What's it like?
Workplace experiences across gender, disability, ethnicity, sexuality in the space sector.

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At the Australian National University

Australian National University

About the research

- **Interviews** (n=32 – globally)

- **Online Survey** (n=161 - globally)

- **Survey at *Diversity at the Frontiers conference*** (n=73 - mostly Australian)

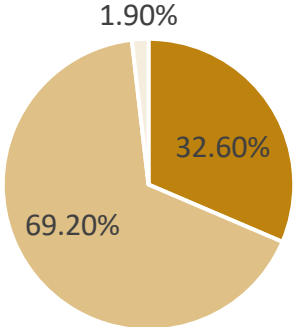- **3 Expert Workshops held in Australia** (n=45 – mostly Australian)

Dr Cassandra Steer, ACT Chief Minister Andrew Barr, Australia's Ambassador for Gender Equality, Stephanie Copus-Campbell, US Space Force's Gender Advisor, Lt Col Kristen Clark, First Nations space PhD, Caroline Craven, GIWL Deputy Director Dr Elise Stephenson, GIWL Director Prof Michelle Ryan.
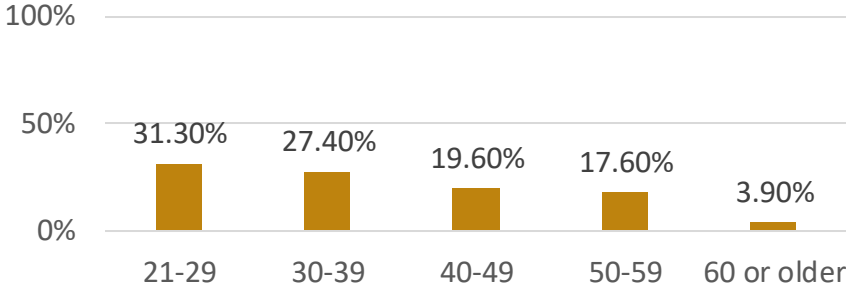
Participant demographics so far
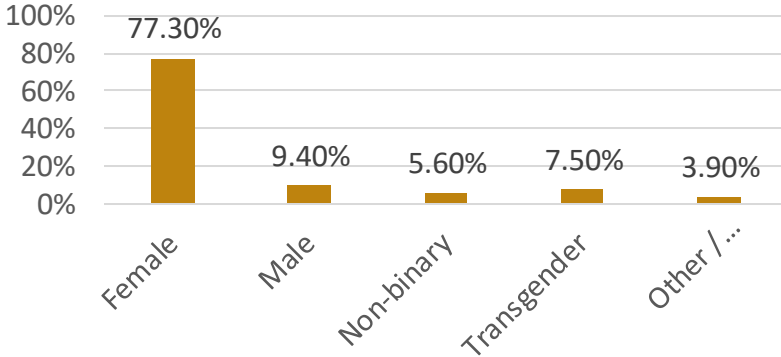
For online survey and interviews (n=51-53)

Sexuality

- LGBTIQ+ or Queer: 32.60%
- Heterosexual or straight: 69.20%
- Prefer not to say: 1.90%

