RESPONSIBLE AI INDEX 2022: REPORT

fifth quadrant

RESPONSIBLE METAVERSE ALLIANCE

GRADIENT INSTITUTE

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2. THE RESPONSIBLE AI INDEX
3. THE STATE OF AI IN AUSTRALIA
4. AI ETHICS PRINCIPLES
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METHODOLOGY

The 2022 Responsible AI Index is grounded in a robust quantitative methodology.

Objectives

Research Aim

To provide a comprehensive assessment and to track the status, in Australian-based organisations, of:

1) AI maturity and,
2) the extent to which AI is being deployed responsibly to mitigate potential risks, and
3) to make recommendations as to how organisations may use AI responsibly

Topics covered

- MATURITY SEGMENTS
- AI USAGE
- AI ETHICS PRINCIPLES
- ATTITUDES
- ORGANISATIONAL STRATEGIES
- ACTIONS TAKEN OR PLANNED

Audience

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
- Covered a range of businesses by size, industry and location
- Organisations that had deployed AI in their business or were planning to do so in the next 12 months

Sample Size

N=439 RESPONDENTS

Methodology

Source

B2B online panel

Methodology

10-minute online survey

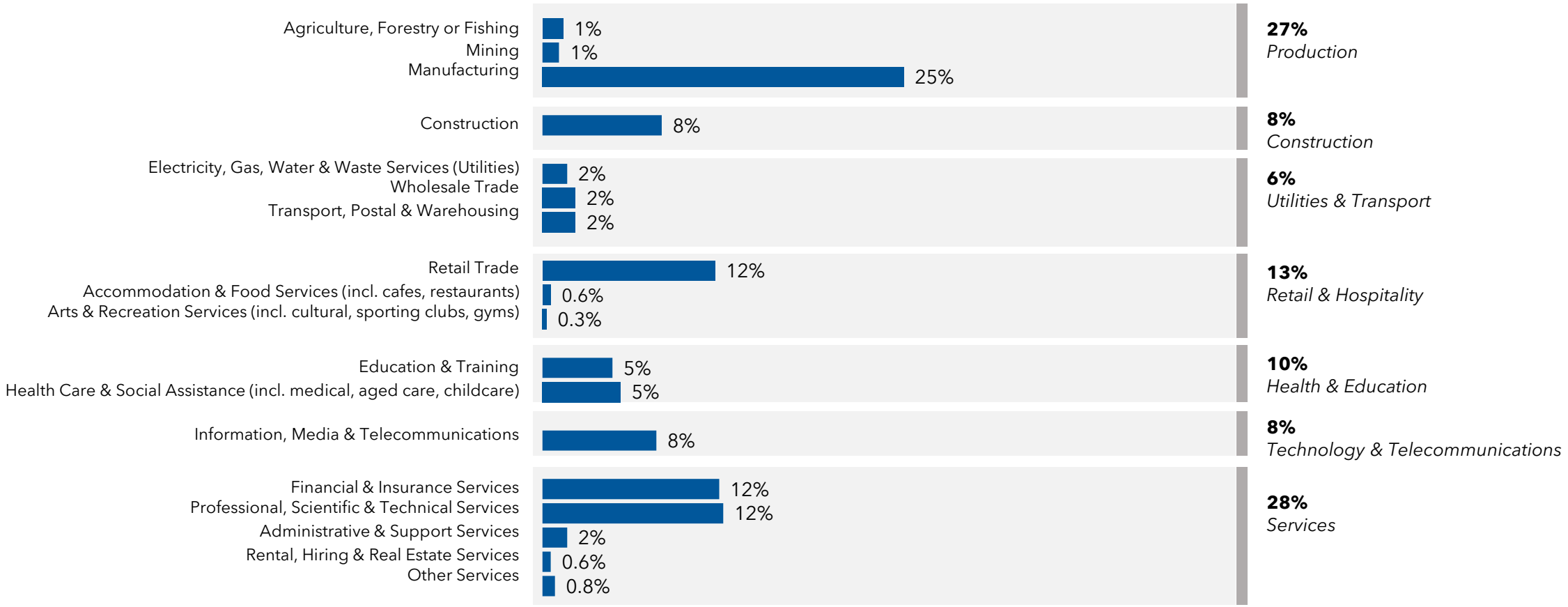
Timing

Fieldwork was conducted 24th October – 9th November 2022

INDUSTRY PROFILE

Respondent organisations represent a range of industries which have been organised into seven different groups.

INDUSTRY GROUPS



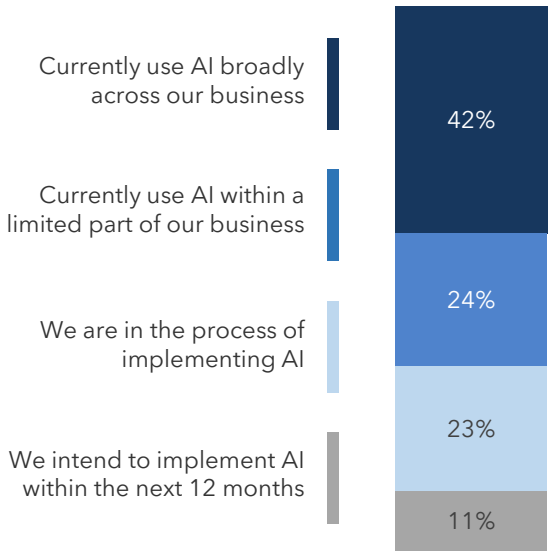
Please note that due to an overrepresentation of respondents in the Technology & Telecommunications sector in the 2022 sample, the sample has been weighted back to the 2021 sample to enable comparability between the 2021 and 2022 Responsible AI Index.

Base: Total respondents (n=439)
S6. In which industry does your business operate?

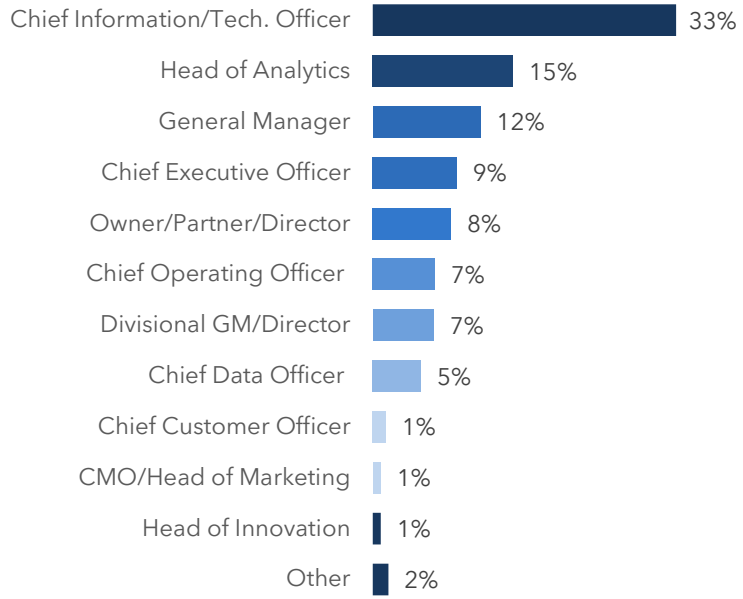
SAMPLE PROFILE

The sample is based on roles with significant influence over the AI strategy of organisations with at least 20 employees. The sample covers a range of organisation sizes and locations, with a mix of AI usage. All organisations were either using AI or planning to implement AI in the next 12 months.

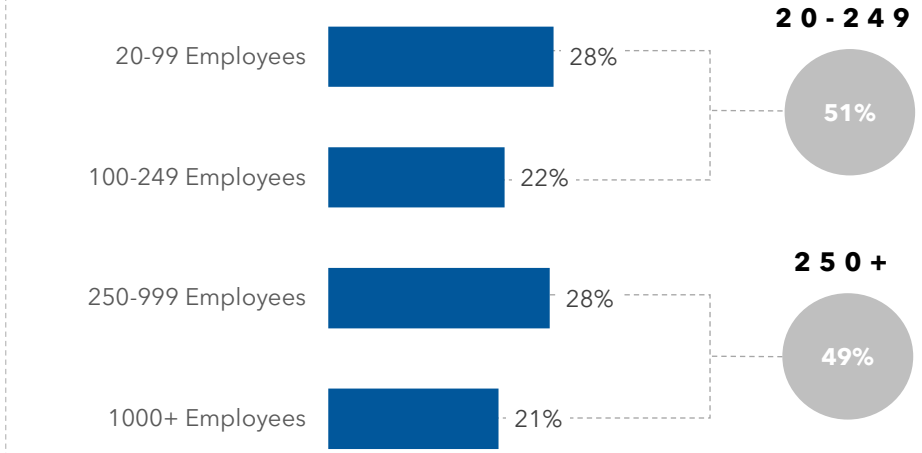
USE OF AI



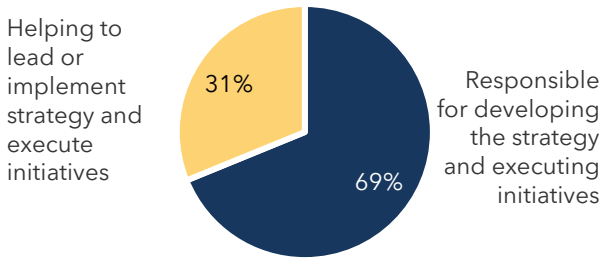
JOB TITLE



BUSINESS SIZE

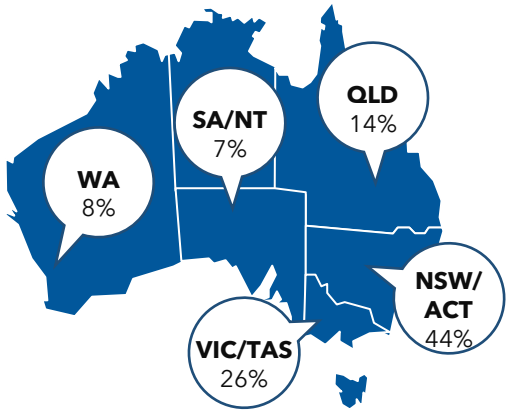


LEVEL OF INVOLVEMENT



GENDER

BUSINESS LOCATION



Base: Total respondents (n=439)
S1. Which of the following statements best describes your organisation's use of AI?
S2. Which of the following best describes your level of involvement in decisions around the use and implementation of artificial intelligence within your company?
S3. What is your role in the organisation?
S4. How many full-time employees does your company employ in Australia?
S5. Where is your company's Australian head office located?
S8. Are you ...?

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INTRODUCING THE RESPONSIBLE AI INDEX

To understand how organisations are using and developing AI in a responsible manner, a maturity model was created based on how respondents rated their organisation across a battery of statements about responsible AI and actions taken to implement AI in a responsible way, combined to provide a total score out of 100.

MATURITY MODEL

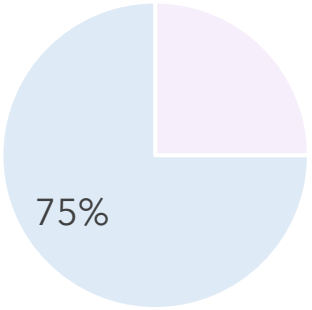
The maturity model is built on:

1. Self-assessed performance on 16 statements about Responsible AI across five categories:
    i. Strategy & Leadership
    ii. Governance
    iii. People & Skills
    iv. Data & Security
    v. Monitoring & Review

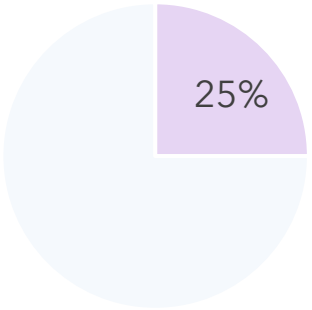
2. A tally of the number of actions taken to implement AI responsibly from a total list of 13 actions

MODEL WEIGHTING

Weighted to account for ¾ of the model:

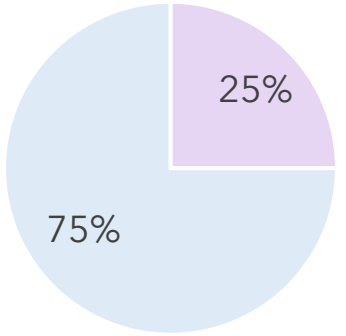


Weighted to account for ¼ of the model:



MODEL SCORE

Combined to provide a final score out of 100:



THE RESPONSIBLE AI MATURITY ASSESSMENT FRAMEWORK: PERFORMANCE ASSESSMENT

The performance assessment component of the model is based on a self-assessed rating of performance (score 0-10) on the following categories:

STRATEGY & LEADERSHIP

- Having a leadership team that is clearly accountable for the impact of AI systems
- Having a leadership team that is demonstrably committed to the responsible use of AI
- Having a strategy in place for the responsible use of AI which stays up to date with emerging best practice and international frameworks, and is reviewed on an ongoing basis
- Having formal organisational routines (for example rewards, recognition, etc.) to incentivise responsible use of AI

GOVERNANCE

- Having appropriate mechanisms in place to allow individuals materially impacted by an AI-driven decision to understand and/or challenge that decision
- Scrutinising the systems and processes used by potential AI suppliers to ensure they are designed to not harm, deceive or cause unfair treatment of individuals, communities or groups
- Having robust processes to ensure all AI systems are compliant with relevant regulation and laws
- Having an ethical (or equivalent risks) framework in place to ensure AI-systems are formally assessed consistently against clear standards that account for its impacts on individuals, communities and groups

DATA & SECURITY

- Having robust systems and processes in place to ensure personal information used or created by AI systems is appropriately protected
- Reviewing underlying databases for potential bias to help ensure AI systems do not result in unfair treatment of or discrimination against individuals, communities or groups
- Having documented policies and processes in place to quickly respond to and resolve any adverse customer outcomes caused by the unauthorised use of AI systems

PEOPLE & SKILLS

- Including both technical and non-technical consultants or professionals (e.g. social scientists, psychologists, ethicists, legal experts) as well as customer representatives to review AI systems for the potential for harmful outcomes to customers
- Hiring/engaging a diverse (different cultures, genders, etc.) workforce to consider broader perspectives and consideration of risks into the development process
- Ensuring AI system designers and developers are appropriately skilled and knowledgeable about the ethical implications of their work, including risks of discrimination and bias and techniques to address these

MONITORING & REVIEW

- Routinely monitoring AI systems using clear metrics designed to trigger suitable corrective or remediation action when AI systems are not working as intended, for example monitoring of bias and the accuracy of decisions
- Where decisions have a material impact on individuals, communities or groups conducting a regular, independent peer review of all aspects of AI-systems and their impact

Q3. Using a scale of 0 to 10, where 0 is an Extremely poor performance and 10 is an Excellent performance, how would you rate your organisation's performance in the following areas regarding the use of AI?

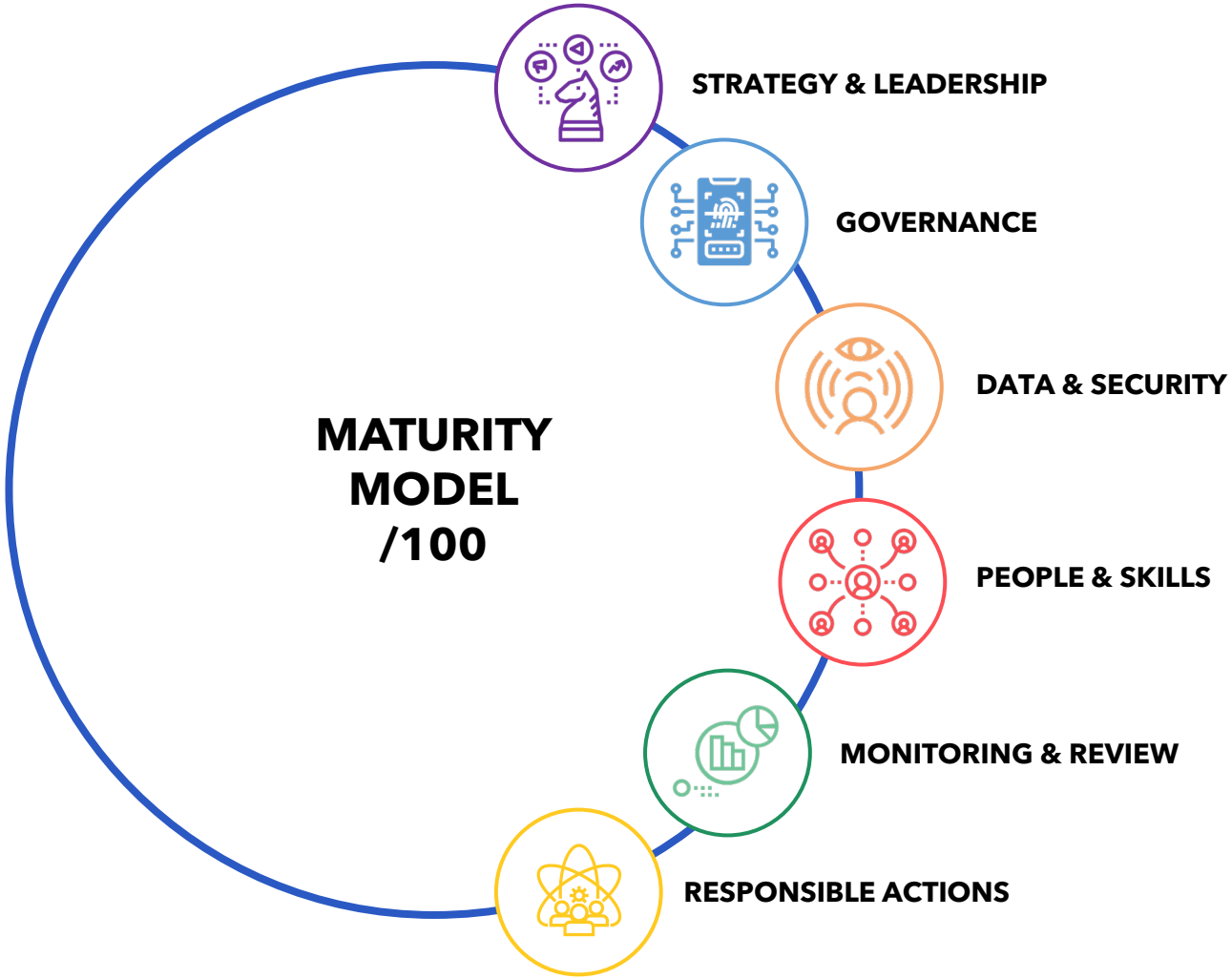
THE RESPONSIBLE AI MATURITY ASSESSMENT FRAMEWORK: PERFORMANCE ASSESSMENT

The behavioural component of the model is based on the number of actions taken by the organisation out of the 13 possible options below. This component corrects any over-rating by respondents of their self-assessed performance:

Q21. Has your organisation done any of the following as part of its approach to the deployment of AI?

