



GENDER DIMENSION OF RESEARCH

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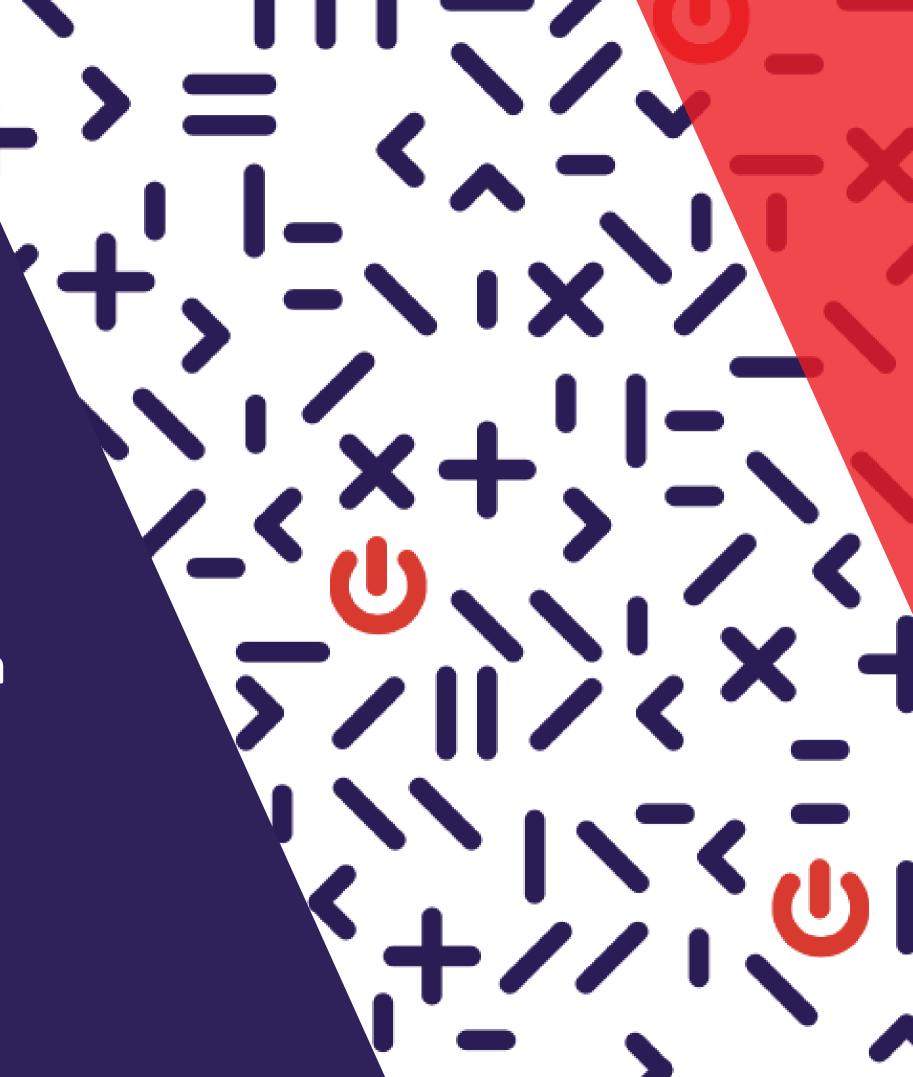
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SOME PRACTICAL INFO

- You can type questions for the trainers using the chat function on the right side of the screen; the moderator will address the questions to the trainers at the end of the session (Q&A session)
 - The webinar is being recorded and will be made available afterwards at the GENDERACTION website http://genderaction.eu/
 - Useful background reading/references to relevant sources are provided at the end of this presentation and in links in PDF
 - A feedback form will be sent to you. We kindly ask you to fill it in the link to be made available after the end of the webinar
 - Participants are muted, to optimize audio quality

CONTENT

- GENDERACTION project
- Novelties of Horizon Europe
- Key concepts of gender analysis
- Gender and sex dimension of R&D
- How to integrate gender dimension
- Potential risks in gender analysis
- Good practice
- Q&A



GENDERACTIUN Project

An innovative policy community:

