
EFFORTI



Evaluation Framework for Promoting Gender Equality in Research and Innovation

Deliverable 2.4 Comparative Background Report Main Findings

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Seite 1



Fraunhofer Center for Responsible Research and Innovation



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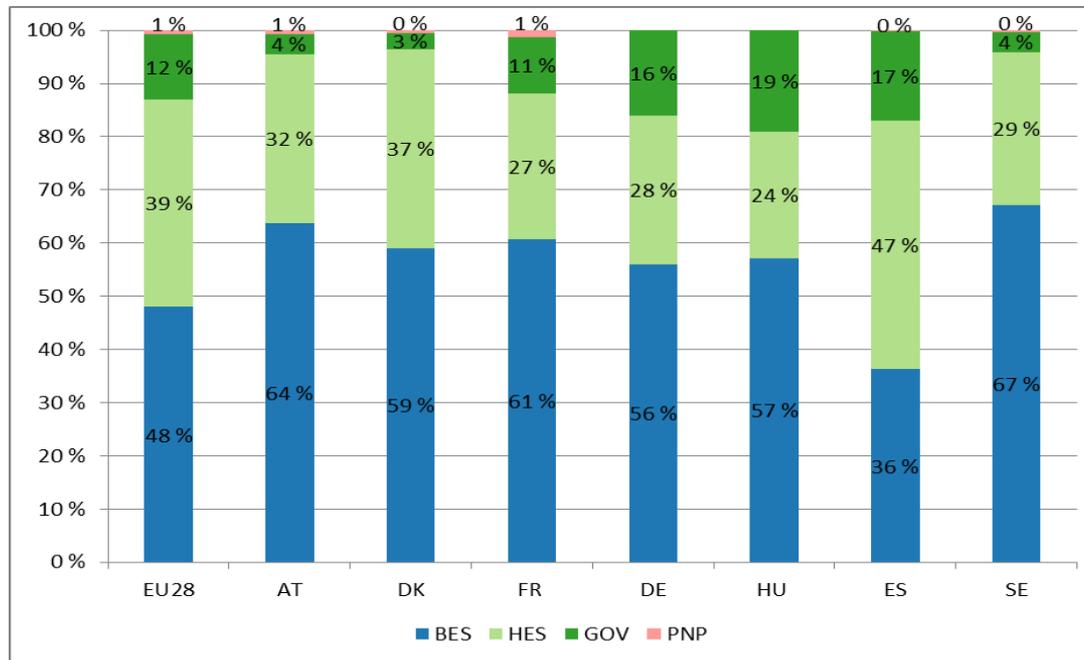
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Objectives

Understanding the influence of wider contextual framework conditions on gender equality in RTDI by comparing the EFFORTI countries in terms of:

- structure and performance of the research and innovation system
- gender equality in the labour market and welfare policies related to reproductive work and childcare
- the governance and existing policies of gender equality in RTDI and
- the evaluation culture and policy especially in the field of gender equality in RTDI

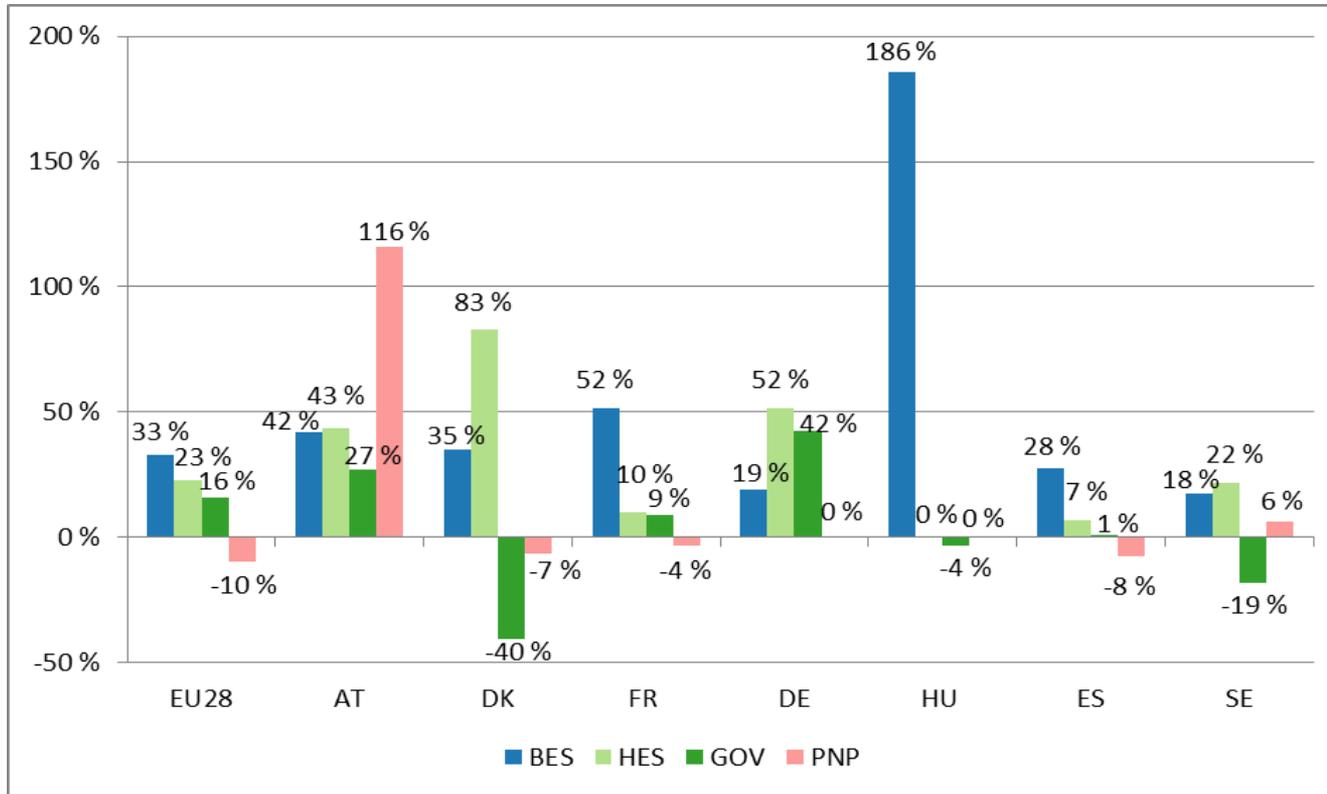
Researchers by sector of performance



Source: Researchers by sector of performance 2013, in percent of total R&D personnel (Eurostat 2016 [rd_p_persocc])

