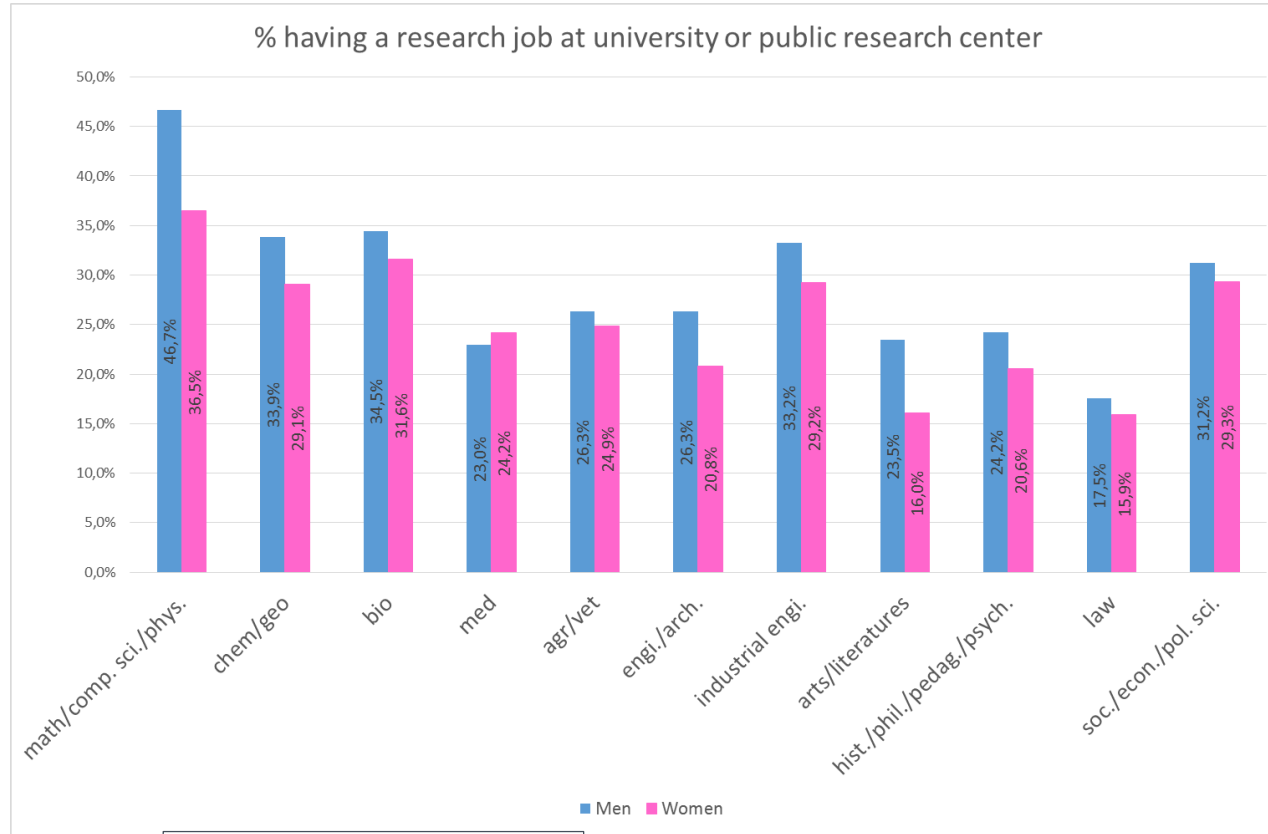
Glass ceiling and Leaky pipeline

- ❑ While **female university students perform better** than their male counterparts, the situation change in postdoctoral fellowship positions and further worsens throughout the subsequent stages of academic careers
- ❑ In academia and research contexts **women are less likely** than men **to get promotions**
- ❑ These phenomena are known as '**glass ceiling**' (women less likely to achieve full professorship) and '**leaky pipeline**' (women less likely to receive tenure and more likely to leave academic career)



ITALY –EARLY CAREER

How many PhDs have a research job after 4-6 years?