BUILDING THE MATURITY MODEL

While the first five dimensions were given equal weight to each other in the model to represent the attitudinal component, the sixth behavioural dimension is weighted to be ¼ of the total score to reflect the importance of actions according with self-reported behaviours. After calculation, the total score was rebased to 100.

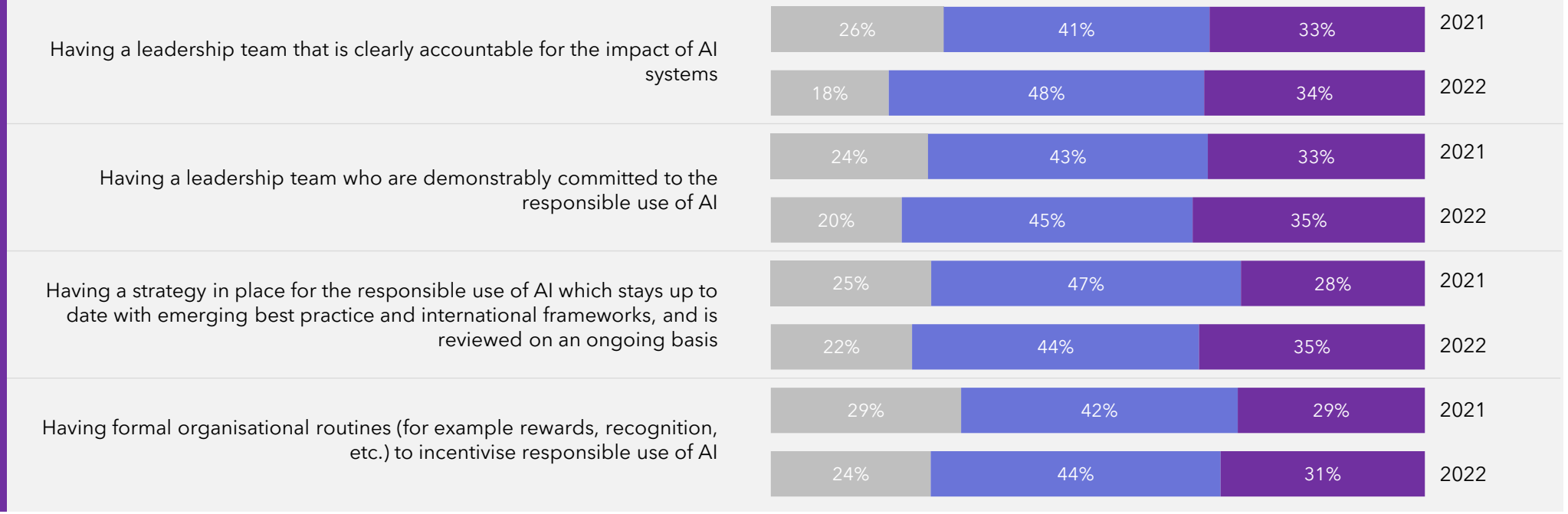


THE RESPONSIBLE AI MATURITY ASSESSMENT FRAMEWORK: PERFORMANCE ASSESSMENT

Respondents rated their organisation's performance from 0-10 on the Strategy & Leadership dimensions through individual statements, with results in 2022 showing a similar distribution of scores across each attribute, with top 2 box scores typically higher than those in 2021.

% of respondents who rated themselves (0-6) / **(7-8)** / **(9-10)** *in each area*

STRATEGY & LEADERSHIP



The most notable uplift in performance is in having a regularly reviewed strategy in place for the responsible use of AI.

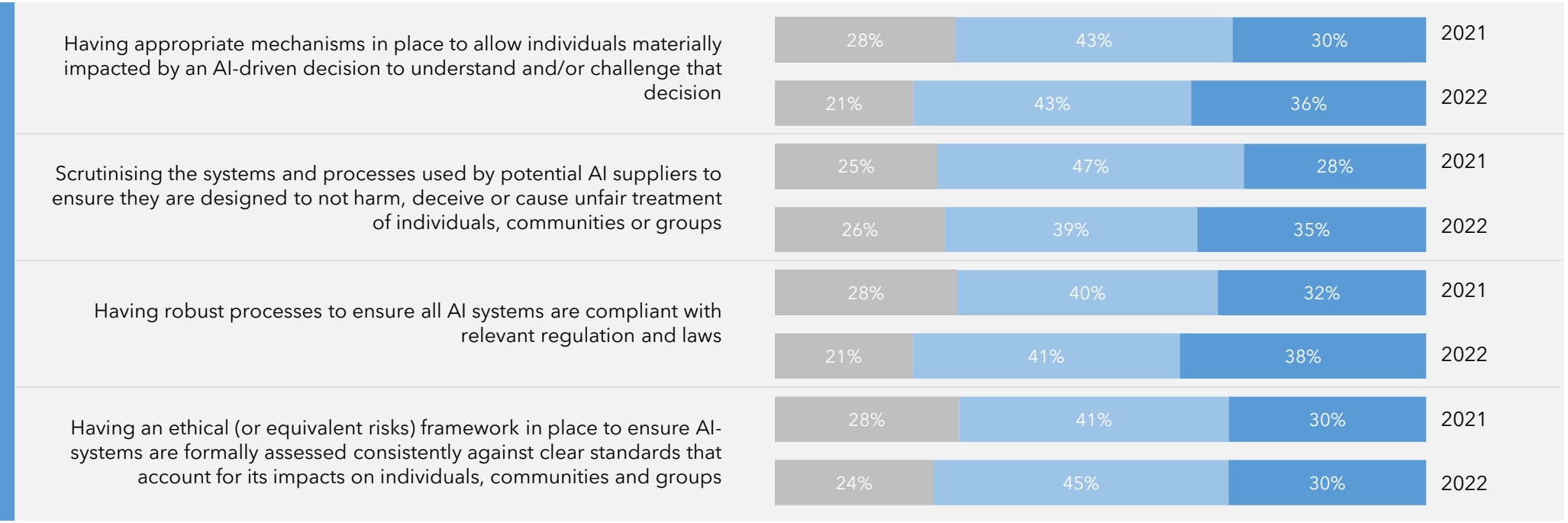
Base: 2021: Total respondents (n=416)
2022: Total respondents (n=439)
Q3. Using a scale of 0 to 10, where 0 is an Extremely poor performance and 10 is an Excellent performance, how would you rate your organisation's performance in the following areas regarding the use of AI?

THE RESPONSIBLE AI MATURITY ASSESSMENT FRAMEWORK: PERFORMANCE ASSESSMENT

Respondents also rated their organisation's performance on Governance dimensions, showing similar distributions across statements in 2022, again typically higher than 2021 results, except having an ethical framework in place.

% of respondents who rated themselves (0-6) / (7-8) / (9-10) in each area

GOVERNANCE



The most notable uplift in performance is in scrutinising the systems provided by AI vendors to ensure they do not cause harm or unfair treatment.

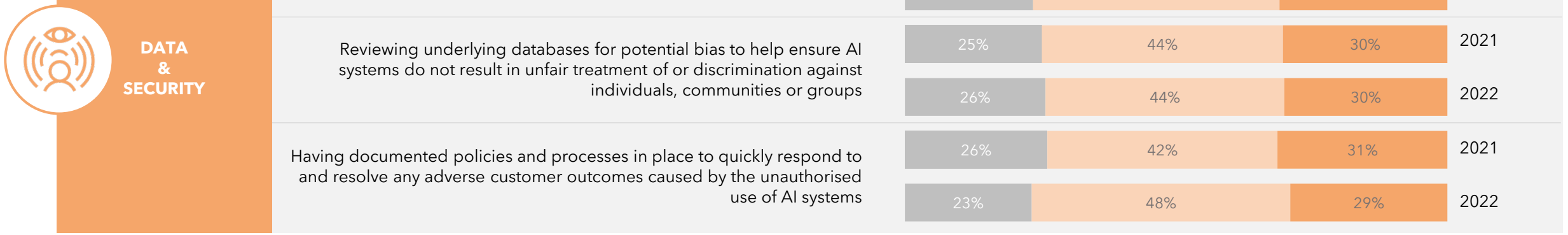
Base: 2021: Total respondents (n=416)
2022: Total respondents (n=439)
Q3. Using a scale of 0 to 10, where 0 is an Extremely poor performance and 10 is an Excellent performance, how would you rate your organisation's performance in the following areas regarding the use of AI?

THE RESPONSIBLE AI MATURITY ASSESSMENT FRAMEWORK: PERFORMANCE ASSESSMENT

Respondents rated organisational performance on the Data & Security dimensions in 2022 similar to 2021 results.

% of respondents who rated themselves (0-6) / (7-8) / (9-10) in each area

DATA & SECURITY



Given recent high profile data breaches, it is concerning that around a quarter of organisations give themselves a relatively low score, below seven out of ten, on criteria relating to data and security.

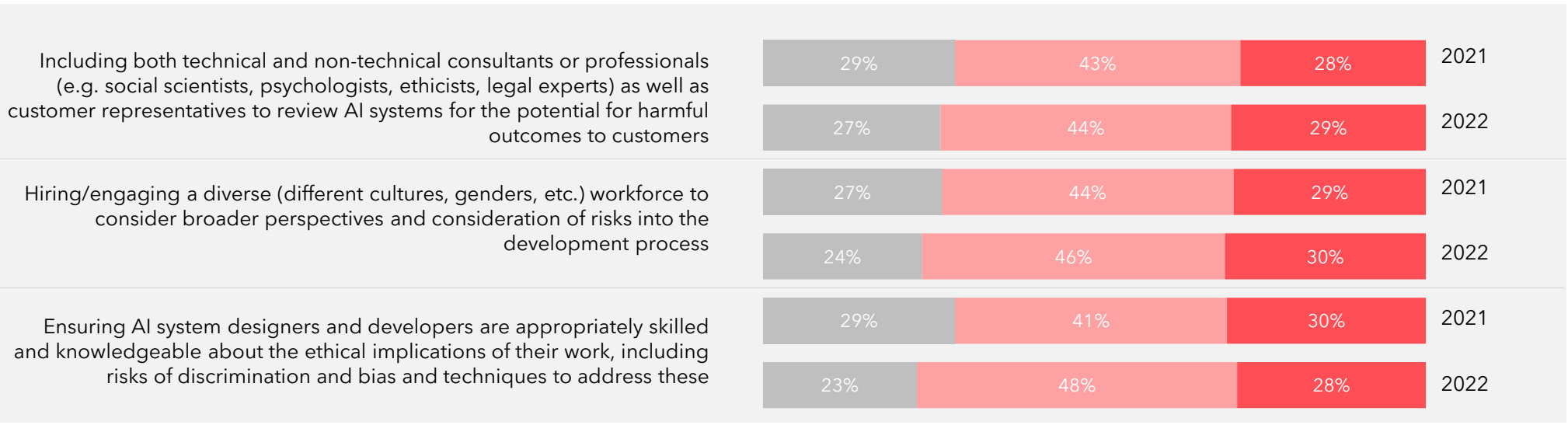
Base: 2021: Total respondents (n=416)
2022: Total respondents (n=439)
Q3. Using a scale of 0 to 10, where 0 is an Extremely poor performance and 10 is an Excellent performance, how would you rate your organisation's performance in the following areas regarding the use of AI?

THE RESPONSIBLE AI MATURITY ASSESSMENT FRAMEWORK: PERFORMANCE ASSESSMENT

Respondents rated organisational performance on the Data & Security dimensions similar to 2021.

% of respondents who rated themselves (0-6) / (7-8) / (9-10) in each area

PEOPLE & SKILLS



This relatively stagnant performance on people and skills may reflect the challenging labour market conditions during the COVID-19 pandemic with restrictions in place on the hire of international talent.

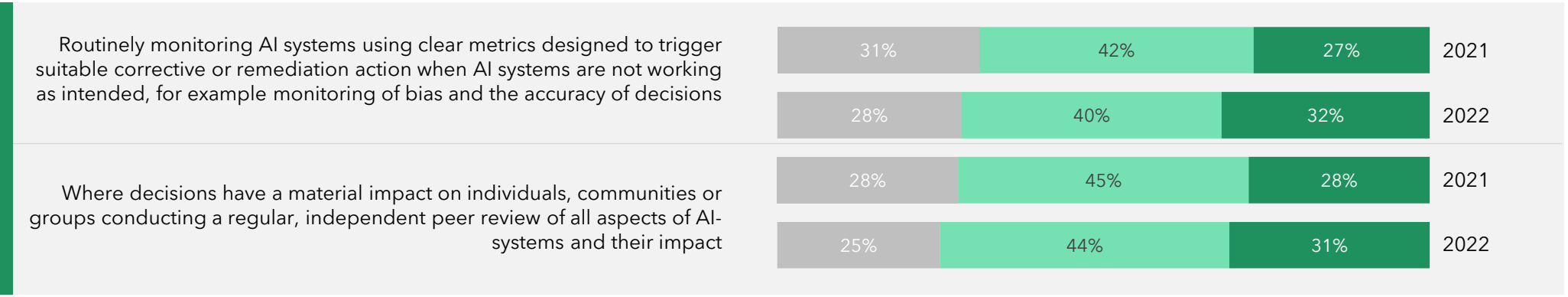
Base: 2021: Total respondents (n=416)
2022: Total respondents (n=439)
Q3. Using a scale of 0 to 10, where 0 is an Extremely poor performance and 10 is an Excellent performance, how would you rate your organisation's performance in the following areas regarding the use of AI?

THE RESPONSIBLE AI MATURITY ASSESSMENT FRAMEWORK: PERFORMANCE ASSESSMENT

Monitoring & Review dimensions showing positive improvement in scores compared with 2021.

MONITORING & REVIEW

*% of respondents who rated themselves (0-6) / (7-8) / **(9-10)** in each area*



The most notable uplift in performance is in routinely monitoring AI systems using metrics to trigger remedial action when systems are not working as intended.

Base: 2021: Total respondents (n=416)
2022: Total respondents (n=439)
Q3. Using a scale of 0 to 10, where 0 is an Extremely poor performance and 10 is an Excellent performance, how would you rate your organisation's performance in the following areas regarding the use of AI?

THE RESPONSIBLE AI MATURITY ASSESSMENT FRAMEWORK: ACTIONS TAKEN

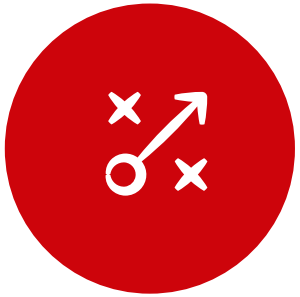
The behavioural component of the maturity model takes into account a range of practices that can be taken to support the responsible deployment of AI. Concerningly, fewer organisations are employing these practices in 2022, when compared to 2021 results.

This may indicate an appreciation of the challenges involved when developing AI responsibly and points to a need for resources to guide organisations towards frameworks and tools which can help them deploy AI systems responsibly.

Base: 2021: Total respondents (n=416)
2022: Total respondents (n=439)
Q21. Has your organisation done any of the following as part of its approach to the deployment of AI?

RESPONSIBLE AI MATURITY SEGMENTS

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

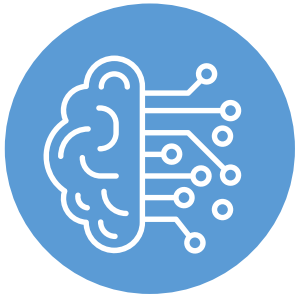


Planning

- Early stage of AI deployment
- Focused on quickly reaping commercial benefits of AI automation without pausing to factor in ethical implications

Initiating

- Lack confidence to deploy AI
- Lack of knowledge about Responsible AI
- Lack leadership support



Maturing

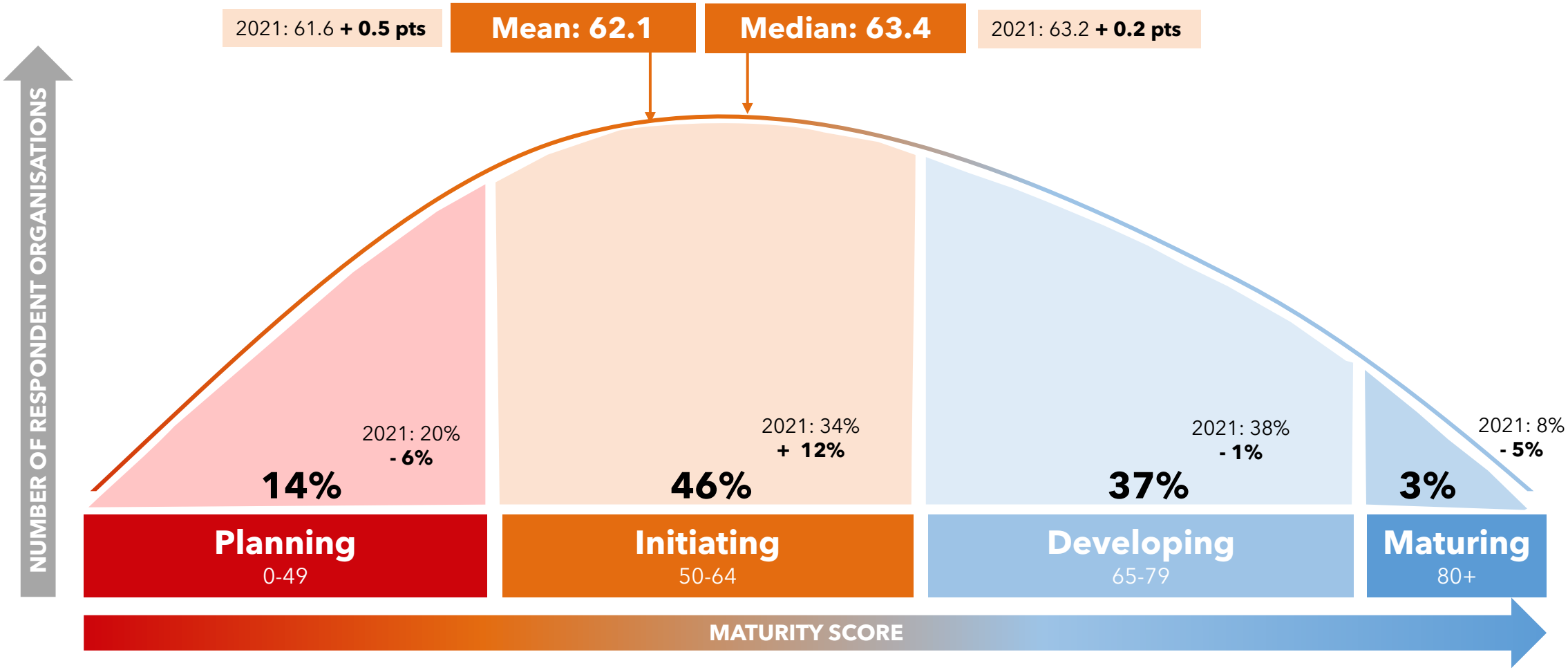
- Implemented auditing processes for AI
- Strong focus on the moral and ethical implications of using AI technologies
- Uses external specialists and advisors