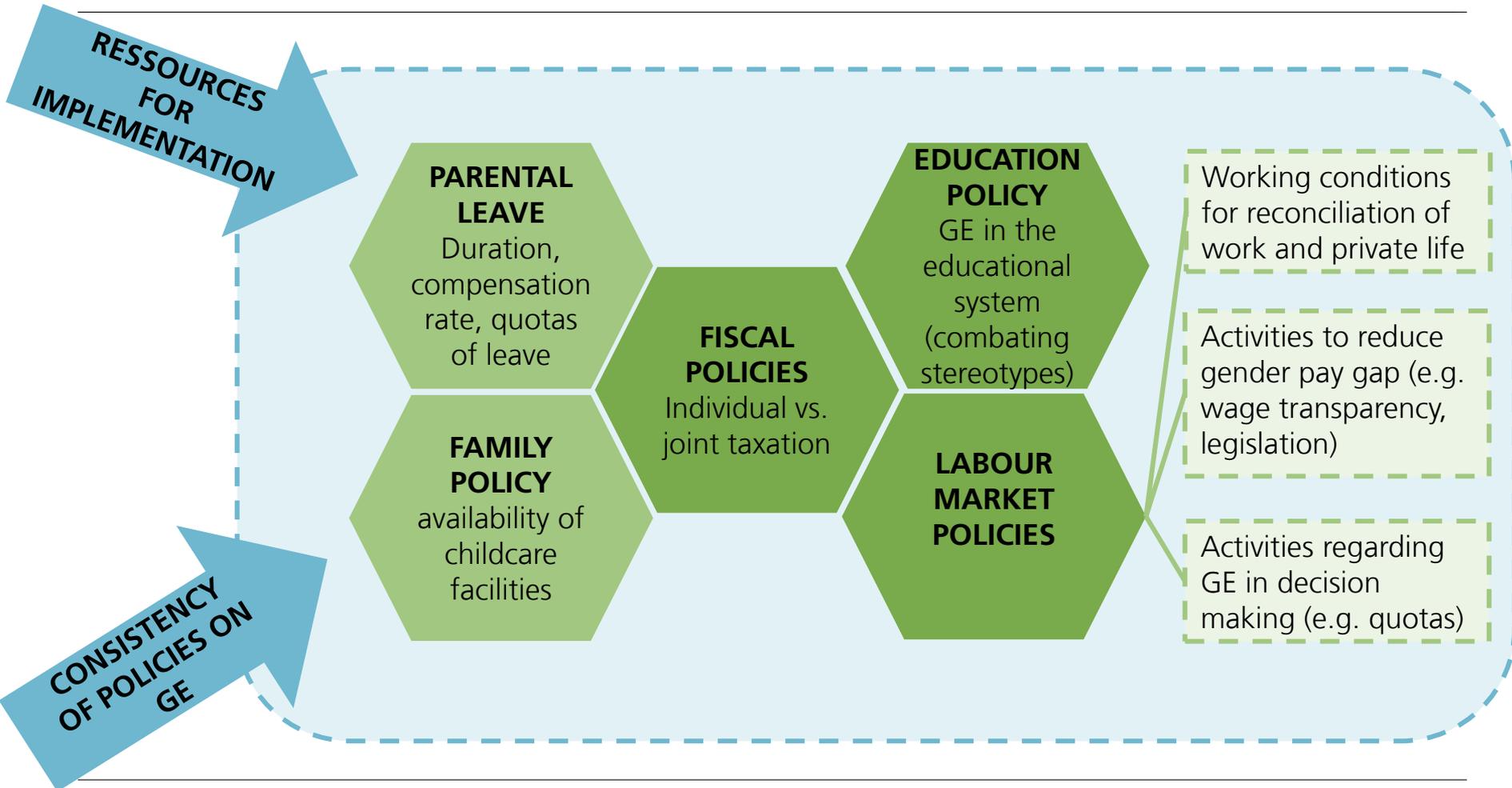
- In Spain the BES is significantly smaller compared to the other EFFORTI countries.
- The different relevance of sectors in a country is crucial for the share of women in RTDI – in BES-dominated innovation systems it is more difficult to increase the share of women in RTDI.

