

# SVILUPPO SOSTENIBILITA' E PARI OPPORTUNITA': PARADIGMI, MODELLI E ORIENTAMENTI NELLA PROGETTAZIONE EUROPEA

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# **Gender Equality and Inclusiveness & Open Science in European Research and Innovation**


# Gender Equality Strategy 2020-2025

Policy objectives and key actions:

- ending gender-based violence
- challenging gender stereotypes
- closing gender gaps in the labour market
- achieving equal participation across different sectors of the economy
- addressing the gender pay and pension gaps
- closing the gender care gap and achieving gender balance in decision-making and in politics

**Gender mainstreaming in all EU policies**

## Cos'è il Gender Mainstreaming?

The Commission will **integrate a gender perspective in all EU policies and major initiatives**  essential to reach the goal of gender equality

Gender mainstreaming ensures that policies and programmes **maximise** the potential of all –women and men, girls and boys, in all their diversity. The aim is to **redistribute power, influence and resources** in a fair and gender-equal way, tackling inequality, promoting fairness, and creating opportunity.

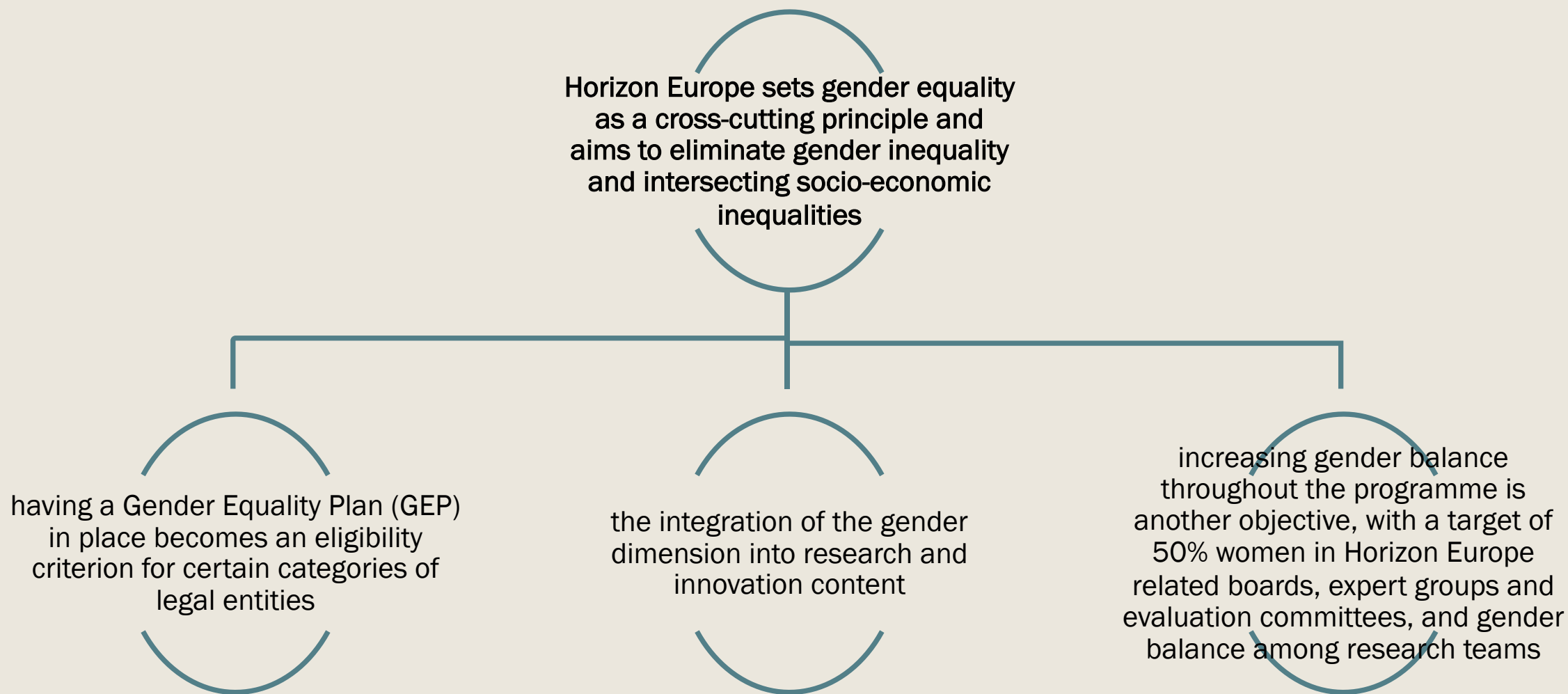
Green Transition

**DIGITAL TRANSITION**

EU Drugs Agenda

European Research Area

# Gender equality and intersectionality in Horizon Europe





## The 2020 ERA Communication renewed its commitments to gender equality and gender mainstreaming

- women PhD graduates in EU\* is **47,78%**
- women represent only **32,8%** of researchers in the EU
- women occupy only **26,1%** of the top academic positions
- women heading higher education institutions in Europe was only **23,6%**
- Scientific publications of the EU integrate a gender analysis is **1,80%**
- Horizon 2020 projects integrating a gender dimension is **1,65%**

ethnicity,  
sexual  
orientation,  
disability



promote a gender-inclusive  
culture

Gender-based  
violence

The Commission will propose:

- the development of **inclusive Gender Equality Plans**
- to **promote EU gender equality in R&I**

