

NCP Academy – RICH Training, Lisbon, Nov. 21st 2018

**GENDER
ACTION**



Gender in Research

as a mark of excellence

Training notes



1. OBJECTIVES





OBJECTIVES


- Strengthening participants' basic knowledge on gender issues
- Raising participants' awareness on the importance of integrating gender in research
- Informing participants on gender in H2020
- Strengthening participants' capacities to support the integration of gender in research projects





2. BASIC CONCEPTS





SEX refers to the biologically determined characteristics of men and women in terms of reproductive organs and functions based on chromosomal complement and physiology. As such, sex is globally understood as the classification of living things as male or female.

GENDER refers to the social construction of women and men, of femininity and masculinity, which varies in time and place, and between cultures.



TO SUM UP:

Sex:

Biologically fixed.
Hardly varies
without human
intervention.



Gender:

Social construction
that varies accross:

- Time
- Social class
- Culture
- Age
- Religion ...

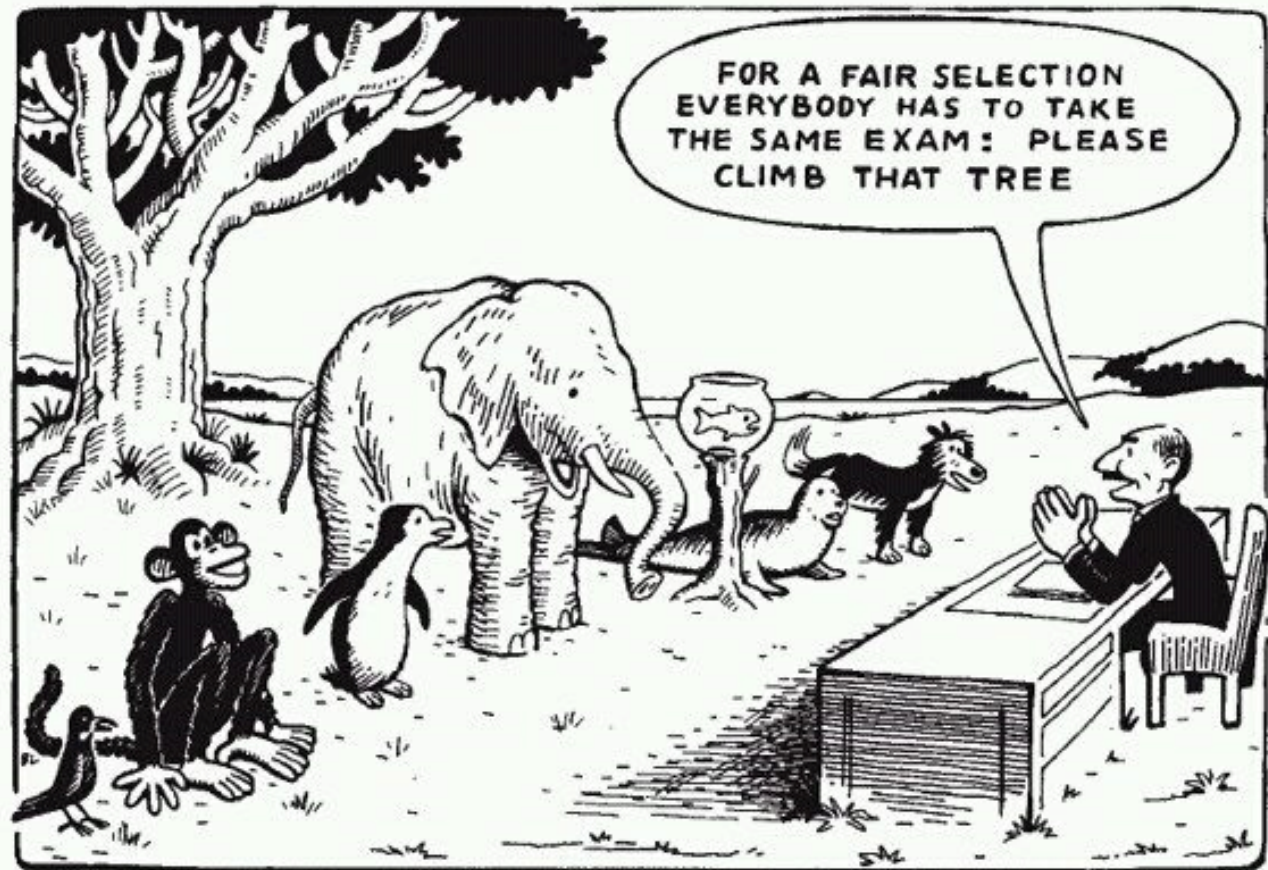


NOTE THAT:

- The problem is not the difference between men and women as such, but the difference in how they are valued
- Certain aspects associated with 'masculinity' still tend to be valued more highly
- The result is inequality of opportunities, segregation & discrimination



Sometimes
we need to
treat people
differently
to attain an
equal
outcome.





GENDER EQUALITY

A situation where individuals of both sexes are free to develop their personal abilities and make choices without the limitations imposed by strict gender roles. The different behaviours, aspirations and needs of women and men are considered, valued and favoured equally.