Development of researchers by sector of performance 2005-13

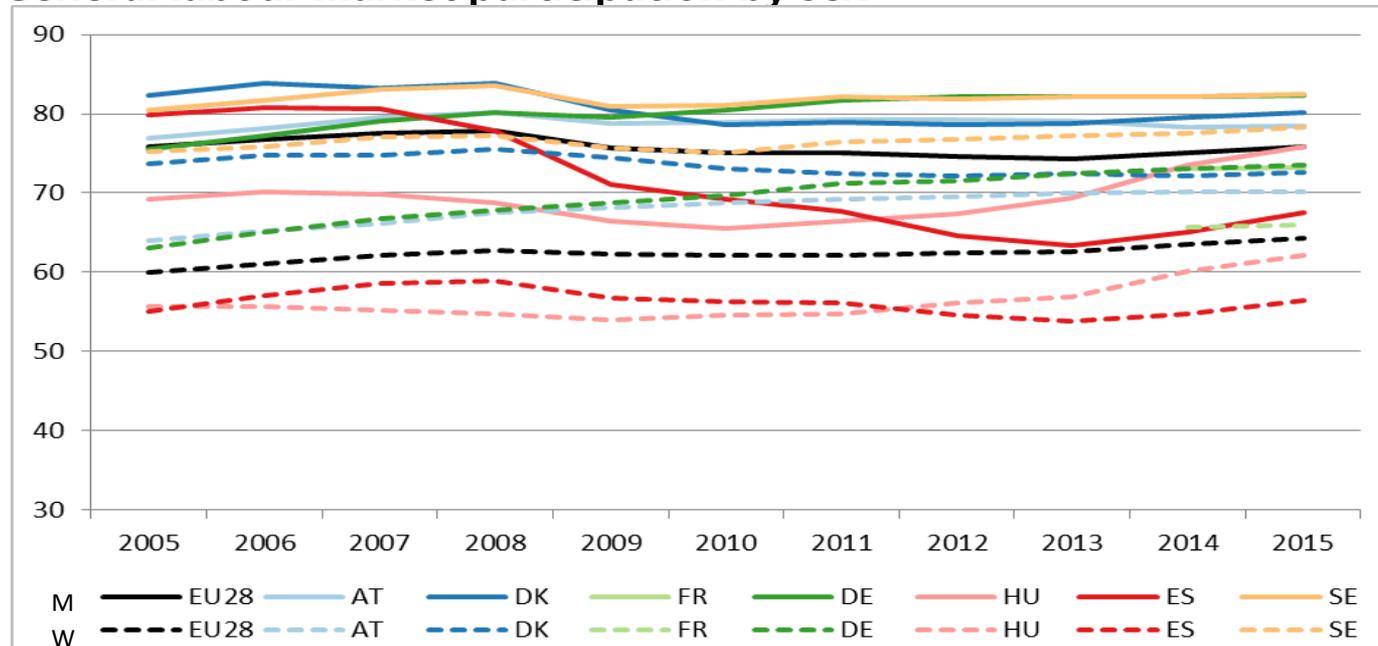


Source: Development of researchers by sector of performance 2005-13, in percent (Eurostat 2016 [rdpersocc])

Gender Equality Policies



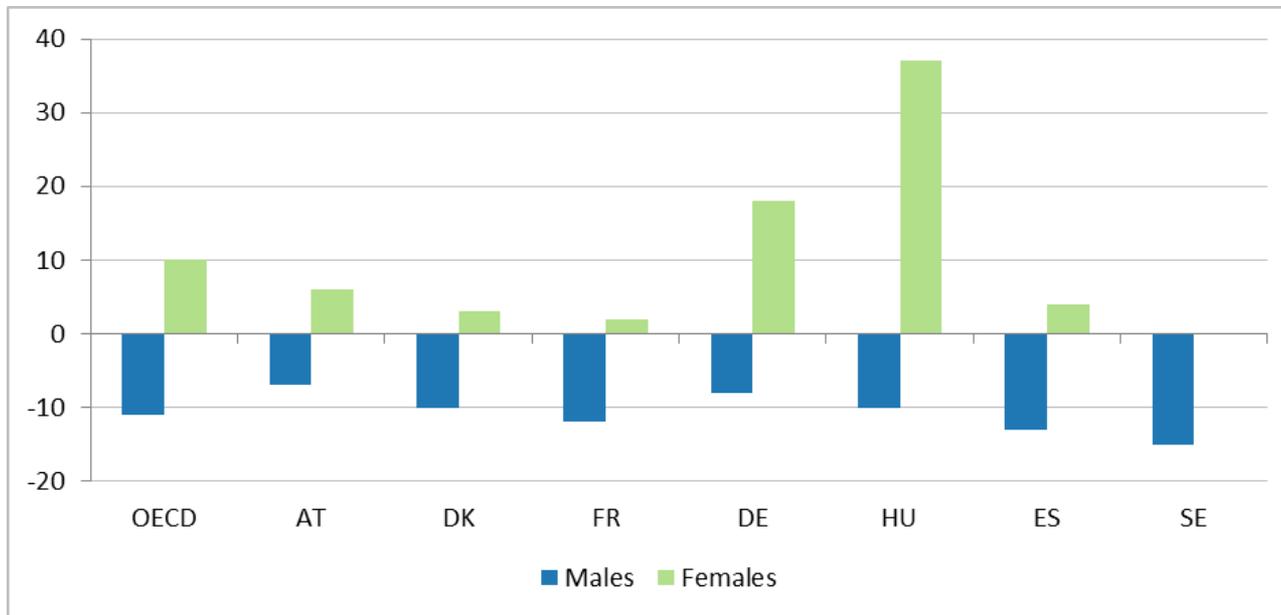
General labour market participation by sex



Source: Employment rates in the total population aged 20–64, by sex (Eurostat, LFS)

- The labour market participation of women is generally lower compared to men but differs widely between countries.
- It is mainly influenced by the deviation of labour related to housework and family care, labour market policies and the availability of childcare facilities.

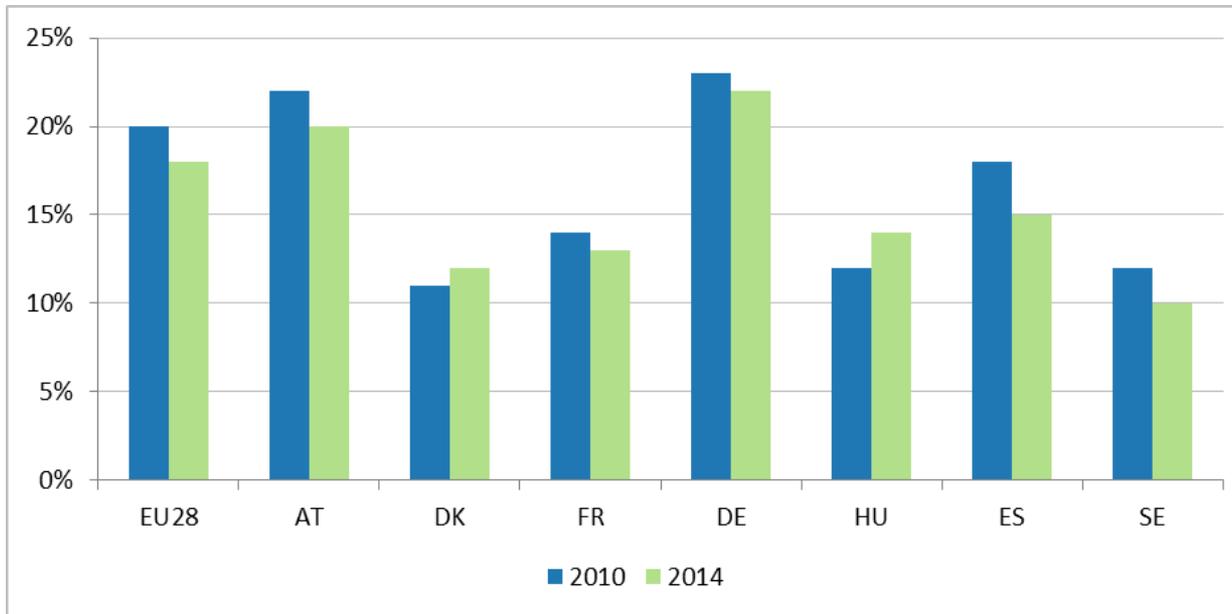
Employment impact of parenthood



Source: Employment impact of parenthood (age 20-49) (Eurostat 2014; Plantenga 2014, p40)

