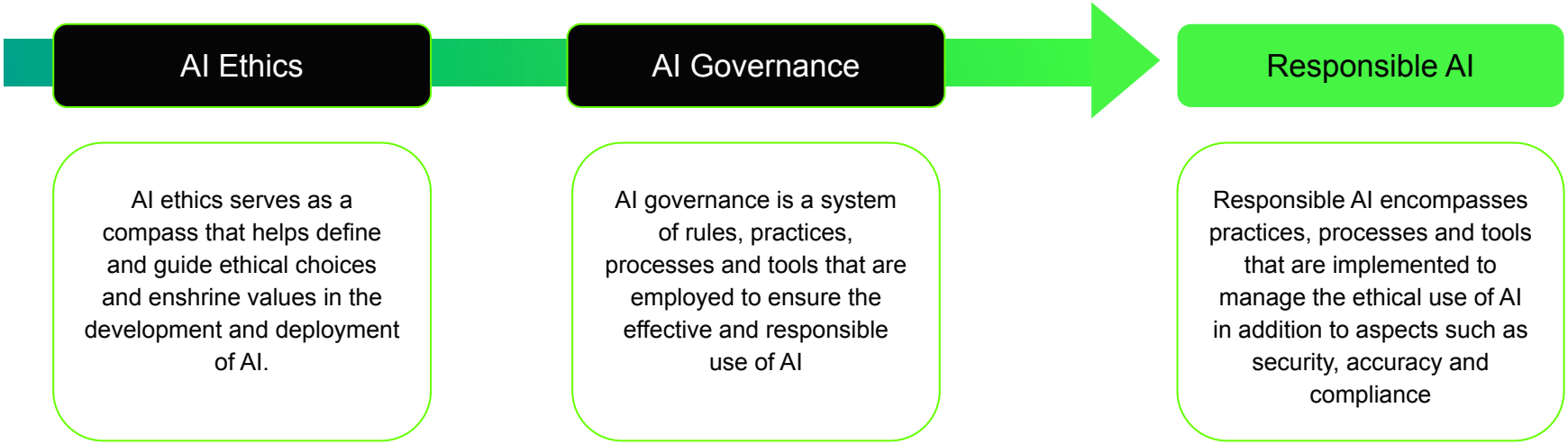
AI Governance Introduction

Workshop Overview

- ❏ What is AI ethics & governance?
- ❏ Why is AI governance important?
- ❏ Evolving towards data & AI governance
- ❏ Setting your objectives & selecting the right toolkit

What is AI ethics & governance?

- Definitions



Why is AI ethics & governance important?

Reduce Risk

Highlights **potential risks** and facilitates the adoption of conscious **mitigation strategies**

Support Compliance

Even in lieu of specific AI regulation, there are still **existing laws and regulations** that apply to AI projects (e.g. the Privacy Act, the Consumer Guarantees Act, etc)

Support Scale

Enable automation of guidelines and processes to ensure **consistent, efficient and safe** development and deployment of AI projects

Defensibility

Adoption of best practice facilitates transparency and traceability that can help understand what happened if something goes wrong

How can AI ethics & governance add value?

Mitigating Bias

AI algorithms can be trained on biased datasets or produce biased results. AI ethics helps to ensure systems are designed and deployed in a fair and unbiased manner

Protecting Privacy

AI systems that use vast amounts of personal data can put privacy at risk. AI ethics provides guidelines for the responsible handling and protection of personal data

Building Trust

Trust is critical to the adoption and use of AI systems. AI ethics helps to establish trust by ensuring AI systems are transparent, accountable, and operate within ethical boundaries

Ensuring Safety

AI systems can have significant impacts on people's lives. AI ethics helps to ensure that these systems are safe and reliable while minimising the risk of harm to individuals and society

