

# Space4Women

## Advancing Gender Equality in Jobs and Education in the Space Sector

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# Space4Women

## Breaking Down Barriers

The United Nations Office for Outer Space Affairs undertakes initiatives that promote international cooperation in the peaceful use of space to achieve the Sustainable Development Goals (SDGs).

**Space4Women** is an initiative of UNOOSA that facilitates access to the benefits of space exploration, science and technology, STEM education, and STEM careers for women and girls around the world.



Through its activities, Space4Women supports:

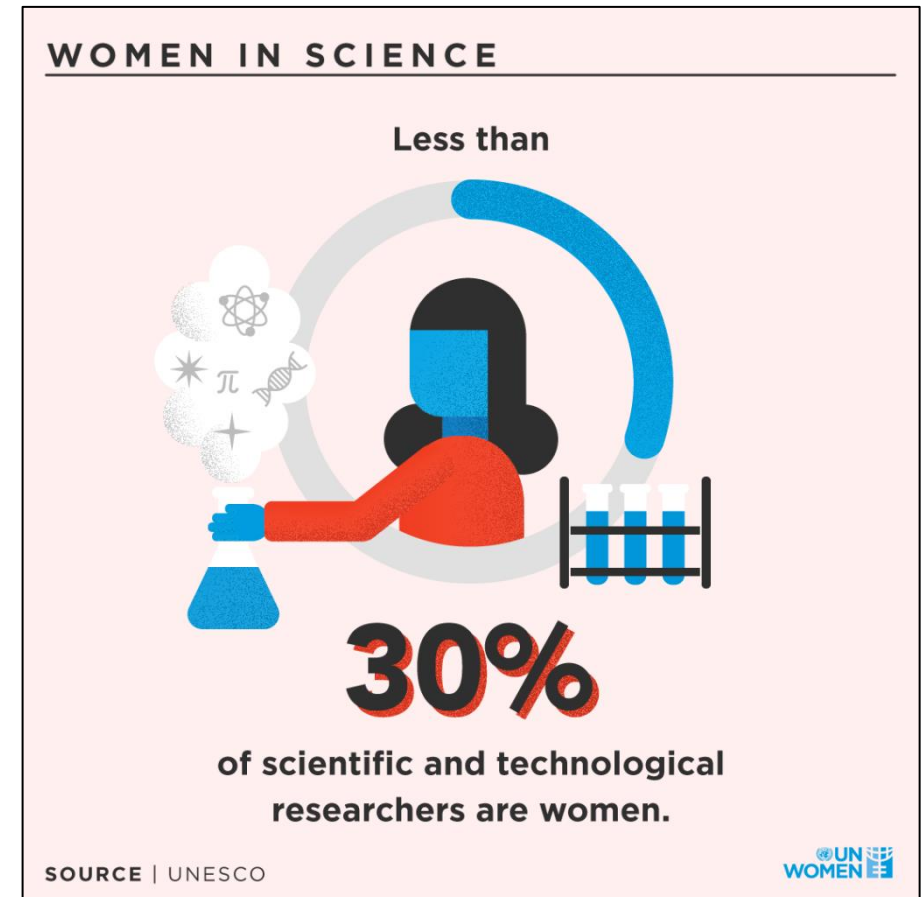




# Gender Inequality in STEM

Women and girls remain underrepresented in STEM at every career stage

- ❑ **Gender disparity widens** at the secondary and tertiary **school levels** in many countries
- ❑ Girls **score as well as or better** than their male peers on science and math-related tests, but are **less likely** to pursue those fields later on in their education
- ❑ Women represent only **35%** of all students enrolled in STEM-related higher education
- ❑ There is **declining representation** for women along the typical academic career path
  - ❑ 42% assistant professors
  - ❑ 34% associate professors
  - ❑ 24% full professors



# Gender Inequality in the Space Sector

Women are underrepresented in the space sector, and statistics have not changed much in the last 30 years

