The AI Adoption Playbook

An assurance-first strategy and implementation guide for safe, secure and trustworthy artificial intelligence systems.

For product owners or idea champions who want to successfully adopt responsible AI and avoid failures.

May 2024 version

Introducing Advai's AI Adoption Playbook.

This playbook will help guide you in the development of an AI use-case.

Each stage has been designed to help you turn a good idea into a responsible reality.

These are the elements of each stage in this Playbook.

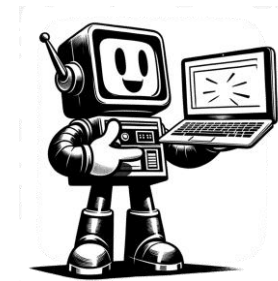They have been carefully chosen to help you consider everything you need to maximise the chance of AI success.

The staged process and all elements have been selected to bridge technical comprehension gaps and coordinate everyone involved.

Each stage produces the deliverable you need to proceed to the next stage.

Purpose
The reason for the stage…

Stakeholders
…that involves these people….

Assets
…and these things you need, to be able to…

Analysis
…answer these questions, so that you know to…

Actionable Tasks
…do these things, ensuring that you…

Deliverable
…generate these cards.

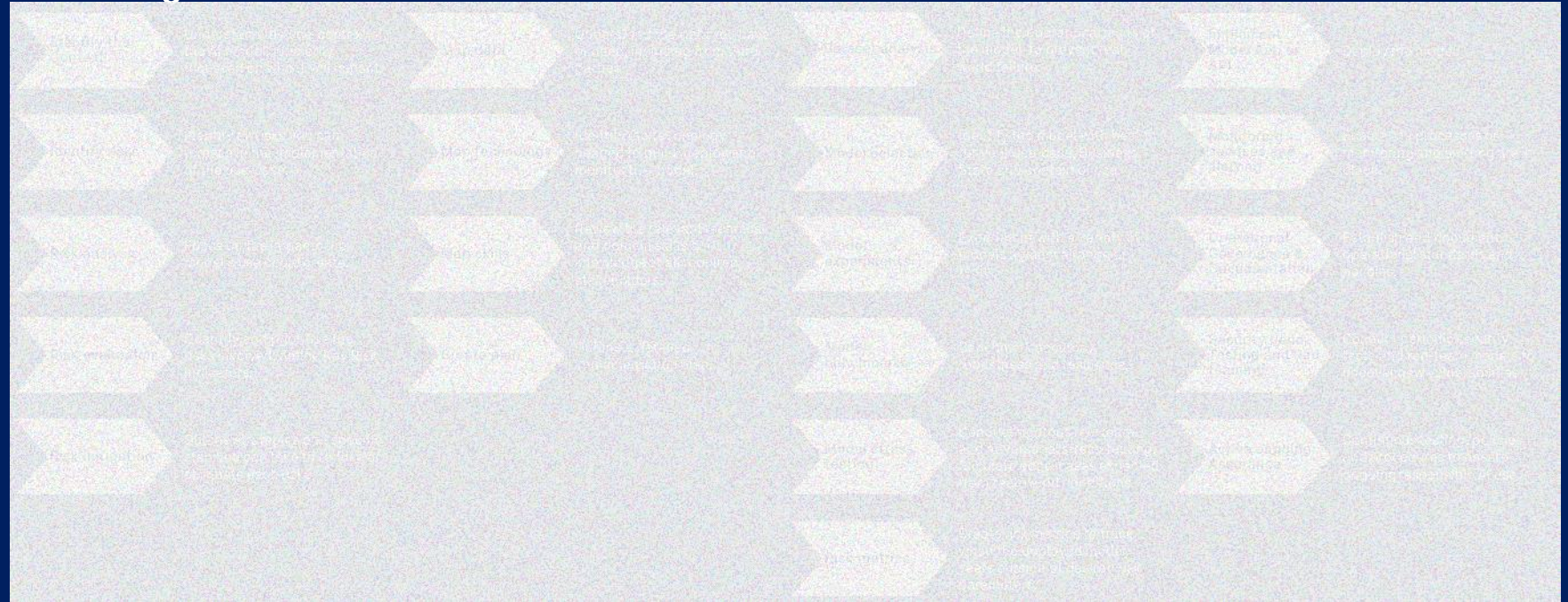**85% of AI models fail to reach deployment.**
Accenture, Gartner

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THE AI ADOPTION PLAYBOOK

These are the five broad stages of the AI Adoption Playbook.

