

Supporting STEM excellence Women's Leadership in Higher Education and Research

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Outline

- Background
- Women's leadership in Higher education in Europe
- Women in STEM domains: a practical example
- Concluding remarks

Background: Women in Higher Education

- Women now constitute about 50% of first degree students in many countries of the world
- Women's representation at undergraduate level is higher than men in many European countries (65% in Sweden)
- The percentage of full professors who are women is very low worldwide, for the most part, below 15%
- There are considerable variations in the proportion of women students between disciplines

Background: Metaphors

- Some of the metaphors referring to women's predicament in academia are widely discussed. Metaphors linked to universities include:
- “**Ivory Tower**” brought the new metaphor of “**Storming the Tower**”
- Metaphors related to
- “**Glass Ceiling**” which defines limitation on academic promotions for women
- “**Chilly Climate**” which depicts the fuzzy academic processes for women, reflects inconveniences in the academic environment
- “**Leaking Pipeline**” which defines the decreasing women's representation throughout academic life

(Professor Gülsun Saglamer, Istanbul Technical University, 2010)

Gender balance: figures (I)

- In 2011, less than 45% of scientists and engineers were women
- In 2011, in the EU-28, women in research remained a minority, accounting for only 33% of researchers (33% in 2009)
- In 2012, in the EU-28, 47% of all PhD graduates were women (46% in 2010). Over the period 2002–2010, the average number of female PhD graduates increased at a rate of 3.7% per year, compared to 1.6 % for male PhD graduates.
- In 2012, female PhD graduates equaled or outnumbered men in all broad fields of study, except for science, mathematics and computing (42%), as well as engineering, manufacturing and construction (28%), the two fields with the highest overall number of PhD graduates.

(She Figures 2015; EC report)

Glass Ceiling Index (GCI)

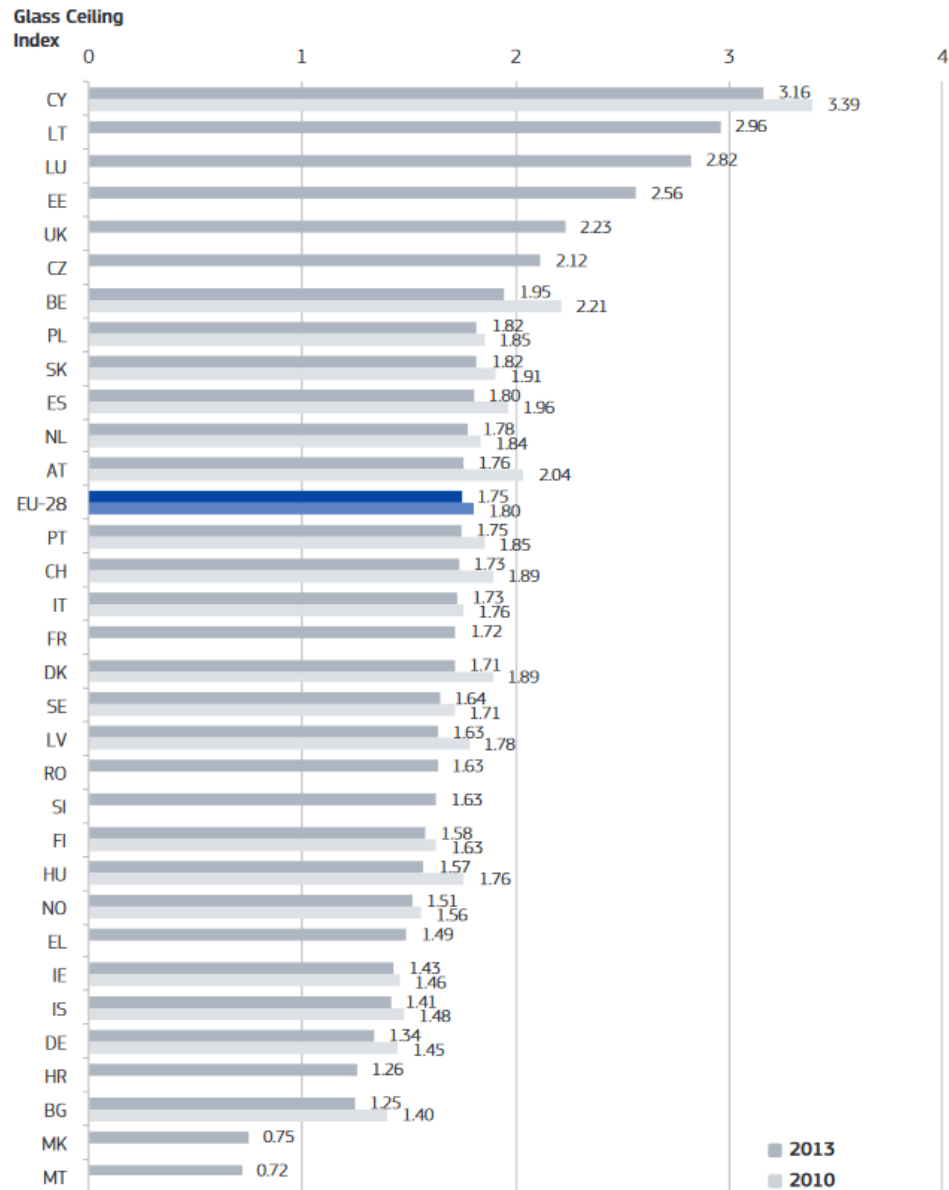
Measures the relative chance for women, as compared with men, of reaching a top position.

