





Investors should also consider the impact of AI on the environment, society, and governance (ESG) factors. AI can have both positive and negative impacts on these factors. For example, AI can help reduce carbon emissions by optimizing energy usage, but it can also increase energy consumption and generate e-waste. AI can also have social impacts, such as job displacement and privacy concerns. Investors should therefore consider the ESG implications of AI investments and engage with companies to address these issues.

Investors should also consider the impact of AI on the economy and society. AI can create new jobs and opportunities, but it can also displace workers and exacerbate income inequality. Investors should therefore consider the social and economic impacts of AI investments and engage with companies to address these issues.

## How to use this report

- **Executive Summary** – This section provides a high-level overview of the report's findings and recommendations.
- **Introduction** – This section provides an overview of the report's purpose and scope.
- **Methodology** – This section describes the research methods used in the report.
- **Findings** – This section presents the key findings of the report, including the impact of AI on ESG factors and the role of investors in addressing these issues.
- **Recommendations** – This section provides practical recommendations for investors on how to integrate AI into their ESG investment strategies.

## Scope

This report focuses on the intersection of AI and ESG, specifically examining the impact of AI on ESG factors and the role of investors in addressing these issues. The report is based on a review of academic research, industry reports, and interviews with experts in the field. The scope of the report is limited to the following areas:

- The impact of AI on ESG factors (environment, society, and governance).
- The role of investors in addressing ESG issues related to AI.
- Practical recommendations for investors on how to integrate AI into their ESG investment strategies.

The report does not cover the following areas:

- The technical details of AI.
- The legal and regulatory aspects of AI.
- The ethical implications of AI.

## Company engagement and research

Investors should engage with companies to address ESG issues related to AI. This can be done through various channels, such as shareholder resolutions, dialogues with company management, and public statements. Investors should also conduct research on the ESG performance of companies in the AI space. This can be done through various channels, such as ESG ratings agencies, industry reports, and company disclosures.

# F

...the rapidly growing force of AI, which is expected to transform many aspects of our lives and work.

...investor framework. This framework provides a structured approach to identifying and managing AI-related risks and opportunities. It is designed to help investors understand the potential impact of AI on their investments and to make informed decisions about their portfolios.

...rapidly growing force. AI is expected to be a key driver of economic growth and innovation in the coming years. However, it also presents significant challenges, including job displacement, privacy concerns, and the potential for misuse. Understanding these key threats and opportunities is essential for investors and policymakers alike.

...transformative potential of AI. AI has the potential to revolutionize many industries, from healthcare to manufacturing. By automating tasks and enabling new capabilities, AI can improve efficiency and create new opportunities. However, it is important to ensure that the benefits of AI are shared broadly and that its development is guided by ethical principles.

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**We hope investors adopt this framework and become advocates for an improved AI future. We also encourage companies to integrate this framework into their management of AI threats and opportunities.**

CSIRO's Data61 and Alphinity Investment Management

## GROWTH MARKET

BY 2025: **\$135 billion** Market growth will double



D

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→ convergence of technologies → ...

→ ...

→ ...

**Narrow AI**

→ ...

**General-purpose AI**

→ ...

→ ...





# A

The first wave of AI investment opportunities is focused on automating repetitive tasks and improving operational efficiency. This includes areas like document processing, data entry, and customer service chatbots. The second wave involves more complex applications such as predictive analytics, supply chain optimization, and personalized marketing. The third wave represents the most advanced and transformative AI applications, including generative AI, autonomous systems, and AI-driven research and development.

