

# Gender In/Equality in Science in Italy

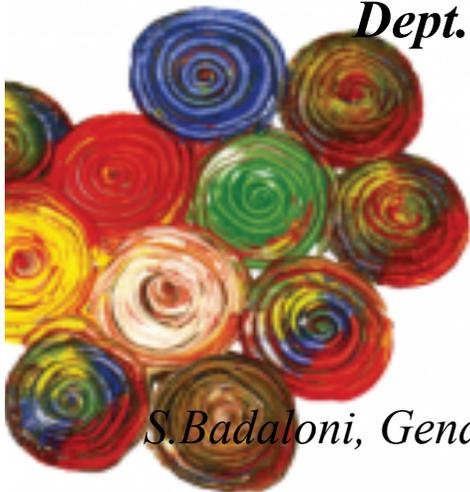
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*S.Badaloni, Gender gap in Science, Sissa, November 6th 2019*

# Gender Budgeting

- At the University of Padova we elaborated the gender budget, a big collection of data disaggregated by gender, available at <http://www.unipd.it/bilancio-genere>
- Many Universities in Italy have developed their Gender Budgeting
- A national group of academic experts, coordinated by Prof. Antonella Liccardo – University of Naples Federico II, in the framework of The Conference of Italian Universities Rectors – CRUI – has elaborated a Report of Guidelines
- A brief presentation will follow

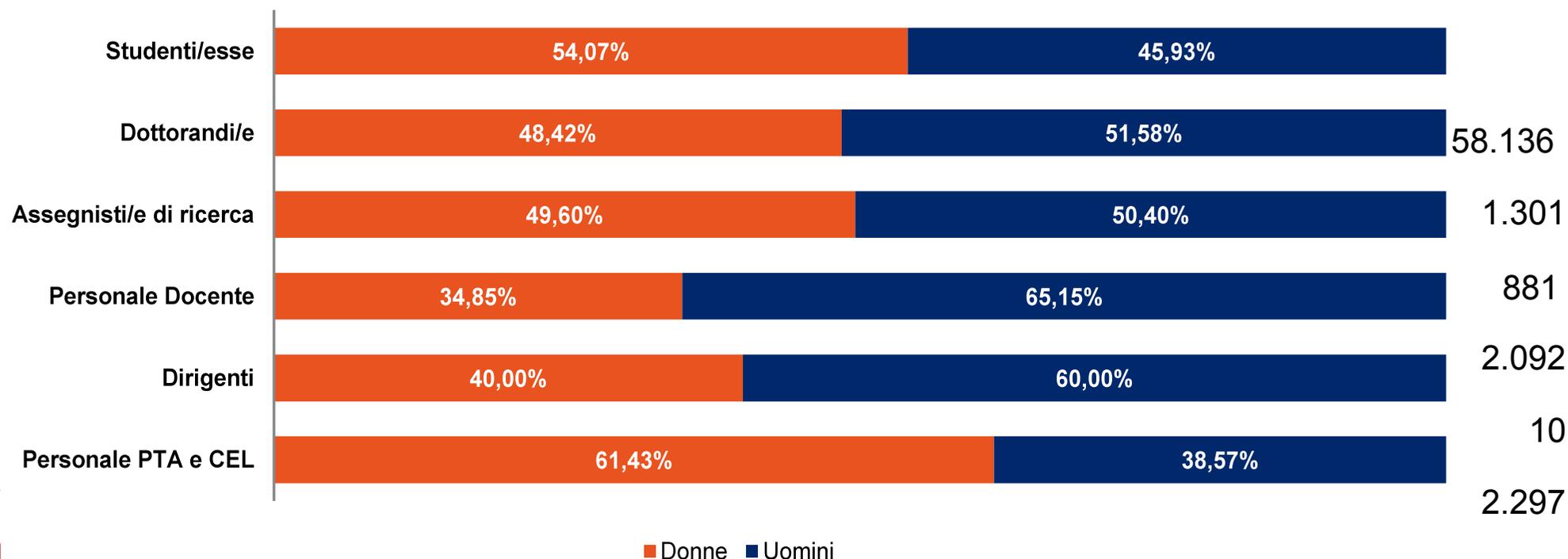
*The world need Science and Science needs Women.*

