THE AI BUSINESS CASE GUIDE

Making artificial intelligence work for your organization requires funding, buy-in and value creation.

Executive summary

Artificial Intelligence (AI) is revolutionary in its ability to transform the way every layer of your organization works. Assembling the right skills, technologies and resources is just as critical as scoping your use case.

With this fact in mind – 77% of responders to a recent executive study say that "business adoption" of big data and AI initiatives continue to represent a challenge for their organizations – we've put together this guide to help you create a robust business case for the successful adoption of AI.[1]

You'll learn how to:

- Pitch AI in a meaningful way to stakeholders.
- Align challenges, opportunities and use cases to strategic business objectives.
- Recommend deployment approaches, costs and benefits.
- Select an appropriate AI partner.

1 Big Data and AI Executive Survey, New Vantage Partners, 2019

Make a business case for AI and raise the necessary budget

Many great ideas never see the light of day, which can be damaging to business performance and personal reputations. Use this guide to build your business case and gain sponsorship to secure the necessary resources from budget holders.

Navigate through our eight-step guide, with the following objectives:

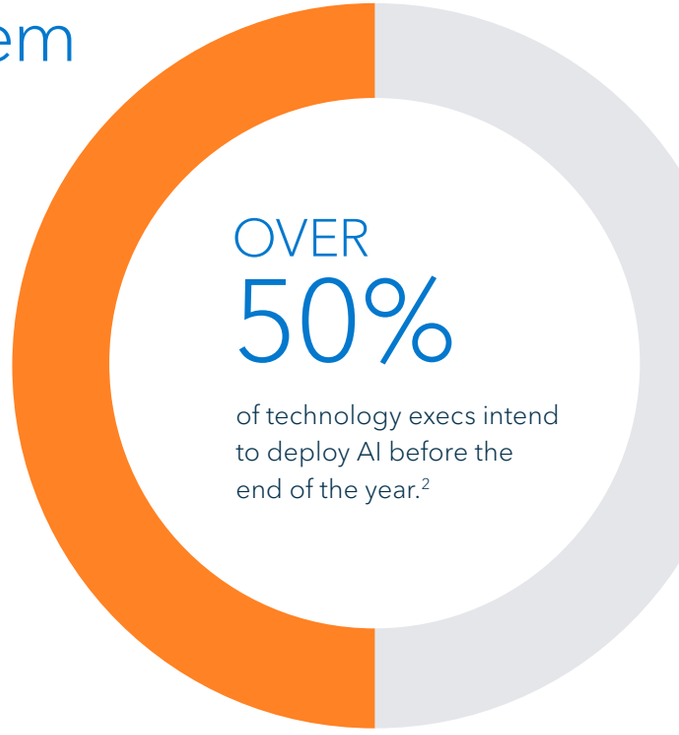
1 Know your stakeholders and what matters to them

Members of the board will be operating with one thought: **what can they do now to ensure the company thrives?** This involves working concurrently on both short- and long-term goals, seeking out ways to disrupt markets and sustain the business, to drive profit while funding investment, and to mitigate risk while exploiting opportunity.

These factors will also filter down to the lines of business, so when you propose AI investments and projects make sure to communicate them in ways that demonstrate you understand the complex nature of business strategy. For example, illustrate how AI can sustain the business by making current processes far more efficient and cost-effective. At the same time, show how it disrupts the status quo in order to open up new competitive opportunities – for example by developing wholly new products or services.

Does the board care about AI?

Usually company boards will not have 'eyes' on every operational project. However, because the word is most certainly out about the disruptive effects of artificial intelligence and machine learning, they are taking a closer look at how AI can be deployed to their advantage. Gartner's recent CIO Survey shows that over **50%** of technology execs intend to deploy AI before the end of the following year – an increase of **14%** versus previous surveys. To get your board beyond curiosity about AI, find ways to demonstrate how it can help them deliver on their strategic objectives.