The GCI compares the proportion of women in grade A positions (equivalent to Full Professors in most countries) to the proportion of women in academia (grade A, B, and C), indicating the opportunity, or lack of it, for women to move up the hierarchical ladder in their profession.

Interpretation: the higher the value, the thicker the Glass Ceiling

(She Figures, 2015)

Figure 6.6. Glass Ceiling Index, 2010–2013



Gender balance: figures (II)

- In 2013, the GCI (Glass Ceiling Index) equals 1.75, meaning that slow progress has been made since 2010 when the index was 1.8
- In 2013, except in the Republic of Macedonia and in Malta, in no other country is the GCI equal to or below 1 (= no difference between men and women)
- Between 2010 and 2013, the GCI has decreased in most countries

(She Figures 2015; EC report)

Note: a GCI of 1 indicates that there is no difference between women and men being promoted. A GCI score of more than 1 points towards a Glass Ceiling Effect, meaning that women are under- represented in grade A positions.

Gender balance: figures (III)

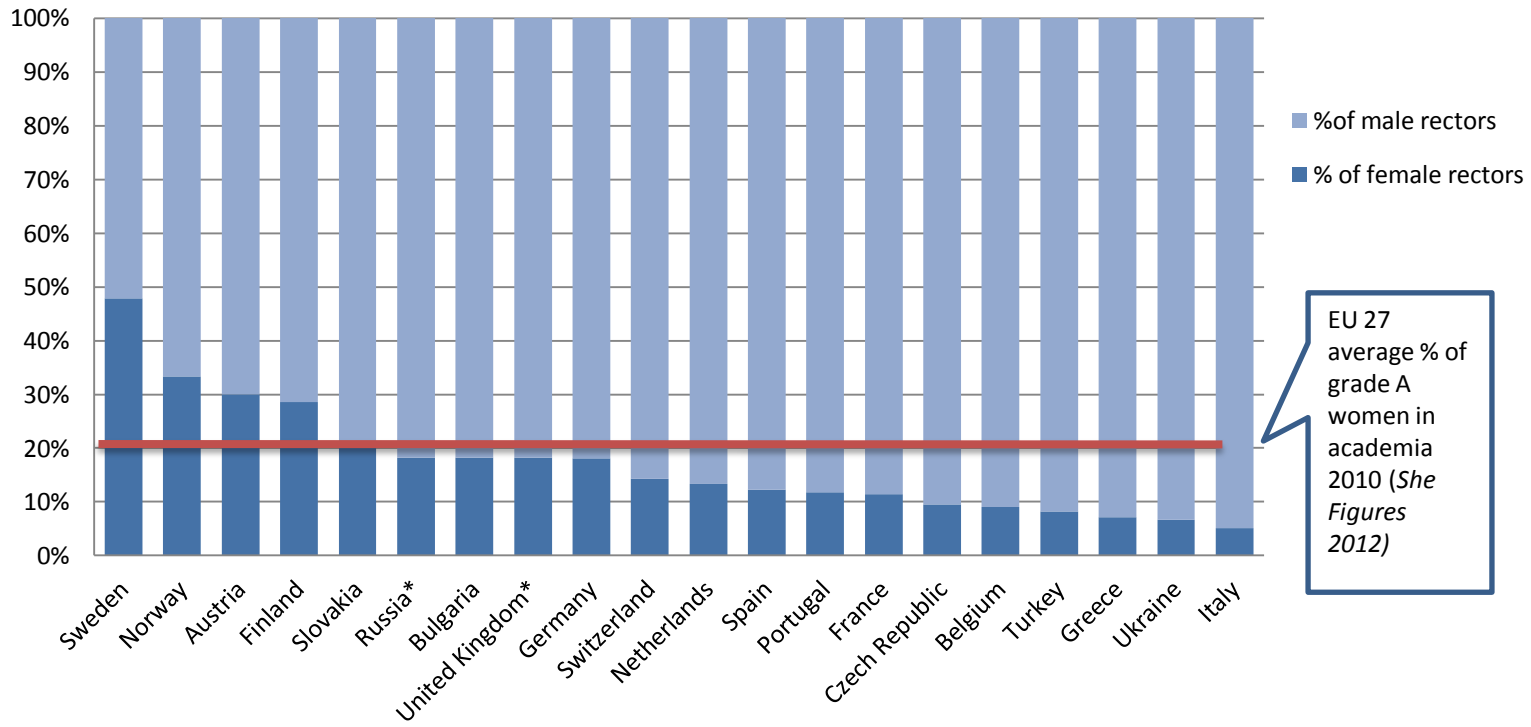
EUA database

- EUA – 834 members but 713 individual universities
- EUA - 7921 individual university staff contacts

- The following data is based on the 4254 individual entries
 - executive head (VC, Rector, President),
 - vice rector/vice president
 - head of communications/international office/research/quality assurance
– head of administration

Rectors (N=574)

Male and female rectors per country (20 countries with female rectors out of 46)