# GEPs : Development of concrete plans to promote gender equality, diversity, and inclusiveness in science, research, and innovation

The screenshot displays a presentation slide with six categories of Gender Equality Plans (GEPs), each with a green pencil icon and a list of examples. The categories are arranged in two columns. The first column includes: 'work-life balance and organisational culture' (examples: Parental leave policies, flexible work-time arrangements), 'gender balance in leadership and decision-making' (examples: Introducing gender quotas for evaluation panels or decision making bodies), and 'gender equality in recruitment and career progression' (examples: Unconscious bias training for HR managers, inclusive language for job vacancies, fair evaluation for employees). The second column includes: 'integration of the gender dimension into research and teaching content' (example: Get inspiration from the case studies and methods developed by the EC "Gendered innovations" Expert Group), 'measures against gender-based violence including sexual harassment' (example: Having in place a code of conduct or an intervention protocol in case of complaints). At the bottom of the slide, there is a streamyard.com watermark and a blue button that says 'Interrompi condivisione'.

<b>work-life balance and organisational culture</b> ✍ <b>Examples:</b> Parental leave policies, flexible work-time arrangements.	<b>integration of the gender dimension into research and teaching content</b> ✍ <b>Example:</b> Get inspiration from the case studies and methods developed by the EC "Gendered innovations" Expert Group
<b>gender balance in leadership and decision-making</b> ✍ <b>Examples:</b> Introducing gender quotas for evaluation panels or decision making bodies.	<b>measures against gender-based violence including sexual harassment</b> ✍ <b>Example:</b> Having in place a code of conduct or an intervention protocol in case of complaints.
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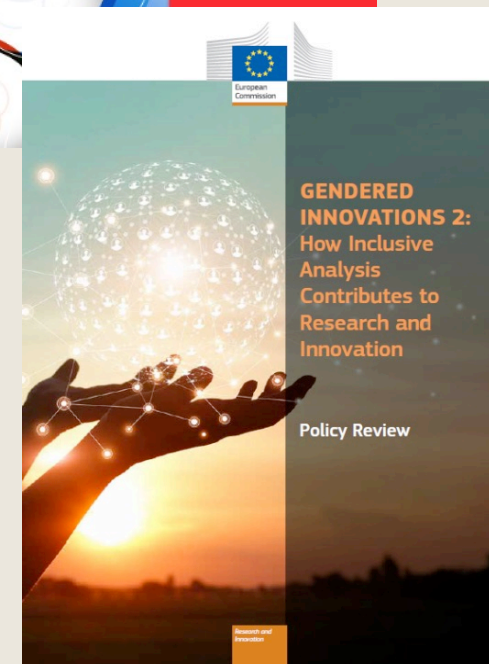
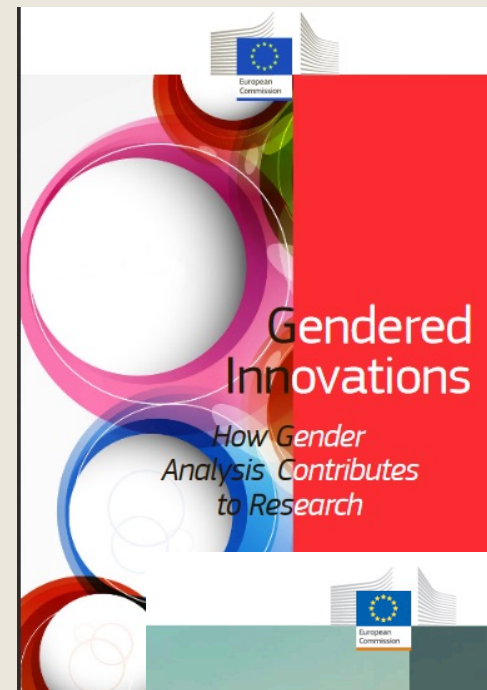
Source: APREspecial 15/04/2021

public bodies, research  
organisations  
and higher education  
establishments (European  
Commission, 2020)