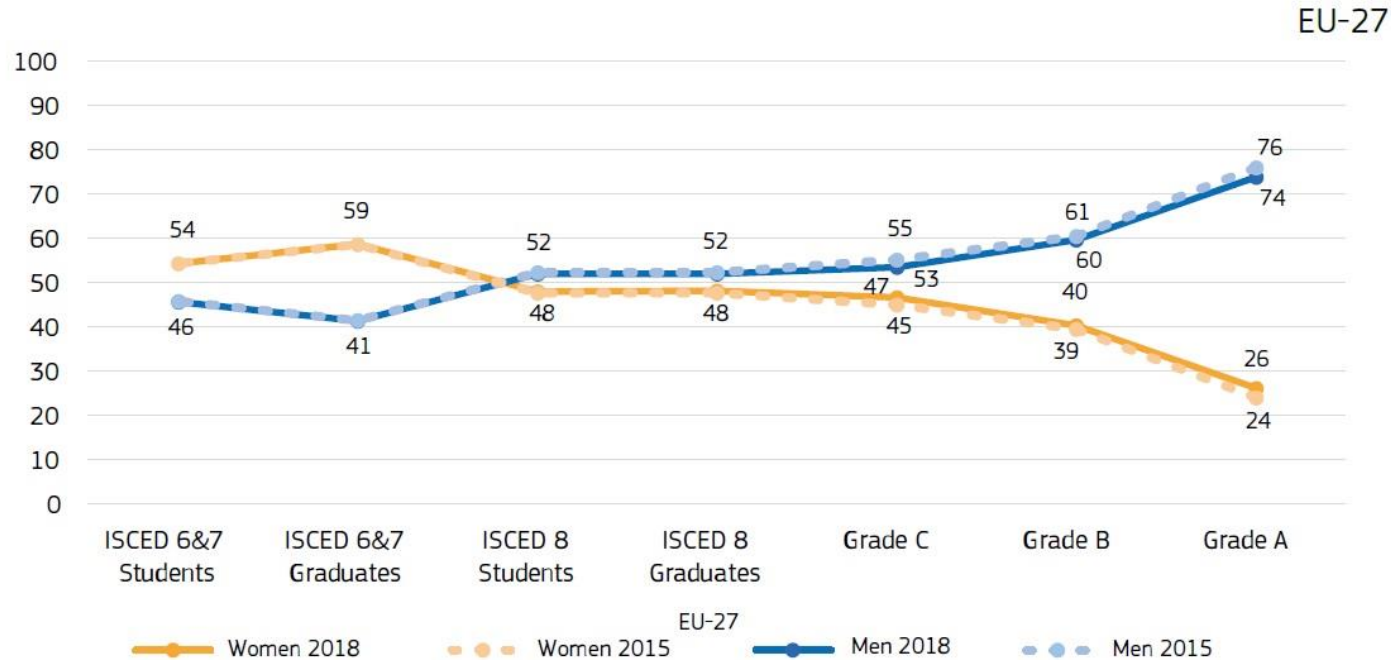
Source: Cariero and Naldini, 2021

Leaky pipeline



Scissors Diagram

Figure 6.1 Proportion (%) of men and women in a typical academic career, students and academic staff, EU-27 & EU-28, 2015-2018



EU-28

Neo-liberal turn and Pandemic crisis



- Gender gaps seem to be reinforced by the emerging practices of science production and of evaluation of scientific performances and excellence, as well as by the new work arrangements in scientific organizations, due to the growing hegemony of **neoliberal model**
- The neo-liberal turn (Connel 2015) entails and increase **the adverse selection for women in the early stages of their career**: In Italy, the female access to the grade C assistant professorship has worsened in coincidence to the so-called **neo-liberal turn** (Gaiaschi and Musumeci 2020)
- A huge body of research conducted during **the Covid-19** showed how the pandemic impacted differently on women and men scholars, exacerbating the already existent imbalances (see Pereira 2021)

Which are the mechanisms and processes to explain gender asymmetry in academia?



