

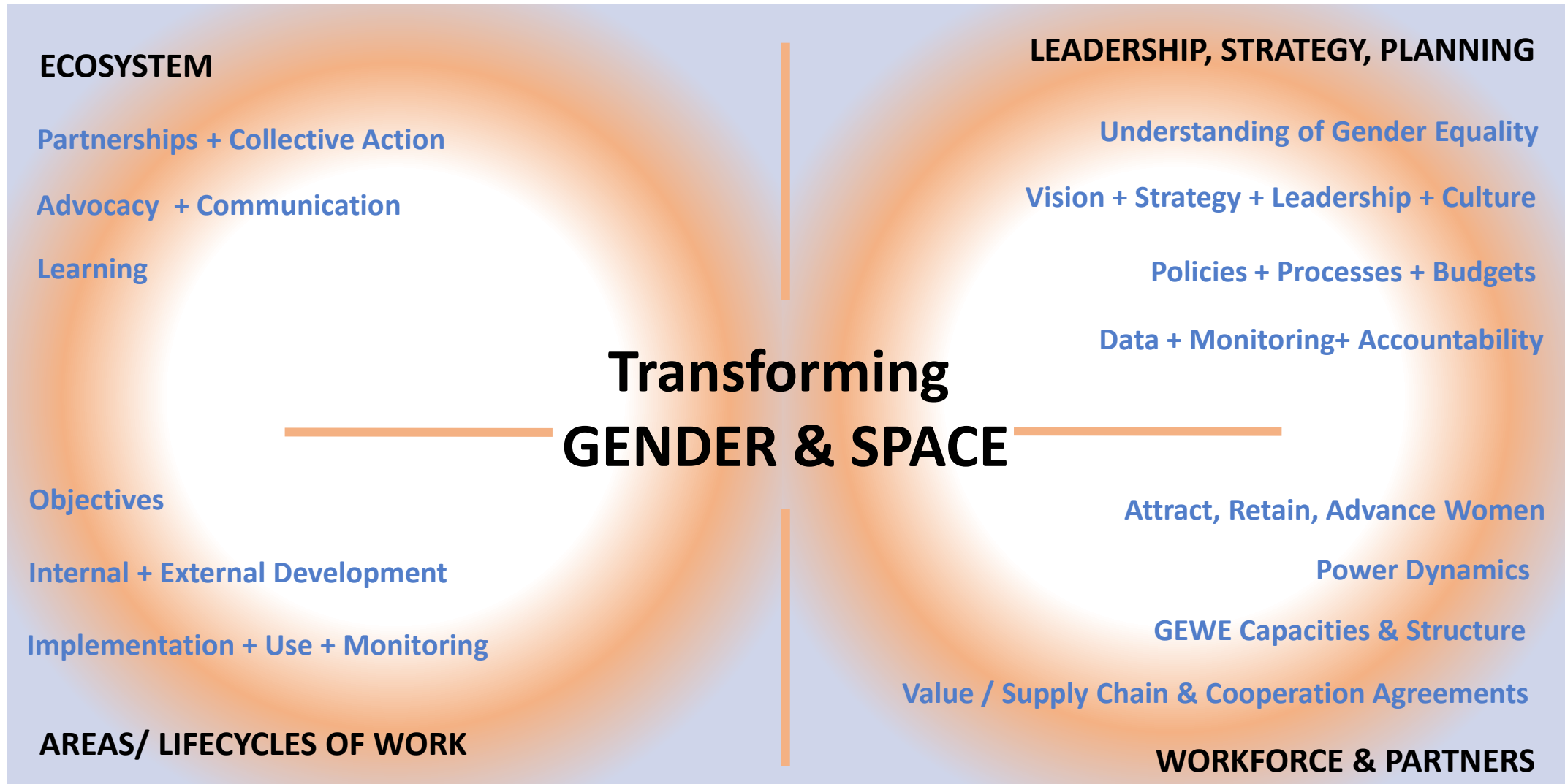
Gender Equality and Space

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UNOOSA and CSA Space for Women Expert Group Meeting, 2023



HOLISITC APPROACH



I. Gender Equality in Space Strategies & Policy



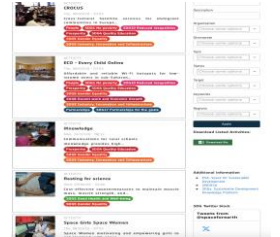
Diversity & Inclusiveness
Eight Steps Forward

Space Education & Pathways

- Innovative and Gender Responsive Pedagogies
- Role Models and breaking down stereotypes
- Networking with Professional Associations (WIA)

SDG Applications

5



Home → Space portal

Why a space portal?