Regulatory Compliance

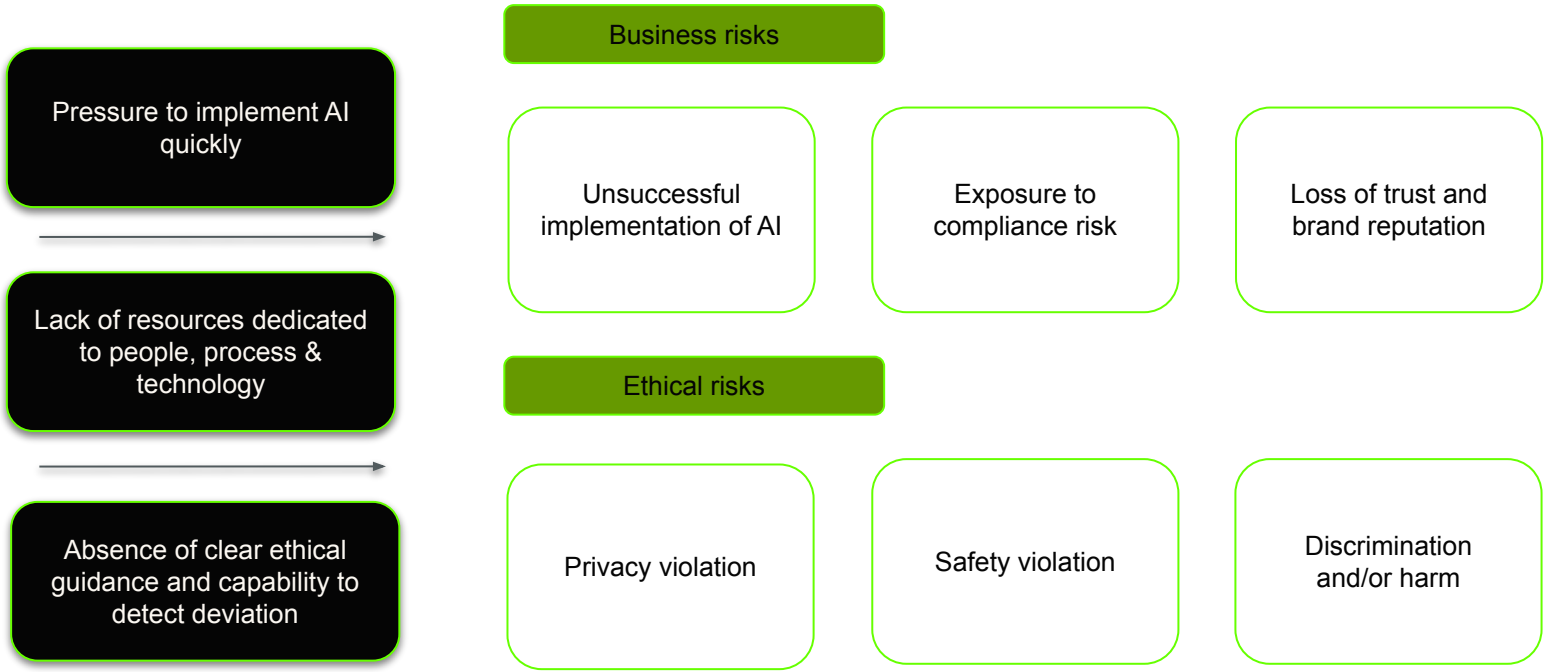
AI is increasingly subject to regulatory scrutiny and requirements. Integration of AI ethics across the model lifecycle can support regulatory compliance

Customer Reputation

AI ethics is essential for safeguarding customer relationships and your organisation's brand reputation. Ethical violations can erode customer trust and loyalty