- ❑ Over **560 people** have travelled to space, **only 11%** have been women
- ❑ **15 female astronauts** have conducted a spacewalk, compared to over **210 men**
- ❑ After **220 spacewalks** and **20 years** of progress at the ISS, two female astronauts finally took part in a single extravehicular activity
- ❑ Women CEOs represent **19%** of the leaders in aerospace and defense
- ❑ Women represent only around **20-22%** of the space industry workforce, which is on par with statistics from **30 years ago**



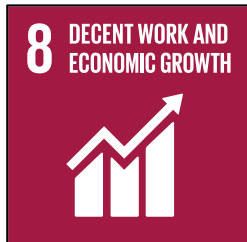


# The Importance of Gender Equality in Space

Fulfilling the potential of space technologies to improve life on Earth requires the equal participation of women.



Space tends to offer high-earning jobs in a fast-growing sector, providing women with more **financial freedom** and significant contribution **to household income**.



**90%** of future jobs will require STEM-related skills. Women must possess skills and education to **be competitive** in the future employment market.



Studies in both private and public sectors have shown that a **diversity** of skills and perspectives leads to **greater innovation and success**.

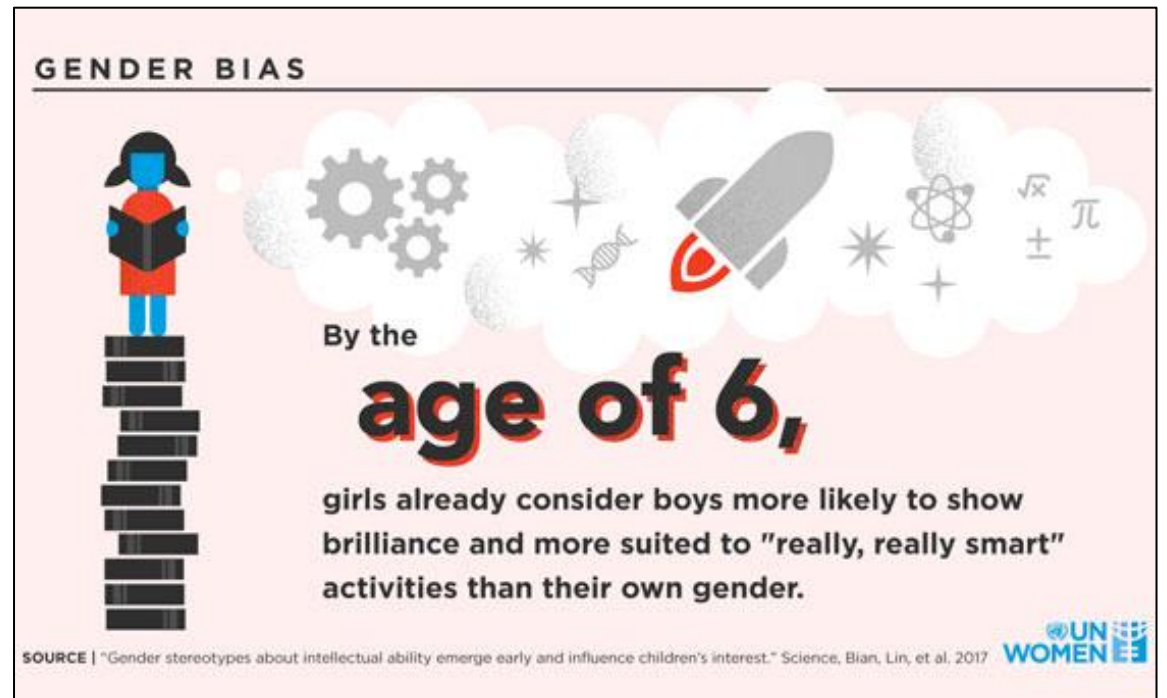
STEM fields have a growing influence on society and are key to dealing with **global challenges**.

Providing women and girls with **equal access** to STEM fields and leadership jobs is critical to addressing these challenges.

