



# Australian Responsible AI Index 2024

**Fifth Quadrant  
National Artificial Intelligence Centre**

**Final Report  
September 2024**



Australian Government  
Department of Industry,  
Science and Resources

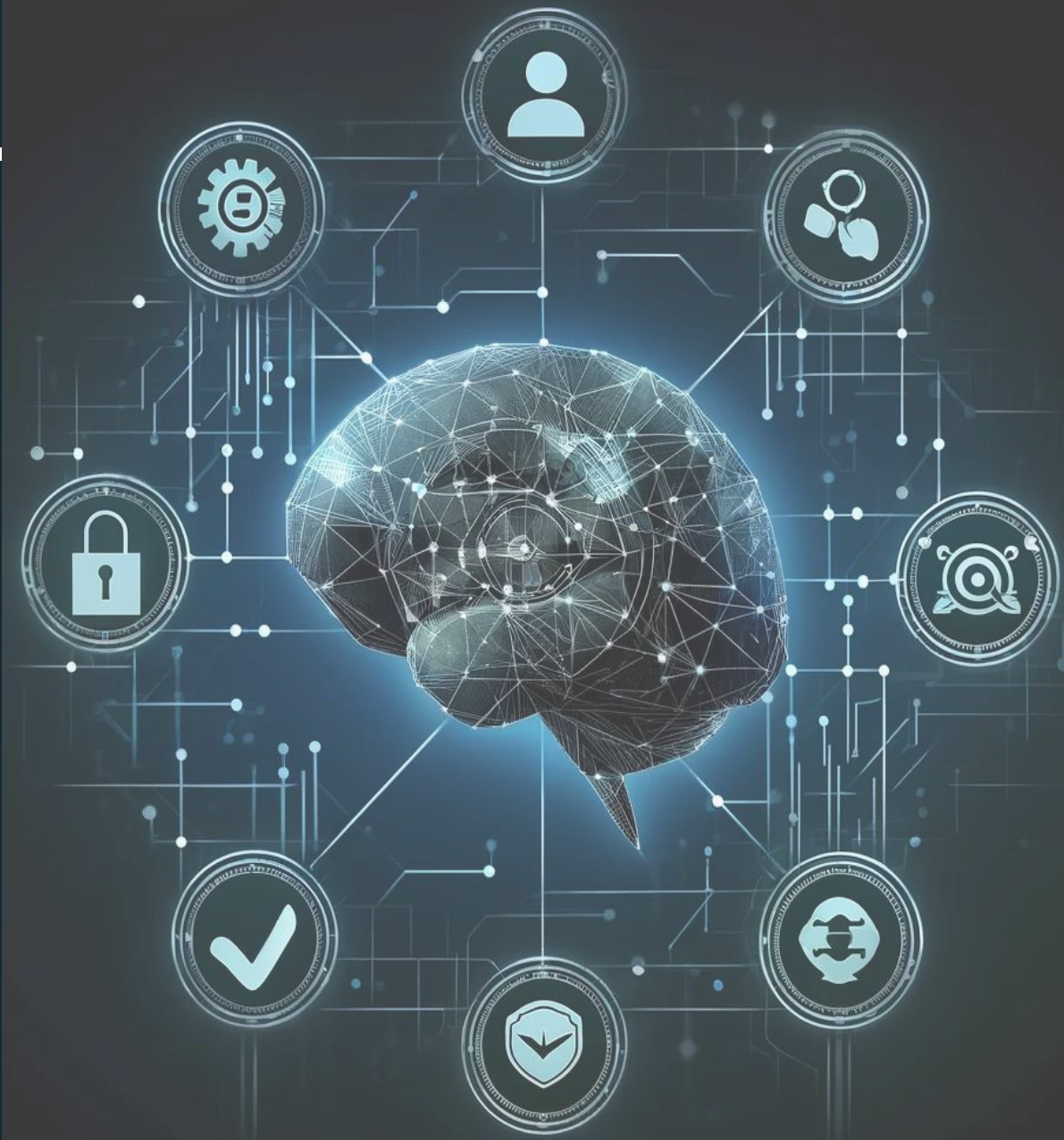
National  
Artificial  
Intelligence  
Centre

**fifth**  
quadrant

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# Background





## Objectives

Responsible AI (RAI) is designed and developed with a focus on ethical, safe, transparent, and accountable use of AI technology, in line with fair human, societal and environmental values. It is critical in ensuring the ethical and appropriate application of AI technology.

The Index offers a comprehensive analysis of RAI adoption in Australian organisations. It tracks RAI system maturity across five key dimensions: fairness; accountability; transparency; explainability; and safety.

### Key Areas of Investigation

#### 1. AI Strategy:

- Organisational AI strategy maturity
- Consideration of Human Rights in AI strategy
- Current and planned usage of ethical AI principles, frameworks and toolkits
- Awareness of Australia's AI Ethics Principles

#### 2. Responsible AI Implementation:

- Benefits of taking a responsible AI approach
- Leadership support for the development and deployment of responsible AI
- Attitudes towards responsible AI
- Appetite for developing responsible AI

#### 3. AI Usage Landscape:

- Use cases for AI and problem-solving applications
- Drivers of AI adoption
- Identification and management of risks related to AI development and deployment
- AI deployment success rates



## Acknowledgements

The 2024 Australian Responsible AI Index is sponsored by the National Artificial Intelligence Centre (NAIC).

The concept for the Australian Responsible AI Index was originated by Dr Catriona Wallace and developed in partnership with Fifth Quadrant.

The inaugural Australian Responsible AI Index was released in 2021, followed by the second report in 2023. This 2024 report represents the continued evolution of this important initiative.

The Australian Responsible AI Index is the intellectual property of Fifth Quadrant and Dr Catriona Wallace.

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## Sample

The sample for the study was made up of:

- Organisations based in Australia
- AI strategy decision makers (e.g., CIOs, CTOs, CDOs, heads of data etc.) working in organisations with 20 or more employees
- A range of organisations by size, industry and location
- Organisations that have deployed AI in their organisation or are in the process of deploying AI in their organisation



**Total sample, N=413**



## Methodology



15-minute online survey



Sample sourced via a specialist B2B online panel



Fieldwork was conducted between 11<sup>th</sup> March – 22<sup>nd</sup> April 2024

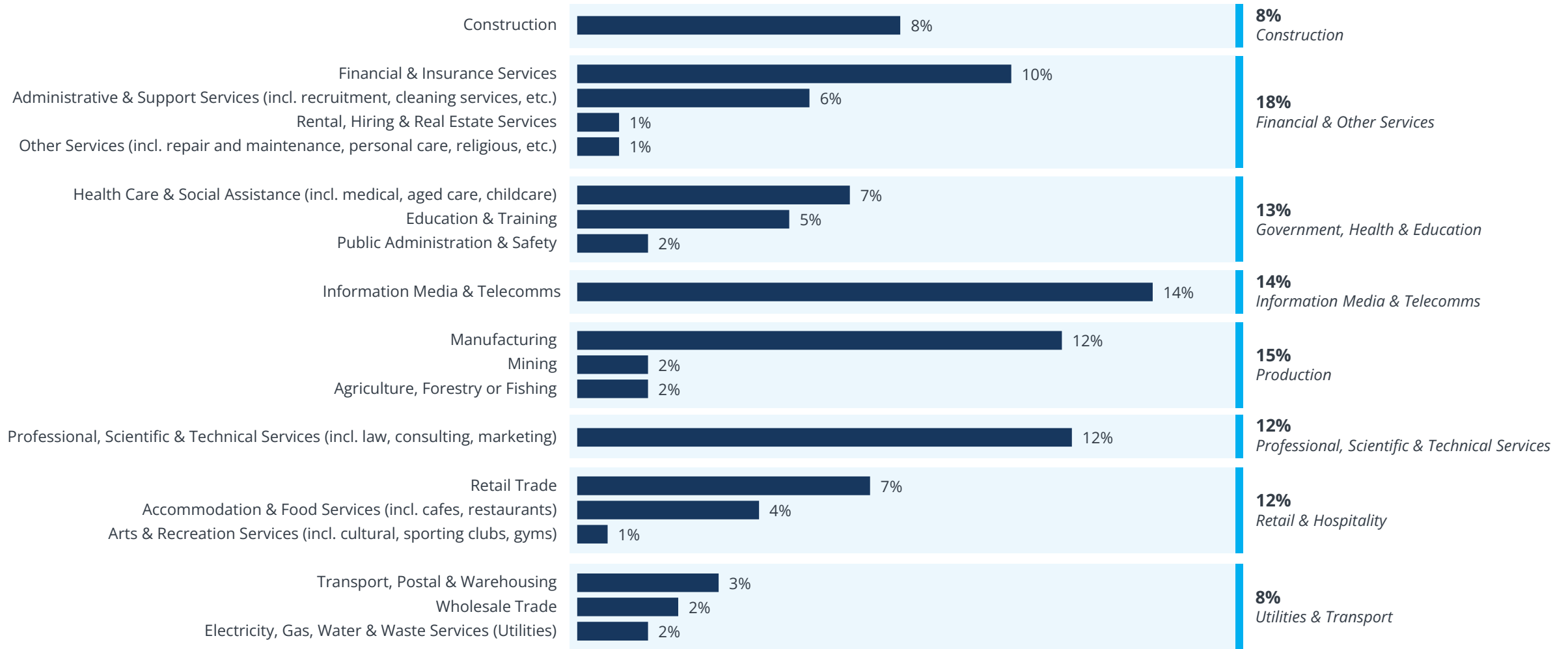


Significant modifications were made to the 2024 RAI, including the method of calculating the index, hence most data from 2024 cannot be tracked to previous years. Changes in RAI practices which were included in the last wave are noted in this report.



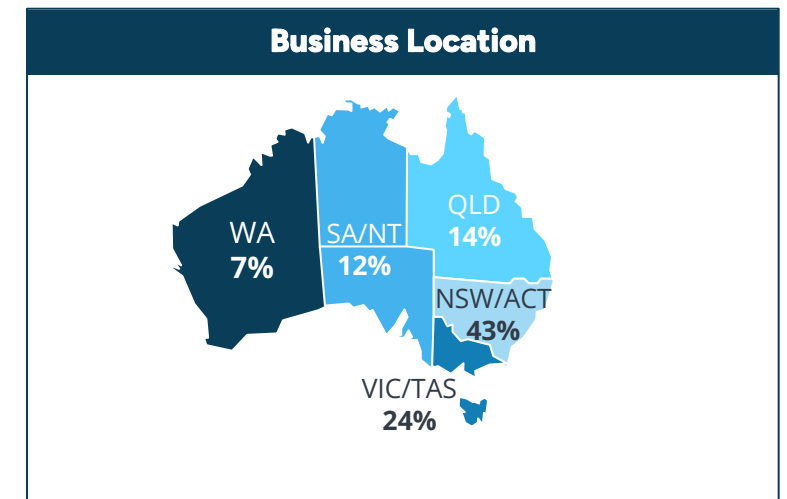
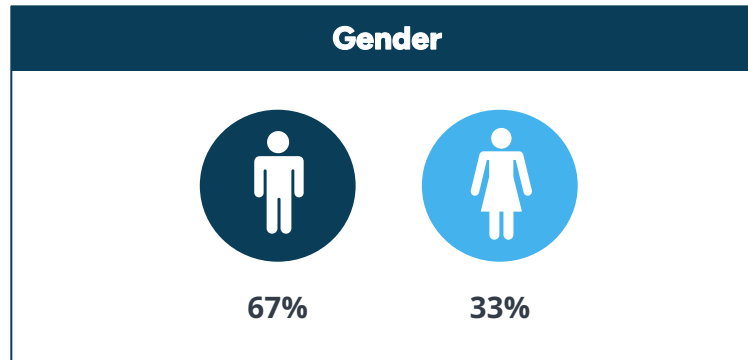
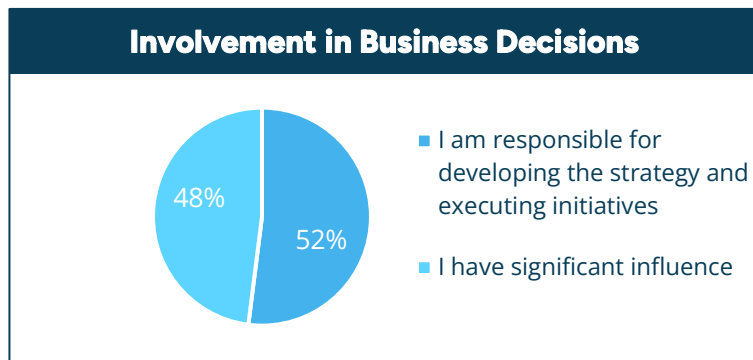
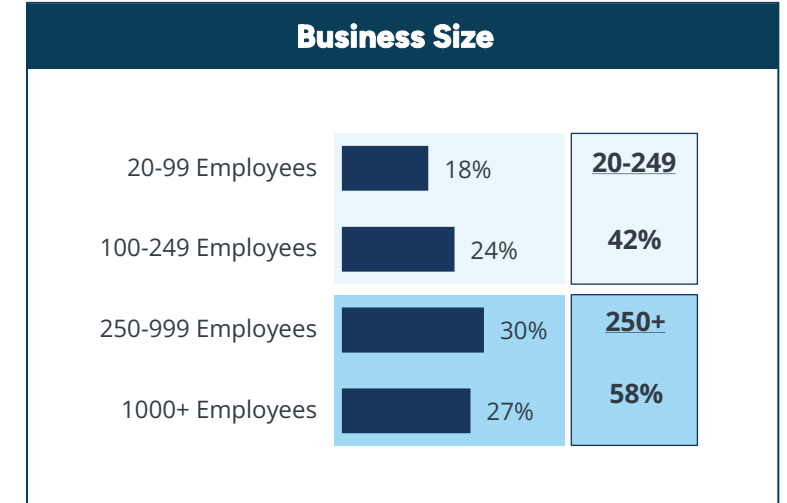
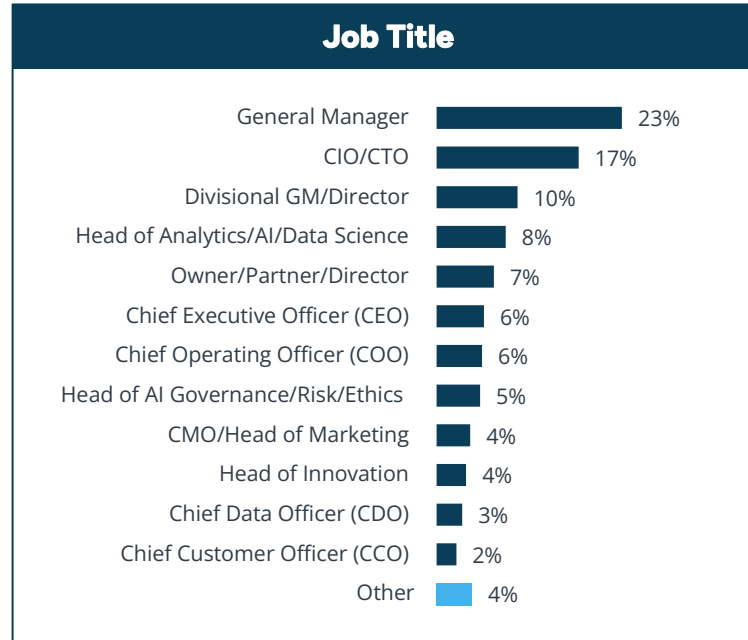
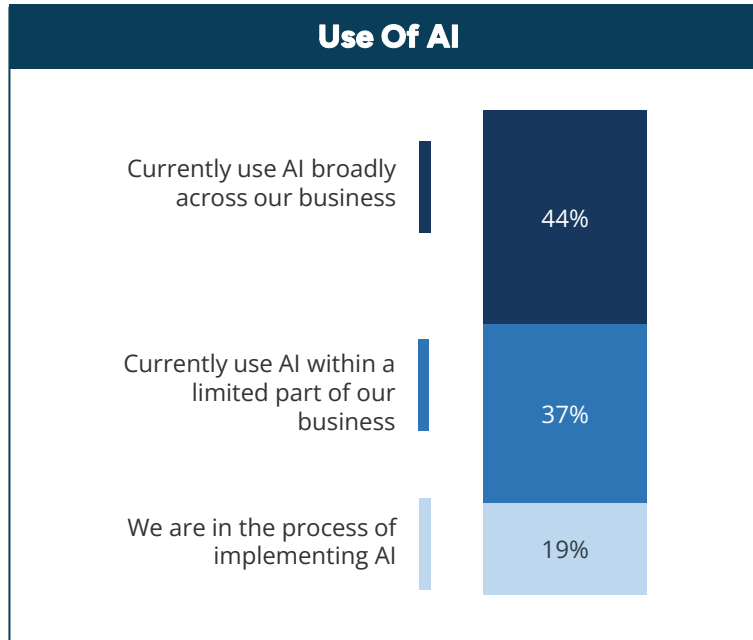
# Sample Profile

Respondents in the sample work for organisations that represent a range of industries, which have been categorised into eight groups.