■ Supply-side explanations

- Based on differences in characteristics and/or behaviors of female applicants and focusing on ‘**individual self-selection**’ mechanisms. It is posited that women may have lower self-confidence, be less competitive, and have stronger preferences for family responsibilities than men (Hyde 2005; Croson and Gneezy, 2009; Pautasso 2015), lower level of risk aversion, confidence and competitiveness (Azmat and Petrongolo, 2014)

■ “Demand-side explanations

- Based on **discriminatory behavior of employers and cultural/institutional barriers**. The origins of gender bias can be different. There is a ‘taste bias’ when women are excluded based on prejudice and sexist views (Pollard-Sacks, 1999) or ideological beliefs about who is eligible for certain professions (Witz, 1990). There are also wider cultural barriers that reveal enduring gender bias preconceptions and stereotypes about the definition of masculinity/femininity in recruitment procedures, career promotions and the way in which scientific “excellence” is constructed (Addis, Villa 2003; Addis 2008; den Brink and Benshop, 2012)

GENDERING ACADEMIA

Gender asymmetries in Italian academic careers (STEM and SSH)

- Research teams: 4 universities involved (University of Turin, Palermo, Sassari and Trento) – PRIN- Funded by MIUR
- PI: Manuela Naldini (University of Turin)
- **Mixed-method** (qualitative: discursive interviews + quantitative: websurvey and MIUR & Istat)

Members of the PRIN GEA: Manuela Naldini, Monia Anzivino, Laura Azzolina, Sonia Bertolini, Maddalena Cannito, Anna Carreri, Renzo Carriero, Alessia Donà, Carmela Guarascio, Carla Monteleone, Rosy Musumeci, Maria Lucia Piga, Daniela Pisu, Barbara Poggio, Arianna Santero, Maria Luigia Segnana, Cristina Solera, Alessia Tuselli, Paola Villa



GENDERING
ACADEMIA



UNIVERSITÀ
DEGLI STUDI
DI TORINO



Università
degli Studi
di Palermo



uniss
UNIVERSITÀ DEGLI STUDI DI SASSARI



UNIVERSITÀ
DI TRENTO

“GEA – GENDERING ACADEMIA”

The **goal** of the project is to understand whether and in what ways **gender inequalities** are (re)produced at various stages of **academic careers** and how the **micro** (individual), **meso** (organisational) and **macro** (norms and policies) levels interact in supporting/hindering career success, from **recruitment** to **retention** and career **advancement**



<https://www.pringea.it/>



<https://twitter.com/pringea>



<https://www.facebook.com/pringenderingacademia/>

Research questions

+ i) MICRO LEVEL

What is the role of differences at the individual level (between male and female researchers) in terms of aspirations, motivations, constraints and strategies in entering, pursuing or quitting academic careers?

+ MESO LEVEL

What is the role of academic institutions (i.e. Departments, councils, committees at the national or local level) with respect to final decisions concerning recruitment of young researchers (PhD holders) and promotion of associate professors?

+ MACRO LEVEL

What are the impacts of the national (and supra-national) rules governing recruitment and promotion in the Italian university system on gender inequalities?



GENDERING
ACADEMIA

Provisional Results (Qualitative Study)

Narratives of:
non-tenure track researchers
(precarious researchers),
associate professors and key
informants

QUALITATIVE DATA & METHODS



GENDERING
ACADEMIA

- **N. 225** interviews conducted in 4 universities
- 2 in the **North** and 2 in the **South** of Italy
- **STEM** and **SSH** Departments:
 - 63 semi-structured interviews with associate professors (AC);
 - 64 semi-structured interviews with post-docs (EC);
 - 46 semi-structured interviews with key informants (Directors, Vice-Directors, Department members who participated in selection committees);
 - 52 interviews with key informants of Universities' governance
- Interviews were conducted between May 2020 and May 2021 (2022: with key-informants) in STEM and SSH departments
- 50/50 men/women (balance with and without children)
- **SOFTWARE USE:** Code book, intersubjectivity and Atlas.ti

Emerging issues

- + **Intensification of job's demands**
- + **Precarious career prospects**
- + **Scientific productivities**
- + **«Excellence» as benchmark**
- + **How to combine family and work?**
- + **Asymmetrical perceptions on gender disparity**
- + **Balancing the different academic activities**
- + **Gender (in) equality and public policies**



GENDERING ACADEMIA



Intensification of job demands and time pressures

- + Intensive work time and rhythms – exacerbated with Covid
- + 'Overwork' beyond daily hours
- + Prevalence of the (neo-liberal) model of the 'unconditional adult worker'
- + Research work as a “vocation” often combined with forms of “total devotion” to work
- + Workaholism, especially in absence of children