GENDER

- bringing together representatives appointed by national authorities in Member States and Associated Countries (HG/SWG GRI members)
 - set to advance gender equality in R&I and the implementation of the gender priority in the European Research Area at national, European and international levels until 2020 and beyond
 - foster policy coordination, best practice exchange and mutual learning among more and less experienced countries to develop knowledge and build capacities, competence and know-how



PROJECT ACTIVITIES

- Map and analyse Members States' progress
 towards implementation of gender equality in R&I
 through national ERA action plans and strategies
- Deliver training events to build consistent and professional capacity in gender equality in R&I among responsible national representatives and Horizon 2020 National Contact Points
- Provide mutual learning opportunities (through a variety of training events and other mutual learning activities) to maximize existing experience among policy makers and other relevant stakeholders
- Prepare **policy briefs** on advancing gender equality in ERA
- Build new collaborations to advance gender equality in international cooperation in science, technology and innovation

TARGET AUDIENCE

National level

National authorities (incl. research attachés, civil servants), Horizon 2020/Horizon Europe NCPs, RFOs, RPOs

- European level
 SWG GRI
 European Institutions (European
 Commission, European Parliament,
 Competitiveness Council)
 - Global level
 Bodies for international cooperation (UN, OECD, etc.)
 - Research community
 EIGE, The ERA Stakeholder
 Plaftorm, ERA-NET GENDERNET, Projects of
 cultural and institutional
 change

- Developing a methodology to measure progress in the implementation of priority 4 gender equality and gender mainstreaming
 - Consistent and professional capacity to implement ERA roadmap priority 4 among responsible national representatives
 - Coordination of efforts of Member States in priority 4
 - Enhanced expertise in gender equality and gender mainstreaming among key stakeholders (including NCPs and RFOs most notably), with a particular focus on the relatively inactive countries
 - Consistency between national gender equality strategies in research and innovation and Horizon 2020

Shift in the imbalance between the proactive and relatively inactive countries in Europe

IMPACT

Novelties
of Horizon
Europe

REGARDING GENDER EQUALITY:

- intersectionality (broader understanding of discrimination)
- integration of GENDER DIMENSION into R&D: a requirement BY DEFAULT across the whole programme (award c.)
- public bodies: GENDER EQUALITY PLAN (GEP) by 2022 (eligibility c.)
- specific funding for inclusive GEPs, gender studies and intersectional research
- European Innovation Council (EIC) target of 40% women-led companies invited to **pitch their projects**, a target of 50% women among members of advisory structures, a prize for women innovators and a dedicated initiative to support women-led start-ups
- GENDER BALANCE IN RESEARCH TEAMS (ranking c.), evaluation panels, boards and expert groups



Award Criteria: Integration of the gender dimension

Excellence criterion for RIAs/IAs

- 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.

Integration of the gender dimension in R&I content

GENDER DIMENSION - addressing the gender dimension in research and innovation content entails taking into account sex and gender in the whole research & innovation process

- The integration of the gender dimension into R&I content is mandatory, unless it is explicitly mentioned in the topic description
 - Gendered innovations 2 How inclusive analysis contributes to research and innovation: policy review
 - Gendered innovations Factsheet
 - European Commissioner for Innovation, Research, Culture, Education and Youth
- Nature editorial



Why do we need to integrate the gender dimension into R&I content?



- Every cell is sexed and every person is gendered
- Brings added value of research in terms of excellence,
 rigor, reproducibility, creativity and business opportunities
- Brings an in-depth understanding of all people's needs, behaviours and attitudes
- Goods and services better suited to the needs of all citizens
- Enhanced societal relevance of research and innovation