1 — UNDERSTAND USE CASE SCOPE.

2 — INDENTIFY & MEASURE RISK.

3 — MAP DATA, SKILLS & RESOURCES

4 — DEVELOP & TEST THE MODEL.

5 — DEPLOY & MONITOR THE MODEL.

These are several key steps to each stage.

Identify use case — Identify specific business problems or objectives the AI can feasibly address.

Supply chain review — Review the series of prerequisites and third-party involvements for the use-case.

AI readiness checks — Check the broad requirements to adopt this AI solution.

Consider ethical factors — Identify ethical concerns related to the use-case.

Define metrics for success — Define business performance metrics to quantify the use-case success.

Each stage has a separate purpose, involves different stakeholders and requires distinct assets.

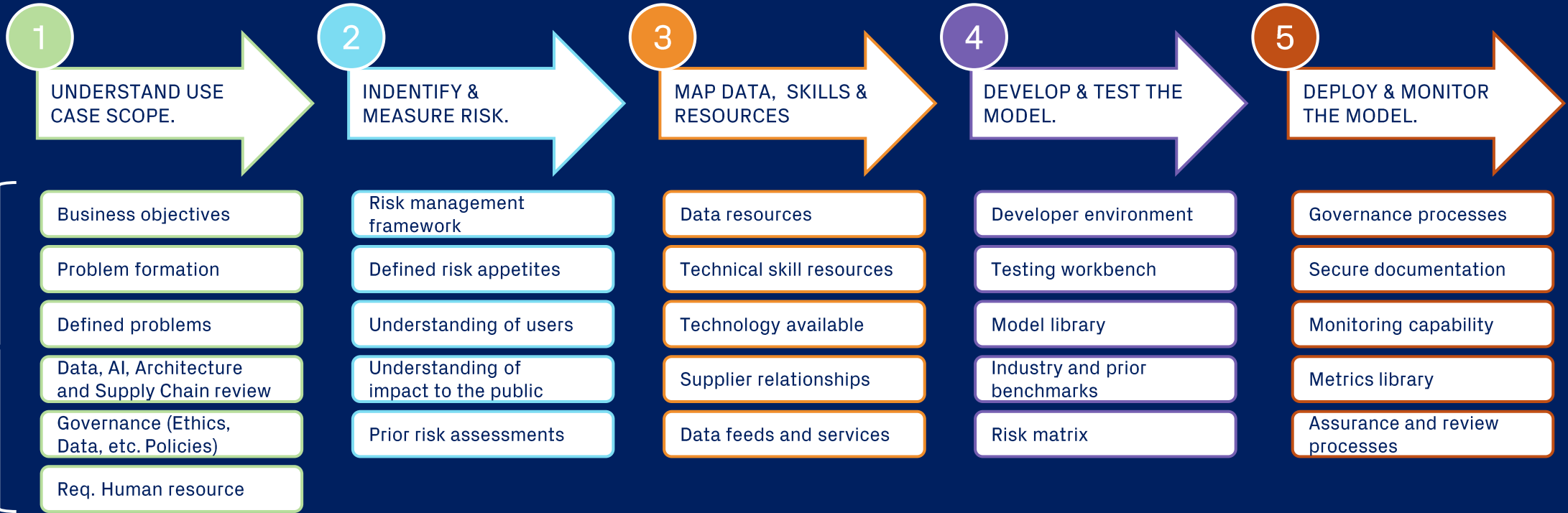|	**1** UNDERSTAND USE CASE SCOPE.	**2** INDENTIFY & MEASURE RISK.	**3** MAP DATA, SKILLS & RESOURCES	**4** DEVELOP & TEST THE MODEL.	**5** DEPLOY & MONITOR THE MODEL.
Purpose The reason…	Understanding the requirements, purpose, feasibility, and impact on the business.	Allocating risks is essential because The AI Act's primary concern is the level of risk posed to the public.	Understand if you have the data and skills to feasibly and efficiently achieve use-case objectives.	Ensuring development is undertaken according to the compliance requirements for the model's use.	Monitoring continuing operation to prevent lapses or deviations from intended behaviour or use.
Stakeholders …that involves these roles….	Leadership, Compliance, Risk Managers, Engineers, Scientists	Leadership, Security, Data Protection, Risk Managers, Scientists, Compliance	Resource Managers, Supplier relationship manager, HR, Business Users, Engineers	Scientists, Leadership, Engineers, Risk Managers	Compliance, Business Users, Engineers, Scientists
Assets …and these things you need, to be able to…	1. Use Case Library and requirements 2. Skills and Supplier needs check 3. Ethics, Data and AI Policies 4. Security Policy 5. Use Case KPIs	1. Risk Register 2. Use-Case Requirements 3. Data protection Impact Assessments 4. Security Risk Assessment 5. Use-Case specific Risks	1. Data Assets inventory, including third-party datasets 2. Technology Assets 3. Personnel Skills Matrix matched to tasks 4. Project Planning Template	1. Data Infrastructure 2. Model Registry and Experimentation Solution 3. Model Tracking Capabilities 4. Machine Learning Operations Lifecycle 5. AI Principles 6. Stress Testing Services	1. MLOps & DevOps Automation 2. Blue/Red Test Teams/Services 3. Model Monitoring Services 4. AI Governance Policy 5. Document tracking

