SUCCESSFUL AI IMPLEMENTATION IN BUSINESS – WHAT ARE THE KEY CONSIDERATIONS?

A BJSS eBook

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THE IMPORTANCE OF AI IN THE MODERN BUSINESS LANDSCAPE

Artificial intelligence (AI) is ever evolving, and there are innumerable industries that have been impacted by AI and have adapted to leverage it. The impact AI can have on businesses often seems limitless. However, it is key for organisations to ensure guidance and communication is clear around the ethical use of AI. This guidance can take the form of guidelines outlining the company stance on the responsible and ethical use of AI, to ensure all employees are aware of AI best-practice. With all the benefits that AI can bring to organisations, it is vital to consider the impact that its use can cause.

Around half of organisations are seeing benefits from using AI to automate IT, business or network processes, including cost savings and efficiencies (54%), improvements in IT or network performance (53%), and better experiences for customers (48%).

Source: **IBM, 2022**

In terms of AI, organisations are presented with a dilemma today. On the one hand, the growing awareness of AI makes it clear that it is something not to be ignored and implementation should be considered. However, there are unknowns and challenges that arise with these technologies, such as unexpected output, intellectual property, bias and discrimination, privacy/data protection (especially when using an online service), and lack of regulation.

This eBook will provide a comprehensive overview of considerations around AI that organisations should weigh up, not only prior to the use of AI, but at the implementation stage and beyond. With an emphasis on the ethical use of AI, the **considerations** that come with this, and the **benefits** that can arise when AI is implemented and governed correctly.

Benefits of Successful AI Implementation in Business Operations

The benefits that AI can bring to businesses in any industry are enormous. Depending on the intended goals and outcomes of each organisation, successful implementation of AI will differ for each business. The benefits of AI implementation will also vary based on the specific industry, use case, and the extent of integration within a company's operations.

Some benefits that can arise from the successful implementation of AI include:

- Automation and efficiency
- Improved decision making
- Enhanced customer experience
- Advanced analytics and insights
- Cost reduction and resource optimisation
- Enhanced productivity and innovation
- Risk mitigation and fraud detection
- Scalability and adaptability

How are industries using AI?

Here are examples of how AI has been employed across key industries:

Healthcare: AI is used for medical image analysis, early disease detection, drug discovery, and personalised medicine.

Financial Services: AI is applied for fraud detection, algorithmic trading, credit scoring, risk assessment, and financial planning.

Public Sector: AI is employed to enhance large-scale infrastructure monitoring, analyse traffic flow, and the development of policy planning due to advanced analytics on public data.

Retail: AI powers personalised recommendations, chatbots for customer support, inventory management, and visual search for products.

Energy, Commodities, and Utilities: AI tools can help estimate demand and improve energy production and distribution. The most prominent applications are enhanced data management and data analytics, improved development of equipment and facilities, and efficient waste storage and disposal.

DEVELOPING AN AI IMPLEMENTATION STRATEGY – THINGS TO CONSIDER

To make informed decisions about AI and how it could benefit an organisation, it is key to initially **assess the business needs and goals**. **Identifying potential use cases for AI** and **understanding the expected return on investment (ROI)** that could be delivered is a good starting point when developing an AI implementation strategy.

By addressing the questions below, businesses can gain clarity on their AI **implementation strategy** and align it with their own specific needs and goals:

What business problem or opportunity do we want to address with AI?

What are our long-term and short-term goals for AI implementation?

Do we have the necessary infrastructure and technology in place?

What are the potential costs and benefits of implementing AI?

What skills and resources do we need?

How will AI impact our employees and customers?

How will we measure the success of our AI implementation?

What is our implementation timeline and roadmap?

Evaluating data availability, quality, and accessibility is another key consideration when working towards rolling out the use of AI in your organisation.

By addressing the following questions, businesses can **gain a better understanding of their data landscape** and take the necessary steps to ensure that the data is of sufficient quality, quantity, and compatibility to support their AI implementation plans.

What data do we need?

What data do we currently have?

How reliable is the data?

Is our data complete and accurate?

Is our data relevant to the business problem we want to solve?

Do we have the necessary permissions and rights to access and use the data?

Are there any data security or compliance requirements?

Do we need to acquire additional data sources?

How will we manage and maintain the data infrastructure?

Leveraging AI can impact not only organisations, but employees, users, and the wider public. Implications can come in a variety of forms, such as financial, legal, or ethical.

