
R&I Gender Agenda

Strategies and references to ensure the gender dimension in research content and gender balance in teams







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Introduction

R&I Gender Agenda

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PRESENTATION CONTENTS

Horizon 2020 and Horizon Europe are different from the previous R&D EU programmes. While the emphasis in the previous programmes was on technological development, in Horizon 2020 and Horizon Europe the focus has shifted to innovation, as reflected in their full name: Framework Programmes for Research and INNOVATION (and not anymore on Technological Development).

Adopting a gender+ perspective in research makes it innovative, therefore it is important to become familiar with this concept and learn how to start applying it in (almost) any research.

- The EU has reinforced its requests towards a more pervasive gender equality through three strategies:
- The eligibility of research projects is linked to the Partners' Gender Equality Plans (GEP)
- Award Criteria request the integration of the gender dimension in the proposal
- Gender balance has been introduced in the Ranking Criteria

In the following pages we will accompany you in complying to all these criteria in writing your research proposals, when teaching and disseminating your research activities, and, in a more general perspective, in your working environment, as coordinators, IP, heads of units, or simply as researchers working in a team.



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02

GEPS COMPARISON

Improvements and best practices

Since January 1st 2022, participants that are public bodies, research organisations or higher education institutions established in a Member State or Associated Country must have a Gender Equality Plan in place, fulfilling mandatory process-related requirements, to be eligible for funding from Horizon Europe. The Gender Equality Plan must be in place for the signature of the Grant Agreement.

The link between the Gender Equality Plans and the funded projects is strong, as the Grant Agreement commits beneficiaries to taking measures to promote gender equality in implementation of action and, where applicable, in line with their GEP.

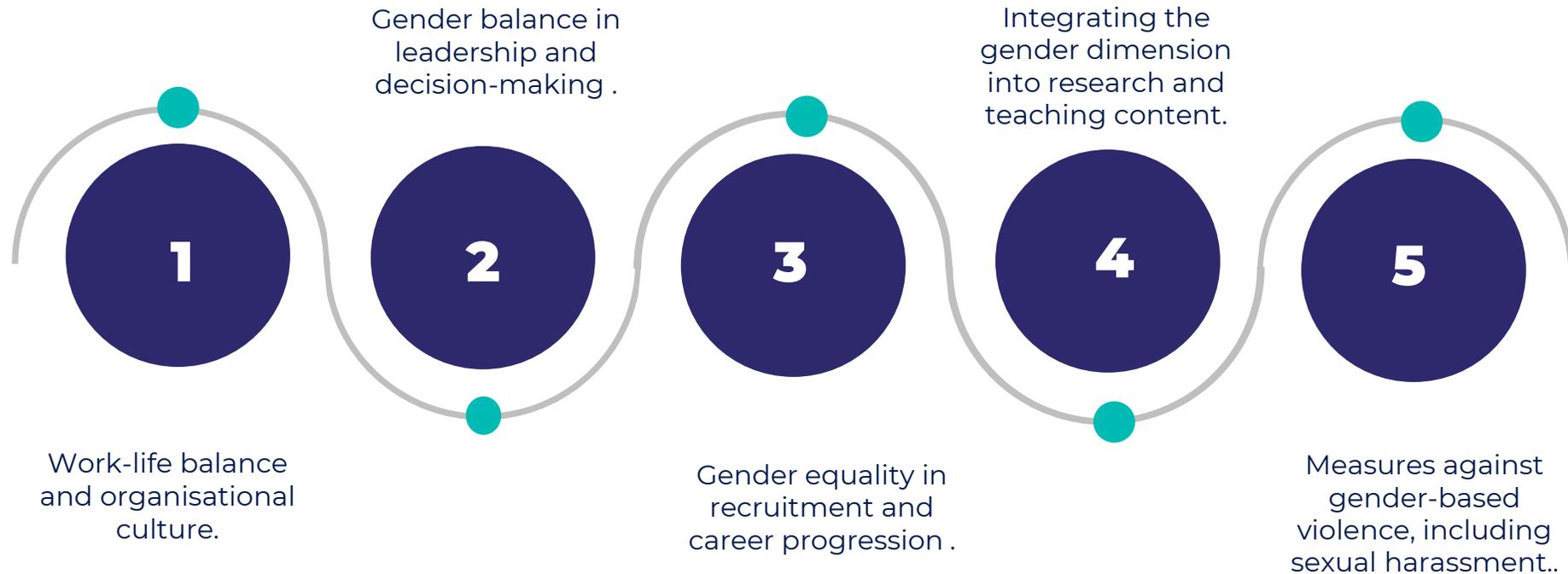
Therefore, knowing the GEP of your institution and possibly those of the Project Partners' institution already in the proposal writing phase is important, to align the proposal, where possible with the GEPs.