More governments than ever before are engaged in space activities. Both new and experienced space nations are keen to learn more about the connections between their space programmes, broader research and innovation activities, and sustainable economic development, to facilitate policy evaluation and impact assessment.

Building on the EC-OECD STIP Compass database, which makes available in one place qualitative and quantitative data on national trends in science, technology and

gender, women

No results...

165 policy initiatives

199 policy instruments

Download initiatives

Download .xml file

Download .xlsx file



I. Gender Equality in Space Strategies & Policy

Canadian Space Agency and Gender Based Analysis Plus

Sweden

- **Goals:** Sweden is a pioneering country in terms of equal opportunities for both women and men to pursue a career in space activities. **Equal opportunities for men and women in space operations** and directs the Swedish Space Agency and the Swedish Research Council to cooperate with universities towards this goal. Includes equal proportion of men and women among researchers and employees. **A second goal should be that space activities inspire both young women and young men to apply for technical and scientific education at upper secondary and higher education level. A third goal should be that the number of students in higher education who are educated in these areas is sufficiently high to meet the need for competence in space activities.**
- Sweden's space activities can contribute to the work on the 2030 Agenda and the global goals. **Data from the Copernicus satellites**, among others, can contribute to the 2030 Agenda by collecting, processing and disseminating reliable data and information on the environment and climate that is accessible and free of charge to users around the world. Properly applied, such activities can help strengthen human rights, **gender equality** and democracy.

NASA

EQUITY STRATEGY



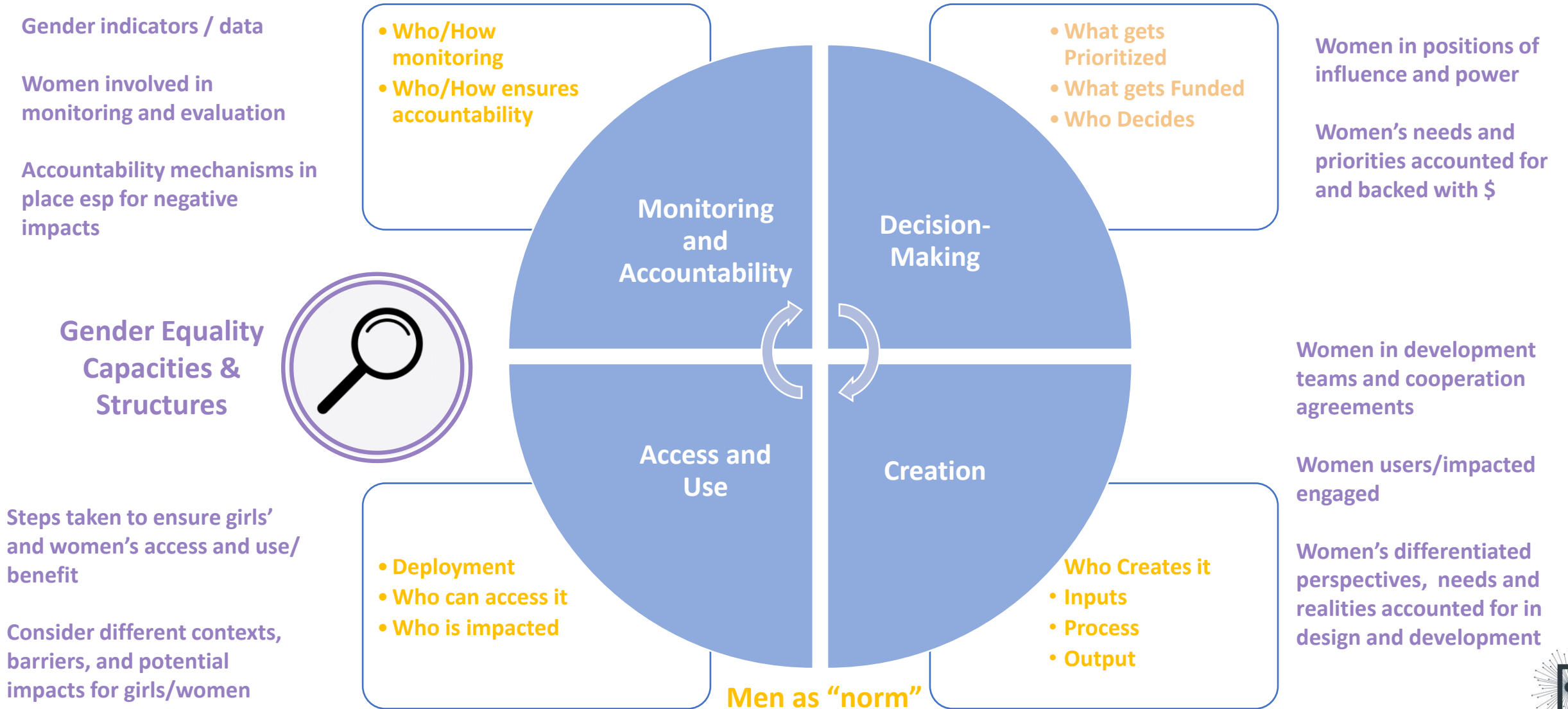
NASA's Equity Action Plan Accountability & Tracking Progress

