

Is Sustainability Leadership in the Built Environment 'Women's Business?'

A Study of Diversity in Sustainability Leadership in the Built Environment

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2.0 Executive Summary

Environmental sustainability is critical to combat the existential threat of climate change. The UN's Intergovernmental Panel on Climate Change (IPCC) has warned that the world needs to limit global warming to 1.5 degrees celsius above pre-industrial levels by 2030 to prevent the worsening and potentially irreparable effects of climate change. According to the IPCC Report, the construction industry accounted for 23% of global carbon emissions in 2014.¹

Over the last few decades, the business case for gender equity and diversity in leadership has been proven to improve business profitability.² The research undertaken in this study is based on the premise that diversity must similarly improve other business outcomes, such as sustainability goals.

The built environment industry continues to be male dominated.³ This study investigates whether this trend extends to sustainability related roles in the built environment, with an aim to explore the diversity of the sector and promote diversity in leadership as a mechanism to improve sustainability outcomes.

What this study has uncovered is a diverse sustainability sector, in which women participate at higher levels than in other areas of the built environment. Gender representation in sustainability was found to be fairly balanced, with significant representation of women in leadership positions role-modelling and encouraging increased participation in the industry.

i global warming of 1.5°C. An IPCC special Report on the impacts i global warming of 1.5°C above pre-industrial levels and related global reenhouse gas emission pathways, in the context of strengthening the global sponse to the threat of climate change, sustainable development, and efforts eradicate poverty." Edited by V. Masson-Delmotte, P. Zhai, H. O. Pörtner, D. oberts, J. Skea, P.R. Shukla, A. Pirani, W. Moufouma-Okia, C. Péan, R. Pidcock, Connors, J. B. R. Matthews, Y. Chen, X. Zhou, M. I. Gomis, E. Lonnoy, T. aycock, M. Tignor, T. Waterfield. (In Press. 2018), 141.

One example is the study: Roy Adler, "Women in the Executive Suite Correlate High Profits." Glass Ceiling Research Centre. (Pepperdine University, 2001). Natalie Galea, Abigail Powell, Martin Loosemore, Louise Chappell, Jempilshing Gender Structures." (I.NSW. Sydney, 2018)

Evident in the sustainability sector is a strong interconnectedness between environmental and social aims, with diversity seen as fundamental to sustainability. The sustainability field demonstrates practices that support diversity, including flexibility, mentoring and a commitment to social equity. As a new field with a culture distinct from the construction or engineering sectors of the built environment industry, the sustainability field is unburdened by entrenched gender stereotypes and rigid hierarchical structures that have been historically evident in other areas of the built environment.

However, sustainability has its own challenges in interacting with the established structures of the built environment industry, where problematic and often gendered perceptions of the sustainability field are evident, such as in its perception as a 'soft' field, with connotations of nurturing or 'greenie' types. Each of these perceptions is concerning, as they undermine and devalue the sustainability field, reducing the efficacy of sustainability outcomes in the built environment.

The research presented in this report recommends continued efforts to improve gender equity and diversity in the built environment, drawing lessons from an ostensibly diverse sustainability sector. Equity demands mutual respect, and pervasive cultural change is required in the broader built environment to break down negative perceptions of the sustainability field, and improve the integration and uptake of sustainability.

To answer the title question, is sustainability leadership in the built environment 'women's business?' Of course not, it's everyone's business. In the context of the climate crisis, we need to collectively take action, in the most effective ways possible, ensuring all voices are heard.

3.0 Acknowledgements

I would like to thank NAWIC and Cult for giving me the opportunity, through the International Women's Day Scholarship, to delve into an exploration of two overlapping fields of interest - gender equity and sustainability, allowing me to find my own way of contributing to these fields.

I would like to thank all participants in this research for their interest and support, for contributing their time and thoughtfully sharing their experiences of diversity and leadership in the sustainability field. In particular, I would like to thank my podcast guests for their reflections and candour, and for sharing their passion. These conversations, while feeding directly into the research, also broadened my mind to the scope of impact and reaffirmed to me the criticality of sustainability. Thank you to Ann Austin, Anne Kovachevich, Ashleigh Gay, Caroline Pidcock, Clare Gallagher, Divinia Eather, Grace Foo, Ian Van Eerdan, Jeff Elliot, Jenny Edwards, Karla Fox-Reynolds, Komali Yenneti, Laura Hamilton-O'Hara, Lauren Kajewski, Margot Black, Rebecca Davis-Jinks, Rebecca Miller, Samantha Hall and Sophie Hutchinson.

Thank you to my inspiring mentors, who've helped me make sense of unexpected results and clarify my direction. Thank you to Marina Carroll, Belinda Goh and Caroline Pidcock for being sounding boards at various times throughout this process.

Thank you to fjmt studio for its support in allowing me the flexibility to undertake this research, to my fjmt colleagues for supporting me as I waded through this year, and Annie Hensley for your guidance.

Thank you to Pip Letts, John Perry, Louise Lawlor, John Maxwell, Margaret Metchev and Anna Maxwell, who read proofs of the survey and the report. Your feedback was invaluable.

Thank you to the various groups and networks who shared my research and survey, including NAWIC, the Australian Institute of Architects, Parlour, the 'Declare' networks, Green Building Institute, Talent Nation, Sounds Like Design, the University of Sydney Architecture, Design and Planning School and The BCW.

Finally, to my wonderful husband, family, friends and colleagues who have supported me during this year unlike any other, navigating research and podcasting through COVID times. Thank you for listening as I tested out theories, and for your patience and support.

Acknowledgement of Country

The author acknowledges the traditional custodians of the land throughout Australia, including the Gadigal people of the Eora Nation on whose land this report was written, and pays respect to elders, caretakers and custodians past, present and emerging.

4.0 Research Background

There is an increasing body of research developing around female representation in environmental leadership and climate decision making globally. Much of the current research focuses on how women, especially in developing countries, are disproportionately vulnerable to the effects of climate change, for a range of reasons including an increased dependence of their livelihoods on natural resources sensitive to climate variability.⁴

The United Nations (UN) Environment Programme report 'Gender and environment statistics: Unlocking information for action and measuring the SDGs,¹⁵ describes the relationship between women and climate as the gender-environment nexus, and included as one of four priority areas a focus on 'women in environmental decision making at all levels.'

The UN research found that environmental decision-making bodies and leadership positions are male-dominated across all levels, and that women represent less than one-third of decision makers globally. The representation of gender-differentiated experiences as farmers, household providers and entrepreneurs is particularly important in relation to the priority areas that the UN research was interested in, and the report argued that ensuring diverse inputs and representation in decision-making processes is vital to sound policy making and action.⁶

The business case for greater representation of women in leadership has been established through a number of studies of businesses, including Roy Adler's study of 215 Fortune 500 companies in 'Women in the Executive Suite Correlate to High Profits.' This study found that greater representation of women in leadership positions correlated with higher profitability for subject businesses, suggesting that gender diversity is a business imperative for growth and competitiveness.

Within the built environment context, a number of studies have established the field as male-dominated, including the study 'Demolishing Gender Structures.'8 This report identified the construction industry as the most male-dominated sector in Australia, referencing data from the 2016 census that showed a decrease in women's

involvement in the construction industry from 17% in 2006 to 12% in 2016. This low participation rate was found to consequently reduce the pool of women eligible for leadership roles. Parlour's research similarly established a range of gender related challenges in the architecture field in their study 'Where do all the women go?'9

Data measuring the diversity of participation and leadership in environmental sustainability fields within a built environment context is scarce, and the field is not differentiated in census data or reporting to the Workplace Gender Equality Agency (WGEA). There are numerous prominent women leading the environmental movement globally, outside of the built environment, including Greta Thunberg, Christiana Figueres and others, ¹⁰ however, this research project seeks to explore the participation of women and other diverse groups in the specific context of the Australian built environment, an otherwise maledominated industry.

Women's Environmental Leadership Australia (WELA) is an organisation seeking to ensure female participation in environmental sustainability, albeit not specific to a built environment context. Their mission statement reads: 'WELA is lifting female voices to ensure that women's insights, knowledge, and contributions are fully integrated into the change we need to make to save the planet. Our mission is urgent. We need all hands on deck—women and men.'¹¹ This objective underlies this research project also; female representation and diversity in leadership generates better outcomes, and all contributions are required to tackle the climate crisis with efficacy.

The research context outlined in this section demonstrates that the link between gender equity, diversity and sustainability is established. The research presented in this report builds on this context, and considers the relationship between diversity and sustainability in leadership in the Australian built environment industry.

⁴ United Nations Development Programme, Overview of linkages between gender and climate change (New York, 2012), 2.

⁵ United Nations Environment Programme, Gender and environment statistics: Unlocking information for action and measuring the SDGs. (Kenya, 2018), XIV.. Author's Note: SDG is an abbreviation for Sustainable Development Goals. 6 lbid, 42.

⁷ Roy Adler, "Women in the Executive Suite Correlate to High Profits." Glass Ceiling Research Centre. (Pepperdine University, 2001).
8 Natalie Galea, Abigail Powell, Martin Loosemore, Louise Chappell, "Demolishing Gender Structures:" (UNSW, Sydney, 2018).

⁹ Justine Clark, Amanda Roan, Naomi Stead, Karen Burns, Gillian Whitehouse, Gill Matthewson, Julie Willis, Sandra Kaji-O'Grady, "Where do all the women go?" (Australian Research Council Linkage Project, 2012)
10 "Meet 15 Women Leading the Fight Against Climate Change." Time,

September 2019. Accessed February 2020 https://time.com/5669038/women-climate-change-leaders/

5.0 Introduction

5.1 Introduction and Report Structure

The International Women's Day Scholarship, awarded by NAWIC, supports research that aims to further NAWIC's vision for an equitable construction industry in which women fully participate. Aligned with NAWIC's vision, this research project aims to promote gender equity in the built environment by exploring the diversity of sustainability related roles and leadership to ensure all voices and perspectives are represented in this critical sector.

An exploration of diversity in the sustainability field is presented in Section 7.0 Summary of Survey Findings (page 10), which focusses on an analysis of data collected in this study. Section 8.0 Analysis and Exploration of Themes (page 27) explores themes and perceptions that emerged from the research, including challenges and opportunities related to diversity in sustainability, motivations for participating in the sustainability field, and the differing experiences of working in sustainability compared to the built environment more broadly.

The research presented in this report found the sustainability sector has fairly balanced gender representation, including at a leadership level, however, perception issues related to this diversity were evident, explored in detail in Section 8.0. Recommendations to improve these perception issues are provided in Section 9.0 Conclusions and Recommendations (page 49), which focus on continuing efforts to diversify the broader built environment industry, as well as ways to increase the impact and utilise the skills of sustainability leaders to improve the uptake of sustainability initiatives within the industry.

5.2 Objectives

The primary aim of this study is to investigate the diversity of sustainability leadership in Australia's built environment industry. Objectives of this investigation are to:

- _Collect data on the diversity of participation and leadership in the sustainability industry.
- _Highlight any opportunities or challenges relating to diversity in sustainability leadership.
- _Promote the work of female leaders in sustainability. _Make recommendations to improve the diversity of the construction industry.
- _Make recommendations to improve the uptake of sustainability outcomes in the sustainability sector.

5.3 Definitions

_Built Environment is defined in 'Australia State of the Environment 2016: Built Environment' report as the 'human-made surroundings that provide the setting for people to

live, work and recreate. It encompasses physical buildings and parks, and their supporting infrastructure such as transport, water and energy networks.¹²

_Built Environment Industry refers to the industries that facilitate the creation and continuity of the built environment, including policy, planning, procurement, design, development, construction, and maintenance. The 'built environment' is used as the scoping term for the subject industry for this research, as it encompasses the significant sectors of construction and property, which are both critical in relation to environmental sustainability. The construction industry is a large contributor to carbon emissions, however, the built environment's continued energy efficiency post-construction is also critical to environmental sustainability, and is included within the scope of this study, as encompassed by the use of the term 'built environment industry.'

_Sustainability is used in this report within the context of the built environment and refers to the concept of sustainable development, as commonly understood and defined by the Brundtland Report; 'Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs.'¹³ The 'three pillars' of sustainability are also referenced, which are: economic viability, environmental protection and social equity.¹⁴

_Sustainability industry, sustainability sector and sustainability field are used interchangeably in this report, and refer to sustainability roles and sustainability related work within the broader built environment industry.

_Sustainability Leader is defined for the purpose of this study as a role that could include; the Head of Sustainability or equivalent, an organisation's sustainability manager, an informal sustainability champion, or the director of the company if the company is sustainability focussed.

_Diversity and Gender are explored through this research. The scope broadly refers to 'diversity,' which encompasses various backgrounds and perspectives, including gender, ethnicity, age and sexual orientation. However, this study largely focuses on gender equity as a key objective of the International Women's Day Scholarship, and as a result of the quantity of issues that emerged from the research in relation to gender equity.

6.0 Research Methodology

To undertake this study, two primary research methods were utilised; survey and interview. This mixed mode approach aimed to reach a broad range of professionals working across a range of diverse roles in the built environment industry, with the opportunity to delve more deeply into personal experiences of selected individuals to explore diversity and sustainability leadership.

6.1 Phase One - Industry Survey

In September 2020, an industry survey was conducted titled 'Diversity of Sustainability Leadership in the Built Environment - Individual Experience Survey' (Individual Experience Survey).

Who participated?

The Individual Experience survey was distributed and advertised online by a number of industry groups via email, newsletter or Linkedln, including Nawic, Australian Institute of Architects, Architects Declare, Engineers Declare and Builders Declare networks. The limitations of this approach are that the survey results only represent the experiences of those who responded to the survey, and are not representative of the broader population. As such, it is expected that survey respondents are more interested in sustainability and diversity than the broader population. 66% of survey respondents were female, which was expected as a result of the female-orientated distribution networks (including Nawic).

The Individual Experience survey intended to collect data on demographics and personal experiences of people working in a sustainability-related role in the built environment. Anyone whose work (paid or unpaid) has a connection to sustainability and the built environment was invited to participate, with an aim to attract participants from a diversity of built environment roles, including architects, ESD consultants, environmental or sustainability managers, engineers, developers, contractors and suppliers.

The Individual Experience Survey included two qualifying questions:

_'Do you currently live and work in Australia?' And, _'Does your work have a connection to sustainability in the built environment? This can include paid and unpaid work.'

These qualifying questions were designed to limit the scope of the research to an Australian context, within the built environment industry (including development/building and property), and attract responses from people working in a role related to sustainability. This could include professionals who focus on environment or sustainability as the primary part of their role, for example, a sustainability

consultant in the building industry, or someone whose work has an environmental impact and is cogniscent of the relationship between their work and sustainability, for example, a designer, builder, or policy-maker whose work in the built environment will have direct impact on the environmental sustainability of the built environment.

The survey included a range of demographic questions, multiple choice questions, rating scale questions, and openended questions. Participation in the survey was voluntary, and all questions (except for the two qualifying questions) were optional and could be skipped.

All genders were invited to participate.

342 responses to the Individual Experience Survey were received

6.2 Phase Two - Semi-Structured Interviews

The second phase of the research involved a series of semi-structured interviews with industry leaders. The interviews were recorded with consent of participants, published as a podcast under the series name *Design Conscious*

Participants were selected with an aim to represent a diverse range of roles and sectors, including architecture, contractors, engineers, educators and environmental/sustainability consultants.

Nineteen interviews were conducted, and participants included seventeen women and two men, as listed in Section 6.3. The ratio is heavily weighted towards women, reflecting a primary objective of this project to promote and share the work of women in the sustainability industry, however, the inclusion and representation of men in this group is also important to ensure broad engagement from a range of people, including men, in conversations about diversity and gender equity.

Covid-19 travel restrictions were in place in 2020, so all interviews were conducted online over Zoom. Interviews were conducted between October-December 2020, and generally lasted around one hour.

The interviews were transcribed and analysed to review themes.

¹² Coleman S (2017). Australia state of the environment 2016: built environment, independent report to the Australian Government Minister for the Environment and Energy, Australian Government Department of the Environment and Energy,

¹³ Brundtland, G. (1987). Report of the World Commission on Environment and Development: Our Common Future. United Nations General Assembly document

^{14 &#}x27;Sustainable Development', Ecosoc: United Nations Economic and Social Council, accessed 31 January 2021, https://www.un.org/ecosoc/en/sustainable-development.

6.3 Interviewees



Ann Austin National Sustainability Manager, Building



Anne Kovachevich Foresight and Innovation Leader



Ashleigh Gay Head of Sustainability Leadership



Caroline Pidcock



Clare Gallagher



Divinia Eather



Grace Foo





Ian Van Eerdan





Jeff Elliot



Jenny Edwards



Karla Fox-Reynolds



Dr Komali Yenneti



Laura Hamilton-O'Hara

Margot Black

Rebecca Miller



Lauren Kajewski









7.0 Summary of Survey Findings

7.1 Respondent Profile

The Individual Experience Survey received 342 responses. The following section outlines the demographics of survey respondents.

Gender

Of the survey respondents, 66% were female. This is not representative of the Australian population as shown by census data, nor is it representative of the broader construction or property industries, which have been found by previous studies to be predominately male.

The high proportion of female respondents is likely due to the distribution and promotion of this survey through female orientated networks (such as NAWIC).