The key questions you should be asking at the outset of any AI project are:

How will AI affect our business strategy and competitive advantage?

What are the ethical considerations of AI implementation?

What are the potential risks and challenges associated with AI?

What are the legal and regulatory considerations?

How will AI impact our data governance and management?

What are the long-term implications and scalability of AI?

By addressing these questions, businesses can proactively identify and manage the implications of AI implementation, ensuring successful and responsible integration of AI into business operations.

RESPONSIBLE AI – WHAT DOES THE ETHICAL USE OF AI MEAN FOR ORGANISATIONS?

With the development and growth of AI comes increased public awareness of the technology. The main public concerns include:

How are businesses working to protect data?

How are companies using AI?

Are companies using AI responsibly?

Company reputation is another vital consideration when it comes to the responsible use of AI. Being recognised for the right reasons in terms of AI usage is key to companies maintaining a positive reputation while ensuring that the work carried out using AI is ethical, sustainable, and long-lasting.

Building and implementing AI responsibly helps to meet those public expectations and put any concerns at ease. In addition to helping companies maximise the **benefits of AI** and **help reduce risks.**

Public Awareness

Reputation

Benefits and Risks

AI AND CORPORATE DIGITAL RESPONSIBILITY (CDR)

Privacy

Maintenance

Security

What are organisations responsible for when using AI?

There are many aspects to consider when ensuring corporate digital responsibility is carried out effectively. **Corporate digital responsibility (CDR)** is a set of practices used by an organisation to ensure data and digital technologies are used in a responsible way. This includes AI.

The main aspects to consider in terms of CDR are:

Privacy – Organisations need to clarify how the technology will use personal data as well as any sensitive or proprietary corporate data. General Data Protection Regulation (GDPR), which is the toughest privacy and security law in the world, though drafted and passed by the European Union (EU), imposes obligations onto organisations anywhere, so long as they target or collect data related to people in the EU.

Security – Not only important in your company's own use of AI, but also in terms of potential malicious attacks on your company from those using AI.

Maintenance – Following the implementation of AI technology, organisations must ensure the technology is kept up to date to perform as it should and remain as accurate as when first implemented. Maintenance can include the retraining of AI models to ensure they retain accuracy over time, due to changes that occur in real-world conditions and data.

BJSS worked with the multinational online beauty retailer, Beauty Bay, who wanted to innovate their IT systems. The company highlighted how poor UX experience was limiting the growth of the company. The focus was set on improving visibility and security, enabling the organisation to remain competitive, allowing the company to process 65,000 orders every 40 minutes.

BJSS secured the Beauty Bay infrastructure, meaning all customer and business data is protected by encryption and compliant with all regulations.

Read the full case study

AI GOVERNANCE – POWERING RESPONSIBLE AI

Responsibly implementing AI is crucial for businesses to build trust with their customers, protect user privacy, and prevent potential harm. **AI governance** is how businesses can ensure **ethical implementation of AI**.

What is AI governance?

AI governance refers to the set of policies, frameworks, and practices that guide the development, deployment, and use of AI technologies. It involves establishing rules, standards, and ethical guidelines to ensure responsible and accountable AI implementation. AI governance ensures that the quality of the AI that is implemented is upheld, and all stakeholders have clear communication regarding AI best practice.

The purpose of AI governance

The purpose of AI governance is to address the potential risks, challenges, and ethical considerations associated with AI. It aims to ensure that AI systems are developed and deployed in a manner that aligns with societal values, protects user rights, and minimises potential harm. Additionally, through the use of AI governance businesses can stay adaptable and prepared for future changes in AI technology and regulation.

AI governance is a combination of leadership, training, communications, guidance, policies, processes, and tools, aiming to address the three following areas:

Law – The rules enforced by our legal system.

Ethics – The rules enforced by culture and society.

Regulation – The rules enforced by governments.

Does AI governance have an impact on innovation?

AI governance is an evolving field, as AI technologies continue to advance and new challenges emerge. It aims to strike a balance between innovation and responsible use, ensuring that AI benefits society while minimising the potential risks and negative impacts.

When governance is done correctly, it can be a powerful enabler of innovation, whereas a lack of governance can actually hinder innovation. Clarity is required on the acceptable use of AI to mitigate any fear of wrongdoing. Companies that provide clear guidance on the use of AI, its features, and why it is employed will be able to fully harness the benefits of AI.