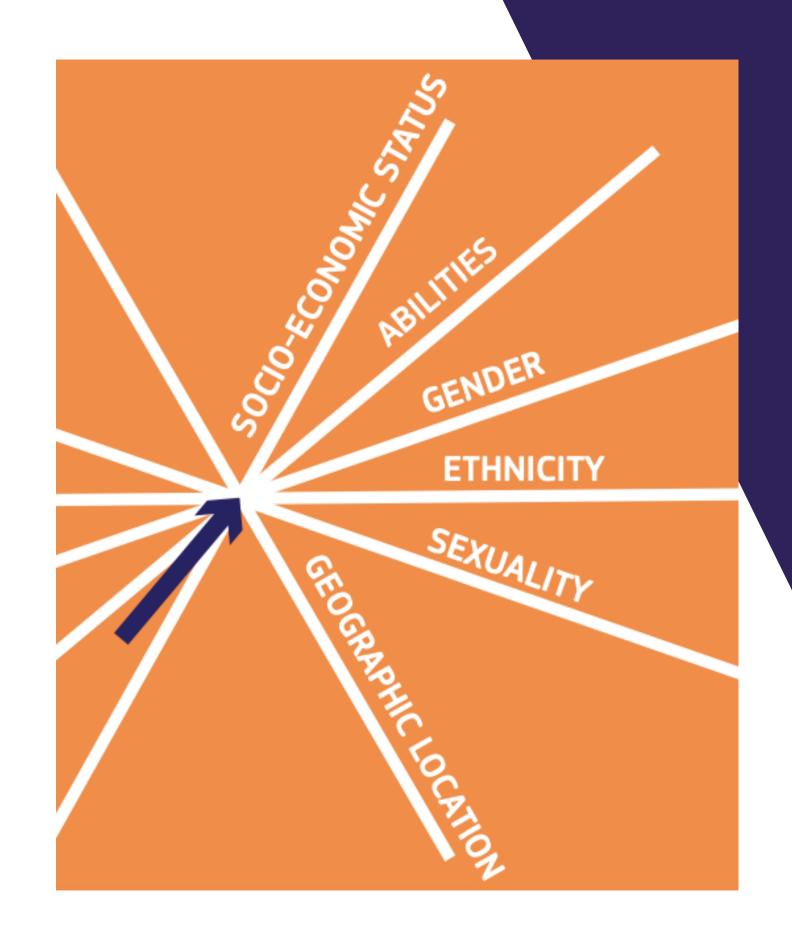
Key concepts
of gender
analysis

INTERSECTION-ALITY

GENDER

HE ERA C CY IMPLEM

SEX



Gender & sex dimension of R&D

SEX DIMENSION

- sex of the tissues or cells needs to be noted and reported in order to ensure reproducibility of experiements and that findings (in one sex) are not overgeneralized (to the other sex)
 - important to consider whether the expression of genes of a cell or tissue under study is influenced by sex hormones. The expression of genes may be influenced by sex steroidal hormones in the cell culture media or by the hormonal environment of the donor animal (cells removed for in vitro experiments may behave differently than in vivo)
 - consider the basic question to be addressed and how the study design and outcomes might be affected by the sex of tissues and cells - sex differences must be considered before they can be ruled out



GENDER DIMENSION



- multidimensional concept:
 - Gender norms: spoken and unspoken rules produced through social institutions, such as the family and workplace, and cultural products, such as technology and social media
 - Gender identity: refers to how individuals and groups perceive and present themselves in relation to gender norms
 - Gender relations: refer to how individuals interact with other people and institutions in specific sociocultural contexts. In health, all cases may apply, but frequently one dimension is more relevant than the others for the specific question asked

SEX, GENDER & MORE

Cumulative Life Course Risk Factors for Non-Communicable Disease (NCD) Highlighting the influence of sex and gender-related factors Accumulated Risk of Developing Non-Communicable Diseases **GENDER-**RELATED SOCIAL **FACTORS** Established adult behavioral risk factors Smoking Physical inactivity Obesity Socioeconomic status Maternal SEX-RELATED nutrition **BIOLOGICAL FACTORS** Diseases Birth weight Growth rate **FETAL LIFE** CHILDHOOD **ADOLESCENCE ADULT LIFE**