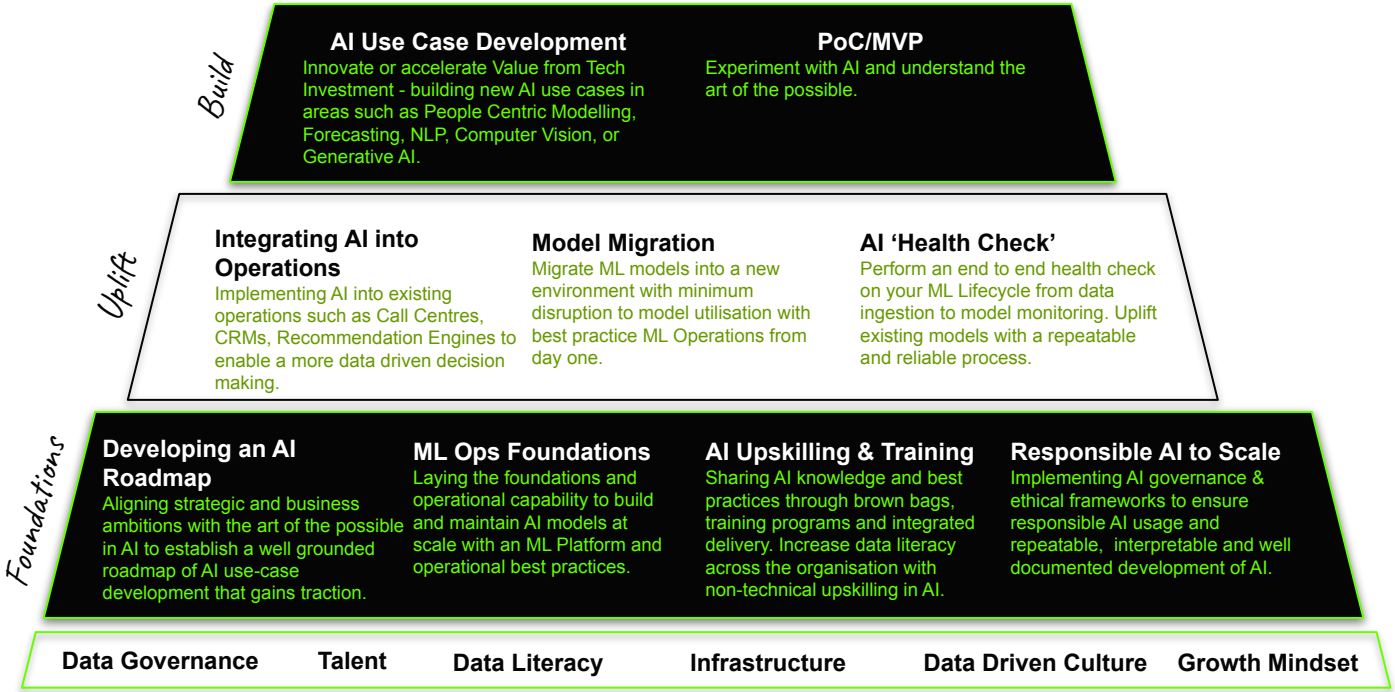
Why is AI ethics & governance important?

- Business risks and ethical issues



Setting the foundations for scalable AI

- Responsible AI is a key component that can not be overlooked



What does AI governance look like in an organisation?

- These core pillars must exist for enabling scalable responsible AI practices successfully within your organisation

Successful Implementation requires a concerted effort across all 3 pillars

- Integrating ethical principles into the core values and culture of the organisation
- Ensuring alignment between people, process and technology towards AI Governance objectives
- Leadership commitment and advocacy to foster a responsible AI ecosystem