Age

21-29	30-39	40-49	50-59	60 or older
31.30%	27.40%	19.60%	17.60%	3.90%

Gender

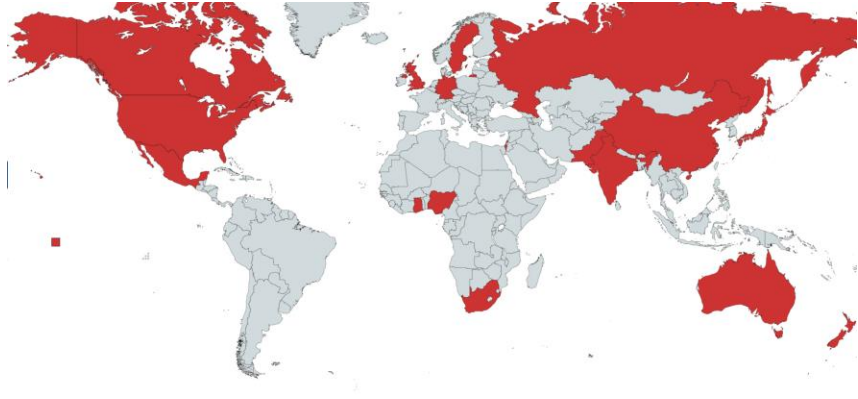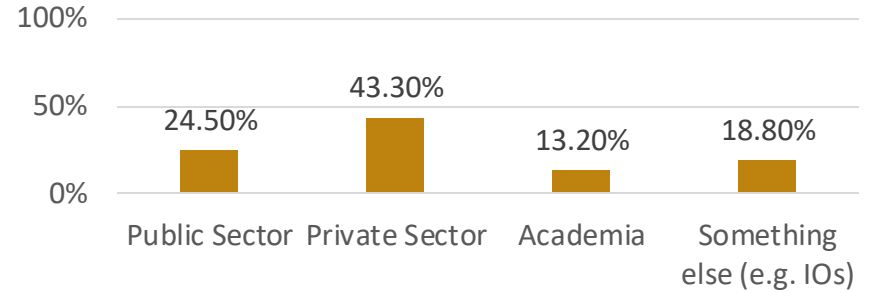| Female	Male	Non-binary	Transgender	Other / ...
77.30%	9.40%	5.60%	7.50%	3.90%

Participant demographics so far

For online survey and interviews (n=51-53)

Geographic spread

Part of the space sector

Public Sector	24.50%
Private Sector	43.30%
Academia	13.20%
Something else (e.g. IOs)	18.80%

Employment

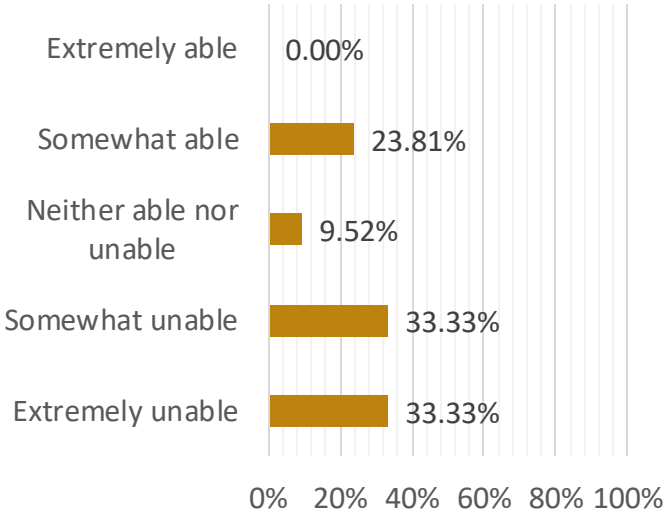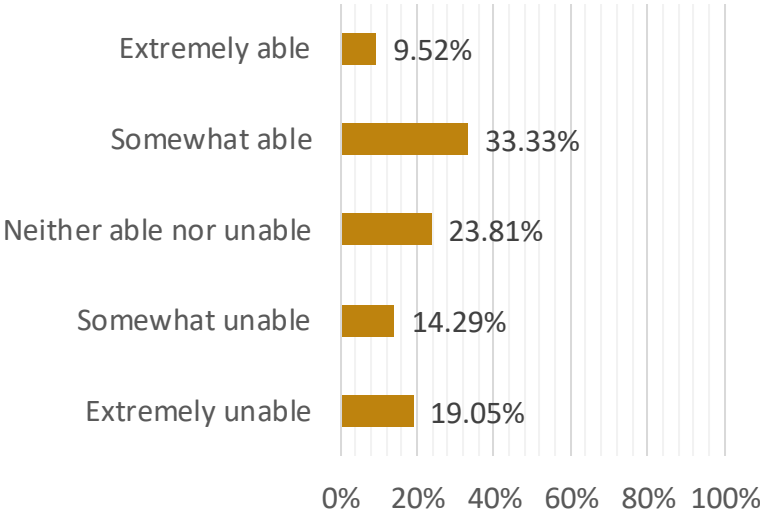|	
Female	77.30%
Male	9.40%
Non-binary	5.60%
Transgender	7.50%
Other / …	4%
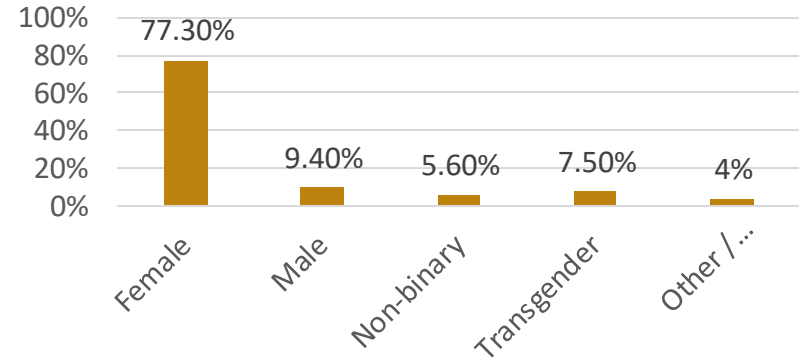
Top concerns