- On average across OECD countries the employment rate of fathers compared to childless men is 11% higher and the employment rate of mothers is 10% lower compared to childless women
- This is mainly influenced by parental leave policies, labour market policies, availability of child care facilities and traditional gender roles

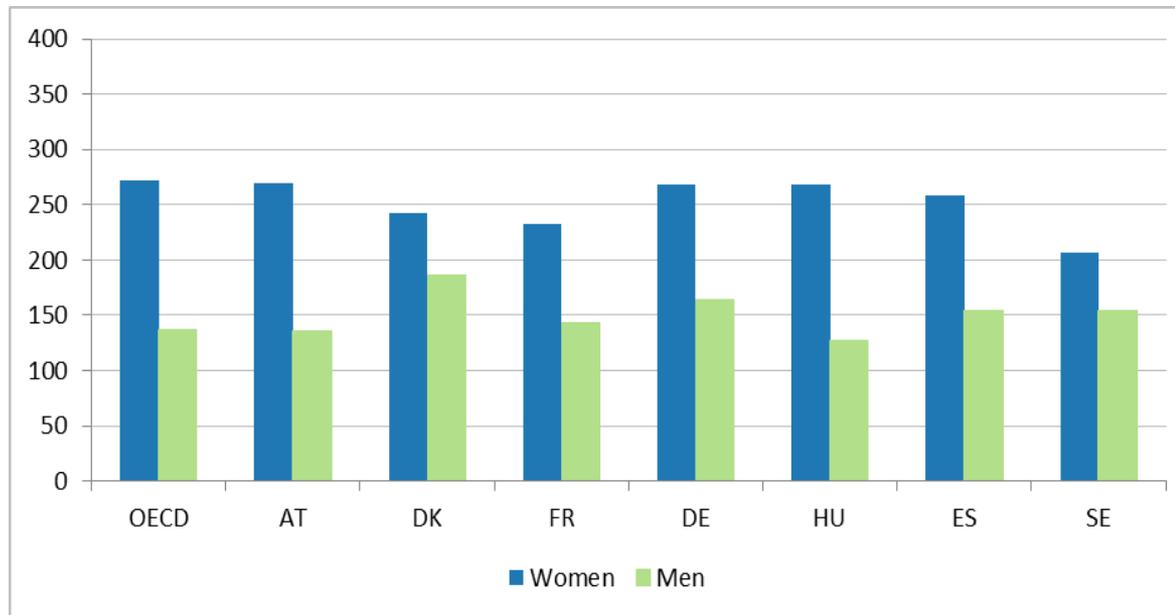
Gender gap FTE employment rates among women and men (2010-14)



Source: Full-time equivalent (FTE) employment rates among women and men aged 20-64 (%) as gender gap (%), 2010-2014 (EC 2016, Report on equality between women and men, p49)

- Part time work is highly prevalent among women in Austria and Germany whereas it is less common in Denmark and Sweden.
- One explanatory factor of the gender difference regarding part time work are gender roles: where women are seen as primary care providers they tend to reduce paid work

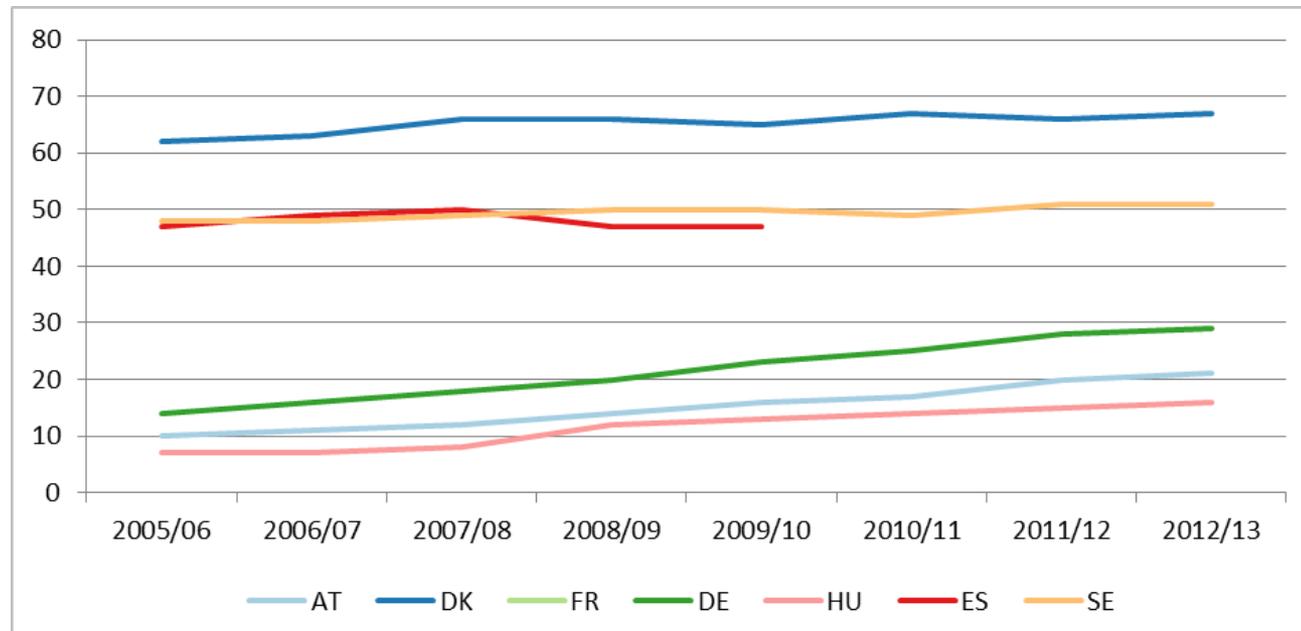
Division of labour in unpaid work



Source: Time spent in paid and unpaid work, by sex (in minutes per day) (OECD 2014)

- On average across OECD countries men do only half as much unpaid work as women, but the gender difference regarding unpaid work differs widely between the countries.
- The division of labour might be influenced by gender pay gap, parental leave policies, flexibility of working conditions and part time orientation (gender roles).