# Sample Profile

The sample is based on AI decision makers who have significant influence over the AI strategy in organisations with at least 20 employees. It covers a range of organisation sizes and locations, with a mix of AI usage. All organisations are either currently using AI or in the process of implementing AI.



S1. Which of the below statements best describes your organisation's use of AI? S4. What is your role in the organisation? S5. How many full-time employees does your company employ in Australia? S6. Where is your company's Australian head office located? S8. Please can you indicate your gender? Q1. For how long has your organisation used AI?  
Base: Total respondents (n=413)

# The Responsible AI Index

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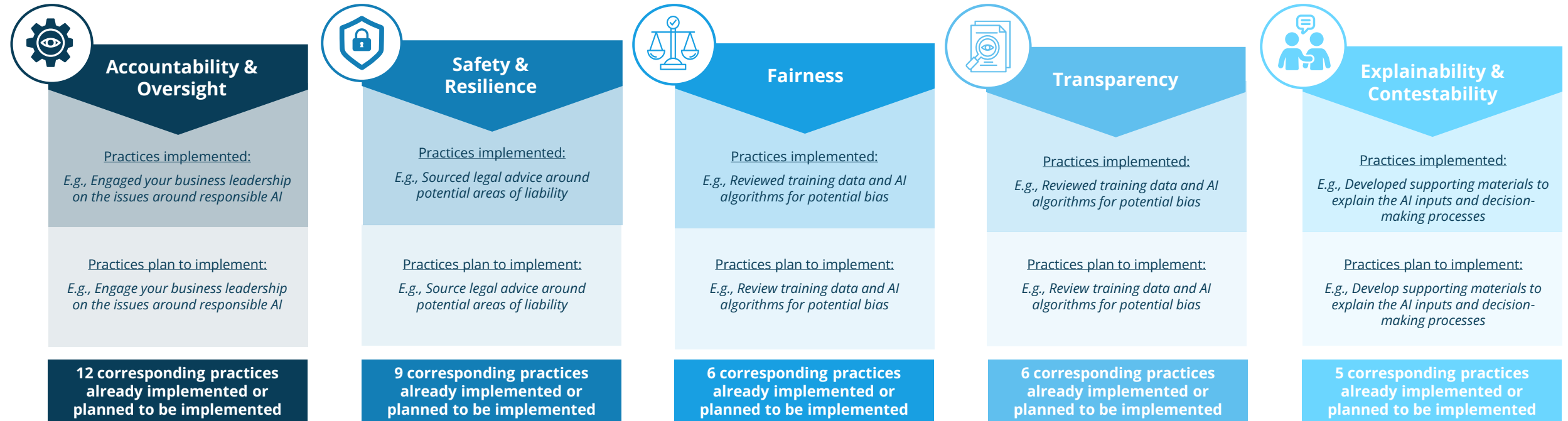




# Introducing The Responsible AI Index

Respondents were evaluated on their implementation of 38 identified RAI practices. The more RAI practices that an organisation implements, the higher the Index score.

38 Responsible AI practices organisations could have already implemented or plan to implement in the future, across five dimensions:



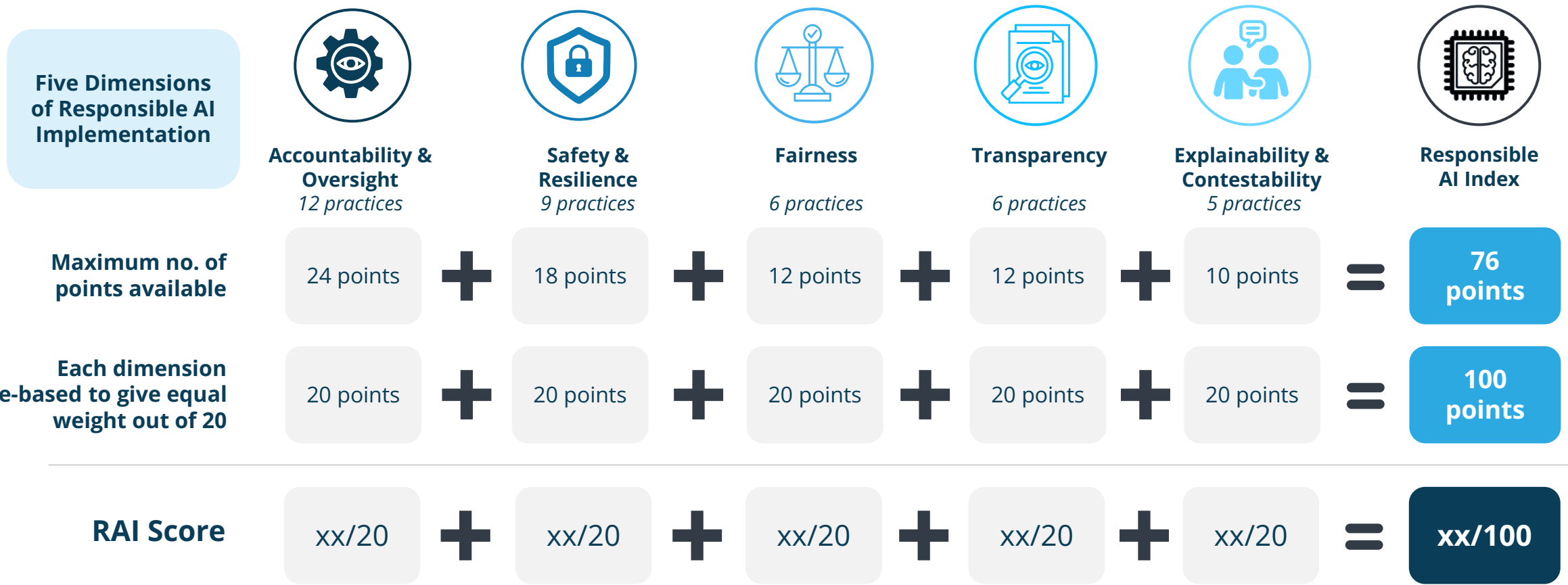
Points attributed to practices as follows: Practice implemented = 2 points; Practice not implemented but plan to implement = 1 point; Practice neither implemented nor planned = 0 points  
Therefore, the maximum number of points an individual practice could attain is 2 points

The number of points earned within each dimension was then re-weighted to ensure each dimension was given an equal weight of 20 points in the model, resulting in a total Responsible AI Index score out of 100

# The Responsible AI Index Framework: Calculation Summary

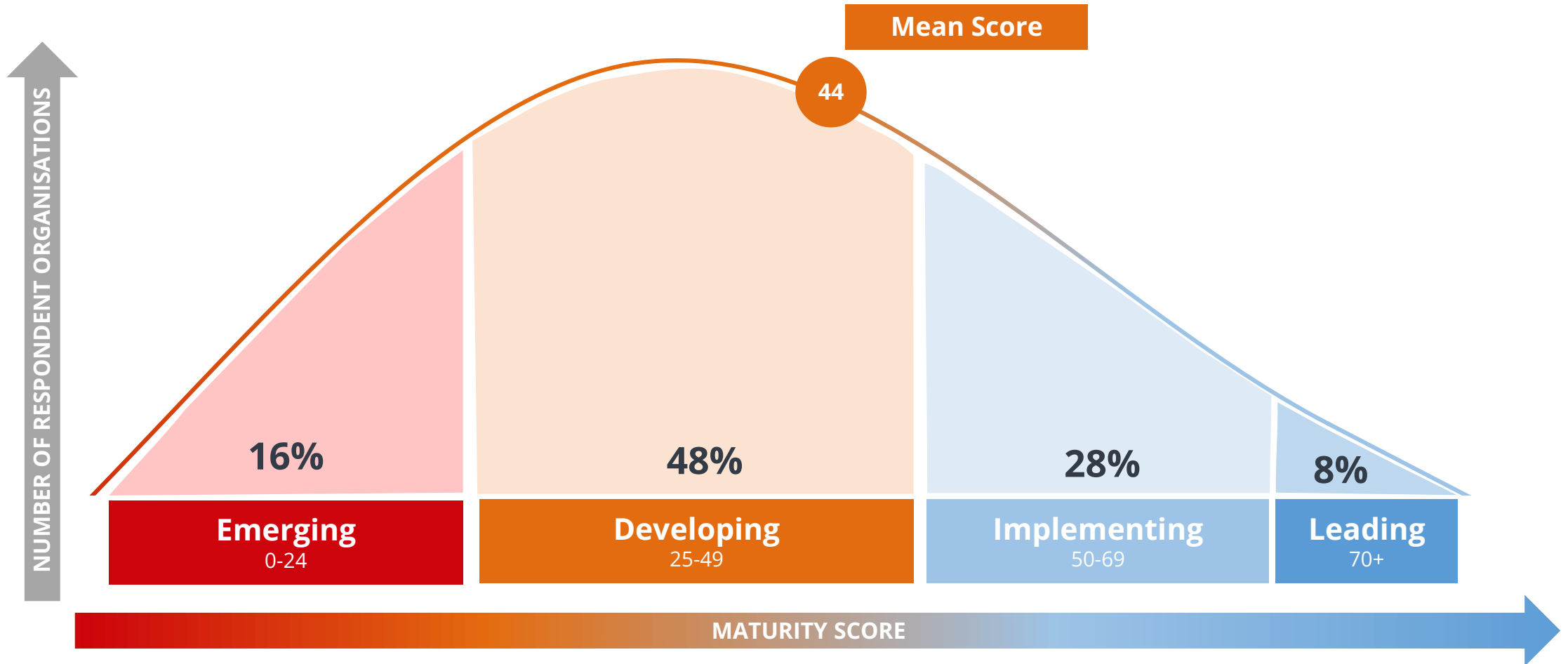
The scoring system used to calculate the Index rewards organisations with two points for each practice implemented and one point for a practice that is planned for implementation in the next 12 months.

Points allocated as follows: Practice implemented = **2 points**; Practice not implemented but plan to = **1 point**; Practice neither implemented nor planned = **0 points**



# The Responsible AI Index: Overall

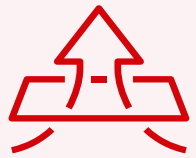
The mean RAI Score is 44. Four levels of RAI maturity are identified, with most organisations sitting within the Developing and Implementing groups. Only 8% identify as in the Leading stage of RAI implementation. This suggests there is significant room for improvement in the adoption and implementation of responsible AI practices.



RAI Index Score.  
Base: Total respondents (n=413); Emerging (n=66), Developing (n=199), Implementing (n=115), Leading (n=33)

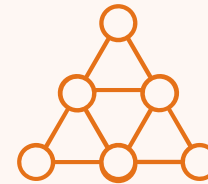
# Responsible AI Maturity Segments

The Index identifies four levels or segments of maturity regarding an organisation's approach to Responsible AI.



## Emerging

- **State of Maturity:** Organisations in this segment are immature in their implementation of responsible AI practices
- **Implementation:** On average, they have implemented 4-5 responsible AI practices
- **Challenges:** They lack significant oversight, leadership support, and knowledge regarding responsible AI
- **RAI Score:** These organisations have an RAI score between 0 and 24, representing 16% of the organisations surveyed



## Developing

- **State of Maturity:** Making partial progress in adopting responsible AI practices
- **Implementation:** They have implemented an average of 9-10 responsible AI practices
- **Challenges:** Often struggle with fully integrating transparency and explainability measures into their existing AI systems
- **RAI Score:** RAI scores range from 25 to 49, covering 48% of the organisations surveyed



## Implementing

- **State of Maturity:** Organisations in this segment are actively implementing responsible AI practices
- **Implementation:** On average, they have implemented 16 responsible AI practices
- **Challenges:** Ensuring comprehensive data protection and addressing ethical implications remain significant hurdles
- **RAI Score:** Their RAI scores are between 50 and 69, representing 28% of the organisations surveyed

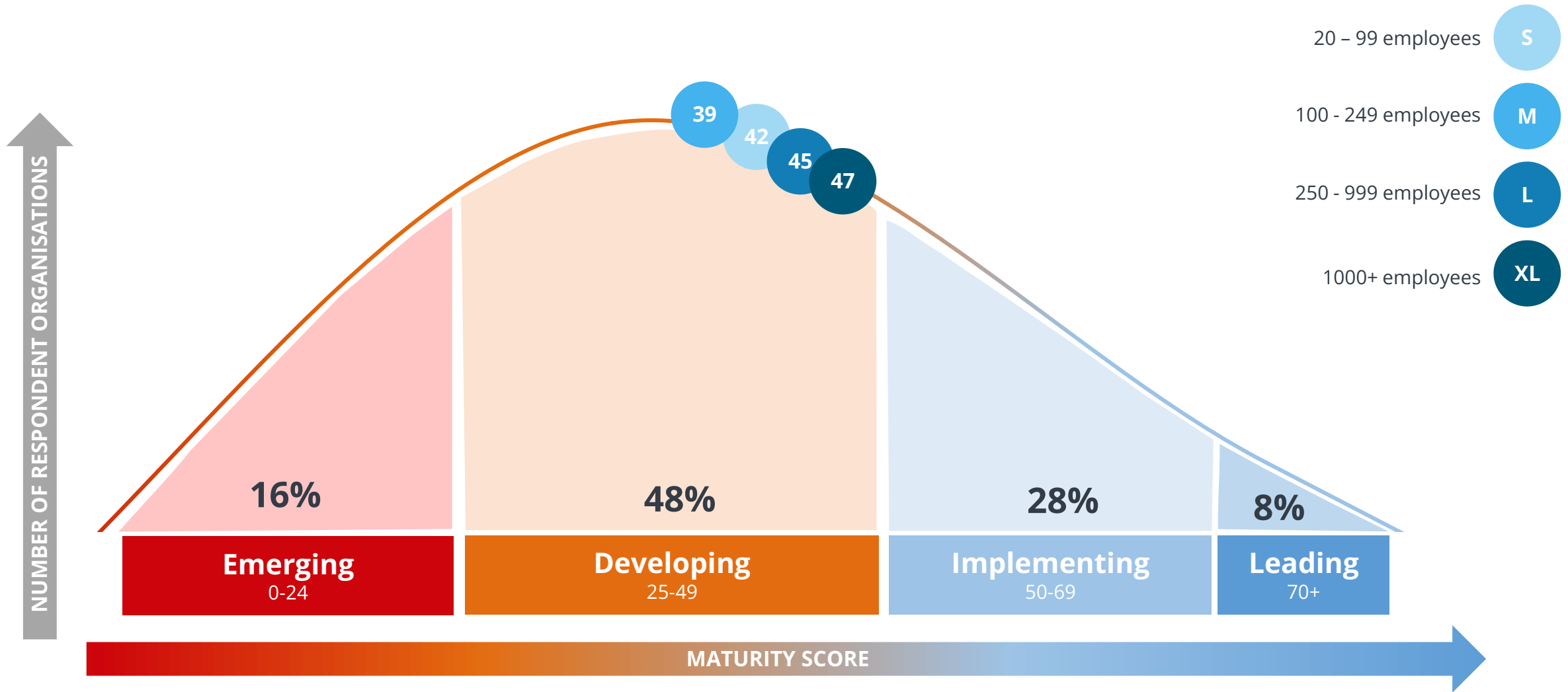


## Leading

- **State of Maturity:** These organisations are mature in their implementation of responsible AI practices
- **Implementation:** On average, they have implemented 28 responsible AI practices
- **Challenges:** Maintaining high standards of accountability and strategic oversight while scaling AI initiatives can be challenging
- **RAI Score:** Their RAI scores are between 70 and 100, which is only 8% of the organisations surveyed

# The Responsible AI Index: Organisation Size

Larger organisations have made the most progress at implementing responsible AI practices.