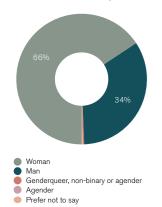


Figure 01 - Respondent Profile / Gender Identity

Age

The age of survey respondents is represented in Figure 02, with the largest number of respondents aged 34-44.

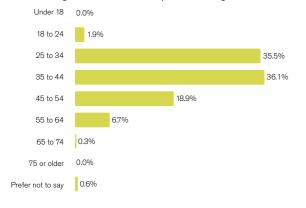


Figure 02 - Respondent Profile / Age of Respondent

Racial or Ethnic Identity

Figure 03 represents how respondents answered to the question 'What is your racial or ethnic identity?' Participants were able to select multiple answers.

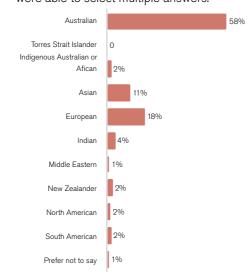
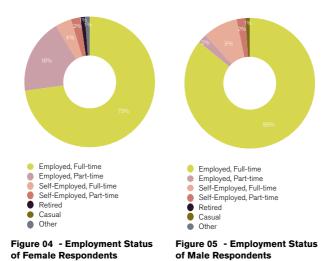


Figure 03 - Respondent Profile / Racial or Ethnic Identity Note: Multiple selections allowed

Employment Status

The employment status of survey respondents is shown in Figure 04 and Figure 05, represented separately for male and female respondents. The majority of all respondents answered that they are employed full-time, with a higher proportion of female respondents employed part-time (18% of all female respondents) compared to male respondents (2% of all male respondents).



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Leadership/Level of Responsibility

Figure 06 represents the leadership level, or level of responsibility of survey respondents, shown as a combined total of all respondents, as well as separated male and female respondents.

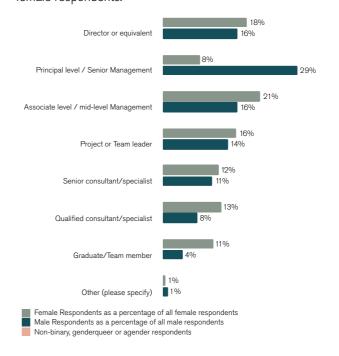


Figure 06 - Respondent Profile / Responsibility Level by Gender

Participation by Organisation Type

The proportion of respondents who work across various organisation types is represented in Figure 07 as a comparison between male and female survey respondents. Percentages show a distribution across all organisation types for each gender, rather than a comparison of total number of male/female respondents, which would be distorted due to the higher number of female respondents. The organisation types with greatest disparity of male and female participation from survey respondents were in engineering, in which field 30% of all male respondents work compared to 19% of all female respondents, and the architecture/design category, in which 15% of all female respondents.

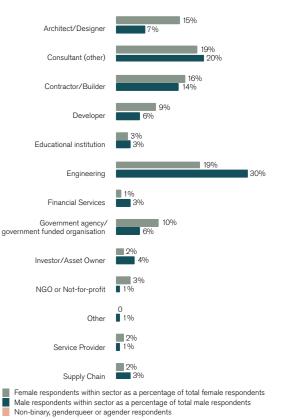


Figure 07 - Respondent Profile / Participation in Organisation Type as a Percentage of Total Participation by Gender

Note: Percentages are rounded to the nearest whole percentage and therefore may not total 100%.

Education

98% of survey respondents answered that they hold formal qualifications. 281 respondents listed their qualifications, between them recording 200 unique tertiary qualifications, as well as 14 professional accreditations. These are listed below, demonstrating the diversity of experience of professionals now working in the built environment in a role related to sustainability.

Master of Cultural Heritage

Master of Environment

Master of Environmental Law

Master of Design Science, Building Services Master of Design Science, Sustainable Design

Master of Energy Efficient and Sustainable Buildings Master of Engineering in Energy Technology (Reading)

Master of Environmental Management & Sustainability

Master of International and Community Engagement

Master of Professional Studies (Sustainability)

Master of Science in Environment Managemen

Master of Science in Environmental Architecture

Master of Science in Sustainability Management

Master of Science in Sustainable Energy Engineering

Master of Social Science in Environment and Planning

Master of Sustainability & Environmental Managen

Master of Sustainability in Sustainability Leadership

Master of Sustainability & Management

Master of Sustainable Built Environmer

Master of Sustainable Energy Engineering

Master of Sustainable Environmental Design Master of Technology, Environmental Engineering

PhD (Environmental Science)
Post Graduate Certificate in Sustainable Business

Post Graduate Diploma in Architectural Practice

NEBOSH Certificate Environmental Management

12

nerative Development Practitione

Professional Graduate Certificate in Finance

Professional Graduate Certificate in Corporate Sustainability

Master of Sustainability Science

Master of Sustainable Design

Master of Urban Design

PhD (Architecture)

PhD (Engineering)

Master of Urban Planning

PhD (Engineering Physics)

Permaculture Design Certificate PhD (Architectural Science)

Professional Accreditations

BREEAM Accredited Professional

Building Inspectors Certification

GBCA Accredited Professional

ISCA Accredited Professional

LEED Accredited Professional

Passive House Designer
Regenerative Design Practitioner

WELL Accredited Professiona

ATTMA Registered Tester

Fitwel Ambassador

NatHERS Assessor

PhD (Climate Science, Urban Climate)

Master of Disaster, Design and Developmen

Master of Environment (Climate Change)

Master of Environment (Sustainability)

Master of Environmental Management

Master of Environmental Planning

Master of Environmental Science

Master of Philosophy (Engineering)

Master of Philosophy (Arch)

Master of Project Management

Master of Science (Biomimicry)

Master of Science and Technology

Master of Planning

Master of Property

Master of Research

Master of Science

Master of Environment and Architecture

Master of Environment and Sustainability

Tertiary qualifications Bachelor of Mechanical Engineering Advanced Diploma of Architectural Drafting Advanced Diploma of Business (Marketing & Event Management) Advanced Diploma of Environmental Manage Advanced Diploma of Hotel Management Associate in Music, Australia (Performance) Bachelor of Agricultural Economics Bachelor of Applied Arts (Interior Design) Bachelor of Applied Economics Bachelor of Applied Science Bachelor of Applied Science (Architecture) Management) Bachelor of Applied Science (Built Environment) Bachelor of Applied Science (Construction Management) Bachelor of Applied science (Environmental) Bachelor of Applied Science (Natural Resource Management) Bachelor of Architectural Studies Bachelor of Architecture Bachelor of Arts Bachelor of Arts (Fine Arts) Bachelor of Arts (Interior Design) Bachelor of Arts (Mass Communications) Bachelor of Arts in Advertising and Marketing Communications Bachelor of Arts in Media and Communication Bachelor of Arts in Physical Geography Bachelor of Arts in Resource and Environmental Management Bachelor of Asian Studies

Bachelor of Biodiversity & Conservation Bachelor of Building Bachelor of Building (Construction Economics) Bachelor of Building (Construction Management) Bachelor of Building Science Bachelor of Built Environment Bachelor of Business Bachelor of Business (Economics) Bachelor of Business Management Bachelor of Chemical and Environmental Engineering Bachelor of Civil Engineering Bachelor of Commerce Bachelor of Commerce (Finance) Bachelor of Construction Management Bachelor of Construction Management and Property Bachelor of Degree in Mechanical Engineering

Bachelor of Design in Architecture Bachelor of Design in Interior Design Bachelor of Engineering Bachelor of Engineering (Civil) Bachelor of Engineering (Civil) & Commerce Bachelor of Engineering (Electrical) Bachelor of Engineering (Environmental) Bachelor of Engineering (Mechanical)
Bachelor of Engineering (Natural Resources) Bachelor of Engineering (Renewable Energy) Bachelor of Engineering (Structures) Bachelor of Engineering and Architectural Design Bachelor of Engineering and Finance Bachelor of Environmental Engineering Bachelor of Environmental Science

Bachelor of Environmental Studies Bachelor of Environmental Technology Bachelor of Environments (Architecture) Bachelor of Health (Psychology) Rachelor of Industrial Design

Bachelor of Information Technology Bachelor of Interior Architecture Bachelor of Interior Design

Bachelor of Land and Water Science Bachelor of Landscape Architecture Bachelor of Law and Civil Engineering Bachelor of Laws

Bachelor of Liberal Studies Bachelor of Marine Science (Biology) Bachelor of Mechanical and Materials Engineering Bachelor of Science
Bachelor of Science (Architectural Engineering) Bachelor of Science (Biology and Earth Science) Bachelor of Science (Earth Science) Bachelor of Science (Ecology) Bachelor of Science (Engineering) Bachelor of Science (Environmental Studies) Bachelor of Science (Environmental) Bachelor of Science (Maths) Bachelor of Science (Physics) Bachelor of Science (Resource and Environmental Bachelor of Science (Terrestrial Ecology) Bachelor of Sustainability Bachelor of Urban & Regional Planning Bachelor of Urban Development
Bachelor of Urban Development (Construction Management) Certificate IV in Cabinet Making and Joinery

Certificate IV in Energy Assess Certificate IV in Engineering (lighting)
Certificate IV in Fitness Certificate IV in Marketing Certificate IV in NatHERS Assessment Diploma of Applied Chemistry Diploma of Building and Construction Diploma of Building Design and Drafting Diploma of Dramatic Arts (Production) Diploma of Engineering (Building Services) Diploma of Environmental Management Diploma of Environmental Science Diploma of Horticulture (Arboriculture) Diploma of Landscape Design Diploma of Law Diploma of Leadership and Management Diploma of Management Diploma of Marketing Manageme Diploma of Mechanical Engineering Diploma of Photography Diploma of Professional Practice Diploma of Project Management Diploma of Teaching - Secondary Art and Science Diploma of Vocational Education and Training

Graduate Certificate in Carbon Managemen Graduate Certificate in Environmental Management Graduate Certificate in Law (Environment) Graduate Certificate in Project Management Graduate Certificate in Property Development Graduate Certificate in Sustainability and Climate Policy

Graduate Certificate in Sustainable Energy Graduate Diploma in Adult Education Graduate Diploma in Chartered Accounting Graduate Diploma in Energy Studies Graduate Diploma in Environmental Studies Graduate Diploma in Leading Resilient Enterprises

Graduate Diploma in Legal Practice Graduate Diploma in Planning Graduate Diploma in Property Graduate Diploma in Urban Planning Master of Aerospace Engineering Master of Architectural Engineering

Master of Architectural Science (Audio and Acoustics) Master of Architecture

Master of Architecture in Sustainable Design Master of Architecture Science (Sustainable Design) Master of Arts

Master of Arts in Modern Languages Master of Building Performance and Sustainability Master of Building Science

Master of Built Environment in Sustainable Development Master of Business Administration Master of Business Economics Master of Commerce

Master of Construction Practice (Professional) Master of Corporate Sustainability Management

Role

In response to the question: 'What is your job title?', 262 respondents recorded an answer, listing 158 unique roles, as represented in the list below, showing that there are a range of roles people consider related to sustainability in the built environment.

The largest represented group of respondents work in a sustainability-specific role. 50% of survey respondents answered that the category 'sustainability manager/ESD consultant/environmental engineer' best describes their role, as represented in Figure 10.

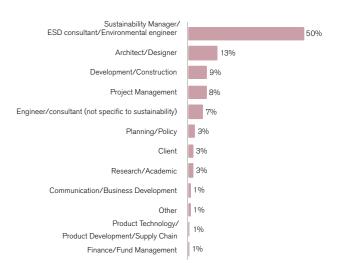


Figure 10 - Respondent Profile / Role Type

Job title Advisory Leade Architect Assistant Design Manager Assistant Project Manager Assistant Sustainability Manager, Development Associate Associate - ESD Associate - Sustainability Associate Design Manager Associate Director Associate Director - Sustainability & Resilience Associate Director - Sustainability Lead Associate Director, Sustainability and Resilience Associate Principal Associate Professor in Architecture Associate, Sustainability Consultant Biomimicry Professiona

Building Scientist Building Services Manager Business Development CEO Client Development Client Lead

Commercial Estimator

Commercial Project Manage

Compliance & Sustainability Manager Construction Manager Consultant Contracts Administrator Data Analytics & Systems Lead - Cost Planning Design Coordinator Design Manager Designer

Director Director - Sustainability Director Corporate Affairs Director of Innovation Director of Sustainability Director of Sustainabilit Director Sustainability & Learning

Environment and Sustainability Manager Environment and Sustainability Manager Environmental Manager Environmental Planne Environmental scientist Fnvironmental Sustainability Change Lead

Environmental Sustainability Manager Environmental Sustainable Development Officer ESD Consultant ESD Engineer ESD Group Manager

ESD Planning officer Estimator Executive General Manager - Investor Relations, Communications and

sustainability Facilities Management Officer Foresight and Innovation Leader General manager General Manager Sustainability

Graduate ESD Consultant/Engineer Graduate of Architecture Graduate Sustainability Consultant Head of Enterprise Sustainability Head of Sustainability Innovation & Research Manager Innovation Manager Junior Contracts Administrator

Manager Manager - Environmental Sustainability, Group Property Manager, Sustainability Transformation Managing Director Mechanical Engineer

Mechanical Engineer National Marketing Manager National Sustainability Manager Development Manager Passive House Designer Planning and Design Coordinator Planning, Environment and Sustainability Manager Policy and Partnerships Manage

Practice Leader Principal Electrical Engineer

Principal Architect Principal Consultant Principal Consultant, Sustainability Principal Director Principal FSD Consultant Principal ESD Engineer

Principal Sustainability Consultant Principal Sustainability Consultant Principal Sustainability Manager Program Director

Program Lead Water Conservation and Integrated Water Management Program Manager Project Architect Project Designer Project Director Project Engineer

Project Manager Qualified Cabinet Maker Regenerative Design Practitione Regional Manager, Development Regional Vice President Research Associate (Post-Doctoral

Researcher) Senior Architect & Sustainability Manager Senior Associate Senior Consultant

Senior Development Manager Senior Engineer Senior Engineer in Residence Senior Environment Scientist Senior Environment Sustainability Advisor Senior Environmental Advisor

Senior ESD Consultant Senior Interior Designer Senior Lecturer Senior Policy Officer

Senior Principal, Sustainability and Environment Senior Proiect Manager Senior Sustainability Consultant

Senior Sustainability Consultant / Energy / Carbon auditor Senior Sustainability Engineer Senior Sustainable Design Consultant Senior Technical Advisor in Sustainability Services / ESD Coordinator

Services Engineer Services Manager Site Engineer Special Counsel Standards & Technical Manager Standards Manage

Strategic Sustainability Director Sustainability Advisor Sustainability Analyst Sustainability Consultant Sustainability Coordinator

Sustainability Engineer Sustainability Group Manager Sustainability Lead - Built Environn Sustainability Leader Sustainability Manager Sustainability Manage

Sustainability Project Engineer Sustainability Section Manager, Principal Sustainable Design Advisor Sustainable Development Planne Sustainable Solutions Manager

Sustainability Consultant Technical Director Technical Manager Technical Officer Tree Management Officer Urban Designer

Workplace Consultant

Figure 09 - List of respondents' job titles

Figure 08 - List of all qualifications held by respondents

7.2 Diversity

Experience of diversity-related challenges in the workplace

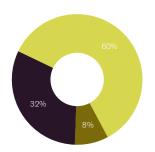
The individual experience survey asked an open-ended question; 'Have you experienced any challenges related to diversity and equity (such as gender equity) in the workplace? Please describe. The written answers respondents provided were analysed and divided into three categories:

Respondent has not experienced any challenges in relation to equity and diversity in the workplace Respondent has experienced challenges in relation to

equity and diversity in the workplace Respondent has not personally experienced any

challenges in relation to equity and diversity in the workplace, but has witnessed others experience issues

181 respondents provided a written response to this question. Of these, 60% have experienced challenges in relation to diversity, which includes 79% of female respondents.



 Respondent has not experienced any challenges in relation to equity and diversity in the workpla Respondent has experienced challenges in relation to equity and diversity in the workplace Respondent has not personally experienced any challenges in relation to equity and diversity in the workplace, but have witnessed others experience issues

Figure 11 - Experience of challenges in relation to equity and diversity the workplace*

*This graph represents an analysis of answers received to an openended survey question: 'Have you experienced any challenges related to diversity and equity (such as gender equity) in the workplace?

The themes and issues listed in response to this openended guestion have been analysed and listed in Table 1, adjacent, with further theme analysis in Section 8.0. It is worth noting that the question asked about 'challenges related to diversity and equity (such as gender equity); providing opportunity to list issues relating to any aspect of diversity. However, the reference to gender in the question likely skewed respondents toward answering in relation to gender equity. Indeed, 85% of the responses referenced challenges relating to gender, 5% mentioned issues relating to race and ethnicity, and 4% of responses mentioned ageism or discrimination in relation to physical impairments or sexual orientation.

Diversity Challenges in the Worplace

In response to the open-ended question 'Have you experienced any challenges related to diversity and equity (such as gender equity) in the workplace? Please describe; answers were analysed to review themes, with number of references to themes listed below. Themes are explored further, with extracts to answers in Section '8.0 Analysis and Exploration of Themes.