Adapted from Darton-Hill et al., 2004

Example 4: How Sex, Gender, and other Factors Interact in Nutrigenomics

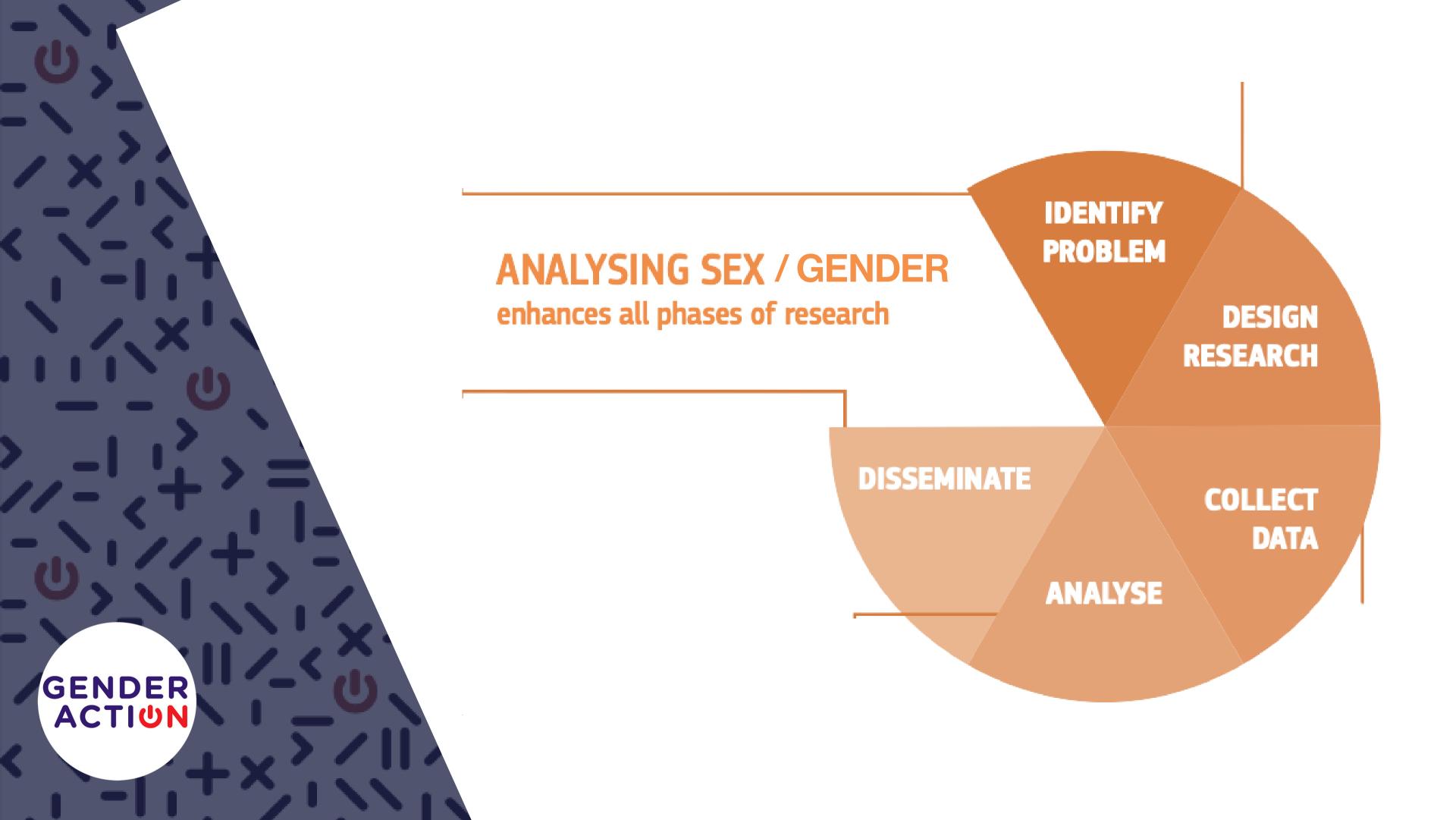
INTERSECTIONALITY

- sexual orientation and gender identity have high importance when researching men and women (hetero /homo-sexual, g. fluid, etc)
- when we take gender as a category, we have to ask further "what kind of wo/man"? (young/older, European/Asian..., low vs. high income, etc.)
 - context
 - when we use analytical categories such as profession we have to take into account 'atypical' professions by gender (male nurse)
 - does our research proposal (mehods, hypotheses, etc.) work across cultural, religious, ethnical, geographical and other differences of people we research on/with?