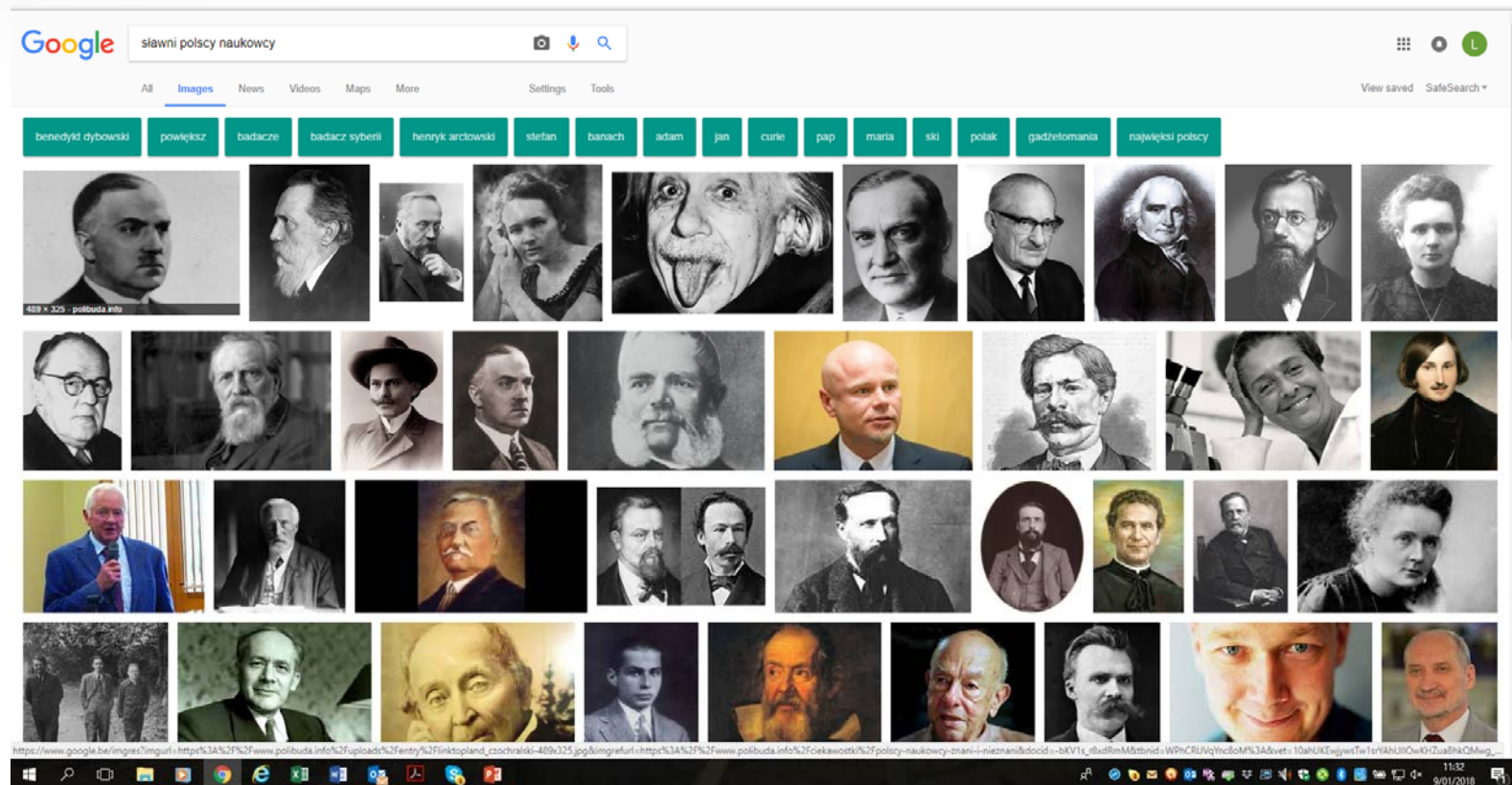


3. PROBLEMS AT STAKE



Masculine image of science

- Historically, the production of knowledge and the image of science have been associated to men.



Masculine image of science

27 September 2018:

*« A senior Italian scientist has been suspended after he sparked fury during a presentation at [Cern](#), the European nuclear research centre in Geneva, when he said physics was “invented and built by men, it’s not by invitation » (...)
Prof Alessandro Strumia of Pisa University claimed during a seminar on gender issues in physics that male scientists were being discriminated against because of ideology »*

The Guardian, Oct. 1st 2018





Masculine image of science

2 October 2018:

[The Royal Swedish Academy of Sciences](#) has decided to award the Nobel Prize in Physics 2018 *“for groundbreaking inventions in the field of laser physics”*

with one half to **Arthur Ashkin**, Bell Laboratories, Holmdel, USA “for the optical tweezers and their application to biological systems”

and the other half jointly to **Gérard Mourou**, École Polytechnique, Palaiseau, France University of Michigan, Ann Arbor, USA and **Donna Strickland** University of Waterloo, Canada *“for their method of generating high-intensity, ultra-short optical pulses”*



Masculine image of science

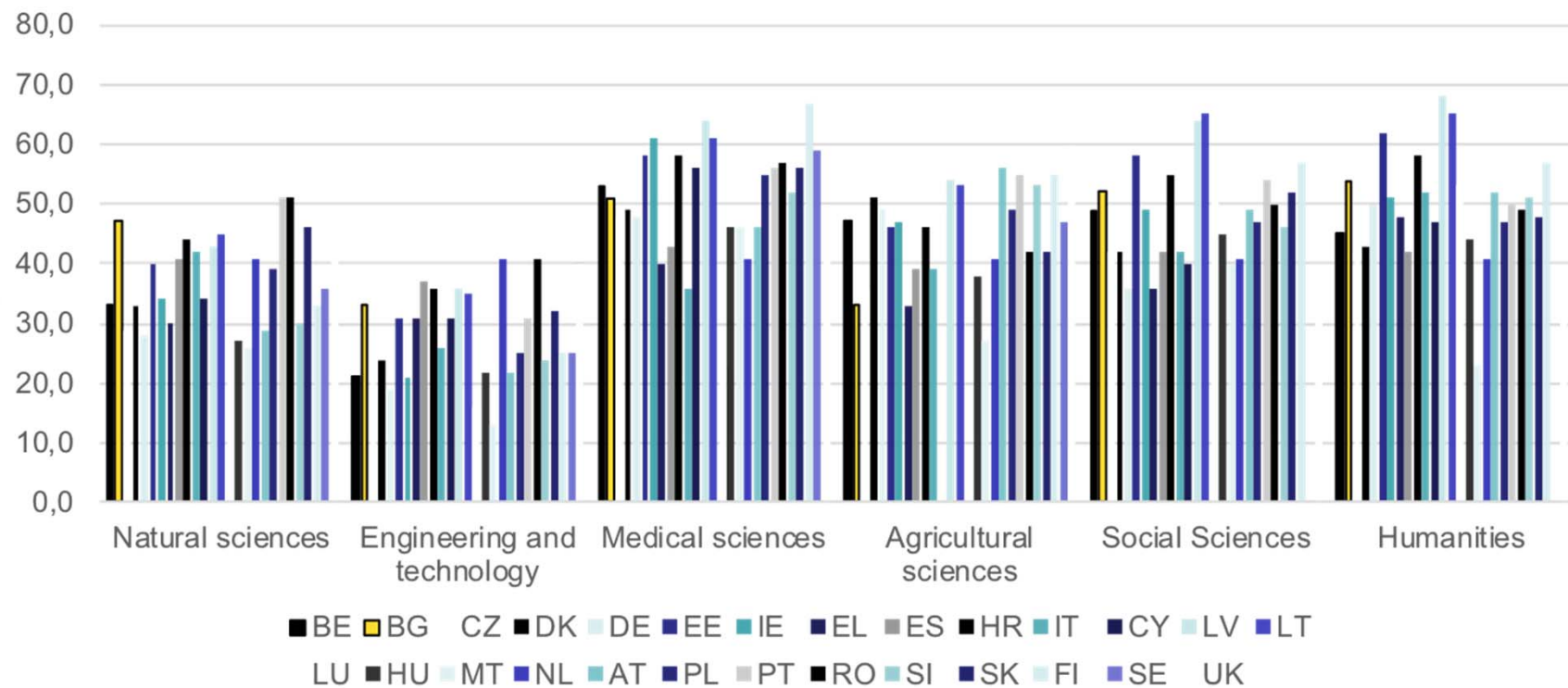
And guess whom of the 3 had not been granted full professorship prior to her Nobel Prize?



Horizontal segregation

Women and men concentrate in specific scientific fields.