Themes/Sentiments References (#) 31 Gender bias/discrimination/sexism References to challenges in relation to male-dominated 14 industry, and men in positions of leadership 12 Promotions and career progression 15 Parental Leave Networking or references to a 'Boys Club' 12 Negative experiences on construction sites or in dealings 12 with contractors Flexibility 11 Mentoring/role models/women in leadership or lack of 10 women in leadership 9 Sentiments that diversity issues are improving, or that challenges were experienced a long time ago Privilege (eg. white privilege) 8 8 Negative perceptions of the sustainability industry 'Fitting the mould' or subscribing to expectations 8 Positive experiences with gender or diversity policies/ quotas/culture Insufficient employment pools/talent pipelines to improve diversity Sexual harassment 5 Negative experiences with gender or diversity policies/ 5 quotas/culture Sentiments that change is not occurring quickly enough 3 3 References to 'softness' Negative sentiments in relation to diversity

Figure 12 Schedule of references to themes/issues in response to the survey question: 'Have you experienced any challenges related to diversity and equity (such as gender equity) in the workplace? Please

14

7.3 Perceptions

The survey asked participants to rate their sentiment or satisfaction against the following issues related to diversity:

- Gender Equity
- Diversity and Inclusion
- Career Advancement Opportunities
- Decision-making
- Being listened to/having a voice
- Flexibility

The following sections represents how included or supported participants feel in relation to each issue listed abobe, answered as a rating from 'unsupported' to 'very supported. Graphs are paired for each issue to compare responses to the same issue when

- Working in their role in sustainability, and
- Within the broader construction industry

Previous studies have established that diversity issues, especially gender equity issues, are prevalent in the construction industry, including the Parlour study that highlighted issues relating to pay, working hours, flexibility and career progression.¹⁵

The purpose of this question was to establish whether participants working in the sustainability sector experience these issues in a similar way, in comparison to their experience of the construction industry, used as a baseline. It is noted that many participants do not work specifically in the sustainability field or have experience working in the broader construction industry. Participants had the option to skip this question or answer 'Not Applicable.' 'Not Applicable' responses are not represented in these graphs.

Graphs in this section typically represent the responses of all respondents. Data analysis was undertaken to compare the responses of men and women to these questions. If it is stated that 'male and female respondents were typically aligned in following the overall trend of responses, this means that the ranking of the four available responses:

- Unsupported
- Not very supported
- Somewhat supported
- _Very supported

is consistent between male and female responses. If there is a divergence in the ranking of these responses between male and female respondents, this has been identified in the summary.

Across all issues, respondents typically responded more positively in response to working in sustainability, compared to working in the construction industry.

Gender Equity

The majority of participants (113 people/53% of respondents) felt 'very supported' in relation to gender equity while working in sustainability, which dropped to 17% (37 people) and the third ranked answer, after 'somewhat supported' and 'not very supported' in relation to the broader construction industry.

Respondents who felt 'unsupported' or 'not very supported' grew from 0% (1 respondent) and 7% (16 respondents) respectively in relation to working in sustainability, to 9% (19 people) and 25% (55 people) respectively in relation to working in the construction industry.

Overall, sentiment of inclusion/support in relation to gender equity was more positive within the context of 'working in sustainability' compared to 'working in the construction industry more broadly'.

Male and female respondents were typically aligned in following the overall trend of responses.

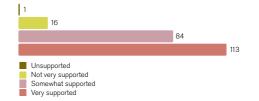


Figure 13 In your role working in sustainability, rate how included/ supported you feel in relation to:

//Answers from all respondents

*Note: Graph does not represent respondents who answered 'not applicable'

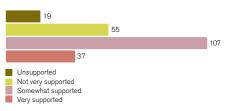


Figure 14 In your role working in the construction industry more broadly, rate how included/supported you feel in relation to: /Gender Equity

//Answers from all respondents

*Note: Graph does not represent respondents who answered 'not applicable'

15 Justine Clark, Amanda Roan, Naomi Stead, Karen Burns, Gillian Whitehouse, Gill Matthewson, Julie Willis, Sandra Kaji-O'Grady, 'Where do all the women go?' (Australian Research Council Linkage Project, 2012)

Diversity and Inclusion

The strongest number of participants (103 people/48% respondents) felt 'very supported' in relation to diversity and inclusion while working in sustainability, which dropped to 15% respondents (32 people) and the third ranked answer, after 'somewhat supported' and 'not very supported', in relation to the broader construction industry.

Respondents who felt 'unsupported' or 'not very supported' grew from 1% (3 respondents) and 9% (20 respondents) respectively in relation to working in sustainability, to 10% (20 people) and 26% (57 people) respectively in relation to working in the construction industry.

Overall, sentiment of inclusion/support in relation to diversity and inclusion was more positive within the context of 'working in sustainability' compared to 'working in the construction industry more broadly.'

Male and female respondents were typically aligned in following the overall trend of responses.

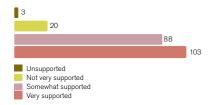


Figure 15 In your role working in sustainability, rate how included/ supported you feel in relation to: /Diversity and Inclusion

//Answers from all respondents

*Note: Graph does not represent respondents who answered 'not applicable'

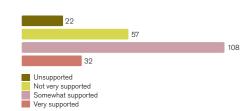


Figure 16 In your role working in the construction industry more broadly, rate how included/supported you feel in relation to: /Diversity and Inclusion

//Answers from all respondents

*Note: Graph does not represent respondents who answered 'not applicable'

Career advancement opportunities

The strongest number of participants felt 'somewhat supported' in relation to career advancement opportunities while working both in sustainability (104 people/46% respondents) and the broader construction industry (118 people/52% respondents).

More people felt 'very supported' in relation to career advancement opportunities than 'somewhat unsupported' or 'unsupported' when working in sustainability, while more people felt 'somewhat unsupported' than 'very supported' when working in the construction industry.

Overall, sentiment of inclusion/support in relation to career advancement was more positive within the context of 'working in sustainability' compared to 'working in the construction industry more broadly.'

Male and female respondents were typically aligned in following the overall trend of responses.

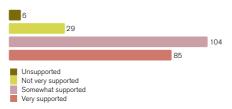


Figure 17 In your role working in sustainability, rate how included/ supported you feel in relation to: /Career Advancement Opportunities

//Answers from all respondents

*Note: Graph does not represent respondents who answered 'not applicable'

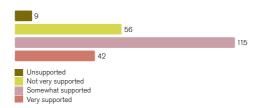


Figure 18 In your role working in the construction industry more broadly, rate how included/supported you feel in relation to: /Career Advancement Opportunities //Answers from all respondents

*Note: Graph does not represent respondents who answered 'not applicable'

16

Being listened to/having a voice

The strongest number of participants felt 'somewhat supported' in relation to being listened to/having a voice while working in both sustainability and the broader industry, with 45% (104 respondents) and 48% (106 respondents) respectively.

The second highest ranked answer in relation to being listened to/having a voice while working in sustainability was 'very supported,' which scored strongly with 42% (97 respondents), which dropped to 17% (38 respondents) in relation to the construction industry.

The second highest ranked answer in relation to being listened to/having a voice while working in the construction industry was 'not very supported,' which received 26% of responses (58 responses).

Overall, sentiment of inclusion/support in relation to being listened to/having a voice was more positive within the context of 'working in sustainability' compared to 'working in the construction industry more broadly.'

Male and female respondents were mostly aligned in following the overall trend of responses, except for divergence in the number of responses indicating that respondents felt 'very supported' in relation to being listened to/having a voice in the construction industry, with 22% of female respondents compared with 55% of male respondents recording this answer.

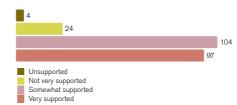


Figure 19 In your role working in sustainability, rate how included/ supported you feel in relation to: /Being Listened To/Having a Voice

/Being Listened To/Having a Voi //Answers from all respondents

*Note: Graph does not represent respondents who answered 'not applicable'

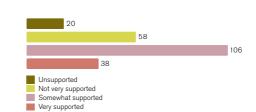


Figure 20 In your role working in the construction industry more broadly, rate how included/supported you feel in relation to: /Being Listened To/Having a Voice //Answers from all respondents

*Note: Graph does not represent respondents who answered 'not applicable'

Decision-making

The strongest number of participants felt 'somewhat supported' in relation to decision-making while working both in sustainability (106 people/48% respondents) and the broader construction industry (115 people/52% respondents).

The second highest ranked answer in relation to decision-making while working in sustainability was 'very supported,' which scored strongly with 36% (82 respondents), which dropped to 15% (32 respondents) in relation to the construction industry.

The second highest ranked answer in relation to being listened to/having a voice while working in the construction industry was 'not very supported,' which received 24% of responses (53 responses).

Overall, sentiment of inclusion/support in relation to being listened to/having a voice was more positive within the context of 'working in sustainability' compared to 'working in the construction industry more broadly.'

Male and female respondents were typically aligned in following the overall trend of responses.

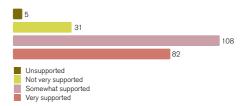


Figure 21 In your role working in sustainability, rate how included/ supported you feel in relation to: /Decision-Making

/Decision-Making
//Answers from all respondents

*Note: Graph does not represent respondents who answered 'not applicable'

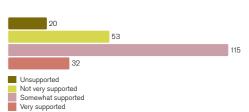


Figure 22 In your role working in the construction industry more broadly, rate how included/supported you feel in relation to: /Decision-Making

//Answers from all respondents

*Note: Graph does not represent respondents who answered 'not applicable'

Contribution to an Important Cause

Most participants indicated that they felt either 'very supported' (44% respondents/100 people) or 'somewhat supported' (43% respondents/96 people) in relation to the issue of contributing to an important cause within the context of working in sustainability.

In comparison, the two highest ranked answers in relation to the issue of contributing to an important cause within the context of working in the construction industry were 'somewhat supported' (48% of respondents/106 people) and 'not very supported' (27% of respondents/ 60 people).

Overall, sentiment in relation to the contribution to an important cause was more positive within the context of 'working in sustainability' compared to 'working in the construction industry more broadly.'

Male and female respondents were typically aligned in following the overall trend of responses.

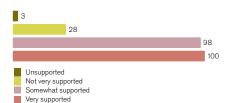


Figure 23 In your role working in sustainability, rate how included/ supported you feel in relation to:

/Contribution to an Important Cause //Answers from all respondents

*Note: Graph does not represent respondents who answered 'not applicable'

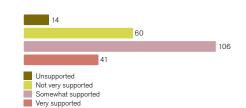


Figure 24 In your role working in the construction industry more broadly, rate how included/supported you feel in relation to: /Contribution to an Important Cause

//Answers from all respondents

*Note: Graph does not represent respondents who answered 'not applicable'

Flexibility

Most participants indicated that they felt either 'very supported' (57% respondents/131 people) or 'somewhat supported' (36% respondents/ 82 people) in relation to flexibility within the context of working in sustainability.

The proportion of respondents who answered 'very supported' in relation to flexibility was significantly higher in the context of working in sustainability (57% respondents/131 people) compared to working in the construction industry more broadly (21% respondents/46 people).

There was an significant difference in overall sentiment between working in sustainability in comparison working in the broader construction industry. Working in sustainability recorded more positive responses of feeling supported in relation to flexibility.

Male and female respondents were typically aligned in following the overall trend of responses.

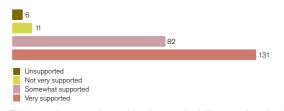


Figure 25 In your role working in sustainability, rate how included/ supported you feel in relation to: /Flexibility

//Answers from all responde

*Note: Graph does not represent respondents who answered 'not applicable'

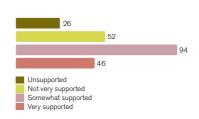


Figure 26 In your role working in the construction industry more broadly, rate how included/supported you feel in relation to: /Flexibility

//Answers from all respondents

*Note: Graph does not represent respondents who answered 'not applicable'

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7.4 Sustainability Leaders

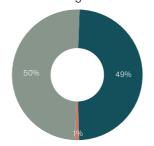
Gender of Sustainability Leaders

The Individual Experience survey asked:

'If the organisation you work for has a sustainability leader,* what is their gender?

*Sustainability leader is a broad description that could include; the Head of Sustainability or equivalent, the company's sustainability manager, an informal sustainability champion, or the director of the company if the company is sustainability focussed.'

The split between answers of male/female was very even in response to this question asking the gender of the sustainability leader within the organisation in which they worked. Responses have been corrected to avoid duplications from participants in the same organisation. 50% of respondents answered that the sustainability leader within their organisation is a woman, compared with 49% of respondents who answered that the sustainability leader within their organisation is a man.



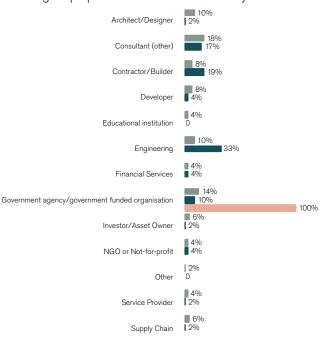
Female Sustainability Leader
 Male Sustainability Leader

Non-binary, genderqueer or agender Sustainability Leader

Figure 27 Gender of Sustainability Leader* *Corrected for organisation duplication

Note: Survey answers of 'other' and 'the organisation I work for doesn't have a sustainability leader, or the question doesn't apply to my organisation's approach to sustainability' are not represented in this graph. Only answers from respondents who listed the name of the organisation they work for were included, so duplications could be corrected.

Figure 28 shows a comparison of male/female sustainability leaders across organisation types. Engineering organisations showed the greatest gender disparity, with 38% of all male sustainability leaders working within an engineering organisation, compared to 10% of all female sustainability leaders working in engineering. There was also a higher proportion of male sustainability leaders working in contractor/building organisations, whereas architect/designer organisations had a higher proportion of female sustainability leaders.



Percentage of female sustainability leaders of total female sustainability leaders, by organisation type
Percentage of male sustainability leaders of total male sustainability leaders, by organisation type
Percentage of non-binary, genderqueer or agender sustainability leaders of total non-binary, genderqueer
or agender sustainability leaders, by organisation type

Figure 28 Distribution of Sustainability Leaders by Organisation /By Gender

Note: Only answers from respondents who listed the name of the organisation they work for were included, so duplications could be corrected.

Percentages are rounded to the nearest whole percentage and therefore may not total 100%

Profile of Sustainability Leaders

58 respondents reported that they are the Sustainability Leader of their organisation. This section compares their answers on specific demographic data in comparison with the wider survey respondents.

Employment Status

Both male and female sustainability leaders recorded higher rates of full time work compared to responses from survey respondents in general, and inversely people working in these leadership roles are less likely to work part-time than the broader industry participants surveyed.

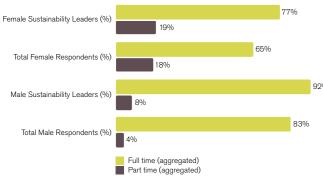


Figure 29 Comparison of Full-time/Part-time Employment Status for Sustainability Leaders* Compared to all Survey Respondents

*Note:'Full time (aggregated)' includes those who responded 'Employed Full Time' or 'Self-Employed Full Time,' and 'Part time (aggregated)' includes those who responded 'Employed Part Time' or 'Self-Employed Part Time'. Sustainability leaders are those who self identified as the sustainability leader within their organisation.

This graph represents aggregated percentages for respondents engaged in full-time or part-time work, and excludes respondents who answered that they worked casually, are retired, or answered 'other.'

Care Responsibilities

A majority of survey respondents answered that they do not have primary care responsibilities (including for children or other family members), however, female sustainability leaders did not align with this trend, with 61% of female sustainability leaders answering that they do have primary care responsibilities, in comparison to 42% of male sustainability leaders.

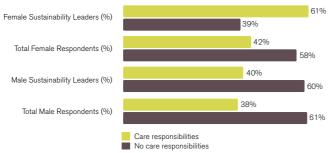


Figure 30 Care Responsibilities for Sustainability Leaders* Compared to all Survey Respondents

*Note: 'Full time (aggregated)' includes those who responded 'Employed Full Time' or 'Self-Employed Full Time,' and 'Part time (aggregated)' includes those who responded 'Employed Part Time' or 'Self-Employed Part Time.' Sustainability leaders are those who self identified as the sustainability leader within their organisation

Percentages are rounded to the nearest whole percentage and therefore may not total 100%.

7.5 Cultural Diversity of Leadership

Of all respondents, 83% listed Australian, European, North American or New Zealander as their racial or ethnic identity (multiple answers were allowed).

Of the 58 self-identified sustainability leaders, 91% listed Australian, European, North American or New Zealander as their racial or ethnic identity, including 97% of the female sustainability leaders.

In comparison, 93% of respondents who hold senior leadership positions (director or principal equivalent roles) listed Australian, European, North American or New Zealander as their racial or ethnic identity.

From the sample of this survey, it appears that the people who hold leadership positions are less culturally diverse than all respondents more broadly.

Refer to 7.1 for additional information regarding cultural diversity of respondents.

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7.6 Perception of Gender Participation

/Overall

One of the key aims of this research was to investigate the gender participation in sustainability leadership in the built environment

The Individual Experience Survey was answered by individuals working in the industry, and as such, did not ask about demographic information of employees within an organisation, as I believe the individuals answering the survey would be unlikely to have access to accurate information.