The Goals of AI Governance

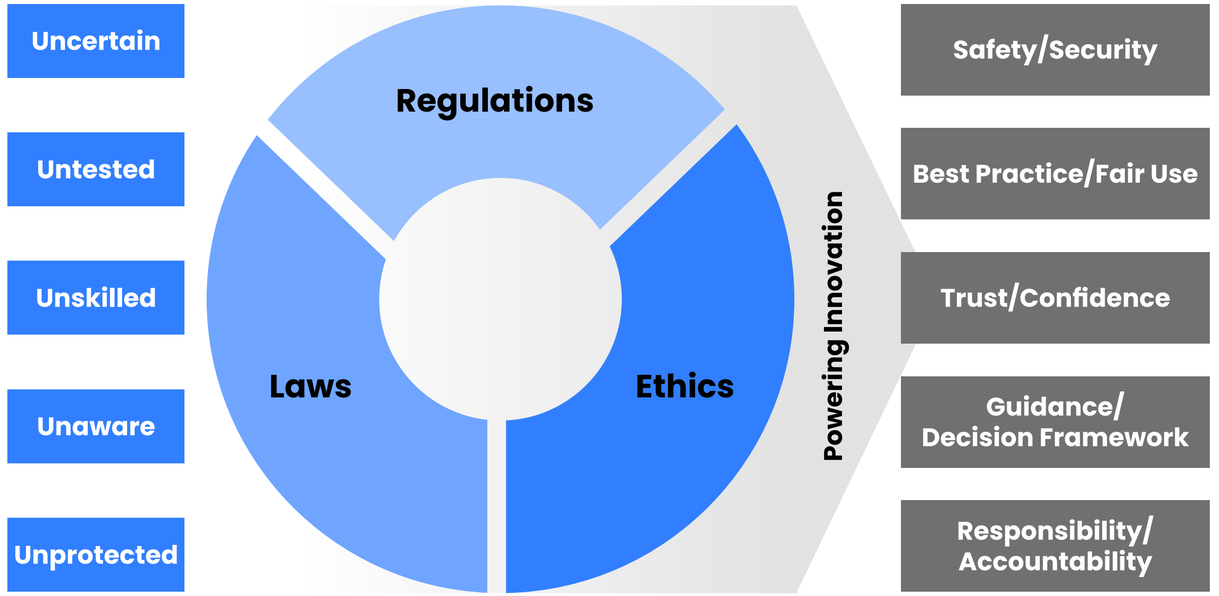
Ensure legal and regulatory compliance – Avoid any consequences that result from not adhering to laws and/or regulations regarding AI.

Protect against reputational damage – Reputational damage could stem from data breaches, or the wrongful or unethical use of AI.

Provide clarity on the acceptable use of AI – Providing accurate information on what AI can be used for and what it cannot be used for.

Provide confidence in the use of AI – AI governance can help in training and providing clear guidance on the use of AI. It can also help to provide confidence in whether AI is the right tool for the job.

Empower users – AI governance can speed up adoption by removing and eliminating fears and can supercharge innovation.



As we **innovate**, we need to consider the **impact** we have on both **people** and the **planet** and ensure what we are doing **reduces this impact** as much as possible, and where possible, provides a **positive impact** to the world we live in for future generations.

What does it take to successfully deploy governance?

There are several key components of governance required to power innovation:

Executive Sponsorship

To properly launch AI governance, clear executive sponsorship is required. This takes the form of a clear strategy and goals.

Governance Committee

Once goals have been set, there is a need for a body of work to ensure the goals are being met, as well as to define and enforce guidelines, and track progress.

Centre of Excellence

Ensure AI best practice can be carried out by collating and sharing accessible training resources for all involved in the AI strategy.

Decision Framework

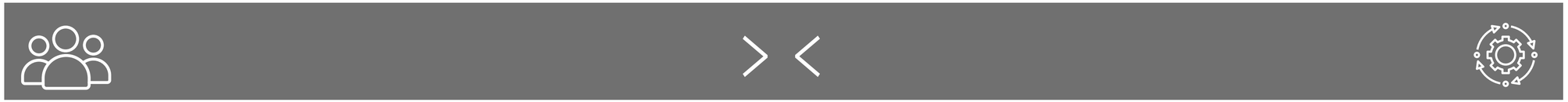
A set of clear rules and guidelines that make it easy for anyone launching new AI initiatives to understand what is acceptable.

