

# Responsible AI in Space

Thomas Graham<sup>1,4,5</sup>

thomasgraham@swin.edu.au

## Introduction

As the space industry grows in value and technical capabilities, guidance is required to ensure the responsible use of AI systems in space.

The application of existing responsible AI regulatory frameworks and principles is unclear in the context of the space domain.

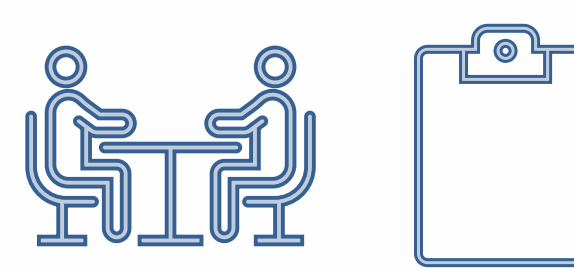
Regulatory guidance is needed to ensure confidence and trust in the quality and adoption of space AI systems.

## Aim

To understand the state of Responsible Artificial Intelligence (RAI) regulatory and governance practices in Australia and around the world.

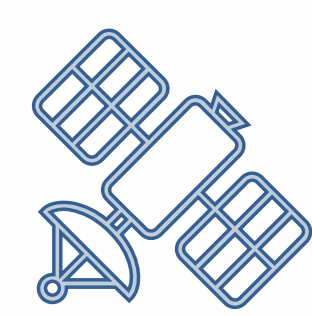
To develop tailored policy recommendations to fill the knowledge gap regarding the regulation of AI in space.

## Methods

- Large scale survey and semi-structured interviews 
- Targeting professionals and organisations in the Australian Space sector interacting with AI systems, plus experts in AI regulation & policy
- Focus on current 'responsible AI' practices, knowledge and opinions on possible future regulatory options for the sector

Have your say,

Complete the survey!

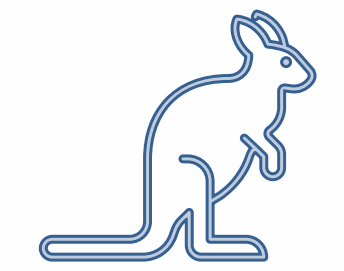


## Literature Review

**International Law** - Existing international space law does not provide clear guidance for the use of AI systems in the space domain (Martin and Freeland, 2021) (Pagallo *et al.*, 2023).



**Industry Standards** – Organisations such as the ISO/IEEE and Standards Australia create standards to promote the responsible development of AI systems, but do not consider the unique nature of the space domain (Standards Australia and CSIRO, 2023).



**Domestic Law** - Australia lacks dedicated AI law, and existing regulatory regimes are unclear in their application. Reforms have been suggested but are not yet being acted upon (Farthing *et al.*, 2021) (Commonwealth of Australia, 2023) (DISR, 2023).

**Industry Self-Regulation** - Many 'responsible AI' guidelines and principles have been released by various organisations but lack the enforceability of legislation (Ezeani *et al.*, 2022) (DISR, 2019) (NASA, 2021).