All Ulyseus partners satisfy the Horizon Europe request, and in the following pages you may read some relevant aspects of each GEPs, for which the direct links to download the texts (in national languages and, where available, in English) are added.

The comparison of GEPs made by Ulyseus shows how Partners can work to optimise the alignment among proposals and GEPs, trying to emphasise the best practices and to bring support to the difficulties Partners may incur in implementing their GEPs. This can create a positive, reciprocal reinforcement speeding the process towards gender equality, respect of diversity and inclusion.

Five areas of interventions are mandatory for all GEPs, because the Eu considers **them essential factors for gender equality in R&I:**

GEPS COMPARISON



In the following pages we will focus more directly on area n. 4, “Integrating the gender dimension into research and teaching content”, but occasionally we’ll make references also to other areas, when the actions promoted in them may contribute more directly to R&I excellence.

For example, often GEPs include measures to address language and visual representations, with the aim of making the organisation more inclusive. Projects’ communication, dissemination and exploitation plans could benefit from the Partners’ best practices, to harmonise their language and visual strategy.

Language and visual representations

Language and visual representations are central to all knowledge-based activities, including those in science, health & medicine, and engineering. Word choice, charts, graphs, images, and icons have the power to shape scientific practice, questions asked, results obtained, and interpretations made. “Sharing a language means sharing a conceptual universe” within which assumptions, judgments, and interpretations of data can be said to “make sense” (Keller, 1992). Rethinking language also involves Rethinking Concepts and Theories.

Rethinking language and visual representations can:

1. Remove assumptions that may limit or restrict innovation and knowledge in unconscious ways.
2. Remove assumptions that unconsciously reinforce gender inequalities.

More about language and visual representations at:
<http://genderedinnovations.stanford.edu/methods/language.html>

The Governing Council of the University of Seville has approved the III Equality Plan 2022-2024, presented with the III Diagnosis of Gender Equality and the Budget of the US for 2022. A set of information (https://igualdad.us.es/?page_id=817) has been approved by the Equality Commission, in the Governing Council on December 2021, divided into three parts:

- the first corresponds to the III Gender Diagnosis of the US,
- the second part is the III Equality Plan and
- the last part, in annex 4.1, contains an evaluation report on the execution of the II Equality Plan.

The new Equality Plan is organized into 5 axes, 18 objectives and 124 measures, which aim to contribute to advancing in those aspects in which effective equality between women and men has not yet been achieved. For this reason, the III Equality Plan includes measures that allow progress in greater participation of women in one-person academic positions, as well as in the management of research and in the incorporation of the gender perspective in academic activity, all of this from a cross-sectional perspective.

For preparing the documents the participation of the university community has been guaranteed, through the representative bodies, the Equality Commission, the Government Team, all prior to the public hearing that precedes its referral to the Governing Council of the US. Equality policies between men and women have become entrenched in the US, consolidating its commitment, and going through all the college activities.

For preparing the documents, a participatory methodology has been followed in which the Equality Commission assumes the functions of the negotiating commission to the extent that all university groups are represented, following the provisions of RD 901/2020.



The III Diagnosis of Gender Equality analyses the evolution of the distribution by gender of the student body, the ProfessorsDI and the PAS and the composition of the governing and representative bodies. It is worth noticing, as best practice, the salary audit, included for the different PDI and PAS groups, not finding, in general, differences equal to or greater than 25% in mean and/or median.

The UniGe GEP structure meets the process-related requirements of formality, public evidence, dedicated resources, data collection and monitoring, awareness-raising, etc., and the content requirements detailed in the Horizon Europe Programme's General Annexes.

It is a public document, which has been approved by the Magnifico Rettore and published on the UniGe website (https://unige.it/unige_gep). Shared among the various institutions both while being drawn up and at the time.

The GEP's actions comply with the UN 2030 Agenda for Sustainable Development Goals, in particular with objectives:

- 3 - Ensure healthy lives and promote well-being for all at all ages;
- 4 - Quality Education;
- 5 - Gender Equality
- 8 - Decent work and economic growth;
- 10: Resources and inequality
- 11 - Make cities and human settlements inclusive, safe, resilient, and sustainable and
- 17 - Partnerships for the goals along with the UniGe Sustainability Budget.

UniGE has added a preparatory area to the five mandatory areas required by the EU. Called Area 0, it is devoted to creating and adopting the technological and linguistic means needed to implement the actions required for the GEP effectively.