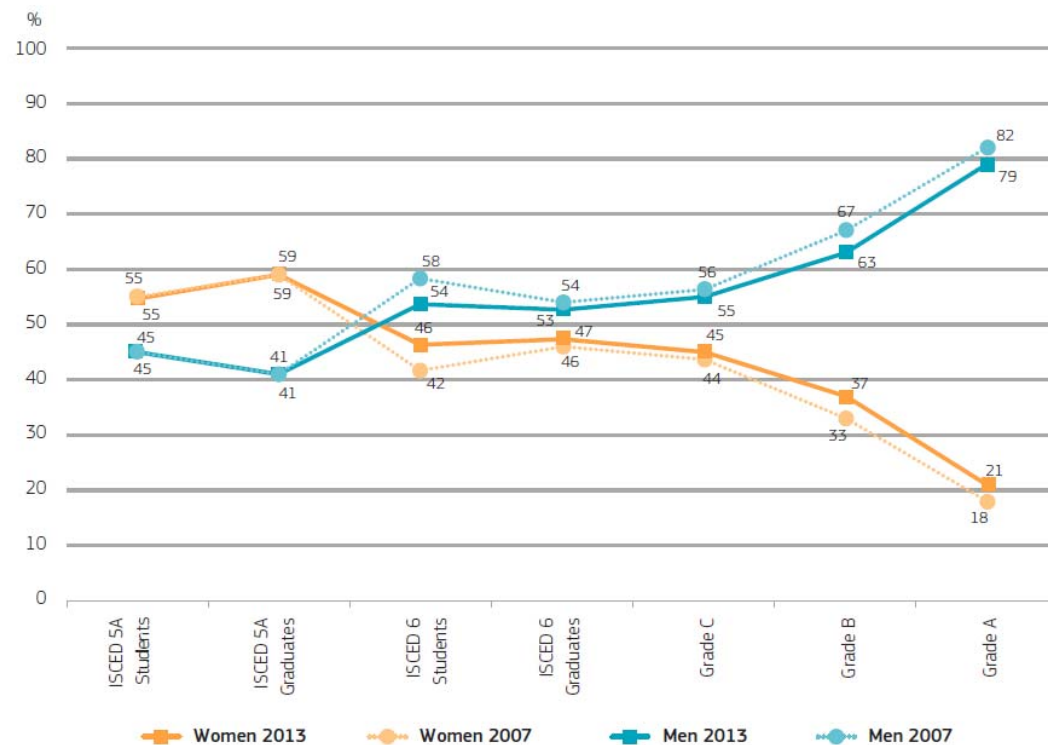
Percentage of female researchers in the higher education sector in the EU28 by scientific field, 2012 (adapted from 'She Figures 2015')



Vertical segregation

- The highest hierarchical positions are usually occupied by men.

Figure 6.1. Proportion of women and men in a typical academic career, students and academic staff, EU-28, 2007–2013



Notes: Reference years Eurostat data: 2007–2012; Reference years for Women in Science (WIS) data: 2007–2013; Exceptions to the reference years (WIS): AT: 2007–2011; BE (FR), LV, RO: 2010–2013; CY, PT: 2007–2012; DK, LU (Grade A and B, C not available): 2009–2013; ES, IE: 2008–2012; BE (FL), NL, FI: 2011–2013; PL, SK: 2012–2013; FR: 2012; HR: 2014; MT: 2015; EE: 2004 (She Figures 2012); LT: 2007 (She Figures 2012); UK: 2006 (She Figures 2012); Data unavailable for: (Eurostat) ISCED 5A Students: LU (2007); ISCED 5A Graduates: FR (2012), LU (2007); ISCED 6 Students: DE (2007), LU (2007); ISCED 6 Graduates: FR (2012), LU (2007).

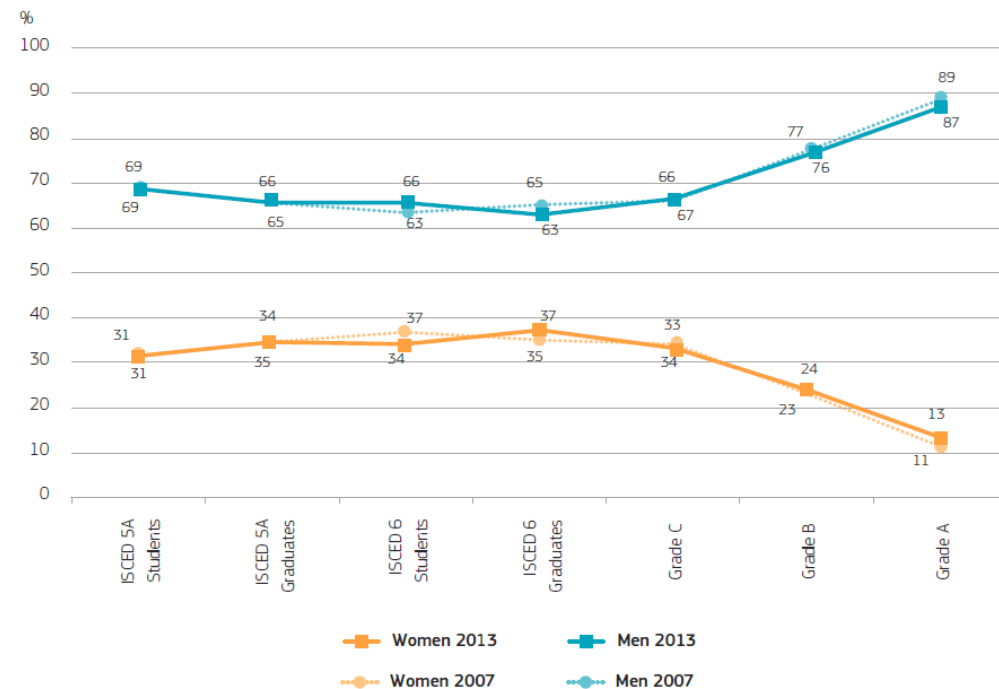
Source: Women in Science database, DG Research and Innovation and Eurostat – Education Statistics (online data code: educ_grad5)



Vertical segregation

- The gap is even bigger if we look at the proportion of women and men in the areas of science and engineering.

Figure 6.2. Proportions of women and men in a typical academic career in science and engineering, students and academic staff, EU-28, 2007–2013



Notes: Reference year for Eurostat data: 2007–2012; Reference year for WiS data: 2007–2013; Exceptions to the reference years (WiS): AT: 2007–2011; BE (FR): 2010–2013; BE (FL), NL, FI: 2011–2013; CZ: 2007–2008; DK: 2009–2013; IE: 2008–2012; CY, PT: 2007–2012; EL, MK: 2012; PL, SK: 2012–2013; BA, SI: 2013; HR: 2014; LT: 2007 (She Figures 2012); UK: 2006 (She Figures 2012); Data unavailable for: WiS Grade A, B and C: AT, BG, EE, FR, HU, LU, LV, RQ; Eurostat: ISCED 5A Students: LU (2007), ISCED 5A Graduates: FR (2012), LU (2007), ISCED 6 Students: DE (2007), LU (2007), NL (2007), ISCED 6 Graduates: FR (2012), IT (2007), LU (2007), PL (2012);

Others: SET fields of education = Science, maths and computing + Engineering, manufacturing and construction; SET fields of science = Engineering and technology + Natural sciences.