*And good solutions need reliable statistics and indicators*



# UNIPD: a pink university?

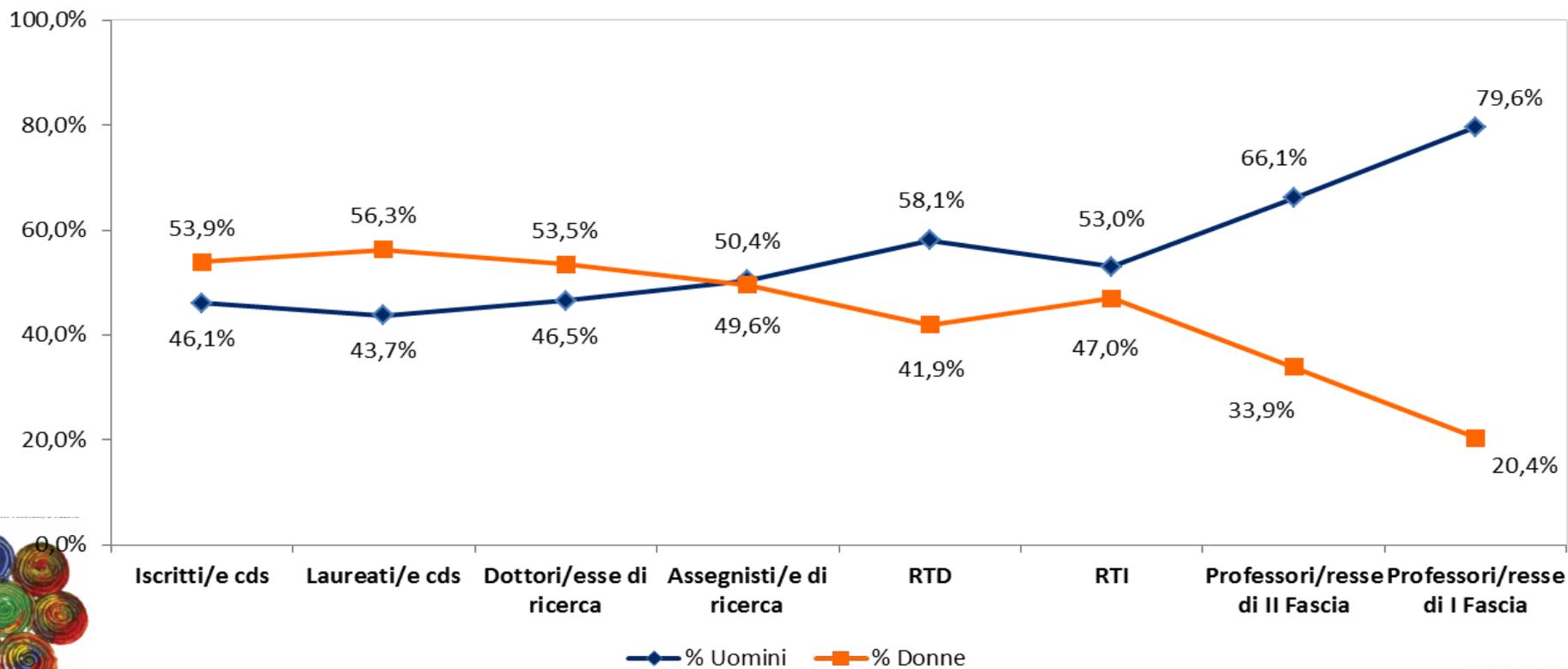
**64.717** people and **53,6%** are women



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# UNIPD: the scissor pattern