Although a Positive Action Plan has been periodically issued in UniGE, like in all other public Italian institutions, since 2011, the GEP structure is different in particular in the SMART definition of each action. In fact, the EU requires that Actions, and their measures of success, are Specific, Measurable, Achievable, Relevant and Time-bound (SMART). This has required a concertation process that has involved numerous offices and sectors, that will be tested in particular during the first 18 months, to verify that no overlapping with other UniGE documents and actions risks creating duplication of efforts or lack of clarity. Two documents in particular will be cross checked to harmonise the efforts: the Positive Action Plan and the Gender Budget.

For a long time now, UniGe has been fostering gender equality, inclusion and respect of diversity. UniGe has two statutory bodies devoted to protecting gender equality and contrasting discrimination: the CUG (Comitato Unico di Garanzia), which was established pursuant to law number 183/2010 and provided for in article 28 of the University Statute, and the CPO (Comitato per le Pari Opportunità), established in accordance with article 27 of the University Statute. The CUG and the CPO have collaborated to draw up the GEP using existing available data and the actions they plan to take, in particular, the Positive Action Plan (Piano di Azioni Positive) 2021-2023 and the Gender Balance (Bilancio di Genere) 2020.

Information about the programme is also provided via services, agreements and Delegato/alle Pari Opportunità e Inclusione (Delegate for equal opportunities and inclusion), since 2021.

Since 2017, a Harassment advisor with a three-year mandate offers specific support to anyone in the academic community who is seeking assistance in matters of harassment and/or mobbing. S/he is a professional practitioner from outside the university, to guarantee privacy and impartiality.

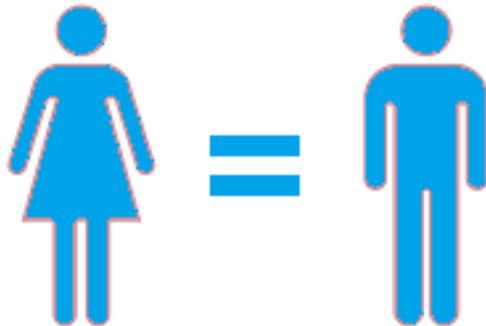
UniGe adopted, on 19th June 2018, the code of conduct for the prevention of any form of discrimination, harassment, mobbing in the workplace and, on 18th August 2017, Regulations in matters of Teleworking for all administrative staff

The procedure aiming at protecting whistleblowers has been in force since March 2021.

Regarding work-life balance, UniGe has made subsidized agreements with infant schools, kindergartens, summer centres since 2008. Since 2015, agreements have been in place with institutions to support members of staff taking care of individuals who are not self-sufficient. Pursuant to law number 104/1992, since 2018, staff with family members whose serious health conditions require them to undergo constant care have been able to apply for benefits. All admin staff are offered subsidised access to summer camps and holiday clubs; a parents' fund has also been set up for specific categories of non-tenured teaching staff (research scholarship holders, but also PhD students and specialising students). In 2015, UniGe activated a double student university ID allowing gender-transitioning students, upon their request, to obtain a temporary bureaucratic profile ("carriera alias") together with a new student university ID bearing the student's name of choice (corresponding to the student's own gender identity) in place of their birth name.

The Université Côte d'Azur is committed to a global, ambitious, and innovative approach to professional equality for women and men.

Laws and public policies, feminist movements, and community associations have made considerable progress in terms of equal rights and the relative status of women and men. Nevertheless, inequalities persist and still amount to considerable gaps: lower wages and pensions for women, career differences, violence, and low representation of women in all the highest intellectual and decision-making bodies, including in higher education and research. This situation remains even though socio-economic studies demonstrate that diversity is a factor in performance, social success.



The ambition is to be an exemplary and innovative organization by proposing an action plan that meets international standards. Thus, the gender equality mission of the Université Côte d'Azur, created in January 2018, aims to identify, and prevent discrimination based on gender stereotypes and to promote professional equality for women and men within the institution. It is intended for everyone, including the leadership, teaching and research faculty and administrative staff, as well as the student community. The gender equality mission is based on an "equality" network made up of representatives from the various members of the Université Côte d'Azur. The role of the "equality" network is to identify needs, carry out concerted and/or shared actions, disseminate information and communicate within the Université Côte d'Azur and beyond.

More information in English: <https://univ-cotedazur.eu/ethical-and-academic-responsibility/equal-opportunities>

Download the document in French: <https://univ-cotedazur.fr/responsabilite-ethique-et-universitaire/egalite-femmes-hommes/plan-daction-egalite-femmes-hommes>.

UCA is devoting significant resources to equality and the prevention of gender-based violence:

GEPS COMPARISON

UCA

- UCA created the UCA equality network whose members represent the different components of UCA and its students. The role of the equality network is to identify needs, carry out concerted or joint actions, share information, and communicate within UCA and beyond. The network was instrumental in creating the equality week (an annual event around March 8 that brings together awareness-raising actions organized by different components and student associations in a joint program).
- UCA has expanded its participation within the CPED by becoming a member of its Executive Board and by participating in different working groups regarding GBV training, and the equality plan.
- UCA has increased the number and diversified the types of training programs offered on issues of diversity, the prevention of gender-based violence, and the risks associated with discrimination tied to gender stereotypes: mini-conferences, conferences, debates, cinema, theatre, and a forum theatre.