# Gendered Innovations Expert Group

The expert group to analyse how gender and sex analysis in research design and content stimulates innovation and responds better to social needs and interests by opening new perspectives, new questions providing strategic recommendations and inform policy-making on how to further strengthen the gender dimension in R&I content in Horizon Europe

- New **case studies** in different fields (health, AI & robotics, climate change, energy, transport, urban planning, agriculture, taxation, venture funding...) building on Horizon 2020 funded projects
- **Refined methodologies** on the integration of sex/gender based analysis, and intersectional analysis, in R&I content
- **Evidence-based policy recommendations** for Horizon Europe
- **Awareness raising** material including infographics, factsheets





# L'integrazione della dimensione di genere nella ricerca – perchè è importante

*Ensuring that the biological characteristics as well as the social and cultural features, behaviours and needs of both women and men are taken into consideration is vital for the **societal relevance** and **quality of research and innovation** (R & I) Mariya Gabriel  
Commissioner for Innovation, Research, Culture, Education and Youth*

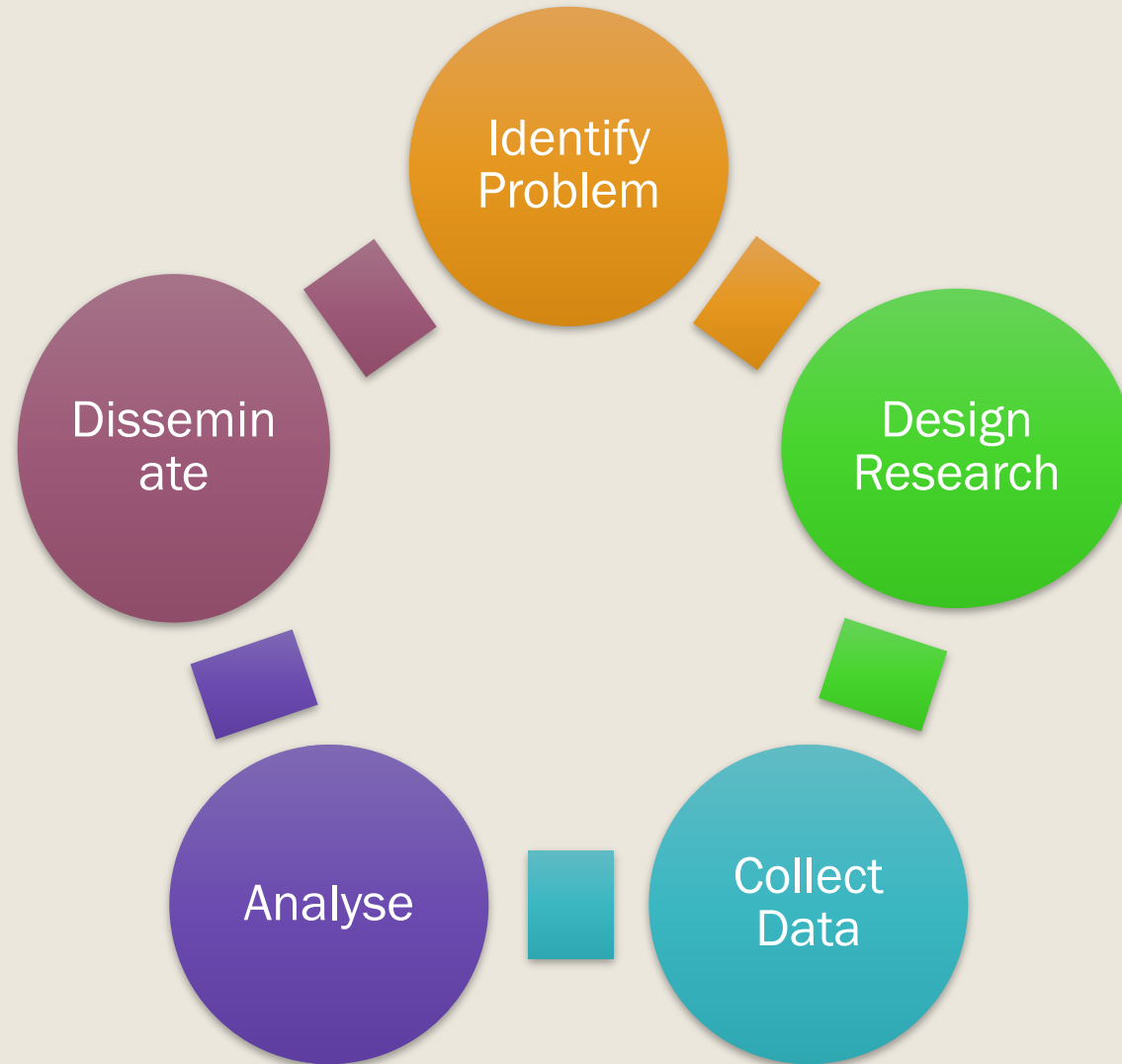
helps researchers and innovators question gender norms and stereotypes, and rethink standards and reference models;