# What Causes the Gender Gap in STEM?

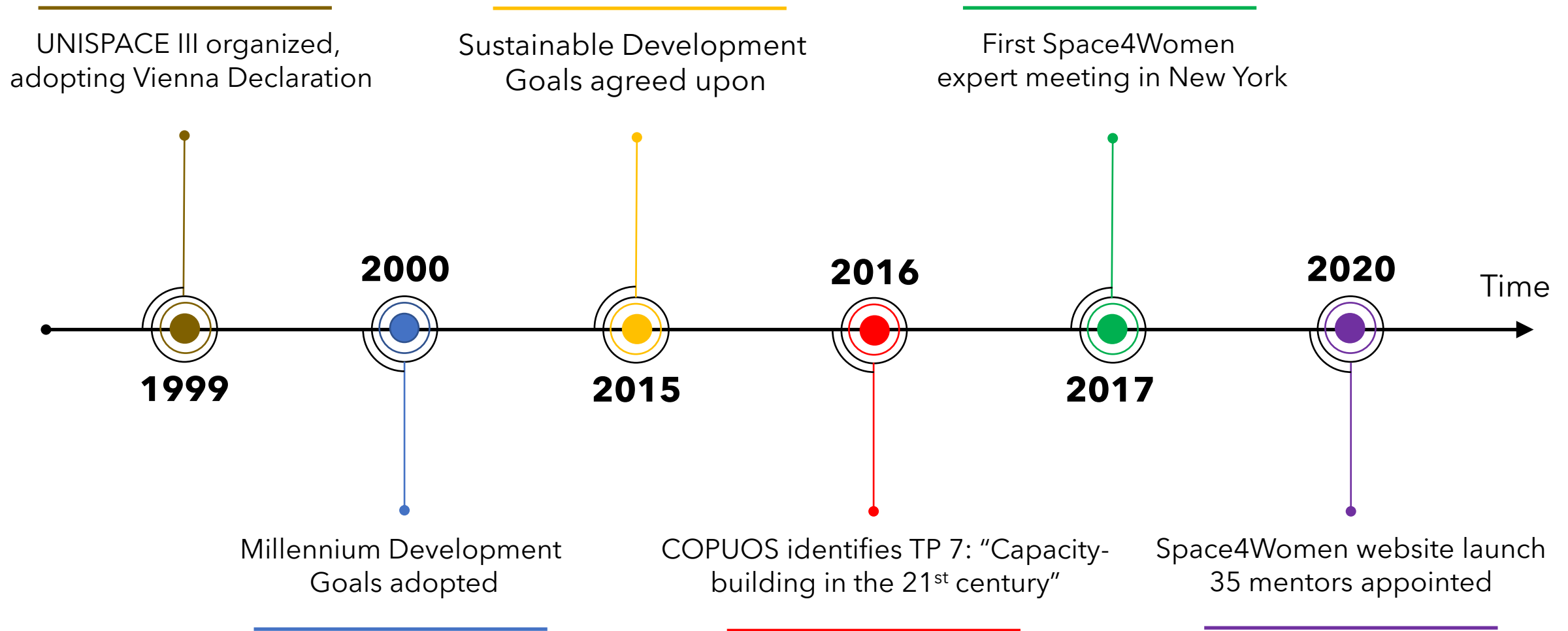
Why do women and girls not enter - or leave - STEM fields?  
How can we change that?

- ❑ **Bias in the hiring process** with male candidates selected more often, regardless of their qualifications
- ❑ Portraying STEM as 'male roles' undermines confidence, interest and willingness to pursue STEM
- ❑ **Lack of role models** is making it difficult to picture themselves in STEM roles
- ❑ **Lack of encouragement** from peers, teachers and parents is holding women and girls back
- ❑ Girls have a **limited exposure** to the creativity and contributions that STEM fields make for a better world





# Space4Women Timeline



# Space4Women Activities

How does Space4Women increase access to STEM and space education and jobs?