Developing

- Developed guidelines for responsible use of AI
- Strong culture of data protection and security

RESPONSIBLE AI MATURITY INDEX

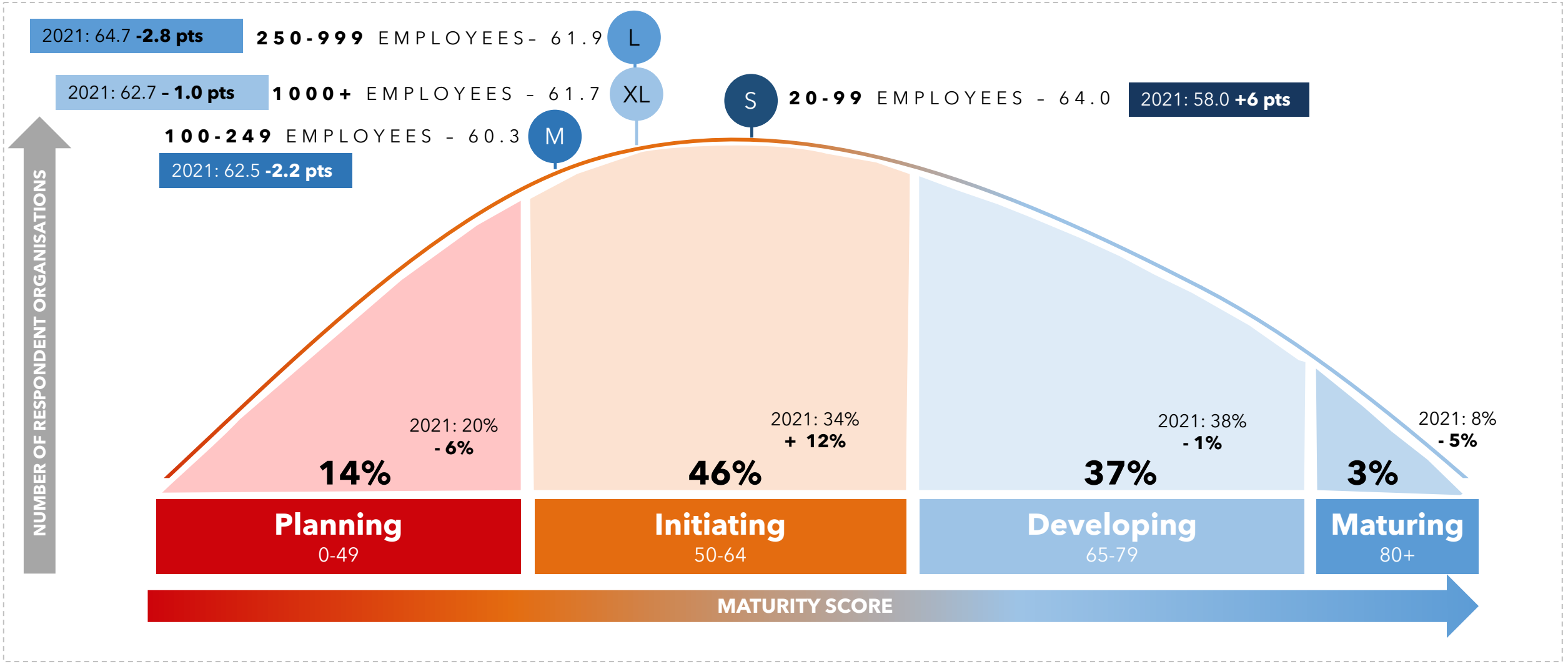
Most organisations sit within the Initiating and Developing groups. In 2022, the strongest shift is from Planning to Initiating, and there is a decline in the size of the Maturing group.



Base: All respondents (n=439), Planning (n=51), Initiating (n=193), Developing (n=180), Maturing (n=15)

RESPONSIBLE AI MATURITY INDEX BY BUSINESS SIZE

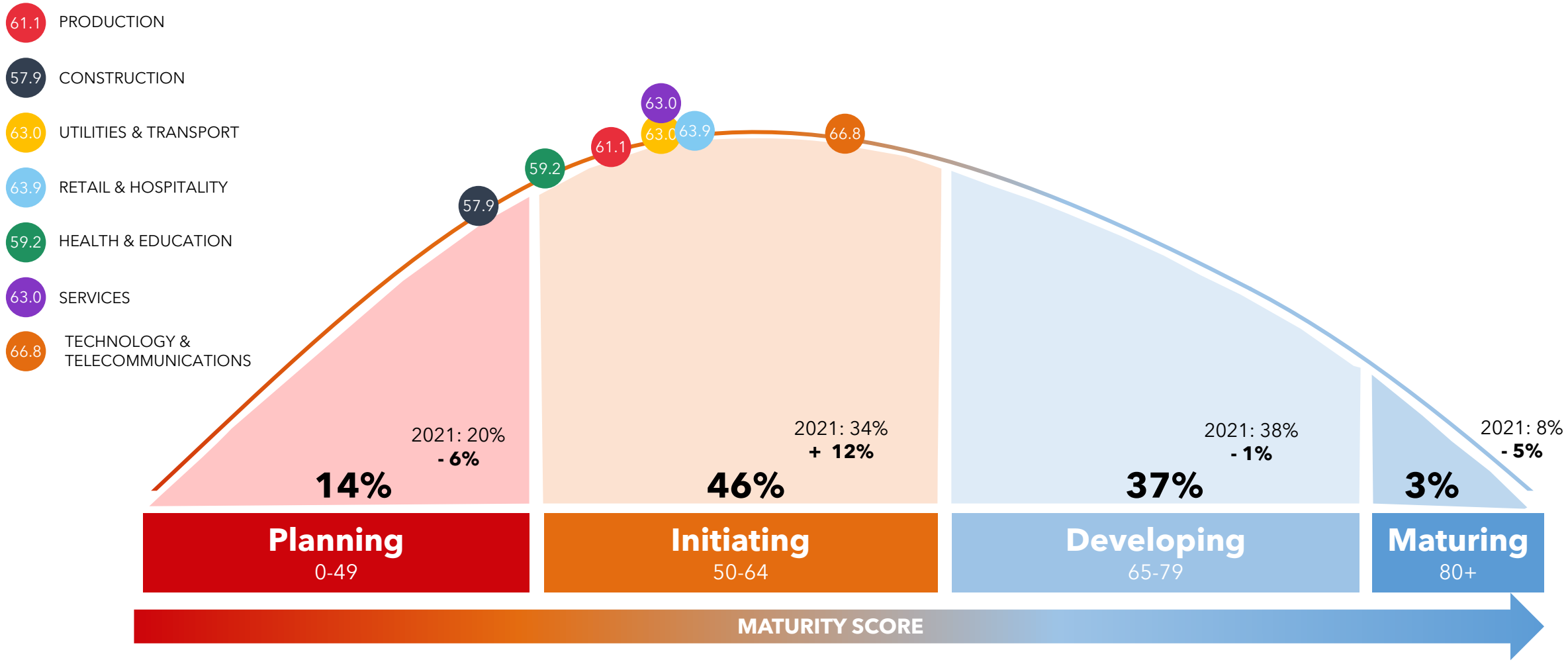
As with 2021, business size is not a strong indicator of maturity. Smaller companies are taking a more mature approach to Responsible AI, now with the highest maturity score overall.



Base: All respondents (n=439), Planning (n=51), Initiating (n=193), Developing (n=180), Maturing (n=15)

RESPONSIBLE AI MATURITY INDEX BY INDUSTRY

The Technology & Telecommunications industry shows a higher level of maturity compared to other industries, whilst Construction companies are the least mature, showing a higher likelihood to be planning their approach to Responsible AI, rather than initiating.

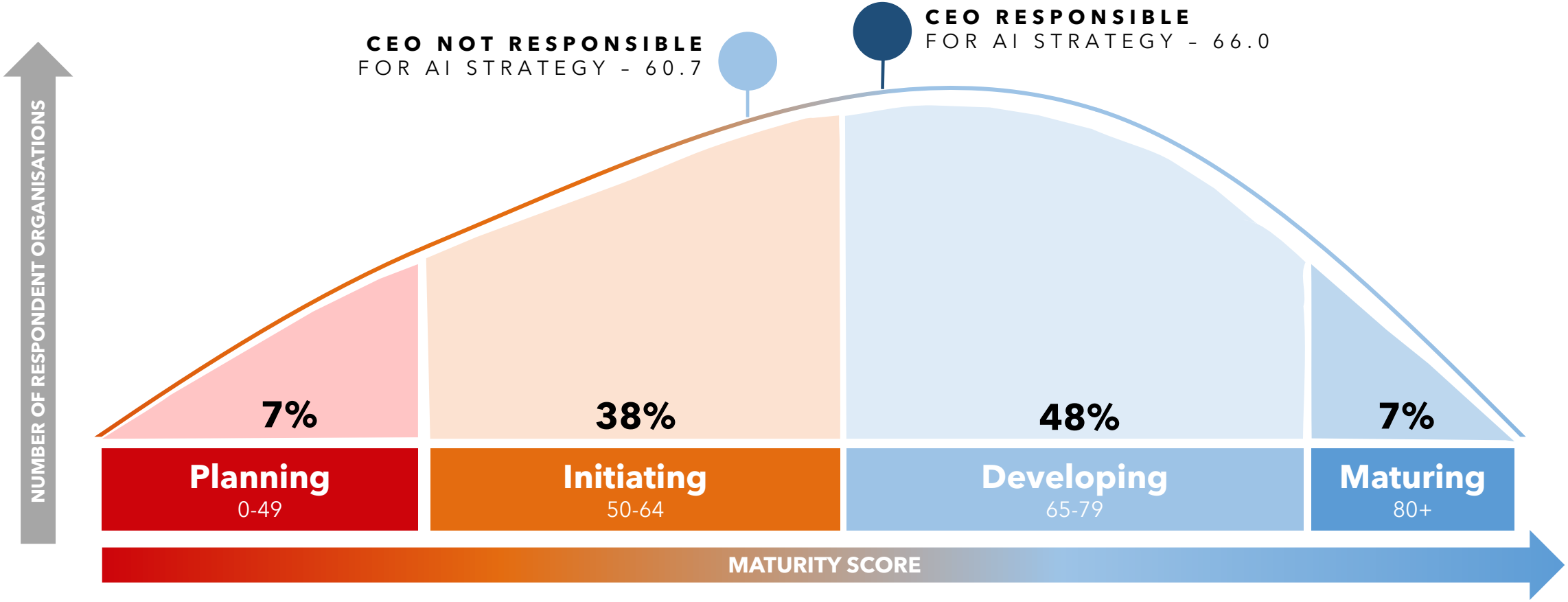


Base: All respondents (n=439), Planning (n=51), Initiating (n=193), Developing (n=180), Maturing (n=15)

Note: The RAI Index by industry groups are not tracked against 2021 as the industry groupings for 2022 are different.

RESPONSIBLE AI MATURITY INDEX BY CEO INVOLVEMENT

Organisations where the CEO is responsible for driving the AI strategy are more mature than those where the CEO is not taking the lead. More of these organisations are in the Developing and Maturing phase, compared to organisations overall, therefore showing a higher likelihood to be already deploying and using AI.



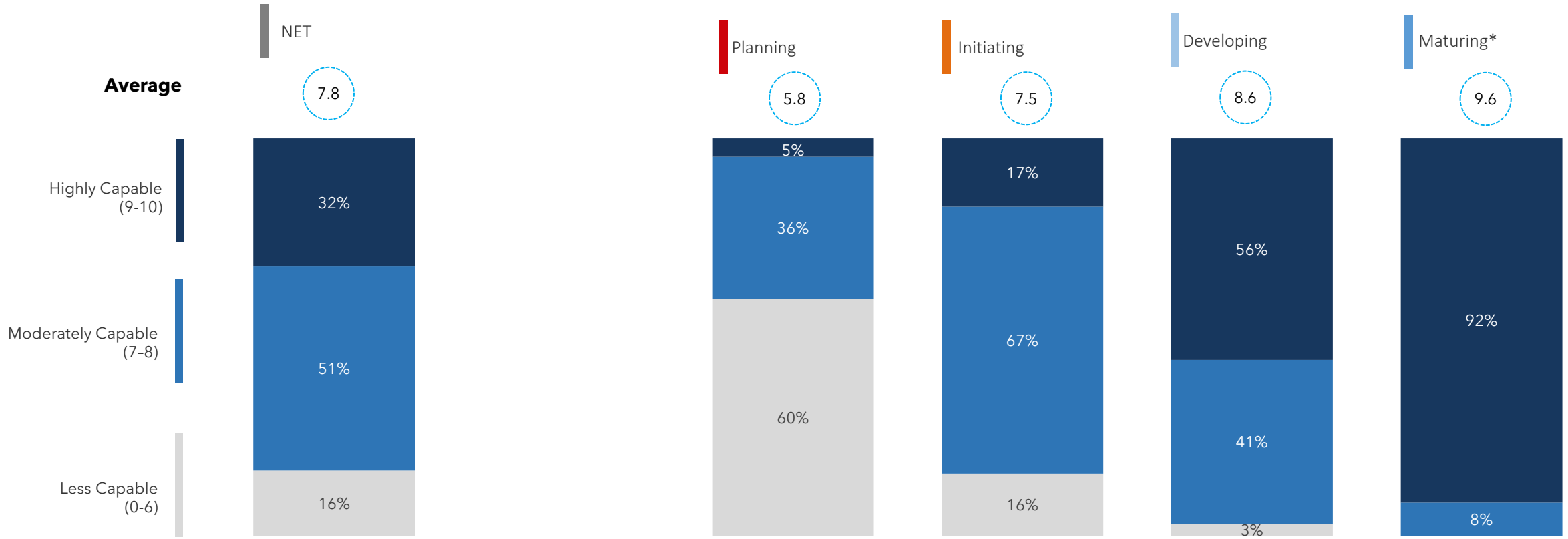
Organisations that have the CEO leading the AI strategy are more likely to invest in developing their culture and governance processes so as to elevate RAI practices to a level of standard routine.

Base: CEO responsible for AI strategy (n=126), Planning (n=7), Initiating (n=47), Developing (n=65), Maturing (n=7)

CURRENT CAPABILITY TO BUILD RESPONSIBLE AI

The Developing and Mature segments highly rate their ability to design and build a responsible AI system.

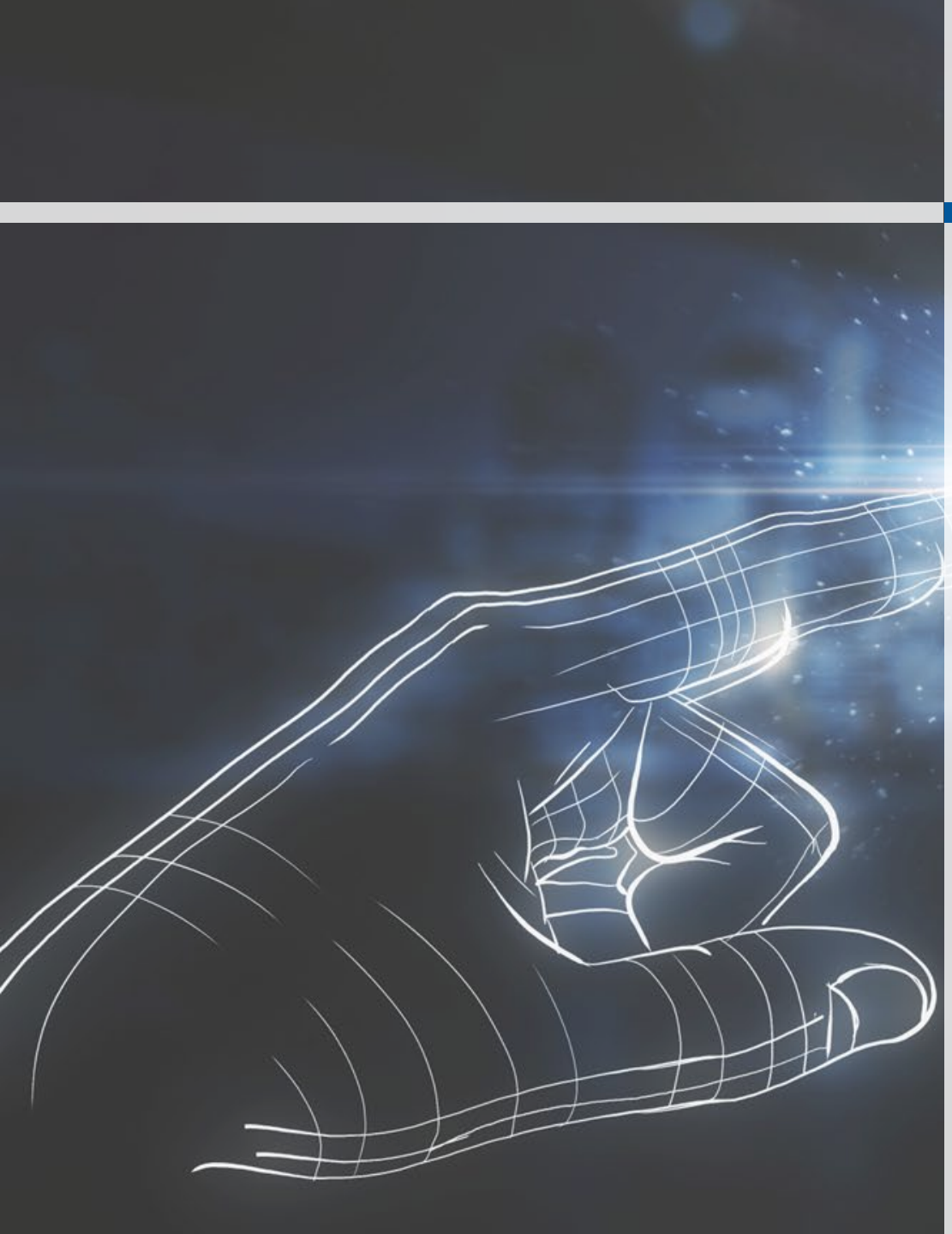
Organisations' Capability to Design and Build Responsible AI



Australian organisations that are Planning to deploy AI recognise there are gaps in their capabilities to do this ethically and responsibly, whilst those Initiating are less unsure, but are still not completely confident. Those in the Developing and Maturing segments show more confidence in their capabilities.