Approval/Review Workflow

Beyond the guidelines and best practice, there must be clear processes to obtain clarity for anything that is not covered by the general guidance.

Processes and Tools

Finally, you need the systems and tools in place to be able to roll out your initiatives, provision infrastructure and data, measure progress, and ensure that due process is followed throughout. Given how AI learns over time and is therefore dependent on the data it is fed, it is crucial to have clear retention policies in place to be able to audit past decisions.



Executive Sponsorship	Governance Committee	Centre of Excellence	Decision Framework	Approval/Review Workflow	Processes and Tools
• Success starts from the top • Governance takes effort, leadership and sponsorship	• Keeps the three lenses in mind • Sets guidelines, standards and acceptable use	• Training • Best practice • Community of practice	• Clear rules • Provides confidences of doing the right thing	• Process/solution to approve new initiatives/uses of AI	• Discoverability and (self)-service • Monitoring and reporting • Guardrails • Auditing and retention

SUPPORTING CUSTOMERS WITH AI

BJSS helped develop a machine learning algorithm for a major UK retail bank. The algorithm was used to identify customers who were indicating financial difficulty, meaning they could be identified and contacted by the bank automatically. These customers were offered support before their matters got out of hand.

Previously, 30% of customers in arrears were in such a severe position that there was little the bank could do for them at that point.

Source: BBC News

Analysing Valuable Outcomes of AI Implementation

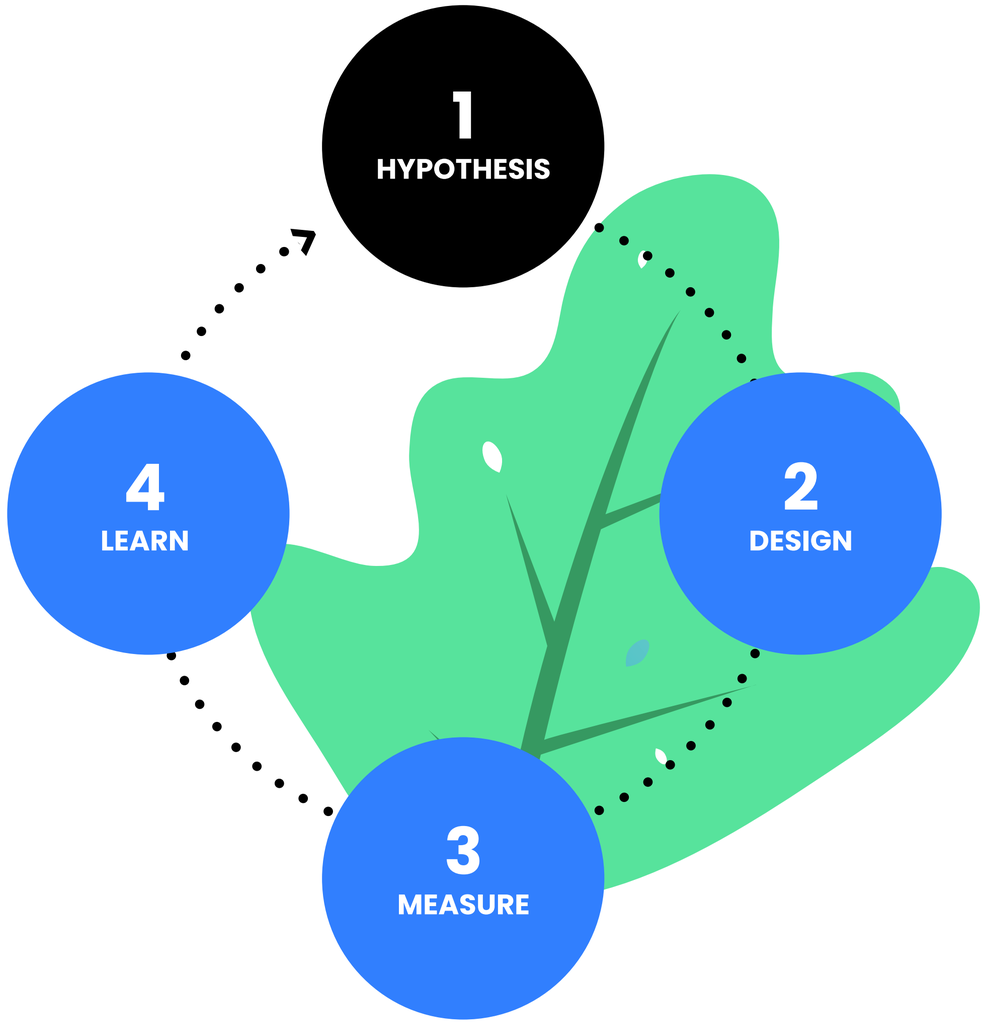
With so many potential applications, it's often difficult to know what successful AI implementation could look like in your organisation. What is classed as a valuable outcome is dependent on the goals of your organisation and the needs of the end user. And, because the use of AI is inherently an iterative process, there is a necessary process of experimentation to arrive at those desired results.