Promoting a **mentoring platform** and a **Space4Women Network** for advocacy and awareness raising



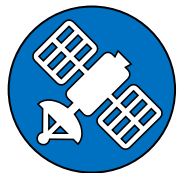
Providing policy-relevant **advice, research,** and **data, knowledge** management, and evidence-based **awareness raising,** to institutions and governments



Facilitating **capacity-building** and **training** on access to and use of space-technology to train, generate skills, and foster knowledge



**Communicating** the opportunities of STEM education, and facilitating access to space education and careers



**Empowering** young women and girls to be the beneficiary of, and active and integral contributors to space solutions



# Space4Women Network

Launch of the Space4Women website and the first ever cohort of network mentors began their activities in the spring of 2020

## Objectives

- Advocate for women and girls in STEM
- Industry leader support
- Establish regional mentorship networks

## Roles & Commitment

- Promote STEM
- Direct engagement with women and girls
- Regional mentorship in a variety of fields related to the space sector
- 1-year appointments
- Annual report

The screenshot displays the Space4Women website interface. At the top, the United Nations logo and 'Space4Women' branding are visible. A navigation menu includes Home, About, News, Events, Capacity Building, Space4Women Network, Discussion Forum, Sponsorship, and Contact. Below the menu, the page title reads 'Current Space4Women Network Mentors'. A grid of eight mentor profiles is shown, each with a circular portrait and text identifying the mentor and their role. The mentors listed are: Alessandra Abe Pacini (Space Physicist, Writer, and CEO of InSpace LLC), Anita Antwiwaa (Head of Operations, All Nations University Space Systems and Technology Laboratory, Ghana), Zainab Azim (Co-Founder of G.I.V.E and Youngest Member of Virgin Galactic's Future Astronaut Program), Jennifer Blank (Research Scientist, NASA Ames), Basuti Bolo (Chair - Educational Technologies, Africa University, Zimbabwe), Jennifer Breslin (Director, Futuristas), Shelli Brunswick (Chief Operating Officer, Space Foundation), and Iroka Chidinma Joy (Chief Engineer, Engineering and Space Systems Division, National Space Research and Development Agency). On the right side of the page, there is a search bar, a button to 'Apply to be a mentee', and a section for 'Request to contact a mentor' with instructions and a list of fields to select from. The fields include Geographic Region (Africa, Asia, Australia and Oceania, Central and South America, Europe, Middle East, North America and the Caribbean) and Field (Arts/ Humanities, Business, Communication, Engineering/ Technology, Law, Medicine, Policy, Science, Sociology).



# Space4Women Mentors

Selected mentors leaders and professionals from diverse geographical backgrounds, serving an extensive range of roles in the space sector





# Space4Women Statistics

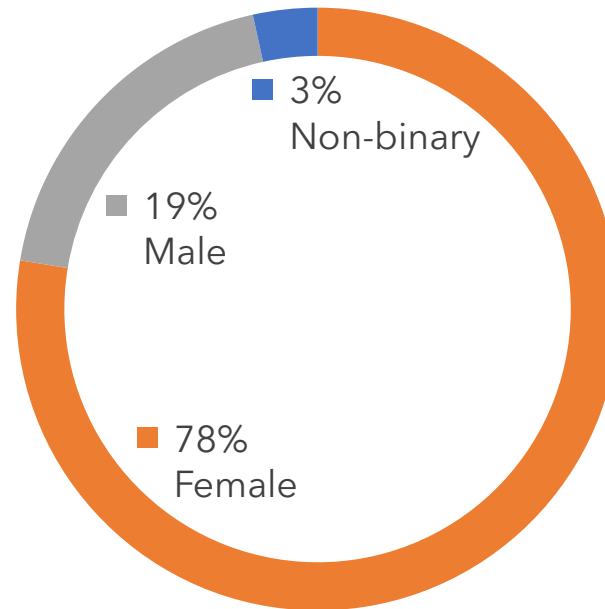
## Are we reaching women and girls around the world?