- UCA is involved in several networks and has developed partnerships, notably with the Alpes-Maritimes Equality Club, sponsored by the Secretary of State in gender equality and inclusion. UCA hosts the “Boy's Day-Girl's Day” jobs fair designed to promote gender equality in career choices among high school students. Partnerships have also been developed with non-profit networks, business networks, and with the local authorities for the purpose of sharing resources, tools, and events (Alter-égauX Consulting Agency, IBM, Nouv'Elles, student associations, CIDFF06, Refuge 06, the French health insurance company MGEN, the Nice Côte d'Azur Metropolis).

- UCA has been communicating about its actions internally and externally and has created a website entirely devoted to gender equality for the purpose of raising awareness among the various UCA audiences and disseminating all the actions and initiatives organized within UCA. <http://app.univ-cotedazur.fr/egalitefemmeshommes>



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-In 2018, UCA set up a unit to counsel and offer support to staff and student victims and witnesses of gender-based violence (GBV) and organized an annual awareness campaign.

-In 2021, UCA has launched the ACADISCR1 survey, the first national cross-sectional survey to evaluate different types of discrimination. This survey will take into account discriminations linked to gender, sexual preferences, ethno-racial origins, disability and political opinions. The results of this survey are evaluated at the moment and will help UCA to implement an appropriate prevention policy and a targeted action plan.

- UCA showed its commitment by signing the convention for communication without gender stereotypes with the High Council for Equality and by encouraging its partners (Côte d'Azur Observatory and CNRS) to make a similar commitment. UCA has also developed tools to communicate about the convention.

All these actions allowed UCA to be designated “Orange Day champion” by the UN Femmes France committee in 2018 and to be ranked among the leading universities in preventing and responding to gender-based violence and discrimination (UNEF, 2020).

Teaching:

The themes equality, diversity & women advancement are offered within UCA study & research program programs. UCA offers the following diplomas:

- University Diploma has been launched two years ago devoted to violence against women. This diploma aims to participate in the policy of prevention against this type of violence.



The multidisciplinary approach favoured in this University Diploma allows for an overall view of the phenomenon and an understanding of the societal issues, those related to the family, as well as those related to the business world.

- University Certificate was opened last year “For equality against discrimination” aiming at raising awareness and initiating to inequalities, discrimination and diversity in the world of work or elsewhere, in its different forms (gender, disability, social origins, national origins, age, etc.), and at different levels.

Improvement points

A significant difficulty that needs improvement is the lack of resources, influencing the implementation of the GEP and of other measures for gender equality

Other documents integrating the GEP include a guide to supporting public communication free from gender stereotypes, issued in 2016 by the HCE, The High Council for Equality between Women and Men (Haut Conseil à l'égalité entre les femmes et les hommes, HCE or HCEfh), an independent advisory body created by the Decree of 3 January 2013.

https://univ-cotedazur.fr/medias/fichier/reduit-guide-pour-une-communication-publique-sans-stereotype-de-sexe-vf-2016-11-02-compressed_1594106755687-pdf

- MCI is committed to **diversity, openness and tolerance** with regard to applicants, staff, faculty, students, stakeholders and other groups of people - irrespective of gender, age, religious affiliation, impairment, ethnicity, social background, etc.
- The implementation of diversity and gender management in the relevant fields of action and the avoidance of direct and indirect discrimination are among MCI's overriding objectives and are also reflected in MCI's GEP.



- The GPE includes **structures and activities to consistently embed diversity and gender management in the relevant fields of action**. It reflects the EU requests in terms of minimum process related requirements and of recommended areas to be covered and addressed via concrete measures and targets. MCI's GEP addresses all the recommended areas.
- MCI also established a working group for equality, diversity and the advancement of women in its organization, consisting of representatives of different levels, such as the management, the Academic Council, the workers' council, the equal opportunities officer, the students' representative and the representative for impaired or disabled people.

- The MCI has also adopted a **Code of Conduct**, serving as an orientation and framework for positive coexistence and cooperation.
- The objective of the Code of Conduct is to establish a common framework for our behaviour. The Code of Conduct is based on the MCI objectives, values, and success factors defined in the Mission Statement, and it supports us in achieving these objectives.



Two areas require particular attention:

- **Work-life balance and organisational culture**, as no childcare or dependent care provision is currently activated.
 - ⊗ Space for childcare is not available.
- **Increase the number of female students, staff and faculty**, especially in Technology & Life Sciences Programs

In general, there is a lack of resources (public funding) supporting the respective activities.