US 2023 Strategic Framework for Space Diplomacy, the United States commits to 'advocate for equity and equality in our diplomatic space dialogues to help close the gender gap and advance women's economic security' and to 'press for . . . broad, consistent inclusion of civil society and non-governmental organizations, including those with indigenous representation and women-led organizations, in multilateral space governance'.



II. Gendered Equality in Space Sector Areas of Work

Applying a Gender Lens Across Lifecycle of Space S&T, Exploration, Applications, Policy, Innovation, Education, Public Outreach



Scope of Gendered Innovations

Challenge notion of neutrality and require gender analysis at outset of work. Then build or innovate to:



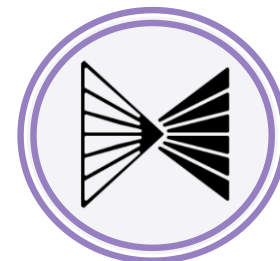
RECOGNIZE, PREVENT & MITIGATE HARM

Address harm along gender lines including identifying risk, stopping the creation of new - or reinforcing existing - negative practices and stereotypes.



IDENTIFY & MEET NEEDS OF WOMEN

Recognize and address the specific and differentiated needs and realities of girls and women. Should be design with, not just for, women. Gender-sensitive.



ACCELERATE TRANSFORMATIVE EQUITY

Address and change underlying systemic barriers and unequal power dynamics. Emancipatory.