Childcare facilities: Enrolment rate of children (<3 years old)



Source: Enrolment rate of children aged under 3 years in childcare facilities, by country and year (UNECE Statistical Database)

- The enrolment rate of children up to 3 years differs greatly among the countries with highest results in nordic countries. But in all countries the enrolment rates increased.
- The enrolment rate is influenced by duration of parental leave, availability of child care facilities and social values.

To obtain the ERA targets a comprehensive legislation and structures for gender equality in RTDI are necessary

Requirements:

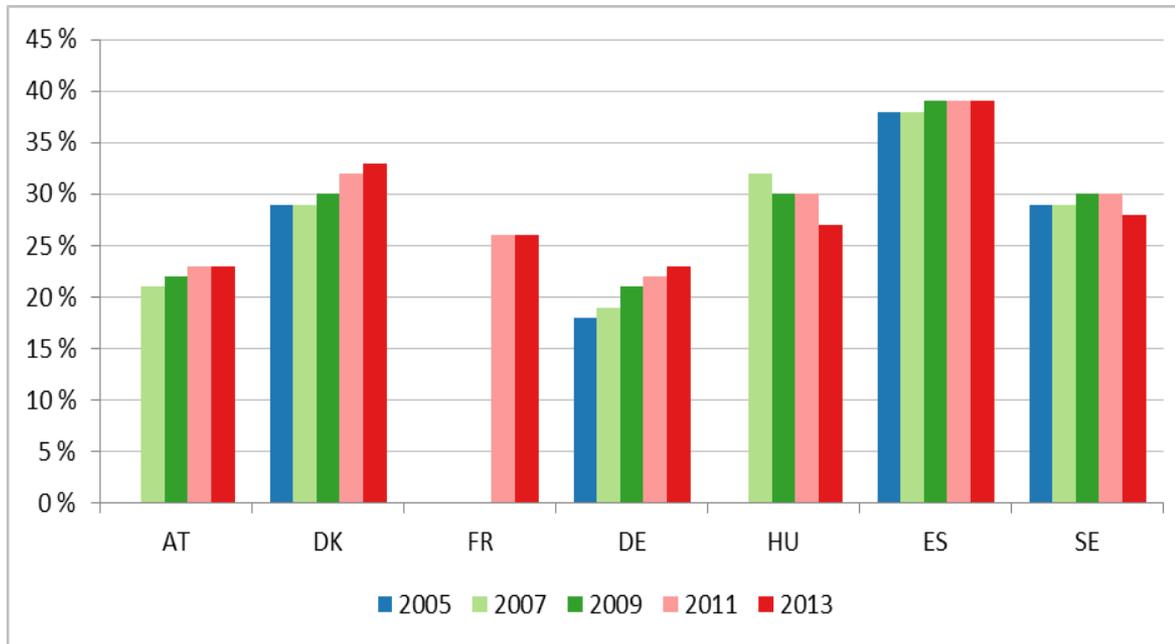
- Clear responsibilities
- Effective implementation mechanisms
- Sanctions
- Specification of aims & problems
- Knowledge regarding evaluation methodologies, tools & statistics
- Balance of individual und structural measures
- Sufficient resources
- RFOs supporting GE in organisations and in integration of gender dimension in research and teaching

Challenges to address:

- Horizontal segregation – more female students in male dominated disciplines
- Vertical segregation esp. in BES (quotas in HES)
- Male dominated organisational cultures
- Prevailing academic regime
- (unconscious) gender bias

Gender Equality in RTDI

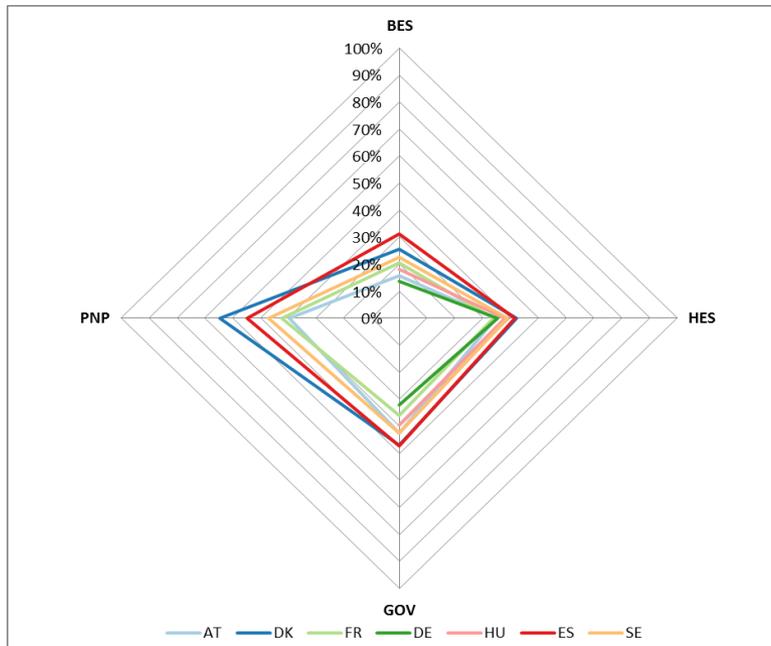
Share of women in R&D by countries



Source: Eurostat, rd_p_persoec, calculations JOANNEUM RESEARCH)

- The share of women in R&D differs among the countries is highest in Spain. The absolute number of female researchers is growing in all counties.