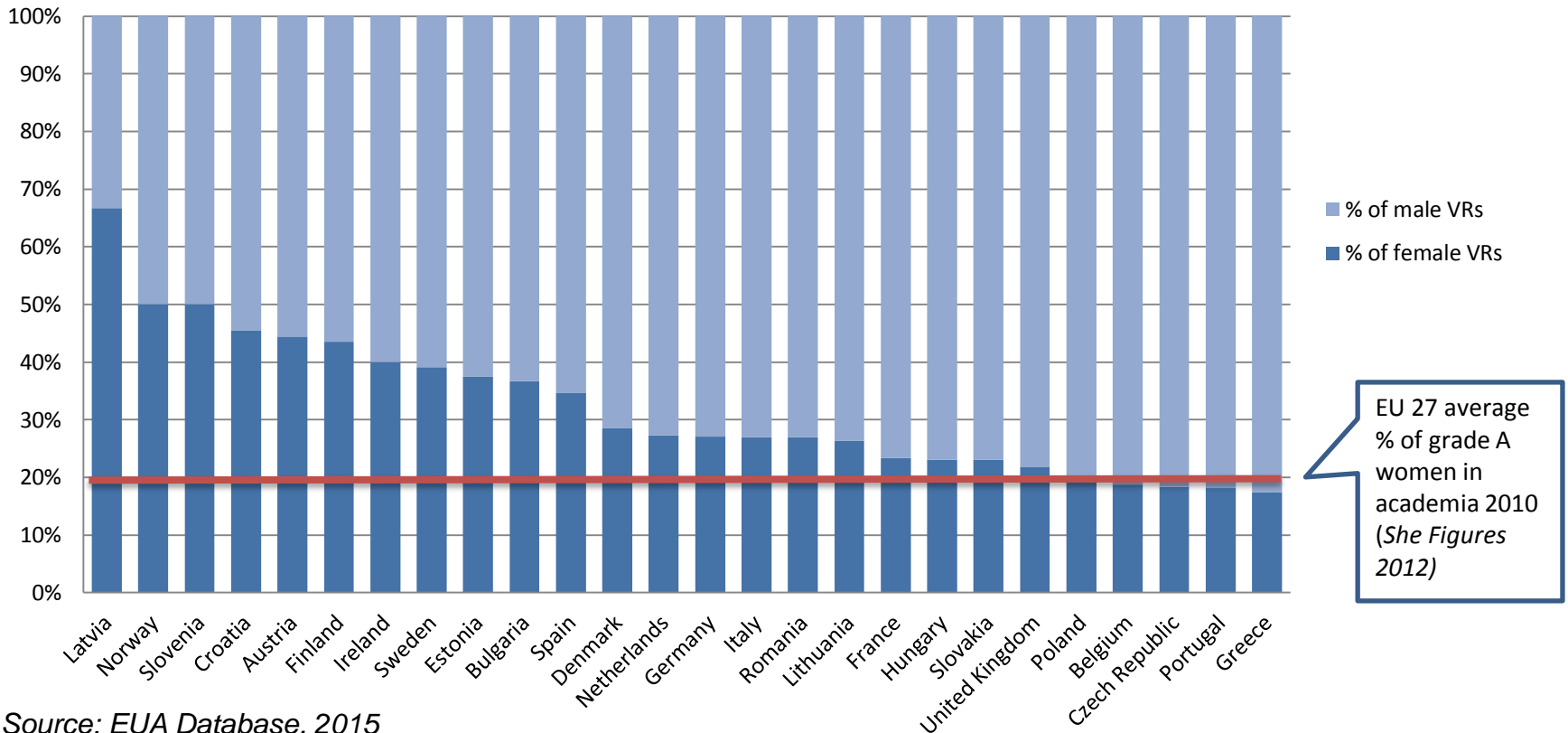


Source: EUA Database, 2015

* Small sample

Vice rectors (N=1596)