Source: Women in Science database, DG Research and Innovation and Eurostat – Education Statistics (online data code: educ_grad5)



Gender blind research

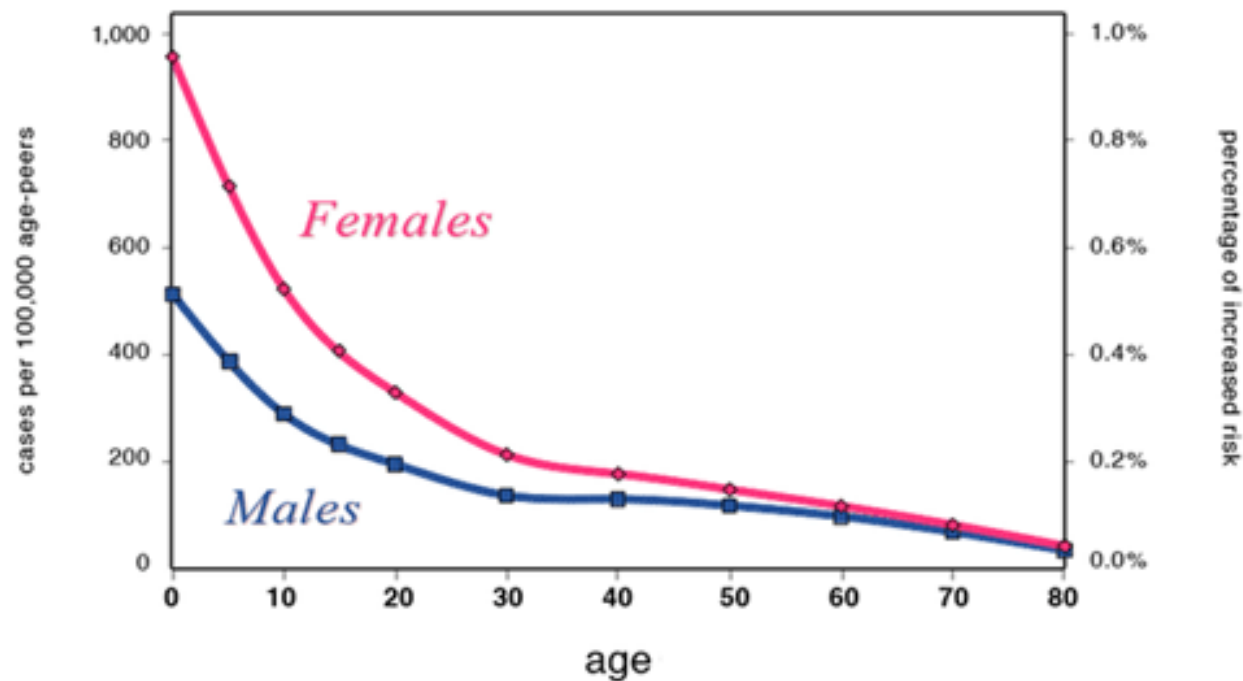
The concept of *Gender blindness* usually refers to failing to take into account potential **sex differences** as well as the **gendered roles** and conducts and women and men in society when designing research projects, programs or policies.

This lack of consideration ultimately leads to **reproducing stereotypes, biases and inequalities**.



Gender blind research

Increased Cancer Risk by Age at Exposure to 20 mSv Radiation



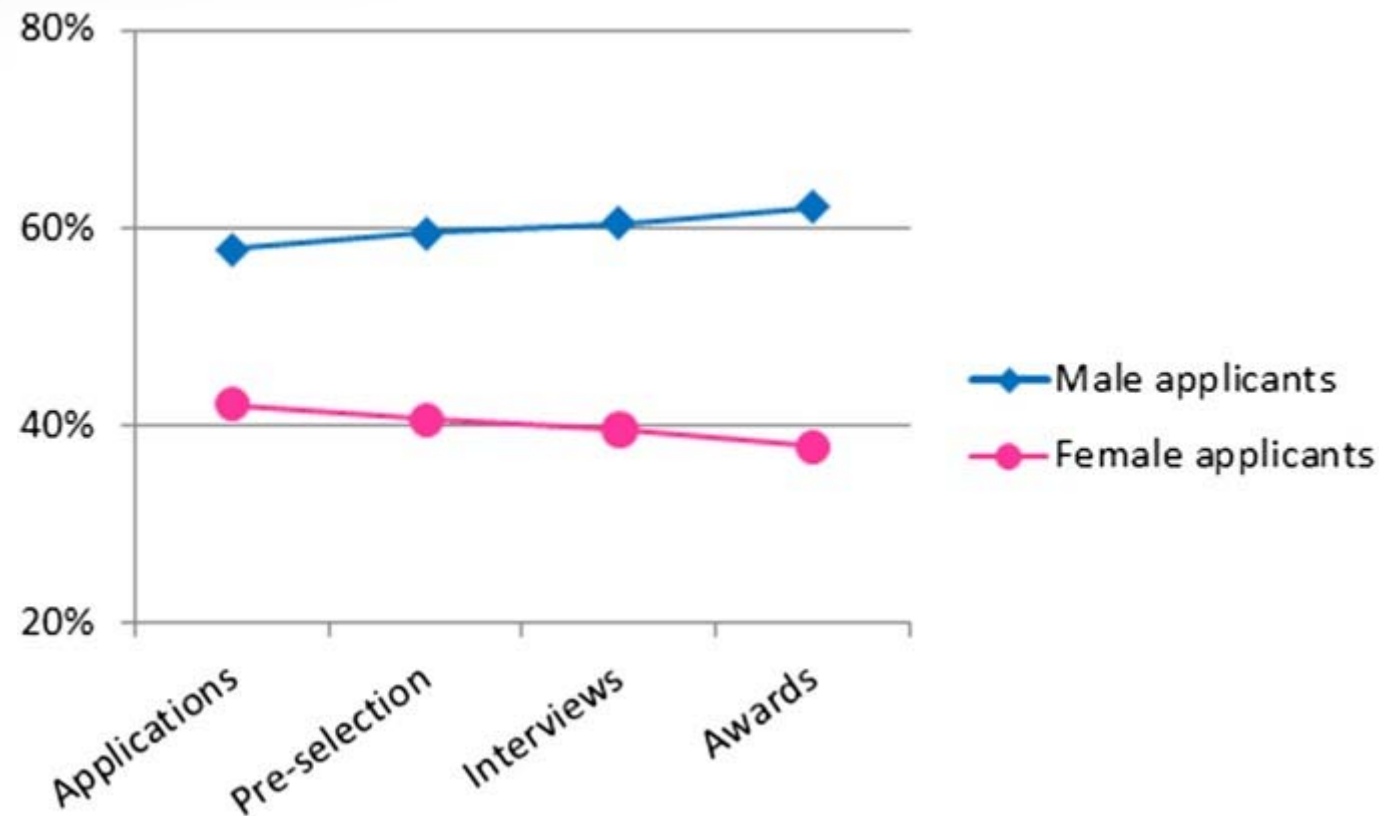
U.S. National Academy of Sciences BEIR VII Phase 2 Risk Model

Sex and gender variables are relevant for radiation levels.