### Respondent Occupation Categories

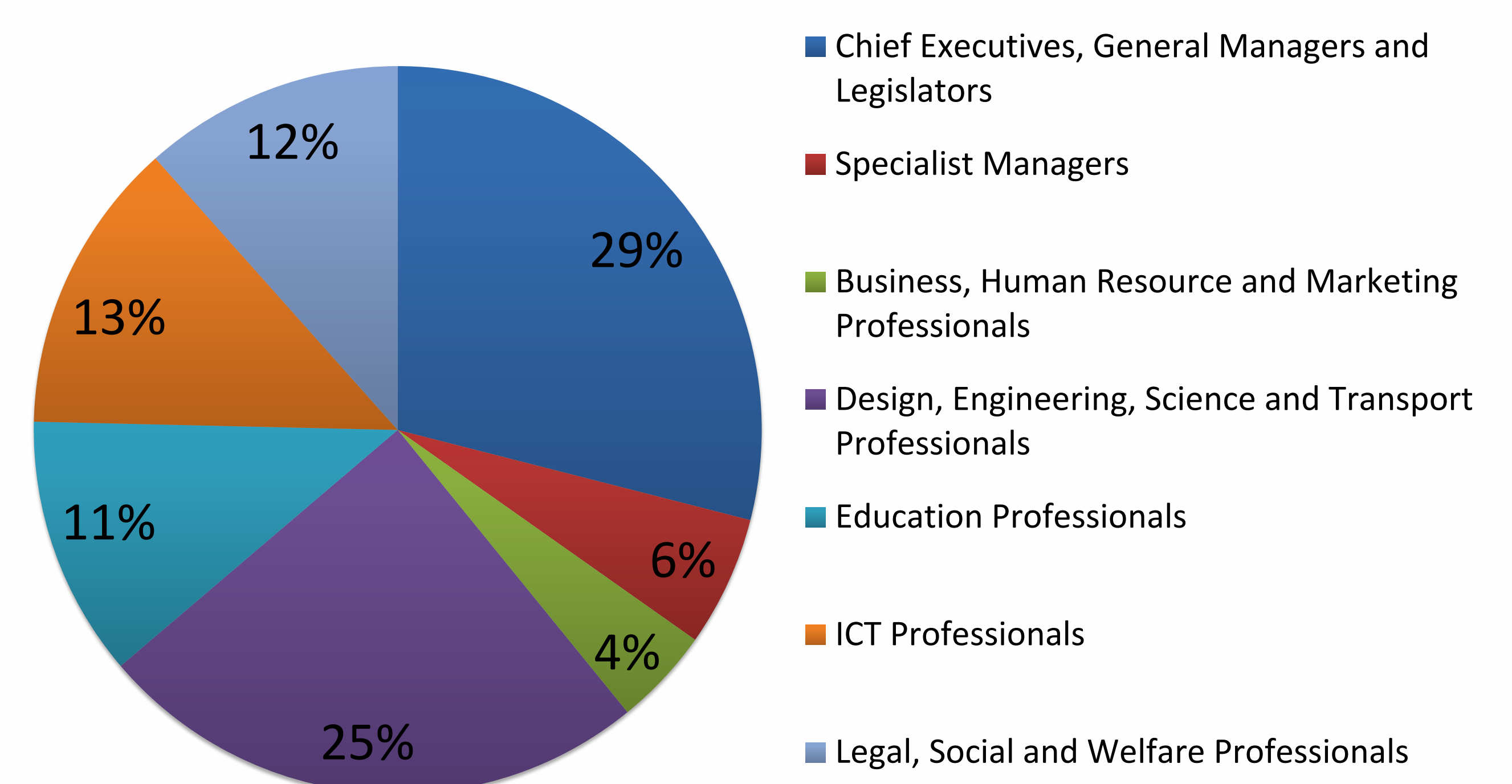


Figure 2: Profession Categories of Survey Respondents (as of 01/09/23)