Prepare for killer questions

Just because there is rising interest in AI, you still need to understand the lens through which any investment will be viewed. They will ask you the same questions they ask about any major investment or change program:

- Why do we need to spend all this money/make this level of change?
- What's the economic benefit?
- What's is the risk of not investing?
- How does it impact our people?
- What will it do for our long-term competitiveness?

Next: How to frame the challenge >

2 CIO Survey 2019: Implications for Product Marketers, Gartner, 2019

2 Frame the challenge in a way stakeholders care about

Understand that AI's reputation as a powerfully transformative technology could precede your business case. Be prepared with answers to stakeholders who believe that AI is "too big and too radical" for your organization, and therefore too expensive and complex to develop and manage.

Input from critics isn't all bad. A degree of cynicism is healthy given the business and public sector landscapes are littered with failed AI projects. In fact, we've seen recent research that suggests **80%** of organizations deploying AI see their projects fail. When pitching, it's vital to frame the challenges that AI can solve in language that's meaningful to the key stakeholders – anything else, and too much tech jargon could easily alienate your audience.

Focus on how AI will allow CEOs, CFOs and COOs to achieve their objectives of saving money, growing revenue, increasing operational efficiency or innovating products. For example, if you want to use computer vision to automate quality checks on key components of your premium product, give the use case a business context, as follows:

OBJECTIVE

To reduce defects in X product by Y% before they leave the factory

APPROACH

By deploying AI to scan all key components prior to assembly

IMPACT

Fulfill quality checks in **70%** less time to reduce product recall by **85%**

Squeeze more ROI

Similarly, given how many organizations see AI projects fail, it's vital that you demonstrate how one use case and one model development can quickly evolve to deliver value elsewhere in the business. Remember, business leaders are interested in extracting maximum value from investments. A 'land and expand' approach will show your stakeholders a pathway to optimize ROI.

Next: What's the impact of inertia? >

3 Describe the risk of doing nothing

Here you will need to present incontrovertible evidence that forgoing AI adoption will have a detrimental impact on your organization. The easiest way to do this will be to show the growth opportunity that AI can deliver and the rate of adoption by others in your industrial segment. Why is playing this card important? Because fear of missing out (FOMO) is a real concern for business leaders given the pace of digital transformation and how radically it has changed whole industries.

In essence, AI is set to be a major driver of the world's economic activity over the next 10 years. In fact, PricewaterhouseCoopers (PwC) forecasts that the accelerating development and adoption of AI will account for a **14%** boost to global GDP by 2030. A recent Gartner study revealed that within two years, AI would be a priority for more than **30%** of CIOs.[3] At an individual business level, the McKinsey Global Institute anticipates around **70%** of companies will adopt at least one type of AI technology by 2030, and less than half will deploy the full range.[4]

You can leverage this information to illustrate what could happen to your organization if it fails to keep up with the adoption curve. Across operating functions, it's clear that AI will be incredibly important in generating revenue, but what is the trend or sentiment amongst decision-makers going forward? Research by New Vantage Partners asked chief data, analytics or information officers the motivation behind their organization's continued investment in data and AI.

The results are telling about the negative impact of not investing in AI:

- **75%** fear disruption from new entrants.
- **88%** feel greater urgency to invest in big data and AI.
- Only **5%** are driven by cost reduction.[5]

Additional insight from Boston Consulting Group (BCG) shows that leaders view competitors' use of AI as a strategic risk: "What if competitors, particularly unencumbered new entrants, figure out AI before we do?" In recent studies BCG conducted with MIT Sloan Management Review (MIT SMR), only **37%** evaluated AI as a risk – and within 2 years that figure grew to **45%**.[6]

Create impetus today

If you think you may experience 'push back' because your board tends to be risk-averse, you'll need to make the case that unlike other waves of tech innovation, waiting for AI to mature is untenable. Why? Time.