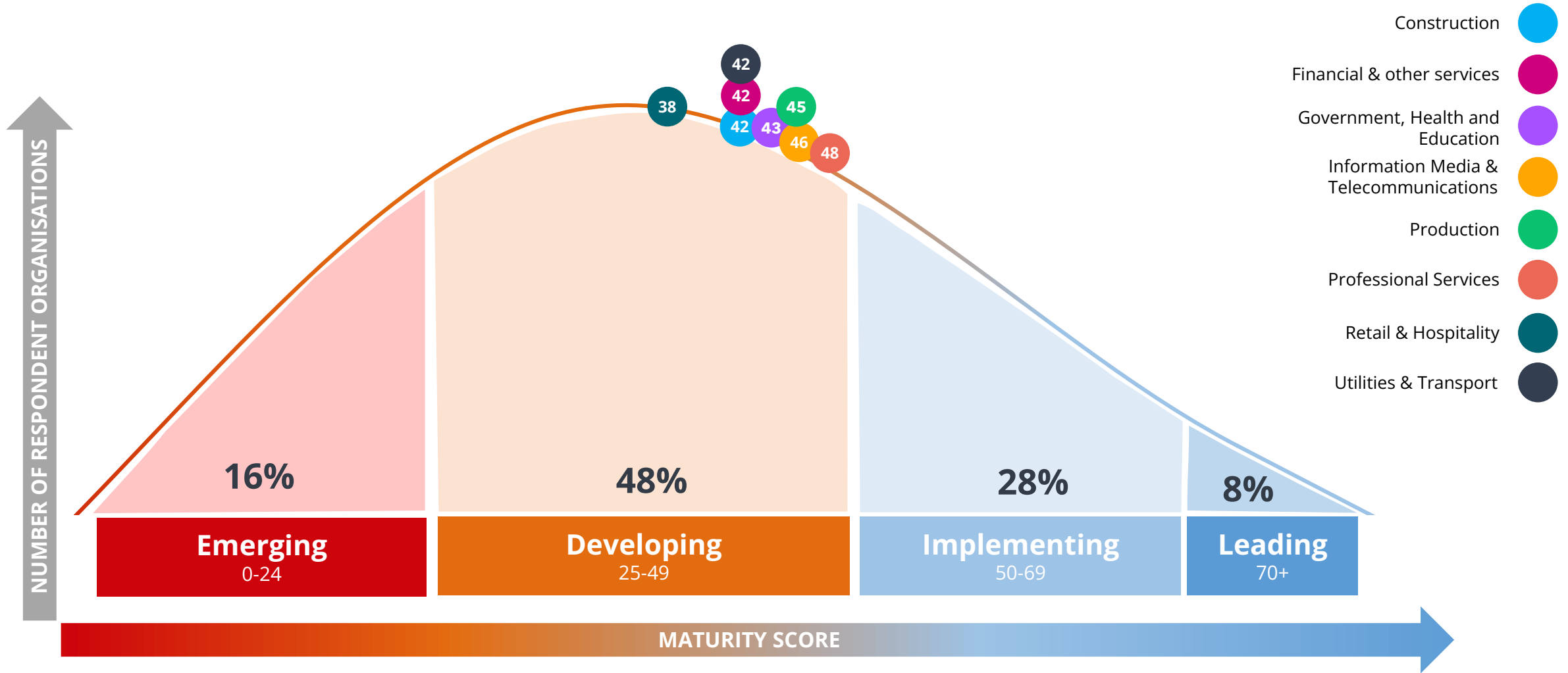


RAI Index Score

Base: Total respondents (n=413); 20 - 99 employees (n=76), 100 - 249 employees (n=99), 250 - 999 employees (125), 1000+ employees (113)

# The Responsible AI Index: Industry

Businesses in the professional services sector have the highest RAI score with retail & hospitality lagging.



RAI Index Score

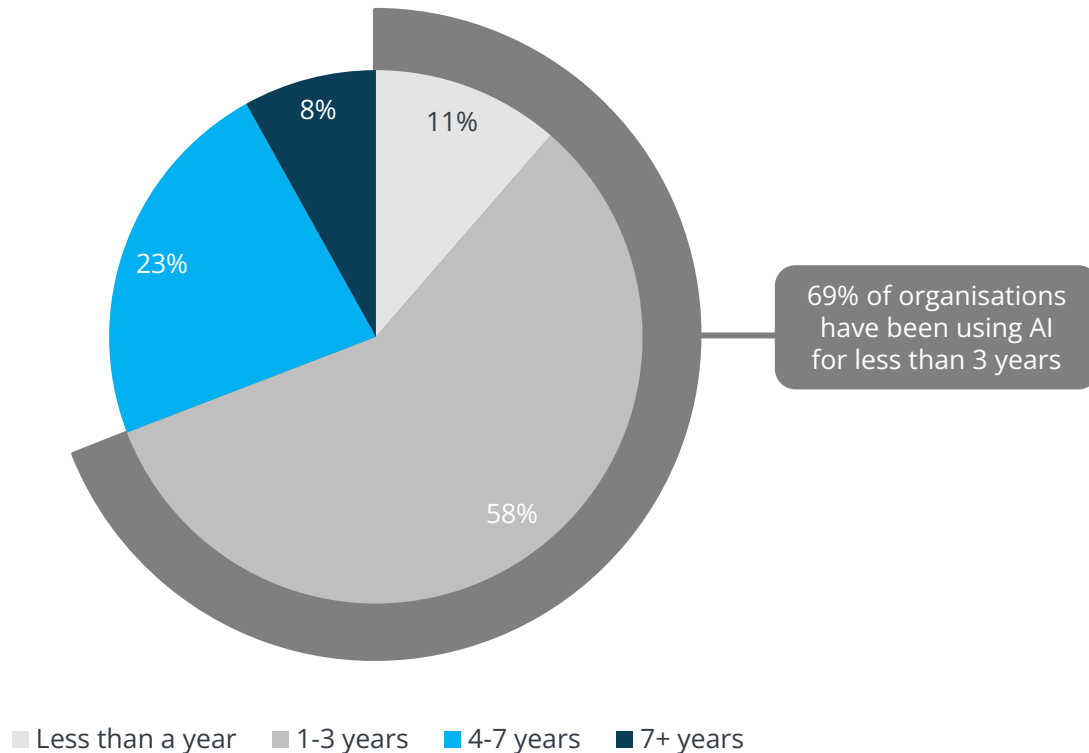
Base: Total respondents (n=413); Construction (n=32), Financial services (n=73), Government, health & education (n=55), Information media & telco (n=57), Production (n=62), Professional services (n=49), Retail & hospitality (n=50), Utilities & transport (n=31)



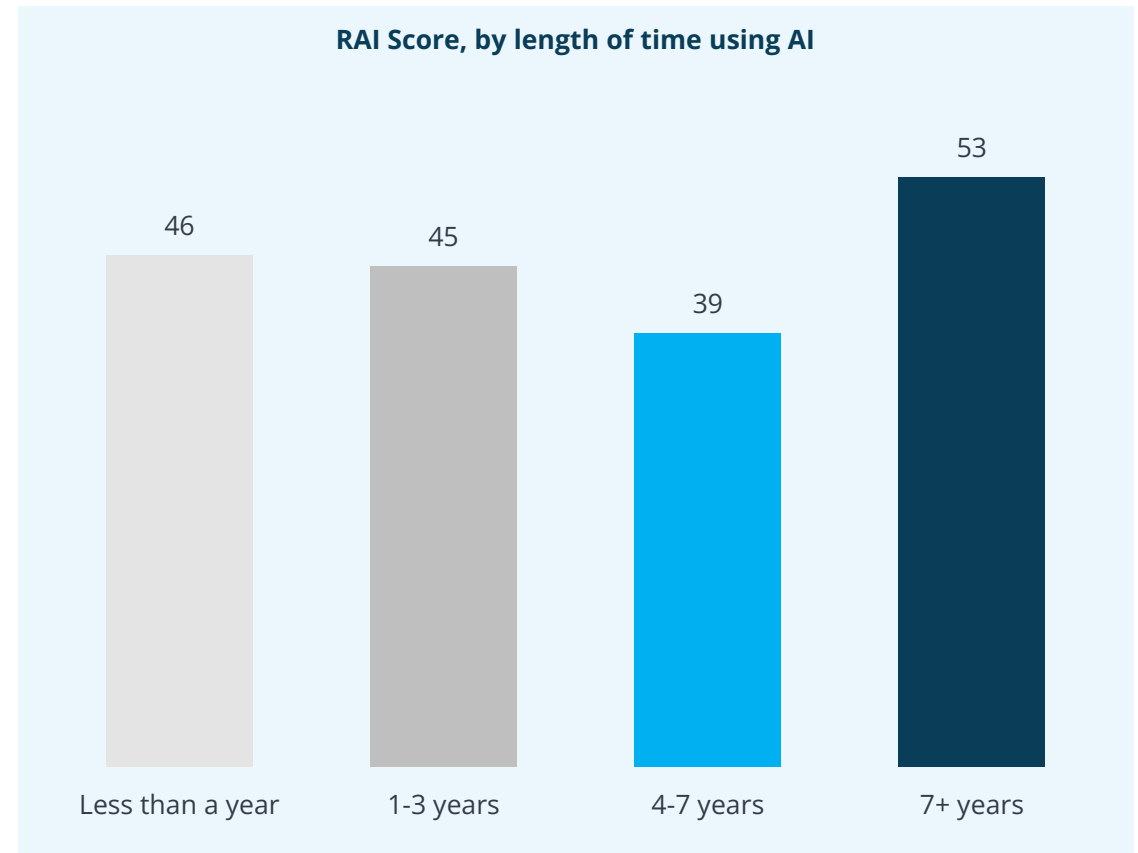
# RAI Maturity and Duration of AI Usage

Organisations with more experience using AI tend to have higher RAI scores, reflecting more mature and comprehensive AI practices. A significant majority of organisations are still in the early stages of AI adoption, with 69% using AI for less than 3 years. This highlights a need for support and guidance to help these organisations improve their AI maturity and responsible AI practices.

For how long has your organisation used AI?



RAI Score, by length of time using AI



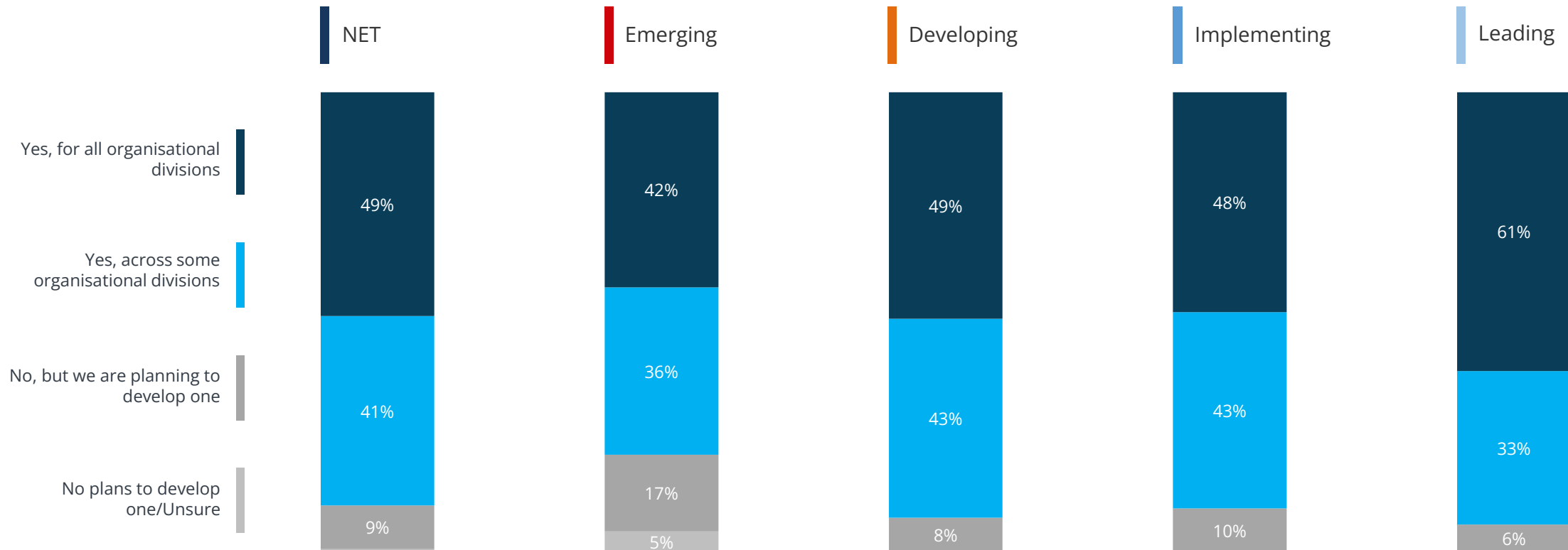
# AI Strategy



# Organisational Strategy for AI

The Leading group is more likely to have an AI strategy tied to all organisational divisions. This approach ensures that AI initiatives are aligned with business goals; promoting consistency, coherence, and enhanced organisational effectiveness as these organisations leverage AI more strategically.

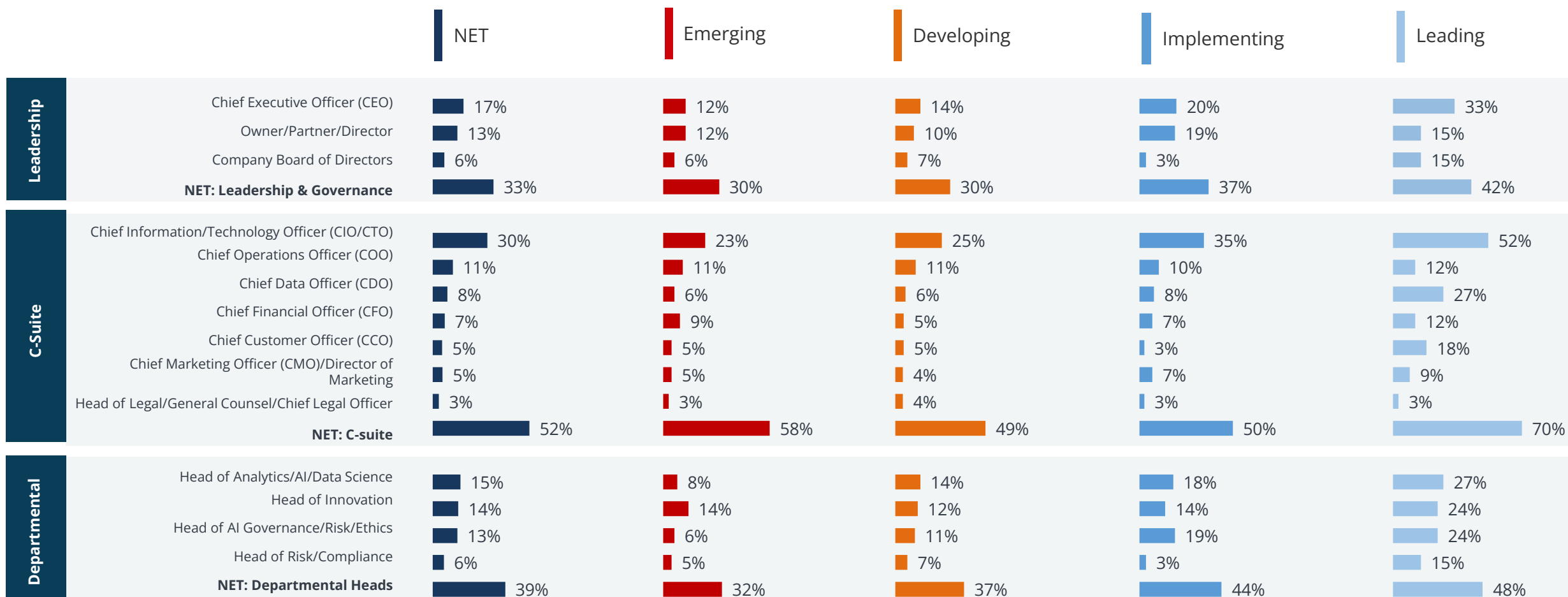
Do you have a strategy for the development of AI that is tied to your wider business strategy?



# Responsibility for Driving AI Strategy

Organisations in the Leading segment are more likely to have business leadership taking responsibility for driving AI strategy. This ensures accountability and more strategic oversight of the development and implementation of AI.

## Who in your organisation is responsible for driving the AI strategy?



# Outcomes of Leadership Driving AI Strategy

Over half of organisations that have an enterprise-wide AI strategy have the business leaders personally invested in driving the strategy, compared with 34% where the AI strategy is only tied to some divisions.

Who in your organisation is responsible for driving the AI strategy?



Q3. Who in your organisation is responsible for driving the organisation's AI strategy?

Q2. Thinking about your organisation's strategies, do you have a strategy for the development of AI that is tied to your wider business strategy?

Base: Organisations where leadership team drive AI strategy (n=136)



# RAI Practices





# Responsible AI Practices Implemented by Organisations: Accountability & Oversight

Most organisations are lacking in comprehensive accountability and oversight measures for AI systems, which suggests that many are not yet fully equipped to manage AI responsibly.

Has your organisation done any of the following to establish accountability and oversight of its AI systems?