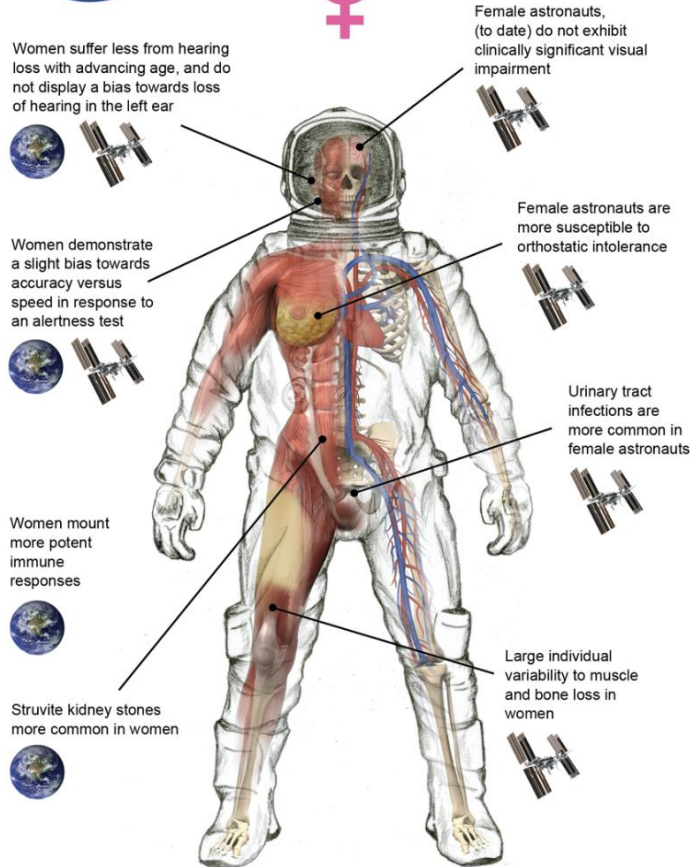


Gendered Innovations in the Space Sector

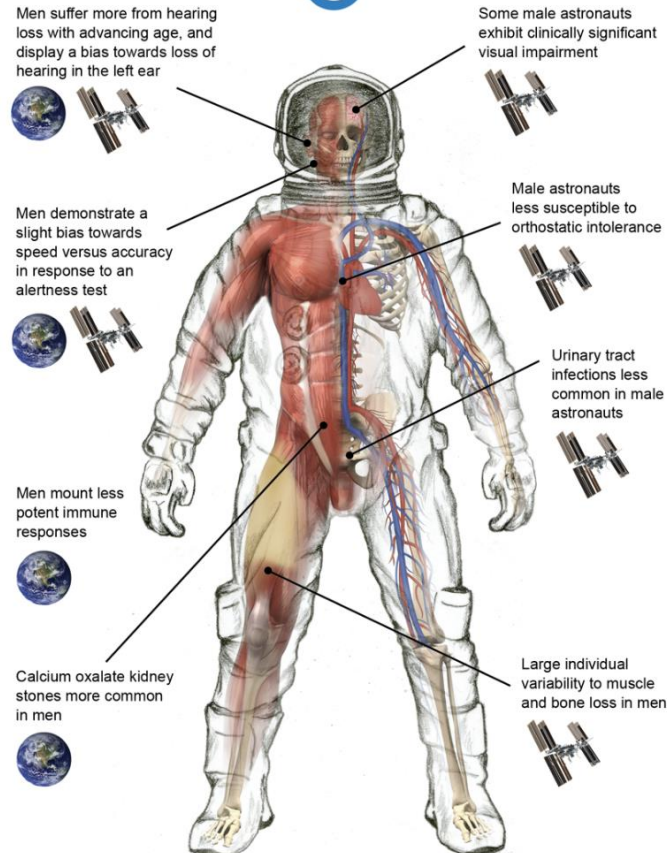
Human Spaceflight



FEMALE ASTRONAUT



MALE ASTRONAUT




The Women's International Space Simulation for Exploration (WISE)

The Sex & Gender Working Group



+ Space Gynecology  Health effect observed on Earth

 Health effect observed in space

Gendered Innovations in the Space Sector

Applications



SERVIR Programme Gender Analysis Tool Guidance on a foundational step for service design and programming to ensure that women, along with men, are realizing equal benefits from SERVIR’s geospatial services. The result is a tool that is tailored to SERVIR’s processes and needs and that supports the implementation of SERVIR’s commitment to gender equality and women’s empowerment in its Hub services.

- Integrating gender considerations in service planning through inclusive program design and applying insights from gender analyses.
- Using remote sensing and geographic information systems (GIS) to deliver development impact to all members of society (including underrepresented groups characterized by gender, ethnicity, age, and/or social status).
- Fostering a community of women leaders and gender champions in SERVIR and creating a working environment that gives equal opportunity regardless of gender.
- Empowering women and girls to explore STEM fields through workshops and outreach events.
- Engaging with men and boys as positive agents of change to champion women’s equality, participation, and leadership within the SERVIR network and where it works.



ESA ICT Access and Science Education - SWAY4Edu2

Enhancing the use of information and communication technologies (ICTs) around the world is a means to increase access to quality education for young girls, empower women, help them improve their lives and overcome socio-economic barriers by giving them access to new tools and new future perspectives.

Multi-lateral Space Policy SIPRI Gender in Space Security: [UN Open-ended Working Group](#) (OEWG)

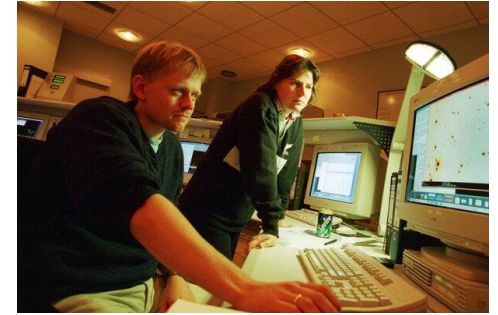
on reducing space threats through norms, rules and principles of responsible behaviours... States that explicitly recognized the **significance of gender in space security or the gender dimensions of those potential human costs** emphasized the need for **full and equal participation of women and men in the OEWG process** and importance of gender equality as space is ‘for the benefit of all humankind’.