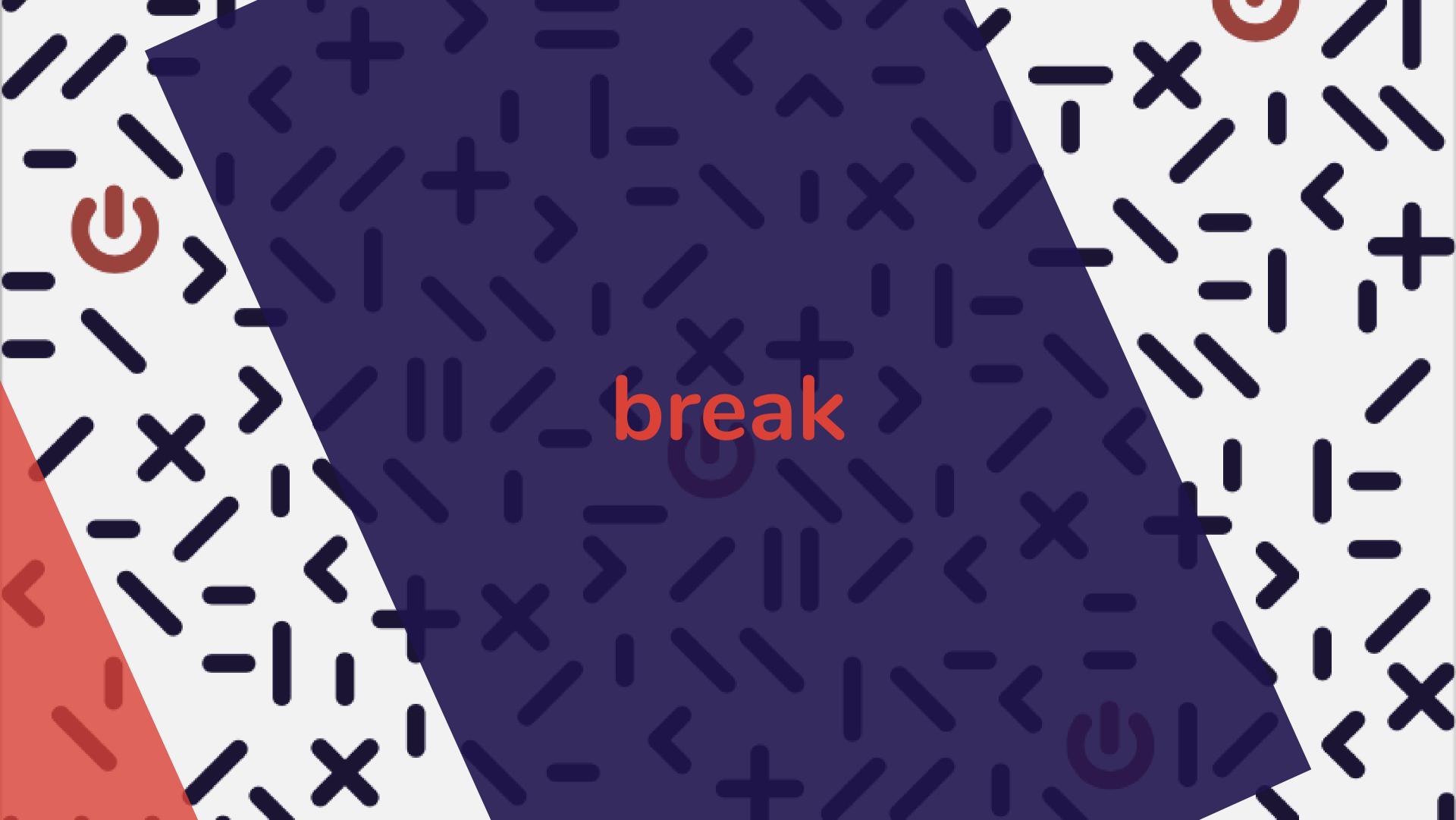
Systematic integration of gender/sex dimension



MOST COMMON MISTAKES & RISKS



- using gender stereotypes
- sex/gender taken as BINARY categories
- not considering other categories of possible influence-INTERSECTIONALITY
- assigning differences automatically to sex (taking sex for gender)
- overaccentuation of sex and/or gender differences
 without having proof of their role in the researched topic
- overlooking proofs of minimal or no differences (sex and/or gender)



Good practice: case studies

GENDER EQUALITY IN THE ERA COMMUNITY
TO INNOVATE POLICY IMPLEMENTATION



Urban planning

Do cities work for all? How to create quality urban spaces?