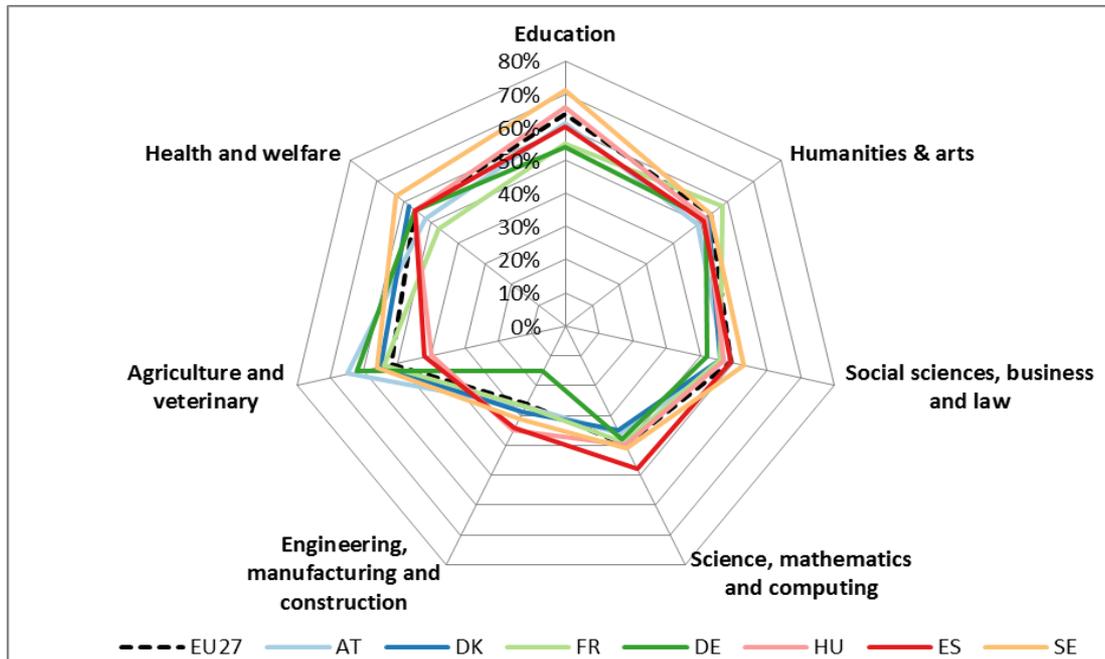
Share of women researchers by RTDI sectors



Source: Share of women researchers by RTDI sectors and country in 2013 (Eurostat, Total R&D personnel by sectors of performance, occupation and sex [rd_p_persocc])

- The share of women researchers varies significantly between the RTDI sectors.
- The BES exhibits the lowest shares of female researchers in all countries. This may be due to horizontal segregation, male organisational cultures and governance issues.

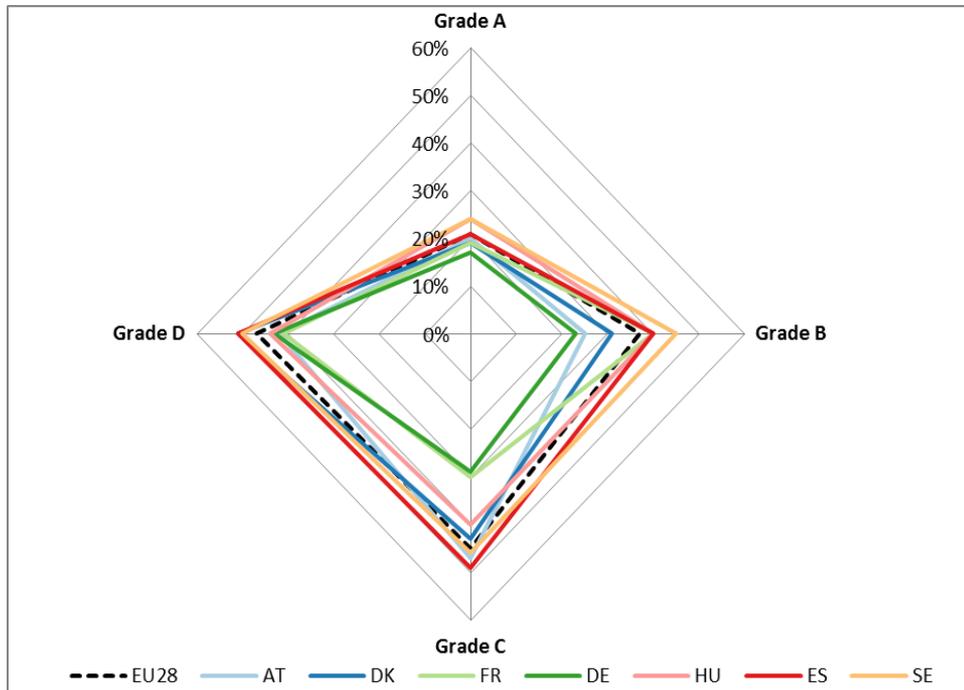
Horizontal segregation: ISCED6 graduates by field (2010)



Source: Proportion of women ISCED 6 graduates differentiated by field of study in 2010 (SHE Figures 2012, p79 , calculations JOANNEUM RESEARCH)

- The share of women among ISCED 6 graduates increases but the horizontal segregation in respect to fields of study is quite significant in all countries.