Mapping Land Rights for Women in Tanzania In Tanzania, USAID piloted the app MAST (Mobile Application to Secure Tenure) to support more sustainable and equitable land governance which results in better mapping, fair distribution and a tool for advancing gender equality.

Health In looking at space benefits for women’s health, space supported **tele-health, spinoffs for breast cancer detection (robotics), post-partum bleeding (astronaut compression device), menopause (astronaut temperature stabilizing).**

Gendered Innovations in the Space Sector

Enabling Factors



ACCESS: Gender Bias in Instrument Time

In 2019, NASA switched to double-blind peer reviews of applications for Hubble Space Telescope time after research showed that anonymizing proposals practically equalized the chances of success between men and women. It marked a massive shift in review processes after years of apparent systemic gender bias in allocating scientific resources.

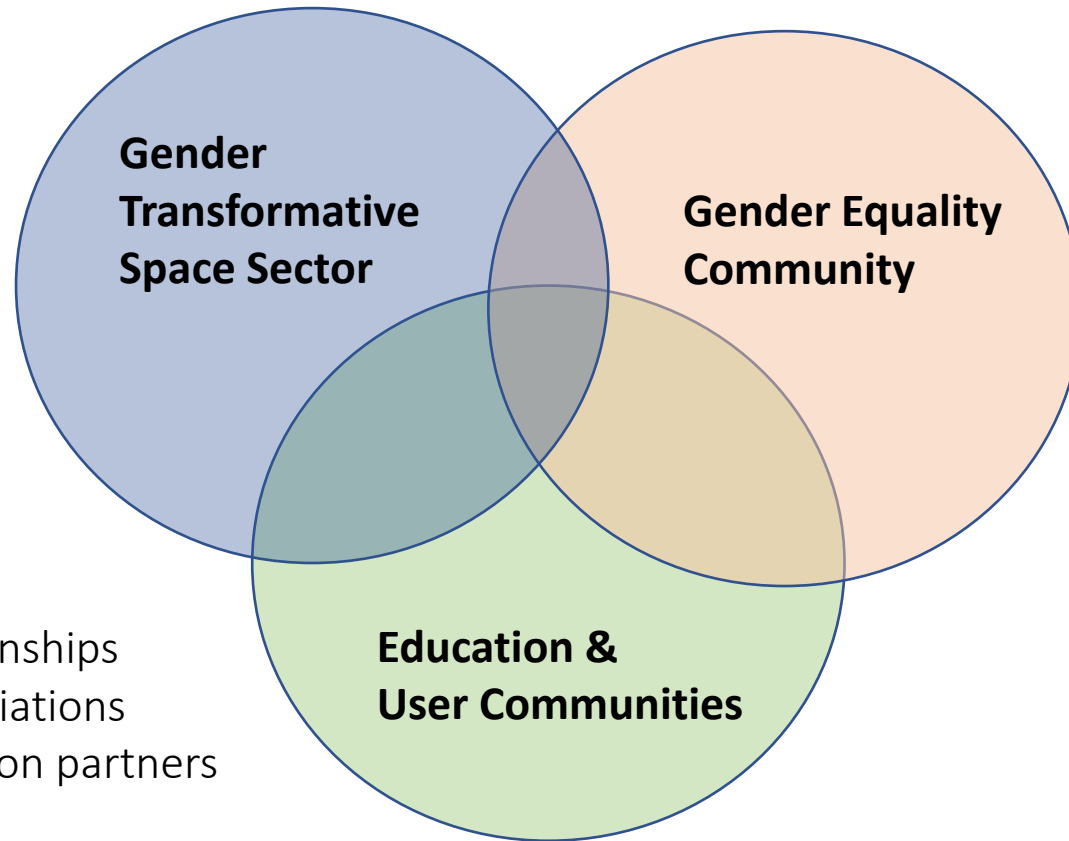
- Now the initiative, first introduced by the Space Telescope Science Institute (STScI) in Baltimore, Maryland, which runs operations for the Hubble and James Webb Space Telescope for NASA, is catching on at astronomy observatories, particle physics centres, and computing facilities in Europe, the United States, and Australia.
- Researchers applying to use certain telescopes, synchrotrons, and supercomputers are now asked – and will be soon be required – to remove all investigator names and gender pronouns from their research proposals. Anonymous proposals also require applicants to remove any language that identifies previously published research as their own, to **eliminate bias favouring well-established researchers**.
- The double-blind peer-review process, also known as dual-anonymization, means reviewers don't know who applicants are or what institute they are from, and vice versa.
- **Anonymizing Hubble telescope proposals in this way reversed a 17-year trend of committees awarding telescope time to men more than women. Three years since the policy change at STScI, the gap between the success rates of women and men has shrunk from 6% to less than 1%.**