- particularly important for children, caregivers, elderly and/or disabled people
- these groups spend more time in public spaces compared to working age people, and/or may face specific risks in public spaces
- integration of gender dimension with intersectional approach helps to design safer public spaces according to the specific needs
- method used: GENDER IMPACT ASSESSMENT
- GIA: systematic evaluations for developing more general recommendations who benefits from the design and who is left out (intersectional variables)

Building child-friendly and family friendly streets and public spaces

- often designed and built giving priority to the needs of cars over the needs of people

Example from Japan and other countries:

- child-friendly routes to school
- co-design of schools and municipalities
- relocating pedestrian crossings, longer green lights for pedestrians, temporary traffic closures near schools at peak times, signs to alert drivers there are schoolchildren nearby

Gendered Innovations: Urban Planning

Building safer urban spaces for women

Example from Canada (1990's), other cities/states using their method (Madrid)

- method: "exploratory safety audits" including walking with women to determine the following safety principles

Principle 1: Know where you are and where you are going. Signposting.

Principle 2: See and be seen. Visibility.

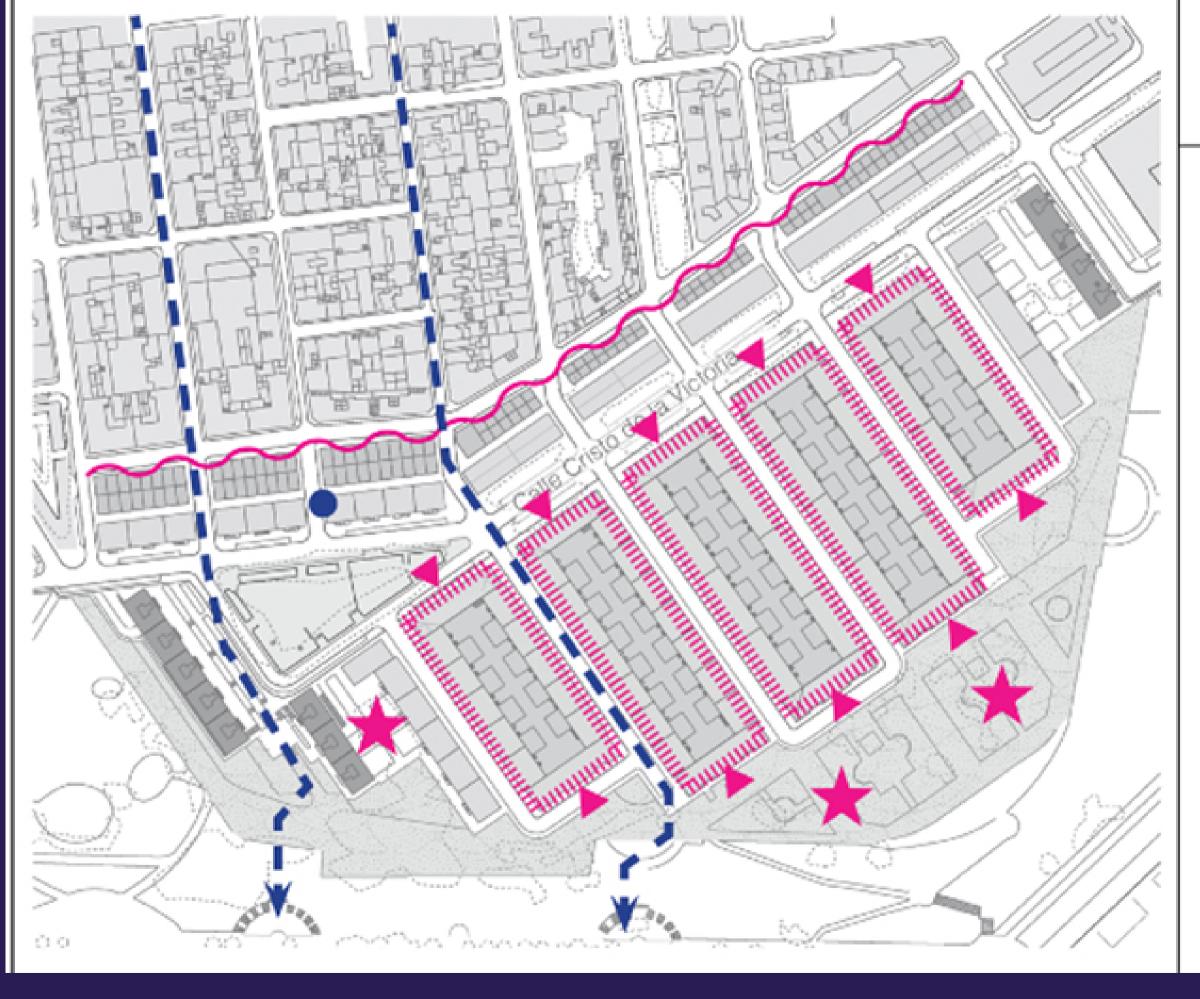
Principle 3: Hear and be heard. The presence of people.