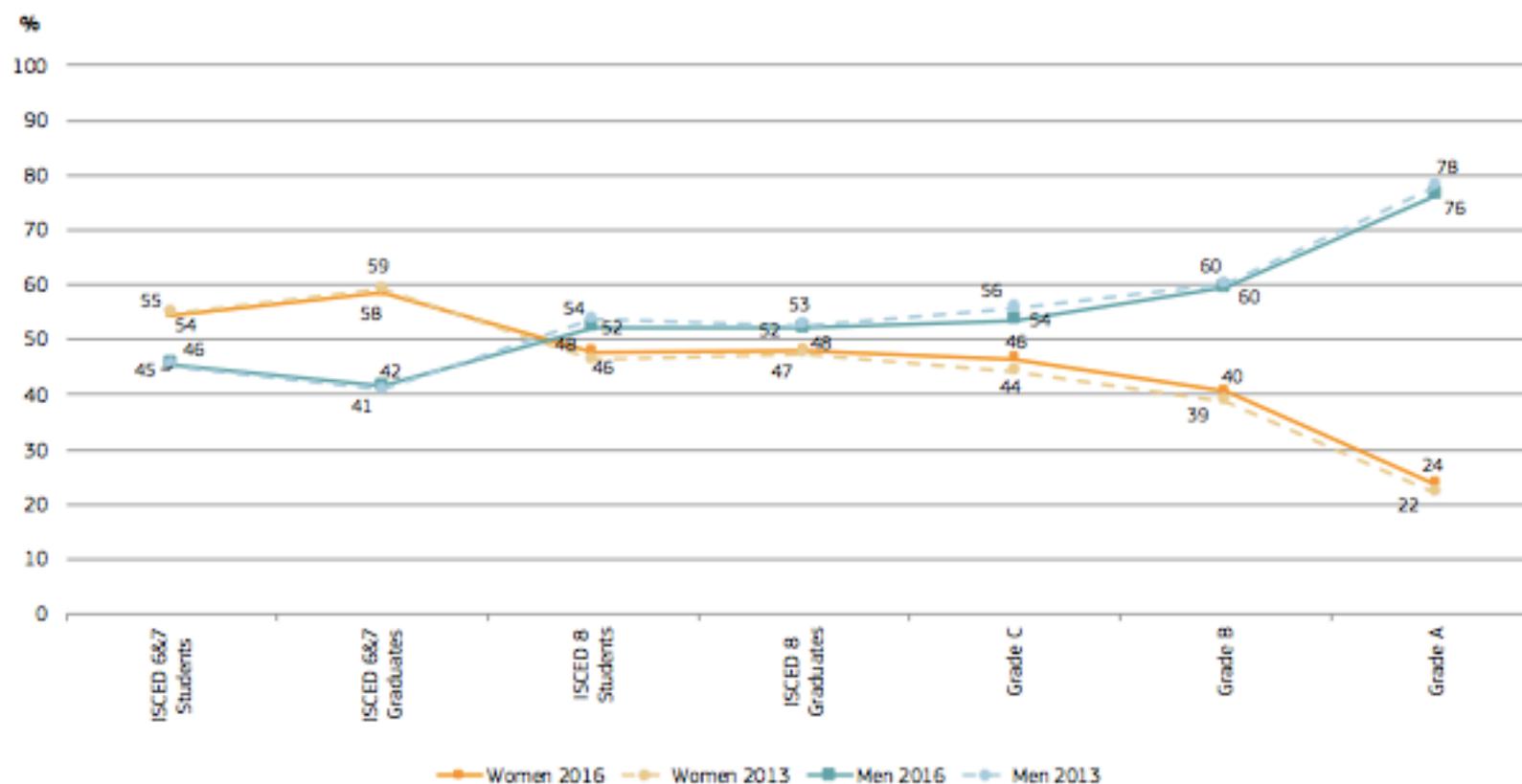
The university and academic careers (a.a. 2015-16)



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# Proportions of men and women in a typical academic careers, students and academic staff – EU-28 2007-2013

**Figure 6.1** Proportion (%) of men and women in a typical academic career, students and academic staff, EU-28, 2013-2016



Source: She Figures 2018 *legenda* ISCED6&7- triennale e magistrale. ISCED8 - dottorato  
 S.Badaloni, *Gender gap in Science, Sissa, November 6th 2019*