Gender bias in access to research funding

Success rates for male and female applicants for each phase in the grant review procedure (NWO, NL, 2010-2012)

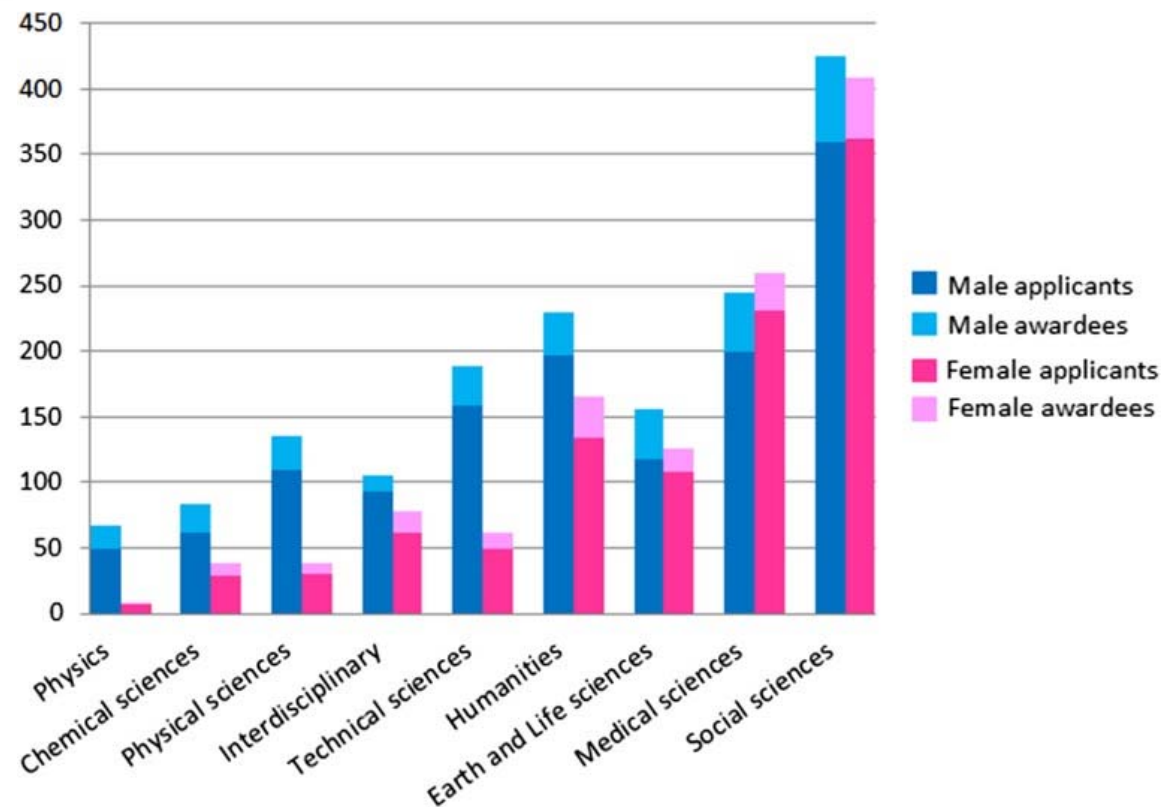
Source. Van der Lee, Ellemers, PNAS 2015 Oct 6; 112(40), Published online 2015 Sep 21.



Gender bias in access to research funding

Numbers of applications and grants awarded for men and women for each of the scientific disciplines (NWO, NL, 2010-2012)

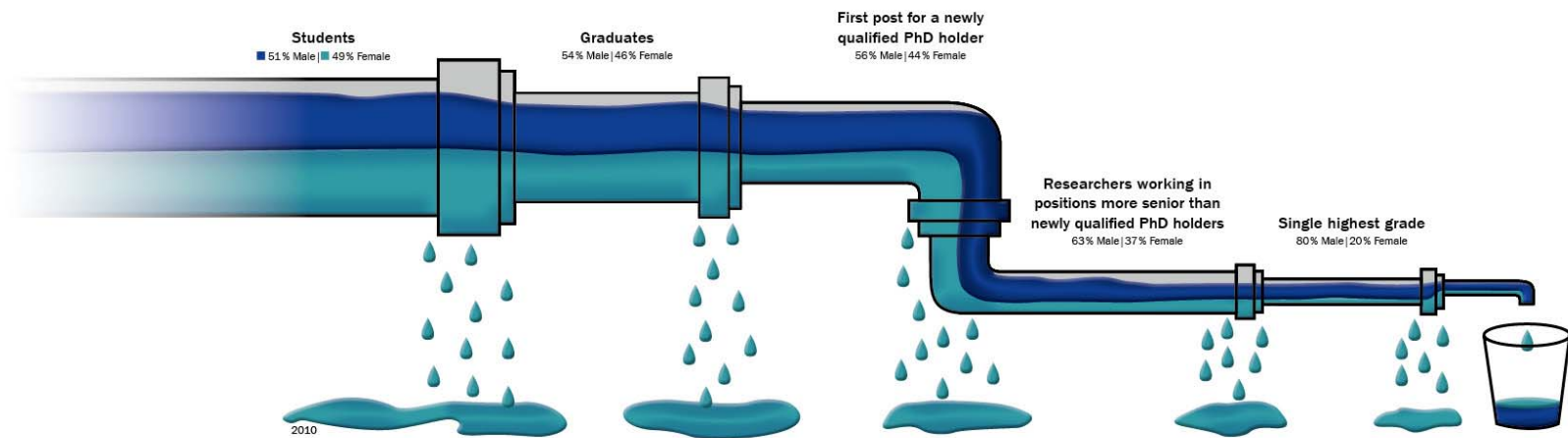
Source. Van der Lee, Ellemers, PNAS 2015 Oct 6; 112(40), Published online 2015 Sep 21.



When metaphors blossom...



When metaphors blossom...