Base: All respondents (n=439), Planning (n=51), Initiating (n=193), Developing (n=180), Maturing (n=15)
Q24. Overall, on a scale of 0 to 10, how do you rate your organisation's current capability to design and build a responsible AI system?

*Note: Caution, low base size, results are indicative only



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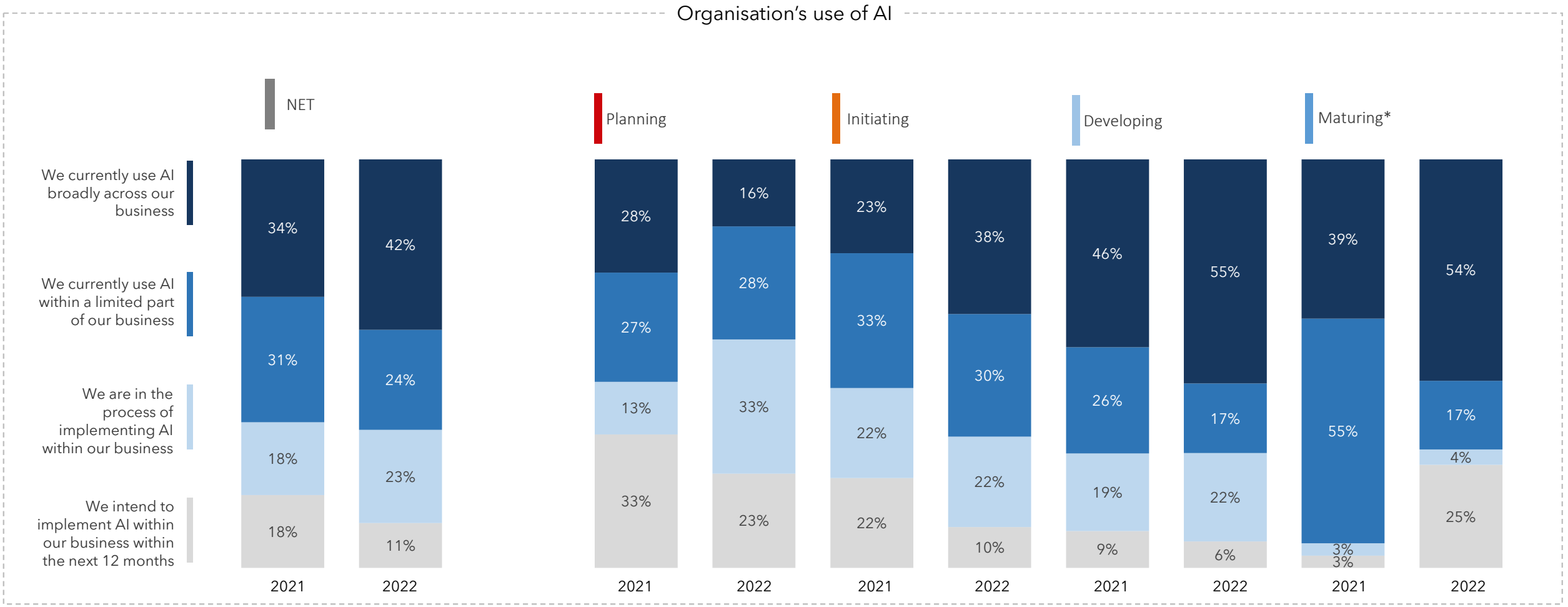
USE OF AI

Overall use of AI in organisations is in line with 2021, but its now less limited to parts of the business, with more organisations using it broadly. This is especially true amongst the Developing cohort.



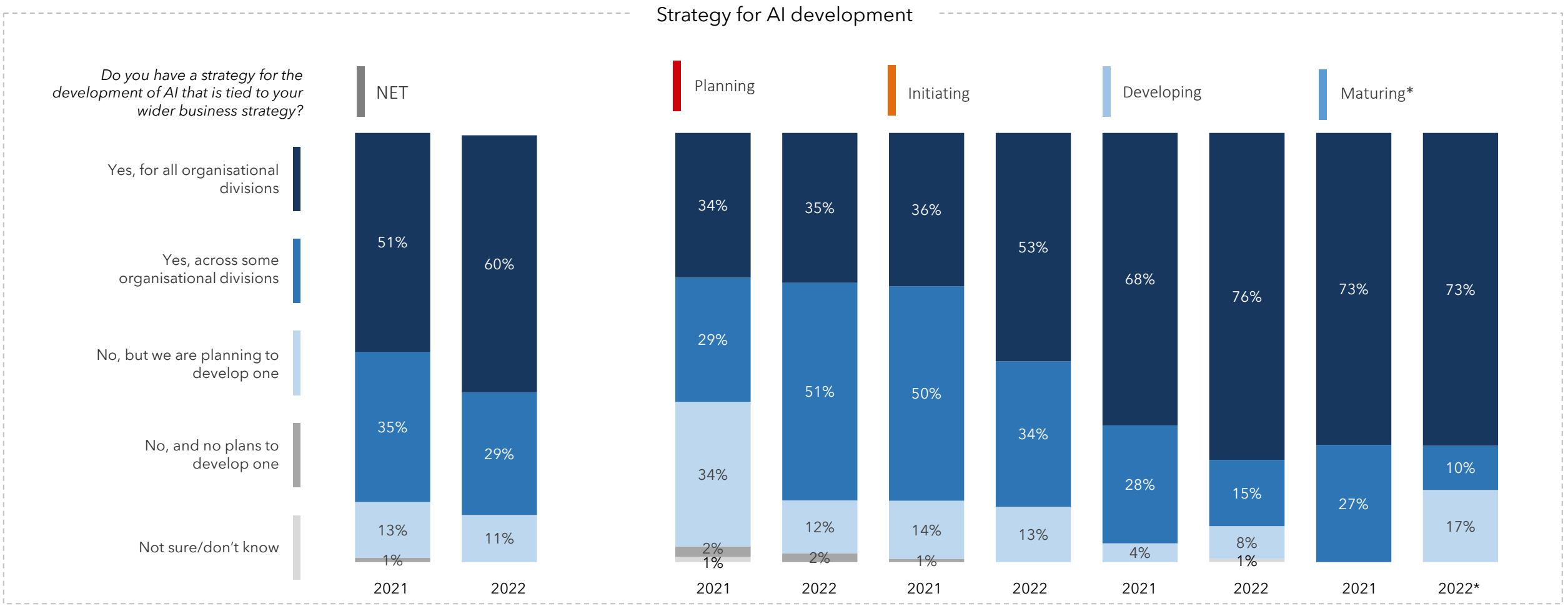
The Initiating cohort is becoming more confident in its ability to deploy AI responsibly before the technology becomes more widely deployed across the business.

Base: 2021: All respondents (n=416), Planning (n=83), Initiating (n=140), Developing (n=160), Maturing (n=33)
2022: All respondents (n=439), Planning (n=51), Initiating (n=193), Developing (n=180), Maturing (n=15)
S1. Which of the following statements best describes your organisation's use of AI?

*Note: Caution, low base size, results are indicative only

ORGANISATIONAL STRATEGY FOR AI

6 out of 10 organisations now have an enterprise-wide AI strategy, with the Planning cohort shifting from recognition of need to developing AI strategies for specific business functions, whilst the Initiating cohort is now taking a more holistic business-wide view.



The Initiating cohort need to continue the transition from opportunistic and tactical AI decision-making to a more strategic orientation.

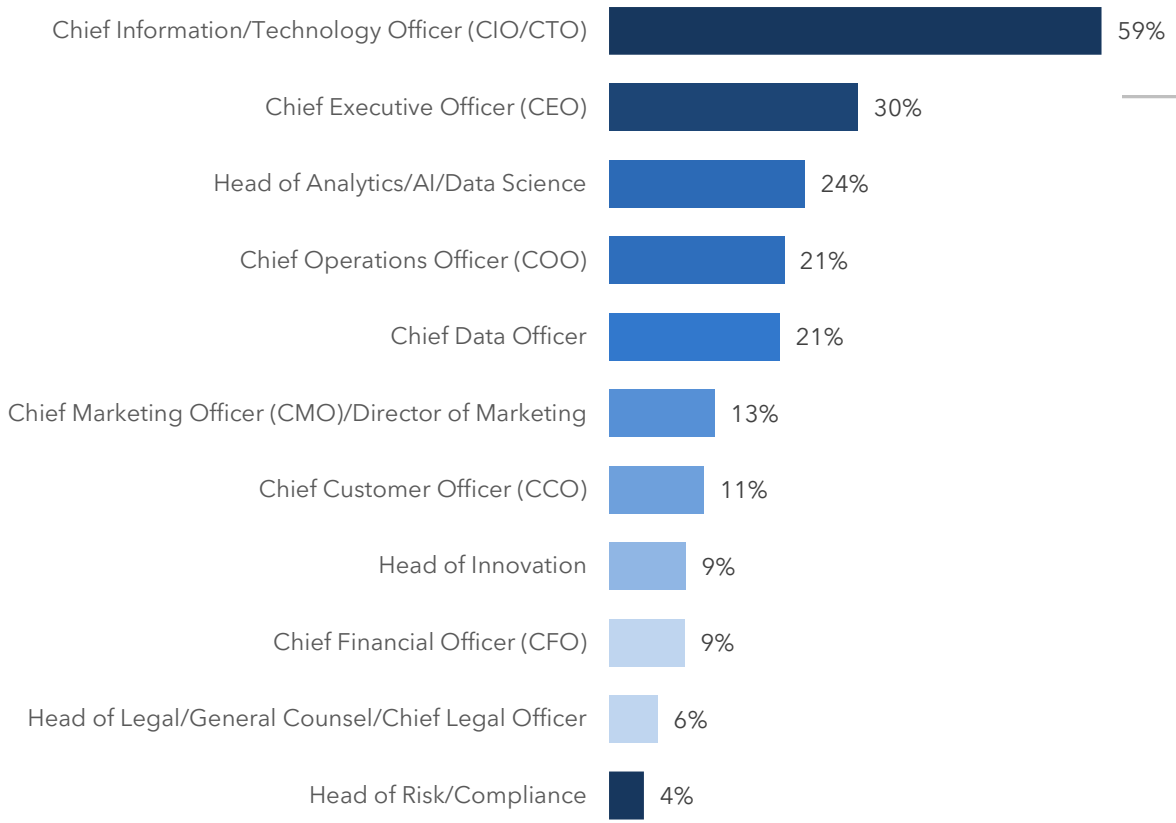
Base: 2021: All respondents (n=416), Planning (n=83), Initiating (n=140), Developing (n=160), Maturing (n=33);
2022: All respondents (n=439), Planning (n=51), Initiating (n=193), Developing (n=180), Maturing (n=15)
Q1. Thinking about your organisation's strategies, do you have a strategy for the development of AI (Artificial Intelligence) that is tied to your wider business strategy that covers all organisational divisions?

*Note: Caution, low base size, results are indicative only

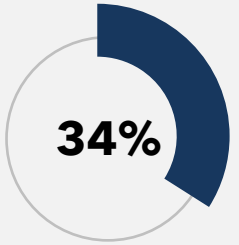
KEY ROLES FOR DRIVING AI STRATEGY

Chief Information Officers remain the key figure in an organisation responsible for driving the AI strategy, but businesses with their CEO driving the AI strategy are much more likely to have an enterprise-wide AI strategy and as indicated previously, score higher on the RAI Index.

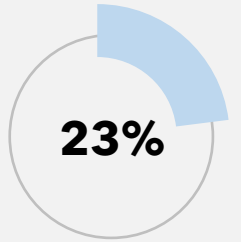
Who in your organisation is responsible for driving the organisation's AI strategy?



Organisations that have an enterprise-wide AI strategy tend to have a CEO personally invested in driving AI strategy



of organisations that have **AI strategy tied to all divisions** say their **CEO drives AI strategy**



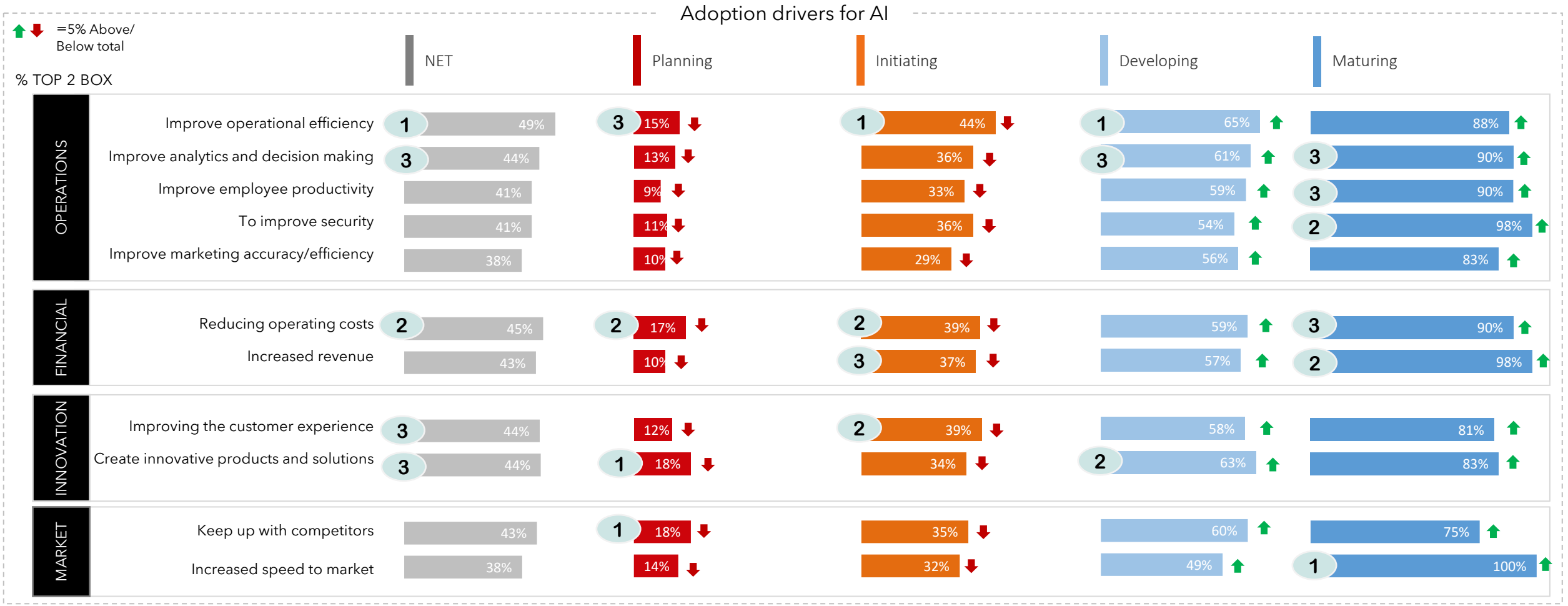
of organisations that have **AI strategy tied to some divisions** say their **CEO drives AI strategy**

Having a CEO driving AI strategy ensures accountability and a more strategic AI orientation across the business.

Base: Respondents that have a strategy for developing AI (n=398)
Q2. Who in your organisation is responsible for driving the organisation's AI strategy? Select all that apply.
Q1.Thinking about your organisation's strategies, do you have a strategy for the development of AI (Artificial Intelligence) that is tied to your wider business strategy that covers all organisational divisions?

KEY ADOPTION DRIVERS FOR AI

Organisations are investing in AI in order to improve operational efficiency and reduce costs, with the more mature groups seeking to improve multiple facets of their whole business, including increased security.



The AI use cases for the less mature segments may be more limited, though they may also not fully understand the full benefits of AI to their business.

Base: All respondents (n=439), Planning (n=51), Initiating (n=193), Developing (n=180), Maturing (n=15)
Q5. How important are the following factors in the decision to deploy AI in your organisation? TOP 2 BOX

*Note: Caution, low base size, results are indicative only

OUTCOMES OF AI

Organisations are discovering multiple benefits of AI, especially in improving security, enabling product and service innovation to help them keep pace with their competitors.

The achievement of security outcomes is important in the context of recent data breaches. However, those in the planning stage do not see this as an outcome for the business which reflects their inexperience. This group may benefit from case studies about how a responsible approach to AI can improve data security and privacy.