### About the Mentors



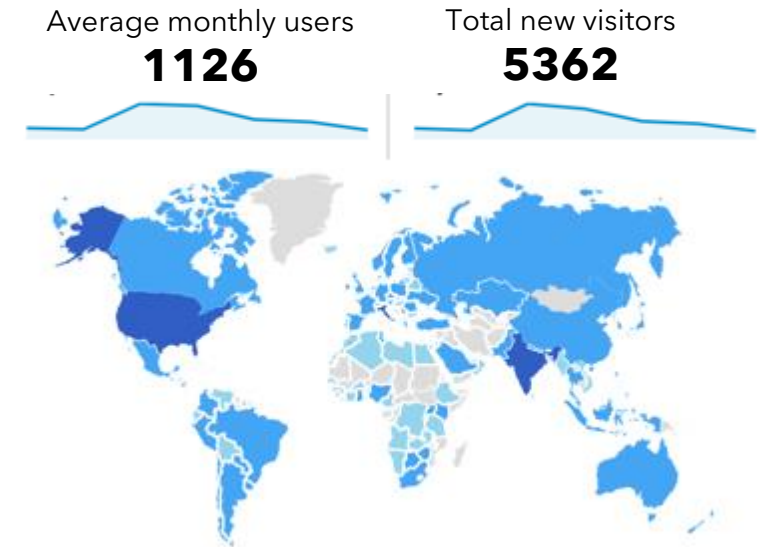
- 35 mentors
- 19+ countries represented
- 8+ career fields including arts, medicine, law, engineering, policy, business, communication, science
- Involved in ongoing **projects** such as advocacy, youth programs, filmmaking, mentoring students, and internship advising

### Mentees by Gender (connected via website)



Of 58 website mentee applicants

### Website Visitors



Mentor Spotlight pieces are most the popular content, averaging 270 views each.

Most users find our content through Google searches and social media links, particularly on Twitter and Facebook.

# Program Status

## Space4Women is a multi-year program plan

### Present

- ❑ Established global initiative for increasing access to education and jobs for women and girls in the space sector
- ❑ Active engagement of 100+ (and growing) mentors and mentees worldwide
- ❑ Diverse and impactful projects

### Supporters

- ❑ Permanent Mission of Israel
- ❑ European Space Agency
- ❑ Government of Austria
- ❑ Women in Aerospace - Europe

#### **Space4Women Mentor Project Spotlight: "Out of the Box - a social enterprise to promote innovation in aerospace"**

Vered Cohen Barzilay is a current Space4Women Network Mentor, and the Founder Director of Out of the Box, a social enterprise to promote innovation and entrepreneurship in aerospace education. [Read more here.](#)



#### **Space4Women Mentor Project Spotlight: "The Travelling Telescope. Meet your universe."**

Susan Murabana Owen is a current Space4Women Network Mentor and the CEO and co-founder of The Travelling Telescope, a social enterprise that works with schools to promote astronomy. [Read more here.](#)





# Annual Space4Women Expert Meeting

## Making Space4Women in the Decade of Action



On the occasion of the International Day of Women and Girls in Science 2021

### **Feb 11, 2021 - Day 1 - Open Sessions**

#### □ Themes:

- Space4Women in its second year and beyond: Lessons learned and future directions.
- Space for women and women for space: Implications of rapid and emerging technologies
- Addressing the pipeline problem: Inclusion and equity in space and STEM education and the workforce

#### □ Activities: Mentor presentations, panel discussions

### **Feb 12, 2021 - Day 2 - Closed Sessions**

#### □ Themes:

- Best practices for space technologies and programs incorporating contributions from women
- Meaningful metrics and indicators for assessing gender equality in space and STEM

#### □ Activities: Consultations, working sessions, technovation presentations, interactive discussions

# Partnership and Collaboration

## Unifying Action in a Future-Focused Industry

### Key Benefits in Partnership

1



Drive forward the campaign for gender equality and women empowerment

2



Demonstrate the effectiveness of collaborative action by unifying activities

3



Measurable results to narrow gaps and promote an equal society

4



Referenceable gender promotional work

5



Gain high visibility



# Next Steps

## Shaping the Future



### Events

Brazil Workshop  
Space4Women 2022  
Meeting



### Mentors

Expand mentoring  
platform



### Connecting

Create an online  
networking and  
exchange platform



### Engagement

Outreach and  
awareness-raising  
activities

Thank you

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Office for Outer Space Affairs

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