leads to an in-depth understanding of diverse gender needs, behaviours and attitudes;

addresses the diverse needs of citizens of the European Union and thereby enhances the societal relevance of the knowledge, technologies and innovations produced;

contributes to the production of goods and services better suited to new markets

## Come incorporare la variabile di genere e in che momento della ricerca/ progettazione



PENSA  
CREATIVO!

# Metodi

## General methods (Gendered Innovations 2)

- ✓ Analysing sex
- ✓ Analysing gender
- ✓ Intersectional approaches
- ✓ Co-creation and participatory research
- ✓ Asking about gender and sex in surveys

## Methods (Gendered Innovation)

- ✓ rethinking research priorities and outcomes
- ✓ rethinking concepts and theories
- ✓ formulating research questions
- ✓ analysing how sex and gender interact
- ✓ engineering innovation processes
- ✓ design thinking
- ✓ rethinking standards and reference models
- ✓ rethinking language and visual representations

## Metodi – Analysing Sex

Qual è il ruolo del sesso nello studio?

E' una variabile? Di che tipo?

Le caratteristiche relative al sesso sono rilevanti per lo studio?

I fattori relativi al sesso, al genere, all'etnicità, all'età, allo status socio-economico interagiscono?

Sono state perse opportunità in passato avendo trascurato l'analisi per sesso?

Come può essere concettualizzato il sesso nella fase di raccolta dati?

Nella ricerca longitudinale, come può influenzare la storia riproduttiva di un campione?

Hai incluso un campione adeguato di soggetti femminili, maschili e intersex?

Raccogli informazioni sui fattori che interagiscono con il sesso

Come può influenzare il sesso del ricercatore nei risultati della ricerca?

Hai considerato la fonte di ogni differenza sessuale osservata?

Ci sono intersezioni che possono interagire con le differenze per sesso?

Come sono evolute le variazioni di sesso nel tempo?

Riporta il sesso dei soggetti/ come sono state ottenute le informazioni per sesso/Disaggrega per sesso/riporta tutti i risultati (positivi, negativi e inconclusivi)

IDENTIFY  
PROBLEM

RESEARCH  
DESIGN

COLLECT  
DATA

ANALYSE

DISSEMI  
NATE

# Metodi – Analysing Gender

Qual è il ruolo del genere nello studio?  
Le diverse identità di genere, norme e relazioni sono rilevanti per il progetto?  
I fattori relativi al genere, all'etnicità all'età, allo status socio-economico interagiscono?  
Quali sono le ipotesi di genere/gli assunti di genere in relazione al tuo progetto?  
Sono state perse opportunità in passato avendo trascurato l'analisi per genere?

IDENTIFY  
PROBLEM

Come posso coinvolgere diversi gruppi in modo inclusivo nella ricerca?  
Quali metodi sono migliori per esaminare la dimensione di genere nel progetto?  
Quali sono i concetti, le categorie e i modelli teorici alla base di stereotipi?  
Hai considerato il rischio di stereotipare o escludere gruppi rilevanti?

RESEARCH  
DESIGN

Hai raccolto i dati attorno a fattori di genere? E fattori intersezionali?  
Hai assicurato un accesso paritario a donne, uomini e individui gender-diverse?  
Come può influenzare il genere del ricercatore nei risultati della ricerca?