3.2 practices implemented on average



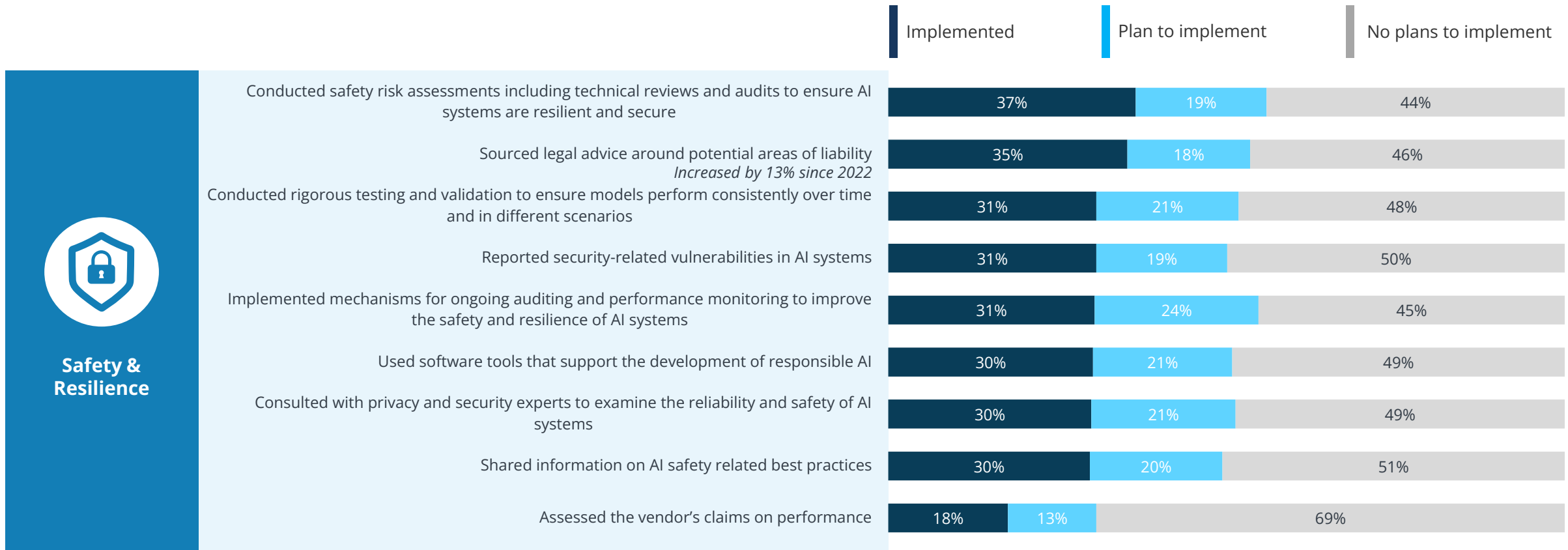
Accountability & Oversight

# Responsible AI Practices Implemented by Organisations: Safety & Resilience

Many are falling short in implementing comprehensive safety and resilience measures for AI systems, indicating potential gaps in ensuring AI robustness. Nearly 7 in 10 have not assessed nor plan to assess vendor claims on the performance of black box AI systems, which is a concern given the rate of adoption of generative AI.

Has your organisation done any of the following to ensure its AI systems are safe and resilient?

2.7 practices implemented on average



Safety & Resilience

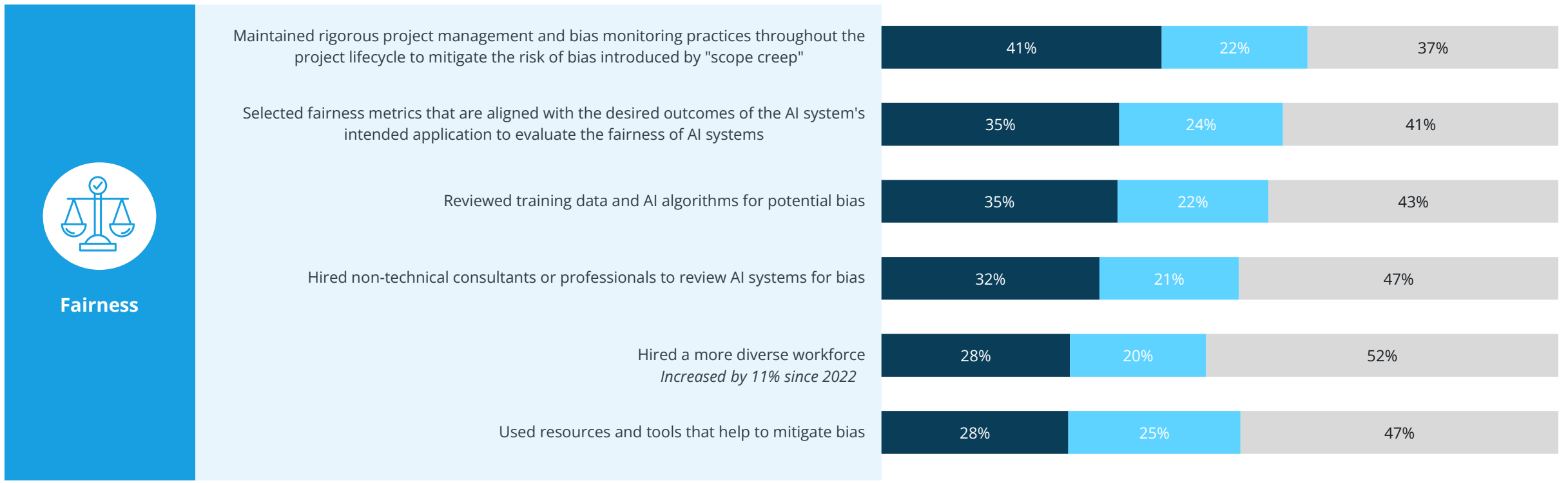
# Responsible AI Practices Implemented by Organisations: Fairness

Many organisations have not fully implemented practices to ensure AI systems operate without bias or discrimination, highlighting a vulnerability in achieving fairness. Nearly half have not used nor plan to use resources and tools to help mitigate bias, which is low-hanging fruit that organisations can leverage to enhance fairness

Has your organisation done any of the following to ensure its AI systems operate without bias or discrimination?

2 practices implemented on average

Implemented      Plan to implement      No plans to implement



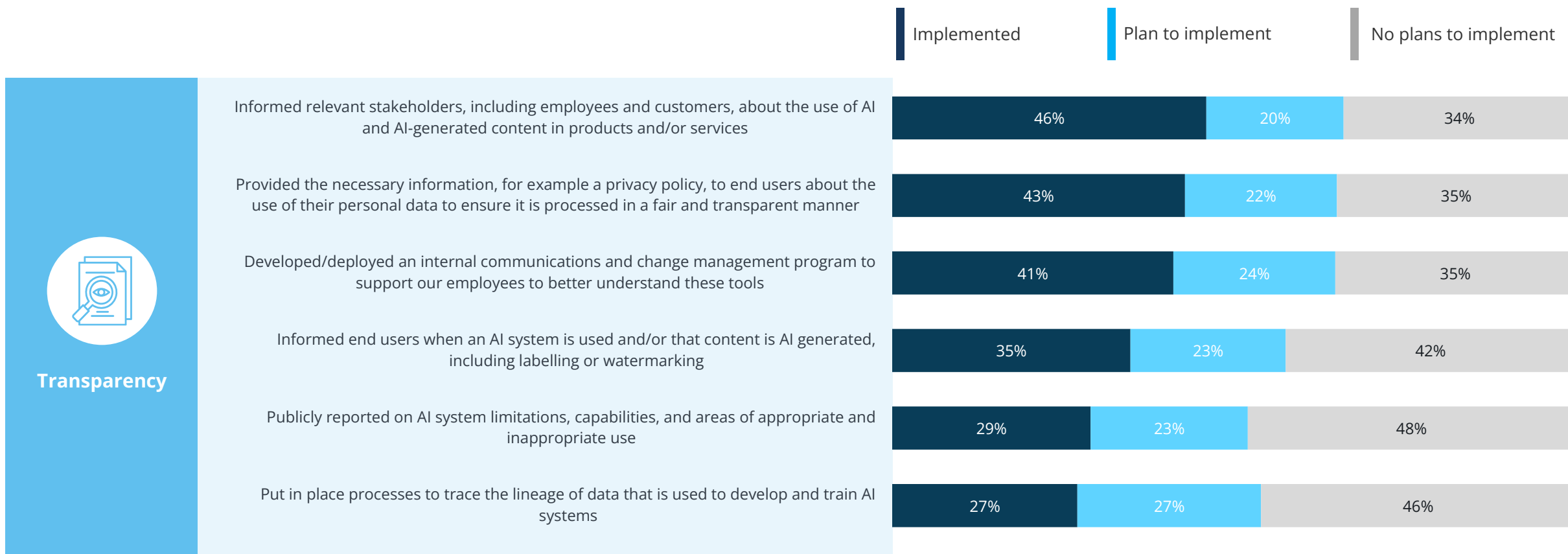
Fairness

# Responsible AI Practices Implemented by Organisations: Transparency

A significant number of organisations have neither implemented nor planned key transparency practices. For example, half have not publicly reported nor plan to report on AI system capability limitations. Addressing these gaps will help foster a culture of transparency and trust in AI systems.

Has your organisation done any of the following to provide visibility to the intended use and impact of its AI systems?

2.2 practices implemented on average



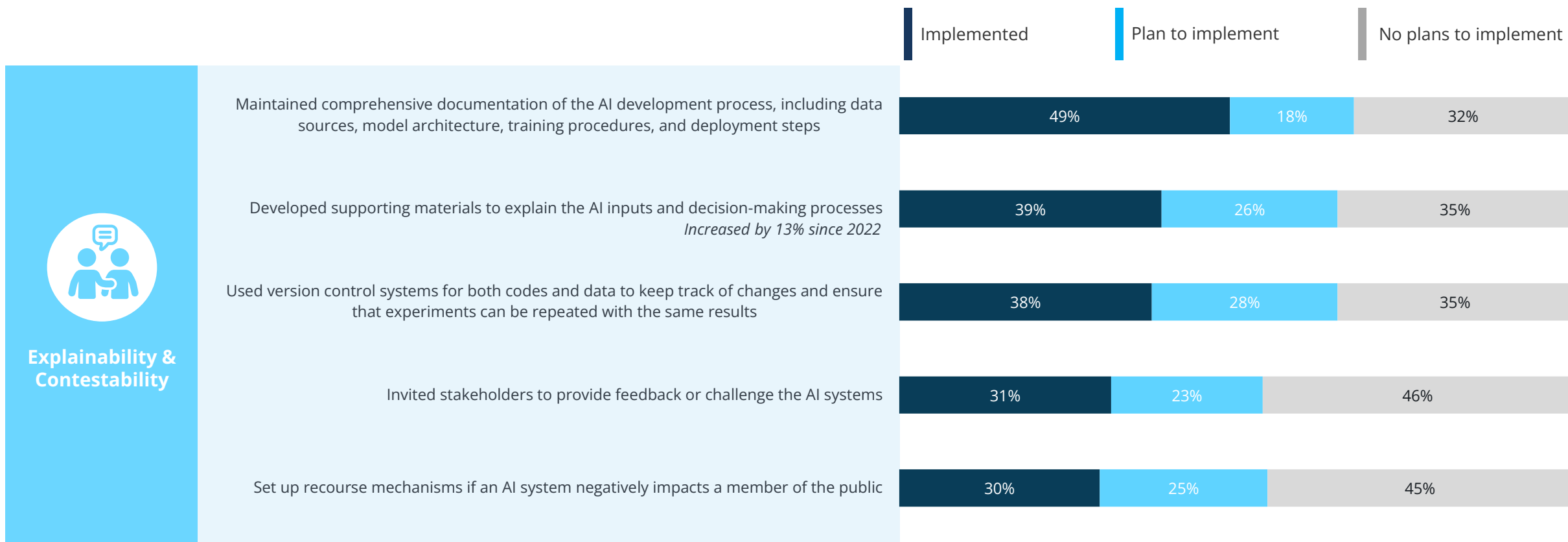
Transparency

# Responsible AI Practices Implemented by Organisations: Explainability & Contestability

Organisations are lagging in implementing practices that ensure AI model decisions are explainable and contestable, with significant gaps remaining. Around half of organisations are maintaining comprehensive documentation of the AI development process, but nearly half have not set up nor plan to set up recourse mechanisms.

Has your organisation done any of the following to explain how its AI models reach decisions?

1.8 practices implemented on average

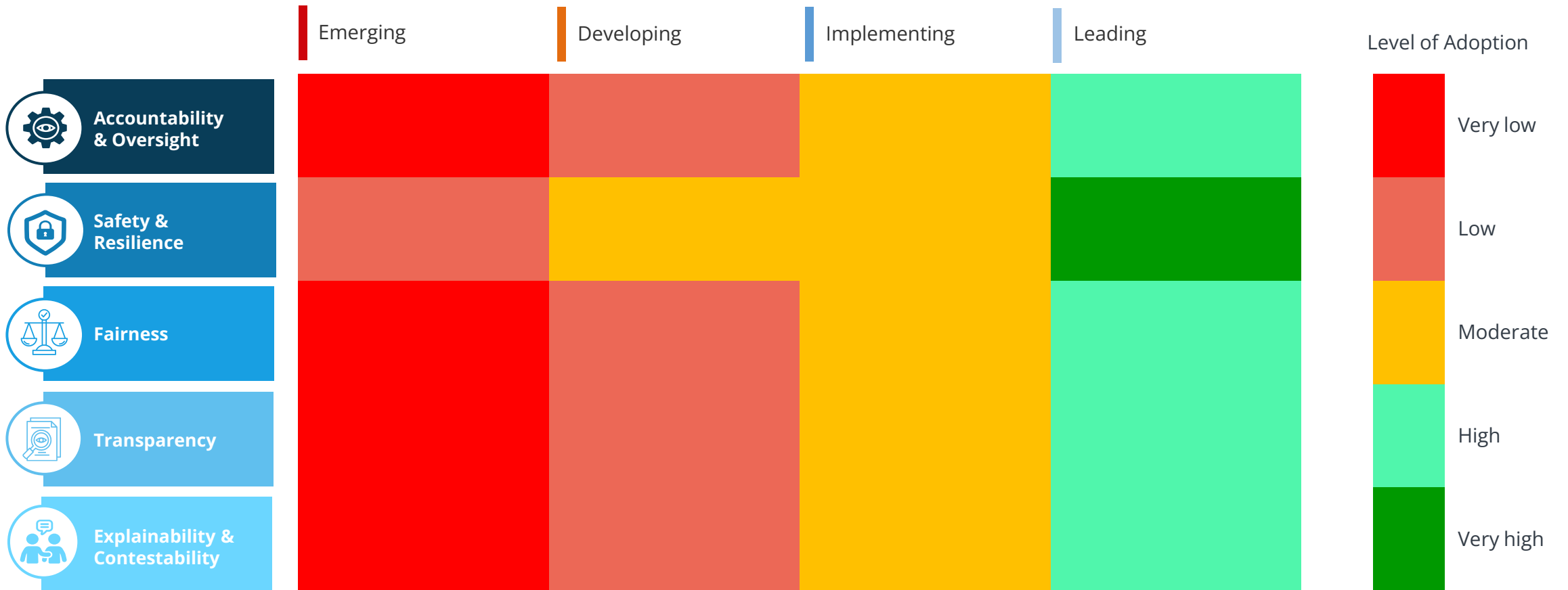


Explainability & Contestability

# Summary of Level of RAI Practice Adoption

The heat map below indicates that while Leading organisations are implementing a high number of responsible AI practices, there is a substantial gap that needs to be addressed by Emerging and Developing organisations. This gap underscores the need for focused efforts to enhance the adoption of responsible AI practices across all maturity levels, particularly in areas like Accountability & Oversight and Fairness

RAI maturity by practice area and segment





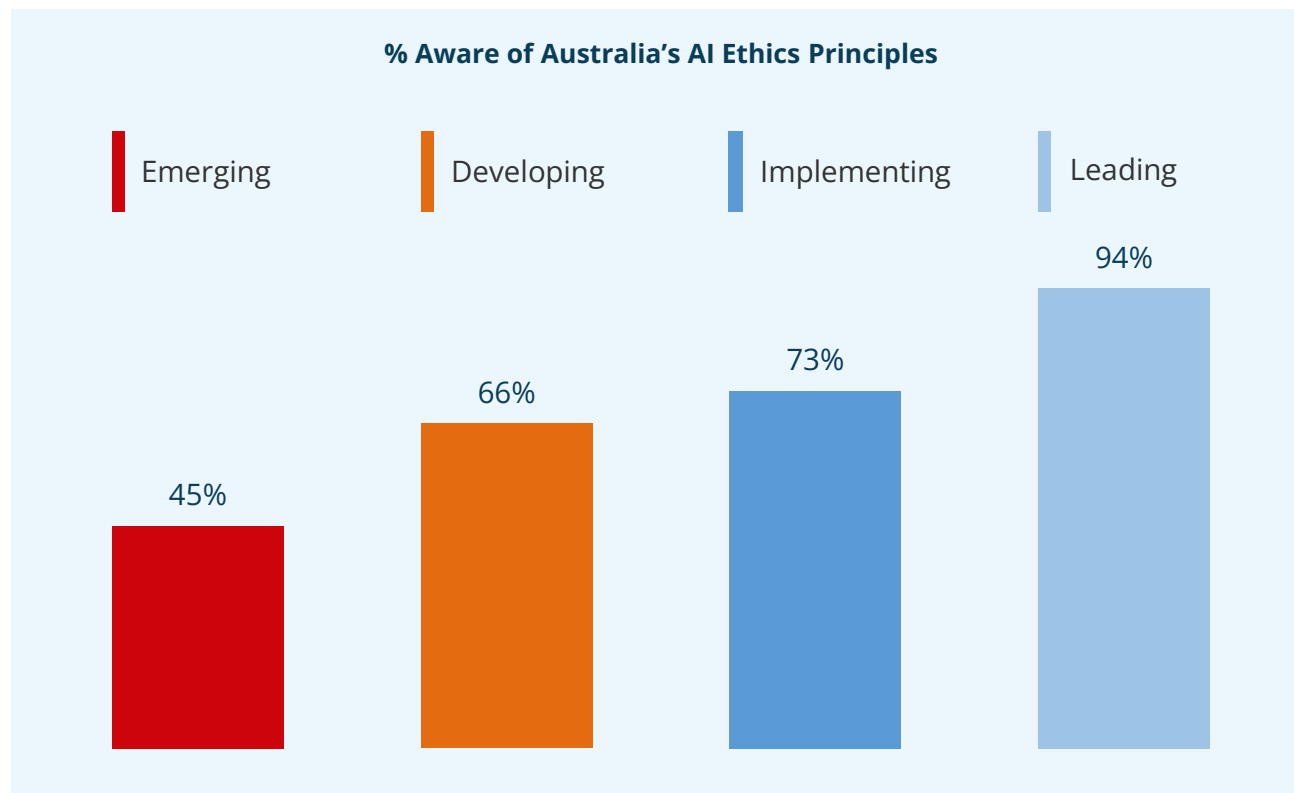
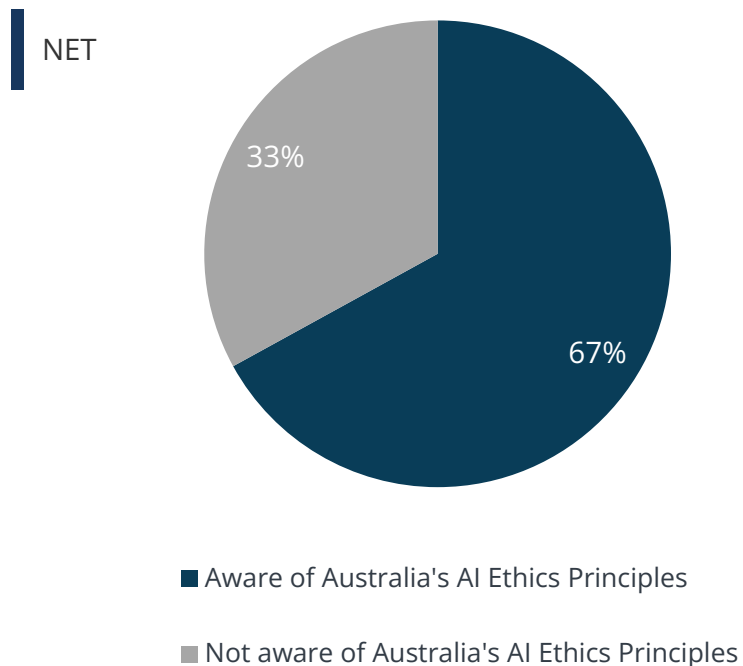
# RAI Principles



# Awareness of Australia's AI Ethics Principles

Two thirds of organisations are aware of Australia's AI Ethics Principles. This high level of awareness, especially among more mature organisations, indicates that the efforts by the Department of Industry, Science and Resources to promote these principles are having a significant impact.