Instead, the survey asked respondents about their perceptions of whether the following categories:

- Whole organisation in which respondent works/belongs to
- The management group within their organisation The sustainability group/department (if applicable to the organisation)

have a greater representation of men, women, or whether the gender balance appears fairly balanced.

Within their organisations, respondents typically thought there were 'more men' (54% respondents), followed by 36% who answered 'fairly balanced,' and just 7% of respondents thought their organisations had 'more women.' Within the management/leadership groups of respondents' organisations, the perception of male-dominance grew, with 67% of respondents answering that they thought there were 'more men,' 24% who answered 'fairly balanced,' and 6% who answered 'more women.'

Significantly, within the sustainability groups/departments, this trend was rejected, with the highest proportion of respondents answering that they thought the sustainability group/department within their organisation was 'fairly balanced, with 'more women' recording the next highest number of answers with 20%, while 16% of respondents answering 'more men.'

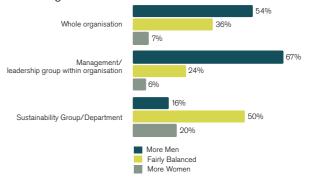


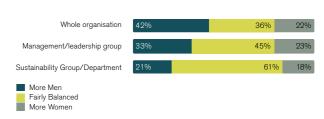
Figure 31 Perception of Gender Representation within Organisational Structures

/Answers of all respondents

Perception of Gender Participation

/By Organisation Size

The following graphs represent a breakdown of results from this question by the size of organisation in which survey respondents work. In all organisation sizes, the gender representation of the sustainability group/ department is considered to be more 'fairly balanced' than the whole organisation or management/leadership group. There are some variances between small, medium and large organisations, with larger organisations recording a larger perception of 'more men' within the whole organisation and management group in comparison with smaller businesses.



Perception of Gender Representation within

Organisational Structures

/Answers of respondents from small organisations <20 employees

Note: Graph does not represent those respondents who answered 'Not Applicable.' Percentages are rounded to the nearest whole percentage and therefore may not total 100%.



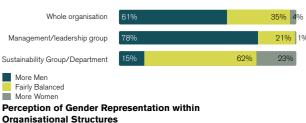
More Mer More Women

Perception of Gender Representation within

Organisational Structures

/Answers of respondents from medium organisations 20-200 employees

Note: Graph does not represent those respondents who answered 'Not Applicable. Percentages are rounded to the nearest whole percentage and therefore may not total 100%.



/Answers of respondents from large organisations >200 employees Note: Graph does not represent those respondents who answered 'Not

Applicable.' Percentages are rounded to the nearest whole percentage and therefore may not total 100%.

Perception of Gender Participation

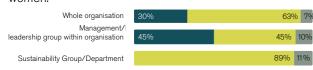
/ By Organisation Type

The following graphs represent a breakdown of results from this question regarding representation of men and women in various organisational groups (refer section 7.6) by type of organisation in which survey respondents work. All industries typically followed the same trend where the sustainability group or department within an organisation was perceived to be more balanced in terms of gender representation, compared to either the whole organisation or management group. Across all organisations types, the management/leadership group recorded a higher number of responses to 'more men' when compared with either the whole organisation or the sustainability group. However, there were some notable variances across organisation types. The organisation types of contractor/ builder and engineering are largely understood to be male-dominated, as established by the study 'Demolishing Gender Structures, 16 and this was supported by the perceptions recorded by respondents in these industries, with most respondents answering that their organisation and management/leadership group was made up of 'more men, with the sustainability group typically being described as 'more balanced.' This supports a conclusion being drawn that the sustainability sector has good gender diversity, and is more diverse than the broader construction built environment industry.

Organisation types of Investor, NGO or Not-for-profit, Service Provider, Supply Chain, Financial Services and Educational Institutions are not shown as they did not have adequate representation to be statistically relevant.

/Architecture and Design

In architecture and design, most respondents thought the whole organisation was 'fairly balanced' (63% respondents), with 45% of respondents perceiving the management group as fairly balanced, equalling 45% who thought there were 'more men' in their organisation's leadership group. No respondents thought the sustainability group/ department had more men, with the vast majority of respondents answering that their sustainability group was 'fairly balanced' (89%) and 11% answering that it had 'more women.'



Perception of Gender Representation within Organisational

/Answers of respondents by organisation type //Architecture and Design

Note: Graph does not represent those respondents who answered 'Not Applicable' Percentages are rounded to the nearest whole percentage and therefore may not

/Consultant (Other)

For those respondents working within the organisation type of 'consultants (other),' the highest number of respondents answered that their perception of gender balance in their organisation was of 'more men' (43%), closely followed by 'fairly balanced' (41%), and for the management/leadership group, most respondents (56%) answered 'more men.' The sustainability group/department was perceived to be 'fairly balanced' with 53% of responses.



Figure 32 Perception of Gender Representation within Organisational Structures

/Answers of respondents by organisation type //Consultant (Other)

Note: Graph does not represent those respondents who answered 'Not Applicable, Percentages are rounded to the nearest whole percentage and therefore may not total 100%.

/Contractor and Builder

For those respondents working within the organisation type of contractors/builders, the majority of respondents answered that their perception of the gender balance both within their whole organisation and the management/ leadership group to be 'more men' (87% of respondents), with just 13% answering 'fairly balanced' and no respondents answering 'more women.' The highest number of responses were recorded for those who thought the sustainability group was 'fairly balanced' (59%).



Figure 33 Perception of Gender Representation within Organisational Structures /Answers of respondents by organisation type

//Contractor or Builder

Note: Graph does not represent those respondents who answered 'Not Applicable.' Percentages are rounded to the nearest whole percentage and therefore may not total 100%.

More Men Fairly Balanced

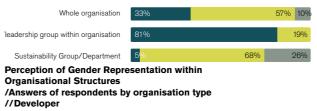
Legend (for all graphs on this page)

16 Natalie Galea, Abigail Powell, Martin Loosemore, Louise Chappell, "Demolishing Gender Structures:" (UNSW, Sydney, 2018).

22

/Developer

For those respondents working for developers, most respondents perceived the whole organisation to be 'fairly balanced' (57%), the leadership group to be 'mostly men' (81%), and the sustainability group/department to be 'fairly balanced' (68%).



Note: Graph does not represent those respondents who answered 'Not Applicable.' Percentages are rounded to the nearest whole percentage and therefore may not total 100%

/Engineering

For those respondents working for engineering organisations, respondents' perception of both the whole organisation and management group was overwhelmingly that there are 'more men,' with 89% and 94% respondents respectively. No respondents thought there were 'more women' in the whole organisation or management group, and just 11% and 6% thought that the whole organisation and management group respectively were 'fairly balanced'. These results are the most indicative of a male-dominated sector than any other organisation identified in this survey. Even in this environment, most respondents (56%) thought the sustainability group/department was 'fairly balanced.' 29% thought there were 'more men' in the sustainability group compared with 15% who answered that there were 'more women.'



Perception of Gender Representation within Organisational Structures

/Answers of respondents by organisation type

//Engineering

Note: Graph does not represent those respondents who answered 'Not Applicable.' Percentages are rounded to the nearest whole percentage and therefore may not total 100%.

/Government agency or government funded organisation

Respondents working in government agencies or government funded organisations typically responded that their organisations are fairly balanced (76%), with the highest number of respondents' perception of the management/leadership group having 'more men' (48%). This organisation type is the only type where the highest number of respondents answered that they perceived the sustainability group/department to have 'more women' (55%) with 32% respondents answering 'fairly balanced.'



Perception of Gender Representation within Organisational Structures

/Answers of respondents by organisation type

//Government agency or government funded organisation

Note: Graph does not represent those respondents who answered 'Not Applicable.' Percentages are rounded to the nearest whole percentage and therefore may not total 100%.

Perception of Gender Participation / Conclusion

Based on the survey question exploring perceptions of gender representation in sustainability groups compared to organisations in the built environment generally, it appears that the sustainability sector has a fairly balanced representation of gender participation, in comparison to the broader built environment industry. The responses to the Individual Experience Survey support a widely held understanding of the built environment industry having more men than women.

The Individual Experience Survey cannot measure total participation in the sustainability industry, but rather can only record the gender diversity within the sustainability groups or departments of organisations in which participants work. From this sample, the results indicate that gender representation in the sustainability industry is 'fairly balanced.'

The answers recorded in this research indicate that female participation in sustainability is significantly higher than female participation in the broader built environment and construction industries.

More Men Fairly Balanced

Legend (for all graphs on this page)

7.7 Participation of women in sustainability

As found in section 7.6, the sustainability industry appears to have good gender diversity, with women participating in stronger numbers in the sustainability field in comparison to women participating in the built environment industry, which is generally understood to be male-dominated, as supported by perceptions recorded in the survey. In the Individual Experience Survey, a number of statements were proposed to explore why there are more women involved in sustainability than in the broader built environment industry, posing the question: 'Why do you think the participation of women in the sustainability industry is higher than participation in the construction industry more broadly?' In response to each of the statements (listed 1-5 in figure Figure 34), respondents were asked to select their response to each statement from; 'Strongly Agree,' 'Somewhat Agree,' 'Neither Agree nor Disagree,' 'Somewhat Disagree, 'Strongly Disagree,' and 'Not Applicable' (not

shown). Statement 1: 'Women are more interested in sustainability' Statement 2: 'There are more opportunities for women to lead in the sustainability industry' Statement 3: 'The sustainability industry is seen as more equitable and open to female participation than the construction industry' Statement 4: 'Inherent characteristics associated with women make women well suited to the sustainability field' Statement 5: 'Women are ethically/ consciously motivated to contribute to the environmental cause' Strongly Agree Neither Agree nor Disagree Somewhat Disagree Strongly Disagree

Typically, more respondents agreed with each of the proposed statements than disagreed. The five statements are listed below in order of level of support from respondents, from highest level of support to lowest level of support (using an aggregation of 'strongly agree' or 'somewhat agree' answers):

- _'The sustainability industry is seen as more equitable and open to female participation than the construction industry'
- 'Women are more interested in sustainability'
- _'Women are ethically/consciously motivated to contribute to the environmental cause'
- _'There are more opportunities for women to lead in the sustainability industry'
- _'Inherent characteristics associated with women make women well suited to the sustainability field'

The strongest support was recorded for Statement Three:

'The sustainability industry is seen as more equitable and open to female participation than the construction industry'

with 77% of respondents supporting this statement (answering 'strongly agree' or 'somewhat agree').

While the majority of people agreed with the statement 'Inherent characteristics associated with women make women well suited to the sustainability field,' this statement also had the highest level of disagreement from respondents for this section. The survey allowed for an open-ended answer to be provided to the question 'Why do you think the participation of women in the sustainability industry is higher than participation in the construction industry more broadly?' In the answers provided, the idea of gendered characteristics or skills continued to be controversial, with responses both promoting and rejecting this view.

Section 8.7 unpacks the idea of gendered characteristics through an analysis of respondents' answers related to this theme, and the generalisations implicit in such perceptions.

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Figure 34 Perception of Why Women Participate More in the Sustainability Field than the Construction Industry More Broadly //Answers from all respondents

Percentages are rounded to the nearest whole percentage and therefore may not

Why do women participate at higher levels in sustainability than in the broader construction industry?

In response to the open-ended question 'Why do you think the participation of women in the sustainability industry is higher than participation in the construction industry more broadly?' answers were analysed to review themes, with number of references to themes listed below. Themes are explored further, with extracts to answers in Section '8.0 Analysis and Exploration of Themes.'

Themes/sentiment	References (#)
Reference to inherent characteristics/skills of women or men	20
Negative references or descriptions of the construction and/or engineering sectors	19
Purpose, or a desire to care for environment	15
Perceptions of sustainability as a gendered industry	15
Gendered study paths and pipelines	13
Sustainability described as a new professional field	12
Pay and career progression	10
Flexibility	10
Physical working environment or physical tasks involved	9
Diversity of experience and roles available in sustainability	9
Positive perceptions about strong female representation in sustainability	8
Perceptions of sustainability as a low value discipline	8
Perceptions of sustainability as a 'soft' discipline	8
Reference to nurturing/mothering	7
Responses thought the question was biased	5
Female role-models or women in leadership positions	5
Interrelationship of diversity/ethics/inclusion/wellbeing	4

Figure 35 Schedule of references to themes in response to the survey question: 'Why do you think the participation of women in the sustainability industry is higher than participation in the construction industry more broadly?'

7.8 Leadership

This research aimed to explore diversity in sustainability leadership, and a question was included in the Individual Experience Survey to glean from participants what 'sustainability leadership' meant to them. Interestingly, the qualities that participants associated with sustainability leadership are in some cases distinct from the typical model of leadership. This unique version of leadership seen in the sustainability field illustrates a differentiation between working and leading in the sustainability field in comparison to the broader built environment industry.

Figure 36 lists references to themes and sentiments expressed in answer to the question;

'How would you describe what it means to be a sustainability leader?'

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How would you describe what it means to be a sustainability leader?

In response to the open-ended question 'How would you describe what it means to be a sustainability leader?

For example through projects, practice, activism or other leadership qualities/actions, answers were analysed to review themes, with number of references to themes listed below. Themes are explored further, with extracts to answers in Section '8.0 Analysis and Exploration of Themes.'

Themes/sentiments	References (#)
Advocacy, purpose, making a difference or 'doing the right thing'	77
Influence/engagement/communication	42
Sentiments around walking the talk/leading by example	37
Change	21
Education/mentoring/learning	20
Breaking the leadership mould	19
Responses listed specific leadership skills/qualities	19
Challenging the status quo/fighting/pushing boundaries	19
Reference to Inspiring/empowering	15
Social value, social conscience, or ethical motivations	14
Action & activism	13
Collaboration	9
Future generations/long term outlook	9
Innovation	9
Having or creating a vision	9
Passion	8
Multidisciplinary knowledge	6
Description of sustainability leadership as challenging	5
Responses included specific technical or environmental issues or aspirations	5
Responses included references to cost	3

Figure 36 Schedule of references to themes/sentiments in response to the survey question: 'How would you describe what it means to be an environmental leader? For example through projects, practice, activism or other leadership qualities/actions'

8.0 Analysis and Exploration of Themes

This section explores diversity in the sustainability sector, including the way in which diversity is supported, perceptions of diversity, and opportunities and challenge with regard to gender equity.

The analysis included in this section is based on answer:
to the open-ended questions included in the Individual
Experience Survey, as well as interviews conducted
with industry leaders for this project's podcast, Design
Conscious.

The open-ended questions asked in the Individual Experience Survey, from which themes explored in this section emerged, include:

- _'Why do you think the participation of women in the sustainability industry is higher than participation in the construction industry more broadly?'
- _'Have you experienced any challenges related to diversity and equity (such as gender equity) in the workplace?
 Please describe'
- _'How would you describe what it means to be an environmental leader? For example, through projects, practice, activism or other leadership qualities/actions.

The in-depth interviews undertaken in the form of the *Design Conscious* podcast provided a format through which to explore some of these themes in greater depth. Typically, these interviews were semi-structured, and included versions of the following standard questions:

- _'What does it mean for you to be a sustainability leader?
- _'Regarding your experience in relation to female representation and/or diversity in leadership; have there been any organisational structures, policies or programs implemented at the organisations you've worked at, or other opportunities in your career that you felt have been significant in shaping your career in sustainability?'
- _'As a female leader (where relevant), are there particular opportunities or challenges in your career that you felt hav been significant in your leadership journey?'
- _'Do you think that the representation of women is consistent across all levels in the industry, including leadership? Are there lessons we can learn here that can be applied to other sectors of the construction industry where female representation is still lagging?'
- _'Looking at leadership more broadly, how would you characterise sustainability and environmental leadership in the construction industry how are we tracking? Where car

we improve

- _'What do you think needs to happen to facilitate uptake o more sustainability development by industry?'
- _'There are some concerning themes that have emerged about the perception of sustainability in the construction industry in this research so far, such as its perception as a 'soft' discipline, which may be affecting how it is valued and prioritised in industry. What is your experience of this, and how do you think we can change this perception?'
- _'In my research so far, I've noticed a recurring theme egarding the interconnectedness between ethics and environmental sustainability. Can you reflect on the nexus between diversity and sustainability?'
- _'Circling back to the theme of female representation in environmental leadership; do you have any advice to those who are striving to make a difference in the field?'

Quotes from survey respondents and podcast interviewees represent views of the participant, and sometimes include generalisations about gender and other aspects about diversity. These statements are used to analyse sentiment and perception issues related to the sustainability sector.

8.1 Education pipeline and diversity of experience

As evidenced by the large array of educational qualifications held by participants working in sustainability (refer Figure 08, page 12), people working in this industry have a diversity of experience. Sustainability in the built environment is a broad sector with multidisciplinary overlaps, with this multidisciplinary nature being cited by many participants as an opportunity for a diverse range of people to enter and contribute in the industry from a range of professional backgrounds.

This concept of a diversity of experience was also raised in relation to women in sustainability, with the breadth of entry pathways leading to a career in sustainability including professional fields and disciplines with a higher level of female involvement, as suggested by multiple respondents. Various responses were recorded in line with this theme, such as one respondent who wrote: '[There are] multiple entry points into sustainability - human ethics, public reporting, policy, supply chain, risk & audit. Some of these have more women to begin [with]. Sustainability is a very big field,' and another respondent who wrote: 'Sustainability encompasses more than just the environmental side and in line with the technical definition the social side is of equal importance. There is traditionally higher involvement of females in the social sciences and I think this can lead to a higher involvement [in sustainability].'