1. Pay inequality; covert/hidden forms of discrimination; "token" gestures

2. Under-representation in leadership (vertical segregation)

3. Harassment, bullying and abuse; inadequate policies (parental leave, gender affirmation, etc.)

4. Under-representation in different fields (horizontal segregation); lack of accessibility

5. Under-representation in general; overt discrimination

6. Missions not designed for diverse people

7. Spacesuits or other uniforms/protective material not designed for diverse bodies

8. Language

Ability to tackle concerns

How able do you feel to tackle these issues?

Extremely able	0.00%
Somewhat able	23.81%
Neither able nor unable	9.52%
Somewhat unable	33.33%
Extremely unable	33.33%

0% 20% 40% 60% 80% 100%

How able do you feel your organisation is to tackle these issues?

Extremely able	9.52%
Somewhat able	33.33%
Neither able nor unable	23.81%
Somewhat unable	14.29%
Extremely unable	19.05%

0% 20% 40% 60% 80% 100%

Willingness to tackle concerns

How willing do you feel your organisation is to tackle these issues?

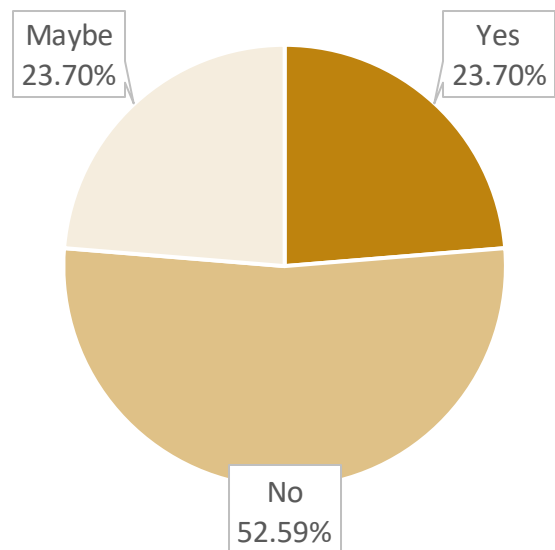|	
Extremely willing	9.52%
Somewhat willing	9.52%
Neither able nor unwilling	19.05%
Somewhat unwilling	42.86%
Extremely unwilling	19.05%