BEST PRACTICES



- Inclusive language is applied in all communications
- Working Group for equality, diversity and the advancement of women

The GEP at HH reflects the EU requests in terms of minimum process related requirements and of recommended areas to be covered and addressed via concrete measures and targets, with **two exceptions:**

- The process related requirements are discussed as the current dedicated **resources and expertise in gender+ issues are not sufficient.**



- The area on gender balance in leadership and decision-making is not addressed, as **HH current leadership is female-dominated so no development needs have been recognised**



Links to the GEPs:

<https://julkaisut.haaga-helia.fi/equality-plan-2021-2023/> (ENG)

<https://julkaisut.haaga-helia.fi/haaga-helian-tasa-arvo-ja-yhdenvertaisuussuunnitelma-2021-2023/> (FIN)

GEPS COMPARISON

Haaga Helia – IMPROVEMENT POINTS & BEST PRACTICES



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The following points need to be improved:



Trainings are not compulsory 1

Continuity of trainings (current resources derive from projects) 2

The integration of the gender dimension into research is still minimal 3

Implementation to everyday work 4

Involvement of men 5

BEST PRACTICES

- The Finnish Ministry of Education and Culture is currently investigating equality, non-discrimination and diversity among teaching and research staff in Finnish higher education institutions. The report will be published during 2022.
- Haaga-Helia participates in national research projects related to gender+ issues, for example the **Equal Career Paths for Women – Now!Project** (<https://tasaarvoisestiuralle.fi/in-english/>)

Other resources

- Non-discrimination plan, Policy to prevent inappropriate treatment, Accessibility guide
- Safe Space Guidelines are currently being developed

GEPS COMPARISON

TUKE

The Technical University of Košice (TUKE) decided in 2021 to create its first ever Equal Opportunities Plan for men and women 2022-2024, which is a result of the need to promote diversity and gender equality in the academic area of the University, which is part of the European Research Area, and its strategic direction. For the purpose of implementing, evaluating and revising this plan, **the Commission for Equal Opportunities for Men and Women was established at TUKE in 2022, whose work is to help the university community more effectively achieve an inclusive and equitable work and study environment.**

The plan is based on the results of an analysis of the initial situation at the university carried out by the TUKE working group for gender equality within the Ulysses project. In the period from June to December 2021, a quantitative analysis of selected secondary data was performed in order to describe the state of representation of men and women at TUKE, which is the subject of a published report on the state of equal opportunities for men and women at TUKE. The mapping of the current state of equal opportunities for men and women also includes unpublished results of a focus group with representatives of TUKE management and management of some TUKE faculties on the topic "How to improve equal opportunities (gender equality) at TUKE with emphasis on human capital mobilization and sustainable development?", made in November 2021.



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Based on the findings of the analysis and recommendations of the European Commission for the creation of gender equality plans in organizations seeking to obtain resources under the calls of the Horizon Europe grant program, the structure of the plan for equal opportunities for men and women at TUKE was created **focusing on the following nine(9) priority areas:**

- 1. Reconciliation of personal and professional life**
- 2. Organizational culture and communication**
- 3. Balanced representation of men and women in leadership and decision-making positions**
- 4. Equality in recruitment and career development**
- 5. Integration into research and education**
- 6. Measures against gender-based violence, including sexual harassment**
- 7. Data collection, monitoring and information**
- 8. Securing resources (personnel, financial, information ...)**
- 9. Raising the profile of equal opportunities and raising awareness of gender equality through education and training for employees and leadership**

In 2020, a kindergarten for the children of employees and students was established at the university in order to support the work-life balance.

Cooperation with the organization Lean In Slovakia in the purpose of **training of selected numbers of employees from TUKE to become ambassadors within their educational program "Inclusive workplace"** (including the topic of gender equality). The training finished in March 2022 and the ambassadors at TUKE are preparing the course for the employees of TUKE to be launched in autumn 2022.



Establishment of the **unofficial support network with the Commissioners for Gender Equality** or complementary representatives from others Slovak Universities.

The agenda of gender-based violence, including sexual harassment, was included in the activities of the Center for Social and Psychological Support. People experiencing sexual harassment at the university can use free and anonymous counseling.

1st

To increase the number of female students, especially at the Faculty of Electrical Engineering and Informatics



2nd

To increase the number of female teachers at the Faculty of Arts, Faculty of Aeronautics and Faculty of Electrical Engineering and Informatics.

3rd

To reach gender balance in leadership.