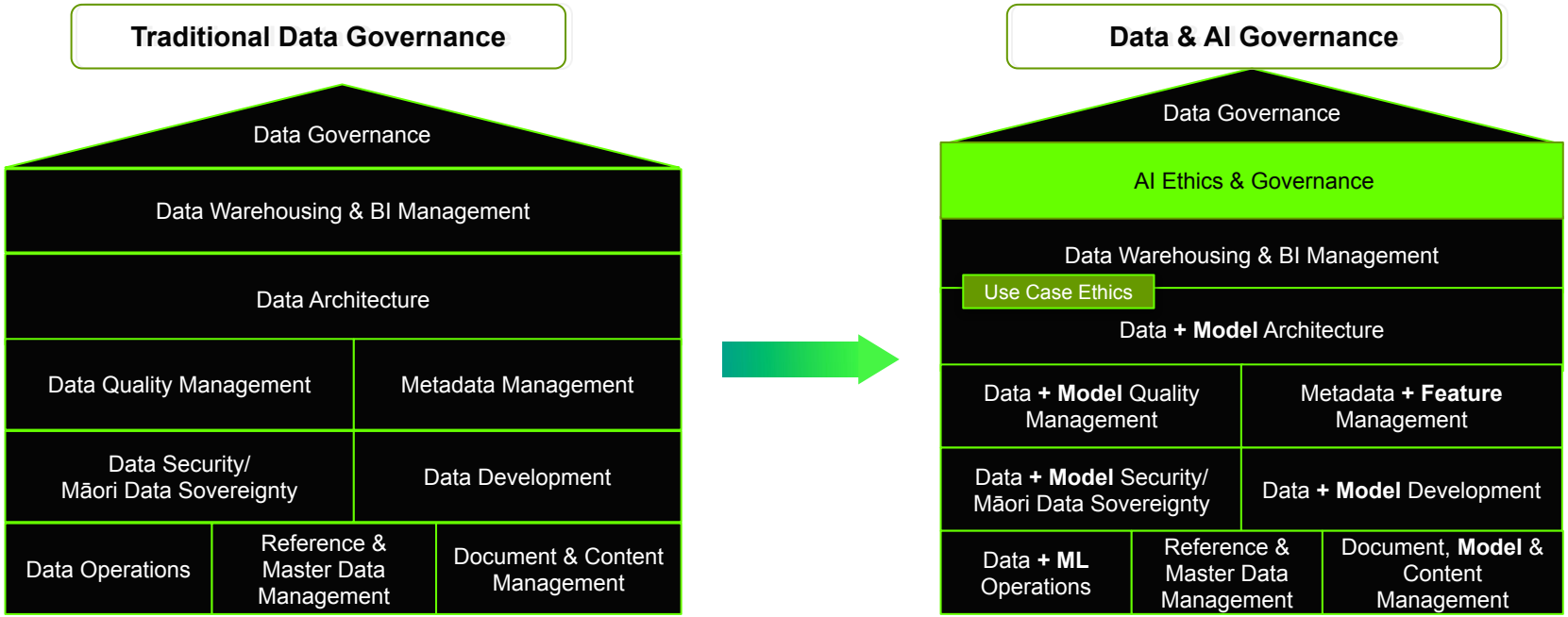
Governing data in the age of AI

- AI introduces novel challenges and layers of complexity in the governance of data

Data Volume	❏ AI places significant demand on data storage and processing capabilities ❏ Need to adapt, scale and future proof not only data infrastructure but data management
Data Quality	❏ AI's effectiveness is closely tied to data quality ❏ Reactive data quality management isn't adequate ❏ Data cleansing, validation and quality controls need to be seamlessly integrated
Regulatory Compliance	❏ Trend towards greater regulatory scrutiny of data and AI ❏ Evolving Privacy legislation, safe and responsible AI consultation ❏ Must stay on top of evolving regulations while maintaining operational efficiency
Increased Privacy Risk	❏ Incorporating personal or sensitive data in AI systems can increase risk to privacy even when data is de-identified ❏ Balancing leveraging data for AI and safeguarding privacy is a complex challenge
Algorithmic Bias	❏ AI models can unintentionally perpetuate biases present in training data resulting in discriminatory or unjust outcomes ❏ Mitigating these risks require impact assessments that explore ethical implications
Model Opacity	❏ AI systems can sometimes operate in enigmatic "black boxes" ❏ Model transparency poses challenges in explaining model outputs, particularly in scenarios where accountability and transparency are pivotal