Anne Kovachevich, who holds a double degree in engineering and physics and a PhD in hypersonic aerospace, reflected on the diverse avenues through which people enter sustainability, adding that 'there's actually quite a number of people who have done aerospace or similar type study and then gone into sustainability, particularly in the building space, because we do a lot of computer modelling and the crossover between the two is quite strong... With sustainability, you're always trying to do something that's new and innovative and different and you're trying to challenge the norm, so you really see these people with passion for things like science and physics and other things that have been a bit more out there, you see them in the sustainability space quite a bit.'

Karla Fox-Reynolds spoke about the diverse specialities and collective experience evident in the sustainability-focussed company she works for: 'Everybody comes from different backgrounds...some are from finance, some from government, some are researchers..' A respondent echoed this diversity in their response in the Individual Experience Survey, writing that 'Professionals/practitioners can enter the sustainability field from a diverse educational background, e.g. Architecture, environmental sciences, etc.'

Similarly, one respondent wrote 'Sustainability has a broader group of people it attracts - it attracts people from law, finance and marketing as well as the traditional engineering/building roles. The traditional engineering path is male dominated but law, finance and marketing have a broader gender diversity.' This last response highlights that the pipeline and educational backgrounds of sustainability professionals are not-necessarily female-dominated, but have greater gender diversity in comparison with other male-dominated disciplines which feed into careers in engineering and construction. This theme emerged strongly across survey respondents, with the sentiment succinctly summarised by one respondent:

'Sustainability is broad in nature and therefore lends itself to various avenues of entry for women.'

- Survey Respondent

A theme of gendered study and interest areas also emerged from the study, with differences highlighted between the educational background and interests of sustainability professionals in comparison to more maledominated industries of construction and engineering. For example, one respondent wrote that women may participate more in sustainability in comparison to other built environment areas due to the field being perceived as; 'Less intimidating than other areas in engineering and construction, [which are] entrenched male dominant areas. Easier entry to sustainability through non-male dominated university fields.' Another respondent made reference to the differing pipeline in sustainability as compared to construction being more conducive to female participation, as it is not trade based; 'Males in the general construction industry make their way up from male dominated trades. Women in the sustainability field come mainly from university backgrounds (architecture, environmental science) where gender diversity is greater.'

Anne Kovachevich made her way into sustainability practice from an engineering background, and can attest to the male dominance of the engineering discipline. 'When I started my engineering degree, I think there were 80 guys in my class and four women...engineering, physics, all of those fields were very male dominated. And even within building services, you get a lot of male representation, often of the balding, older type. And you do end up finding yourself in a room, a lot of times being very different and also being the sustainability person. So you're a bit of a thorn in the side trying to push things in a different direction. So it's certainly

been a career where you have to feel comfortable in your own skin and not let that get you down too much.'

One respondent noted that while the male-dominance of leadership positions in construction is reflective of its gendered pipeline of trade and study, professionals working in sustainability don't typically follow this route, facilitating greater participation by women; writing that the 'number of men senior in the construction industry is a reflection of their dominance of engineering (changing pretty fast) / building trades (changing very slowly) whilst senior women in sustainability reflects increase of women doing science.' Another respondent similarly wrote about this differing pipeline between sustainability and other more maledominated parts of the industry; 'To some extent I see the higher numbers of women in sustainability as a converse of the male bias in engineering... I think sustainability is also often a corporate/office job rather than a trade, which speaks more to the issues of gender equality in other parts of the sector.' Similarly, another respondent wrote about the avenues for entry into sustainability differing from other construction roles as conducive to female participation; 'The feeder for most sustainability roles are the environment roles, which are also female heavy compared to the rest of construction.'

Lauren Kajewski reflected on the pipeline and backgrounds of sustainability professionals from a recruitment perspective, noting that 'sustainability teams are made up of such a diversity of skills. If I look at my own team, I have someone who was formerly based in architecture, someone's more an environmental scientist, someone from marketing now runs social sustainability for us. So it's such a diverse range of people. Whereas if you look at the bulk representation of property, we're looking at development managers or project managers. And I would say in that sphere, it's still very male dominated. And again, we need to be more inclusive in the way that we hire, not so narrow in what we're speccing a role to be, but open to people who maybe don't tick the boxes per se.

Maybe that's what we should learn from sustainability teams, that there's a lot of capability out there if we're not so narrow in what we think we want.'

- Lauren Kajewski

Many interviewees spoke about their aims for the future integration of sustainability, where all roles incorporate a sustainability criteria or focus. This would further expand the diversity of experience contributing to sustainability action and leadership. For example, Ann Austin spoke about people in her team 'who have come from backgrounds that have really got very little to do with sustainability. But in their role and in their job, they have made their decisions based on sustainable thinking and sustainable principles. And really, you don't need to leave your job. We actually need people who are already lawyers, architects, project managers, construction managers to choose to stay there and to just be using sustainability and sustainable principles as one of their core decision making tools.' Ashleigh Gay similarly spoke about expanding sustainability beyond the purview of dedicated sustainability professionals; 'the perception that sustainability is just the sustainability manager's job ... I think is one of the things that we also have to start shifting from.' This idea was also raised by Karla Fox-Reynolds, who'll 'be satisfied when there's no longer a sustainability person in the room,' as well as Jeff Elliot, who thinks that 'everyone should actually include a sustainability portion of their job and then actually be held accountable for achieving that part of their role. It shouldn't be seen as a separate type [of] job. It should be embedded across every job.'

Respondents typically characterised sustainability as a diverse field in both work and educational pipeline, that offers opportunity for a range of professionals to be involved, conversely commenting on the male-dominance of construction and engineering being rooted in rigid career pathways in which women have little involvement.

8.2 Perception of Sustainability as a gendered profession

The data collected in the Individual Experience Survey indicates that the sustainability field has good gender diversity, and a significantly higher participation rate of women in comparison to the low female involvement in the broader built environment industry, which is still perceived to be male-dominated. Most respondents reported that the sustainability field within their own organisation is fairly balanced, and an equal number of respondents reported they had male or female sustainability leaders within their organisations. Despite these results indicating a diverse sector with balanced gender representation, a theme that emerged from this research was that sustainability is seen as a gendered, female profession.

A number of participants referred to connotations of sustainability as non-masculine, and referenced cultural structures that may impede men from wanting to pursue an interest or career in sustainability. One respondent wrote:

'Being sustainable can be seen as 'feminine,' I have come across some instances where men are not proudly sustainable as it makes them appear 'less manly."

- Survey respondent

Similarly, a number of responses included references to a perception of sustainability being incompatible with a perception of masculinity;

'I believe that toxic masculinity acts as an obstacle for men to get involved with sustainability because they don't want to be seen as 'tree huggers."

- Survey respondent

Other respondents wrote; 'Male culture sometimes discourages sustainability,' and 'women are less likely to be labelled as 'greenies' in a negative way.'

Additionally, responses also included references to a certain 'blokeyness' expected in the construction industry, with which sustainability does not align; 'to be 'accepted' within the construction industry, there is a strong pressure to 'be a man." Other respondents wrote that 'perhaps there is a perception that sustainability is more suitable for women because it can be seen by some men as too touchy-feely and not blokey enough' and 'sustainability is at its heart about nurturing and healing, about a deeper philosophical understanding our purpose, and our male culture in the construction industry is highly suspicious and insecure around these kinds of concepts.'

These kinds of references to perceptions of sustainability apply a gendered lens to both male and female participation in sustainability. Sustainability, environmentalism, and 'being green' is seen as feminine, which is explored in more depth in the thematic exploration of 'softness'. However, importantly, there is also a gendering being applied to men who want to participate in this sector. The masculine structures evident in a maledominated construction industry appear to influence the sustainability field, and discourage male participation in and acceptance of this industry.

Ann Austin warns about the negative impact a perception of a female-dominated industry could be, in discouraging male involvement, when in fact, the criticality of the issue requires everyone to be involved:

'The whole focus on females in the industry, I personally think is really dangerous. I think it's completely and totally irrelevant what gender people are who are leading this. We need everyone to lead this. And I don't care if you're male or female or another gender that you identify with, your leadership is welcome and absolutely essential...

- Ann Austin

...And I think if we position this as women leading this, then there's a whole bunch of men who probably deeply care about sustainability and the future of the planet, who are probably deeply confused by that and might feel alienated. And I don't support it, I don't think it's helpful, there's loads of women who are not interested in this and loads of men who

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Austin's comments make reference to a widely held view, as evidenced by many responses to the Individual Experience Survey, that sustainability is perceived as an industry with high rates of female participation, however, the data collected in this research points to a balanced industry, rather than a female-dominated industry, despite the common perception.

Jeff Elliot's comments reinforce this perception of sustainability as a gendered industry; 'I've found the sustainability industry is probably one of those industries that, I wouldn't say predominantly women are involved in, but I'd say there'd be a good at least a 60 40 or if not more...So I think the sustainability industry has a really good mix. And if anything, I think sometimes more men should get involved in it.' This seems to confirm Austin's concern that a perception of a female-dominated industry could prohibit male involvement, with all participants advocating for a balanced gender representation.

In response to a comment about the seemingly strong representation of women in sustainability, Laura Hamilton-O'Hara responded: 'I would agree with you, sustainability has got loads of women in it, which is great.' Hamilton-O'Hara continued, reflecting on a sustainability leadership she facilitated some years ago 'where it was predominantly women with a handful of men in the room, there are pros and cons to that. I would have loved to actually see more of a gender balance there.

I think the danger of having one gender overrepresented in any field is that it becomes a gendered field, and that, I think, is inherently problematic...

- Laura Hamilton-O'Hara

...It would have been better if it was more even, because for some things that have been a historically gendered field, like nursing and teaching, for example, we know they get paid less. We know they're not as respected. And so the risk of sustainability becoming gendered like that is inherent in those kind of things...I think it's beneficial for all of us that sustainability becomes a more gender equal space rather than just being female represented. And that will also help and it being taken more seriously, being embedded more into business and serious business practices that are often men's spaces, and I think that would really help push it along.'

Despite a number of participants referencing the high participation rate of women in the sustainability industry, a disparity in representation at leadership level was also raised. Anne Kovachevich said that 'within sustainability, and particularly now, there's a really strong representation of women... But I would say there's still a big gap in the leadership.' Laura Hamilton-O'Hara similarly commented 'as you climb up the sustainability [ladder], it's still heavily dominated by males. You can go to a sustainability award ceremony and just have a look at who's winning awards, and often it's really still heavily weighted towards men. So there's something weird happening where, you know, the majority of [the industry] is women, but still the people that we really hold on a pedestal quite often are men, and I'm still trying to figure out what that is.'

The responses received in the Individual Experience Survey and in conversation with podcast interviewees highlighted a number of gendered perceptions of sustainability that could prevent diverse participation in sustainability work, perpetuate unequal career advancement opportunities for women, and affect the value and impact of sustainability outcomes.

8.3 Sustainability as a new field

Leading on from the theme of differing educational and entry pathways for sustainability in comparison to the broader built environment industry, an associated theme emerged from the Individual Experience Survey and in conversation with podcast interviewees, relating to the sustainability being seen as a new field with a culture distinct from construction and engineering in which structural gender issues remain evident.

In comparison to construction and engineering, one respondent wrote;

'Sustainability is a newer field and less burdened by inequalities, perceived or otherwise.'

- Survey Respondent

Similarly, another respondent drew a comparison between the two sectors, writing: 'Construction has a poor history of inclusion for women and the sustainability field is well ahead in this regard,' while other respondents wrote; 'It is a 'newer' field with no inherent traditionally male dominated culture or history' and 'It's also a relatively new industry in comparison and the construction industry has had the unfortunate gender bias for a very long time.' Sustainability is a fairly new discipline, and while it operates within and interacts with the built environment industry, it seems to have largely avoided the adoption of the gender structures evident in the inequity present in construction and engineering.

This gender inequity present in construction and engineering is referred to by multiple respondents, for example; 'At a grass roots level there is a stigma associated with women in construction and so they are not entering the field of training. Women have a number of barriers throughout the life of their career which the pace and culture of the construction industry doesn't lend itself to support in overcoming those (generally speaking)' and 'Orthodox design and construction careers being very maledominated and driven.' Another respondent referred to the 'boys club' culture as a barrier to gender equity evident in the engineering and construction sectors, to which sustainability does not appear to subscribe; 'Sustainability is a newer focus in engineering and design of buildings. therefore it may not have the old establishment/systematic issue of a boys club.'

Meanwhile, Ann Austin spoke about starting her career in construction over twenty years ago, when 'it was still the era where there were nudie posters on the walls and people going to topless bars. And, you know, when I think about it now, it was quite horrific.'

Ashleigh Gay similarly started her career in a male dominated organisation in the construction industry, and while she characterises the experience as mostly positive, she also reflects on the struggles she had in learning to voice a different view when she was in the minority, and how she felt the difference of her gender: 'I started my career very young [in] an organisation that is male dominated. And I think for a lot of the time that I was there, I was trying to fit in. I was quite often the young person in the room by 20, 30, 40 years, and almost certainly the only female...I did lose touch a little bit with my femininity and sort of dialed that down or dialed that up in ways that, looking back on it, I didn't really ever need to. I sometimes felt like I had to be something else or be someone else.'

Karla Fox-Reynolds also spoke about trying to emulate the dominant 'blokey' culture of the construction industry, as there were no other alternative models of success evident, however, she has seen change emerging from the sustainability sector: 'When I was younger, I think I definitely [tried to] do things like the boys did it. I can eat all of that food, I can drink all of that beer. And the same in work, you would be at the table [trying] in your mannerisms to be a bit more blokey because that's obviously how you get to where you get. But then I did learn that there's no benefit to the industry or to anyone doing that because females bring something different to the table. Things haven't been going spectacularly for many years, it's about time we had some change and maybe the females are a part of that change.'

Many respondents acknowledged that efforts are being made in the construction industry to improve gender equity, although varying opinions are stated regarding the speed of change; one respondent wrote 'Engineering and construction has lower females participation rates as it is not an historically attractive field for women but it is fast overcoming that perception and is changing rapidly,' while another respondent was less optimistic about the speed of change in construction; 'I believe construction has historically been a more male dominated industry and therefore exhibits some characteristics which are either less appealing to women, create unconscious bias, or affect the culture in a way which is showing to be taking its time on shifting the dial towards a more gender equitable sector.'

In this environment, women and people of diverse backgrounds appear to have greater opportunity to participate in sustainability; one respondent wrote 'I think it's a more recent field (say last 10 years) so the ingrained sexism, higher male representation in construction is less of an issue in this field.' Similarly, another respondent suggested this lack of ingrained gender inequity contributes to higher female participation in sustainability; 'Because the field is relatively new, gender roles have not been fully defined.' Respondents also indicate that opportunities for career advancement and leadership in sustainability are more equitable in sustainability, with one respondent writing;

'It is a new field so the expectations of gender roles is not so ingrained. Women can be leaders in this space as it is new.'

- Survey Respondent

This study reaffirms the perceptions and experience of construction and engineering as male-dominated fields, with ingrained structures that contribute to gender inequities in these industries. In contrast, the sustainability sector, as a new field, is unconstrained by these historic inequities, and the participation rate of women in this industry is testament to the opportunities provided in this new space. Respondents seem typically optimistic about the field as supportive of diversity, with opportunity for career progression and leadership.

8.4 Perceptions of sustainability as an alternative to site-based construction roles

The comparisons to careers in the construction industry continued in response to the question; 'Why do you think the participation of women in the sustainability industry is higher than participation in the construction industry more broadly?' as issues about site-based construction roles were raised.

Some responses raised concerns that site-based construction roles continue to be unpleasant environments for women to work within: 'Construction is not a nice place to work. Even professionally, any contact with workers (sorry), and site is very exhausting, loud, dirty, uncivilised and dangerous. It's fun to go out and explore, but this is very limited,' and another thought the 'Perception of the construction environment (noisy, dirty etc.)' was a reason why a career in sustainability appealed more to women than other construction fields.

Grace Foo recalls her struggles visiting site at the beginning of her career, and her experiences of discrimination: 'I always remember the first inspection I did on my own as a young graduate, female engineer, and I was blatantly dismissed by my site contact at the time...he's on YouTube watching a video when he is meant to be showing me a plantroom. That was really upsetting, and I went back to the office being dejected.'

A number of responses mentioned the physical and environmental difference between roles in construction and sustainability as reasons why women are participating at higher levels in sustainability. For example, respondents wrote that in sustainability, you 'don't necessarily need to be 'on the tools,' and involves 'less physically demanding roles,' while another wrote; 'The construction industry often requires hard physical work not suited to all women (but also not to many men as well).' Some of the responses include a gendered perspective, such as; 'Sustainability much like the environmental discipline is automatically associated with being a female friendly field as its inputs require less physical labour ... and relegated to women as women are more suited to an office [than] site in the macho male perception.'