It may take considerable time to develop AI systems that address the unique needs of your business, then for your IT department to integrate them into your operations. Following that, your people will need to learn to work with AI, which will require a governance framework to ensure AI is being deployed effectively and ethically. Any late adopters will still have to go through these processes, and by that time early adopter competitors will be able to function at a considerably lower cost, drive up performance and quite likely jump ahead of you.

Recommend a considered approach

While there is plenty of evidence available to show that failure to invest in AI could be an existential risk to your organization, adopting the technology too quickly opens you to the risk of failure by not having the skills, resources or processes to manage the adoption of AI. Be measured in your approach.

3 Build the AI Business Case: A CIOs guide to building the strategy and business case to implement AI in the enterprise, Gartner, 2018
4 Notes from the AI frontier: modeling the impact of AI on the world economy, McKinsey, Sept 2018
5 Big Data and AI Executive Survey, New Vantage Partners, 2019
6 Winning With AI, Pioneers Combine Strategy, Organizational Behavior, and Technology, Boston Consulting Group and Sloan MIT Management Review, 2019

Next: Demonstrate the positive outcomes >

4 Show the positive impact you want to have

The C-suite is attracted to AI for its positive potential, with New Vantage Partners citing 92% are driven by positive objectives – transformation, agility, or competition.[7] Furthermore, a recent study by BCG and MIT SMR revealed that 9 out of 10 respondents agree that AI represents a business opportunity for their company.[8]

This section of your business case should be packed with ideas and prospective use cases showcasing how AI could be deployed within your business. Complete this section in collaboration with line-of-business teams as a way to secure their buy-in and to present well-defined use cases.

Through its work with clients, Accenture plc believes that there are five characteristics pertaining to key business processes that firms usually want to transform with AI: **flexibility**, **speed**, **scale**, **decision-making**, and **personalization**. Seek them out within your organization or ensure your proposed use cases attach to one of these characteristics and you are more likely to deliver the AI-driven value your leaders want.

Speak the language of business

To help kick-start your process, we've included some impactful use cases cited by Gartner for consideration:[9]

- **Sales and marketing:** customize the sales process, tailor communications to prospects and customers, match sales staff to buyers and offer personalized pricing.
- **Customer service:** offer virtual customer assistance and triage, predict maintenance and upcoming repair needs, connect service staff to customers and discover process gaps.
- **Supply chain:** discover and correct data errors, discover risks in the supply chain, elevate insights from Internet of Things (IoT) devices in the field and plan logistics.
- **Customer journey:** help customers access their bank balances using chatbots, detect and prevent fraud, expedite customer complaints and enquiries.
- **Proactive engagement:** follow-up with patients post-discharge using virtual nursing assistants. Detect and monitor signs of disease faster and earlier than human clinicians can without the aid of AI. Model and predict the outcomes of public health interventions on health indicators within populations.

> "Organizations that embrace AI will drive better customer engagements and have accelerated rates of innovation, higher competitiveness, higher margins, and productive employees."
>
> Ritu Jyoti, Program VP of Artificial Intelligence Strategies, IDC

It's easy to see that many of the business process characteristics noted above are present in these use cases. For example, in **sales and marketing, personalization** is key. In **service**, **flexibility** is required in order to offer proactive customer care. In **banking**, **speed** is of the essence where fraud must be detected during real-time transactions.

7 Big Data and AI Executive Survey, New Vantage Partners, 2019
8 Artificial Intelligence Global Executive Study and Research Report, MIT Sloan Management Review and Boston Consulting Group (BCG), 2019
9 Build the AI Business Case: A CIOs guide to building the strategy and business case to implement AI in the enterprise, Gartner, 2018

Next: Prove what's possible >

5 Prove it's possible by showing that others have done it

At this stage show how your key competitors are using AI to create an advantage – this will act as a catalyst for investment within your organization. If you don't have competitor intelligence, simply research publicly cited success stories that address similar challenges and opportunities for improvement to your own organization.