03

R&I, GENDER+ STRATEGY AND GENDER DIMENSION: A ROADMAP

R&I, GENDER+ STRATEGY AND GENDER DIMENSION: A ROADMAP



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To guide you in adopting a gender+ strategy and a gender dimension we will refer mainly to the resources recommended by the EU. The main source of information is the Gendered Innovations (GI) project and its related website. We recommend you start using the website and the information it contains as starting points for adopting a gendered perspective in your research activities.

LERU (League of European Research Universities) on Gendered research and innovation (GRI)

Gendered research and innovation (GRI) is an under-recognised issue: it is unfamiliar, not practiced, or not well integrated into the design of the research, save some significant exceptions, for example in biomedical research. If GRI is not recognised, research can yield results that are less applicable to women than to men (or in some cases the reverse), which can lead to costly fixes later. GRI is important because it ensures that research results are equally valid for people of all genders and sexes, because it improves global citizens' lives in many ways and because it helps to ensure that research and innovation are in tune with universities' responsibility to society. LERU Advice paper, N. 18, September 2015.

<https://www.leru.org/files/Gendered-Research-and-Innovation-Full-paper.pdf>

The peer-reviewed Gendered Innovations project:

- 1) develops practical methods of sex, gender, and intersectional analysis for scientists and engineers;
- 2) provides case studies as concrete illustrations of how sex, gender and intersectional analysis leads to innovation.

Gendered Innovations was initiated at Stanford University, July 2009. From 2011-2013, the European Commission funded an Expert Group, "Innovation through Gender/Gendered Innovations" under their Framework Programme 7, aimed at developing the gender dimension in EU research and innovation. The U.S. National Science Foundation joined the project January 2012. From 2018-2020, the Horizon 2020 Expert Group, Gendered Innovations (GI2), updated and expanded the Gendered Innovations methods and case studies.

To match the global reach of science and technology, the case studies and methods of sex and gender analysis were developed through international collaborations. More than 200 experts from across Europe, the United States, Canada, and Asia participated in a series of peer-reviewed, interdisciplinary workshops and collaborations (see Contributors). More at: <http://genderedinnovations.stanford.edu/what-is-gendered-innovations.html>

Schiebinger, L., Klinge, I., Paik, H. Y., Sánchez de Madariaga, I., Schraudner, M., and Stefanick, M. (Eds.) (2011-2020). Gendered Innovations in Science, Health & Medicine, Engineering, and Environment (genderedinnovations.stanford.edu).

The Gendered Innovations website is peer-reviewed. All materials were developed in a series of Gendered Innovations Workshops and reviewed by experts (see [Contributors](#)).



Especially in STEM disciplines it is still unusual to have received a university education that includes learning to adopt a gender perspective in research, so we suggest a path that allows you to acquire specific skills.

We started from the GI website and related documents, and we have selected an orientation path that guides you in exploring the numerous resources made available by the EU, directly or indirectly (through funding for research projects and concerted and support actions that address these issues).

This roadmap will constitute a starting point, after which you will have all the initial competencies useful to dive in your specific research and or teaching field.

R&I, GENDER+ STRATEGY AND GENDER DIMENSION: A ROADMAP

Integrating a gender perspective in your research

Horizon Europe is asking to integrate a gender perspective in research:

“Addressing the gender dimension in research and innovation thus entails taking into account sex and gender in the whole R&I process. It is different from addressing issues of gender balance and equal opportunities among the project’s team members or among participants to events (e.g., conferences) organized by the project.” Guide to Horizon Europe Programme, 17 December 2021, p.17)

The integration of the gender dimension into R&I content is mandatory, unless it is explicitly mentioned in the topic description, therefore there are several steps each scientist should follow to be ready to accomplish to the task.

Award criterion Excellence (RIAs/IAs):
Integration of the gender dimension

Clarity and pertinence of the project’s objectives, and the extent to which the proposed work is ambitious, and goes beyond the state-of-the-art.

Soundness of the proposed methodology, including the underlying concepts, models, assumptions, inter-disciplinary approaches, appropriate consideration of the gender dimension in research and innovation content, and the quality of open science practices including sharing and management of research outputs and engagement of citizens, civil society and end users where appropriate.

R&I, GENDER+ STRATEGY AND GENDER DIMENSION: A ROADMAP

Integrating a gender perspective in your research

From identifying the problem to designing the research from collecting data to analysing them, and eventually in the dissemination actions, both to the scientific world and to the public, researchers are required to analyse sex and or gender related aspects.

A list of questions you should ask yourself when thinking of your research and examples of researches integrating a sex and or gender dimension are published on the GI project:

<http://genderedinnovations.stanford.edu/methods/sex.html>;
<http://genderedinnovations.stanford.edu/methods/gender.html>.

The following step is considering that although "Sex" and "gender" are distinguished for analytical purposes but in reality, sex and gender interact (mutually shape one another) to form individual bodies, cognitive abilities, and disease patterns, etc. Again, you can learn more on this at the GI page:

<http://genderedinnovations.stanford.edu/methods/how.html>.