0% 20% 40% 60% 80% 100%
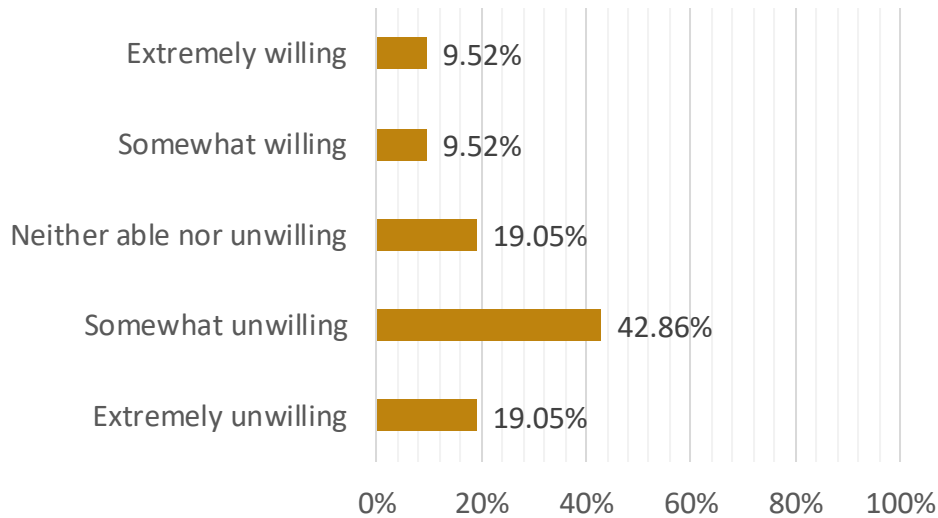
62% believe their organisation is unwilling to tackle their diversity, inclusion, accessibility and equity concerns in the space sector

Have you experienced any of the following in the last 12 months...

% of participants who responded "Probably yes" or "Definitely yes"

Category	Percentage
Bullying	28.58%
Ageism	42.85%
Ableism	52.38%
Homophobia, biphobia or...	33.40%
Sexism	47.62%
Racism	9.52%
Harassment or abuse	33.40%
Covert discrimination	90.48%
Overt discrimination	33.34%

0%   20%   40%   60%   80%   100%
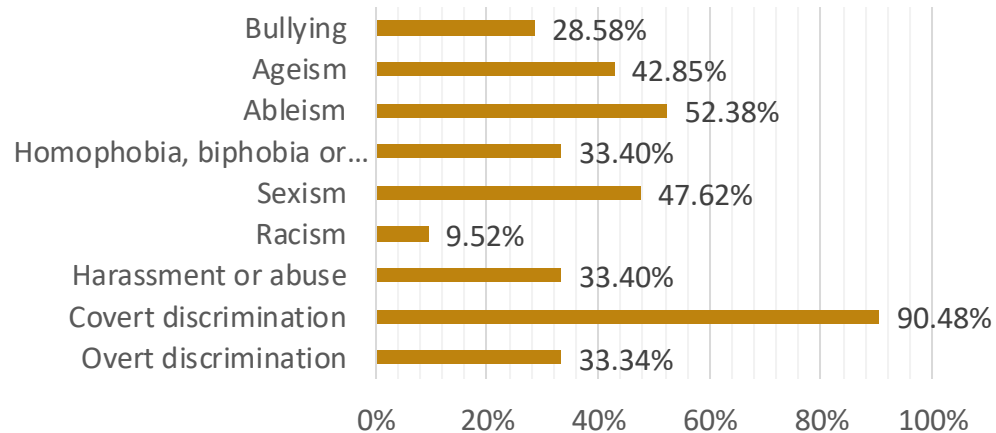
Did you feel you were able to get support from your organisation?

Maybe
23.70%

Yes
23.70%

No
52.59%

Do you feel you are able to influence your organisation to make improvements in diversity, equality, accessibility and inclusion?

Definitely yes — 9.52%
Mostly yes — 19.05%
Maybe or maybe not — 33.33%
Mostly not — 14.29%
Definitely not — 23.81%