You can visit SAS to see how we are working with organizations in the commercial and public sectors to make AI a reality today – and importantly, see what radical transformations we have delivered. For example:

ROGERS

Rogers Communications uses machine learning to become more customer-centric and cut customer complaints in half.

Royal Bank of Scotland

Royal Bank of Scotland uses NLP/text mining to drive transformational change and serve customers' needs better than their previous processes allowed.

Amsterdam UMC
Universitair Medische Centra

Amsterdam UMC uses AI-enhanced tumor assessments to improve cancer treatment strategies.

HONDA

Honda uses forecasting and optimization to reduce warranty costs and predict future demand for parts and services.

LOCKHEED MARTIN

Lockheed Martin uses AI and IoT analytics to keep aircraft operational to support their customers' crucial missions.

WildTrack
Non-invasive Wildlife Monitoring
Footprint Identification Technology FIT

WildTrack uses computer vision to monitor endangered species remotely and effectively.

Next: Craft your recommendations >

6 Recommend how you want to achieve it

Now you have sold in the opportunities AI brings, as well as the risks of non-adoption it's vital that you lock down your project requirements. It is crucial that you are as considered and factual as possible; remember that your stakeholders – particularly those holding the purse strings – will want numbers.

One way to make your requirement more consumable is to present transformation, through AI, as an evolutionary approach – no need to boil the ocean or attempt wholesale change. These three approaches can help you achieve this:

- **Refactor:** apply AI to enhance system behavior and performance within the context of existing business processes. Refactoring changes the internals of business processes and systems without affecting their external behavior. Regardless of where you start, implementing AI will require changes to existing business and technical practices.
- **Reinvent:** apply AI to modify how and when processes and services are delivered. Reinvention changes how things work in ways that appear to be different and new.
- **Reimagine:** apply AI to be disruptive. Reimagining changes the playing field entirely. Deploy products, services and engagement models that are totally original.

Making your plan

Deploying AI is merely the first part of the journey. Yes, it is where a significant proportion of up-front investment lies, but your plan must include the data, infrastructure, people and financial implications of scaling AI up and out across the business, over a number of years. In our experience, growing data assets and acquiring the right mix and number of people are two of the biggest obstacles organizations face when looking to transform their operations with AI.

Your business will scrutinize the financial costs, so you must be clear on the business value AI will generate. Consider using Gartner's AI strategy framework. This provides examples of AI applications and where they are relevant to business operations. Use it as a guide to plot your recommended use cases.

// **37%** of organizations are still looking to define their AI strategies. //

Build the AI Business Case: A CIOs guide to building the strategy and business case to implement AI in the enterprise, Gartner, 2018

COMMERCIAL MODELS

Gartner also reviews the relative merits of different commercial models for AI deployment and growth. In essence, you have two options:

1. **Take AI in house** with full control over development and deployment processes, people, timescales and the technologies you want to use. However, the flip side of control is that you will have to take full responsibility for managing data as one of your most valuable assets, delivering projects on time and to budget, for resourcing, managing risk and challenges around ethics and data governance, as well as for delivering strong ROI.
2. **Partner an experienced AI provider** and rely on their proven software and support. Of course this can be a partner from the open source community, or a proprietary vendor – and this choice is a critically important one. You will need to weigh up the relative merits of giving your AI teams development freedom versus delivering strong frameworks and processes for governing data use and model building and testing, in order to reduce risk and speed time-to-market. You may also access support from professional services experts to develop use cases, and adapt your operational processes to support AI.

TECHNOLOGY

- What does AI mean for your current infrastructure?
- What additional compute power, associated storage, networking, integration and support will be needed, either through an on-premises strategy or through public and hybrid cloud?
- Work with your IT team to scope budgetary costs.

DATA

- Because success with AI is so dependent on data, you will need to plot the time and cost of acquiring, preparing and integrating relevant sources.
- What form will your data repository take? What about the costs of evaluating the data and modelling it?
- How many data scientists will you need?
- How long will these preliminary phases take?
- Address the important issues of security and compliance – ensuring that data is traceable and auditable.
- How are those costs likely to change over time?

