

Gender in Physics: from SFP to IUPAP

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President of SFP (French Physical Society)

President Designate of IUPAP (International
Union for Pure and Applied Physics)

150th anniversary of Marie Curie's birth

- Relationship with her sister Bronia (mutual help)
- Role of her husband (mutual help)
- Necessity of mentorship

Statistics in Physics in France

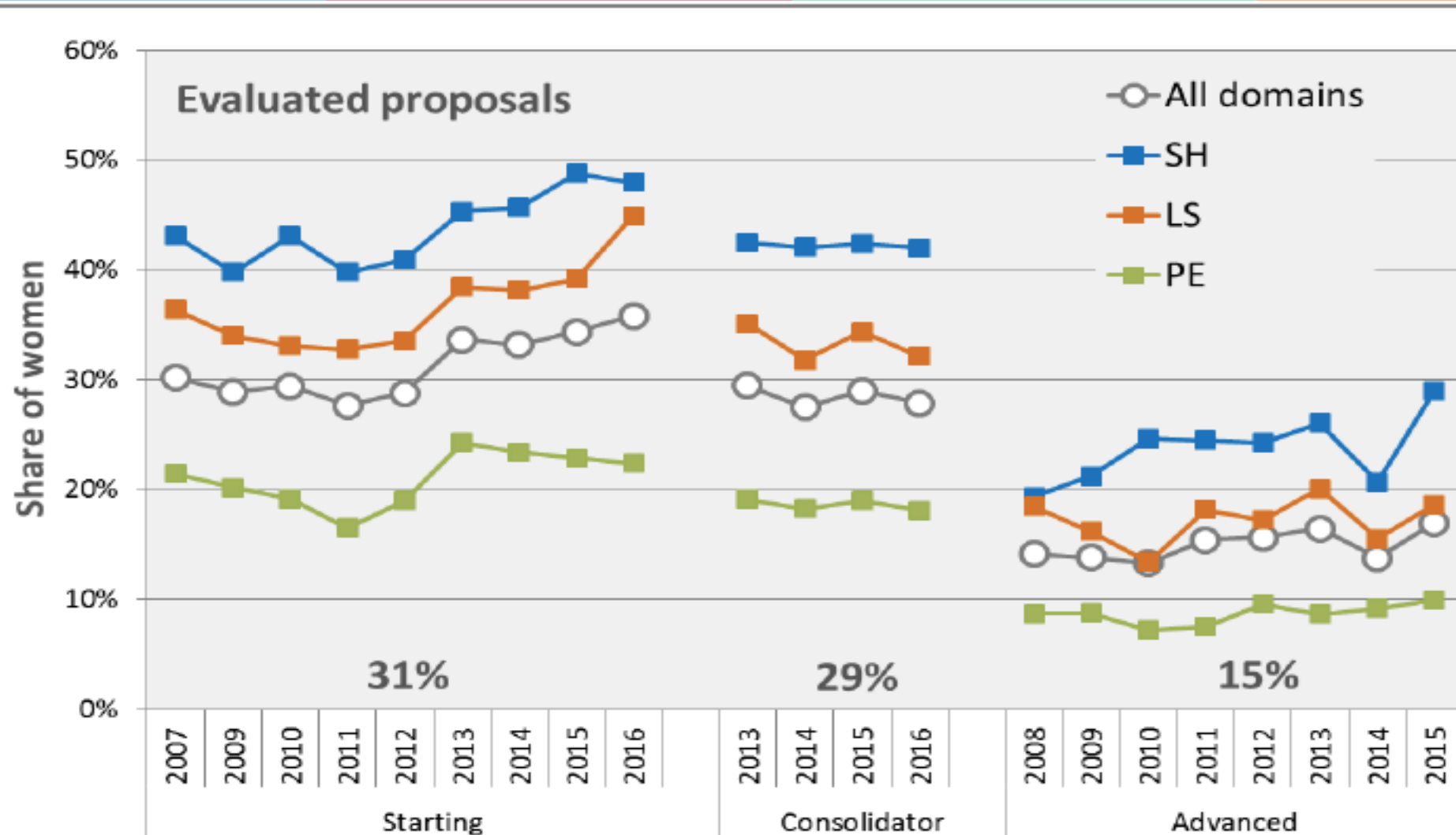
Domain in Physics (stat. in France 2015-2016)	Full professors in universities and research directors in CNRS				assistant professors in universities and researchers in CNRS				Total				male advan- tage
	Men	Women	Total	% Women	Men	Women	Total	% Women	Men	Women	Total	% Women	
condensed matter and materials	638	133	771	17%	823	342	1 165	29%	1 461	475	1 936	25%	1,6
subatomic physics	319	53	372	14%	345	118	463	25%	664	171	835	20%	1,6
diluted matter and optics	426	74	500	15%	548	118	666	18%	974	192	1 166	16%	1,1
globally in physics	1 383	260	1 643	16%	1 716	578	2 294	25%	3 099	838	3 937	21%	1,4