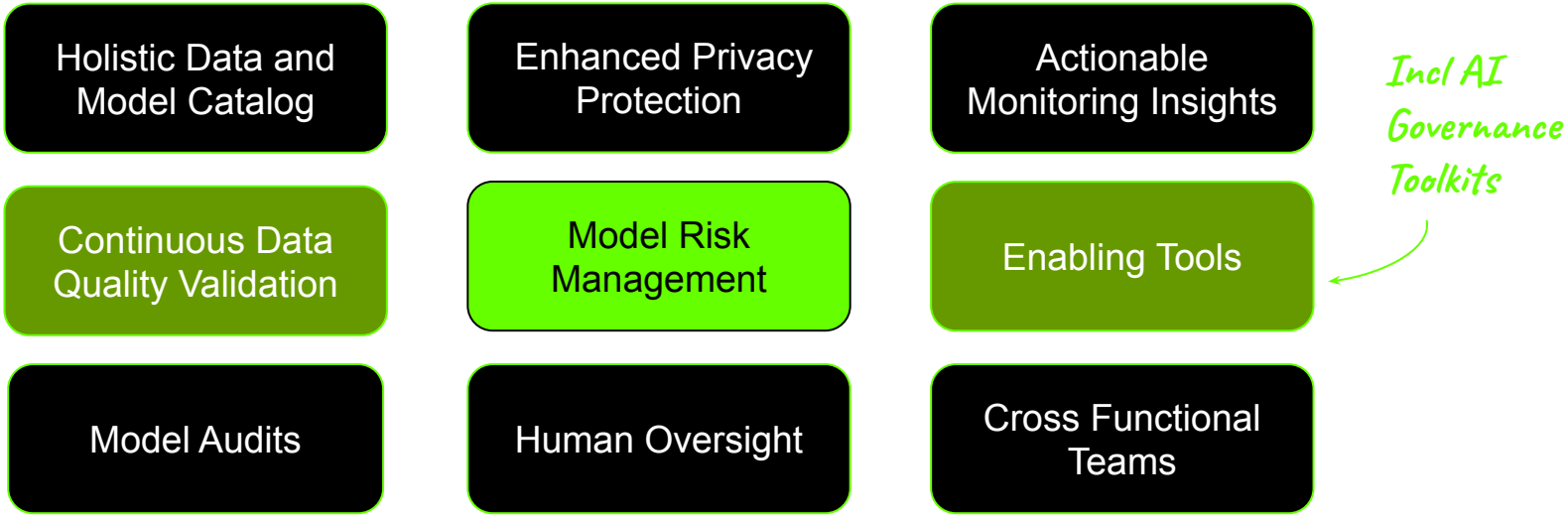
Evolving towards Data & AI Governance

- Data governance alone can not mitigate the risks of AI



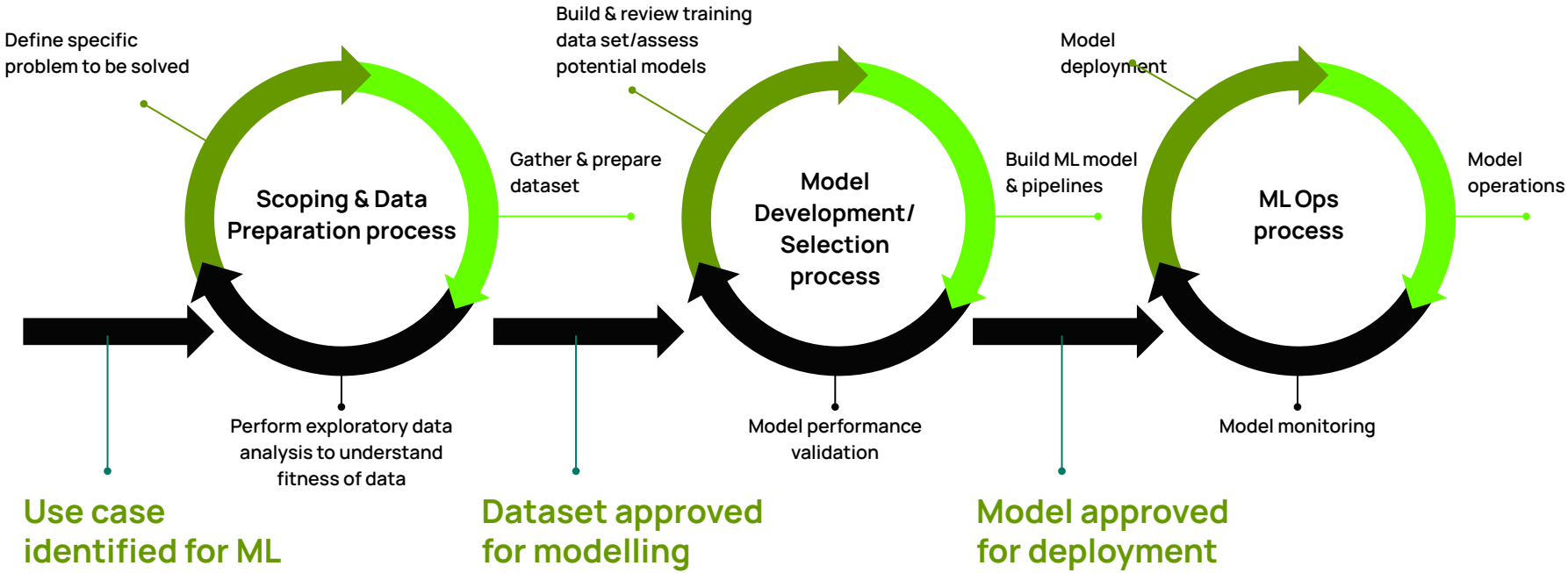
Unified Data and AI Governance Approach

- Key aspects, considerations and tools



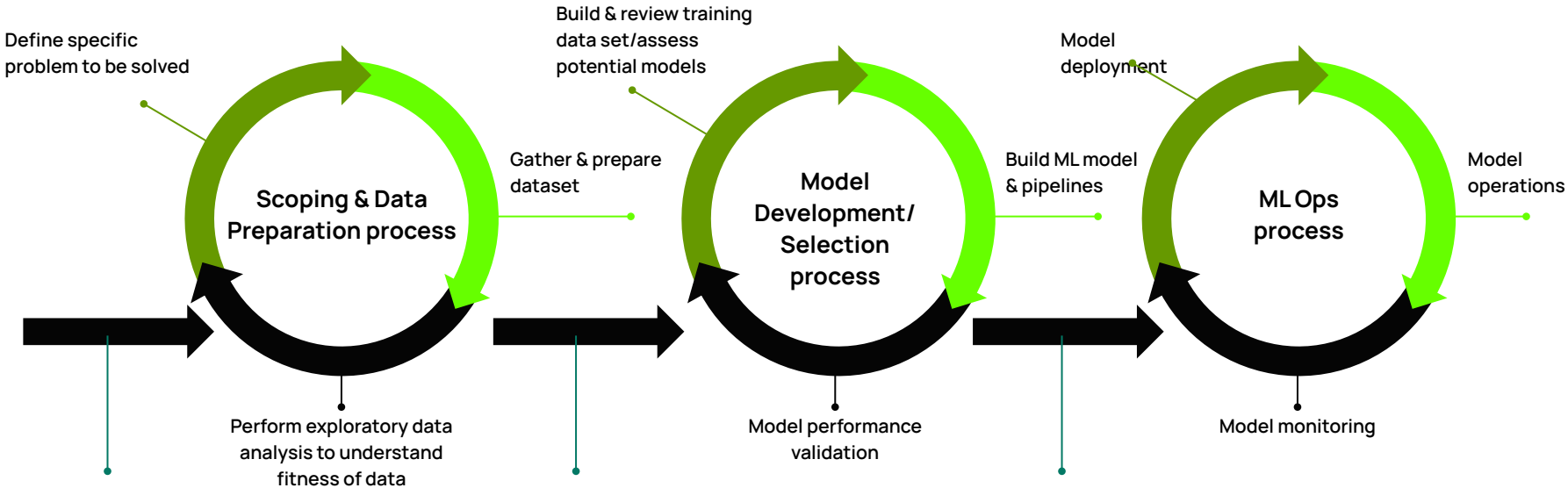
AI Development Lifecycle

- CRISP-ML (from CRISP-DM - CRoss-Industry Process - for Data Mining)