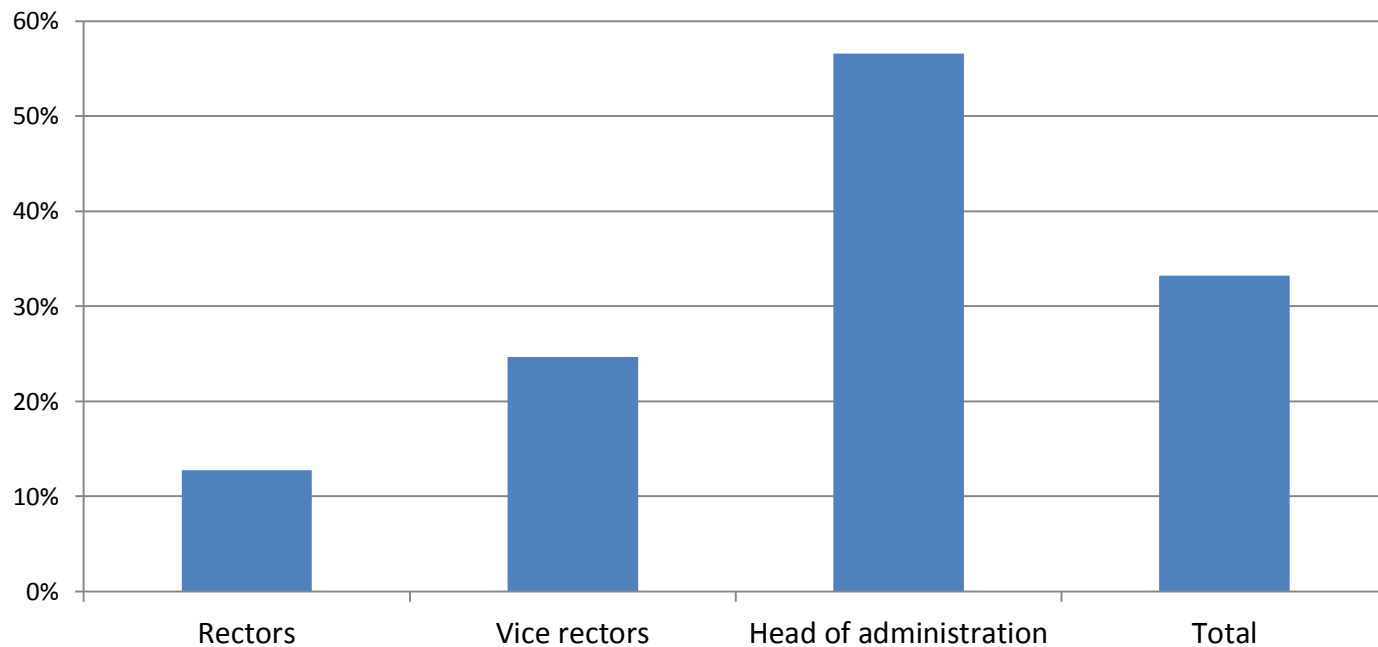
Male and female vice rectors



Source: EUA Database, 2015

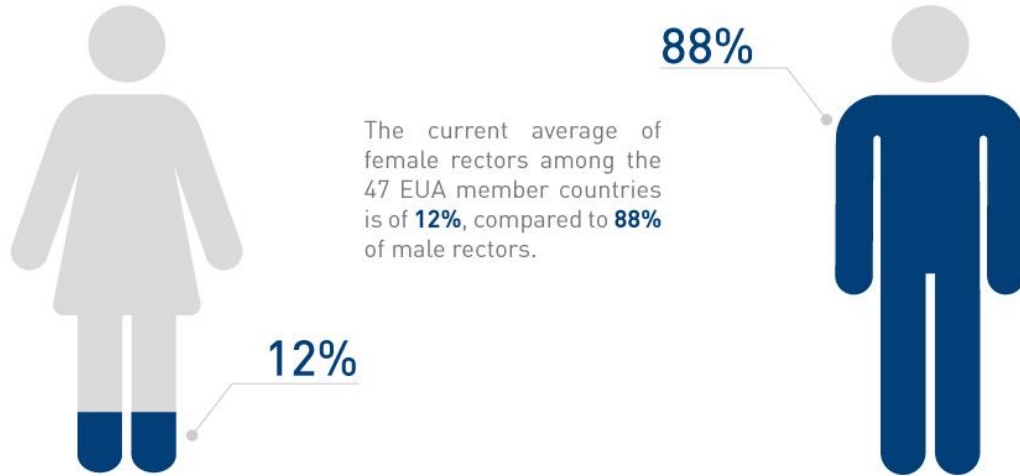
All leaders (N=4254)

% of women in university leadership positions