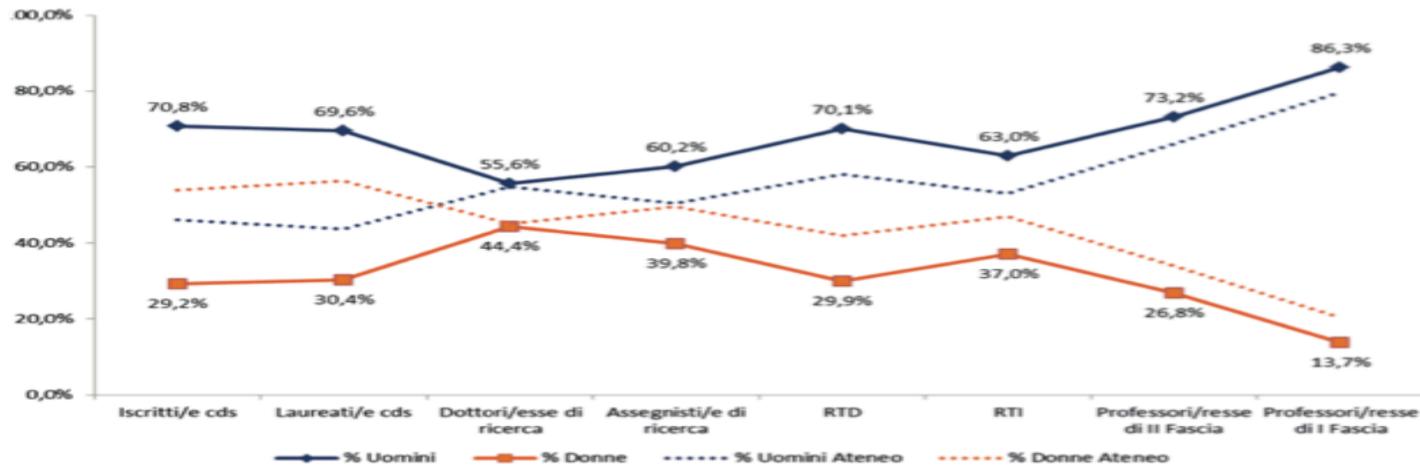
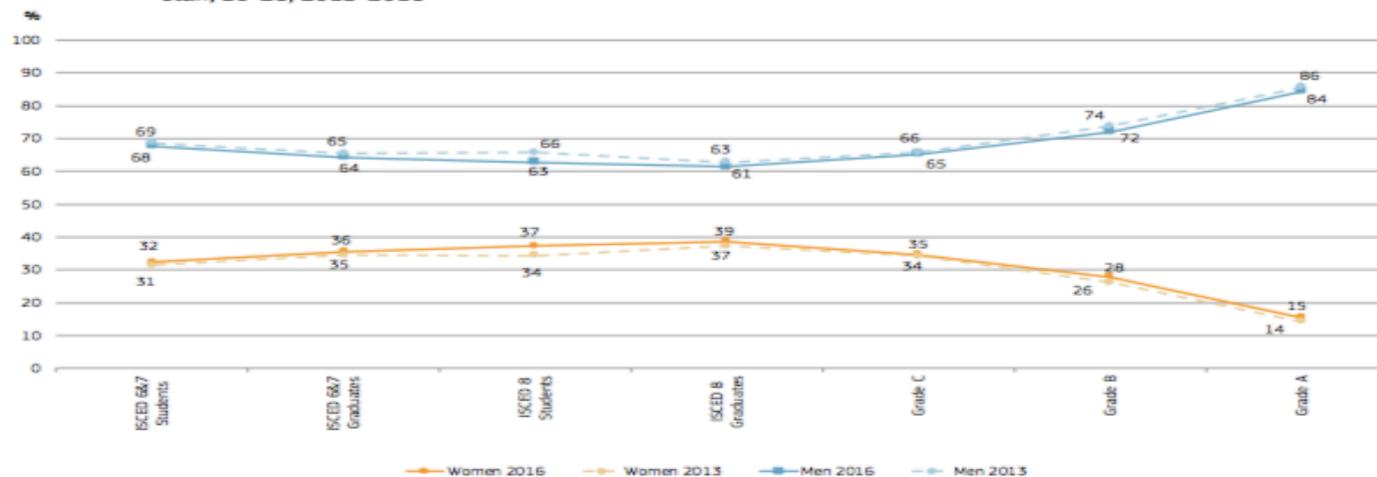


Figure 6.2 Proportion (%) of men and women in a typical academic career in science and engineering, students and academic staff, EU-28, 2013-2016