MATILDA
EFFECT

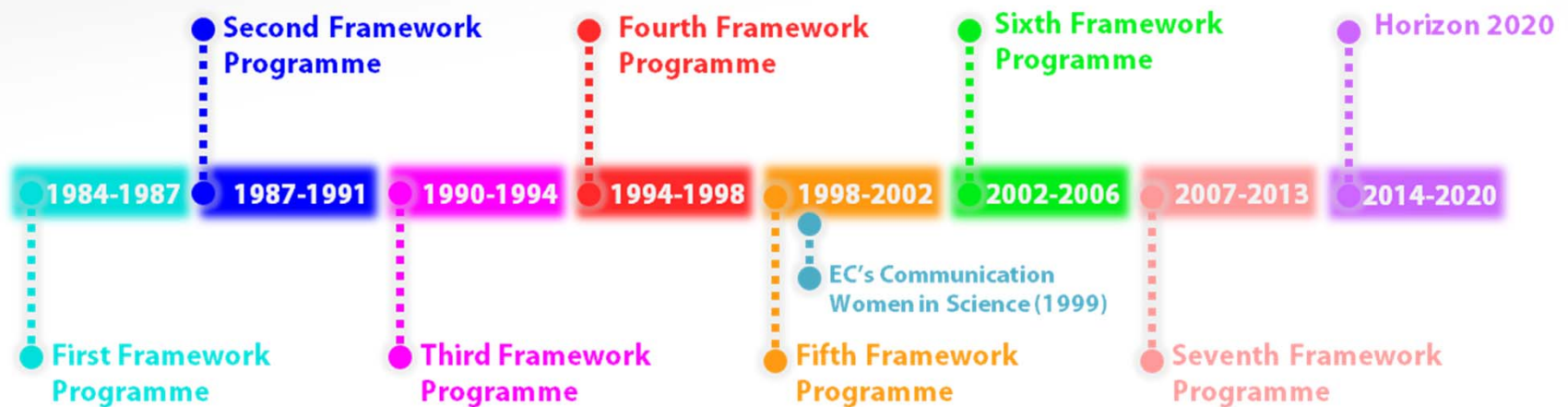




4. GENDER IN RESEARCH & THE EUROPEAN COMMISSION



A 20 YEARS OLD POLICY





EUROPEAN COMMISSION'S DUAL-TRACK APPROACH TO GENDER EQUALITY

- **Gender mainstreaming**: Integrating a gender perspective into the mainstream.
- But! **Specific actions** still needed: gender-specific projects/policies.



GENDER IN RESEARCH

WHO

Equal
opportunities for
men and women
in research



Encourage equal participation of men and women in research teams at all levels

Create working conditions and culture that allow men and women to have equally fulfilling careers

WHAT & HOW

Gender in
research content



Address both women's and men's realities

Consider gender-specific research to fill knowledge gaps



European Research Area (ERA)

- Remove legal and other barriers to the recruitment, retention and career progression of female researchers while fully complying with EU law on gender equality (Directive 2006/54/EC)
- Address gender imbalances in decision-making processes
- Strengthen the gender dimension in research programmes

European Commission's Communication for a Reinforced European Research Area (2012)





European Research Area (ERA)

- Engage in partnerships with funding agencies, research and higher education institutions to foster cultural and institutional change on gender (e.g. charters, performance agreements, and awards).
- Ensure that at least 40% of the underrepresented sex participate in committees involved in recruitment/career progression and in establishing and evaluating research programmes.

European Commission's Communication for a Reinforced European Research Area (2012)





European Research Area (ERA)

- EU Member States and research funding organisations are invited to provide incentives for higher education institutions to develop gender mainstreaming strategies and/or gender equality plans mobilizing adequate resources.

Council Conclusions on Advancing gender equality in the European Research Area (2015)



A momentum for GEP in research?

- ✓ In the EU, there are currently **about 1,500 universities and research performing organizations carrying out gender equality plans/ strategies**
- ✓ **This results from legal obligations in 14 out 28 EU MS**
- ✓ In the UK and Ireland, the **Athena-SWAN** has generated nearly 500 equality strategies in over 150 universities and RPOs, and several major research funding organizations no longer provide funding to RPOs scoring too low in Athena-SWAN
- ✓ Since FP7, EU-funded structural change projects have developed increasingly holistic approaches





5. GENDER EQUALITY IN HORIZON 2020





GENDER IS A CROSS-CUTTING ISSUE IN H2020

- *“Horizon 2020 shall ensure the effective promotion of gender equality and the gender dimension in research and innovation content.” (art. 16)*
- *“In Horizon 2020, gender will be addressed as a cross-cutting issue in order to rectify imbalances between women and men, and to integrate a gender dimension in research and innovation programming and content.”*

Horizon 2020 Work Programme 2014-2015, General Introduction



GENDER IS A CROSS-CUTTING ISSUE IN H2020

Core documents promoting gender equality in H2020:

- H2020 regulation (art. 14, 16, 31 and 32)
- Rules for participation (art. 12, 16 and 37)
- Specific Programme implementing H2020 (points 3, 3.6 and 6.2.3)



9 December 2013

Fact sheet: Gender Equality in Horizon 2020

A renewed commitment

The promotion of gender equality in research and innovation is a commitment of the EU. It is enshrined in the core documents establishing Horizon 2020, with the following objectives:

- Gender balance in research teams
- Gender balance in decision-making
- Integrating gender/sex analysis in R&I content

These three objectives are in line with the Commission's strategy on gender equality as well as with the goals set out in the July 2012 Communication on completing the European Research Area (ERA). They are integrated at each stage of the Research and Innovation cycle.

Gender balance in decision-making

The aim is to reach the Commission's target of 40% of the under-represented sex in each group (for example expert groups) and panels (for example evaluation panels).

For Advisory Groups, the target was raised to 50%, given the high response rate from women to the Commission's call for interest launched in February 2013. Also, each group includes at least one expert with gender expertise; all gender experts in the group meet regularly.

As the pool of female scientists in Europe and beyond is constantly growing, Horizon 2020 wants to guarantee both a high level of expertise and the respect of gender balance. This will also help engage newcomers in EU research activities.

Gender balance in research teams at all levels

Horizon 2020 encourages a balanced participation between women and men in research activities at different stages of the cycle.

To reinforce applicants' engagement at proposal level, gender balance in the research team has been included among the ranking factors to prioritise proposals with the same scores.

In particular, by signing the grant agreement, beneficiaries will commit to promote equal opportunities between men and women in the implementation of their action. They will also commit to aim, as far as possible, for gender balance at all levels of personnel assigned to the action, including at supervisory and managerial level.

Gender dimension in research and innovation content





GENDER IS A CROSS-CUTTING ISSUE IN H2020

Objectives

1. Fostering gender balance in Horizon 2020 research teams

- Gender balance is a ranking factor to prioritise proposals with the same scores.
- By signing the grant agreement, beneficiaries will commit to promote equal opportunities between women and men.

2. Ensuring gender balance in decision-making

- Target of 40% of the under-represented sex in each group and panels.
- Target of 50% for advisory groups. A gender expert should be included in each group.
- All gender experts meet regularly.

3. Integrating gender/sex analysis in R&I content

- A gender dimension is explicitly integrated into several topics.
- Non-flagged topics may well integrate a gender perspective in the proposal.