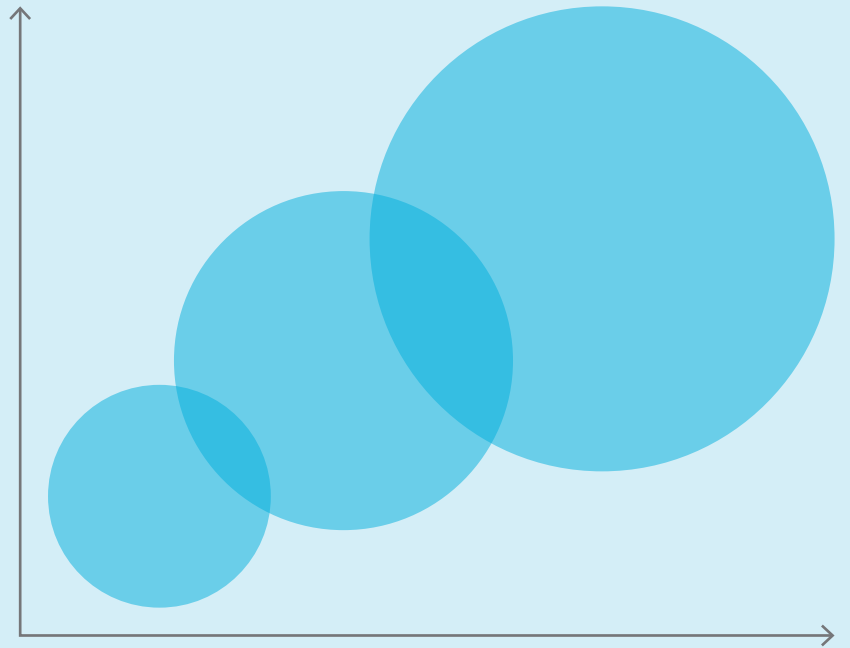


Figure 1: Investment opportunities in AI

**first wave.** This wave focuses on automating repetitive tasks and improving operational efficiency. Key areas include document processing, data entry, and customer service chatbots.

**second wave.** This wave involves more complex applications such as predictive analytics, supply chain optimization, and personalized marketing.

**third wave.** This wave represents the most advanced and transformative AI applications, including generative AI, autonomous systems, and AI-driven research and development.

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**productivity**

**revenue**

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**significant risk**



# 2

## Global equities are at the forefront of AI implementation

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Extensive AI resourcing among global companies. <sup>M</sup>

Shell

'Almost all of Shell's assets are connected to a common data platform, and the number of AI use cases stretches into the hundreds' <sup>(BDC BT 2023) (w/3u) (40) he (m) - 3 rel us 201</sup>







# 10

Data privacy is a key ESG

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	AI use case analysis	RAI governance indicators	RAI deep dive

Environmental and social impacts: ~~2022-2023~~  
~~2022-2023~~ ~~2022-2023~~ ~~2022-2023~~ ~~2022-2023~~



## Step 3: RAI deep dive

Deep dive questions and indicators to assess company performance against Australia's AI Ethics Principles

Investors can use this component to [assess company performance](#)

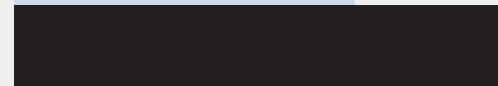
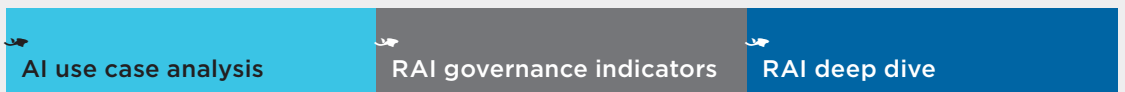
## EXAMPLE