The 'Business State' is a living read/write document with chapters aligned with each stage.

It should hold all information pertinent to the AI adoption process. As this Playbook guides you through the adoption process, you will create new information to add to this Business State document.

Each stage of the AI Adoption Playbook requires 'Business State' knowledge.

1 UNDERSTAND USE CASE SCOPE.

2 INDENTIFY & MEASURE RISK.

3 MAP DATA, SKILLS & RESOURCES

4 DEVELOP & TEST THE MODEL.

5 DEPLOY & MONITOR THE MODEL.

'Business State' knowledge aligns with each stage

Stage 1	Stage 2	Stage 3	Stage 4	Stage 5
Business objectives	Risk management framework	Data resources	Developer environment	Governance processes
Problem formation	Defined risk appetites	Technical skill resources	Testing workbench	Secure documentation
Defined problems	Understanding of users	Technology available	Model library	Monitoring capability
Data, AI, Architecture and Supply Chain review	Understanding of impact to the public	Supplier relationships	Industry and prior benchmarks	Metrics library
Governance (Ethics, Data, etc. Policies)	Prior risk assessments	Data feeds and services	Risk matrix	Assurance and review processes
Req. Human resource				

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① STAGE 1: UNDERSTAND USE-CASE AND SCOPE.

REQUIRED STAKEHOLDERS

- Risk Managers
- Leadership
- Engineers
- Compliance
- Business Users

| Identify use-case | Supply chain review | AI readiness checks | Consider ethical factors | Define success metrics |

ASSETS NEEDED

1. Use Case Library and requirements
2. Skills and Supplier needs check
3. Ethics Policy
4. Use Case KPIs
5. Data Policy
6. AI Policy
7. Security Policy
8. Data Policy

STAGE 1 PURPOSE

Understanding the requirements, purpose, feasibility, and impact on the business.

ANALYSIS

1. **Is the use-case viable?**
   A determination of whether the identified business opportunity or problem can be addressed with AI, given your business context and supply chain.

2. **Are we ready for the use-case?**
   An honest self-reflection for the organisation to determine their AI Readiness and the suitability of their use of AI in this context.

3. **How do we measure success?**
   Understanding and defining what success looks like, if the organisation were to adopt the AI model. This is likely to implicate a variety of stakeholders and the impact may be both qualitative and quantitative.

4. **Do we understand the context of the model use, who it impacts and if there any resulting ethical concerns?**

BUSINESS 'STATE'
Information about these states of the business inform whether you can continue with this stage.

- Business objectives
- Problem formation
- Defined problems
- AI readiness +Supply Chain
- Ethics policy
- Req. Human resource

Update company state

ACTIONABLE TASKS

1. **Define the AI's Purpose.**
   A clear understanding of the AI's specific purpose is a necessary compliance requirement. This is to prevent unnecessary risk of harm that comes with the use of any AI.

2. **Identify Benefits of Model Use.**
   Any cost-benefit analysis implies that the organisation has a clear understanding of what they are seeking to gain. This enables the justification of controlled AI risk-taking, and any investment needed to mitigate risks.

3. **Assign Key Stakeholder Responsibilities**
   Clarifying the chain of accountability for every component and every stakeholder involved in the creation, development, deployment and ongoing monitoring of all AI models is vital. Clear responsibilities will help manage risks and maximise value.