Precarious career paths

"I'm really trying to cure the anxiety inculcated by this perverse system, because it is an anxiety that is often paralyzing, it has often slowed down my career, joined with the difficulty of living [...] This is not a job for the poor (short break), I mean (short break) in some moments if there had not been my family behind me, I would not have been able to continue this activity... [...] (Carmen, 35, female, EC, SSH)

Scientific Productivity

- + Intensification of (scientific) productivity
- + 'Quantitative' criteria for evaluation and career advancements
- + “Publish or perish”?
- + Disconnect between research time and output in terms of publications



Productivity's discourses

"it's a tragedy, I mean (the interviewee laughs with irony) **one works all the time**, there are no hours... **there are no weekends not...** (...) Because you know you have to achieve (brief hesitation) a goal eeh... [...] It's not an office job, I mean, but maybe it's also my fault that I'm not that fast enough [...]. Concerning productivity (short pause) is... it's very, I mean it's a very present element so you **know you have to produce, you have to produce, so you're always trying to produce"** (Anita, 34, female, EC, SSH)

"it's all then multiplied to the paroxysm, because to become an associate professor you have to have two books, to become a full professor three, and so on. I mean it's an absurd thing, **we are multiplying the deforestation of the Amazonic forest because of these crazy rules that force us all to publish, publish, publish, more and more [...]**, quantity ends up taking premium over quality. And this doesn't just affect young people, it affects us too [...]. So I have to have five, I don't know, three class-A [system of ranking of reviews] articles in the last five years. If I wrote the fundamental work of my life ten years ago, that doesn't count anymore. That is, Einstein's theory of special relativity from 1909, in 1917 would no longer work according to these criteria" (Key informant, male, SSH)



Excellence

- + Merit as a neutral and quantifiable rule
- + Excellence as 'benchmark' of evaluations
- + Centrality of performance & pressure to publish
- + Excellence as embedded in the daily work of early and advanced career researchers/professors
- + Gender and excellence: perceived barriers, consequences on life projects/choices and individual well-being

Excellence's discourses

Construction of excellence

«I have never understood what 'excellent' means. [...] You build around the word 'excellence' a series of rhetorical devices that really bother me. So I try to use it as little as possible. [...] So I really consider it fallacious, among other things it also becomes an absurd way by which then everyone becomes excellent [...] But who said that?! We are all caged in these stereotypical words within which we are forced to operate" (Key informant, male, SSH)

Gender Inequalities

«We must stop overemphasizing the factory, the product, the workaholic approach: it is scientifically demonstrable that it harms women more than men. If the prospect is that of having to wait for six years killing themselves by working day and night, seven days a week, to produce twenty-four jobs before crossing the threshold and enter a tenure position, women will give up. There will always be enough fanatic men ready to accept it, but I don't think there will be the same number of women» (Key informant, male, STEM)

Forced mobility

«[Excellent researchers] are people with high mobility, not because they want to, but because they are forced to, because otherwise you don't really have a path as a postdoctoral researcher» (Marco, male, EC, 37, STEM)

How to combine work and family ?



- + Parenthood & motherhood **penalty** (both for mothers and fathers)
- + **Posponement** strategy
- + **Childlessness** as a strategy to have a career (especially women, but also men; in particular in STEM)
- + Difficulties in balancing work and care for children, as well as for sick or frail family members (elderly and disabled)
- + **No recovery time**
- + Work and flexibility, work for passion (**passion trap**) → difficulty to put boundaries: “I work with headache”, “I would pay to take a one-week holiday ”

Childlessness and postponement as reconciliation strategies

«If you have a child, you produce less (ironic sigh). And so, **because you are evaluated for your productivity**, while you are having children others produce; therefore, they pass you by, and /so that's why nobody has children/ (smiling ironically). [...] Everybody knows that when you have a child eeh... it will undermine your career» (Anita, female, EC, 34, SSH)

«**We didn't feel comfortable** [having children] **because both of us were focused on work, so I can tell you absolutely yes: work affected my family plans.** Now the fact that I don't have children, well, we tried at some point but some problems came up... (Rita, female, 44, AC, SSH)