COLLECT  
DATA

Hai considerato i fattori rilevanti rispetto a norme, identità e relazioni di genere?  
Hai esaminato analogie tra gruppi e variazioni interne ai gruppi?  
Hai esaminato come le differenze di genere variano al variare di fattori diversi?

ANALYSE

Riporta il genere, sesso e altre variabili dei soggetti/ come sono state ottenute le informazioni per genere/Disaggrega per sesso e genere/riporta tutti i risultati (positivi, negativi e inconclusivi)

DISSEMIN  
ATE

## Analysing how sex and gender interact: chronic pain

Women generally display a lower pain threshold for all types of pain. Some researchers attribute these differences solely to sex differences, others suggest that these are in part due to gender. A better understanding of biological and sociocultural mechanisms of pain, and how these interact with pain management, may lead to better health outcomes for pain patients.

### METHOD: ANALYSING SEX AND GENDER INTERACT

- Biological mechanisms, such as sex hormones, influence perception and expression of pain and response to treatment.
- Gender roles and norms also influence pain. During childhood, boys may be taught to be tough and stoic, and girls to verbalise discomfort. These gender norms can affect perceived sensitivity to pain.
- Biological differences might also be a consequence of gendered social influences.

Gender stereotypes influence how pain is experienced

A patient willingness to report pain

How healthcare manage pain

# Analysing Intersectionality: Smart Energy Solutions

Energy transition depends in part on users' acceptance of new technologies and services and on robust public engagement in thinking and implementing low-carbon solutions. Integrate gender and intersectional analysis into research and development maximise the adoption of new energy efficiency tools and technologies.

## METHOD: ANALYSING INTERSECTIONALITY

- Research on energy often ignore the human factor.
- An intersectional approach is needed to recognise people's multiple social identity (gender, socioeconomic, age..)
- Together these factors influence the life experiences of citizens engaging with the complex energy system.

## METHOD: ENGINEERING INNOVATION PROCESSES

- Although many energy-efficient technologies and products are available, they are often rejected by households, public sector and industry because they do not meet the values, motivations and needs of different user groups

# Co-creation and Participatory Research: Smart Mobility

Mobility patterns tend to be gendered in terms of where, when and why people move. However they do not take into account the diversity of needs and issues that affect transportation. For example, need for safety for specific groups.

## **METHOD: CO-CREATION AND PARTICIPATORY RESEARCH**

- Participatory research and co-creation help planners integrate users' gender-specific needs into the process of new service and technology development
- Example: National Household Travel Survey illuminate mobility needs by including trips performed as part of caring work.

Understanding gender specific needs can add new perspectives and improve transportation for broader segments of the population.



## Consigli utili in progettazione: decostruiamo unconscious bias

all women as a group, all men as a group and all gender-diverse people as a group (their attitudes, preferences, needs, behaviours and knowledge) are the same;

women, men and gender-diverse people are completely different;

observed differences between women and men are solely biological in origin;

observed gender differences hold across cultures;