Notwatski, N. & Grant, K. (2011). Sex is not Enough: The Need for Gender Based Analysis in Health Research. *Health Care for Women International*, 32 (4), 263-277; Fausto-Sterling, A. (2012). *Sex/Gender: Biology in a Social World*. New York: Routledge; Schiebinger, L. & Stefanick, M. (2020). Analyzing how sex and gender interact. *Lancet* 396(10262), 1553-1554.

R&I, GENDER+ STRATEGY AND GENDER DIMENSION: A ROADMAP

Integrating a gender perspective in your research



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Until H2020 the EU referred mainly to “gender” but in Horizon Europe we find references to “Gender+”. Adopting a gender+ strategy means that gender remains the main contemplated type of inequality but its interaction with other sources of inequality and grounds of discrimination must be considered in the design and implementation of research activities.

The first time the term “gender+” (gender plus) was used was in the framework of the European research project QUING (“Quality in Gender+ Equality Policies in Europe”, 2006-2011). It was initially coined by Prof. Mieke Verloo, its scientific director, and has become generalized in many spheres. (See “CALIPER, Gender Equality in STEM research” report: Linking Research & Innovation for Gender Equality). This gender+ approach is linked to the concept of intersectionality.

<https://cps.ceu.edu/research/quing>



R&I, GENDER+ STRATEGY AND GENDER DIMENSION: A ROADMAP

Intersectionality

Diversity management from the early 1960s has been focused on women and minorities, as they represented the historically disadvantaged groups. In the late 1980, Prof. Kimberlé Crenshaw's (1989) with her analysis of race, gender and politics for African American women coined the term "intersectionality", indicating the situation in which multiple characteristics of diversity overlap, leading persons with a combination of such characteristics to experience distinct disadvantages (Alberti et al., 2013; Carbado et al., 2013; Rajendran et al., 2017; Syed & Pio, 2010). In STEM disciplines, adopting an intersectional perspective may lead to more inclusive outputs, technology, or services.

«Specific funding will be dedicated to gender and intersectional research, to developing inclusive gender equality policies in support of the new European Research Area, and to empowering women innovators.»

(https://ec.europa.eu/info/research-and-innovation/strategy/gender-equality-research-and-innovation_en)

How to adopt an intersectional approach?

«Before beginning a study, researchers should conduct systematic literature searches to identify factors and categories of potential relevance. These categories and factors can be biological, socio-cultural or psychological characteristics of users, customers, participants, experimental subjects or cells»

<http://genderedinnovations.stanford.edu/methods/intersect.html>

Example: Analyzing Gender and Intersectionality in Machine Learning

Facial recognition systems (FRSs) can identify people in crowds, analyse emotion, and detect gender, age, race, sexual orientation, facial characteristics, etc. These systems are often employed in recruitment, authorizing payments, security, surveillance and unlocking phones. Despite efforts by academic and industrial researchers to improve reliability and robustness, recent studies demonstrate that these systems can discriminate based on characteristics such as race and gender, and their intersections.

Bias in machine learning (ML) is multifaceted and can result from data collection, or from data preparation and model selection. For example, a dataset populated with men and lighter-skinned individuals will misidentify darker-skinned females more often. This is an example of intersectional bias, in which different types of discrimination amplify negative effects on an individual or group.

The level of accuracy of an intersectional analysis is higher than both gender and race analysis: Gender analysis: systems performed better on men's faces than on women's faces Race analysis: systems performed better on lighter-skin than darker-skin. Intersectional analysis: system performed worst for Black women. Error rates were 35% for darker-skinned women, 12% for darker-skinned men, 7% for lighter-skinned women and less than 1% for lighter-skinned men.

Buolamwini, J., & Gebru, T. (2018). Gender Shades: Intersectional accuracy disparities in commercial gender classification. InConference on fairness, accountability and transparency, 77-91.

More about this research: <http://genderedinnovations.stanford.edu/case-studies/facial.html#tabs-3>

R&I, GENDER+ STRATEGY AND GENDER DIMENSION: A ROADMAP

Where can I find detailed information, case studies, references?



As already mentioned, the main reference point mentioned by the EU in almost all its documents referring to gender and diversity related topics, useful for applicants submitting research proposal, is the website Gendered Innovations. The website is periodically updated.