Source: EUA Database, 2015

Male and female rectors among EUA members

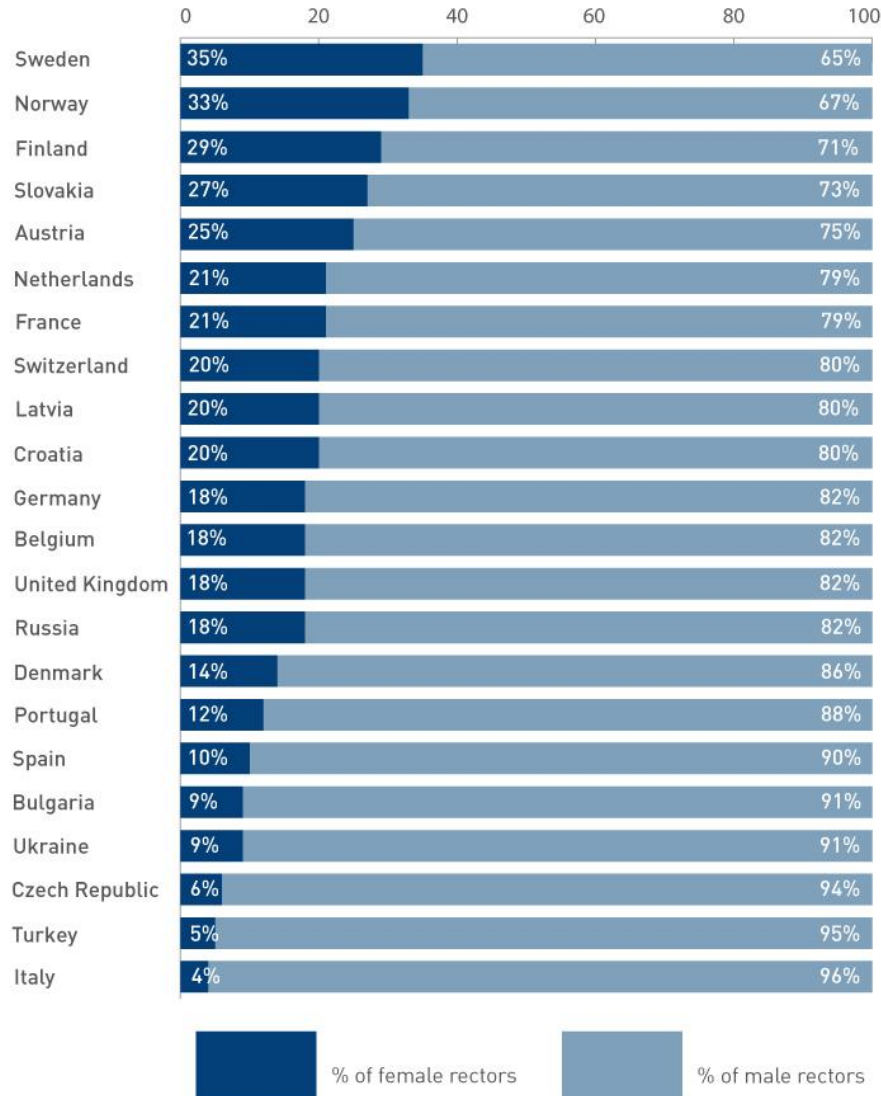


Male and female rectors in the European Union



Male and female rectors per country

(23 countries with female rectors)