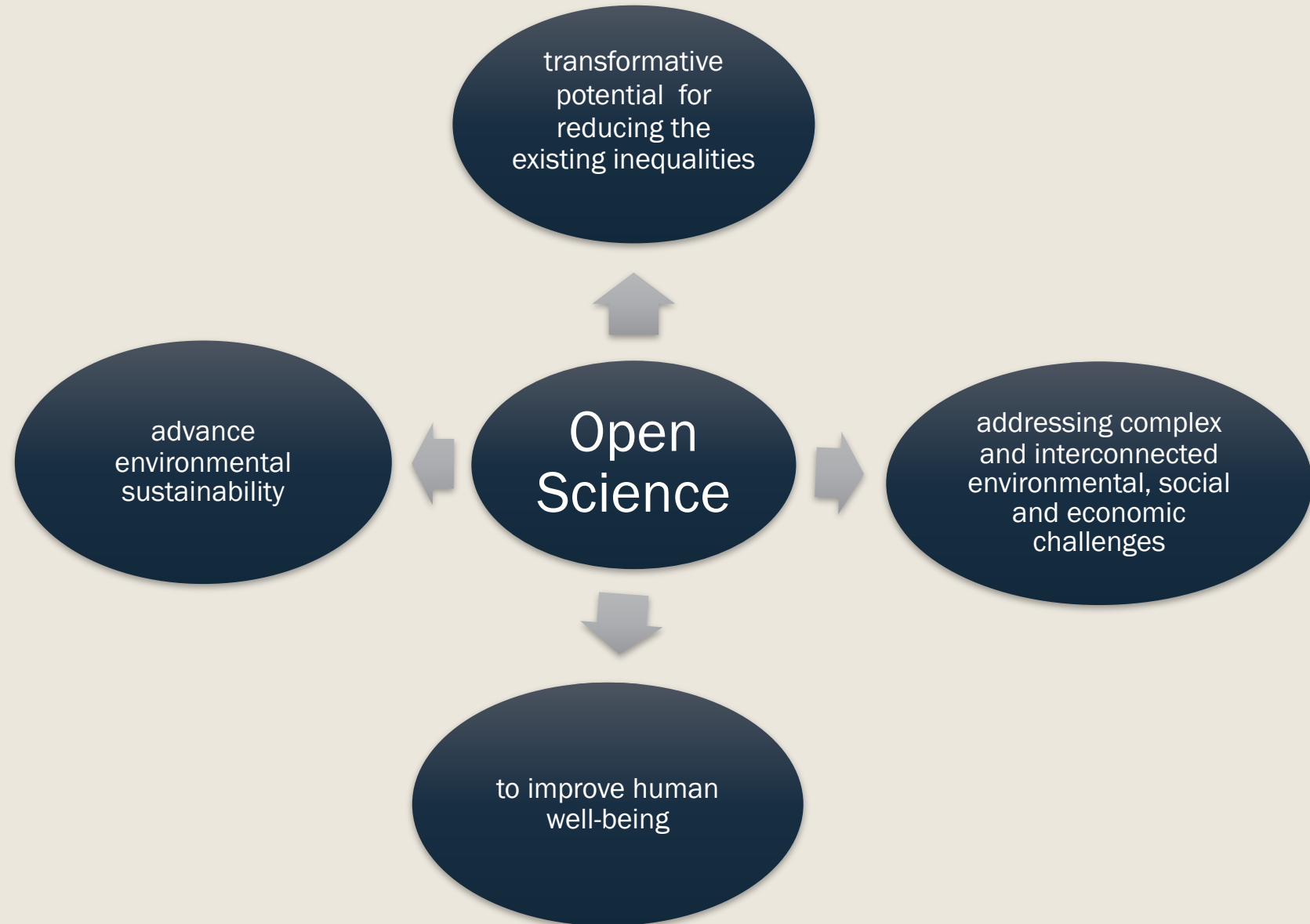
life conditions and opportunities are similar for women, men, and gender-diverse people;

birth sex can be used as a proxy for gender identity in surveys;

certain questions are relevant to only one gender (e.g. survey questions about caregiving relate primarily to women or questions about the strain of physical work primarily to men)