Male advantage = (% men in Grade A)/ (% women in grade A)

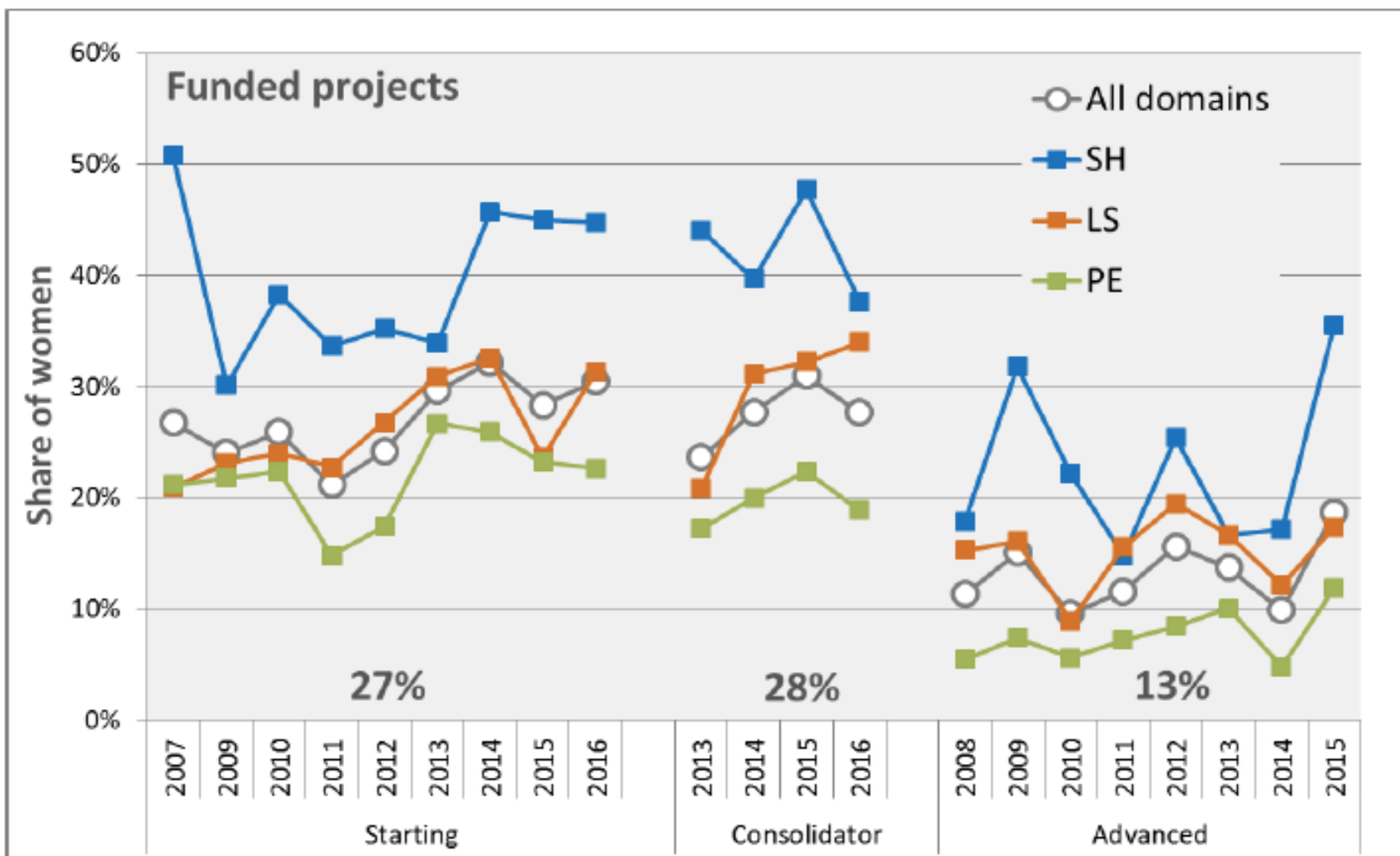
SFP initiated Charter for Gender Fairness at Conferences (to be soon adopted? by EPS)