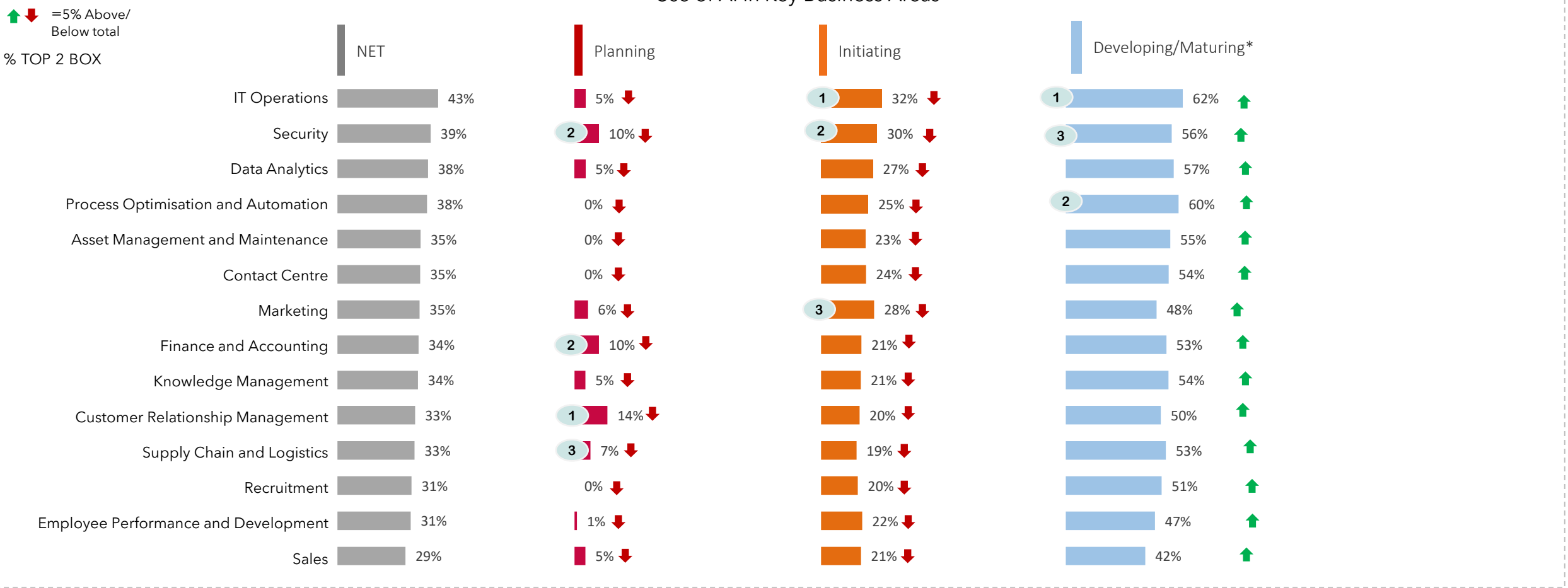
Base: Current AI users (n=282), Planning (n=23), Initiating (n=126), Developing (n=123), Maturing (n=10)
Q6. To what extent has AI has enabled your organisation to achieve the following outcomes? TOP 2 BOX

*Note: Developing and Maturing segment combined as base size for Maturing segment was too small

USE OF AI ACROSS BUSINESS AREAS

AI is most commonly used in IT, security and analytics; with both Developing and Maturing segments significantly more likely to be using AI to support all areas of their organisation than less mature groups.

Use of AI in Key Business Areas



The main applications for in AI are in business functions which have processes that can be easily automated and scaled, such as analytics. AI is used less frequently in other areas which require more human interactions, such as CRM, HR and sales.

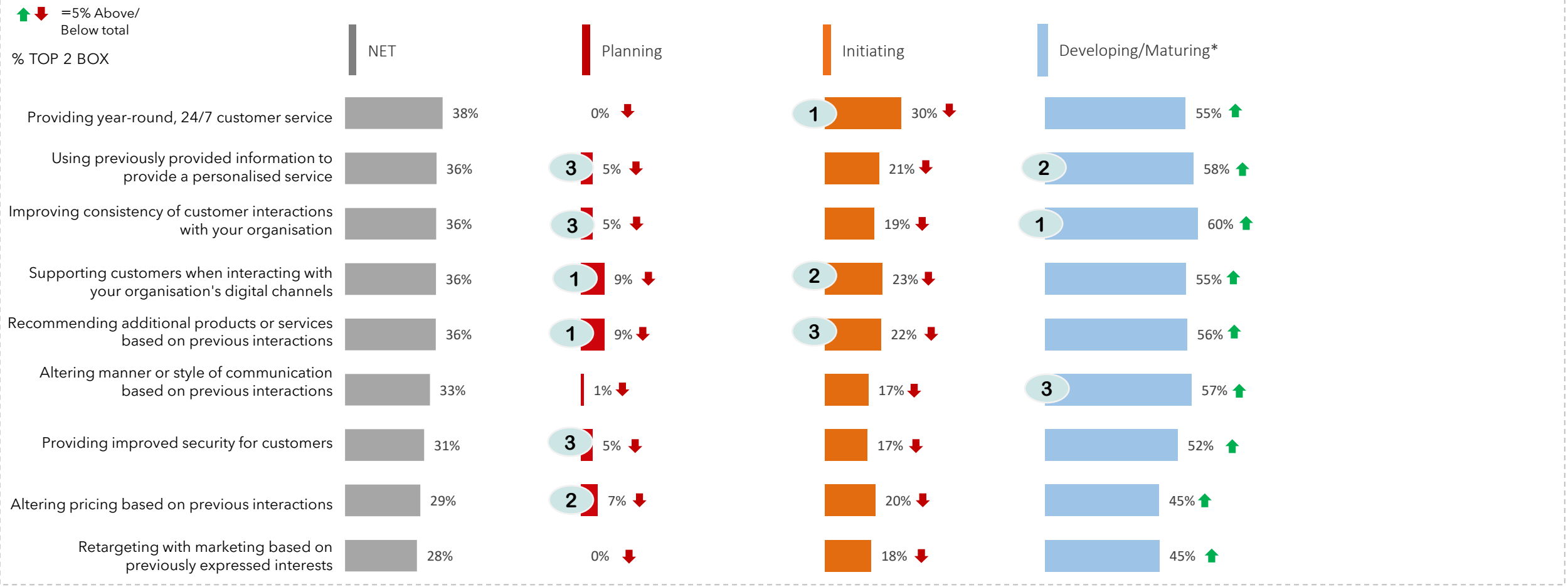
Base: Current AI Users (n=282), Planning (n=23), Initiating (n=126), Developing (n=123), Maturing (n=10)
Q7. To what extent are you using AI across the following areas of your organisation? TOP 2 BOXhave

*Note: Developing and Maturing segment combined as base size for Maturing segment was too small

AI USE CASES FOR CUSTOMERS

Organisations are looking to deploy AI to provide year-round, 24/7 service to customers; less mature groups are limiting AI use across customer touchpoints, focusing more on supporting customers interactions with digital channels.

Use of AI for Customers



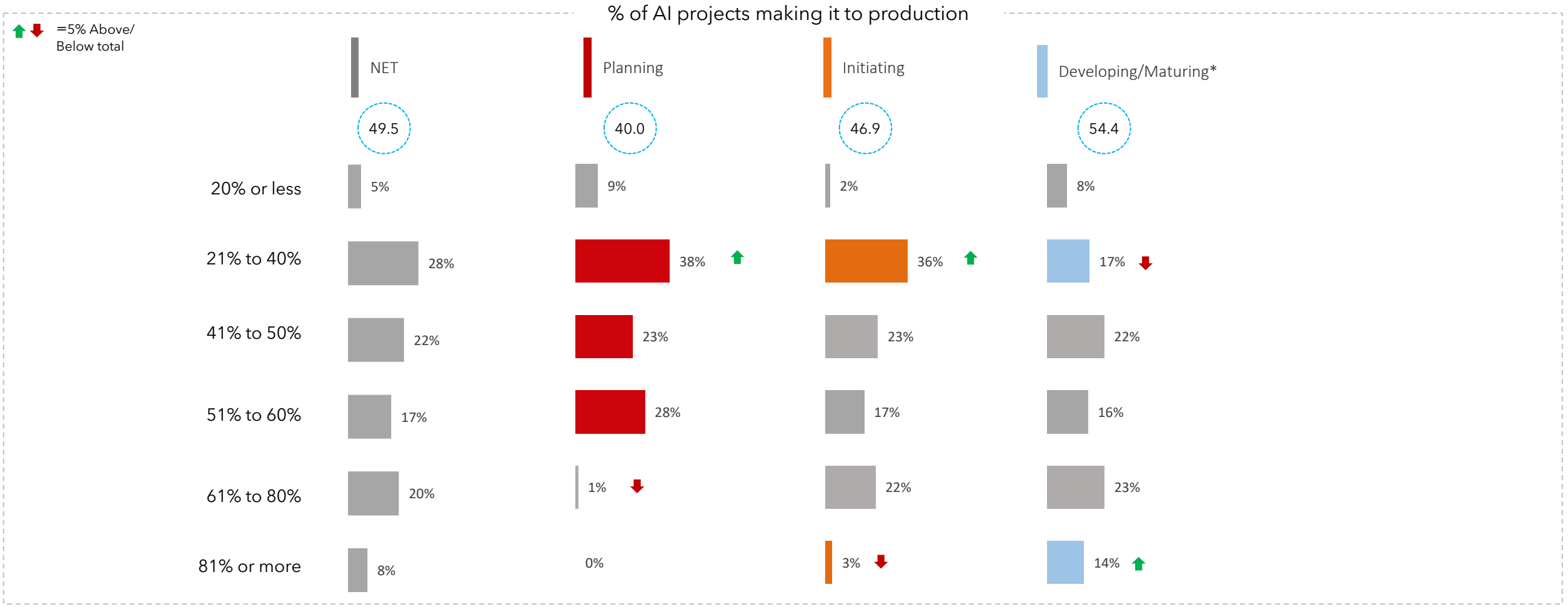
The less mature groups see fewer opportunities to use AI to engage with customers.

Base: Current AI Users (n=282), Planning (n=23), Initiating (n=126), Developing (n=123), Maturing (n=10)
Q8. To what extent is your organisation using AI to do the following for your customers? TOP 2 BOX

*Note: Developing and Maturing segment combined as base size for Maturing segment was too small

AI PROJECTS MAKING IT TO PRODUCTION

Around half of AI projects succeed and make it into production, with success rates typically improving as an organisation matures.



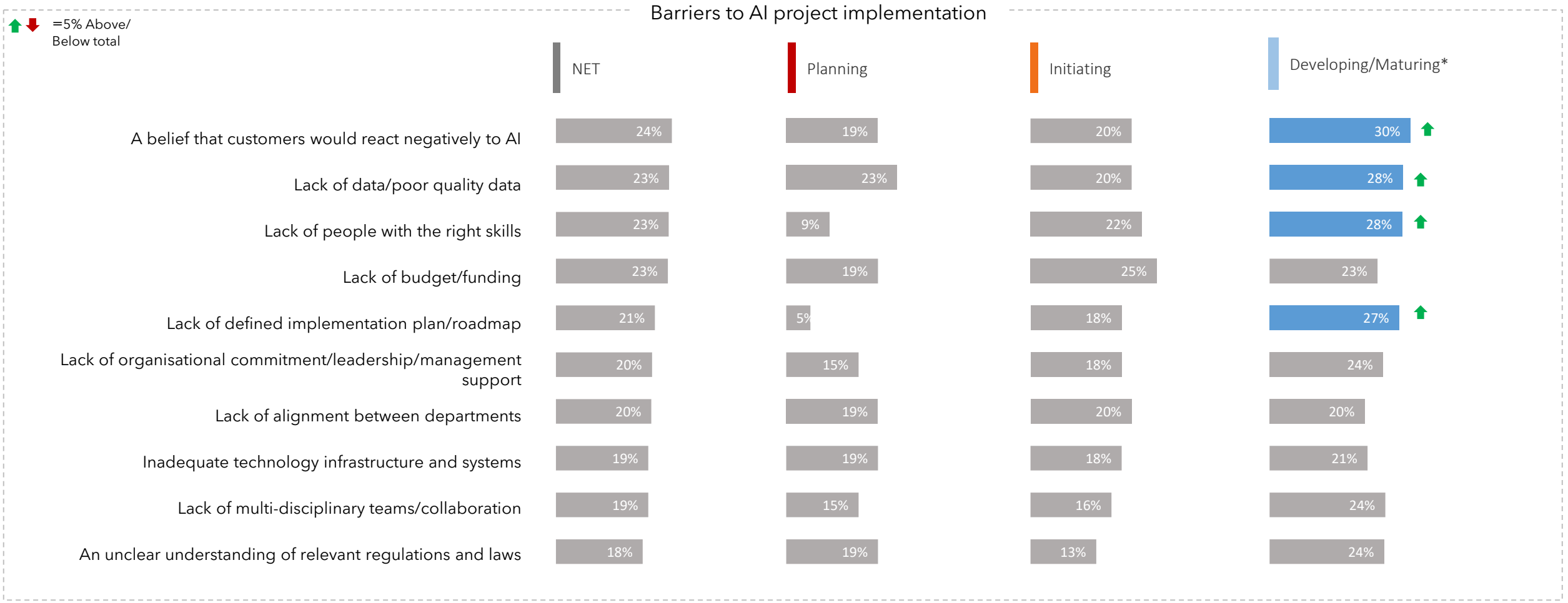
Practices to test AI systems for reliability and safety in a controlled environment using accurate and representative data should help to mitigate any unintended, negative impacts of projects before they make it into production.

Base: Current AI Users (n=282), Planning (n=23), Initiating (n=126), Developing (n=123), Maturing (n=10)
Q9 – What percentage of your AI projects have worked as a proof of concept, and made it into production?

*Note: Developing and Maturing segment combined as base size for Maturing segment was too small

MAIN REASONS WHY AI PROJECTS DO NOT MAKE IT TO PRODUCTION

AI projects do not make it into production due to a combination factors including data availability and quality, funding, skill gaps and technology infrastructure requirements.



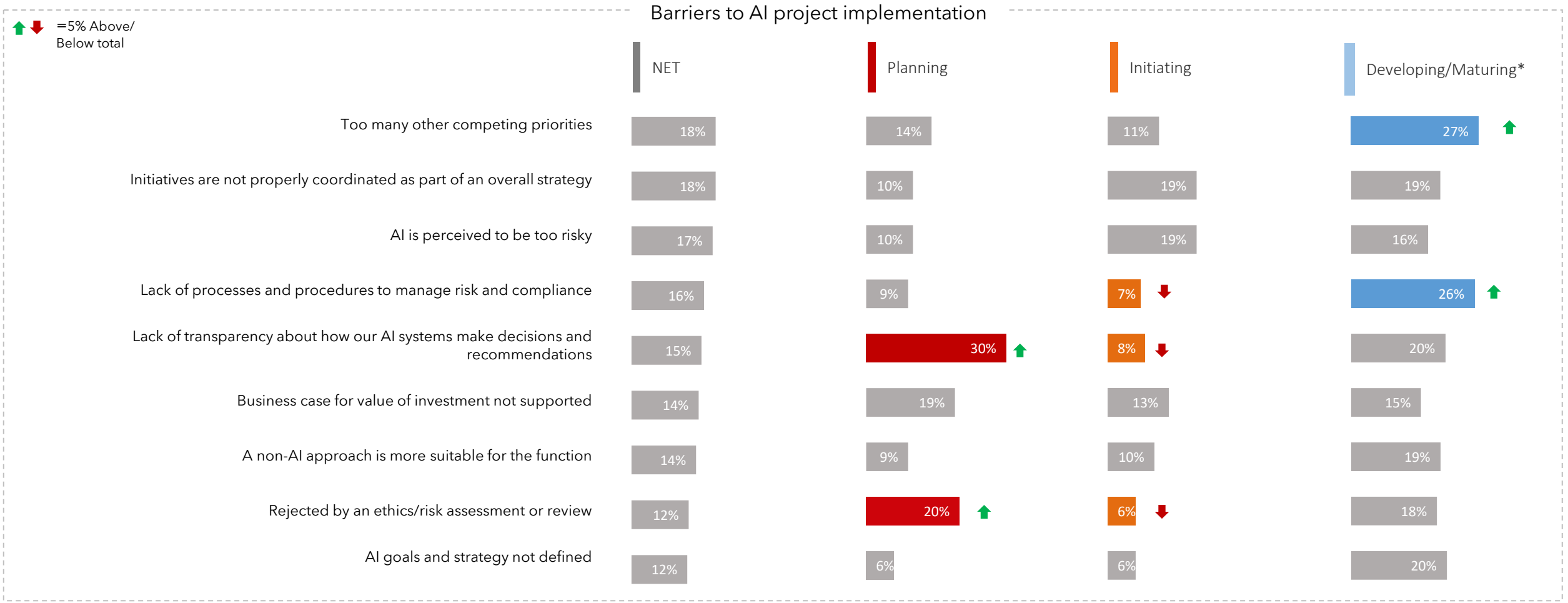
Organisations should consider factors such as data quality and quantity, and infrastructure requirements when piloting and testing AI systems, using resources that provide guidance on how to transition from pilot studies to a production scale deployment.

Base: Current AI Users projects not worked (n=273), Planning (n=23), Initiating (n=126), Developing (n=117), Maturing (n=7)
Q10 - What are the main reasons why AI projects do not make it into production in your organisation? Select all that apply.

*Note: Developing and Maturing segment combined as base size for Maturing segment was too small

OTHER REASONS WHY AI PROJECTS DO NOT MAKE IT TO PRODUCTION

As an organisation's approach to responsible AI matures, barriers around the coordination of strategy and initiatives emerge.



Those in the planning phase find transparency and explainability to be challenging and would benefit from using tools and guidelines to overcome these barriers.

Base: Current AI Users projects not worked (n=273), Planning (n=23), Initiating (n=126), Developing (n=117), Maturing (n=7)
Q10 - What are the main reasons why AI projects do not make it into production in your organisation? Select all that apply.

*Note: Developing and Maturing segment combined as base size for Maturing segment was too small

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FEDERAL GOVT. AI ETHICS PRINCIPLES

The elements of the Department of Industry's AI Ethics Principles were incorporated into the questionnaire, and are examined in more detail in this section of the report to identify the gap between attitudes towards responsible AI and the steps that organisations are taking to implement AI responsibly.