This is where a hypothesis-based approach can be incredibly useful when developing AI use cases. A hypothesis-based approach allows you to establish an assumption of how you believe AI could deliver value to users and rapidly test that assumption to confirm whether it's valid or not.

How a hypothesis-based approach can be used to deliver value to your organisation

Having a clear vision of what to measure will power insight into what can provide **value and feedback** – helping to understand what **successful AI implementation** means for your organisation. And equally as important is identifying what failure might look like – a failed hypothesis can identify and eradicate any wastedmoney and effort when it is not required.

A hypothesis-based approach can assist organisations in delivering value to users. The key to all hypothesis-based experimentation is ensuring that your approach is based on delivering value for your users from the outset.



The Process

1. Hypothesis

To begin the process of a hypothesis-based approach, the first stage requires planning of the assumptions to be tested. At this stage testable hypotheses exploring how value is created are defined and prioritised. Key things to consider at this stage include how value can be delivered to users, what we are trying to achieve, and what success and failure look like.

2. Design

At the design stage of the approach, taking into account the considerations from the hypothesis stage, tests are designed and built.

3. Measure

To measure results, tests are run to obtain regular user feedback. Considerations at this stage include the type of KPI (Key Performance Indicators) to track and how these KPIs should be tracked. Feedback from users at this stage helps to power the upcoming learning stage.

4. Learn

To learn and adapt from the assumptions that the hypothesis has proven, the evidence needs to be evaluated in relation to the goals of the organisation, and if necessary, the view of how value is delivered to users will need to be updated. It is at this stage that a 'learn loop' can be established, meaning that the outcomes learned from this hypothesis can feed into any future hypotheses. This stage allows for an insight into what users do, for example, how they interact with AI. This stage produces information on the values that users are focused on, and this will feed into the next round of hypotheses.

AI governance can be employed to control the implementation of the hypothesis to ensure this approach is robust, ethical, and safe for users when implementing AI.

Where could you add value by using AI?

Think about:

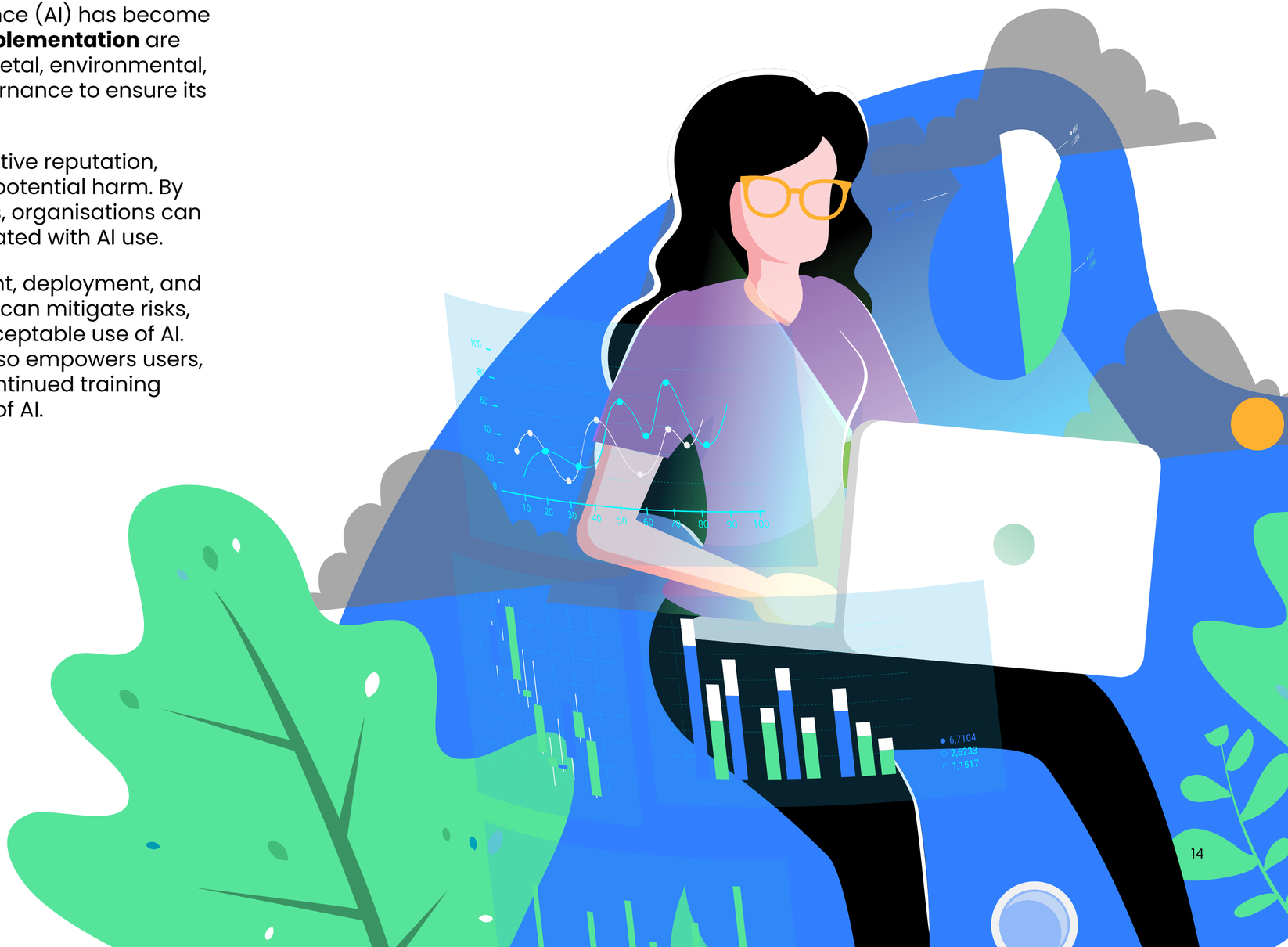
- Starting small
- Delivering real value for users
- How you would rapidly add value, produce results, and avoid producing 'waste'
- How you would measure and report on your success to demonstrate real value
- How would this impact people and/or the planet (positively or negatively)

CONCLUSION

In the rapidly-evolving business landscape, artificial intelligence (AI) has become an indispensable tool for organisations. **The benefits of AI implementation** are evident, however, it is also crucial to recognise the social, societal, environmental, and ethical implications of AI, and the need for effective governance to ensure its responsible use.

The **responsible use of AI** helps organisations maintain a positive reputation, protect user privacy, build trust with customers, and prevent potential harm. By implementing corporate digital responsibility (CDR) practices, organisations can address privacy, maintenance, and security concerns associated with AI use.

AI governance plays a pivotal role in guiding the development, deployment, and use of AI technologies. Through AI governance, organisations can mitigate risks, address ethical considerations, and provide clarity on the acceptable use of AI. This not only safeguards against reputational damage but also empowers users, instils confidence in AI, and drives innovation. Additionally, continued training within organisations is vital to keep up with the evolving field of AI.



Are you ready to unlock the full potential of AI for your organisation while ensuring responsible and ethical use?

BJSS is a leading technology and engineering consultancy with the deep expertise and understanding of AI implementation and governance to guide you through every step of the process, from strategy to execution and maintenance.

At BJSS, we believe that successful AI implementation starts with a solid foundation. Our team of experts will work closely with you to assess your business needs, identify the most suitable AI use cases, and develop a tailored implementation strategy aligned with your goals.

When it comes to AI governance, we recognise the importance of building trust and transparency. Our experienced consultants will help you establish policies, frameworks, and ethical guidelines to ensure responsible AI use.

Our dedicated Data & AI Centre of Excellence, along with our proven track record of delivering successful AI projects, makes us the ideal choice to help your organisation navigate the AI landscape with confidence. Contact BJSS today to explore implementing AI and AI governance.

Get in touch