The case studies described on the website are published in two reports:

[Gendered Innovations How Gender Analysis Contributes to Research](#) (2013)

[Gendered Innovations 2: How Inclusive Analysis Contributes to Research and Innovation](#) (2020)

You may also listen and view the numerous interviews and presentations of Dr Londa Schiebinger, the John L. Hinds Professor of History of Science in the History Department at Stanford University and Director of the EU/US Gendered Innovations in Science, Health & Medicine, Engineering, and Environment Project. (INSERT 2 LINKS)

R&I, GENDER+ STRATEGY AND GENDER DIMENSION: A ROADMAP

How can I report my work on sex and gender in my scientific publications?

The SAGER Guidelines, gender sensitive scholarly communications, are a comprehensive procedure for reporting of sex and gender information in study design, data analysis, results, and interpretations of findings. They are primarily designed to guide authors in preparing their manuscripts, but they are also useful for editors to integrate assessment of sex and gender into all manuscripts as an integral part of the editorial process.



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The SAGER guidelines

Article: Heidari, S., Babor, T.F., De Castro, P. et al. Sex and Gender Equity in Research: rationale for the SAGER guidelines and recommended use. Res Integr Peer Rev 1, 2 (2016).

<https://doi.org/10.1186/s41073-016-0007-6>

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(<http://creativecommons.org/licenses/by/4.0/>),

(Flyer)

<https://researcheracademy.elsevier.com/uploads/2020-08/SAGER%20Guidelines.pdf>

<https://researchintegrityjournal.biomedcentral.com/track/pdf/10.1186/s41073-016-0007-6.pdf>

Recommended websites, books, articles, report



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We list in this section resources that can help you in acquiring useful information and lead you in finding resources more directly related to your research field. We include in this section only resources not previously mentioned in the document.

VIDEOS

EU projects must reach the public, but often scientists find it difficult to explain their research in lay terms. We recommend viewing these short videos, made by the GEECCO Eu funded project, as best practices in explaining the link and interactions between gender and some technological fields.

- Humans & Computers. What should the interface between humans and computers be like so the highest possible number of people can use the product? And what does that have to do with gender?
<https://www.youtube.com/watch?v=vrWx91RdmGo>
- Robots in our society. What does robotics have to do with gender? And what is the responsibility researchers and research funders have? Thanks to the GEECCO EU project, a video tells us more about this topic.
<https://www.youtube.com/watch?v=bfXr29VAuwU>
- Energy for all. How can we successfully achieve a fair energy transition that avoids disadvantages to anyone? And what does gender have to do with that? The GEECCO project has interesting answers!
<https://www.youtube.com/watch?v=aAuBRxmAVtU>
- Mobility for all. How can personal mobility be achieved that is affordable, environmentally friendly, and safe – and addresses the needs of all people? And what does gender have to do with that?
<https://www.youtube.com/watch?v=oMifoI5-14M>

Source: Gender Equality in Engineering through Communication and Commitment- GEECCO Project

Recommended websites, books, articles, report



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ARTICLES

This article may represent a starting point to understand the improvements sex and gender analyses may bring to research. Once assimilated the main concepts, it will be easier to find in the literature more specific articles and resources addressing fields and subfields.

Tannenbaum, C., Ellis, R.P., Eyssel, F. et al. Sex and gender analysis improves science and engineering. *Nature* 575, 137–146 (2019). <https://doi.org/10.1038/s41586-019-1657-6>

Abstract

The goal of sex and gender analysis is to promote rigorous, reproducible and responsible science. Incorporating sex and gender analysis into experimental design has enabled advancements across many disciplines, such as improved treatment of heart disease and insights into the societal impact of algorithmic bias. Here we discuss the potential for sex and gender analysis to foster scientific discovery, improve experimental efficiency and enable social equality. We provide a roadmap for sex and gender analysis across scientific disciplines and call on researchers, funding agencies, peer-reviewed journals and universities to coordinate efforts to implement robust methods of sex and gender analysis.



Recommended websites, books, articles, report

BOOKS

The following list may represent a starting point. All the authors mentioned are renowned scientists, and the books have been translated in several languages.



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- 1 Anne Fausto Sterling**
 - Sex/gender. Biology in a social world.
 - Sexing the Body: Gender Politics and the Construction of Sexuality
- 2 Cordelia Fine**
 - Testosterone Rex · A Mind of Its Own · Delusions of Gender
- 3 Gina Rippon**
 - The Gendered Brain: The new neuroscience that shatters the myth of the female brain
- 4 Catherine Vidal, Dorothée Benoit-Browaëys, e al.**
 - Cerveau, Sexe & Pouvoir
- 5 Anna Wiener**
 - Uncanny Valley, 2020
- 6 Caroline Criado Pérez**
 - Invisible Women: Exposing Data Bias in a World Designed for Men

The logo features a teal-colored compass rose icon on the left. To its right, the word "Compass" is written in a bold, dark blue sans-serif font. Below "Compass", the word "Ulysseus" is written in a teal-colored sans-serif font.

Compass

Ulysseus