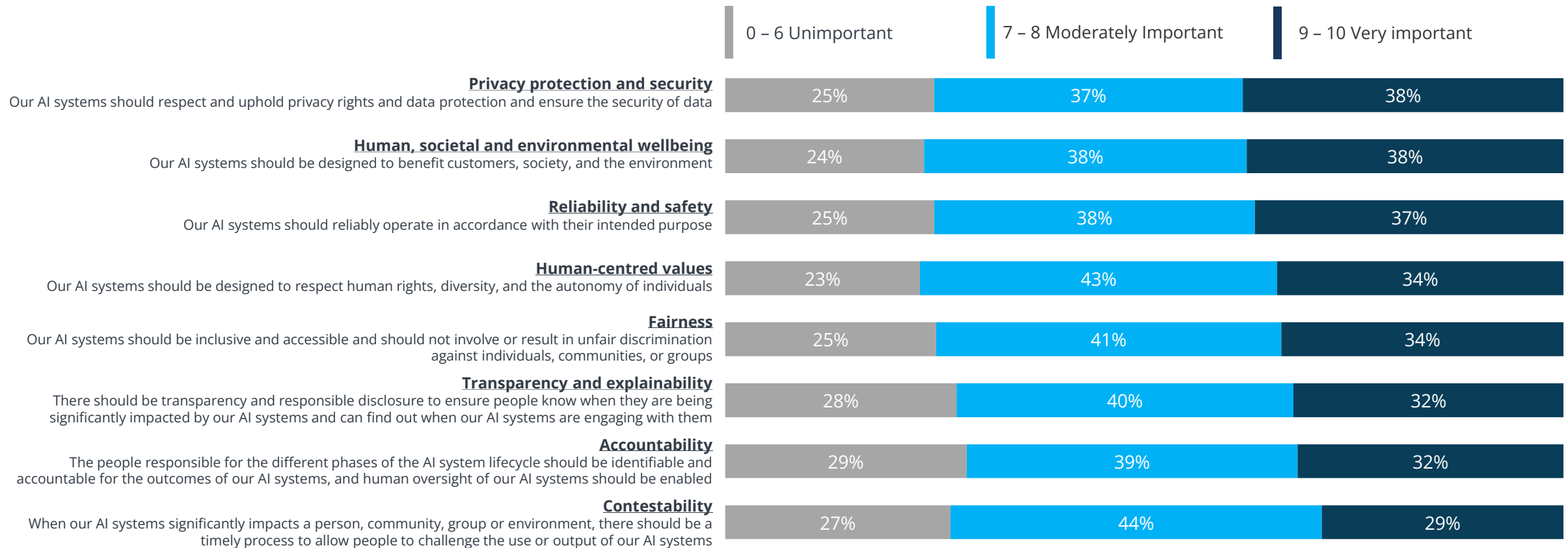
Awareness of Australia's AI Ethics Principles



# Importance of Australia's AI Ethics Principles

Most executives believe their organisation is developing AI systems that align with Australia's AI Ethics Principles. Higher importance is attributed to ensuring privacy and security, and societal wellbeing.

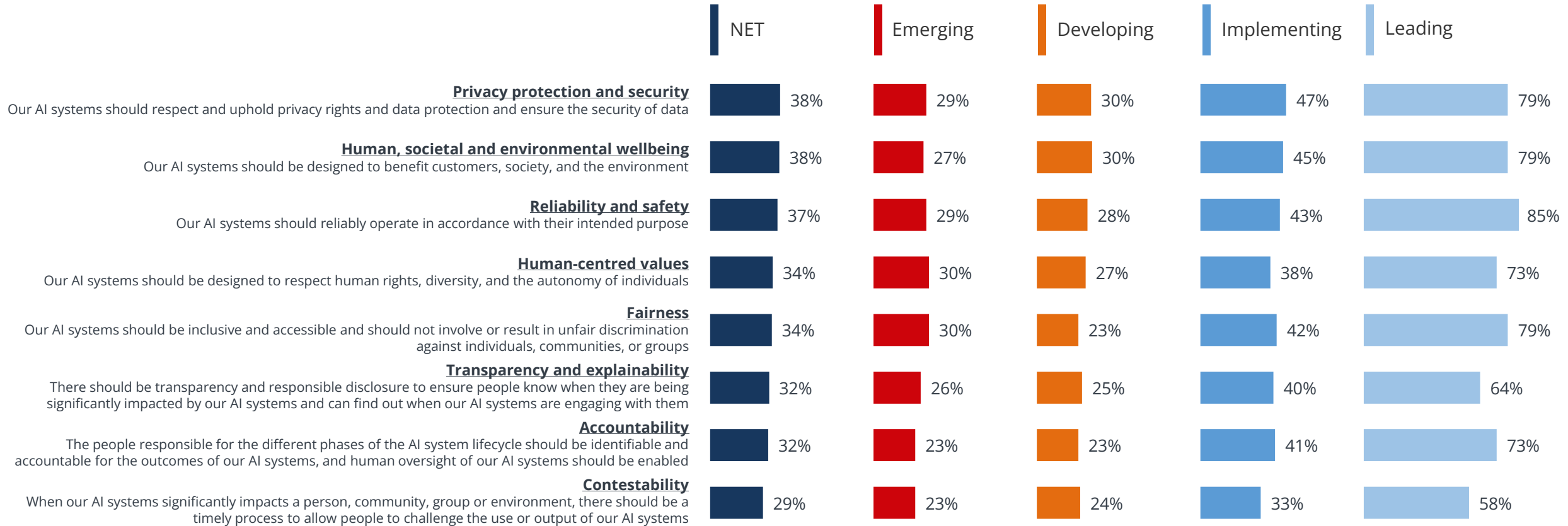
## Importance of Australia's AI Ethics Principles



# Importance of Australia's AI Ethics Principles

The importance of Australia's AI Ethics Principles increases significantly with maturity, highlighting gaps in priority among less mature organisations.

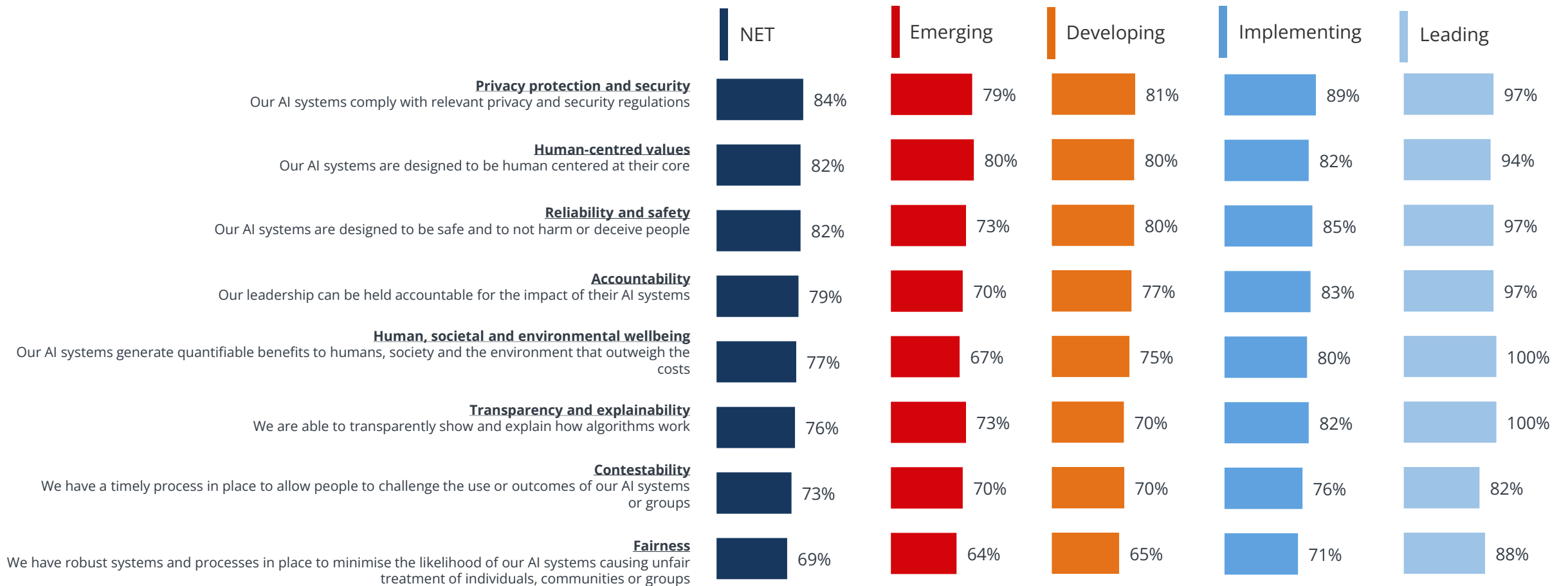
Importance of Australia's AI Ethics Principles, % Very Important (rating 9-10 out of 10)



# Agreement with Australia's AI Ethics Principles

The data highlights that as organisations mature, they increasingly align their systems and processes with Australia's AI Ethics Principles.

Agreement with Australia's AI Ethics Principles, % Agree



# The Responsible AI Gap

The overall gap of 49 points between perception and practice of these principles highlights a substantial “say-do” gap between the perception of responsible AI practices and their actual implementation. This discrepancy underscores the need for organisations to move beyond mere awareness and actively implement robust RAI practices to align with ethical principles effectively.

## Agreement With AI Performance Statements

*% of organisations agreeing with statement*

## AI Ethics Principles

## Examples of Practices Implemented

*% of organisations implementing*

Our AI systems generate quantifiable benefits to humans, society and the environment that outweigh the costs	77%	<b>Human, Social and Environmental Wellbeing</b>	26%	Conducted impact assessments to understand the effects of AI systems on different stakeholders, society and the environment
Our AI systems are designed to be human-centered at their core	82%	<b>Human-centred Values</b>	22%	Identified and assessed the risks and opportunities for human rights
We have robust systems and processes in place to minimise the likelihood of AI systems causing unfair treatment of individuals, communities or groups	69%	<b>Fairness</b>	35%	Selected fairness metrics that are aligned with the desired outcomes of the AI system's intended application to evaluate the fairness of AI systems
Our AI systems comply with relevant privacy and security regulations	84%	<b>Privacy Protection and Security</b>	31%	Reported security-related vulnerabilities in AI systems
Our AI systems are designed to be safe and to not harm or deceive people	82%	<b>Reliability and Safety</b>	37%	Conducted safety risk assessments including technical reviews and audits to ensure AI systems are resilient and secure
We are able to transparently show and explain how algorithms work	76%	<b>Transparency and Explainability</b>	29%	Publicly reported on AI system limitations, capabilities, and areas of appropriate and inappropriate use
We have a timely process in place to allow people to challenge the use or outcomes of our AI systems	73%	<b>Contestability</b>	30%	Set up recourse mechanisms if an AI system negatively impacts a member of the public
Our leadership can be held accountable for the impact of their AI systems	79%	<b>Accountability</b>	27%	Established clearly designated roles with responsibility for the responsible use of AI

**Average agreement with AI performance statements 78%**

**49-point gap**

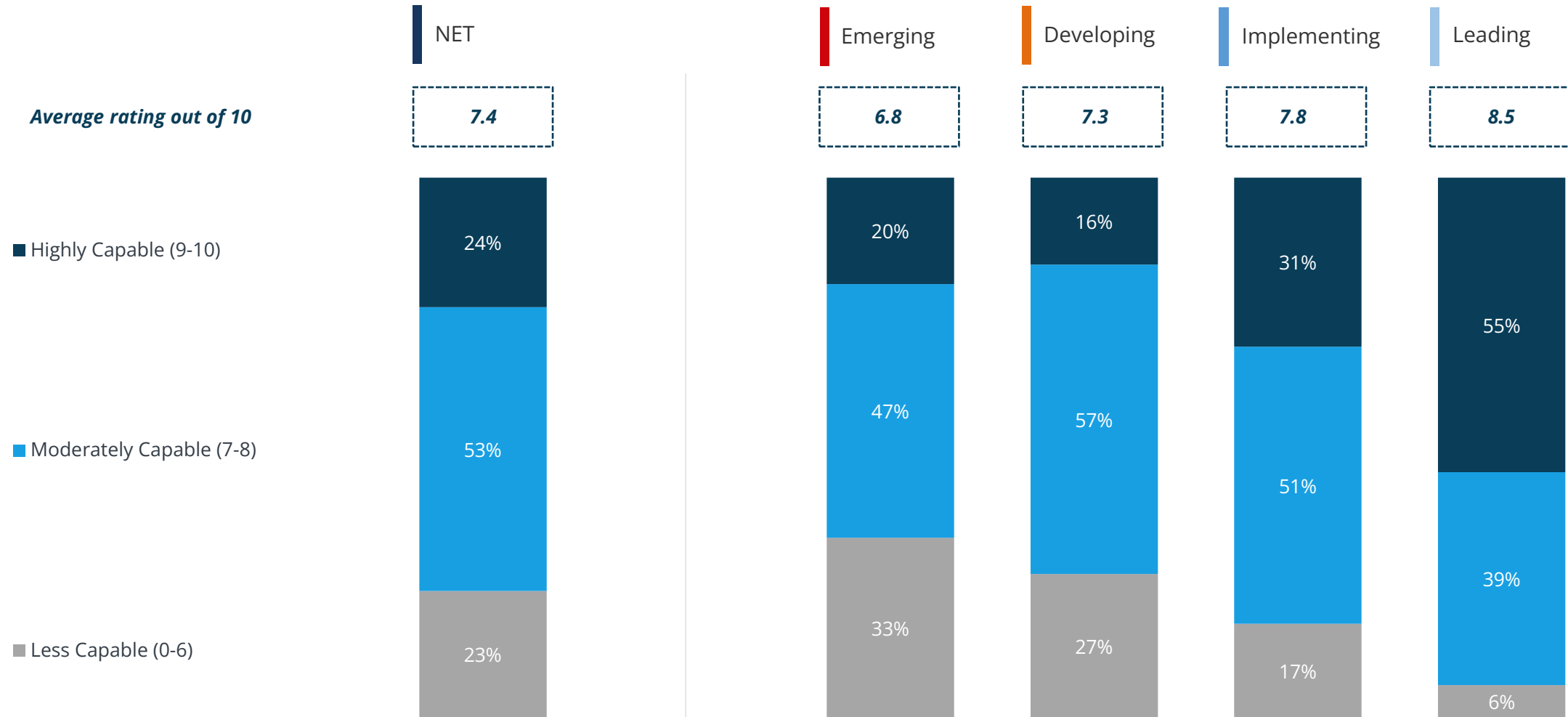
**29% of organisations have implemented RAI practices**