HUMAN PRINCIPLES

HUMAN, SOCIAL & ENVIRONMENTAL WELLBEING

Throughout their lifecycle, AI systems should benefit individuals, society and the environment

- AI system objectives should be clearly identified and justified
- AI systems should be used to benefit all human beings, including future generations
- Positive and negative impacts should be accounted for throughout the lifecycle of all legitimate internal business process AI systems

HUMAN-CENTERED VALUES

Throughout their lifecycle, AI systems should be inclusive and accessible, and should not involve or result in unfair discrimination against individuals, communities or groups

- AI systems need to be aligned with human values and enable an equitable and democratic society
- Must respect, protect and promote human rights
- Should be designed to augment, complement and empower human cognitive, social and cultural skills

FAIRNESS

Throughout their lifecycle, AI systems should respect human rights, diversity, and the autonomy of individuals

- AI systems need to be fair and enable inclusion throughout their lifecycle
- Should be user-centric, designed to allow all people to interact with it
- Measures should be taken to ensure AI produced decisions are compliant with anti-discrimination laws

PRIVACY AND RELIABILITY

PRIVACY PROTECTION & SECURITY

Throughout their lifecycle, AI systems should respect and uphold privacy rights and data protection, and ensure the security of data

- Ensuring respect for privacy and data protection, including proper data governance and management
- Also ensures appropriate data and AI system security measures are in place, including the identification of potential security vulnerabilities and assurance of resilience to adversarial attacks

RELIABILITY & SAFETY

Throughout their lifecycle, AI systems should reliably operate in accordance with their intended purpose

- Ensures AI systems are reliable, accurate and reproducible
- AI systems should adopt safety measures that are proportionate to the magnitude of potential risks
- Responsibility should be clearly and appropriately identified, for ensuring that an AI system is robust and safe

INTEGRITY

TRANSPARENCY & EXPLAINABILITY

There should be transparency and responsible disclosure to ensure people know when they are being significantly impacted by an AI system, and can find out when an AI system is engaging with them

- Transparency through responsible disclosure when an AI system is significantly impacting on a person's life
- Information provided in a timely manner, with reasonable justifications for the AI systems outcomes
- Aims to ensure people have the ability to find out when an AI system is engaging with them

CONTESTABILITY

When an AI system significantly impacts a person, community, group or environment, there should be a timely process to allow people to challenge the use or output of the AI system

- Knowing that redress for harm is possible, when things go wrong, is key to ensuring public trust in AI
- Needs to be sufficient access to the information available to the algorithm and inferences drawn, to make contestability effective

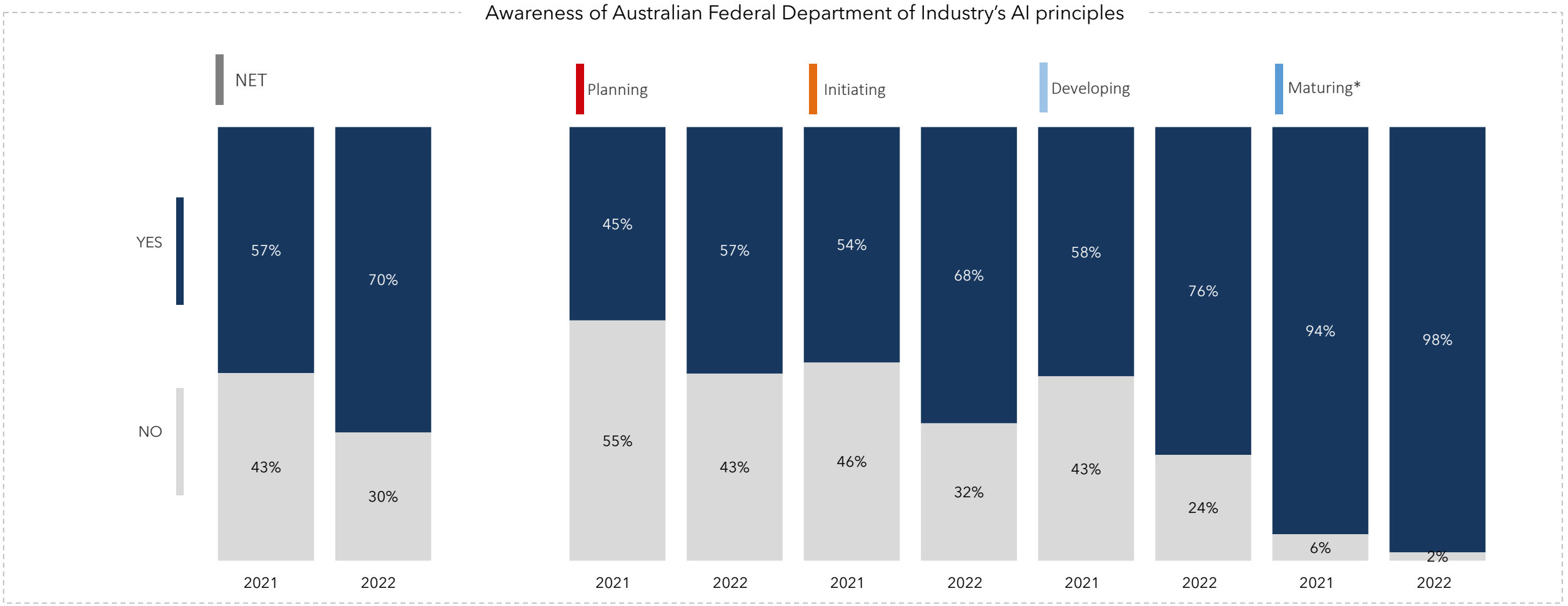
ACCOUNTABILITY

Those responsible for the different phases of the AI system lifecycle should be identifiable and accountable for the outcomes of the AI systems, and human oversight of AI systems should be enabled

- Organisations/ individuals should be identifiable and ensure responsibility for AI systems and their outcomes both before and after their design, development, deployment and operation
- They must consider the appropriate level of human control or oversight for the particular AI system or use case

AWARENESS OF FEDERAL GOVT. GUIDELINES

Awareness of the Department of Industry AI Ethics Principles is higher in 2022 across all maturity segments.



There is a continued opportunity to increase awareness of the AI Ethics Principles amongst the less mature groups to further increase industry engagement on the benefits of a responsible approach to AI. This should be supported by guidance on how to practically implement the eight Principles.

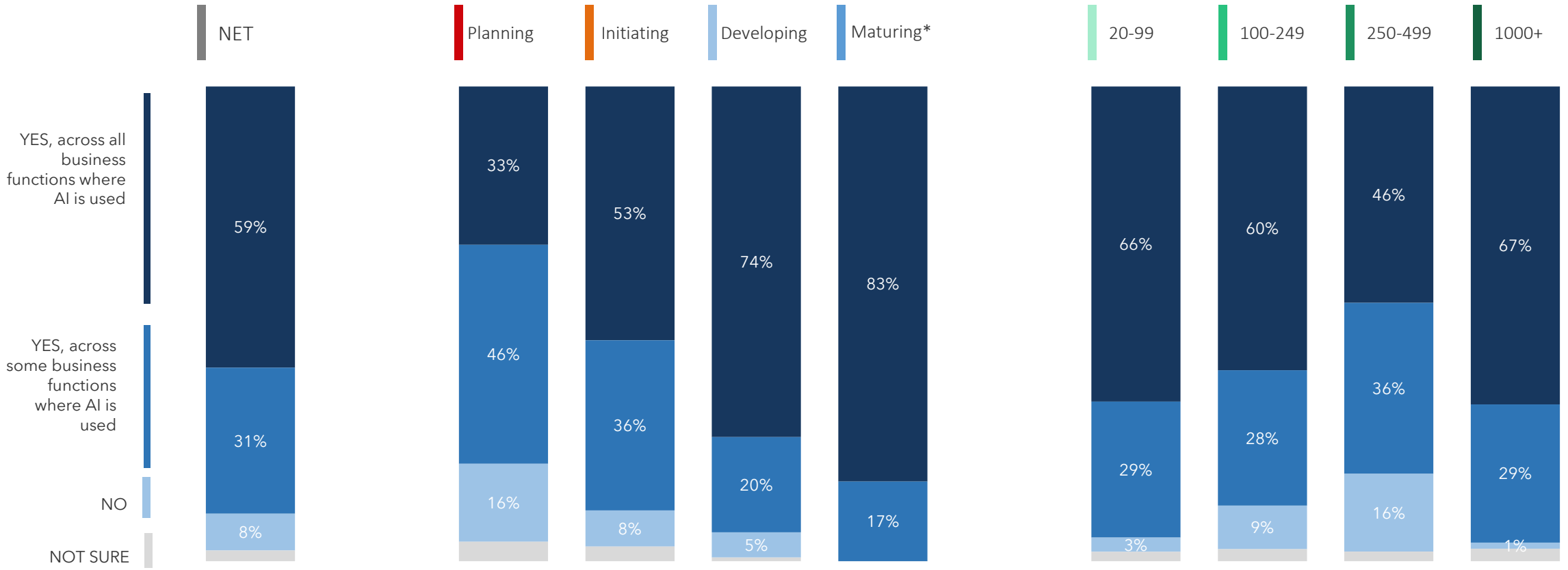
Base: 2021: All respondents (n=416), Planning (n=83), Initiating (n=140), Developing (n=160), Maturing (n=33)
2022: All respondents (n=439), Planning (n=59), Initiating (n=193), Developing (n=180), Maturing (n=15)
Q15. The Australian Federal Department of Industry has developed a set of AI principles. Prior to taking part in this survey, were you aware of these principles?

*Note: Caution, low base size, results are indicative only

AI STANDARDS

Even though most organisations claim to have formal AI standards in place, these may not be across all functions where AI is used.

Does your Organisation have AI Standards in Place?



As organisations become more mature in their development and use of AI, they learn how to develop and apply standards across all business functions where AI is used.

Base: All respondents (n=439), Planning (n=59), Initiating (n=193), Developing (n=180), Maturing (n=15), 20-99 employees (n=144), 100-249 employees (n=85), 250-999 (n=113), 1000+ (n=97)
Q14. Thinking now more broadly about the ethics and principles relating to AI, does your organisation have any formal AI standards or guidelines in place?

*Note: Caution, low base size, results are indicative only

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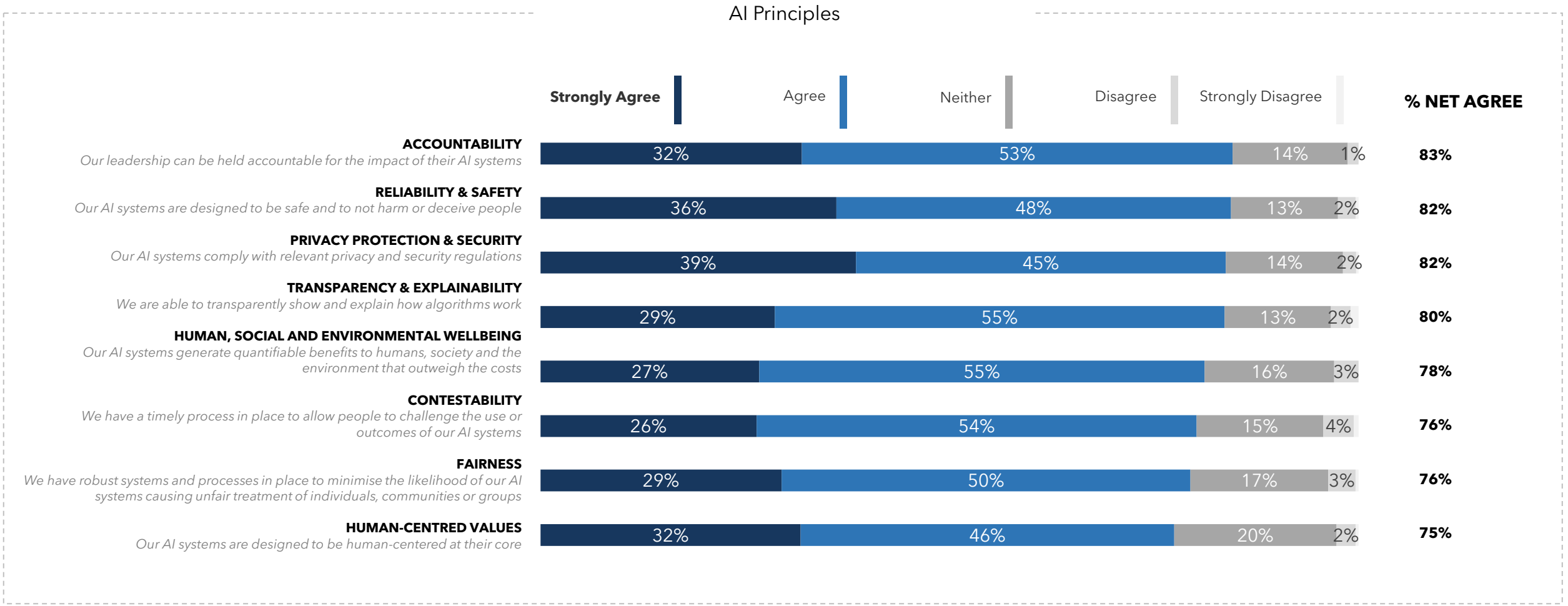
AI PRINCIPLES

Most respondents agree that their organisation is broadly following the stated intent of the Australian AI Ethics Principles, most notably for Privacy and Protection, Reliability and Safety, and Accountability. Agreement is lowest for Human-Centred Values, Fairness and Contestability.



This level of agreement is encouraging but does not align with the overall Responsible AI Index scores, which may indicate a gap between strategic intent and the actions taken by organisations to put the Australian AI Ethics Principles into practice.

Base: All respondents (n=439), Planning (n=51), Initiating (n=193), Developing (n=180), Maturing (n=15)
Q4. For each of the following statements please indicate the extent to which you agree/disagree

HUMAN PRINCIPLES

Degree of importance placed on human principles and fairness, and the tangible actions taken to address these, increases with maturity. Developing and Maturing segments have undertaken the most substantive steps to help reduce bias and risk.

Human Principles and Fairness

=5% Above/ Below total

	NET	Planning	Initiating	Developing	Maturing*
CONSIDERATIONS					
% TOP 2 BOX					
Our AI systems should be designed to respect human rights, diversity, and the autonomy of individuals	40%	13% ↓	31% ↓	58% ↑	90% ↑
Our AI systems should be inclusive and accessible and should not involve or result in unfair discrimination against individuals, communities, or groups	40%	15% ↓	31% ↓	55% ↑	98% ↑
Our AI systems should be designed to benefit individuals, society, and the environment	39%	16% ↓	29% ↓	56% ↑	83% ↑
PRINCIPLES					
% STRONGLY AGREE					
Our AI systems are designed to be human-centered at their core	32%	4% ↓	26% ↓	47% ↑	54% ↑
We have robust systems and processes in place to minimise the likelihood of our AI systems causing unfair treatment of individuals, communities or groups	29%	10% ↓	18% ↓	47% ↑	73% ↑
Our AI systems generate quantifiable benefits to humans, society and the environment that outweigh the costs	27%	8% ↓	20% ↓	39% ↑	54% ↑
ACTIONS					
% ACTIONS TAKEN OR PLANNED NEXT 12 MONTHS	**Taken** | Planned	**Taken** | Planned	**Taken** | Planned	**Taken** | Planned	**Taken** | Planned
Reviewed AI algorithms for potential bias	26% 45%	16% 27%	21% 39%	33% 56%	46% 81%
Identified and assessed the risks and opportunities for human rights	22% 44%	17% 34%	15% 33%	30% 58%	63% 71%
Reviewed underlying databases for potential bias	23% 43%	13% 30%	18% 38%	30% 52%	39% 66%
Hired a more diverse workforce	18% 35%	9% 17%	19% 34%	20% 38%	37% 71%
Hired non-technical consultants or professionals	16% 31%	8% 17%	12% 27%	24% 39%	37% 48%
Deployed responsible AI software tools in the business	22% 45%	13% 31%	19% 40%	25% 52%	54% 81%

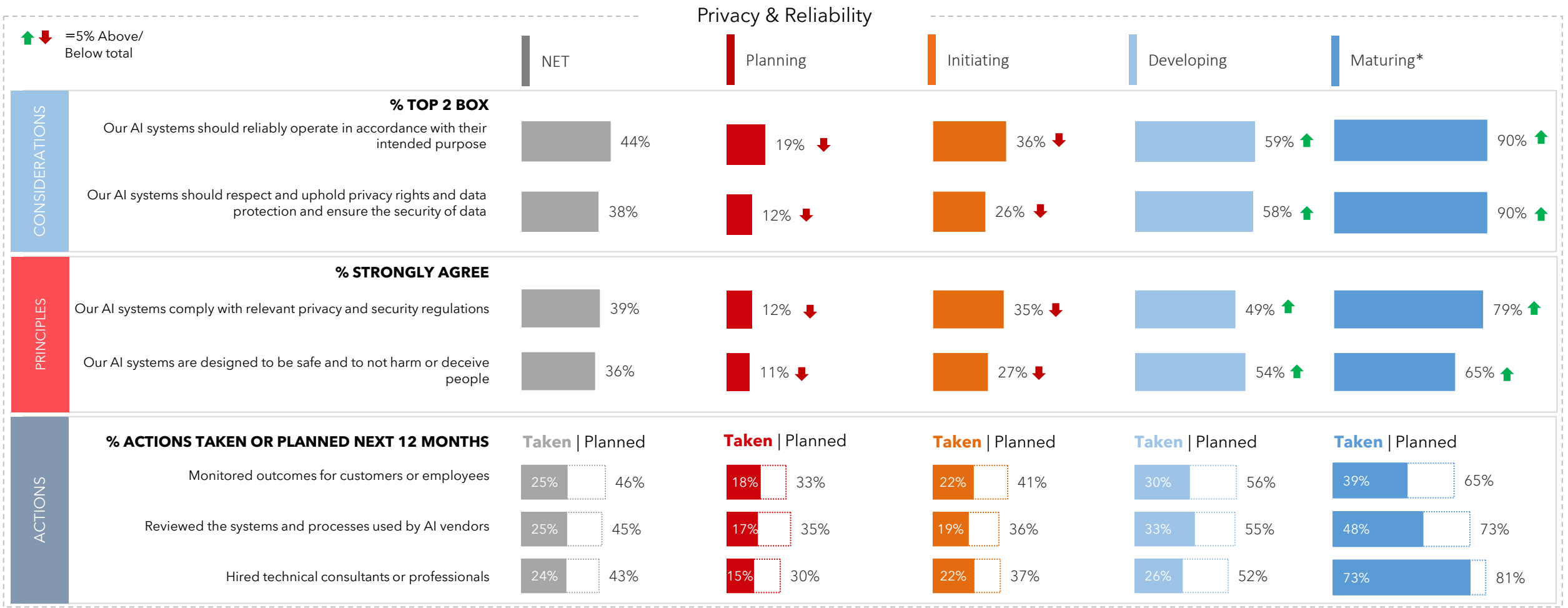
Most organisations, especially the less mature, are not taking the necessary actions to elicit and assess potential impacts of AI systems, incorporate diversity, and measure and improve system fairness.

Base: All respondents (n=439), Planning (n=51), Initiating (n=193), Developing (n=180), Maturing (n=15)
Q20. How important are the following considerations when developing AI systems in your organisation? TOP 2 BOX; Q4. For each of the following statements please indicate the extent to which you agree/disagree:? NET STRONGLY AGREE ; Q21. Has your organisation done any of the following as part of its approach to the deployment of AI?; Q22. Does your organisation plan to do any of the following in the next 12 months as part of its approach to the deployment of AI?