AI Development Lifecycle with governance

- CRISP-ML (from CRISP-DM - CRoss-Industry Process - for Data Mining)



Use case identified for ML

- Ethical Impact Assessment
- Risk level calculation

Dataset approved for modelling

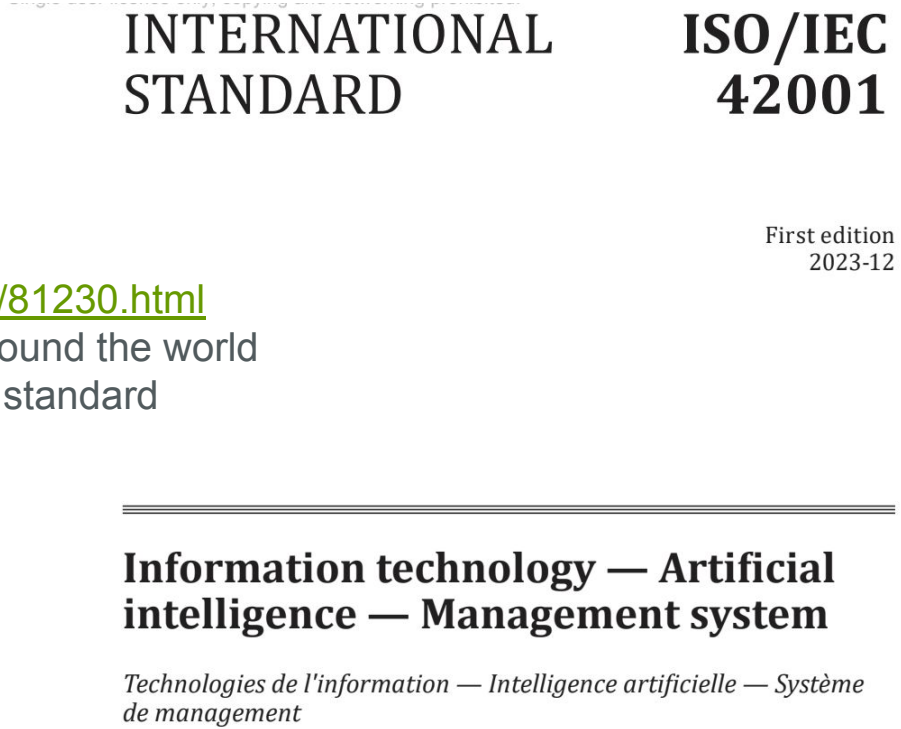
- Training data set bias review
- Model performance review across population