Q5. For each of the following statements please indicate the extent to which you agree/disagree. Q21. Has your organisation done any of the following to provide visibility to the intended use and impact of its AI systems? Q23. Has your organisation done any of the following to explain how its AI models reach decisions? Q25. Has your organisation done any of the following to ensure its AI systems are safe and resilient? Q27. Has your organisation done any of the following to ensure its AI systems operate without bias or discrimination? Q29. Has your organisation done any of the following to establish accountability and oversight of its AI systems?  
Base: Total respondents (n=413)



# Current Capability To Build Responsible AI

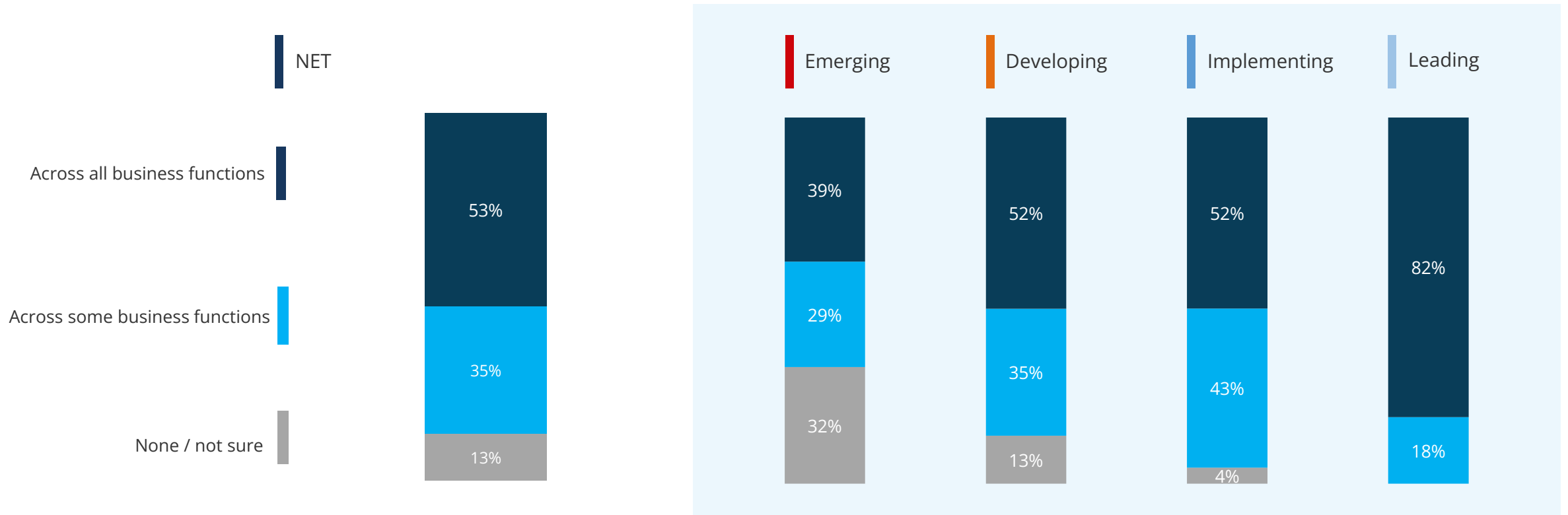
Organisations indicate they are moderately or highly capable of designing and building a responsible AI system. As expected, those in the Implementing and Leading segments rate themselves more capable but there is a level of misplaced optimism among the less mature groups.



# AI Standards & Guidelines

Positively, over half of organisations claim to have formal AI standards or guidelines in place to guide the responsible use of AI across all business functions. This is more prominent among more mature organisations.

Formal AI Standards or Guidelines for AI Ethics and Principles



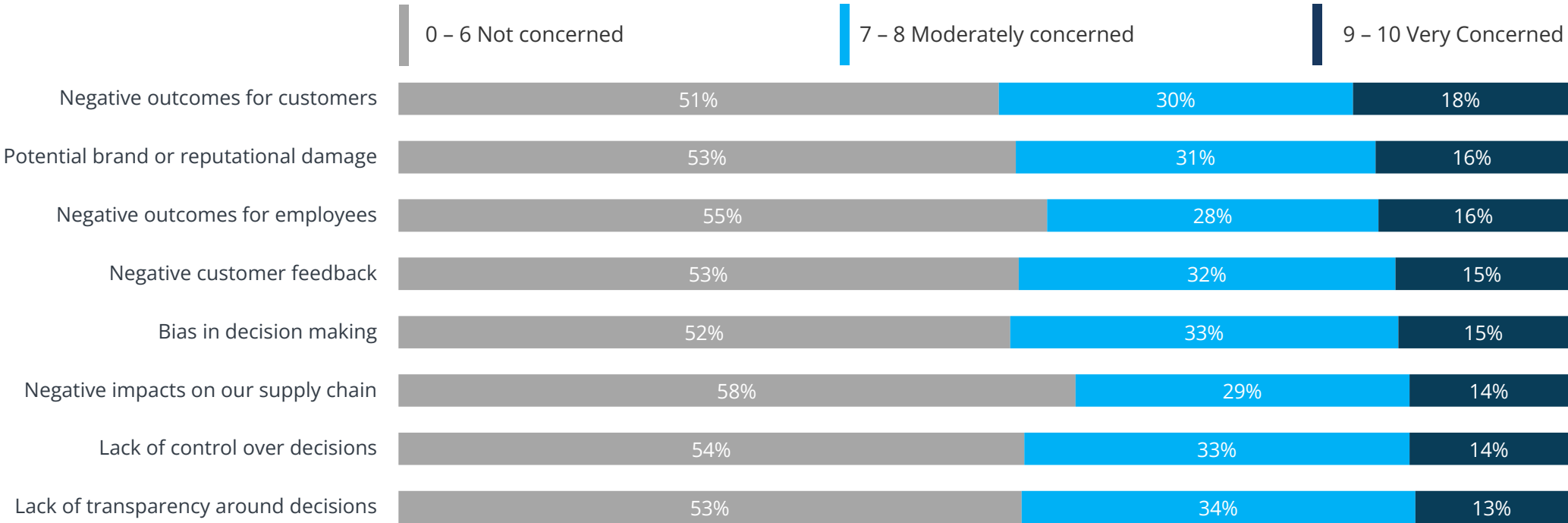
# Concerns about AI



# Organisational Concerns About Using AI

Top organisational concerns about using AI relate to negative outcomes for customers and employees, and potential brand/reputational damage.

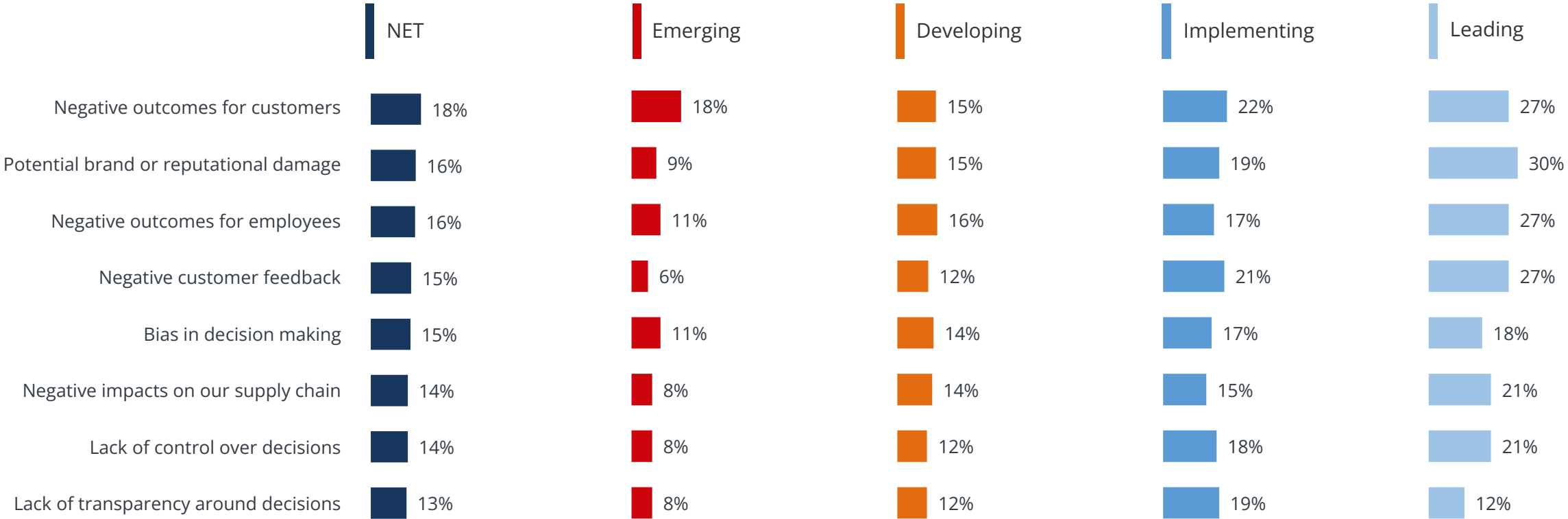
## Concerns Surrounding the Organisational Impacts of AI



# Organisational Concerns About Using AI

The more mature organisations are in their responsible AI journey, the more concerns they are likely to have due to their experience and awareness of ethical AI principles and standards.

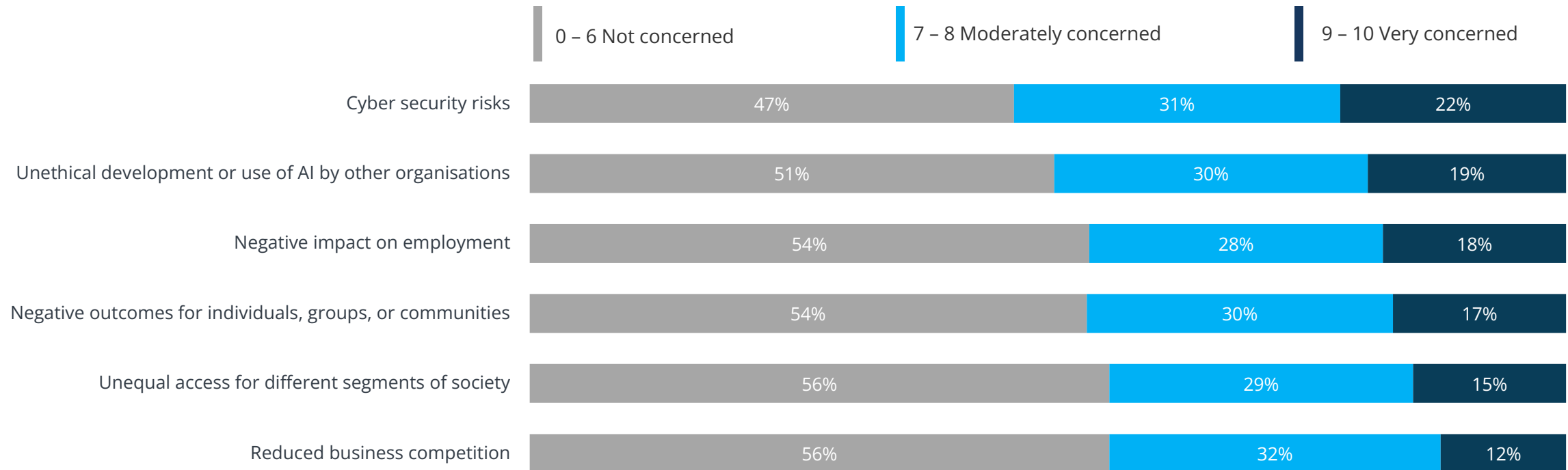
Concerns Surrounding the Organisational Impacts of AI, % Very Concerned



# Societal Concerns About AI

When it comes to wider societal concerns about AI, cyber security risks and unethical development or use of AI by other organisations top the list.

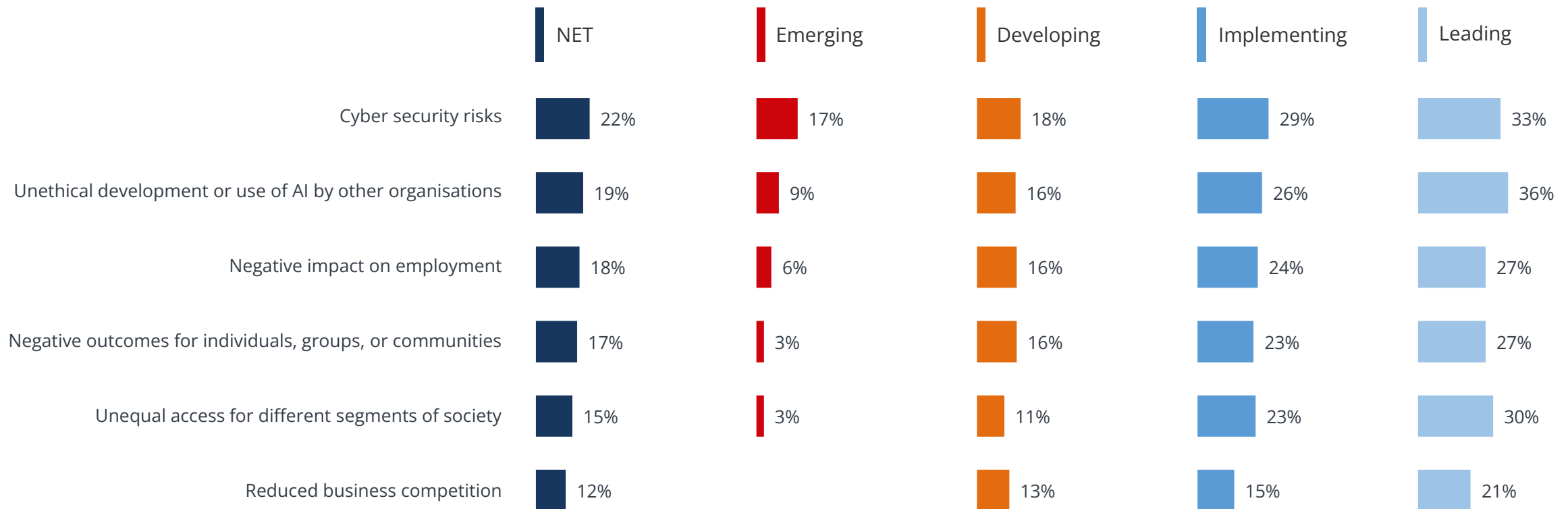
## Concerns Surrounding the Societal Impacts of AI



# Societal Concerns About AI

Similarly, the Implementing and Leading segments have more concerns around the societal impacts of AI as they are more aware of the ethical risks of AI.

Concerns Surrounding the Societal Impacts of AI, % Very Concerned





# AI Usage

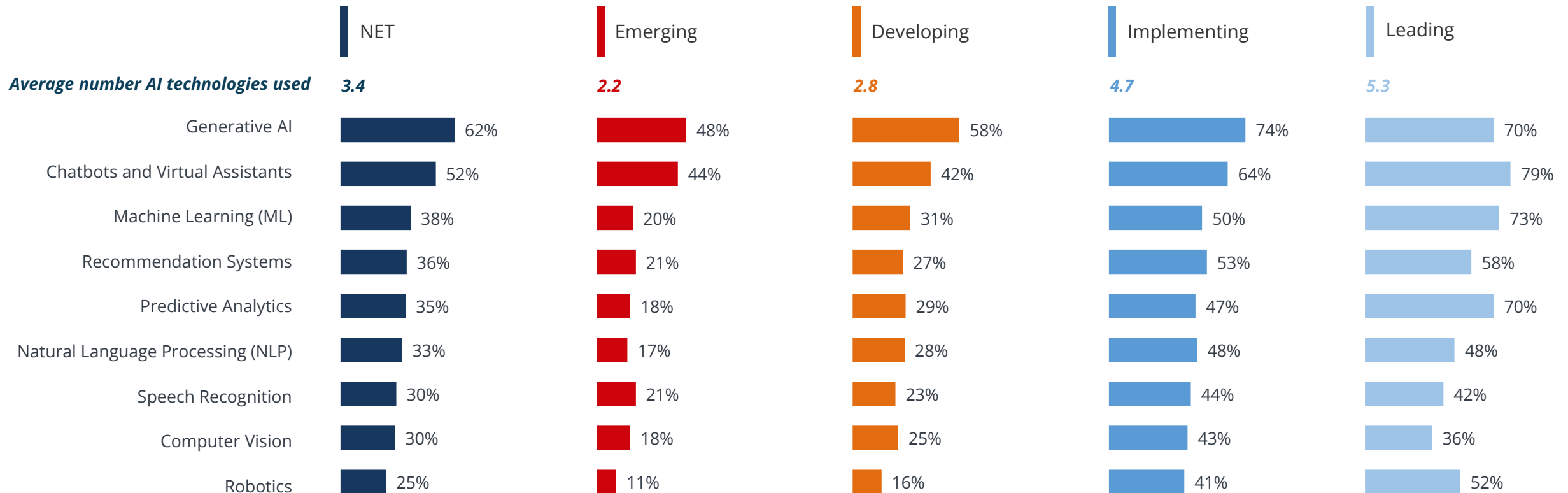




# Types of AI Technologies Being Used in Organisations

As expected, Generative AI, chatbots and virtual assistants are the most widely adopted AI technologies. More mature organisations utilise a wider range of AI technologies, reflecting more advanced AI adoption and integration.