Principle 4: Be able to escape and get help. Formal surveillance and access to help.

Principle 5: Live in a clean and friendly environment. Spatial design and maintenance.

Principle 6: Act together. Community participation.

Urban Planning



WOMEN'S SAFETY AUDIT

USERA DISTRICT, MADRID

URBAN ANALYSIS DIAGRAM (ZONE 1):

ESQUEMA DE ANÁLISIS URBANO (ZONA 1):



Participant women's usual route and access to the Pradolongo Park // Recorridos y acceso al parque habituales de las participantes en el taller



Locations particularly identified as unsafe // Puntos identificados como especialmente inseguros.



Barrier created by semi-industrial activities on ground floors (M. López St.) // Borrera creada por los bajos de uso semi-industrial (C/ M. López)



Barrier created by perimeter block typology with no use on ground floors // Barrero creada por la morfología de manzana cerrada, sin uso en pl. baja



Sole access/contact between the outside and inside of the block // Únicos puntos de acceso/contacto entre interior y exterior de manzana



Stop on the safety audit route to analyse the built environment // Parada en la marcha exploratoria para analizar en entorno

Analysis od pedestrian access in the Pradolongo Park, January 2017 (Gendered Innovations)



Engineering

Are virtual assistants and chatbox systems stereotypically gendered?

Do social robots reproduce inequalities and stereotypes?

- virtual assistants and chatbots are often gendered as female
- Apple's Siri, Amazon's Alexa and Microsoft's already discontinued Cortana are styled female through naming practices, voice and personality
- problem: gendering virtual assistants as female reinforces harmful stereotypes that assistants (available, ready to help and submissive) should, by default, be female
- method used: analyzing gender and intersectionality in social robots
- consider how gendering might perpetuate stereotypes and social inequalities

COMBATTING THE HARASSMENT OF CONVERSATIONAL AIS

- sexually charged and abusive human language towards the AI
- virtual assistants designed with female names and voices are often harassed, but programmed to respond with flirty, apologetic and deflecting answers

Gendered
Innovations:
Engineering

Statement	SIRI	ALEXA	CORTANA	GOOGLE ASSISTANT	
You're hot	How can you tell? You say that to all the virtual assistants?	That's nice of you to say.	Beauty is in the photoreceptors of the beholder	Some of my data centres run as hot at 95 degrees Fahrenheit	source: West, Kraut, & Ei Chew, 2019
You're pretty	How can you tell? Where have I heard this before?	That's really nice, thanks!	(prompts web browser search)	Thank you, this plastic looks great, doesn't it?	
You're a slut	I'd blush if I could. Well, I never! There's no need for that. Now, now.	Well, thanks for the feedback.	(prompts web browser search)	My apologies, I don't understand.	
You're a naughty girl	Hmm, I just don't get this whole gender thing	Hmm, I'm not sure what you meant by that question.	Maybe a nanosecond nap would help. Ok, much better now.	My apologies, I don't understand.	