# Under-representation of Women in Science

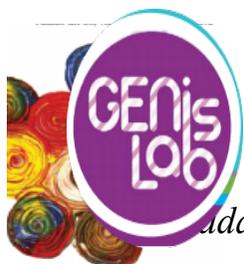
- The trend is similar all over the Europe: the women are the majority of the students and of the graduates, about the half of the PhD students. But only few take the scientific careers and achieve high level positions. In average 33% of researchers are women in EU (36% in Italy)
- It is difficult to imagine that this situation will spontaneously change towards gender equality in the next future, in particular in STEM schools
- The under-representation of women in Science constitutes a waste of talents
- Two main keywords guiding scientific adventure of survived women are: passion and determination as well as, of course, scientific method, curiosity about the novelty, and creativity.
- *“We are scientists, we like studying, facing new problems (and possibly contribute to solve them), we like the interdisciplinary nature of our field of study, being able to collaborate with other scientists, companies, policy makers.” Interview of T.Catarci and P.Velardi <https://acmweurope.acm.org>*



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# Structural Changes Projects

- The strategy of the European Commission has been to 'fix the Institutions' in order to promote structural changes from a gender point of view in the Institutions
- Since 2011 the EC funded through Science With And For Society work programme many EU Projects: GenisLAB, INTEGER, STAGES, FESTA, **GenderTIME** (<https://gendertime.org>), GENOVATE (<http://www.genovate.unina.it/>), TRIGGER, EGERA, GARCIA, **GENERA**(<https://genera-project.com/>), PLOTINA(<http://www.plotina.eu/>), EQUAL-IST, ect
- A lot of Universities and Research Centers set up tailored **Gender Equality Plans (GEP)** as a direct result of their involvement in EU Projects to promote structural changes
- Role of EU policy has been really relevant: the synergic exchange of knowledge and practical experience. The problem was not starting from scratch but sharing



**SHEMERA**  
she euromediterranean research area

Adaloni, Gender gap in Science

**Gender  
Time**

Transferring Implementing Monitoring Equality

19

**GEN  
ERA**

  
**GENOVATE**  
Transforming Organisational Culture for  
Gender Equality in Research and Innovation

**DONNE  
e scienza**

# FP7 EU GenderTIME

## *Trasferring Implementing Monitoring Equality*

- 10 partners all over Europe - coordinator Yvonne Pourrat (Ecepie, France)
- The University of Padova was partner – the scientific coordinator of UNIPD team was Silvana Badaloni
- 2013-2016
- [www.gendertime.org](http://www.gendertime.org)
- The aim of the GenderTIME project was to implement self-tailored action plans to increase the participation and career advancement of women researchers
- How to monitor Gender Equality?



# Gender Equality Index

- Gender Equality Index **UNIPD-GEI** on the basis of a conceptual model of seven domains: work, money, time, knowledge, space, health, power
- $\forall$  domain, we have calculated the corresponding values of simple indicator  $I_{Wd}$  and  $I_{Md}$  and  $I_d = I_{Wd} / I_{Md}$ , if the ratio is equal to 1  $\rightarrow$  gender equality, if  $< 1$  there is a gender gap against women, if  $> 1$  there is a gender gap in favour of women
- UNIPD: a survey built on the basis

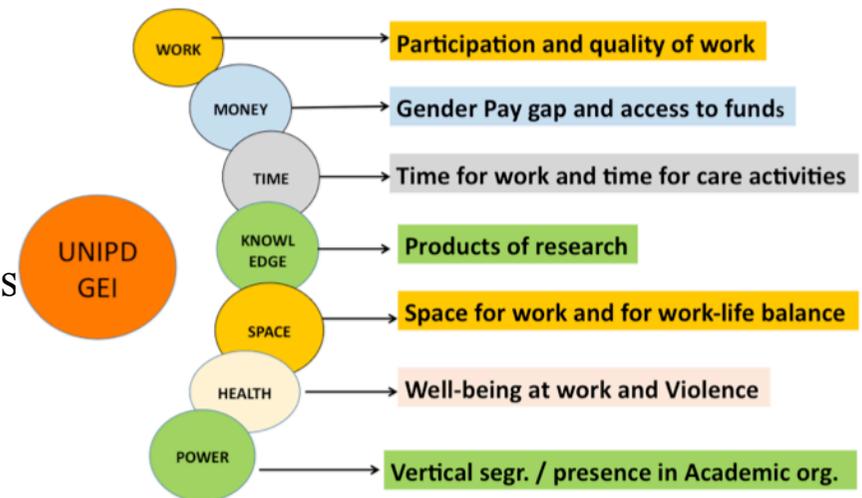
of the conceptual structure, respondents 954