GENDER IS A CROSS-CUTTING ISSUE IN H2020

To keep in mind:

when is a gender dimension considered relevant?

*“A topic is considered **gender relevant** when it and/or its findings affect individuals of groups of persons. In these cases, gender issues should be integrated at various stages of the action and when relevant, specific studies can be included.”*

Horizon 2020 Work Programme 2014-2015, General Introduction

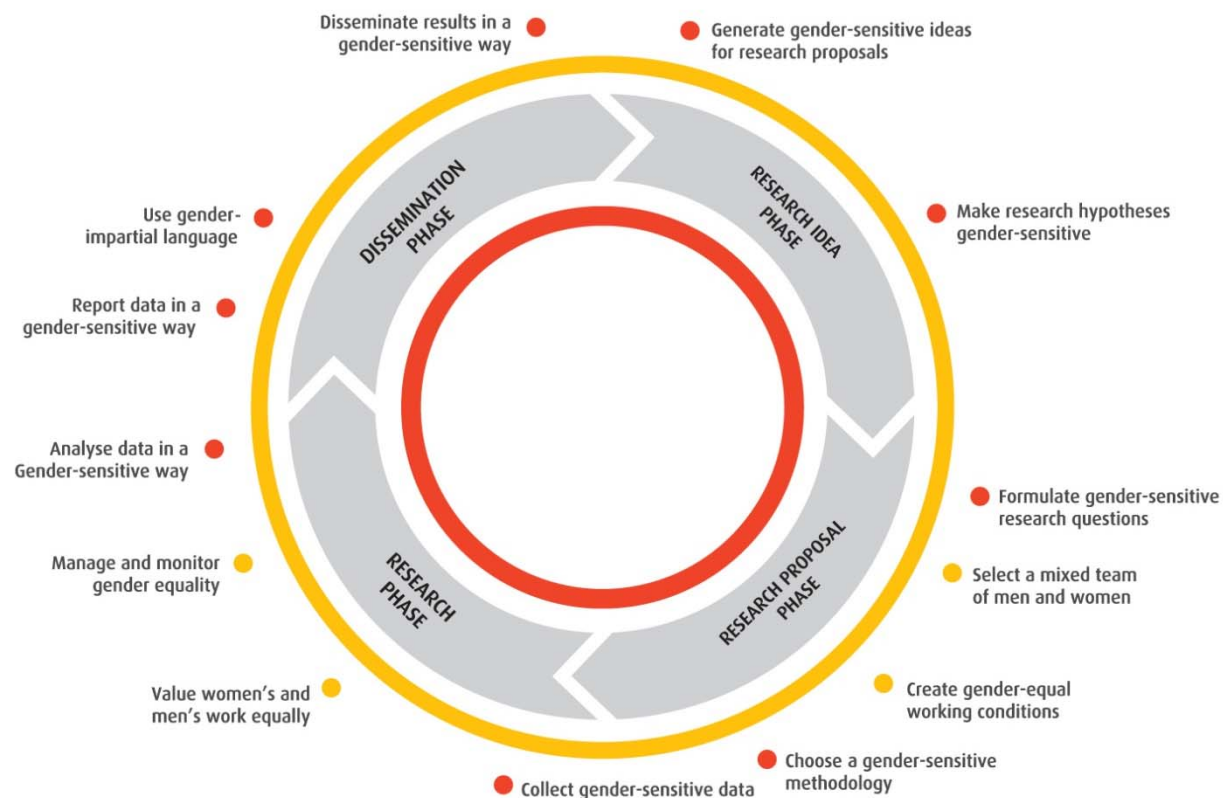




6. GENDERING RESEARCH PROJECTS



GENDER-SENSITIVE RESEARCH CYCLE



Equal opportunities for men and women in research

Gender in research content





CHECKLIST FOR GENDER IN RESEARCH

- **Equal opportunities for women and men in research**
 - Gender balance in the team
 - Working conditions
 - Manage and monitor gender equality



GENDER IN RESEARCH

WHO

Equal
opportunities for
men and women
in research



Encourage equal participation of men and women in research teams at all levels

Create working conditions and culture that allow men and women to have equally fulfilling careers

WHAT & HOW

Gender in
research content



Address both women's and men's realities

Consider gender-specific research to fill knowledge gaps



How to integrate sex / gender in a H2020 proposal?

- Make 'gender' visible straight away (e.g. in abstract, key words)
- Budget: foresee resources; remember gender training is an eligible cost (budget for training under 'other direct costs')
- Keep 'gender' in mind *throughout* the proposal preparation and drafting (gender balance in team; management structures; expertise in the consortium; research activities;...)

→ *No 'magic formula' or couple of paragraphs*

→ *No 'excellence' without gender equality!*

→ *Mobilize appropriate expertise*



How to integrate sex / gender in a H2020 proposal?

Technical part of the proposal:

1.Excellence:

1.1: Objectives: point out relevance; include analysis of sex / gender in relation to the main research topic as objective; explain which knowledge exists already and which are the gaps the research will fill

1.2 Relation to the Work Programme: especially when gender is flagged → explain how furthering gender knowledge will help advance the WP objectives

1.3 Concept and Method:

a) Explain / show the gender expertise in the consortium (interdisciplinary research!), and if missing, say how this will be solved. Refer to existing research on sex/gender in relation to the topic and explain how the project will build on the existing research (if relevant)

b) Explain the project's approach to sex / gender throughout the research cycle

1.4 Ambition: include also a reflection on what the ambition of the project is in relation to gender knowledge



How to integrate sex / gender in a H2020 proposal?

Technical part of the proposal:

2.Impact:

2.1 Expected impacts: include gender! Point out any obstacles or barriers, e.g. missing sex-disaggregated data → explain how the project will contribute to solving this obstacle

2.2 Maximise impact

a) dissemination and exploitation: be consistent and integrate also sex/gender findings in how exploitation is planned; show what the added value will be; how including sex/gender variable will raise the quality of the research

b) communication: communicate findings! (conference papers; posters; research articles); show how results will be disseminated in a way that makes the sex/gender variable visible



How to integrate sex / gender in a H2020 proposal?