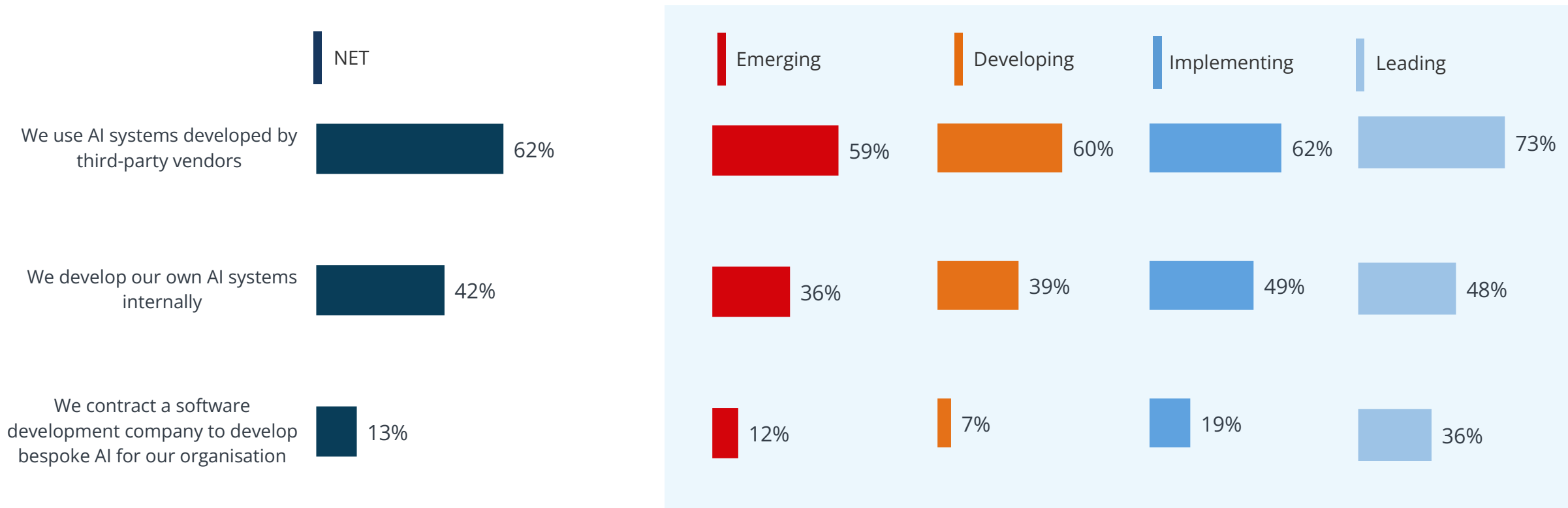
AI Technology Use By Segment



# AI Development & Implementation Approach

With nearly two-thirds of organisations using systems developed by third parties, there should be more scrutiny of performance to ensure reliability and suitability of these "black box" systems to ensure they meet performance expectations and organisational requirements.

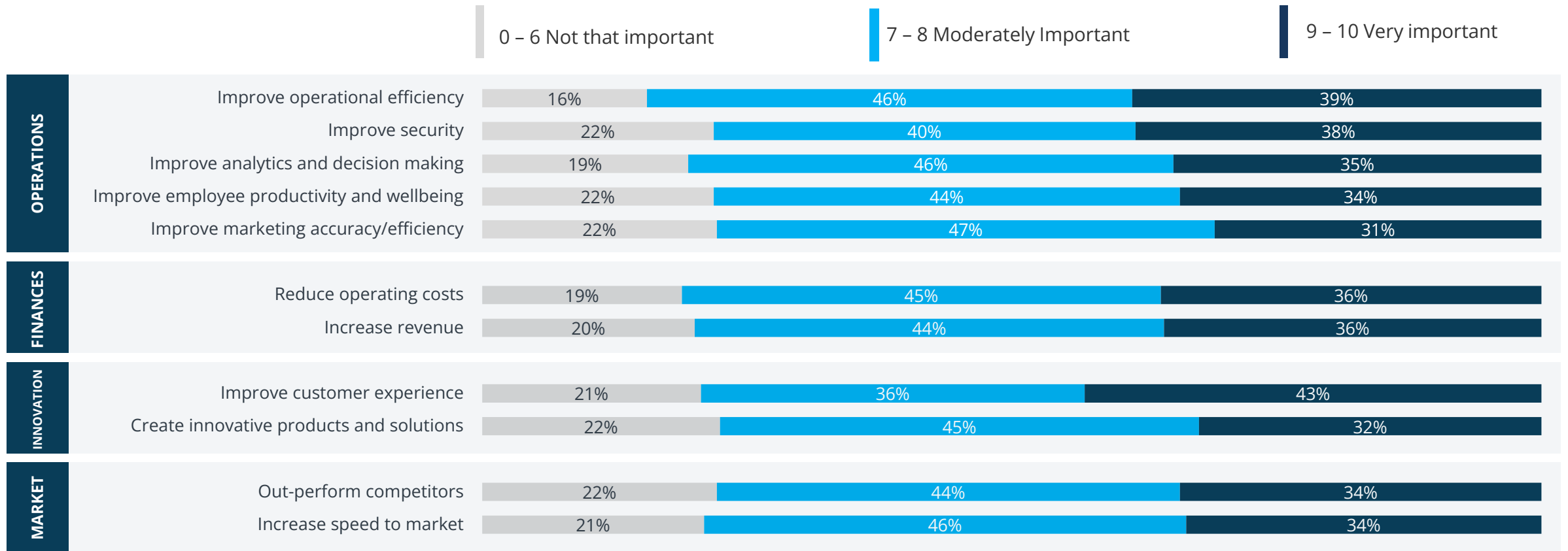
How does your organisation approach the development and implementation of AI systems?



# Drivers for AI Adoption

Improving customer experience, operational efficiency and security are the top drivers of AI adoption.

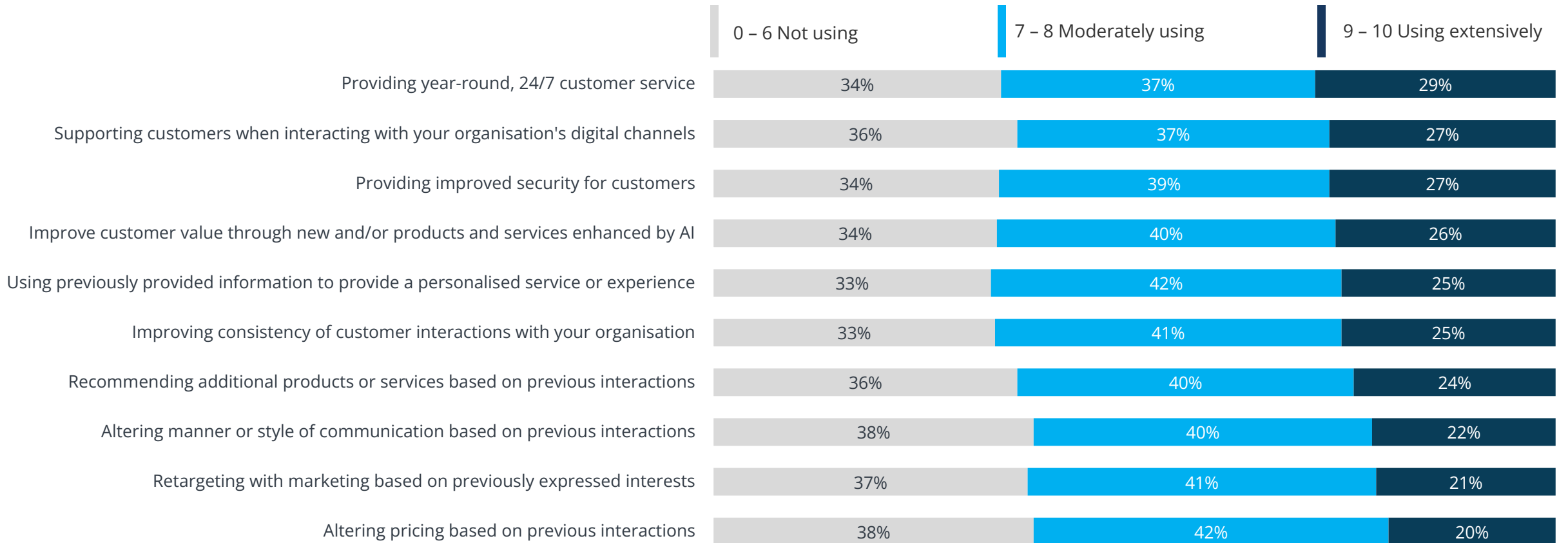
Important Rating of Drivers of AI Adoption



# Customer Benefits of AI

Looking closely at the customer outcomes for AI use, organisations have been using AI to improve their customer service interactions, increase security for customers and offer better products, thereby improving the customer experience.

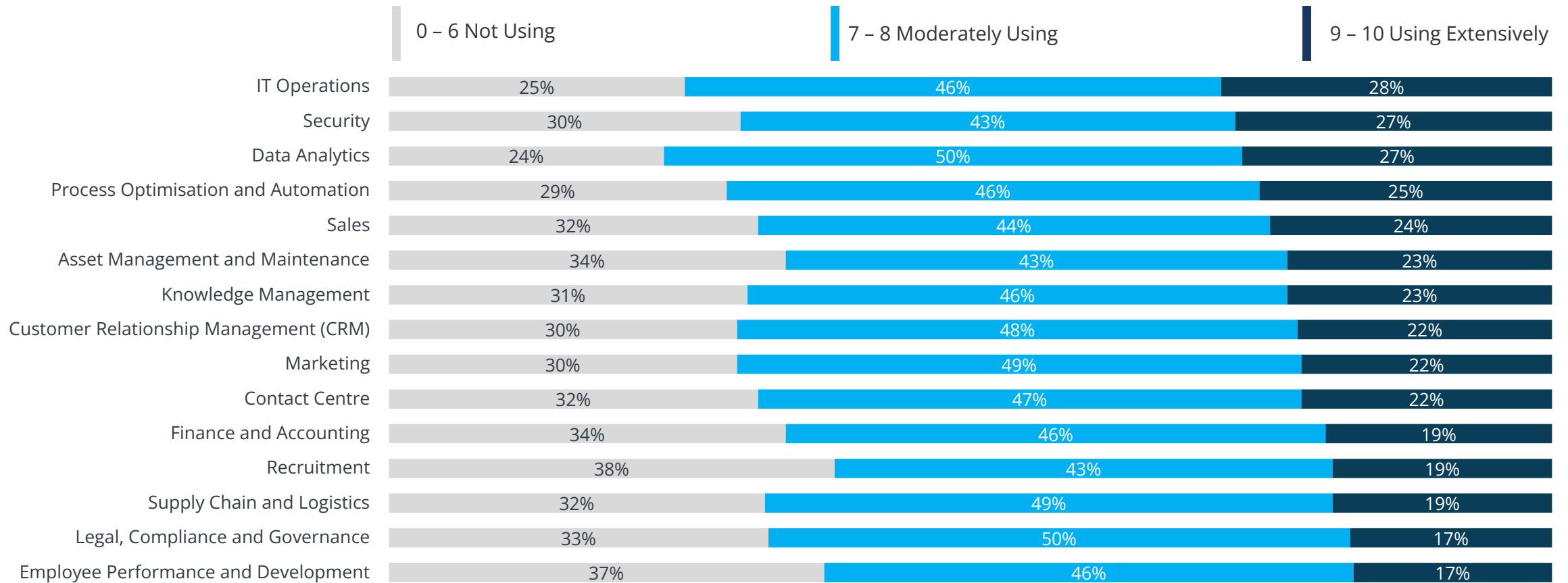
## Extent AI is Being Used for Customers



# AI Usage across Organisational Areas

AI is used most extensively in technology, data, and operations functions; followed by customer and sales. These areas benefit significantly from AI's ability to process large datasets, optimise processes, and enhance security measures. Adoption is lower in areas which deal with complex and sensitive information, such as HR and legal.

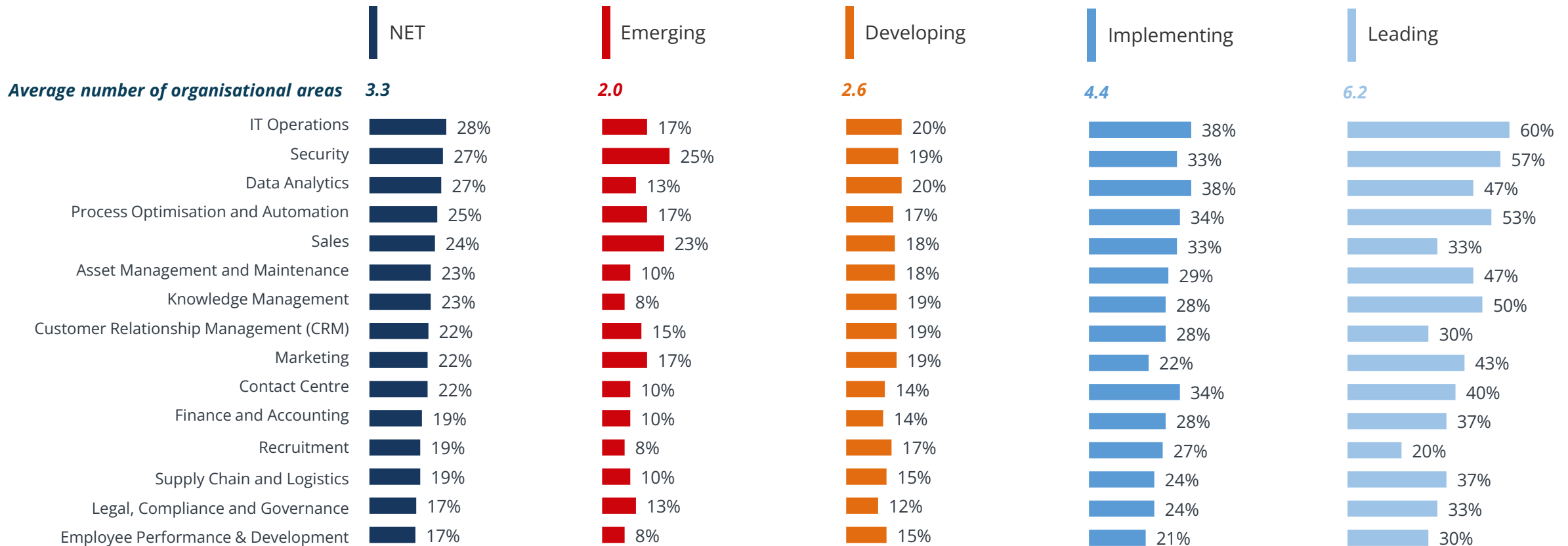
Use of AI in Key Organisational Areas



# AI Usage across Organisational Areas

Leading organisations are extensively using AI across a wider range of functional areas compared to Emerging and Developing organisations. In contrast, less mature organisations have a more limited scope of AI usage, potentially focusing on getting AI systems up and running rather than refining and ensuring their ethical use.

Use of AI in Key Organisational Areas, % Using Extensively



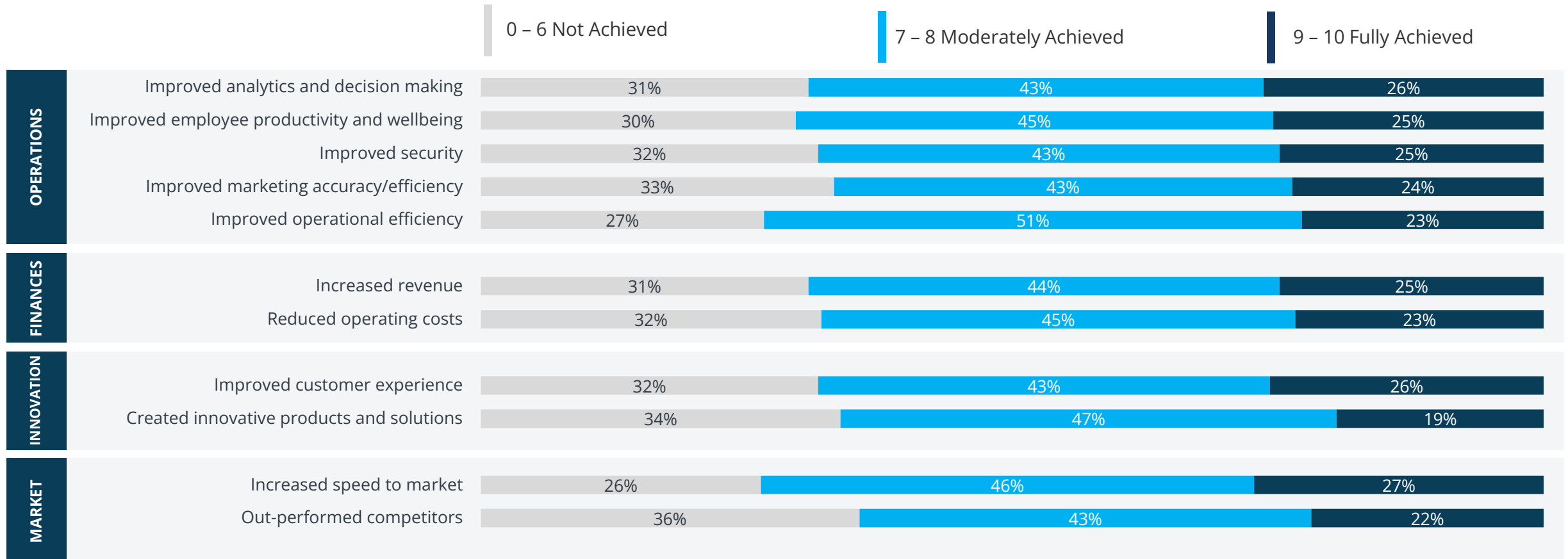
# Outcomes of AI



# Outcomes of AI

Comparing the drivers of AI adoption and the achievement of outcomes indicates a strong alignment between what organisations consider important and what they are able to achieve with AI.