Work slowed me down from that point of view [having children], that I don't know if I will then be able to recover, **I am forty and I don't have children, who knows [...].** The obstacle eh... is that **of not ehm having a job security which is not just the** /(brief hesitation)/, let's say the fixed job [...], but especially the precariousness of the place where you will work, [...], **this aspect of randomness is likely to negatively affect your life choices,** having a family and whatever (Yuri, male, EC, 40, SSH)

Stereotypes, self-selection and glass ceiling

- + Women 'perceive' that they have not been supported enough throughout their careers
- + Several women work on research topics that are considered non-mainstreaming
- + Processes of 'self-exclusion', lower levels of 'self-esteem', several respondents state that they are not interested in 'getting ahead'

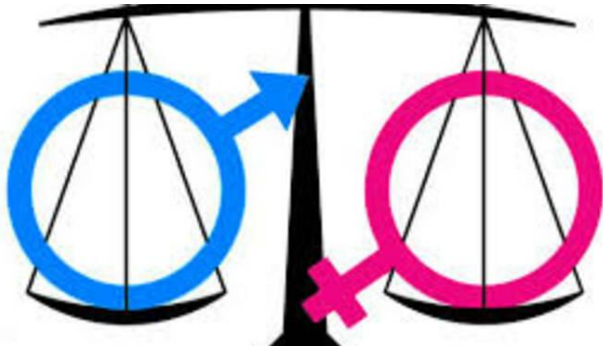
Self-selection Processes and Glass Ceiling

“Sometimes I think that we [women] we are still the obstacles of ourselves (**Pia, female, AC, 48, STEM**)

«To succeed in this career you need to have from the start (laughing), let's say, a male personality» (**Lina, female, EC, 30, STEM**)

«There was a roit [...] I was forty years old among fifty-year-old men waiting for this position and I gained it because of an algorithm made by the central government of University [...]. At the time I didn't care, I didn't feel ready for having an extra teaching commitment of so many hours which also meant taking my time away from what I like [research]. However, let's say now I'm becoming more and more in the gear eh, I've been “abilitata” as full professor since almost immediately after my promotion to associate professor, however I don't think I'm going to make a competition to become full professor, at least for the moment because it's a terrible life. So if they don't force me I won't do it» (**Bea, female, AC, 44, STEM**)

Gender (In)equity and public policy



- + The principle of gender equity is seen as having a positive impact not only in terms of equality of opportunity, but to improve work and well-being of all people living at University
- + However, several respondents find “positive actions”, quotas and similar policies counterproductive because they are seen as a risk of producing the opposite result
- + Affirmative action tends to “undermine merit and excellence” which are seen as gender neutral



What kind of policy and instruments towards a paradigmatic shift?

What kind of actions to promote structural change towards gender equality?

What the role of GEPs (Gender equality plans)?

Policy framework for Gender Equality in Research & Innovation (R&I)

European Research Area (ERA)

EU framework programmes for R&I (Horizon Europe)

Council resolutions, Commission communications, EP resolutions

Gender Equality in the ERA

- Since 2012, Gender equality in R& I is a priority of the ERA (European Research Area)
- ERA sets out 3 objectives to work with Member States (MS) to support institutional and cultural change:
 - **Gender equality in scientific careers**
 - **Gender balance in decision-making**
 - **Integration of the gender dimension into the content of R&I**
- EU to develop concrete plans with MS to promote GE, diversity and inclusiveness, in science, research and innovation

Gender equality in Horizon Europe

Takes a **gender+ approach**, broadening gender equality policies in R&I to intersections with other potential grounds of discriminations (specific funding allocated to gender and intersectional research)

The integration of the gender dimension in research and innovation content becomes a **requirement by default** across the whole programme (Horizon Europe)

Public bodies, research organisations and higher education establishments will be required to have a **GEP in place** to get access to Horizon Europe funding

What is a GEP for the European Commission

In the specific context of research organisations and higher education institutions, the European Commission considers a **Gender Equality Plan** as a set of positive actions aiming at:

Conducting impact assessment / audits of procedures and practices to identify gender bias;

Identifying and implementing innovative strategies to correct any bias;

Setting targets and monitoring progress via indicators.