FINANCE

- Any of these data, technology and people issues have financial implications. For that reason, your proposal should include a detailed impact summary with all assumptions documented as footnotes to allow discussion and refinement to ensure all decision-makers have the full picture.
- Many senior managers might consider AI to be a **capital expenditure**. It is, in fact an **operating cost**. It can boost the bottom line by driving up revenue and cutting costs, but budget needs to be allocated to ensure the algorithms and models are working correctly and optimized over time as your competitive landscape and customer data changes.

Next: Substantiate your partnership >

7 Provide substantiation to support your choice of partner

Artificial intelligence is a strategically important technology that should not be treated as a point solution purchase. Getting it right with AI is therefore a hugely risky endeavor, with many wide-ranging factors to consider and pitfalls to traverse. In order to meet your needs, from data prep to compliance, experience tells us that the ideal partner will be one with the following characteristics:

REPUTATION & EXPERIENCE

There are lots of potential partners out there, many of whom simply provide black-box solutions. Tap into a partner with decades of expertise in embedding AI into operational enterprise environments, because they will bring an in-depth understanding of people, processes and technology. Due diligence is key; research what they have actually achieved for clients. Explore how connected they are with all the relevant issues associated with AI, such as ethics, as their thought leadership will help you unlock the true value of AI and avoid the pitfalls.

FINANCIAL RESILIENCE

AI investment is not a short-term activity. In order to secure today's investments for the future, your partner must be able to demonstrate unequivocal financial stability, so that your relationship is assured and future-proofed.

END-TO-END CAPABILITIES

Deploying an artificial intelligence system is a highly complex operation. You must simplify and de-risk the process. Look for a partner with strong data management capabilities – one who can help you drive up data quality and cleanliness ready for models, and then operationalize them rapidly while preserving transparency through in-built governance. Ask a prospective partner about their proposition in this area because an end-to-end approach can help you to optimize analytical efficacy and business value.

FLEXIBILITY

AI is almost always a uniquely bespoke proposition, so you'll want a partner that can offer you choice and control. By choice, we mean giving your developers and data scientists the freedom to work in the preferred language, whether open source or proprietary. Yet your business needs to mitigate risk through control with a uniform governance framework. The ideal partner will provide both capabilities in one solution.

Next: How SAS can help >

8 Why SAS as your AI partner?

By choosing to work with SAS you will be giving your organization a huge advantage: **simplicity**. We bring one platform that supports you across the AI lifecycle from data ingestion, preparation and visualization to feature engineering, modeling, scoring, deployment, and retraining.

This platform offers you **huge flexibility** and choice, fitting with your evolving IT strategy because it works with any environment from mainframe to Linux OS, any database from Hadoop to in-stream, at any scale from on-premises to in-container or cloud.

There is even more flexibility when you consider that you can integrate data preparation, discovery and deployment using any language. However they like to work, your people will have the capabilities they demand; writing R, Python code directly into SAS or by making API calls for Java, Lua, Python, R, or Scala. Yet there is also exceptional **peace of mind and repeatability** offered because our one platform delivers **governance of all your data and analytics assets, including open source**.

Ultimately, because SAS is **consistently rated as a leader in AI** by top industry analysts, and because it provides such as broad range of capabilities for your data scientists, spanning statistics, machine learning, deep learning, text analytics, econometrics, time-series, forecasting, and optimization, your entire analytics and AI operation will be more productive and efficient. And all with the simplicity of working with one expert partner.

Of course, it's not just about our technology. **Our people are passionate and curious**, keeping us and our customers at the forefront of AI innovation for decades. Their commitment helps organizations from banks to healthcare providers, governments to conservationists achieve the real-world value from AI that they hoped and planned for.

Reach out to us for support with your AI business case.

We're ready to help.

Take a closer look at SAS for AI.

Please visit **sas.com/ai**