## Extent AI has Enabled Organisational Outcomes

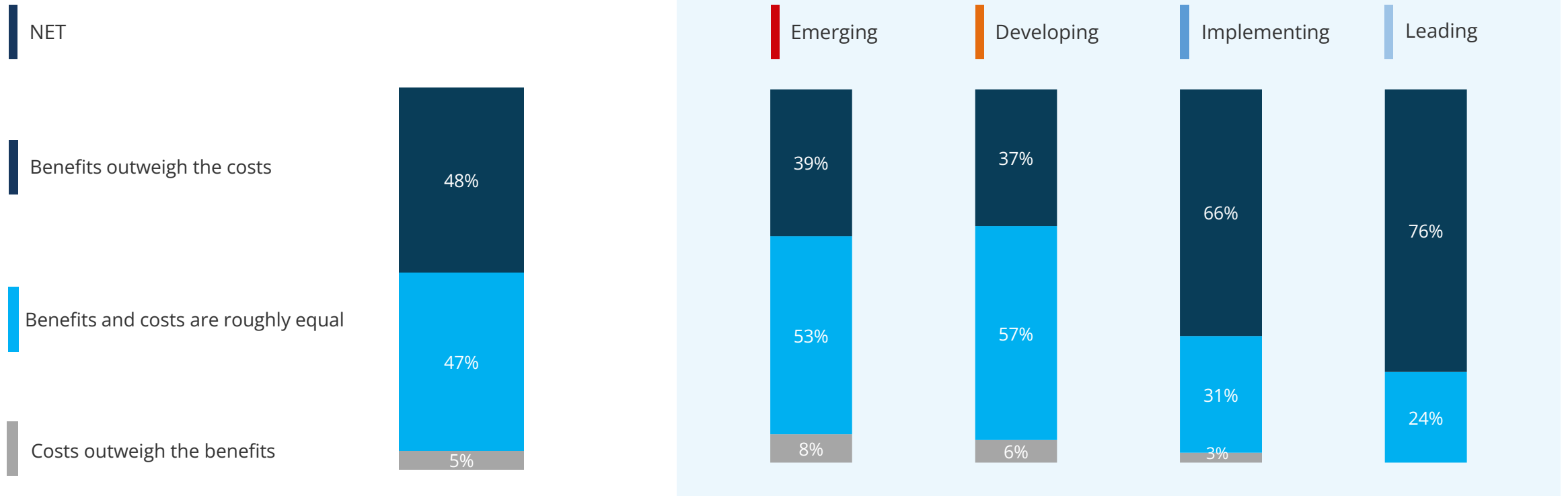




# Benefit vs. Cost of Responsible AI

Leading organisations identify greater net benefits from responsible AI compared to Emerging and Developing organisations. The lower perception of benefits among Emerging and Developing organisations suggests a need for more support, guidance, and perhaps better communication about the advantages of responsible AI.

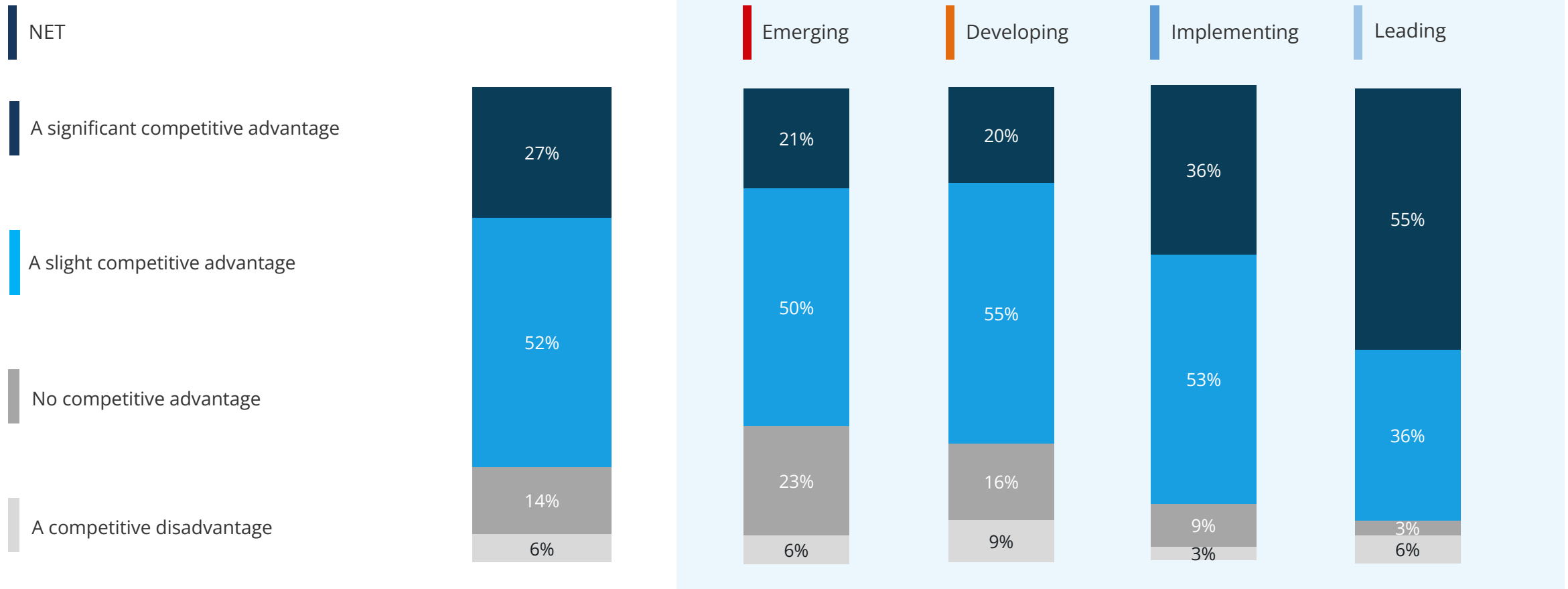
### Costs and Benefits of Responsible AI



# Competitive Advantage of Responsible AI

There is broad recognition that adopting RAI practices can enhance business competitiveness. Organisations at higher maturity levels show greater appreciation of responsible AI's competitive benefits.

Competitive Advantage of Responsible AI



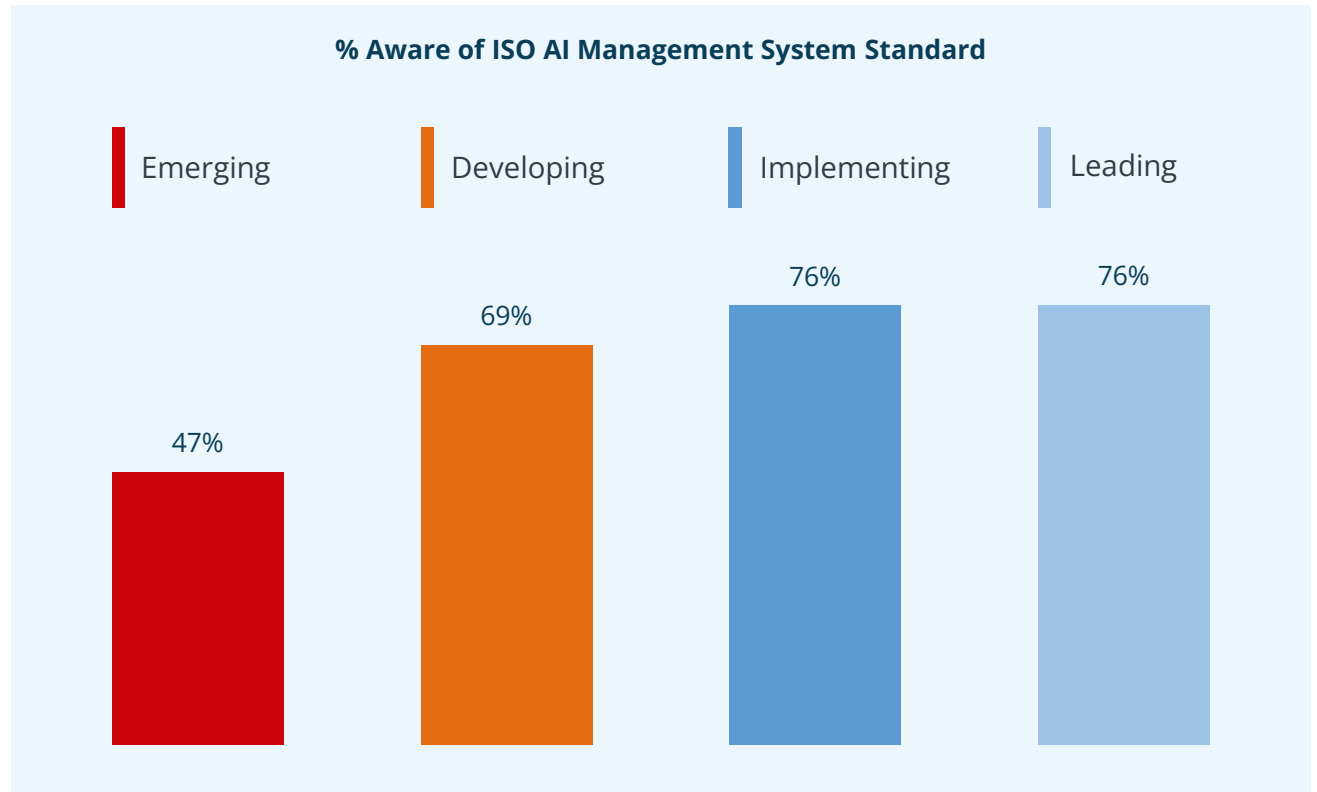
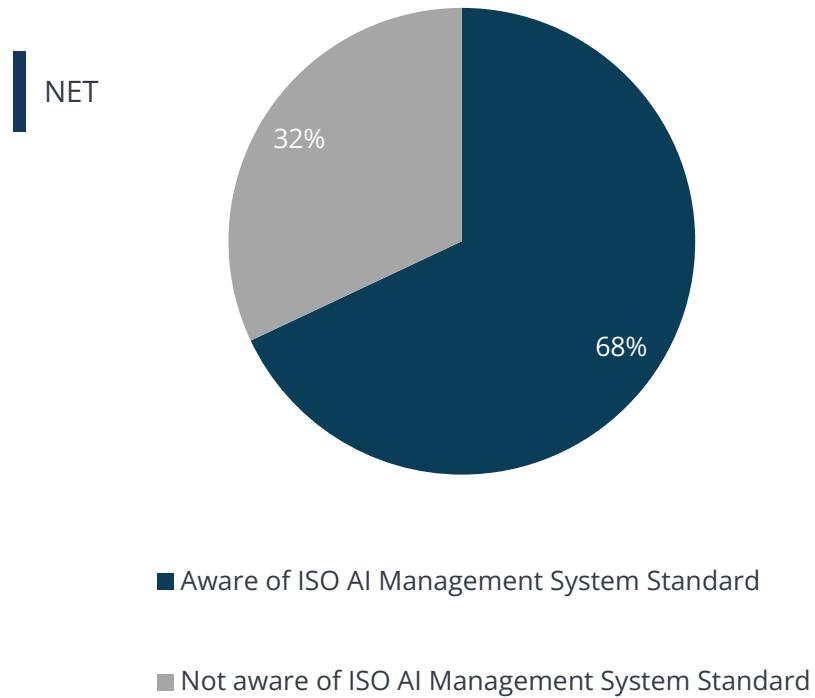
# Australia's Voluntary AI Safety Standard



# Awareness of ISO AI Management System Standard (ISO/IEC 42001:2023)

Awareness of the ISO AI Management System Standard is high across the board, with those early in their responsible AI journey having a lower level of awareness.

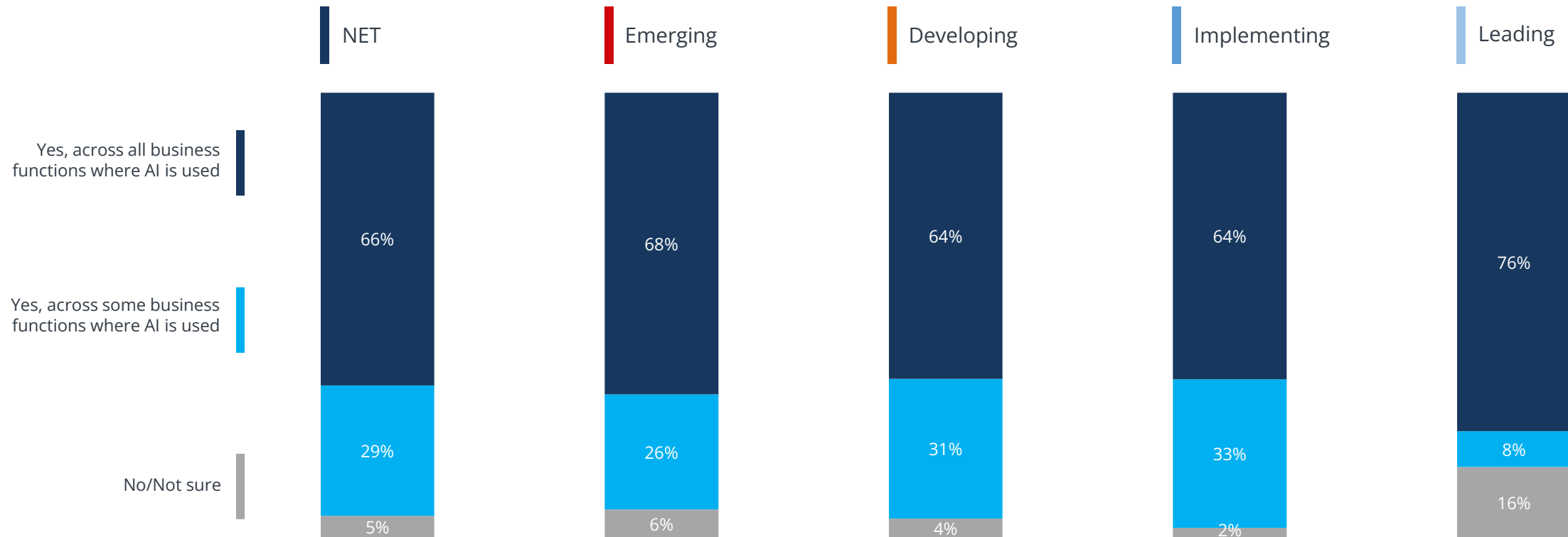
## Awareness of ISO AI Management System Standard



# Implementation of ISO AI Management System Standard (ISO/IEC 42001:2023)

Among those aware of the ISO AI Management System Standard, the majority are looking to implement it across all or some business functions. This indicates a strong foundation and readiness among Australian organisations to align with Australia's Voluntary AI Safety Standard.

## Does your organisation intend to implement the ISO AI Management System Standard?



## Adoption of Australia's Voluntary AI Safety Standard

By adopting [Australia's Voluntary AI Safety Standard](#), organisations can significantly enhance their implementation of Responsible AI, ensuring their AI systems are ethical, transparent, and aligned with global best practices. Benefits of adoption include:

- 1. Enhanced trust and credibility** among stakeholders, including customers, regulators, and the public, signaling a commitment to high ethical standards.
- 2. Regulatory compliance** providing a structured approach to compliance with existing and emerging regulations, reducing legal risks and ensuring AI systems meet legal requirements.
- 3. Competitive advantage** providing a point of differentiation in the marketplace, gaining a competitive edge by showcasing a commitment to responsible and ethical AI.
- 4. Global alignment** facilitating smoother collaboration and integration with global partners, fostering innovation and cross-border technological advancements.
- 5. Risk mitigation** minimising the potential for AI-related failures, biases, and ethical breaches, protecting organisations from reputational and operational risks.

For a comprehensive description of how organisations can use tools and guidelines to connect the principles and practices of Responsible AI, see NAIC's report [Connecting Principles and Practice: Implementing Responsible AI in Business](#).

This report provides a pragmatic selection of practices aligned with Australia's AI Ethics Principles, including examples of tools and guidelines available to support each practice. It highlights the importance of staying informed about emerging resources, and adapting organisational culture and governance, to elevate Responsible AI to a standard routine. These steps are crucial for ensuring that AI systems operate ethically, transparently, and in alignment with societal values.



## Thank You

For further information, please contact:

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