Model approved for deployment

- Model usage recommendations
- Embed ethics KPI's in ML Ops for monitoring

Selecting your AI Governance Approach

- ISO 42001 - the global AI standard


INTERNATIONAL STANDARD

ISO/IEC 42001

First edition
2023-12

Information technology — Artificial intelligence — Management system

Technologies de l'information — Intelligence artificielle — Système de management

- https://www.iso.org/standard/81230.html
- Compiled by experts from around the world
- Best practice AI governance standard

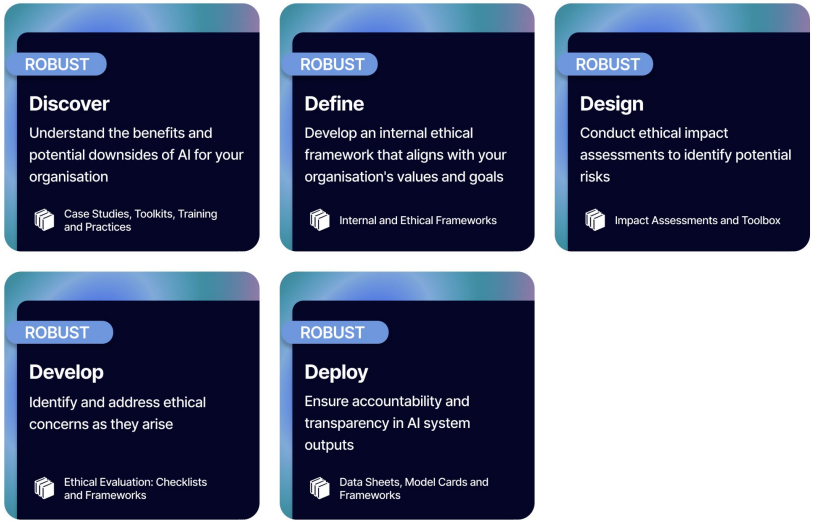
Selecting your AI Governance Approach

❑ Lite Toolkit

- Start your journey here
- Everyone using AI needs to consider values & principles
- An AI Impact Assessment is critical to uncover risks or potential unintended outcomes
- Good governance is a collective journey of continuous education and awareness

Selecting your AI Governance Approach

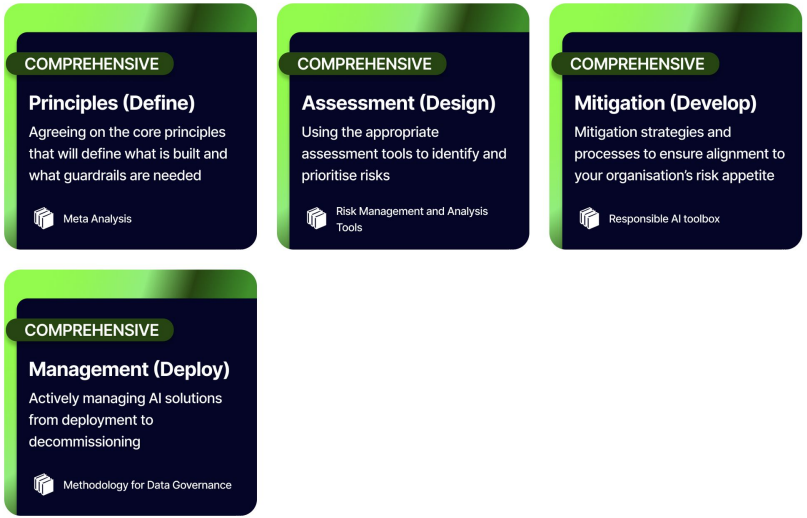
- Robust Toolkit



- When building and deploying your own AI models, ethics and governance must be embedded across the development lifecycle
- At each stage of the development lifecycle there are different considerations and practices
- This toolkit builds on the foundations in the Lite toolkit

Selecting your AI Governance Approach

❑ Comprehensive Toolkit



- When building and distributing your own AI tools and products, the highest standard of ethics and governance is required
- This toolkit builds on the practices in the Robust toolkit

AI Forum New Zealand

Te Kāhui Atamai Iahiko o Aotearoa