0%   50%   100%
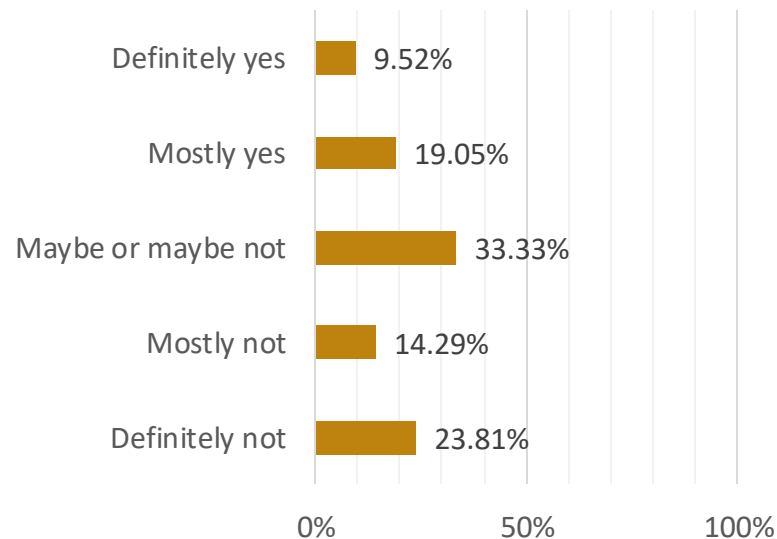
Top priorities

1. Better leadership

2. Better organisational commitments and vocal support; More support for individuals; Better funding for under-represented groups

3. More research on under-represented or minoritised groups in the space sector

4. More support for industry or government to improve; better mandated government policies

5. Something else: addressing wider social inequalities in the home; better education recognising tools of exclusion and barriers to access; more education on what casual racism, sexism, etc. looks like in the sector

If you were in charge of writing a new diversity and inclusion strategy for the space sector, what would you include?

1. Leadership commitments; commitment to develop policy further; accessibility commitments

2. Targets or quotas in recruitment, promotion

3. Specific statements of support for individual minoritised groups

4. Targets or quotas for leadership; diversity training for staff; gender-responsive budgeting; support for training and career development for under-represented groups

5. Targets or quotas across different types of work (addressing horizontal segregation); support networks for under-represented groups; reference groups/advisory groups

6. Gender-mainstreaming across all work

7. General statement for diversity, inclusion, equity and belonging

8. Something else: e.g. Better education, enforcement/accountability measures

National role in driving diversity

85%

believe their country should take a stronger leadership role on diversity issues in space

Initial trends from the qualitative data

- Minoritised groups in space face a **"credibility gap"**
  - Perceived as less credible or expert
- The securitisation of the space sector has a **gatekeeping effect**
  - E.g. US and Australia's need for security clearances for instance impact on ethnic diversity in particular
- Women-led space startups experience **hollow support**
  - They report being more likely to receive intangible forms of support (training) rather than funding
  - Major implications on a growing space sector, considering women currently get less than 1% of total global procurement generally
- Women experience **glass cliffs** and men experience **glass cushions**
  - Glass cliff: when women do make it to leadership, they report being severely constrained by precarity
  - Glass cushion: men more likely to gain the 'hot jobs' in the space sector

- Perceptions that space is 'elite', 'cool' and 'exclusive' have contributed to an accepted **lack of transparency** and acceptance of the status quo
  - Minoritised individuals can feel 'lucky' to get their roles, even when more-than meeting individual requirements
- **Informal employment criteria** is gendered
  - Not just meeting basic qualification or experience requirements, but looking for evidence that candidates tinker, build, code, or watch sci-fi in their free time
  - Assumes all genders have had this opportunity or interest
  - Assumes all genders have time to do this (noting that women do between 2-8 times the unpaid domestic labour of men globally)
- Space **doesn't (only) have a pipeline problem**
  - In many parts of the world, women are the majority of STEM students
  - Space doesn't only involve STEM roles
  - Too much focus on the 'pipeline' ignores the reality of what happens to women and minoritised groups once they get to the space sector

Participate in a survey

Eligible participants include those who work in...

- The space industry

- A space-related portfolio/role in government

- Or can comment from either a personal or professional perspective on diversity issues in your experience/ organisation/ perspective

All genders, sexualities, cultural backgrounds are sought, however we have a particular focus on women and historically marginalised groups.

Why participate?

- To contribute to research around the opportunities and barriers for diverse groups in the space sector (industry and government).

- To learn how your experience and pathways compare with others.

- To suggest areas for improvement in policy and practice to support a diverse space sector.

Survey takes approx. 10-15 minutes.

Participate in a one-on-one interview:

- *Booking now for December & January*
- *Roughly 60 mins online*

https://calendly.com/elisestephenson/diversity-in-space-interview