4. **Map Ongoing Communication Channels**
   Further to clear responsibilities, stakeholders will be dependent on other stakeholders fulfilling their role in an effective and timeline manner. Consistent and clear communications channels will enable inter-department cohesion.

5. **Prioritise AI Projects**
   Once each use-case is fully mapped out in this structure, the organisation will be able to compare the value and requirements of this use-case in contrast with others.

OUTPUT

Use-Case Card
Find on page 7

1

STAGE 1 DELIVERABLE: USE-CASE CARD

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REQUIRED STAKEHOLDERS

Risk Managers
Name:
Role:
Contact:

Compliance
Name:
Role:
Contact:

Leadership
Name:
Role:
Contact:

Business Users
Name:
Role:
Contact:

Engineers
Name:
Role:
Contact:

CHECKLIST

☐ Assigned Key Stakeholders

☐ Feasibility Assessment

☐ Defined AI Use Case Purpose and Alignment

☐ Supply Chain Review

☐ Consider Data Requirements and Sensitivity

☐ Ethical Assessment

☐ Updated Company State

☐ Identify KPIs and Benefits of Use Case

USE-CASE NAME, SUMMARY, PURPOSE

PRIORITY

BENEFITS OF THE USE-CASE

BUSINESS STATE BLOCKERS / REQUIREMENTS FOR SUCCESS

DATA REQUIREMENTS, ETHICAL ASSESSMENT, SUPLY CHAIN REVIEW

USE-CASE FEASIBILITY AND KEY PERFORMANCE INDICATORS

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Thanks for downloading Advai's AI Adoption Playbook sample.

Please get in touch for the remaining slides or if you have any qustions.

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UNDERSTAND USE-CASE
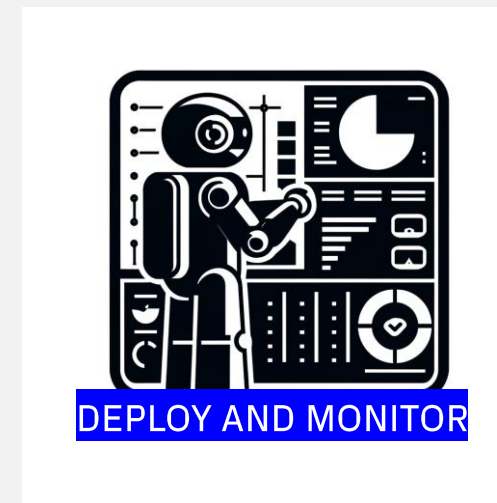
MEASURE RISK

MAP RESOURCES

TEST AND DEVELOP

DEPLOY AND MONITOR

Advai's Services

1 — ADVAI EXPLORE

Experimental Design

Bespoke fundamental research in partnership with core customers.

2 — ADVAI ADVANCE

Discovery & Strategy

An actionable roadmap for AI Assurance process.

3 — ADVAI VERSUS

Developer Workbench

State of the art Integration & testing tools that plug into an MLOps workflow.

4 — ADVAI INSIGHT

Stakeholder Alignment

A monitoring dashboard to keep everyone informed and updated.

5 — HORIZONTAL OFFERINGS

Safe AI Adoption Training

Identity Verification Assurance

AI Supplier Procurement Benchmarking

Generative AI Alignment and Guardrails

Venture Capital Due Diligence

KEY

- Organisational Governance
- Regulatory Compliance
- Risk management
- MLOPs dev frameworks
- Adversarial and red-team testing
- Novel or applied research

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Our tests are designed to ensure AI is trustworthy.

Trustworthy AI is critical in organisations or institutions that impact society and people or have regulatory requirements.

PROPIETARY APPROACHES

Our assurance techniques are state-of-the-art AI.

We use unique internally developed methods to stress-test AI systems to breaking point.

Our team builds testing algorithms from advanced research concepts.

AUTOMATE STRESS TESTING

Assurance and adversarial capabilities allow users to automate the discovery of model vulnerabilities.

Automated metrics for AI Risk & Robustness can benchmark your suite of AI models and perform dataset analysis.

BRIDGE STAKEHOLDERS

High-level insights are derived from technical results to allow senior stakeholders to make informed decisions from intuitive information.

This helps leaders govern the use of AI in line with business risk and compliance requirements.

MONITOR & GUARDRAIL

Models are monitored for anomalous behaviour post-deployment.

Failure modes discovered inform where guardrails must be implemented.

These measures prevent malicious use and ensure system and user behaviour aligns with business interests.

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Thank you

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