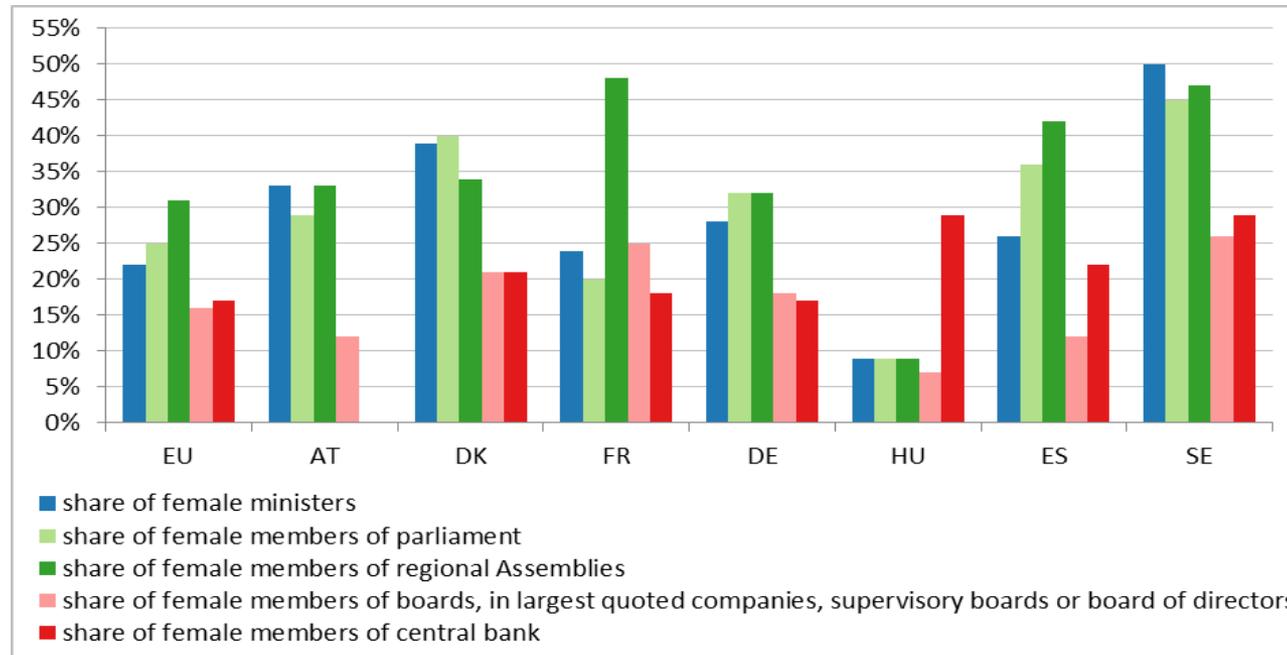
Vertical Segregation: Women academic staff by grade



Source: Proportion of women academic staff by grade, 2013 (She Figures 2015, p129)

- The higher the grade the lower is the proportion of women in EU28 and the EFFORTI countries
- This may be due to the prevailing academic regime and unconscious gender bias

Vertical Segregation: Share of male and female members of boards

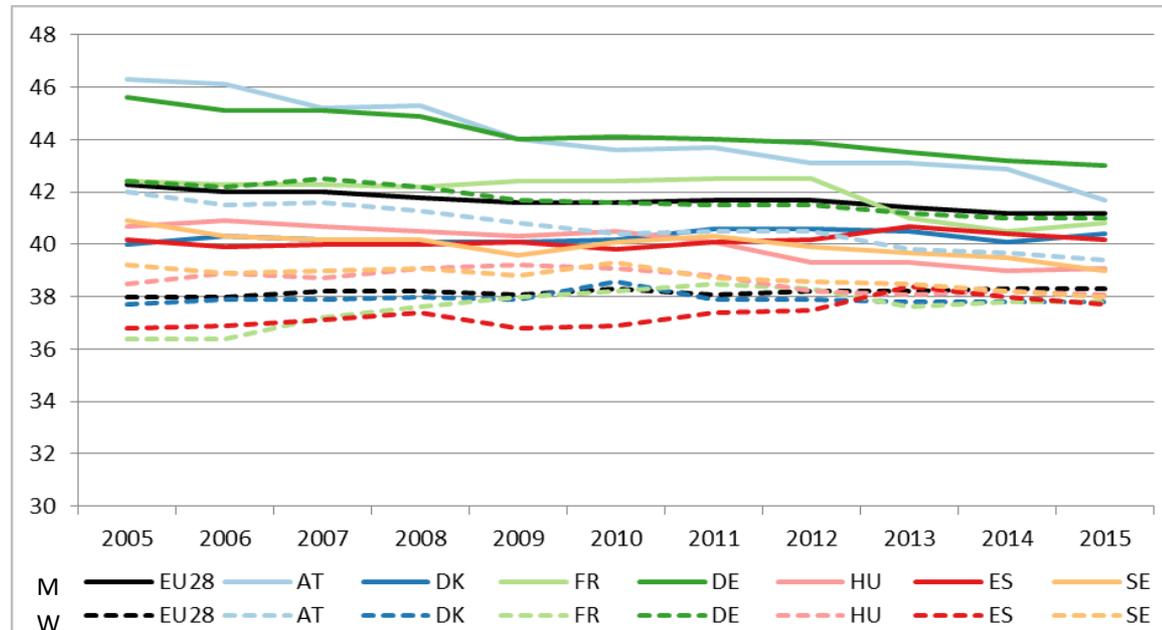


Source: Share of male and female members of boards (EIGE gender equality index 2015, p173)

- Vertical segregation is high in the economic domain – the share of women in boards in the largest companies, supervisory boards or boards of directors hardly exceeds 25%
- This may be due to male dominated organisational culture and unconscious gender bias

Gender Equality in RTDI

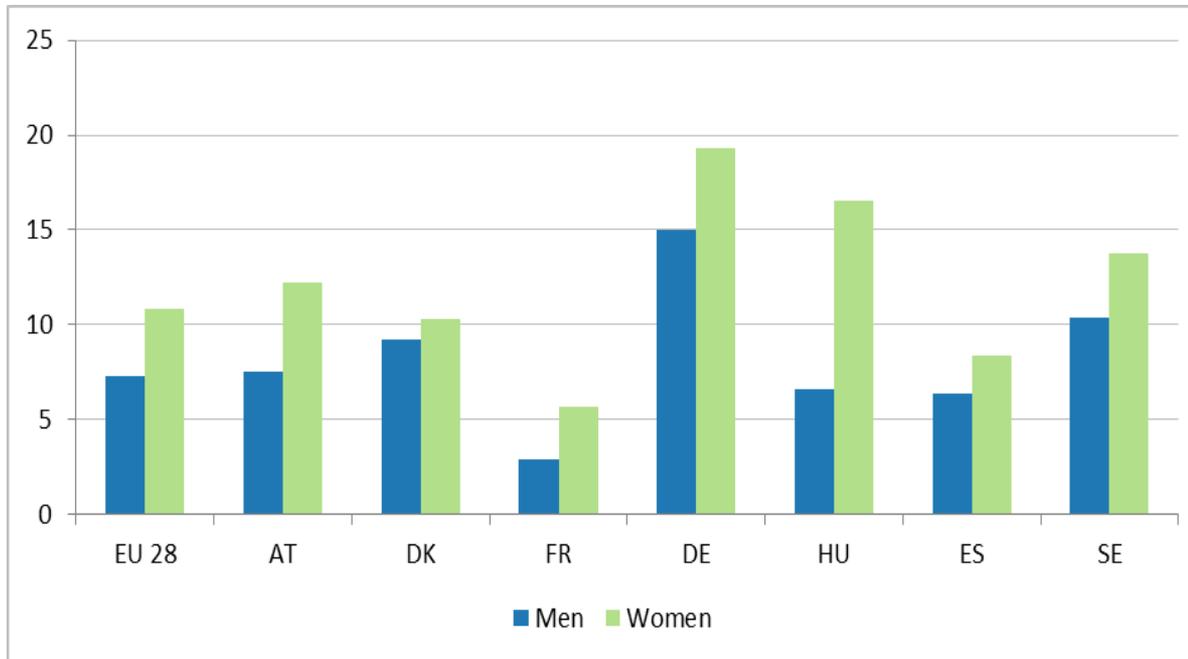
Employment conditions: Working Time of professionals by sex