### Respondent Organisation Categories

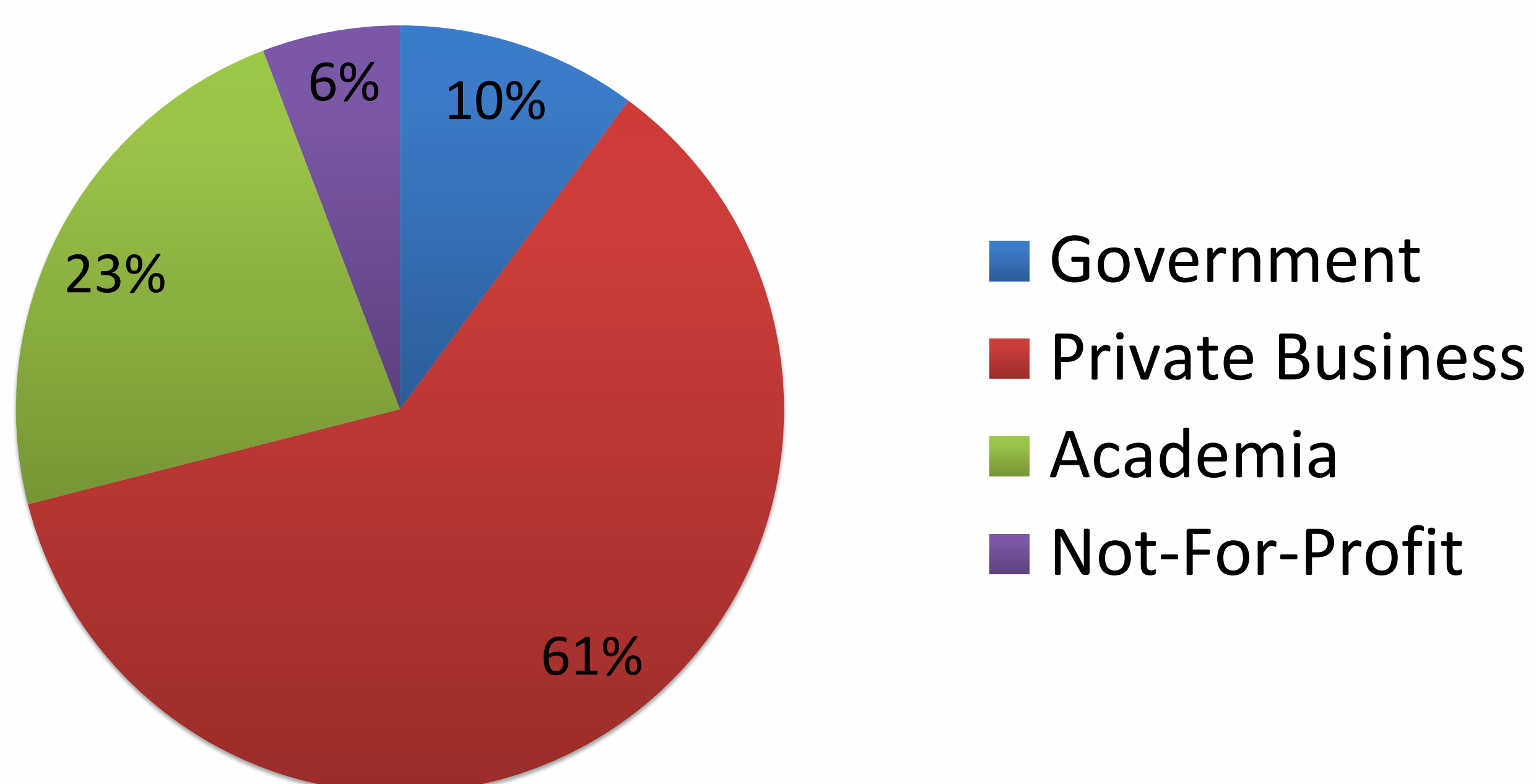


Figure 1: Organisational Categories of Survey Respondents (as of 01/09/23)

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### Supervisors/Contributors

Mirko Bagaric<sup>1</sup> Jack White<sup>5</sup>  
 Alan Duffy<sup>2</sup> Jon Whittle<sup>6</sup>  
 Anthony McCosker<sup>3,4</sup> Joanna Bryson<sup>7</sup>

<sup>1</sup>Swinburne - School of Business, Law, and Entrepreneurship <sup>2</sup>Swinburne - Centre for Astrophysics and Supercomputing <sup>3</sup>Swinburne - School of Social Sciences, Media, Film and Education

<sup>4</sup>ARC Centre of Excellence for Automated Decision Making and Society <sup>5</sup>Ernst & Young <sup>6</sup>CSIRO Data61 <sup>7</sup>Hertie School of Governance