*Note: Caution, low base size, results are indicative only

PRIVACY AND RELIABILITY

More mature cohorts are placing higher importance on system reliability, privacy and safety than less mature organisations, showing a higher likelihood to have taken tangible actions.



There is a gap between most organisations' strategic intent and the actions undertaken to protect systems against attacks, and monitoring systems to ensure they operate safely and reliably.

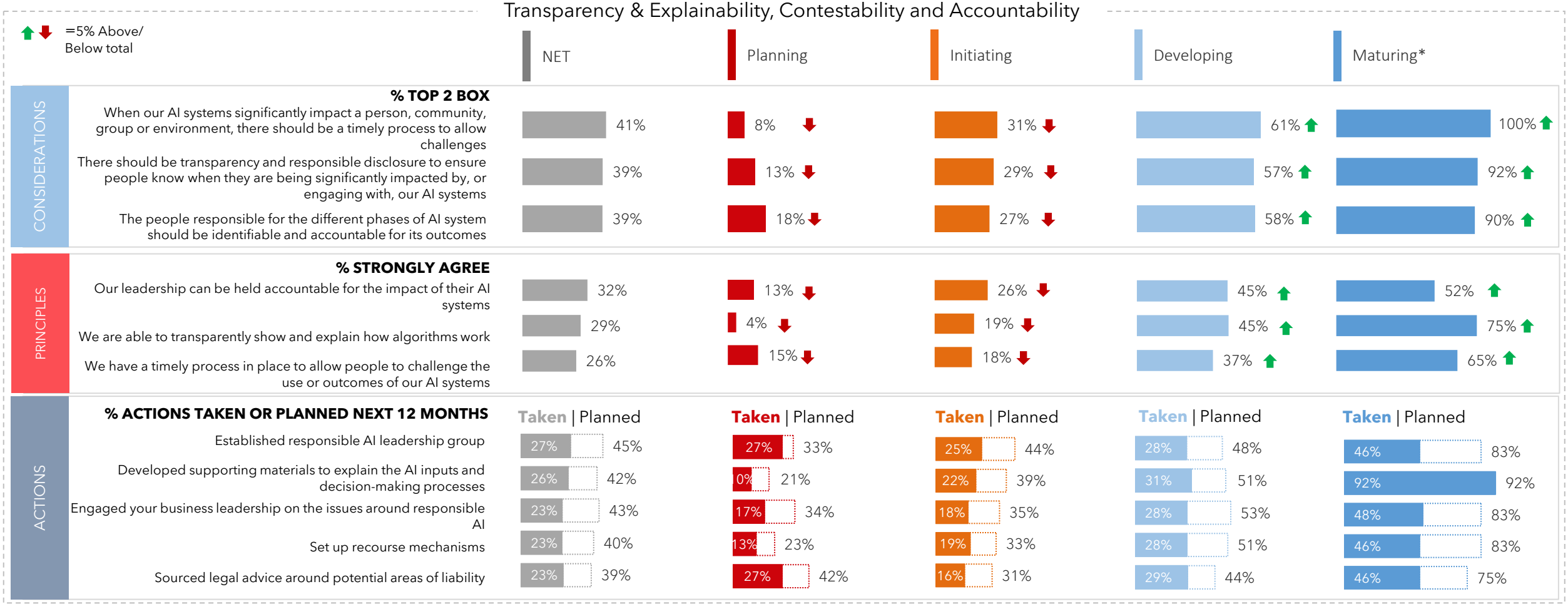
Base: All respondents (n=439), Planning (n=51), Initiating (n=193), Developing (n=180), Maturing (n=15)
Q20. How important are the following considerations when developing AI systems in your organisation? TOP 2 BOX; Q4. For each of the following statements please indicate the extent to which you agree/disagree:? NET STRONGLY AGREE ; Q21. Has your organisation done any of the following as part of its approach to the deployment of AI?; Q22. Does your organisation plan to do any of the following in the next 12 months as part of its approach to the deployment of AI?

*Note: Caution, low base size, results are indicative only

INTEGRITY

Most organisations have not taken any actions to ensure transparency and explainability, contestability and accountability, even though these are deemed to be important considerations. Encouragingly, some of those in the Planning phase are taking practical steps to hold their leadership to account.

Transparency & Explainability, Contestability and Accountability



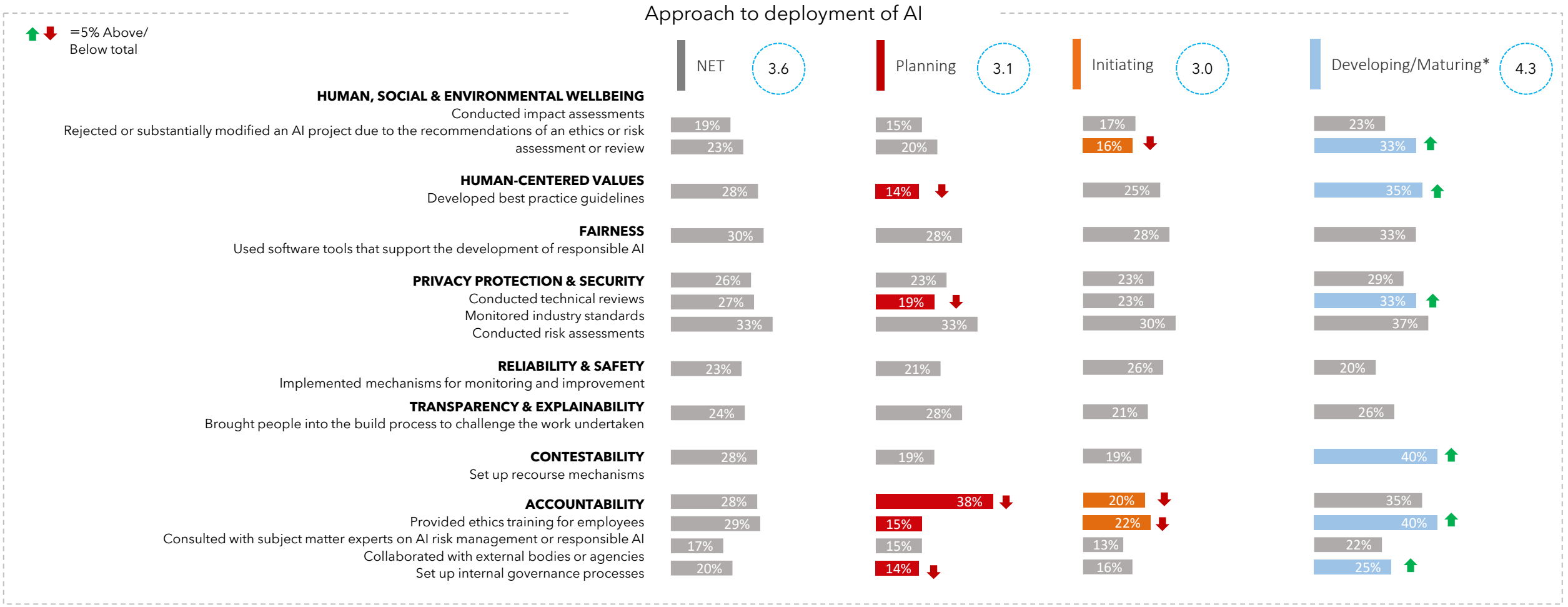
This indicates that organisations need support to understand how to document design decisions, explain how models operate and make decisions, establish recourse mechanisms and implement accountability practices.

Base: All respondents (n=439), Planning (n=51), Initiating (n=193), Developing (n=180), Maturing (n=15)
Q20. How important are the following considerations when developing AI systems in your organisation? TOP 2 BOX; Q4. For each of the following statements please indicate the extent to which you agree/disagree:? NET STRONGLY AGREE ; Q21. Has your organisation done any of the following as part of its approach to the deployment of AI?; Q22. Does your organisation plan to do any of the following in the next 12 months as part of its approach to the deployment of AI?

*Note: Caution, low base size, results are indicative only

RESPONSIBLE AI PRACTICES UNDERTAKEN BY AI USERS

Among organisations who have deployed AI, most have only implemented a limited number of responsible AI practices. Even the more mature segments have only implemented an average of 4.3 practices out of a total of 15 that were shown to respondents.



This may indicate lack of understanding about the potential risks and benefits of AI, a lack of resources or expertise to implement responsible AI practices, and a lack of incentives to do so.

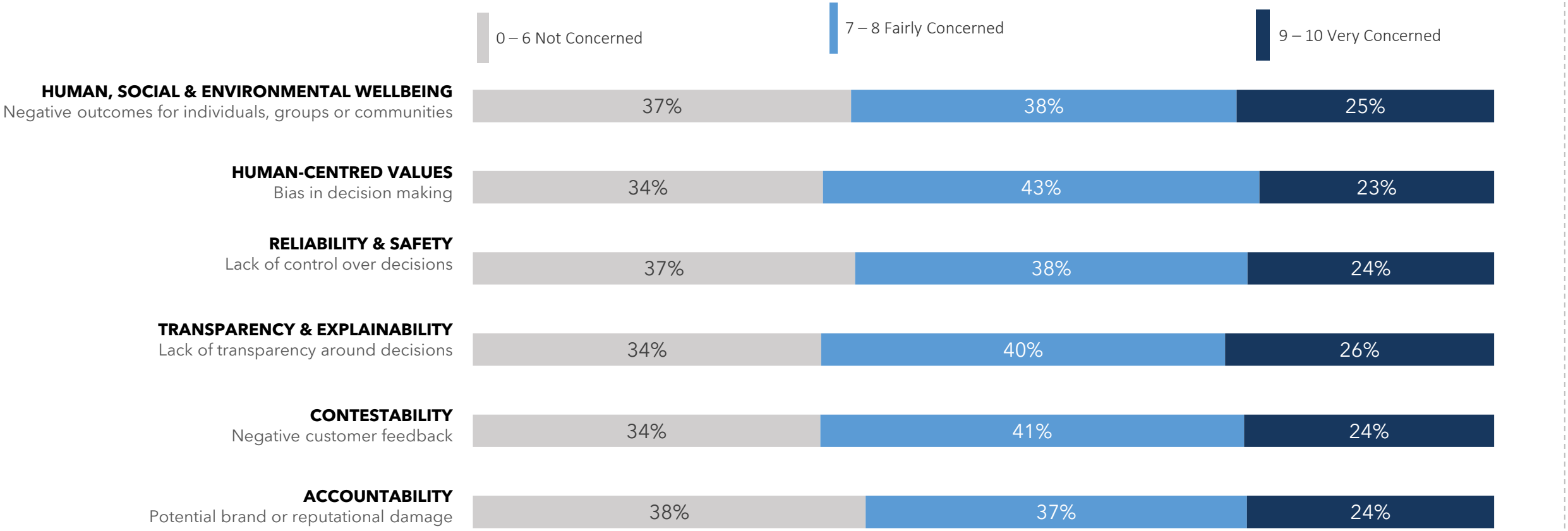
Base: Current AI Users (n=282), Planning (n=23), Initiating (n=126), Developing (n=123), Maturing (n=10)
Q23. Has your organisation done any of the following as part of its approach to the deployment of AI?

*Note: Developing and Maturing segment combined as base size for Maturing segment was too small

CONCERNS ABOUT ORGANISATIONAL IMPACTS

At an organisational level, there is a level of concern about a range of impacts, including the reputational risk of negative customer feedback and damage to the brand.

Concerns surrounding the organisational impacts of AI



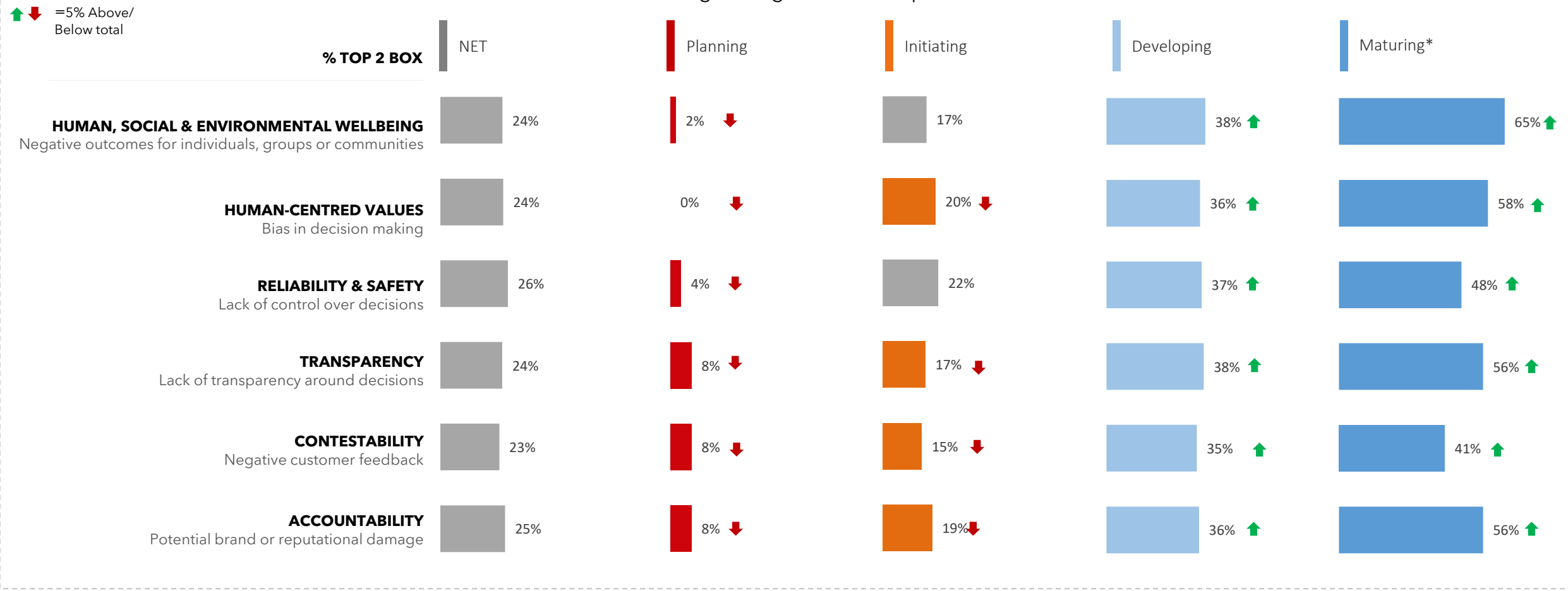
Concern is lowest about potential bias in decision making from an organisation's AI systems, which, consistent with other data, suggests that principles and practices relating to human-centred values are less of a priority.

Base: All respondents (n=439), Planning (n=51), Initiating (n=193), Developing (n=180), Maturing (n=15)
Q12. Thinking about using AI systems within your organisation, how concerned are you about the following?

CONCERNS ABOUT ORGANISATIONAL IMPACTS

The Maturing and Developing cohorts remain more concerned than the Planning and Initiating about a range of potential negative organisational impacts of AI systems.

Concerns surrounding the organisational impacts of AI



This suggests that as an organisation's approach to responsible AI matures, the likelihood of adverse events crystalising becomes more apparent, necessitating the adoption of risk mitigation practices.

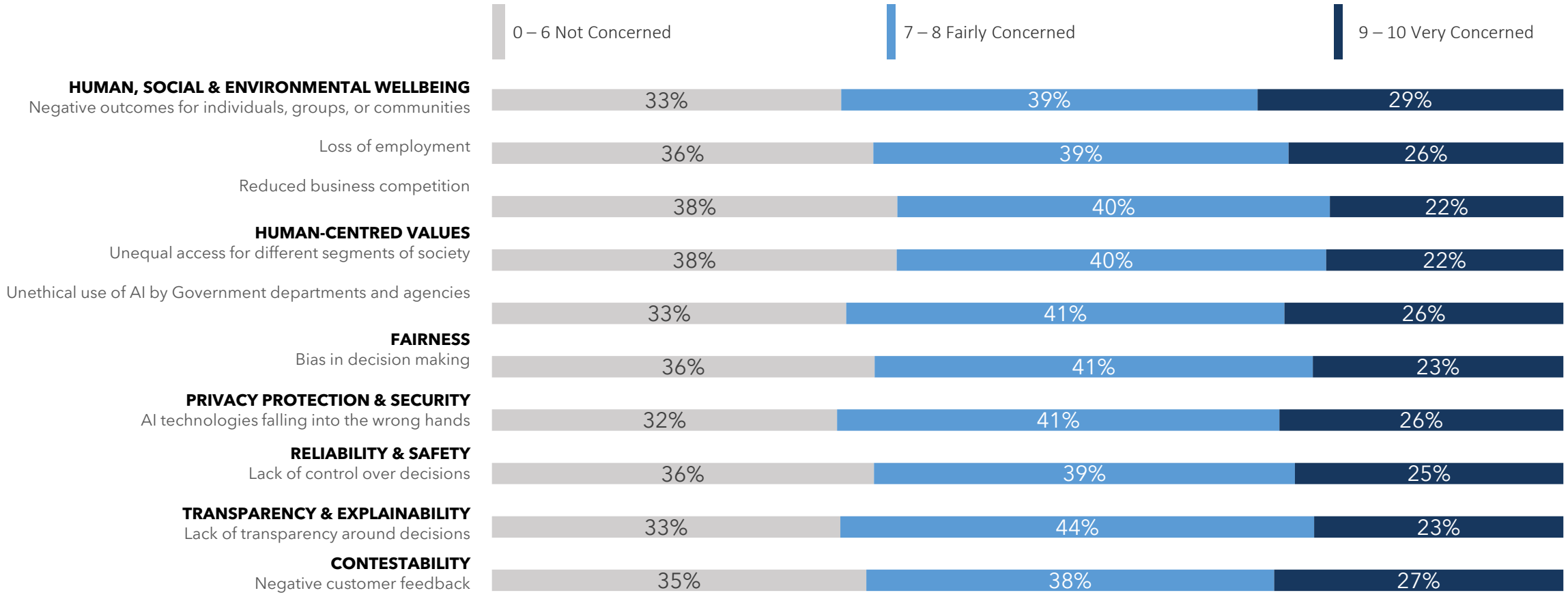
Base: All respondents (n=439), Planning (n=51), Initiating (n=193), Developing (n=180), Maturing (n=15)
Q12. Thinking about using AI systems within your organisation, how concerned are you about the following? TOP 2 BOX

*Note: Caution, low base size, results are indicative only

CONCERNS ABOUT SOCIETAL IMPACTS

There are also concerns at a societal level about the potential impacts of AI systems, including negative outcomes for individuals, groups and communities.