Source: Actual weekly working hours of full-time employed professionals by gender and country, 2005 - 2015 (Eurostat Labour Force Survey)

- The number of hours worked per week influences the work-life balance. In a culture of presenteeism, the duration of working time can influence a career.
- Women professionals tend to work fewer hours than men. But an alignment of working hours between male and female professionals can be observed.

Employment conditions: Precarious working contracts



Source: "Precarious" working contracts of researchers in the higher education sector out of total researcher population, by sex, 2012 (SHE Figures 2015, p104)

- Women in HES are more likely to work in precarious working conditions, resulting in a "safety gap".

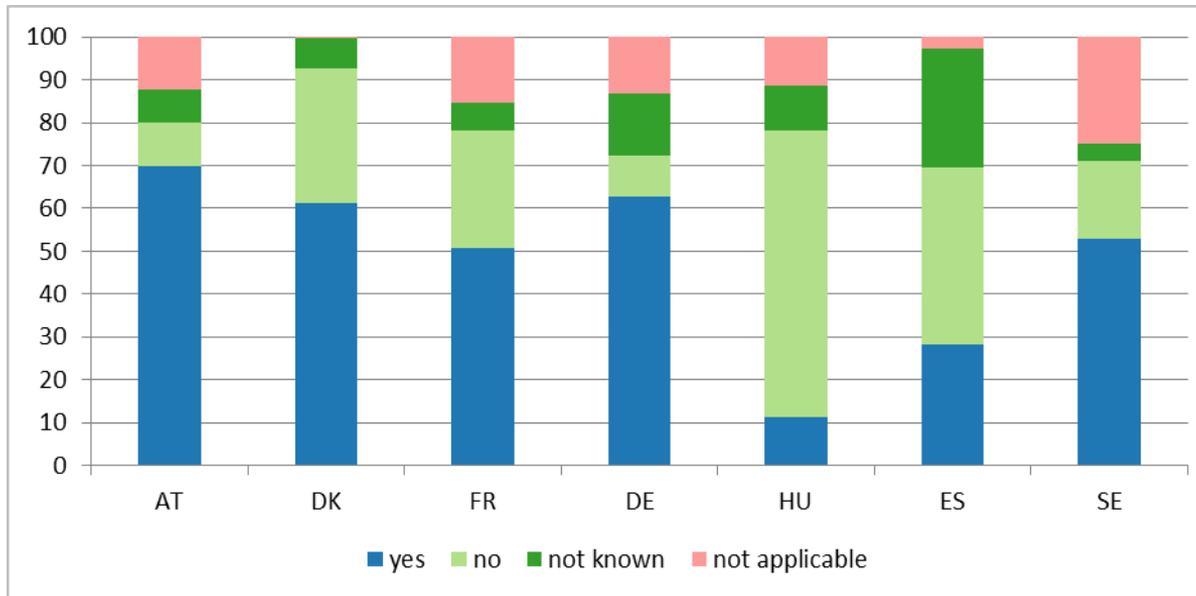
Employment conditions: Career stages

Career stage with stable working conditions	No. of countries	Countries
R1	2	Romania, Brazil
R2	4	Belgium, Ireland, Netherlands, Slovenia
R3	17	Austria, Bulgaria, Cyprus, Czech Republic, Denmark (no tenure-track option in R4), Finland, France, Germany, Hungary, Iceland, Italy, Luxembourg, Poland, Portugal, Spain, Turkey, Singapore
R4	11	Croatia, Serbia, USA, Australia, Japan, South Korea, Bosnia and Herzegovina, Lithuania, Montenegro, Norway, Sweden (no tenure-track option)
No stable working conditions	5	Estonia, Macedonia, Latvia, Russia, China
Miscellaneous	1	Israel
Missing information	6	Liechtenstein, Switzerland, Canada, Albania, Greece, Faroe Islands

Source: Career stage with stable employment conditions (IDEA Consult et al. 2013, 68)

Gender Equality in RTDI

Inclusion of the gender dimension in research contents (%RPO)



Source: EC 2015, ERA facts and figures, p85

- Hungary and Spain display a significantly lower level of inclusion of the gender dimension in research content compared to Austria, Germany, Denmark and Sweden.
- This can be due to funding programmes aiming at integrating sex or gender analysis in research and to gender criteria as cross cutting issues in research funding.

Evaluation culture development and capacity building vary greatly across countries in terms of:

- Establishing a culture of evaluation
- Carrying out systematic evaluations of programs and institutions
- Variety of actors and evaluation approaches
- Trend towards standardisation supported by foundation of evaluation societies

Evaluation traditions also vary across countries regarding :

- preferred types of evaluations (ex-ante, interim, ex post, pluralistic approach)
- Interest in approaches to quantify impacts, to evaluate implementation or to measure causal mechanisms relating policy initiatives to their effects and impacts
- But interest in impacts and effectiveness rise in all EFFORTI countries

The role of GE in RTDI is very different across the countries:

- Sweden has a long tradition of monitoring gender equality in RTDI
- In Austria, Denmark, France and Germany gender equality in RTDI has only recently received growing attention in RTDI evaluations
- In Hungary and Spain there does not exist any practice to consider gender equality in RTDI evaluations