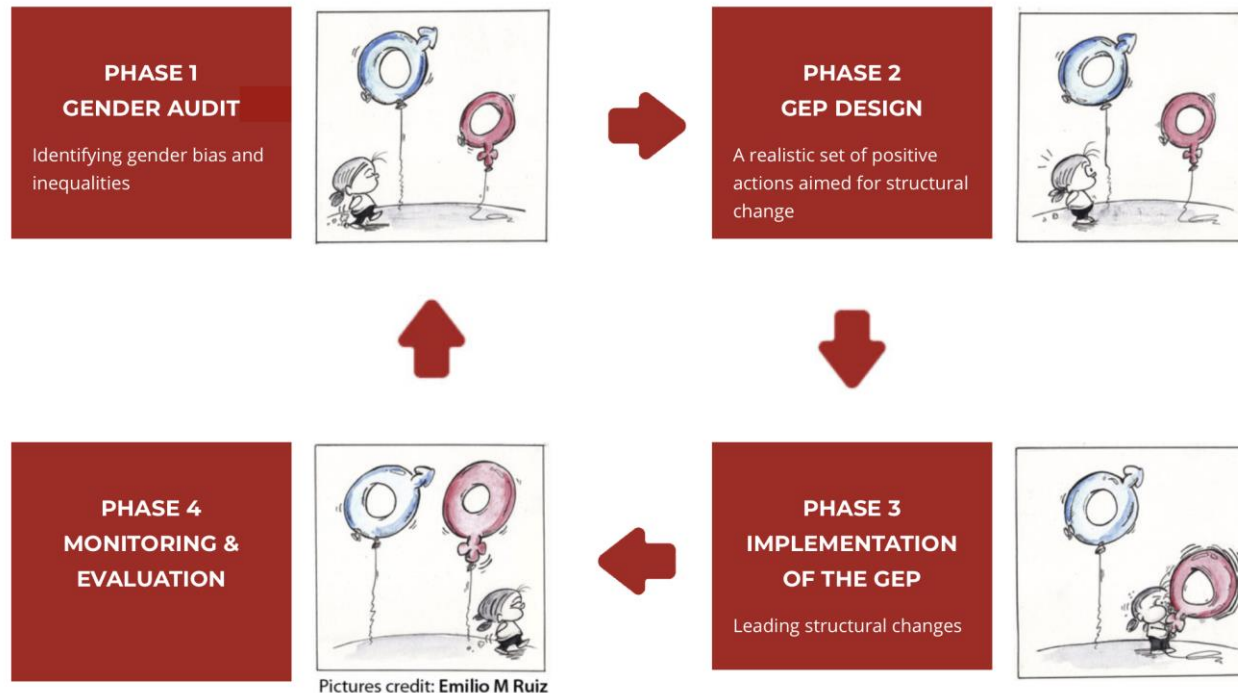
MINDtheGEPs (Modifying Institutions by Developing Gender Equality Plans) H2020

- Coordinated by **Cristina Solera** from University of Turin's Research Center for Women's and Gender Studies (CIRSDe)
- **4 year project** (2021-2025)
- **2,962,741 EUR**
- Universities, research centres & a scientific publisher
- An international advisory board & 4 professional organisations

- Partners in Italy, Spain, Ireland, Poland, Serbia, Sweden, & The Netherlands
- Constructing **gender equality plans** (GEPs)
- Promoting **gender equality in research environments**



GEP: from Knowing to Changing



A Gender Equality Plan (GEP) is a detailed **Plan built on the results of the Gender Audit** that has pointed out strengths and critical conditions, processes, practices.

The **planning phase** has to define **objectives, measures, targets, timelines, indicators and the on-going monitoring system**. It is usually the results of negotiations between decision-makers and the GEP Team.

Multilevel Actions in front of Multilevel Barriers

- ❑ To analyze the interplay of cultural, structural and material factors at individual, meso and macro levels
- ❑ To plan effective GEPs, it needed to consider gender(imbalances) as a process developing through different phases of an individual work (and family) career and connected to multiple dimensions
- ❑ To promote a systemic change according to the principle “fixing the system not women”, set actions involving only one level (i.e. micro or meso) but all levels
- ❑ Need to apply the principles: “no data no policy” : the relevance of data and GEPS



Gracias!!

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