Concerns surrounding the organisational impacts of AI



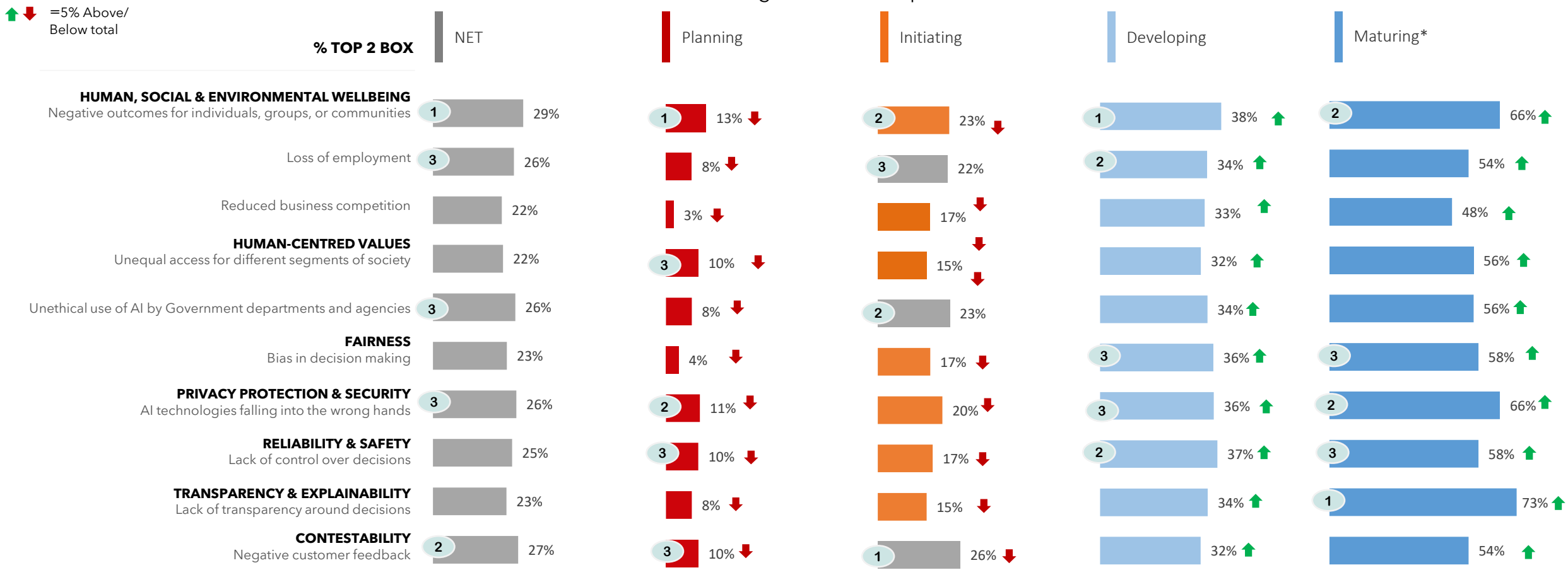
There is less concern about the potential impact of reduced business competition and unequal access for different segments of Australian society.

Base: All respondents (n=439), Planning (n=51), Initiating (n=193), Developing (n=180), Maturing (n=15)
Q13. Thinking about the potential impact of AI systems on Australian society, how concerned are you about the following? TOP 2 BOX

CONCERNS ABOUT SOCIETAL IMPACTS

The more mature cohorts are significantly more concerned than the Planning and Initiating about a range of potential negative impacts of AI systems on society.

Concerns surrounding the societal impacts of AI



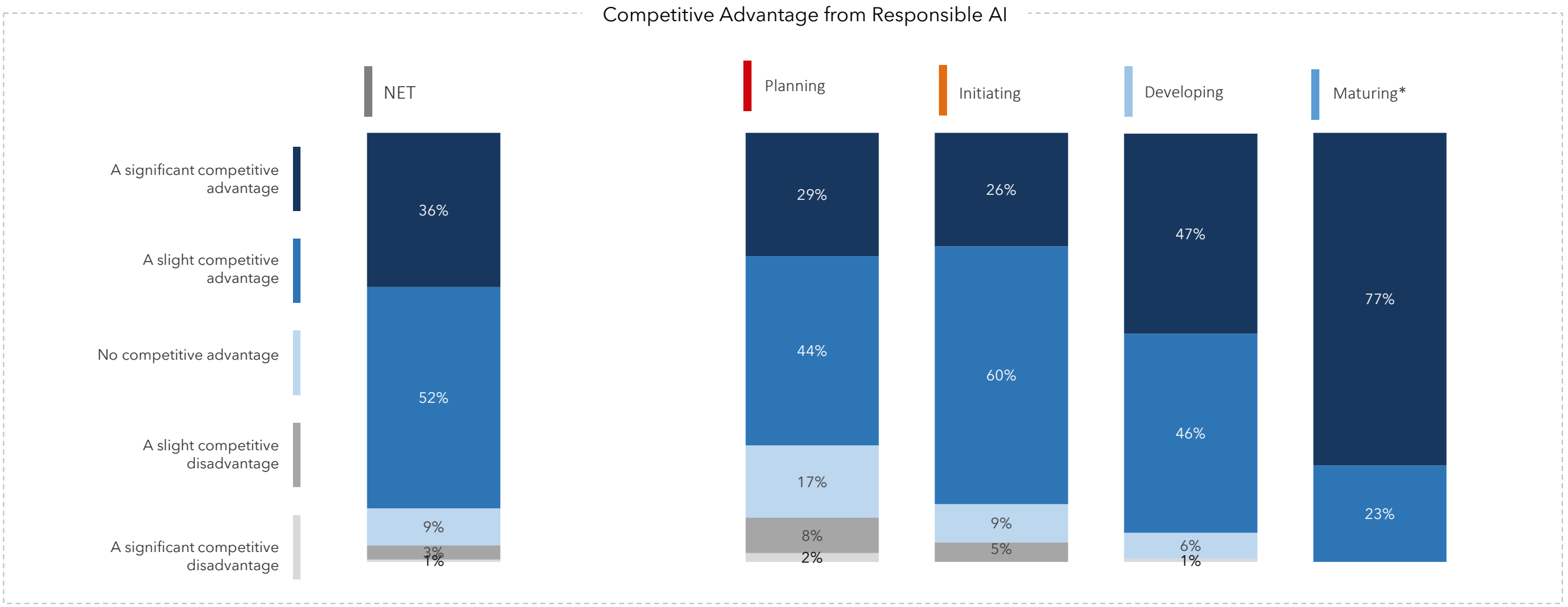
Again, this points to the need for strategies and practices to be implemented to reduce the impact and probability of these risks materialising.

Base: All respondents (n=439), Planning (n=51), Initiating (n=193), Developing (n=180), Maturing (n=15)
Q13. Thinking about the potential impact of AI systems on Australian society, how concerned are you about the following? TOP 2 BOX

*Note: Caution, low base size, results are indicative only

COMPETITIVE ADVANTAGE FROM RESPONSIBLE AI

As organisations move from the Initiating to Developing phase of maturity, they are more likely to gain a significant competitive advantage through taking a responsible approach to AI.



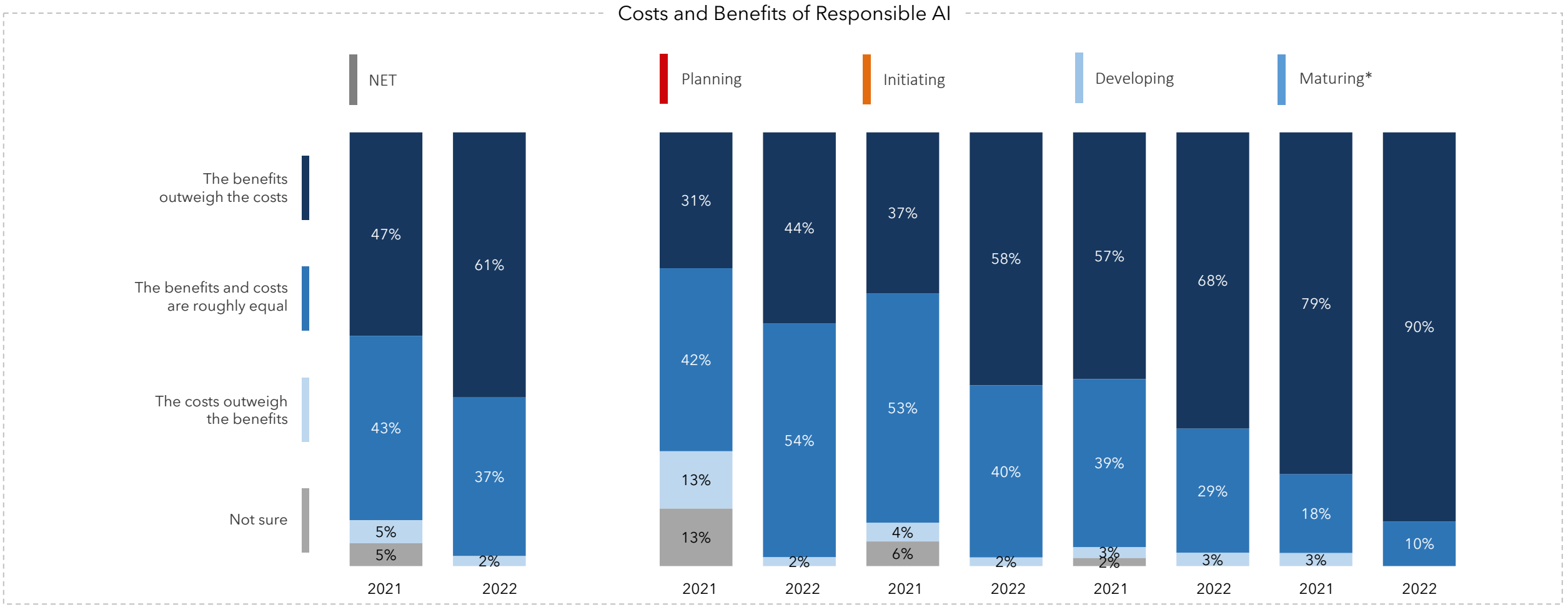
While organisations may be tempted to make some ethical sacrifices in order to expedite their AI projects and keep pace with competitors, the evidence shows that those that invest in a responsible AI approach believe this has provided a significant competitive advantage.

Base: 2022: All respondents (n=439), Planning (n=51), Initiating (n=193), Developing (n=180), Maturing (n=15)
Q25. Thinking about your competitors, does a responsible approach to AI give your organisation…?

*Note: Caution, low base size, results are indicative only

OVERALL COST-BENEFIT OF RESPONSIBLE AI

Overall, more organisations now believe the benefits of taking a responsible approach to AI outweigh the costs, with this change occurring across all maturity cohorts, especially those in the Initiating phase.



Organisations may need resources and support to quantify the benefits of designing and building responsible AI systems in order to build the business case and obtain leadership support.

Base: 2021: All respondents (n=416), Planning (n=83), Initiating (n=140), Developing (n=160), Maturing (n=33)
2022: All respondents (n=439), Planning (n=51), Initiating (n=193), Developing (n=180), Maturing (n=15)
Q26. Weighing up the costs and benefits of designing and building a responsible AI system would you say …?

*Note: Caution, low base size, results are indicative only

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SUMMARY OF STATE OF RESPONSIBLE AI MATURITY

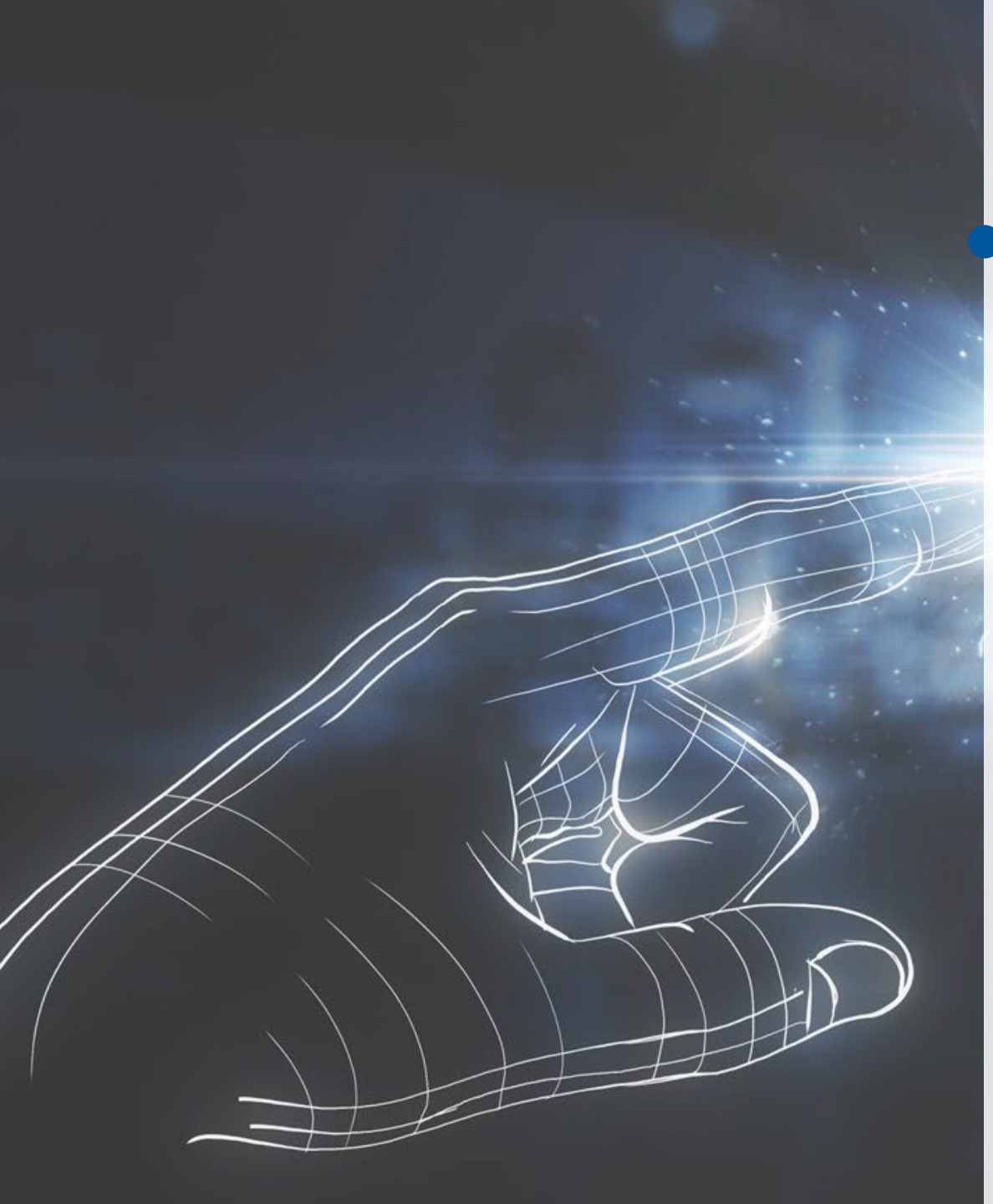
TOPIC	OBSERVATION	IMPLICATION
Responsible AI Maturity	At an overall level, there has been little change since 2021 in the overall performance of Australian organisations in developing and implementing Responsible AI systems. Performance is higher for those with the CEO leading the AI strategy.	The development of Responsible AI systems represents a significant organisational challenge and requires leadership commitment to develop appropriate culture and governance processes.
AI Strategy	Compared with 2021, more organisations are taking an enterprise-wide approach for the development of AI which is tied to the wider business strategy across all divisions.	This helps with the setting of strategic goals and coordinating individuals within the organisation to promote Responsible AI in terms of governance, policy and incentives.
Principles	Encouragingly, awareness of Australia's AI Ethics principles has increased since 2021. There is also a high level of agreement with statements about how organisations have developed AI systems consistent with the intent of each principle	There is a continued opportunity to increase awareness of the AI Ethics Principles amongst the less mature groups to further increase industry engagement on the benefits of a responsible approach to AI.
Responsible AI Practices	There is a significant gap between perceptions of how AI systems have been designed and how they perform, and the actions that have been taken to ensure AI systems are developed responsibly.	Organisations need practical help and support to implement AI responsibly, including clear signposting to the types of resources which are available, so that an approach can be chosen which works best for the organisation.
Benefits of RAI	Organisations that are more mature in their deployment of Responsible AI, are likely to see significant gains in terms of competitive advantage, with the benefits outweighing the costs.	Organisations may be tempted to make some ethical sacrifices in order to expedite their AI projects and keep pace with competitors. However, the evidence indicates that there are significant returns to be gained from investing in a responsible approach to AI development, including increased competitiveness.

BRIDGING THE RESPONSIBLE AI GAP

The AI Ethics Principles are the starting point for the responsible development and deployment of AI. However, the research shows organisations are struggling to translate good intentions into real world actions. Below are examples of how some organisations are working to bridge the responsible AI gap.

1. **Assess impacts** - Understand the positive and negative impacts the system's actions will have on people so they can be prioritised and managed.
2. **Mitigate unfair impacts** - Reduce the risk of the system introducing, perpetuating or amplifying societal inequalities
3. **Conduct pilot studies** - Test the assumptions of the system at a limited scale to reduce exposure to unforeseen impacts.
4. **Monitor and evaluate continuously** - Oversee performance against both business and ethical objectives to ensure the system is operating as intended.
5. **Make appropriate disclosures** - Inform users of an AI's operation to build trust and empower them to make effective decisions.
6. **Raise awareness in Responsible AI** - Ensure that individuals are equipped to make ethical decisions when designing and deploying AI systems.
7. **Establish roles and responsibilities** - Be clear about who is accountable for different aspects of the AI system's operation and impacts.

For a more comprehensive description of how organisations can use tools and guidelines to connect the principles and practice of Responsible AI, see the forthcoming report *Connecting Principles and Practice: Implementing Responsible AI in Business* from Gradient Institute and the National AI Centre (hosted by CSIRO).



THANK YOU

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