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### Assessment process



Governance indicators: *[faint, illegible text]*

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**Accenture:**

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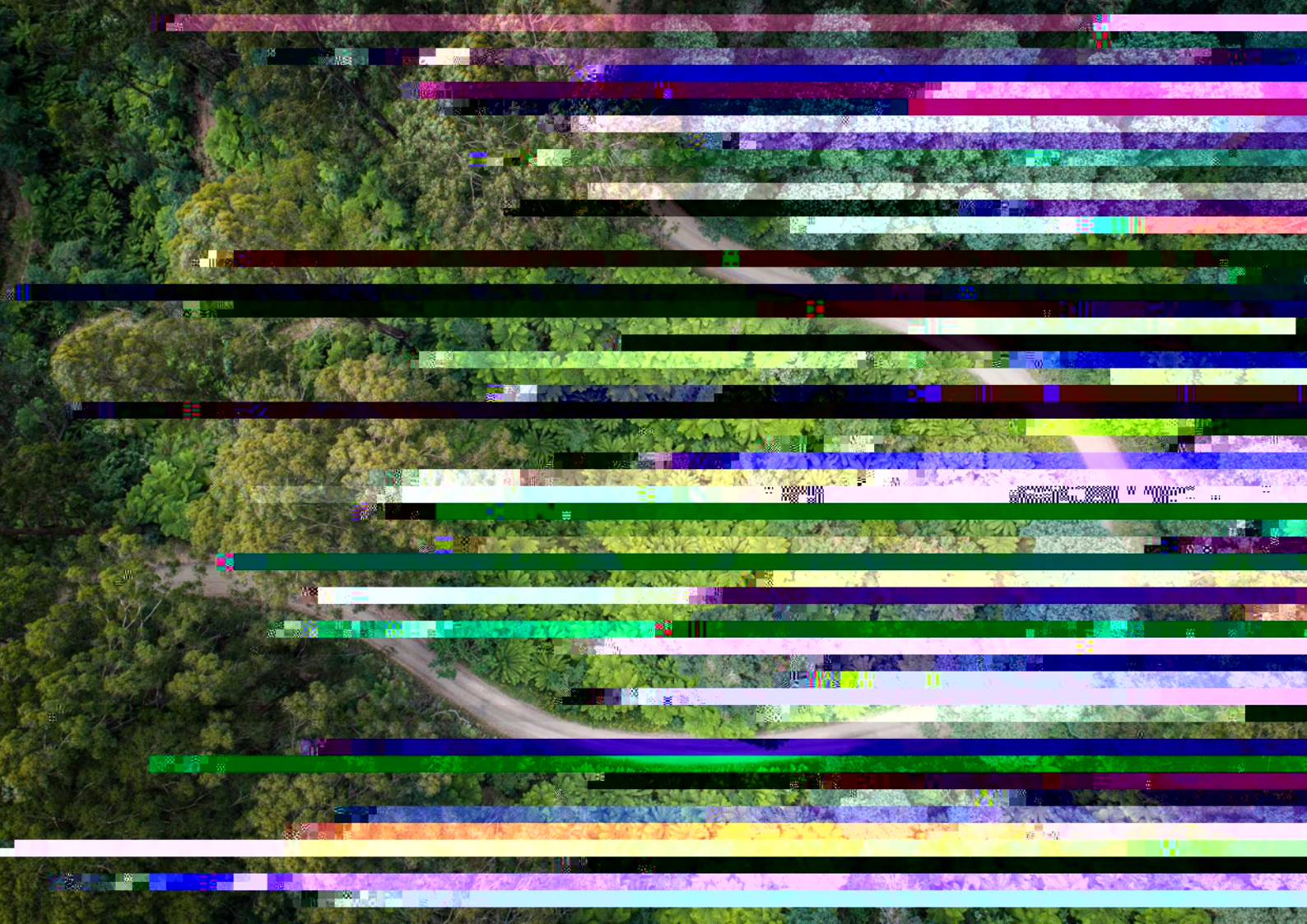
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**MercadoLibre: A**

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## Westpac: F

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## Woodside: A

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CATEGORY	DEFINITION	GUIDANCE
Unacceptable risk	<p>... ..</p>	<p>... ..</p>
High risk	<p>... ..</p>	<p>... ..</p>
Medium risk	<p>... ..</p>	



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PRINCIPLE	PRINCIPLE QUESTION	INDICATOR	EXAMPLE SUB QUESTIONS	EXAMPLE METRICS
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<b>Transparency and explainability:</b> How can we ensure that our AI systems are transparent and explainable to users and stakeholders?	How can we ensure that our AI systems are transparent and explainable to users and stakeholders?	Explainability score Transparency score	How can we ensure that our AI systems are transparent and explainable to users and stakeholders? How can we ensure that our AI systems are transparent and explainable to users and stakeholders? How can we ensure that our AI systems are transparent and explainable to users and stakeholders?	Explainability score Transparency score
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