8.5 Working environment of sustainability conducive to flexibility

In highlighting the contrast between the working environment of sustainability and site-based construction roles, many participants wrote that sustainability offers greater flexibility, making it an attractive career for many women. This sentiment can be seen in the following responses; 'Sustainability roles are usually office based, which allows more opportunity for flexible employment' and 'It's also more of an office role than site management roles which can suit women better so perhaps attracts more women.'

Flexibility in working hours and location was raised by numerous respondents in describing the attraction of sustainability; 'It's not an onsite role generally. More flexibility perhaps which is appealing,' as well as 'better working hours make it more assessable than other construction roles.'

Another response provided;

'I believe it is usually a role which offers more flexibility for women in terms of working hours and place of work, i.e. working from home.'

- Survey Respondent

The importance of flexibility was associated in multiple responses with care-giving responsibilities undertaken by women, for example; 'Typically a sustainability role does not require a site presence at 7am. This makes it a more flexible role for those who are the primary caregiver who need to do childcare or school drop off.' Similarly, another respondent wrote; 'in terms of consulting it is a role more easily suited to flexible working than say building services / structural engineering. Perhaps less drop out after women have children in sustainability.'

While in some instances participants reflect negatively on the constraints and a perceived lack of flexibility in construction, generally the sustainability field is described positively with regard to flexible working environments, with the result of increased opportunities for women in leadership. One respondent wrote with a sense of optimism that the emerging field offers 'Opportunity to explore and [be] seen outside of the established mainstream industry. Can specialise as an individual with a self determined flexible work place rather than be restricted to a slower moving structured workplace system.'

Flexible working environments are seen as an advantage of working within the sustainability sector in comparison to construction roles which are perceived as more constrained, especially those that involve a site presence.

8.6 Perception of women in sustainability taking on a caring/nurturing role

A theme that emerged from the Individual Experience Survey about why women are more involved in sustainability than other areas of construction was in reference to a perceived predisposition of women to nurture and care, to protect the environment for their children or 'future generations,' or with reference to women as mothers.

I write about this theme warily, as it generalises and perpetuates gender stereotypes in a way I believe could be a barrier to gender diversity in the industry. However, if this is a perception that participants have as to why women participate strongly in the sustainability field, it is worth establishing so that its impact can be analysed.

Firstly, a number of responses mentioned 'mothering' or children in relation to women's participation in sustainability. It is worth noting that these opinions were voiced by both male and female participants in the survey. One respondent wrote; 'As some females become mothers, they often understand more about lifecycles and care more about the environment I think voting patterns and research would suggest.' Others wrote; 'Women with children may have more nurturing characters and tend to protect [the] 'environment [of] the future' for their children 'and 'Perhaps women have a greater stake in future generations which requires longer-term thinking.'

One respondent mentioned 'women's interests and natural desire to care for others and our environment,' and others echoed the sentiment that women have a 'natural desire' to care for the environment, with one respondent writing; 'There is an inherent nurturing and caring aspect to sustainability that I suspect more women are in tune with than men.'

A related theme is that of women being perceived as inherently caring. For example, one respondent wrote; 'I believe the nature of females tends to be more caring & considering,' and others wrote; 'It's perceived to be a caring industry, a bit warm and fuzzy to do good or improve situations' and similarly, 'It's perceived as a field that women are more suited to take on (caring, etc..).'

One respondent acknowledged the gendered association between sustainability and nurturing, however, challenged the idea that any inherent nurturing qualities should make women more inclined to pursue a career in sustainability, writing:

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'Women are rightly or wrongly, perceived to be better equipped to perform well in this type of role i.e. a 'mothering' kind of role...

- Survey Respondent

...However, in my experience, some of the most inspiring and effective people I have worked with in this field are men, which goes to show that gender shouldn't play a role in how sustainability is perceived.'

A number of survey participants referred to their children when citing their motivations as a sustainability leader. One respondent wrote: 'I have a child and I want to improve her future, and ensure the built environment is actively improving the quality of life and not destroying,' and another wrote about their passion for 'The world I'm creating for my daughters' while others spoke of future generations: 'Trying to save the planet and reduce the pain for future generations.' These responses reinforce the caring nature of sustainability, and it could be suggested that caring and nurturing people are drawn to this type of work, however, these characteristics are not gender exclusive.

Other respondents echoed the sentiment that women are often expected to fill nurturing roles, and by extension may be perceived to be well suited to a career in sustainability. In the Individual Experience Survey, the statement 'Inherent characteristics associated with women make women well suited to the sustainability field' was proposed with participants rating whether they agreed or disagreed with the statement. This statement was generally agreed with, but also had a significant portion of respondents who disagreed, and one respondent elaborated in the following way:

'Inherent characteristics is an interesting choice above as I believe that the characteristics that we believe to be inherently female are largely the product of cultural and social influence, and in the western world this has been largely shaped by the capitalist and patriarchal society in which we operate. It is clear that typically women have dominated in fields associated with care and nurturing (teaching, nursing, child care) and I do believe this extends to the environmental field, but I'm not certain whether this is because of inherent characteristics or because this has been a more acceptable choice for women by the powers that be (aka predominately men).'

One respondent reacted to the gendered premise of the question; 'Why do you think the participation of women in the sustainability industry is higher than participation in the construction industry more broadly?' in their response;

'We must stop with the essentialism bias, this is detrimental for women. Women are not more aware of sustainability aspects because of their nature (and their uterus). But as they are largely more active in roles of care, and service or help to people (infants, disable, elderly..), often in poorly or unpaid activities, they witness the consequences of not considering sustainability and equity on a daily basis.

Sustainability cannot be a concern for half of the planet inhabitants. Climate change will affect all of us. We need all energies.'

- Survey Respondent

This response highlights an awareness of gendered perceptions of women working in sustainability, and warns against the dangers of the field being perceived as a 'female' field, like other fields centred around caring which are perceived as female-dominated. It is important that the sustainability field remains diverse, to ensure maximum participation by all.

8.7 Perception of inherent skills and characteristics of women

Leading on from a characterisation of women as caring or nurturing, a number of survey respondents answered the question; 'Why do you think the participation of women in the sustainability industry is higher than participation in the construction industry more broadly?' by listing skills or characteristics perceived to be held by women that made them well suited to the sustainability sector.

Some of these responses are listed below:

'Ability to communicate, engage and comprehend complex problems to wider audiences and key stakeholders' - Survey Respondent

- _'Open minded and persevering mind-set'
- 'Multidisciplinary knowledge and experiences.'
- 'Less technical, more verbal and inspirational'
- _''More often than not, strong communication skills, nurturing and determination to make sure things get done'
- 'Communication skills and engagement'
- _'Higher emotional intelligence than many men. Less confrontational and better change managers in general.'

These responses can stray into gender generalisations, however, it is clear that many respondents see that certain types of roles within the sustainability field require skills that women are traditionally perceived as being good at.

Grace Foo also spoke about the benefits of greater female participation contributed to the industry's working culture, reflecting that 'most females interact differently. We just have slightly different traits from stereotypically male persona...Perhaps we are a little bit more gentle in the way we interact with each other, particularly in the construction type project where mental health is a big issue because people can be really harsh when stress levels are high.'

A number of other responses acknowledged that while women are commonly held to be skilled in certain areas conducive to a career in sustainability, this should not preclude men from being involved in these activities. One respondent wrote; 'I think the way females work, problem solving with consideration, negotiating and strategise makes them effective in this space but I see some male colleagues with equally strong skills,' while another respondent wrote 'Women and Men bring a wide variety of attributes to every role in the Construction Industry'.

One respondent noted that the qualities often required for a career in sustainability are not gender-specific, writing; 'I think the personality types that are drawn to sustainability (both men and women) could be considered generally more open minded, inclusive, perhaps more left leaning and progressive.'

As established in the previous section, there are dangers in strengthening perceptions of sustainability as a gendered field, however, this section highlights that there are roles within sustainability that women feel well-suited to, underscoring the diversity of work available in this sector.

8.8 Positive impact of female role models and female participation in sustainability

The importance of having female role models to encourage greater female participation in an industry was evidenced in the responses received in the Individual Experience Survey and from the interviews undertaken for the podcast. A number of participants explicitly referenced female role models in sustainability as a reason why the field sees a high level of female participation, for example, one respondent wrote that there are 'Amazing female leaders and role models in this space,' while another cited 'more representative... role models in the industry' as a reason for high levels of participation by women.

Respondents linked higher levels of women in the sustainability field compared with other construction fields as an attractor for more women to join the industry, which also facilitates the promotion of women into leadership roles. A respondent wrote: 'I think that the higher participation rate makes the field more desirable for other women to join,' while another wrote that this higher participation rate; 'leads to Sustainability not having that 'boys club' culture which I think allows women to progress in management and then this is why women choose to go into this area.'

Echoing this sentiment of a male-dominated environment or 'boys club' culture as a barrier to female career advancement, one respondent linked a higher participation rate of women in sustainability with opportunities for leadership;

'I've observed that women have been able to transcend into leadership roles in the environment and sustainability space perhaps quicker that other fields. Having women in positions of leadership then paves the way for more women to enter this field (which was my experience). It's a lot harder for women to be recognised and promoted in fields where the decision makers and leaders are dominated by men (because of a myriad of factors like unconscious bias etc.)'

- Survey Respondent

Rebecca Miller also raised the difficulty of female promotion in a male-dominated leadership structure, 'recognising that even still, most of the people in senior leadership [and] executive leadership are men, particularly in big engineering firms, and there is a lot of natural peer to peer sponsorship that just goes on organically when guys get together, and women don't have access to that if all of the executive leaders are men.'

The value of having female role models is illustrated by Ashleigh Gay's reflection on how a program supporting gender diverse leadership was Gay's first experience of a leadership model in which she could see herself in; 'I was involved in an initial pilot trial many years ago that was looking at establish[ing] a network of women and diversity more generally...And I think that was a really important opportunity for me to actually see myself in a leadership role, [which], when I was in those formative stages of my career, that was something that I struggled to identify. It was through that network that I kind of started to [think], maybe that could be me one day. And so I think that was an incredibly valuable experience and probably something that changed my life, to be honest.'

Rebecca Davis-Jinks works in what she calls a 'Venn overlap' between a renownedly male-dominated property industry, and sustainability, in which women participate at high levels. Within the property industry, especially prior to the emergence of sustainability as a more balanced field, Davis-Jinks described the challenges she faced forging a leadership role for herself: 'For all of my career, with the exception of a couple of times, I've had men as my manager. And when I look upwards in many organisations, the number of women seriously starts to fall off, which personally makes me consider where do I go from here? How do I break through the glass ceiling? And the opportunity then becomes proving the value of women and forging that new path and being driven by that ... There are women in the industry today who have done it, and if you speak with them, many of them are keen to support those of us that are coming up through the ranks to mentor us and to work with us as we grow.'

Lauren Kajewski spoke of the impact role models have had on her career aspirations, who have 'all been female and they've all been someone that I've looked up to and thought, I want to be like you. Maybe that sounds a little bit juvenile, but I think there are things that others emanate, and you think how to absorb that.'

A critical aim of sustainability professionals is to recruit more people to their environmental cause, which results in a culture that is in essence non-exclusive. Anne Kovachevich commented on the inclusive nature of those involved in the industry, where, due to a high participation rate of women, has generated a profession with female role models who are accessible and invested in the further development and growth of the industry: 'There's certainly a lot of female mentors out there and everyone in the field is so generous as to wanting to get people in.'

Clare Gallagher also spoke about the prominence of women in visible leadership roles in the sustainability industry:

'In terms of female representation...
in sustainability, there's been a lot
of female leaders, so there's always
been people to look at, at the very
top roles in this industry, which I think
is very helpful when you're looking
for someone who might be you in
ten years or whatever it might be,
that there are examples of females in
those top roles.'

- Clare Gallagher

Grace Foo reiterated the challenges faced by young female professionals in a male-dominated construction industry, underscoring the importance of female mentorship in this space: 'I would love to be in a position where a young girl in a similar position as I was, when I first started going on site or walking to commissioning meetings for the first time and telling people what to do, doesn't need to actually go through the same sort of situation that I went through - they can just focus on getting the job done.'

Other aspects of gender equity were also referenced in the responses to the Individual Experience Survey, including female participation in the workforce often declining after parental leave, or female 'drop-out'. One respondent attributed what they perceived as potentially lower drop-out rates of women in sustainability following having children to 'more women in leadership roles in sustainability.'

The high participation rates of women in sustainability, compared to other built environment related fields, creates an environment where women have leadership opportunities, and experience other benefits including a more inclusive work culture and anecdotally, lower levels of post-children drop-out.

8.9 Perception of Sustainability as low-value / Issues of pay and career advancement

Another theme that emerged from the Individual Experience Survey as well as through podcast conversations, was a sense that sustainability is less valued as a profession than other built environment/construction roles, which may be interlinked with a gendered perception of the industry also. One respondent wrote:

'Sustainability is not valued and therefore men don't want to do it as there is no career path to company leadership via sustainability.'

- Survey Respondent

Similarly, other respondents echoed this idea that men are less likely to enter sustainability as a profession due to a negative perception of career advancement opportunities in sustainability, with one respondent writing: 'Sustainability while seen as important is seen as a support function rather than core business. The Sustainability Manager is not going to progress straight to being CEO,' However, this perception may be changing, with the experience gleaned from a career in sustainability seen by those within the sector as beneficial to building the skills required for executive business leadership. Karla Fox-Reynolds spoke of her experience: 'one minute I'm talking about the mechanical system, then I'm talking about the indoor air quality, then I'm talking about the outdoor areas, the landscaping, the furniture. And I'm bouncing between so many different subjects within such a small space of time. You have to understand so many things. And in my mind, when you're a leader and when you're in the C suite...you need to be able to understand a lot of those things...And if you've been in sustainability, bounced all over it, you've done it already.' Unfortunately, this perspective was generally outweighed by responses that spoke of sustainability as undervalued in business.

One respondent also referred to this perception of sustainability not being considered part of the 'core business', with no clear progression to prominent roles in the business; 'Women are not as motivated by status and pay. Sustainability is a sideways career, it is not core business, it does not get the big titles, the big bucks or lead to the CEO role. Women are more likely to not care because the work is important and rewarding.' Across various responses, participants raised the idea that sustainability is seen as a support function, and therefore not valued as much as other segments of the business, generally implying a gendered implication that either,

female involvement creates this perception, or that this perception discourages male involvement.

Another gendered aspect of this theme is the combination of an undervalued role (sustainability) being compounded when undertaken by a woman, as suggested by the experience of Karla Fox-Reynolds: 'And obviously, if you're the only female at the table as well, it's that extra level where...we've got to work that little bit harder just to get the same respect, just to get the eye contact, sometimes just to be able to have your voice heard.' Rebecca Davis-Jinks also referred to the dual challenge of being valued by the broader industry as a women working in sustainability. Davis-Jinks raised-

'how hard it can be as a woman in the construction and built environment industry to be taken seriously, particularly when you're a female in a male dominated industry talking about a concept that is so easily dismissed here in Australia. You know, sustainability and climate change... we're one of the last countries to laugh at it. So that makes our role really challenging.'
- Rebecca Davis-Jinks

This lack of appreciation of sustainability roles is also seen to transcend issues of gender and diversity, the derisive opinion of sustainability professionals described by Jeff Elliot: 'I don't think it's perceived as a female industry, what I've seen over the years, [is that] sustainability was viewed as, you're a greenie... you've got long hair and dreadlocks ...you have no rhyme or reason, you will only see one way... where it's actually about balance.' While Elliot and others have seen this opinion shift in recent years, the stigma described here highlights an issue around the perceived value of sustainability, which likely affects the success and impact of sustainability outcomes. Karla Fox-Reynolds also spoke about sustainability not being valued in the industry, commenting 'when you see the sustainable person sat at the table for a project, I think [they] definitely are not the most respected individual at the table.'

Some participants thought that perceived limitations around pay and promotions is resulting in men pursuing different career options, while women were referred to in

multiple responses as having more flexibility to take a role with a perception of limited career advancement. One respondent wrote that women are represented in greater numbers in sustainability compared with construction, because 'sustainability in [the] construction industry is not widely accepted as inherent/ essential/ important field of work,' while another wrote; 'The industry is traditionally male dominated and old habits die hard. The more mature males feel that sustainability is not a legitimate consideration and do not engage.' These respondents speak of a devaluation of sustainability, which is sometimes combined with a gendered overlay, in which women are associated with these areas of lesser value; 'Women are generally indirectly discouraged from taking on traditional construction roles and generally end up in 'support' functions.'

Additionally, a number of responses mentioned sustainability roles being paid less than other construction roles, citing this as a reason why men are less inclined to participate in this field in comparison to other construction sectors, for example: 'Perhaps it may be a male conception that sustainability may not pay as much and that may be less of a concern to females.' Another respondent wrote: 'The sustainability industry has lower paying jobs than the construction industry more broadly, so there is less competition for the roles, and the higher paying roles in the construction industry tend to go to men. Women are more inclined to accept a lower paying job than men because of lower confidence levels and lower competitiveness.' This acceptance of lower paying roles was also linked to a sense of purpose, which made sustainability attractive for women, with an implication that men were sometimes unable to pursue roles out of interest or sense of purpose because they were constrained by responsibilities of being a household's bread-winner. One respondent wrote; 'It's a more altruistic profession and as women are generally less likely to be in the 'bread winner' role, they have more flexibility / opportunity to pursue careers in altruism.' Another respondent wrote about why women are more involved in sustainability than other areas of construction: 'We do things for passion and contribution not money.'