Key conclusions from EUA data

- Compared to the small pool of eligible persons (grade A researchers)
 - Female rectors are slightly underrepresented, considering that they are taken from the more senior Grade A researchers, where there are only few women
 - The number of female vice-rectors correspond to the number of eligible female staff
 - When the management position does not require the status of Grade A researchers, there is gender equality
- The bottleneck for female leadership seems to be reaching full professorship
- Higher administrative management position seems to be more accessible for women

Trends: Women in science

- Asymmetric distribution of research funding still persists among female and male researchers in many funding systems
- Excellence initiatives of various kind have not benefited male and female academics equally
- The gender gap is still disproportionately high compared with the increase in the proportion of female students -> *"casts doubt on the hypothesis that women will automatically 'catch up' to their male counterparts"*
- There is a 'glass ceiling' but also a 'maternal wall' hindering the career of female researchers: asymmetric work-life balance arrangements

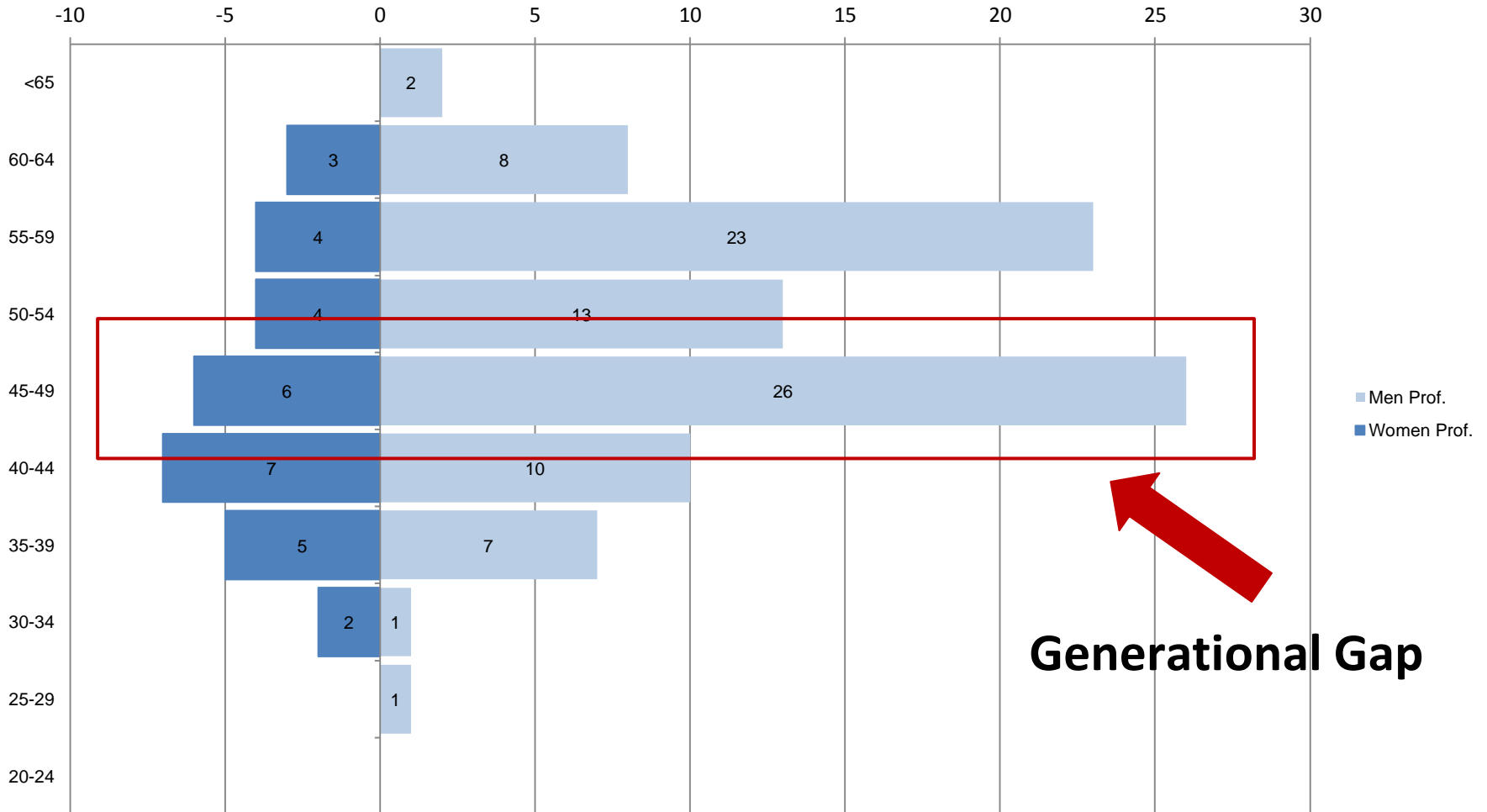
"There is no evidence of spontaneous reduction of gender inequality over time."