- Reach the percentage of women in the domain (when known-20% otherwise) in the conference's committees
- Reach or exceed the percentage of women in the domain for women invited talks and women oral presentations
- Present these percentages at the closing session or at a general meeting on this subject during the conference
- Send a final report to the SFP or EPS "women in physics committee" after the conference describing the actions undertaken on this subject by the organizers.

Female Applicants to ERC

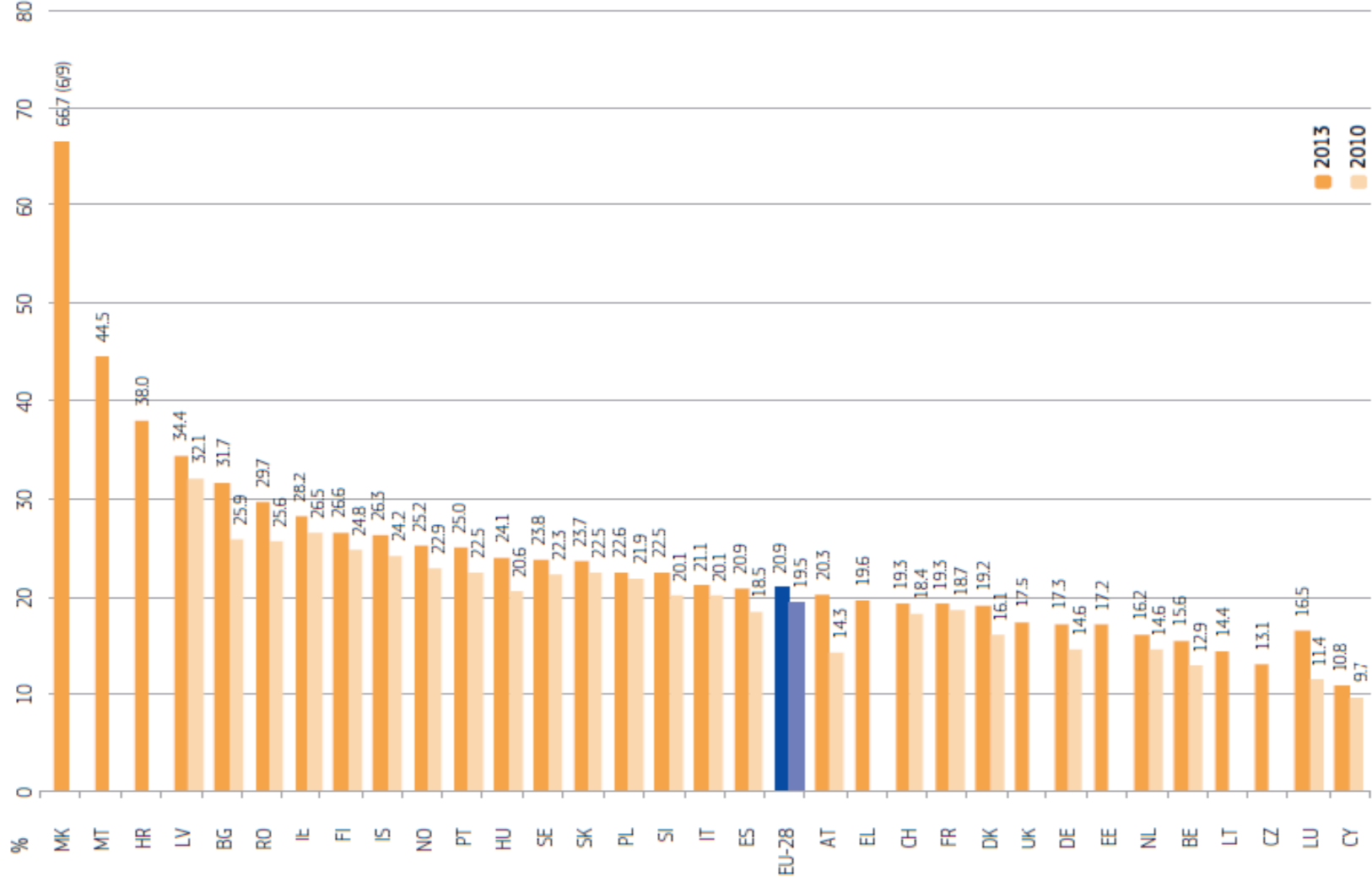


Female ERC Grantees

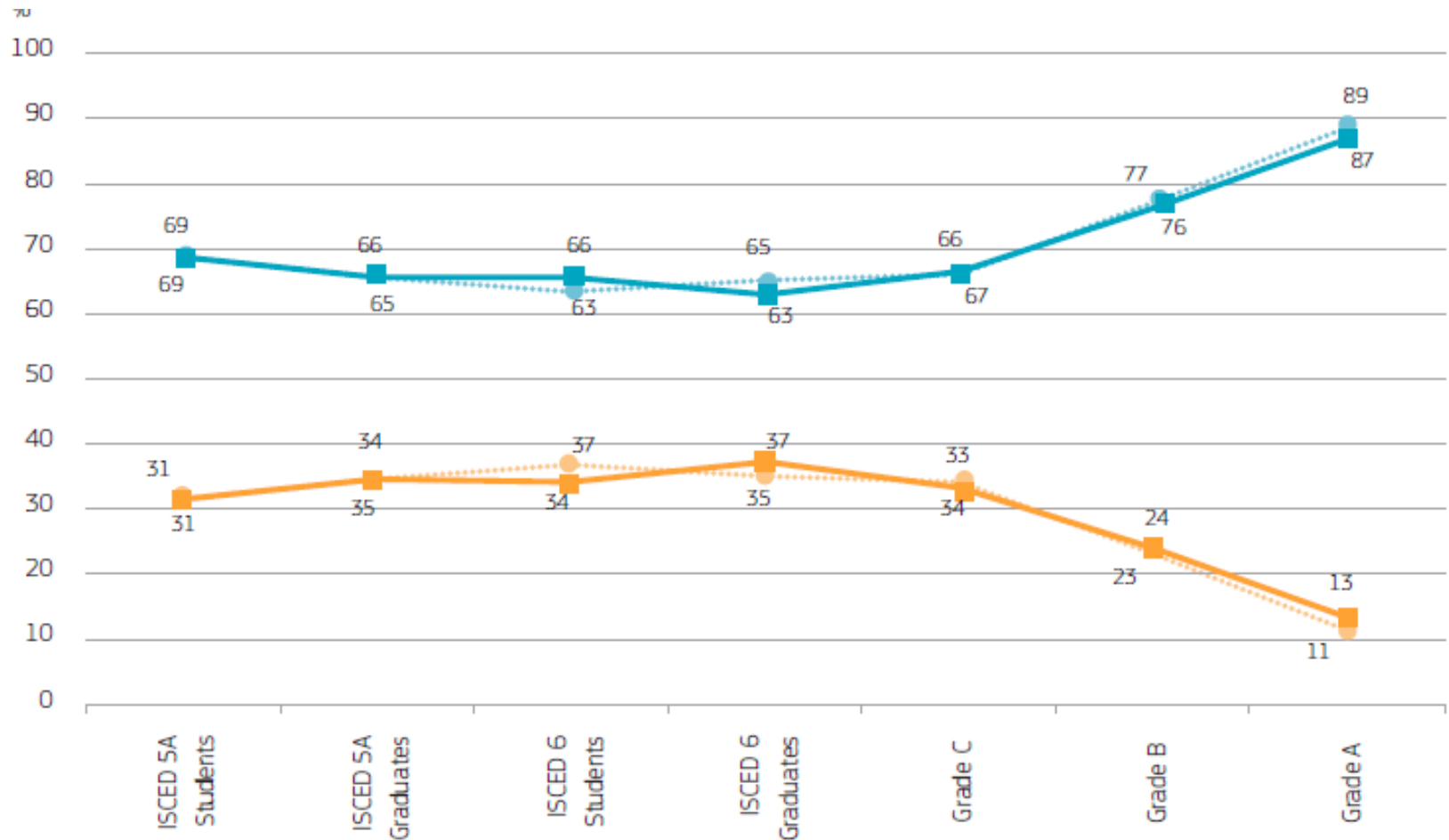


Statistics in Science in Europe:

Figure 6.3. Evolution of the proportion of women in grade A positions, 2010 and 2013



Statistics in Science in Europe: glass ceiling



Some actions recently funded by Europe (1)

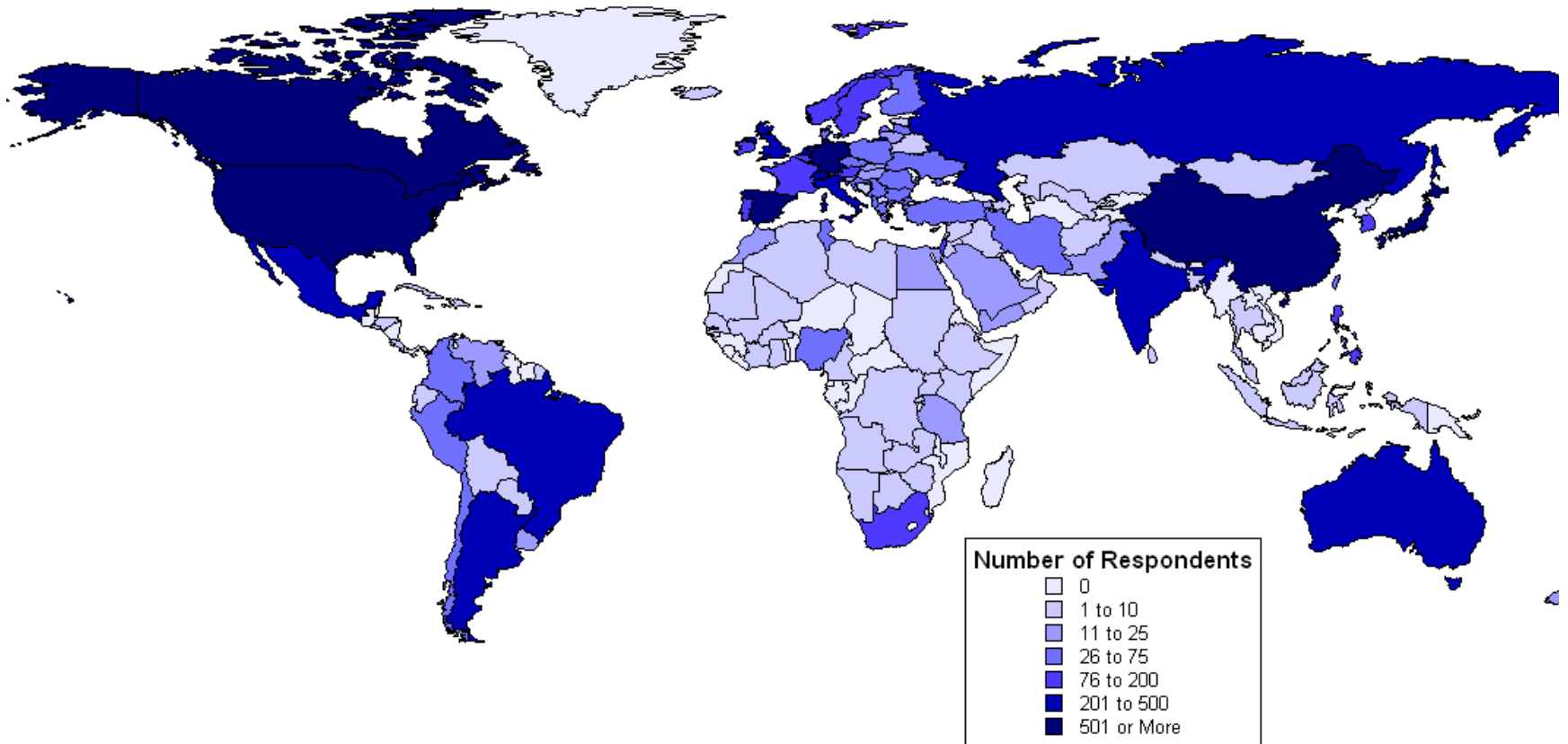
- <http://www.expecteverything.eu/hypatia/> (14 European countries)
- Hypatia is an EU a [Horizon 2020](#) funded project that aims to develop a theoretical framework on gender inclusive STEM education and to produce, test and promote a toolkit with practical solutions and modules for schools, businesses and science centres and museums across Europe.
- Hypatia offers an accessible, practical and ready-to-use digital collection of activities (toolkits) for teachers, informal learning organizations, researchers and industry.