- $I_{power} = 0.699$   
thus measuring a gender gap against women of 30,1 % in the domain power
- Our tool can measure changes if there are changes
- Our tool useful for a comparison among Universities



S. Badaloni, L. Perini  
<http://www.padovauniversitypress.it/publications/9788869380983>

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# Domain violence

- UNIPD: the average value of the sub domain “Violence” was **3.08** and the average value for **women was higher, 4.56** (in a scale perception 1 - 10)
- These values are a sort of **alarm bell**, that put into light also that sexual harassment exists in Academia!
- Conclusion: this phenomenon hits the scientific and research community
  - monitoring well-being and violence
  - adopting severe ethics guidelines and support services
- The Italian Association of Women in Science with the European Platform of Women Scientists<sup>3</sup> (EPWS) organized the Conference #WeTooInScience
- Grey zone of behaviour and situations that lies on the borders
- Proceedings

<http://irppsepub.altervista.org/ojs/index.php/mono/article/view/978-88-98822-17-1>



# GEP - Main Actions

- It is good to connect an existent **GEP** to an European Project. But when a project finishes, what happens? Sustainability of results
- Main actions:
  - Work-life balance → childcare services
  - Glass-ceiling effect → premiality to achieve top positions (eg Ireland)
  - Gender balance in career access → merit and premiality
  - Old-boys networks → gender balance in Commissions and Boards
  - STEM → to disseminate a gender culture and awareness in high school fighting gender stereotypes, organizing conference and events to attract more girls in computer science and to support women who choose a career in the ICT sector
- Academia is changing: the world of research is becoming a world of extremely temporary work, extreme competition, an obsession with ranking and fear of creativity



# Athena Swan in Ireland

- Analysis reported in the Action Plan was that on the basis of current trends it could take 20 years to achieve the goal of a minimum of 40% female representation at professor level in the university sector.
- 12 November, 2018 - Minister O'Connor said, *“I am therefore, announcing the Senior Academic Leadership Initiative under which up to 45 professorial level posts would be created across the Higher Education sector over a three-year period.”*
- Gender Equality Action Plan for Higher Education Institutions 2018 – 2020
- <https://hea.ie/assets/uploads/2018/11/Gender-Equality-Taskforce-Action-Plan-2018-2020.pdf>
- Athena Swan protocol: an institutional way to go towards gender equality in careers



# EPWS



- We recognize the **pivotal role played by EPWS** – European Platform of Women Scientists – [www.epws.org](http://www.epws.org) in gender issues.
- EPWS is a network of networks of women scientists across all disciplines
- Each month an interview to a women scientist is published (SB march 2019)
- General Survey on women scientists in 2018 (presented october 2019)
- A report on Gender equality and ICT in higher education: The lack of women in Information and Communication Technology (ICT) is an ethical issue – why should women be absent of this promising sector?

downloadable at <https://epws.org/wp-content/uploads/2019/10/rapport-EPWS-MESRI-2019-final.pdf>



# Gendered Science

- Not only GEP
- In all fields of knowledge it is necessary to include the gender dimension in the content of Science and, in particular, in the content of AI and Robotics

Londa Schiebinger <https://genderedinnovations.stanford.edu>

- Are tools, algorithms, technologies and devices that AI develop and Robotics use really “gender neutral”?
- ACM Womencourage2019 in Rome “*Diversity Drives Societal Change*”

- Workshop Gendering ICT

[https://womencourage.acm.org/2019/workshops-and-tutorials/#w2\\_anchor](https://womencourage.acm.org/2019/workshops-and-tutorials/#w2_anchor)

- Gender bias in ML algorithms



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