# **Open Science in European Research and Innovation**

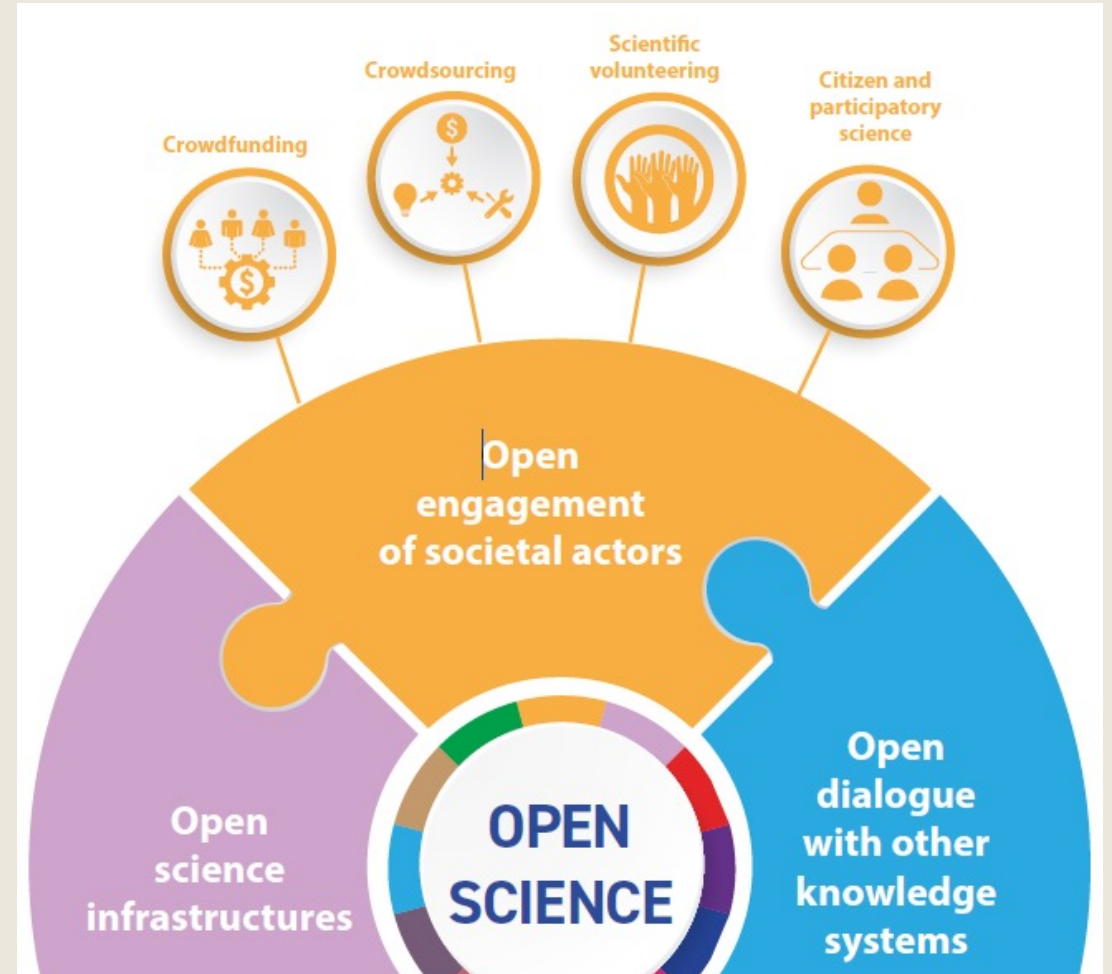
# Open Science



# Open Science opens the processes of scientific knowledge creation, evaluation and communication to societal actors beyond the traditional scientific community

Open engagement of societal actors

Makes the scientific process more inclusive and accessible to the broader inquiring society based on new forms of collaboration



# Citizen, civil society and end-user engagement in Horizon Europe

## *co-design activities*

(such as workshops, focus groups or other means to develop R&I agendas, roadmaps and policies)

## *co-creation activities*

(involving citizens and/or end-users directly in the development of new knowledge or innovation)

## *co-assessment activities*

(such as assisting in the monitoring, evaluation and feedback to governance of a project, projects, policies or programmes)

The extent of engagement in the proposal could range from **one-off activities** alongside other methodological approaches to being the **primary focus** or methodological approach of the project itself

Engagement will require **resources and expertise** and is therefore often conducted by dedicated interlocutor organisations or staff with relevant expertise.

## Fonti

- [A union of Equality: Gender Equality Strategy 2020-2025](#)
- [Stepping up action for a Union of Equality](#)
- [A new ERA for Research and Innovation](#)
- [Gendered Innovations 2: How Inclusive Analysis Contributes to Research and Innovation](#)
- [She Figures 2021](#)
- [Gendered Innovations – Stanford University](#)
- [Gendered Innovations: How gender analysis contributes to research](#)
- [Yellow Window – Training and toolkit for gender in research](#)
- [European Institute for Gender Equality](#)
- [UNESCO Open Science](#)
- [Horizon Europe Programme Guide](#)
- [Gender Equality in research and innovation](#)

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# Annexes



## Alcune definizioni - Sex- Gender - Intersectionality

- ✓ **Sex** refers to biology. In humans, 'sex' refers to the biological attributes that distinguish male, female and intersex. In non-human animals, 'sex' refers to biological attributes that distinguish male, female and hermaphrodite. In engineering and product design research, sex includes anatomical and physiological characteristics that may affect the design of products, systems and processes.
- ✓ **Gender** refers to sociocultural norms, identities and relations that (1) structure societies and organisations and (2) shape behaviours, products, technologies, environments, and knowledges (Schiebinger, 1999; Ridgeway and Correll, 2004). Gender attitudes and behaviours are complex and change in time and place. Importantly, gender is multidimensional (Hyde et al., 2018) and intersects with other social categories, such as sex, age, socioeconomic status, sexual orientation and ethnicity
- ✓ **Intersectionality** describes overlapping or intersecting categories such as gender, sex, ethnicity, age, socioeconomic status, sexual orientation and geographical location that combine to inform individuals' identities and experiences. Researchers and engineers should not consider gender in isolation; gender identities, norms and relations both shape and are shaped by other social attributes