III. Connected Ecosystems

- > Opportunity Mapping
- > Breaking Down Silos
- > Cooperation & Collective Action
- > Triangulate

Holistic Approaches
in the Space Sector



- STEM education
- Mentorships/Internships
- Professional Associations
- SDG implementation partners
- Sector partners
- Affected users

- Gender equality and women’s rights, issues, barriers & systems
- Normative Frameworks & Commitments
- Networks
- Machineries
- Experts
- Initiatives
- Tools



Mercy Corp

- 01 Toolkit Introduction**
 - Why consider gender transformation
 - Why a gender transformative toolkit
 - How to use this toolkit
- 02 Baseline Assessment Tools**
 - **Gender diagnostics tool:** *how gender transformative is your organisation?*
 - **Gender integration guide:** *how to design gender transformative investments*
 - **Gender integration marker:** *how to assess gender intentionality in investments*
 - **Partner selection tool:** *evaluating prospective partners and their gender lens status*
- 03 Baseline Awareness Tools**
 - **Gender concepts glossary:** *key concepts and terms to be aware of*
 - **Case studies:** *examples of gender transformative work from the ecosystem*
- 04 Data Collection & Analysis Tools**
 - **Sex disaggregated data collection guide:** *best practices and indicators for data collection*
 - **Sex disaggregated data analysis guide:** *best practices for data analysis*

CARE

GENDER ANALYSIS
 Gender analysis: Gender analysis is a type of research that identifies key factors contributing to gender inequalities, many of which also contribute to poor development and humanitarian outcomes. It explores how gendered power relations lead to discrimination, subordination, and exclusion, particularly when interacting with other areas of marginalisation or inequality due to age, class, ethnicity, caste, disability, status, sexuality etc. Gender analysis explores the different gendered roles and relationships within the project or programme's target area and identify how these create specific needs, risks and inequalities for different participant groups.

See CARE's Good Practices Framework, and the CARE Rapid Gender Analysis guidance for more information.

Gender Analysis Guiding Questions

COLUMN A	COLUMN B
Has a gender analysis been conducted that provides information about differences in the lives of people of all genders in the context (either a project specific gender analysis or using data from other sources)?	Has an in-depth, project-specific gender analysis been completed that covers: <ul style="list-style-type: none"> • Gender roles, and their impact on access and power; • The needs, roles, relationships, capacities and vulnerabilities of people of all genders; • Power dynamics of and between individuals and groups; • Barriers to gender equality; and, • Consideration of agency, structure, and relations?

ACTIVITIES
 Gender Integrated Programming: Gender integrated programming is when gender analysis is used to design programme activities that respond to the differing gendered needs, risks, and inequalities identified. Within gender integrated programming, services, activities and distributions will be designed and implemented in a manner that is reflective of gender differences to ensure 50% of individuals accessible to all participating in the project. Gender integrated programming will also take action against unmet needs or gender discrimination.

Specific Gender Activities to Advance Gender Equality (Agency, Structure, Relations): This refers to targeted activities designed to challenge gender inequality in the domains of CARE's Gender Equality Framework 1: Building Individual Agency, 2: Changing gender relations, 3: Transforming structures. Note: 1. Filling out Column B, projects must address all three domains to meet the criteria.

Activities Guiding Questions

COLUMN A	COLUMN B
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Gender Integrated Programming

Are the project activities designed to meet the gender differences identified in the gender analysis? Can services provided by the project be safely and inclusively accessed by all participants?

Are the project activities designed to meet the gender differences identified in the gender analysis? Can services provided by the project be safely and inclusively accessed by all participants?

Are these project activities to advance gender equality in ALL THREE dimensions of gender equality: 1) Build individual agency; 2) Change gender relations; AND 3) Transform structures?

PARTICIPATION IN PROJECT PROCESSES

Meaningful Participation: In this context, 'meaningful' requires the careful design of activities, structures, or mechanisms to provide real opportunities for participation by marginalised groups. For example, this means going beyond the inclusion of marginalised groups in a meeting to ensure that those groups have the confidence to speak out and that others will listen to their views.