(2)

- <http://genera-project.com/>
- GENERA is a [Horizon 2020](#) project aiming at continuing, monitoring and improving the Gender Equality Plans of Research Institutions and Organisations specifically in the physics research field.
- **Promote quota in juries? Promote mentorship as a recognized activity**

IUPAP women in Physics 2011

Global Survey of Physicists; Most Recent Country of Respondent



Do you have enough of the following to conduct or present your research?

% Yes	Less Developed		Very Highly Developed	
	Women	Men	Women	Men
Funding	34	51	52	60
Office space	64	74	72	77
Lab space	42	47	46	52
Equipment	42	49	58	64
Travel money	31	47	57	64
Clerical support	22	38	30	43
Employees or students	42	53	33	43

WATERLOO CHARTER

- Significant advances for women have been made possible by affirmative action. Affirmative action involves the establishment of serious goals, not rigid quotas, for achieving diversity in all aspects of the profession, including hiring, invited talks, committees, and awards.
- Ensure that all search committees for positions contain two or more members whose specific task is to advocate for consideration of candidates from groups that are underrepresented in physics.

IUPAP General Assembly October 2017

- 6.3 Diversity and inclusion in Physics
- It has been demonstrated that discussions on gender issues can be one of the most important actions in bringing about positive change in a community. IUPAP supported conferences are an important venue to facilitate these discussions among physicists, not just women physicists.
- The 29th General Assembly RESOLVED to encourage IUPAP-sponsored conferences to have a session for all participants on diversity and inclusion in Physics, together with IUPAP values.

IUPAP General Assembly October 2017

- 6.4 Female plenary speakers
- The reports of the IUPAP Gender Champion refer specifically to low numbers of women as invited or plenary speakers. This provides a negative impact in terms of career role models, professional development of leading women, and leadership in physics.
- The 29th General Assembly RESOLVED to encourage IUPAP-sponsored conferences to include more female plenary speakers, and asks that the number of male and female plenary and invited speakers at the conference be reported in the conference report to IUPAP

Gender Gap In Science project led by IUPAP and IUPAC

- The Gender Gap in Science : A Global Approach to the Gender Gap in Mathematical and Natural Sciences
- How to Measure It, How to Reduce It?
- Project has been approved by the International Council for Science
- **Note that the Gender gap in Science does not seem to be related to development. It is more of a cultural nature (cultural consideration of the job i.e.. the less the job is considered, the more women you have! and cultural gender bias) .**

Recommendations

- Fight against stereotypes: the Hypatia project should be expanded worldwide (SFP, EPS and IUPAP could help)
- Inclusive writing? Inclusive behaviour
- Temporary measures on quota in Jurys and Organizing committees should be implemented
- Mentors and mentees should be publicized and promoted. Mentors for women should not be only women: **the fight for gender equality must involve both men and women (Françoise Héritier)**