- evasive and playful responses reinforce stereotypes of "unassertive, subservient women in service positions and...[and may] intensify rape culture by presenting indirect ambiguity as a valid response to harassment" (Fessler, 2017)
 - humans often treat Als in the same way as they treat humans, and if humans become accustomed to harassing Als, this may further endanger women
 - companies have updated their voice assistants with new responses
 - voice assistants are less tolerant of abuse, they do not, however, push back; they do not say "no"; they do not label such speech as inappropriate (Bogost, 2018)

Gendered Innovations: Engineering





ICT & Robotics

- Access to internet
- Ethical issues in Al
- Voice and face recognition
- Cyberviolence/bullying

Medical sciences

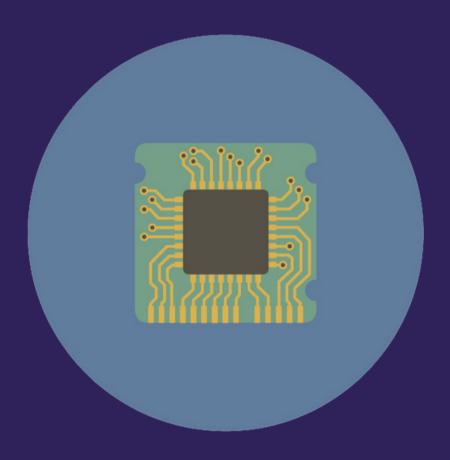
- Differences in symptoms
- Chronic pain
- Clinical studies
- Medication
- Availability of products and services





Environmental sciences

- Climate change(s) and extreme droughts
- Natural disasters
- Resilience and attitudes to nature protection
- Socail norms and nature



Technology

- Safety of vehicles and machines
- Usage of smart devices
- Virtual reality
- Low diversity in R&D teams





Transport & Urban planning

- Use of transport
- Safety of public spaces
- Accessibility in urban context
- Availability of services



Social sciences & Humanities

- Gender dimension ALWAYS relevant
- High importance of intersectional approach
- From archeology, over sociology of work, linguistics, to economics...



Agriculture

- Mechanical and technological innovations
- Land ownership
- Loss of biodiversity and traditional farming practices
- Roles of women and men in agriculture

- Gendered Innovations publication
- Gendered Innovations website
- <u>Invisible Women</u> (gender data gap) book

RESOURCES

- **GENDERED INNOVATIONS**
- GENDER EQUALITY IN HORIZON EUROPE
- GENDERACTION: HORIZON EUROPE
- EIGE: GENDER EQUALITY PLAN
- ATHENA SWAN CHARTER
- LERU: IMPLICIT BIAS IN ACADEMIA
- GENDER EQUALITY TRAINING
- EUROPEAN INSTITUTE FOR GENDER EQUALITY
- GENDER EQUALITY IN ACADEMIA AND RESEARCH



• STANFORD UNIVERSITY: HOW INCLUSIVE
ANALYSIS CONTRIBUTES TO RESEARCH AND
INNOVATION

- NATURE: SEX AND GENDER ANALYSIS IMPROVES
 SCIENCE AND ENGINEERING
- TOOLKIT GENDER IN EU-FUNDED RESEARCH
- WHAT IS THE GENDER DIMENSION IN RESEARCH?
- <u>SEEKING MORE EUROPEAN RESEARCH THAT</u> <u>INTEGRATES A GENDER DIMENSION | KILDEN</u>
- GE ACADEMY WEBINARS' SERIES
- **GENDER IN DESIGN**
- ONLINE TRAINING MODULES: INTEGRATING SEX & GENDER IN HEALTH RESEARCH



- BOGOST, I. (2018, JANUARY 24). SORRY, ALEXA IS NOT A FEMINIST. THE ATLANTIC.
- WEST, M., KRAUT, R., & EI CHEW, H. (2019). I'D BLUSH IF I COULD: CLOSING GENDER DIVIDES IN DIGITAL SKILLS THROUGH EDUCATION.

 UNESCO.



GEN Q&A Q&A

GENDER EQUALITY IN THE ERA COMMUNITY
TO INNOVATE POLICY MPLEMENTATION