Transparent Information Sharing: The clear, honest, safe and mutually accessible sharing of relevant information with all project participants (not just community leaders/volunteers). The project provides information to target groups so that they understand project initiatives, can participate in and benefit from them, and can hold CARE to account.

Investment in Decision-Making: An equal and meaningful opportunity for project participants to be involved in decision-making at various stages of the programme and project cycle.

Responsive Feedback Mechanism: Accessible, safe, and reliable processes through which participants can report complaints or other feedback about the project. These mechanisms should be transparent, with standard procedures for responding to and learning from feedback, within a set timeline.

UNICEF

HOW TO BUILD DIGITAL SOLUTIONS FOR GIRLS



How to build digital solutions for girls' digital realities

HOW TO CO-CREATE DIGITAL SOLUTIONS WITH GIRLS



How to co-create digital solutions with girls

HOW TO DO USER TESTING OF DIGITAL PRODUCTS WITH GIRLS



How to include girls in digital product user testing

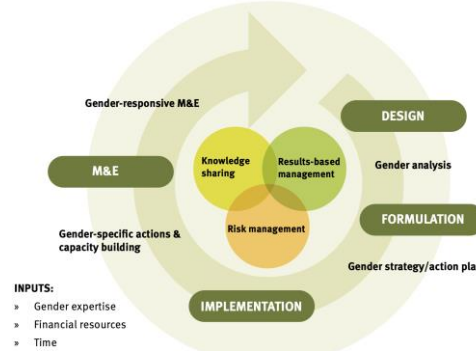
HOW TO CONDUCT REMOTE CONSULTATIONS WITH GIRLS



How to conduct remote consultations with girls

UNIDO

Figure 1: Mainstreaming gender issues at different stages of the project cycle



ACTIVITY GROUP	ENTRY POINTS FOR GENDER MAINSTREAMING
Establishing, convening and supporting decision-making and advisory bodies	<ul style="list-style-type: none"> ▶ Committees, bodies and fora for decision-making and consultation have approximate gender parity (40%-60%) ▶ Women's associations, women's networks and women's rights organizations are included in policy consultations
Drafting of and advice on policies, strategies and legal norms	<ul style="list-style-type: none"> ▶ Enhancing gender equality in the focus area is included as one of the objectives of the strategy, backed by specific measures ▶ Differences in needs, roles, challenges and opportunities between women and men – as workers, entrepreneurs, consumers and recipients of public services – are identified, highlighted and addressed
Capacity-building and training	<ul style="list-style-type: none"> ▶ A gender component is integrated into all trainings (e.g. when conducting a workshop on water reuse and recycling, highlight differentiated roles, rights and responsibilities of women and men in relation to water and resulting gender-specific entry points) ▶ Specific activities for the underrepresented gender (e.g. training, mentoring and networking activities) are conducted as needed ▶ Equal access to training is ensured, taking into consideration practical gender needs such as specific needs of women regarding safety, location, timing, childcare, etc.

IDEG

Gender Mainstreaming

Methods Questions Stories About

- a. Read about how to prevent and end gender-based violence and harassment in the workplace.
 - b. Learn from other organizations about the importance of leadership buy-in.
2. How do I get buy-in from my coworkers on gender-based violence initiatives who think it's not an issue for us?
 - a. Read about how to prevent and end gender-based violence and harassment in the workplace.
 3. Members of my organization do not agree on an organizational approach to gender based violence in the workplace. How do I get everyone on the same page?
 - a. Read about how to prevent and end gender-based violence and harassment in the workplace.
 - b. Learn from other organizations about the importance of leadership buy-in.
 4. We have a robust reporting system for gender based violence, but employees don't feel comfortable using it. What can I do?
 - a. Read about how to prevent and end gender-based violence and harassment in the workplace.
 - b. Learn from other organizations about formal reporting channels for harassment and discrimination.
 5. My leadership does not follow through on reports of gender based violence. What can I do?
 - a. Read about how to prevent and end gender-based violence and harassment in the workplace.
 - b. Read about how to conduct institutional assessments.
 - c. Learn from other organizations about assessing and targeting gender equality.
 6. Is there a way to know how effective our workplace GBV trainings are?
 - a. Read about how to prevent and end gender-based violence and harassment in the workplace.
 - b. Read about how to conduct institutional assessments.
 7. Attitudes towards gender differences at work are so pervasive, how do we begin to change this in the workplace?
 - a. Read more about how to support women in management.
 - b. Read more about how to change staff attitudes and behaviors.
 - c. Learn from other organizations about the importance of leadership buy-in.