Technical part of the proposal:

3.Implementation

3.1: Work Plan: WP's and deliverables: integrate sex / gender throughout; show how the variables sex and/or gender will be taken on board; involve/consult relevant stakeholder groups and experts; consider separate deliverable on gender issues; present Gender Equality Plan in Management work package

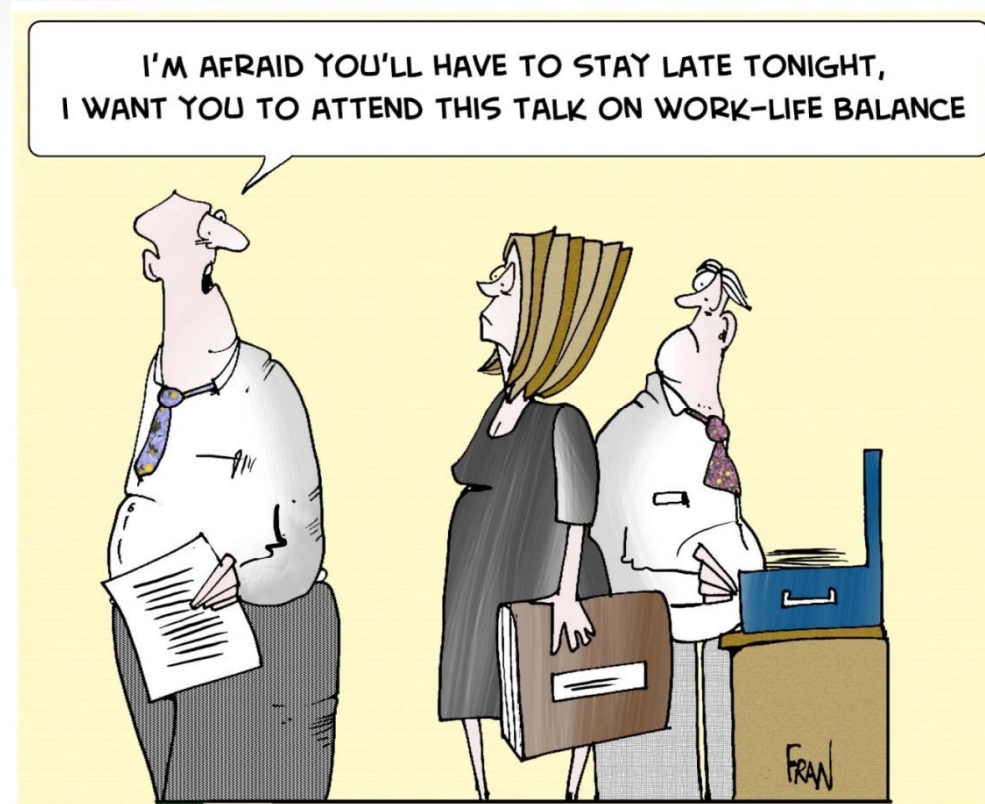
3.2 Management structures: ensure gender balance in management structures!

3.3 Consortium as a whole: ensure and point out gender balance and gender expertise

3.4 Resources: gender training to be foreseen; sufficient resources for gender issues in the work plan



Reconciliation between work and family life





CHECKLIST FOR GENDER IN RESEARCH

- **Gender in the research content**
 - Research ideas phase
 - Proposal phase
 - Research phase
 - Dissemination phase





GENDER IN RESEARCH CONTENT

Step 1: Determine if gender is relevant.

Does your research involve humans?

- **YES:** Gender always relevant
- **NO:** At what point down the line will humans be involved and how will gender be influencing your research at that stage?



GENDER IN RESEARCH CONTENT

Step 1: Determine if gender is relevant.



GENDER IN RESEARCH CONTENT

Step 1: State-of-the-art regarding your research topic and gender.

Check out the existing knowledge on the topic and gender to formulate your hypothesis.

*Interagency High-Level Working Group on
the Re-Invention of the Wheel (IHLWGRiW)*



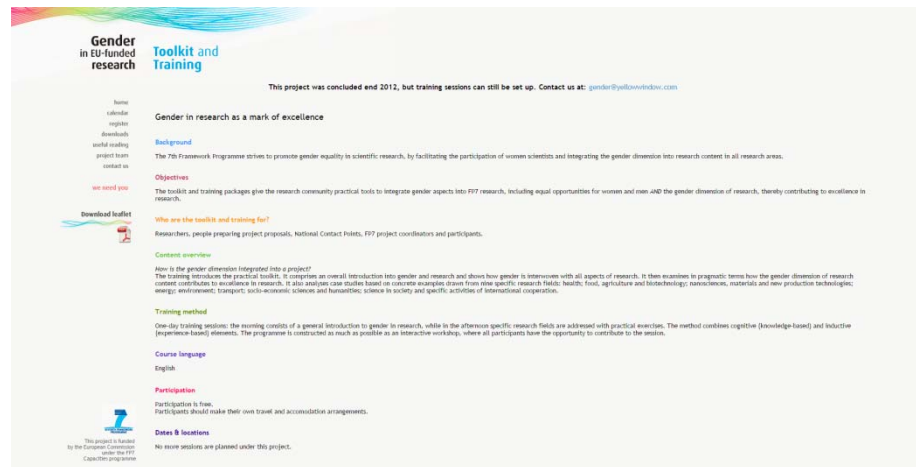
GENDER IN RESEARCH CONTENT

Step 2: Design your project and research methodology.



GENDER IN RESEARCH CONTENT

Step 2: Design your project and research methodology.



<http://www.yellowwindow.be/genderinresearch/>



http://ec.europa.eu/research/science-society/gendered-innovations/index_en.cfm



GENDER IN RESEARCH CONTENT

Step 3: Conduct your research and analyse the results.

- Gender-sensitive research methods
- Gender-neutral language
- Gender-sensitive questionnaires, surveys, focus groups, test cases, etc.
- Gender-balanced end-user groups
- Sex as variable





GENDER IN RESEARCH CONTENT

Step 4: Report on and disseminate your results

- Show gender relevance in your reports and dissemination events (e.g. conferences)
- Publish about it in mainstream journals
- Publish your gender-specific results in dedicated journals



GENDER IN RESEARCH CONTENT

Gender Equality in Academia and Research - GEAR tool

Making a Gender Equality Plan

What is a Gender Equality Plan?



Why change must be structural



What the EU has to say



Are you ready to develop a Gender Equality Plan? The GEAR step-by-step guide →

GEAR action toolbox

Obstacles and solutions

In need of arguments?

Who is the GEAR guide for?

Analytical paper on gender mainstreaming in academia

Opinion paper on gender mainstreaming in academia

Download the complete GEAR tool (853.68 KB)

Learn more:

- > [Relevant Insights](#)
- > [Examples of actions](#)
- > [Key resources](#)
- > [Watch the GEAR tool video teaser](#)
- > [Sitemap](#)
- > [EIGE's Tool for Institutional Transformation](#)
- > [More on EIGE's work on gender in research for policy-makers](#)
- > [Legislative and policy backgrounds](#)
- > [Watch the GEAR tool video tutorial](#)





7. THE BUSINESS CASE FOR GENDER





EXCELLENT RESEARCH NEEDS GENDER

Effectiveness and efficiency

Investing in equal opportunities for men and women in research:

- stimulates the constitution of better performing teams
- allows you to get the best talent from the whole potential talent pool





EXCELLENT RESEARCH NEEDS GENDER

Quality and validity

Investing in a gender-sensitive approach to the research content:

- allows your research to be of a higher quality
- makes it valid for a larger group of end-users





ANY QUESTIONS?

Visit our website: www.yellowwindow.com/genderinresearch

Contact us: gender@yellowwindow.com