(She Figures, 2012; 4th European Women Rectors Conference, Istanbul, 2014)

A practical example: The University of Neuchâtel



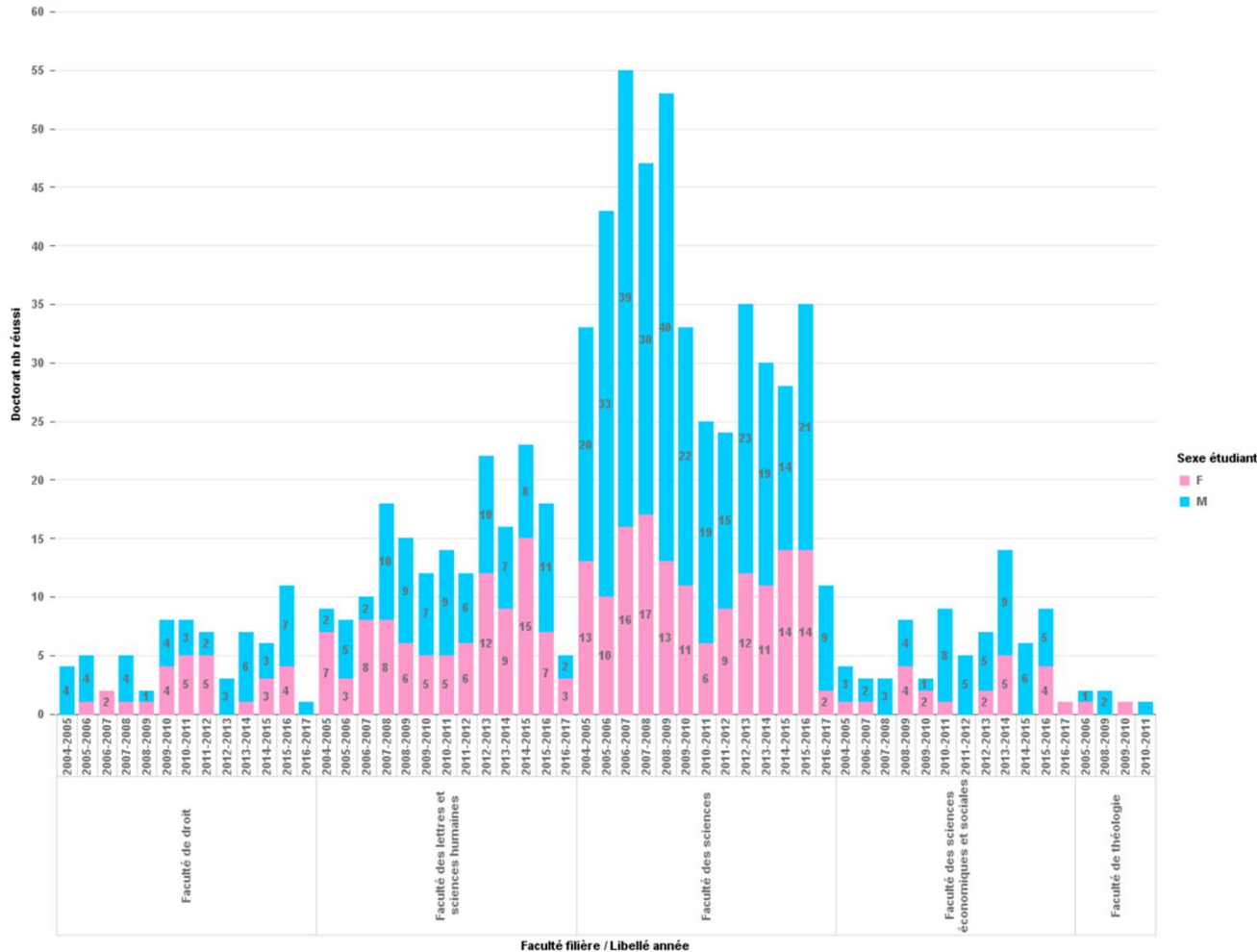
Male and female professors



For the full sample of «career starters»

- Duration of studies: no differences between men and women across disciplines
- No «maternal gap» when entering the career, but it increases later during the career

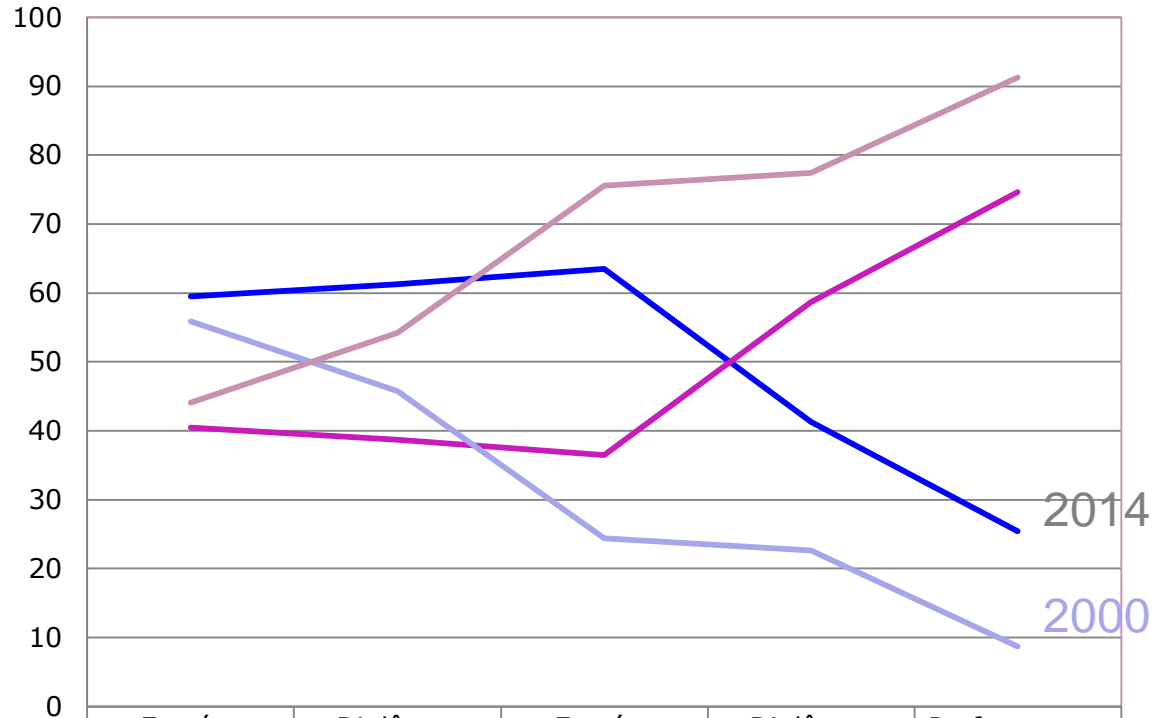
STEM: number of PhD (UniNE)



Humanities,
Law, Arts:
1=1

STEM:
1=3

leaky pipeline



	Entrées (lic/dipl/bach)	Diplômes (lic/dipl/mas)	Entrées (doctorat)	Diplômes (doctorat)	Professeur-e-s
2014 Femmes	59.5	61.3	63.5	41.3	25.4
2014 Hommes	40.5	38.7	36.5	58.7	74.6
2000 Femmes	55.9	45.8	24.4	22.6	8.7
2000 Hommes	44.1	54.2	75.6	77.4	91.3

Concluding Remarks: What can be done in order to increase the attractiveness of STEM domain for women ?

- Start early to change the common sense



- Adoption of incentive specific measures
 - Gender equality grant (National level)
 - Strengthen the individualised and flexible support from the University
 - Build awareness among professors in charge of laboratory or research team