Gates Foundation

THE GENDER EQUALITY TOOLBOX

Gender Equality Lexicon

A concise set of clearly defined gender concepts. This lexicon helps to ensure staff benefit from the use of a common language.

Conceptual Model of Women and Girls' Empowerment

The foundation's model of women and girls' empowerment that can inform program design, strategy and policy work on gender equality.

Methods Note on Measuring Empowerment

Practical guidance for program officers and partners on the measurement and evaluation of women and girls' empowerment.

Gender Equality Primer

Key concepts, the motivations for and lessons learned from gender mainstreaming efforts, and our approach to transform the foundation into a gender-intentional institution.

Gender Equality Toolbox

Gender Integration Guide

Highlights key questions for investment makers and provides hints about what to look out for during the investment design phase.

Gender Integration Marker

A tool to assess the level of gender intentionality (gender unintentional, intentional, transformative) during investment design.

Gender Integration Marker Job Aid

This job aid is designed to support the use of the Gender Integration Marker.

UN Women

GENDER MAINSTREAMING AT THE PROGRAMMATIC LEVEL

- Gender Analysis
- Programme Design
- Human and Financial Resource Allocation
- Implementation
- Monitoring and Evaluation

GENDER MAINSTREAMING AT THE INSTITUTIONAL LEVEL

- Establish institutional arrangements to support gender mainstreaming such as gender units and gender focal points systems
- Allocate financial and human resources to support gender mainstreaming efforts
- Implement accountability mechanisms for the promotion of gender equality



At a programmatic level, gender mainstreaming may be applied throughout the programme cycle following a sequence of steps: 1. Gender Analysis, 2. Programme Design, 3. Resource Allocation, 4. Implementation and 5. Monitoring and Evaluation.¹⁷

Gender Mainstreaming Throughout the Programme Cycle

STEP 1: Gender Analysis

- Gather evidence through gender analysis of the context. Identify if, how and why issues affect women and men differently and unequally within a particular context or development sector, and what options exist to address them.

STEP 2: Programme Design

- Use the findings of the gender analysis to inform programme design. Programme design includes the selection of priority issues, target groups and coverage, and their integration in terms of programme results, indicators and intervention modalities.

STEP 3: Resource Allocation

- Ensure the allocation of adequate resources to effectively address gender equality considerations in the programme cycle.

STEP 4: Programme Implementation

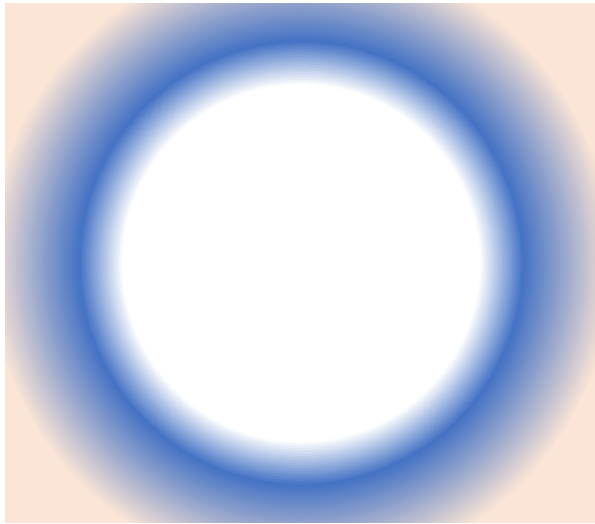
- Foster multisectoral and multidisciplinary partnerships, comprised of a range of stakeholders, including women's organizations for programme implementation.

STEP 5: Monitoring and Evaluation

- Utilize effective monitoring and evaluation to build the evidence base for strategic decisions related to gender equality, enable better development planning and hold institutions accountable for their commitments on gender equality.

Lessons & Recommendations

- Map space strategy and policies that address gender
- Look to other sectors for models and utilize existing tools on gender analysis and adapt them for the space sector
- Create a framework that shows the different places for integrating gender equality across the institutions and work of the space sector.
- Work more with partners outside or adjacent to the space sector.
- Share more on tactics! Not just what needs to be done, but how to do it.



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