In summary, a strong theme that emerged from this study is a perception of the sustainability sector being a low-value career, which appears linked with a gendered perception of sustainability as a female field (unsubstantiated by this research), and discourages male involvement in the sector. However, associated with this low-value perceptions are issues of low pay and limited career advancement, echoing gender-related issues of pay equity that exist elsewhere.

8.10 Perception of sustainability as a 'soft' discipline

A strong theme that emerged in the Individual Experience Survey is a perception of sustainability as a 'soft' discipline. This perception seems to be related to sustainability roles typically being office-based rather than site-based, and associated with this, describes a discipline that is perceived to be more attractive to women than other construction roles. In this way, the characterisation of sustainability as a 'soft' discipline can be seen as a gendered descriptor, and this perception could be a barrier to sustainability being valued and maximising uptake in the built environment industry.

This is an important theme for this study to explore, and participants and podcast interviewees contributed a number of perspectives related to this issue. Sustainability's perception as a 'soft' discipline is seen as a barrier to diverse participation from all genders, as this gendered characterisation is a deterrent for male involvement in the industry. It similarly devalues the work of the industry, reducing its potential impact. However, an alternative argument put forward by some participants challenges the patriarchal structures that may still be evident in the construction industry where 'soft' is perceived negatively, rather than as a positive counter to dominant 'tough' male narratives in construction.

A characterisation of 'soft' was often applied in contrast to other 'hard' roles which are perceived as male-dominated, for example;

'In engineering, I feel like sustainability is seen as a "softer" field so it is more socially expected for women to participate as compared to "harder" fields e.g. mechanical.'

- Survey Respondent

Grace Foo correlated descriptions of 'soft' and 'hard' with gender participation, when she said: 'I think that diversity of thought and personality bring a softer side to an industry that's traditionally been very hard... [It] would be a great thing for this industry to see change ... taking away that stigma [of] saying, certain industries belong mostly to the dudes.'

However, the use of 'soft' implies that the discipline is not taken seriously, as one respondent wrote; 'Sustainability can be viewed as a soft (not real) engineering field making it more accessible to females.'

The 'soft' descriptor was often applied in a gendered way, in association with women's involvement in sustainability. For example, one respondent wrote; 'It's easier to enter. It's getting technical legs now but I feel in the past it was seen as a soft skill so you didn't have to fight the sexism to get in.' Another uses 'soft' in a way that infers female; 'sustainability is often seen as a little bit of a 'softer' field. That said, there is a lot of leadership from men, particularly from engineering and property backgrounds.' Another participant wrote about the office-based environment of sustainability and its perception within the broader context of the construction industry, that 'in construction this is deemed 'soft' and relegated to women,' highlighting the association of female involvement and the characterisation as a 'soft' discipline.

One respondent described their perception of masculinity within the construction industry, and how women could be typecast into a 'soft skill' role unless they tried to conform to entrenched male stereotypes: 'To be 'accepted' within the construction industry, there is a strong pressure to 'be a man' - women often adapt to be crude, rough, deepen their voice, cut their hair, avoid being feminine, and to a certain extent, take up traits that are stereotypically 'male'. It is difficult for women to 'be themselves' on the soft skills side.'

Anne Kovachevich talked about skills that sit outside a 'blokey' parameter often being undervalued: 'It's the whole sort of the blokey approach that we really need to push past and make sure that the factors that are seen as more feminine traits [are] valued as much of the other as other traits'

In some contexts respondents associated the perception of 'soft' with low-value, highlighting the relationship with this perception and its effectiveness in industry; 'sustainability is considered a 'soft' field to be discussed and is a maybe not a must in most firms.'

Rebecca Miller also spoke about the perception of 'soft' equating with a lack of value, and considers the possibility that while female participation may not be the root of the 'soft' characterisation, the perception does present challenges that may be intertwined with those of gender equity: 'Sustainability in particular...does suffer this fate, we're often seen as the soft side of development, we're the soft side of infrastructure or the soft side of buildings. I think some of the challenges that do remain...in getting sustainability traction, I don't think is to do with gender...so much as the ability to engage and communicate the value of what we're doing. And I think that's where we can come up against barriers, and I'm not naive, some of those are gender related - but I think a lot of it, too, is in the messaging and how we create that sense of urgency.'

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Ann Austin rebuffs this characterisation of soft, saying 'Anyone who calls it soft has clearly never worked [in it] - this is the hardest job ever. I don't think I've seen it seen as soft, but more as optional. And so this is part of the change journey, isn't it? So we're shifting people's mindset to have sustainability at the core of the decisions they make as opposed to something that they bolt on or add on afterwards if someone pesters them enough. And that's the transformation that we're making, and we're in the middle of it. So maybe some people don't have the vocabulary to describe that, so they call it soft.'

Interestingly, some respondents framed a perception of sustainability as 'soft' as a positive characterisation, challenging entrenched expectations of 'hardness' in the construction industry. One respondent wrote; 'Sustainability is seen as a 'softer' discipline - more open to conversations, engagement and diverse ways of thinking. Less so than traditional disciplines which are more black and white.'

Caroline Pidcock also opposed a negative reading of the 'soft' perception, saying:

'I find that really strange because I don't know why soft is a negative... - Caroline Pidcock

...I think that the machismo, tough, brutal thing, we're seeing it in its dying days. I think that finding a way of having diversity and being in touch with all of the aspects of your emotions is not negative. It's actually really important and really positive. And I think that we need to laugh when people say that is a problem because it isn't. And I think that if you look into nature, say, a forest system, there's strong and tough parts of it, and then there's really soft and gentle parts that do other things. If you look down at the forest floor, it's soft and keeps moisture in and it allows various things to happen, and then you've got the trees, which are really strong and tough, but they rely entirely on this soft floor for a whole lot of stuff in the trees. The leaves and the twigs are much more able to move and diverse, and all of those parts are connected and make that forest work....

...And I think that people are coming to realize that just being tough and driving things is not healthy, and it doesn't make things go better, actually. So I think we need to really strongly counter that opposition, or supposed thing about soft, because soft is good.'

- Caroline Pidcock

Descriptions of sustainability and the work undertaken in it as 'soft' are generally considered as negative or derogatory perceptions, carrying implications of undervaluation and lack of respect. While some respondents did suggest that the sustainability field could communicate differently to challenge this perception, typically respondents found that this issue of 'softness' was a perception issue that acted as a barrier to sustainability being taken seriously in the built environment, requiring a deconstruction of the stereotyping and gender generalisations in the built environment industry generating such perceptions.

8.11 Interrelationship between sustainability and diversity/inclusion

Social equity is considered as one of the three pillars of sustainability, alongside economic viability and environmental protection. As a result, for many of the survey participants and podcast interviewees, sustainability and diversity are inherently linked, and are evident at the forefront of professional practice.

The importance of diversity and inclusion for sustainability professionals and the organisations they work for is likely to contribute to the diverse demographics of the industry, especially with regard to gender diversity, as demonstrated in the results of the Individual Experience Survey. This interrelationship is evidenced by one respondent, who wrote:

'Social sustainability practice is founded around inclusivity and diversity.'

- Survey Respondent

citing this principle as a reason why women have higher levels of participation in sustainability than in the broader built environment industry.

Caroline Pidcock pondered the increased diversity she witnessed in sustainability networks in comparison to the broader built environment, asking 'Why is that? I think it's because that whole area is much more interested in diversity and I think much more accepting of diversity. And therefore, I think women feel much more attracted to work there.'

Divinia Eather echoed this interrelationship between diversity and sustainability, saying that 'diversity is in itself, I believe, a form of sustainability and the workforce of the future is diverse and the workplace of now is diverse as well.' Similarly, a survey respondent wrote; 'I think often the leadership group with Sustainability Teams or companies/organisations focused on Sustainability see diversity as going hand in hand with Sustainability. Or even that without even thinking about diversity they are active in implementing it'

Ann Austin drew a parallel in the drivers behind both sustainability and diversity, saying:

'I think diversity is fundamental to achieving sustainability...

- Ann Austin

...It's always included in an expectation in any form of indices around sustainability...that moral stance around what's the right thing to do underlies diversity and sustainability.' There is also an argument that the people who care about the environment and are involved in sustainability, are generally ethically motivated people, and therefore would encourage diversity and inclusion practices in their workplace as a matter of course. The ethical motivations of such participants can be seen in their answers to the question 'What does it mean for you to be a sustainability leader?', to which respondents answered: 'Being a conscience, encouraging people to do the right thing even when they don't want to. Thinking of the voiceless stakeholders' as well as 'Giving voice to the voiceless. Caring, Steward.'

Divinia Eather related an indigenous view of sustainability with caring, again supporting this idea of environmental sustainability irrevocably entwined with living ethically and with empathy. Eather described how 'Indigenous people care really deeply for the land. Country is more than a home, it's the connection to spirituality, to history, to culture, art, to family and to self identity especially. So to care for country is to care about all of those things that will keep harmony and keep balance. And that's a concept that's difficult to fully grasp sometimes because it's so far from how our system is set up. And it's hard to take steps toward returning to that way of life, because our current system can't support that either, if everyone tried to do that at the same time. But in saying that, I think we can learn a lot from that attitude and that mind-set, because

Sustainability doesn't have to be a chore ...it's the logical outcome of caring.'

- Divinia Eather

Margot Black recognises a responsibility of companies to reflect the community's values in which they operate: 'we do have a role to play both across our societal and environmental issues. And that's a true sign of leadership.' One survey respondent similarly drew together ethical and environmental motivations, with their statement on the meaning of sustainability leadership to 'make decisions (including financially) to promote ethical and ecologically aware companies and practices.'

Certainly the interviewees who participated in the podcast demonstrated empathy and an awareness of diversity and inclusion, and typically saw this aligning with their professional role in sustainability.

8.12 Diversity of Thought

The Individual Experience Survey found that the sustainability industry is perceived to be diverse, with good gender balance, and professionals having diverse cultural backgrounds and educational pathways, as illustrated by this reflection from Lauren Kajewski: 'I would say in sustainability, I think there's pretty good diversity at the moment from the events and meetings and collaborations that we do with others. I genuinely come across males, females, different age brackets, different experience types. And often we've all had a bit of a winding path to get to where we are.'

The benefits of diversity, especially as a mechanism to generate innovation, is a key outcome this project sought to explore. A number of the podcast interviewees reflected on diversity of thought in the industry, such as Ann Austin, who said:

'But really importantly, the problems that we're facing around sustainability are really hard, and we need to innovate. And any form of research around this tells us that innovation comes when you have diverse people with diverse thinking coming together...

- Ann Austin

...And so I think that whole diversity of thought, which may or may not come with gender or disability or other more obvious forms of diversity, but that diversity of thought is so critical to this. And so it makes complete sense to me that we are trying to bring the best of everybody into the tent here to work through these problems...But it's harder. It's a lot harder. So there will be times where we have quite radically different views about how things should be done, butI think actually diversity might be one of the keys to unlock the sustainability.'

Grace Foo also drew this connection between diversity and innovation, saying 'diversity in thought is what drives innovation. It means that we have the ability to question the way that we're doing things, the way that we think and improve upon it.'

Jenny Edwards similarly reflected that

'you're not doing yourself any favours by surrounding yourself with people who do the same stuff and think the same things as you begin to create change. You've got to push the boundaries. Often you don't know how you're going to do that, you know, but keeping your mind open to ideas and opportunities is really important.'

- Jenny Edwards

Karla Fox-Reynolds reiterated this ability to draw from the wealth of experience in the industry, saying: 'We've all come from different areas, we've all ended up [here] because we're motivated to make a change, we're motivated to see things done differently, and we don't all have the same experiences, which is what's great. So you get really fruitful conversations and you know that you can go to your colleagues and get something from them.'

The diversity of experience and backgrounds evident in the industry was often touted as creating a diversity of thought, beneficial to the development of ideas in the industry. Margot Black said: 'I think the beauty of sustainability is that it's made up of a community of professionals from a broad range of backgrounds and qualifications... I suppose the diversity of thought does bring different ideas to the table, which can create some short term discomfort because ... people have traditionally attracted similar people that think like them and look like them. So the whole purpose of creating that diversity of thought, where you bring different people in the room, either from your industry or outside or from different age generations, is that it does disrupt, and disruption is a great way for change. And it also makes you understand different perspectives and points of view. So I think the short term discomfort creates long term benefits... But I think with sustainability, there's a genuine desire across different people within the industry, both gender and culture and age, that you kind of all want the same outcome. So it kind of cuts through a lot of the diversity issues that other parts of our industry experience. I think the diversity of thought does break through the barriers.'

These responses highlight the benefits of the sustainability field's diversity, and Samantha Hall thinks this diversity of thought is critical in furthering both sustainability as well as gender equity: 'Everyone has their own biases. We talk about unconscious bias being around us all the time, but I see those biases as filters of what gets through, what policy gets through. And if you've got everyone with the same filters in leadership positions, we can't get anything through, we can't get innovative ideas through. And so it's about trying to create more diversity in those filters. And that's what we really need to do.'

Caroline Pidcock, through her experience with grassroots movements in the sustainability field, has a similar perspective on engaging with a diverse public on sustainability issues. She says,

'we've got to build that coalition of voices...helping diverse people be part of that solution and not be isolated. I think that when it's just the elite setting the targets, then you kind of get a few voices that perhaps aren't the right ones dictating. And we've got to kind of increase the volume of the majority of us who want the better future.'

- Caroline Pidcock

In this way, diversity is seen as critical to fostering innovation in sustainability, and is inherently embedded within it.

8.13 Sustainability leadership and a sense of purpose

One of the strongest motivations for leaders in the field of sustainability that participated in either the Individual Experience Survey or the podcast, was a sense of purpose. Regardless of background or difference, to be driven by purpose in work was a unifying theme, and may be the reason behind the determined and empathetic leadership emerging from this field. The people who choose to work in this field are typically passionate, driven and empathetic, contributing to the reshaping of the leadership mould in this sector.

Many of the interviewees who participated in the podcast spoke about purpose as a defining characteristic of their work and leadership journey. Anne Kovachevich spoke about the urgency of the environmental existential crisis, asking '...what's going to happen if we don't make these strategy decisions now, if we don't get these things right? This is how we are going to have to live, but also how our children are going to live...it's just unfathomable that we're going to do this to our planet... within our lifetimes, our children's lifetimes. We need to make change now so that we can alleviate that as much as possible.'

The purpose-driven nature of sustainability leaders was evident in interviews with Margot Black and Rebecca Davis-Jinks also, with Black saying 'every day I'm very grateful that I get to make a difference and do what I love,' and Davis-Jinks similarly saying 'I feel privileged to wake up every day and be able to tackle the challenge that is so close to my heart and that I feel is driving real world change for future generations.'

Many survey respondents similarly demonstrated this sense of purpose in their answers to the question, 'What does it mean for you to be a sustainability leader?' Respondents answered: 'It feels good to contribute to something larger than yourself and the project. It is good to act with purpose to try and improve our environmental impact' and 'Sustainability is a motivating source as it provides hope that we can learn to live within the constraints of the planet.'

Ashleigh Gay suggested this pursuit of purpose is another illustration of the correlation between sustainability undertakings and ethics, saying 'there's a desire to do good and to do better than what we were doing yesterday... And I think that that speaks to purpose and how people are actively pursuing things that ensure this alignment between personal value and what they're doing in a professional context.' Ian Van Eerden similarly suggested that purpose can be seen as a defining characteristic for sustainability leaders; 'I'm not sure if sustainability leaders have different

or unique qualities. I think they've got the same leadership qualities and the same skill set as a lot of other leaders. I think it's just directed towards a specific purpose in a more meaningful way. And so therefore, when you see someone that's particularly inspiring, it's because they have that passion behind them. And there's this massive movement towards purpose driven organizations. Purpose driven organizations have much better outcomes, in essence because people can look at that purpose and understand how they fit in it.'

Having purpose is also perceived as particularly important for millennials, which aligns with the generation's drive towards environmental sustainability. Laura Hamilton-O'Hara spoke about millennials being purpose-driven, and wanting to work for things that they care about;

'Like pretty much every self respecting millennial, what I want to do is save the world...

- Laura Hamilton-O'Hara

...When I was quite early on in my career...I kept hearing these stories of how disengaged millennials are and they don't care about anything else, [but] that wasn't my experience of myself nor the people that were around me. So I felt a responsibility to push back on that, and to also think about how you foster the skills that millennials naturally bring... in order to help them to step up into not necessarily even leadership roles, but acting as a leader and taking action as a leader?'

Having the passion to drive sustainability outcomes can be difficult to maintain in the context of a broader industry that according to the experience of many in this research, is still resistant to change. Rebecca Davis-Jinks spoke of the challenge in trying to maintain that passion and drive in work, advising; 'keep working hard and keep a hold of that passion. Most people that get into sustainability do it because they care, and most people that leave sustainability do it because they've come up against business and they've had it beaten out of them.'