## Alcuni casi studio

1. Analysing the impact of sex and gender in the covid-19 pandemic
2. Analysing how sex and gender interact: caso studio pain
3. Analysing Intersectionality: Smart Energy Solutions
4. Co-creation And Participatory Research: Smart Mobility
5. Analysing Gender And Intersectionality Virtual Assistants And Chatbots

# Analysing the impact of sex and gender in the covid-19 pandemic

Current worldwide statistics show more men than women dying of acute infection, while women are projected to suffer more than men from the health, economic and social consequences of the pandemic in the long term.

## METHOD: ANALYSING SEX

- All data related to COVID-19 morbidity and mortality should be disaggregated by sex.
- Potential impacts of differences should be considered in diagnostics and therapeutics.
- Use women and men in clinical trials
- Drug and vaccine trials should include sex-specific analyses

## METHOD: ANALYSING GENDER

- Women comply more with hand hygiene. Preventive measures should be designed in a gender-sensitive manner
- Gender affects the division of labour and care duties in families – women are more often employed in professions with a high risk of infections
- The allocation of protective equipment, therapies and financial aid should be gender-equitable

# Analysing Gender And Intersectionality: Virtual Assistants And Chatbots

Chatbots and virtual assistants are often biased, feminised, reproducing harmful gender stereotypes about the role of women in society. The datasets and algorithms may also be biased, perpetuating existing discriminations and interpreting the language of certain ethnic groups.

## METHOD: ANALYSING GENDER AND INTERSECTIONALITY IN SOCIAL ROBOTS

- Designers of virtual assistant should be aware of how robots are gendered (e.g. name or voice).
- Designers should adopt a participatory research approach to better understand how AI agents can fit a diverse group of users based on intersecting traits

Virtual assistants need to be trained on a wide variety of language to not discriminate against gender and ethnic language variations

To combat the harm caused by feminised virtual assistant, developing gender-neutral voices and gender-neutral languages

# Award criteria

	<b>Excellence</b> (The following aspects will be taken into account, to the extent that the proposed work corresponds to the description in the work programme)	<b>Impact</b>	<b>Quality and efficiency of the implementation</b>
<b>Research and innovation actions (RIA)</b>  <b>Innovation actions (IA)</b>	<ul style="list-style-type: none"> <li>- <b>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.</b></li> <li>- <b>Soundness of the proposed [for the first stage: overall] 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.</b></li> </ul>	<ul style="list-style-type: none"> <li>- <b>Credibility of the pathways to achieve the expected outcomes and impacts specified in the work programme, and the likely scale and significance of the contributions from the project.</b></li> <li>- Suitability and quality of the measures to maximise expected outcomes and impacts, as set out in the dissemination and exploitation plan, including communication activities.</li> </ul>	<ul style="list-style-type: none"> <li>- Quality and effectiveness of the work plan, assessment of risks, and appropriateness of the effort assigned to work packages, and the resources overall.</li> <li>- Capacity and role of each participant, and the extent to which the consortium as a whole brings together the necessary expertise.</li> </ul>

Excellence: Appropriate consideration of the gender dimension in the research and innovation contents

If necessary, the **gender balance** among the personnel named in the proposal who will be primarily responsible for carrying out the research and/or innovation activities, and who are included in the researchers table in the proposal, will be used as a factor for prioritisation

# Submission template

PART A  
GEP and Gender  
balance

Gender Equality  
Plan

Main contact  
person (Woman,  
Man, Non binary)

Researchers  
involved in the  
proposal  
(Woman, Man,  
Non binary)

PART B  
Gender integration in R&I

## 1.2 Methodology

*Describe how the **gender dimension** (i.e. sex and/or gender analysis) is taken into account in the project's research and innovation content [e.g. 1 page]. If you do not consider such a gender dimension to be relevant in your project, please provide a justification.*

## 3.2 Capacity of participants and consortium

*Describe the consortium. How does it match the project's objectives, and bring together the necessary disciplinary and inter-disciplinary knowledge. Show how this includes expertise in social sciences and humanities, open science practices, and **gender aspects of R&I**, as appropriate*

# Opportunità di finanziamento su Gender (equality) in Horizon Europe