Similarly, Laura Hamilton-O'Hara spoke of how a desire to do meaningful work was somehow seen as entitled and unrealistic in business, 'and there were a lot of stories initially around how selfish that was [to] just want to do good in your work? But I think that's changed. ... I think there's a normalisation [that] of course, you should care about your role and want to do your role, that's not an unreasonable expectation at all. And ... if you do, you work hard and you're more engaged, you put in more effort. And so what we were thinking about in terms of building that leadership

style is being able to articulate what it is that you care about and how you want to make impact in the world. Rather than just caring about it and using tools like social media or making it part of your image, actually doing something about it, taking action. That's the key piece. It's all very well caring about something, but how do you take the next step and take action and do something about the things that you care about?'

lan Van Eerden draws a link between the possibility in the sustainability field to do purposeful work with greater opportunities for participation by a diverse range of people; 'In sustainability, we've got a very good gender representation. I think that's true across the majority of the sustainability industry. And I think part of that is to do with that kind of purpose driven nature of sustainability.

It's much less about money or solving specific problems in a really technical matter ... it's really driven around purpose. And you can have really diverse purposes and find a space in that really wide range of things that we get to do as sustainability consultants. And I think that's part of the reason you get such a diverse group of people in this area.'

8.14 A new kind of leadership

While some respondents in the Individual Experience Survey raised concerns over a perception of the sustainability field as low-value, with roles anecdotally paid less than other construction jobs, podcast interviewees spoke with optimism about sustainability leaders having the skills and strategic thinking to tackle today's challenges during uncertain times. Karla Fox-Reynolds described this shifting perception of the value of sustainability leadership: 'I think that leadership roles are changing because it may be sustainability was not previously the path to become the CEO because it was driven by different things. But now that there is a lot more recognition of the importance of sustainability as it is a whole raft of things, not just environmental sustainability, and I think that it brings together a lot of those skills that are going to become more and more important.'

This research has shown that the sustainability field is very diverse, and that challenges around equity, value and negative perceptions are generally evident in its interactions with other parts of the industry, rather than internally within the sector. From this diverse sector, a new kind of leadership is emerging. From this research, the emergence of a leadership style focussed on empathy has become apparent, again highlighting an interconnectedness between sustainability and ethics. Responses in the Individual Experience Survey demonstrated a perception of women in caring or nurturing roles, with references to empathy. The need and value of this different kind of leadership may be offering opportunities to a diverse range of people, and helping to break down an entrenched model of leadership, developed over a history of gender inequity in leadership.

lan Van Eerdan spoke about a changing set of values in the corporate world, offering opportunities to a more diverse range of people who don't hold the traditionally valued background or skill set. lan said:

'If we measure all of our leaders on their ability to do things the old white men are really good at doing, then we're going to have a whole heap of old white men. So we need to change the benchmarks to which we judge leadership because that's the only way you're going to get those scenarios [of greater diversity].'

Samantha Hall also spoke about breaking this mould, to facilitate a different kind of leadership in which women do not need to conform to previous versions of what leadership should look like. Hall said that 'we need more women in leadership roles in order to actually get to gender equity or to get sustainability onto the agenda. And I don't just mean, like the number of women leading ASX companies - I realised that that's not where I want to go. That's not it. It's almost like trying to fit women into men's roles. And that's probably one of the key things that I learned ...is that we have to stop trying to change women and to make women learn and to make women grow, that we have to shift a lot of the systemic barriers that stop gender equity.'

Laura Hamilton-O'Hara, as a CEO, spoke about the difficulties she experienced in breaking the mould of an entrenched expectation of how a CEO or leader should act, as she tries to lead with kindness and gentleness. She reflected;

'I think my perspective has always been, leadership is about being of service, and to me, that looks like kindness and caring about every sort of element ... And if you start from that place, I think that profoundly transforms the way you behave in the world. I'm not saying that that's an easy path to take. It certainly isn't, because it doesn't look like leadership to a lot of people. And it's very easy to want to step into what is perceived as a leadership position or stance, and so sometimes I do find it quite difficult to really hold that kind of kindness and gentleness, which is very much who I am and who I want to be as a leader, but it is a bit of a challenge... And so there's some days where you kind of step into that dominant image of what [leadership] needs to look like and afterwards, you think, why? Why did I do that?

And I think there's that real tussle between the way the world portrays leadership and rewards leadership and who you are as a leader. And I think it's a constant choice in every single moment to do it the way that you are rather than the way the world expects.'

- Laura Hamilton-O'Hara

Meanwhile, Karla Fox-Reynolds wrote about the necessity for this leadership model to shift, to adapt to new challenges; 'I think that we've got a generation ... about to leave the workforce and obviously mainly male, and... I strongly believe that we've got a generation where there's a lot more females in the workplace than there was in that previous generation. Obviously, they're fully qualified, they have the experience. If they've been working in sustainability and innovation within their career, they're actually the right tools [required] to be leaders. And they're the kind of leaders that we need in the future, because we're not entering times where we really know what's happening, we're in extremely uncertain times. So we need adaptability, we need kindness, we need empathy. We need that nurturing type of person.'

Laura Hamilton-O'Hara also spoke about a new generation of leaders doing things differently, when she spoke about millennial leadership; 'Millennials are in leadership positions all over the world right now, and...a lot of organisations are in the hands of millennials now as we try to rebuild or build for what could the world look like?

And so I'm really excited to be part of that group of leaders reimagining what's possible for us rather than trying to get back to normal.'

Hamilton-O'Hara also reflected on the necessity of a new kind of leadership when she gave advice to aspiring leaders, saying; 'Do it your own way...even though that is really hard and sucks sometimes, because that's not necessarily the way that the world might want you to be, or the way that role is perceived, or your role has been done by somebody else, or what has previously been done for twenty five years. And so I say this, knowing that this is a struggle. But still think it's the way that we're going to do something different. Behaving the same or in an expected way has gotten us to the place that we are right now. And getting us somewhere different is going to take something different.'

Ashleigh Gay said in her conversation on the podcast in the research into sustainability leadership undertaken by her organisation, they found that sustainability leadership could be equated simply to 'good leadership', reinforcing this idea that the thinking and skills developed in the sustainability field translate to the kind of leadership we need today: 'we've been doing some research around what sustainability leadership looks like, and I've been speaking to a number of people both in private and public sectors that are career sustainability people through to people that have just now starting to build sustainability into their roles. And what's been really interesting in that is this idea of,

Is sustainability leadership just good leadership?...

- Ashleigh Gay

...Good leadership is widely recognised as people that can bring people together to get the best out of everyone, that can set direction and clarity, hold people to account and hold organizations and themselves to account and sort of be committed to walking the talk in that process.'

Divinia Eather talked about her aspirations of 'good' leadership, when she said, 'I don't want to be the leader that cracks the whip, I don't want to be feared. I'm not scary enough to pull that off anyway. But I've always wanted to be a leader that inspires...And personally, I think the most impact that someone can have in the world is kindness to others, to self, to the land, to team members, to colleagues. And I think that's what the true leaders of tomorrow are -kind people.'

When asked to respond to the question, 'what does it mean to you to be a sustainability leader?' survey respondents answered in a way that exemplified the leadership qualities raised in this section, leading with empathy, passion, and prioritising collaboration. For example, one survey respondent highlighted that for them, 'Authenticity is the most important quality in an environmental leader. This includes someone who acknowledges their mistakes publicly and learns from them, and speaks their truth always. Also essential to environmental leadership is to be team/people orientated, and able to focus on letting go of ego and connecting with and giving opportunity to every single member of the team. Finally, ethical, honest and holistic thinking is key to good environmental leadership.'

Margot Black, in her interview for the podcast, reflected on how sustainability leadership has a more collaborative approach than past models of leadership, and reiterated some key characteristics of sustainability leaders; 'Sustainability leaders are great listeners, communicators and influencers, we're very empathetic, dogged and resilient. But unlike other leaders, there's not many tall poppies amongst the sustainability community because our success is others success.' Similarly, Jeff Elliot also spoke of a similar approach in highlighting the importance of empathy in leadership; 'So I think the characteristics of a good manager, you need to show that empathy and really wanting to bring your staff along with you.'

In her interview on the podcast, Ann Austin talked about the impact of this approach, in igniting the necessary change required to meet the present challenges. Ann said; 'you need to have an element of bravery in a leadership role and you need to be prepared to ruffle feathers. And so leadership to me means you're actually going somewhere and going somewhere new. And that's uncomfortable... when people need your help, you're there. And when people need to be disturbed and taken somewhere, you're there as well.

And and I think particularly in sustainability, if people are not perhaps a little stretched by where we're trying to take them, then we're not going far enough because we need to radically change this industry and it needs to feel uncomfortable and it needs to feel very different and it needs to hurt our brains because that's what's needed of us as a species so that we can prevail.'

This ability to promote behavioural change and encourage people to step outside their comfort zone was echoed by a survey respondent who described their role as a sustainability leader as 'a provocateur, constantly test[ing] the boundaries and push[ing] people out of their comfort zone.'

The interviews undertaken for this project's podcast have illustrated that the skills and leadership qualities developed and utilised by sustainability leaders represent a shift in the leadership model. A new kind of leadership has emerged, and with a focus on collaboration and empathy, differs from previous expectations of a leader, allowing for greater opportunity for a diverse range of people to engage in this type of role.

9.0 Conclusions and Recommendations

9.1 Conclusions

This research explored gender equity and diversity in the sustainability sector of the built environment industry, finding strong indications of balanced gender participation in the sector, including representation at a leadership level. While the built environment industry is understood to be male-dominated, most participants in this research found the sustainability sector's gender representation to be 'fairly balanced,' and participants reported the sustainability leader in their organisation as being male or female in equa numbers.

There were a number of factors found to contribute to the increased diversity of the sustainability sector in comparison to the broader built environment industry including:

_Education: people working in sustainability roles in the built environment come from a diverse array of educational and professional backgrounds that provide various avenues for entry into the field. In comparison to construction and engineering sectors, which draw from a relatively narrow, male-dominated pipeline, sustainability in its breadth facilitates entry into the field from many backgrounds.

_Multidiscplinary nature of the work: the multidisciplinary work undertaken in this field offers opportunities for engagement and participation from a broad range of people.

Recent emergence of the field: Another factor contributing to the improved diversity of the sustainability sector in comparison to construction and engineering fields is the relative newness of sustainability as a professional field. Sustainability as a recently emerged professional field is perceived as relatively free from the gender structures that are historically entrenched in construction and engineering fields.

_Cultural environment of sustainability: People working in the sustainability field reported feeling supported to work flexibly, felt listened to in the workplace, and found a sens of purpose in their work.

Despite the apparent diversity of the sustainability field, this research uncovered a range of negative perceptions of the sustainability sector, some of which are associated with high levels of female participation in the field. These percention issues include:

A perception of sustainability as a gendered field: despite the data indicating balanced gender participation in sustainability, a widely held perception of sustainability as a gendered, female field was evident. This may be able to be attributed to a range of factors, such as a perception of sustainability as unmasculine, or in comparison to the male-

A perception of sustainability as a 'soft' field: Often seen n contrast to a 'hard' career in construction or on site, or n association with soft skills or characteristics perceived to be held by women and integral to sustainability, such as nurturing, caring and communicating.

_An undervalued role: perceived lack of value of sustainability in relation to both the work, affecting the uptake of sustainability initiatives in the industry, as well as a lack of respect for sustainability professionals, which was seen by some to compound a lack of respect for women in the built environment industry.

Despite these perception issues, from the diverse nature of the sustainability field, a new model of leadership is emerging. Undertaken in the COVID context of 2020, this research found encouraging signs that both the work of sustainability consultants and the qualities displayed by sustainability leaders are becoming more valued, as leadership structures shift to adapt to new challenges in these uncertain times. Sustainability leaders are passionate, empathetic, collaborative, lead with purpose, and present a new model for leadership.

In the same way that people working in the sustainability field are ethically motivated to help the environment, they tend to be similarly alert to other ethical issues such as diversity, which has likely contributed to the diverse community of people working within the field, indicative of a commitment to the three pillars of sustainability - environmental protection, economic viability and social equity.

9.2 Recommendations

Largely, the recommendations outlined below are proposed not for the sustainability industry, which is seen to be a thriving, diverse and generally equitable field, but for the broader built environment industry, which could learn from the successes of the sustainability field to improve its own working environment. Cultural change is required in the built environment industry to help shift perceptions of sustainability and improve uptake of sustainability

Learning from the sustainability field to improve diversity in the built environment:

Increase the breadth of entry criteria when advertising and recruiting for built environment roles. Traditional study paths for engineering and construction tend to be male-dominated, however, a range of other educational and professional backgrounds can bring multidisciplinary experience to the built environment industry, and encouragemore diversity.

_Advertise opportunities in built environment careers to a broad range of multidisciplinary study paths, to diversify the pipeline of entry beyond male-dominated trades or construction and engineering degrees.

_Create flexible roles that can be moulded to people's strengths and interests, rather than conforming to rigid role expectations often developed in historic cultural structures that don't support diversity.

_Promote flexible workplaces for women and men.
Encourage men to practice and role-model flexible
practices and support men to take on caregiving roles, to
break-down the gendered stigma around flexible or parttime work

_Ensure leadership roles are offered and advertised to allow for part-time and flexible work, to encourage gender diversity in leadership. Female leaders engage in part-time work and have primary caregiving roles at higher levels than male leaders.

_Communicate and promote the successes of women in leadership roles, as the visibility of women in leadership encourages greater participation of women.

_Establish and support mentoring and leadership development programs. Participants in this research positively experienced these types of programs, and reported the positive impact that role-modelling and support networks had in encouraging participation and development of women and other groups. These program can also prevent burn-out and drop-out of women in the

built environment industry

_Advocate for and communicate the ambition of the built environment industry and organisations within it as places that are equitable and open to female participation. Most participants perceived gender equity and support of female participation as more evident in the sustainability field than the construction industry, and cited this as a factor attracting greater female participation, highlighting the perception of gender inequity in the construction industry that may act as a barrier to female participation.

_Continue to implement practices that support respectful treatment of women on site and in male-dominated environments, and continue to ensure checks and balances are in place to prevent discrimination or bias as a result of a 'boys club' culture, following accounts of related gender challenges continuing to be experienced in the built environment industry.

Promote specialist fields as distinct from the construction or engineering industries, as a way to capitalise on and develop a new culture for that sub-group, unburdened by gender stereotypes evident in the broader construction and engineering industries. The attraction and opportunity available in a 'new field' is evidenced by the sustainability field, seen as distinct from related construction and engineering industries with which it interacts with and is often embedded within.

Promote ways for employees to pursue meaningful work with a sense of purpose. Participants working in the sustainability field were found to be passionate and driven by a sense of purpose, characteristics that translate to high evels of engagement in their work.

_Utilise sustainability leaders in the management/
leadership groups of organisations. Typically, the
management or leadership groups of organisations were
perceived to have the lowest level of gender diversity and
perceived overwhelmingly as male-dominated. Embedding
sustainability leaders (a group perceived to be fairly
diverse) in this management group provides an opportunity
for better gender diversity, and utilises the long-term
strategic thinking skills held by sustainability leaders.

_Reward and promote new leadership traits, rather than requiring all leaders to develop skills associated with an established model of leadership.

Recommendations for the sustainability field to improve perception issues:

_Avoid gender generalisations that imply inherent characteristics or aptitudes held by various genders when describing gender participation in the built environment or sustainability field. Gendered perceptions of why gender participation varies across fields is widespread, but seen to have negative impacts in encouraging gender diversity. Breaking down gender stereotypes is critical in encouraging greater diversity.

_Educate to shift the perception of sustainability as 'feminine,' and break down the stigma and connotations of sustainability being 'un-manly' or unmasculine, to encourage participation by all.

_Organisations should ensure auditing and reporting practices are undertaken to check that gender representation in leadership roles is as diverse as gender representation of participants in the sustainability industry

_Education is required to educate the built environment industry about the value of 'soft' skills. Sustainability was, in this research, often perceived as a 'soft' field, which was seen to have consequent associations with an undervaluation of the people or the work. Rather than change the people involved or the work undertaken in the sustainability field to conform to expectations that have emerged from the construction or engineering industries, education or promotion by companies of the value of 'soft skills will improve the uptake of sustainability objectives.

Recommendations to improve sustainability leadership and outcomes:

_Promote multidisciplinary collaboration to improve sustainability outcomes.

_Develop organisational sustainability policies, that guide and encourage all employees to buy into the sustainability goals of the organisation.

_Set long term and aspirational sustainability targets to guide a collective vision in which all employees can find purpose.

_Draw upon diverse groups to innovate, utilising the diversity of thought that such groups engender.

In this time of upheaval, with COVID continuing to impact the way we work, seek the perspectives of diverse groups of people in organisations, especially young professionals, to help create a new vision, rather than returning to pre-COVID practices.

_Encourage sustainably-minded people to stay in their roles across the built-environment, rather than leaving their jobs to work in sustainability, and use their motivation to undertake work in line with sustainability principles across the industry.

Integrate sustainability into all built environment roles, rather than relying on dedicated sustainability consultants/managers only. For example, sustainability KPIs could be incorporated into all roles.

_Embed environmental sustainability in the social and ethical objectives of an organisation, and inversely, embed social and ethical objectives, including diversity in the sustainability aspirations of an organisation. Social equity and environmental protection are core pillars of sustainability, and should be similarly interrelated in organisations.

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