Deloitte.

The Generative AI Revolution is here...

...are you ready?

10 Key Decision Points for Generative AI Success

A collaboration between Deloitte's Insight Driven Organisation and The AI Institute

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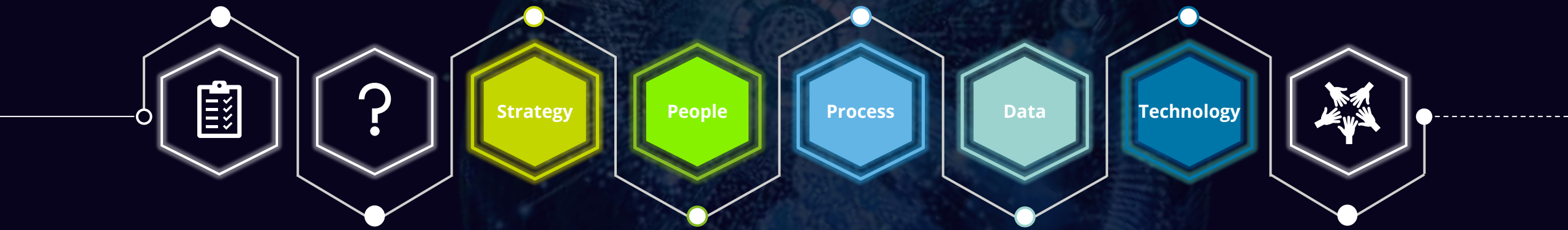

Our market leading Deloitte AI Institute and experience of being at the forefront of use case delivery has taught us the 10 key decision points needed for Generative AI success

We have been using our Insight Driven Organisation proposition to guide our clients through large scale data, analytics and AI transformations for over 10 years. Considerations across ***Strategy***, ***People***, ***Process***, ***Data*** and ***Technology*** will be critical for scaling successfully

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What is Generative AI and should you believe the hype?

Generative AI is dominating the conversation in boardrooms, banks and bars, but what is it and is it really going to change the world?

Since OpenAI launched ChatGPT for public use in December 2022 there has been unprecedented interest in its potential and our future with Generative AI as it continues to create disruption in what is seen as a shift in technology, with impact as big as the Industrial Revolution.

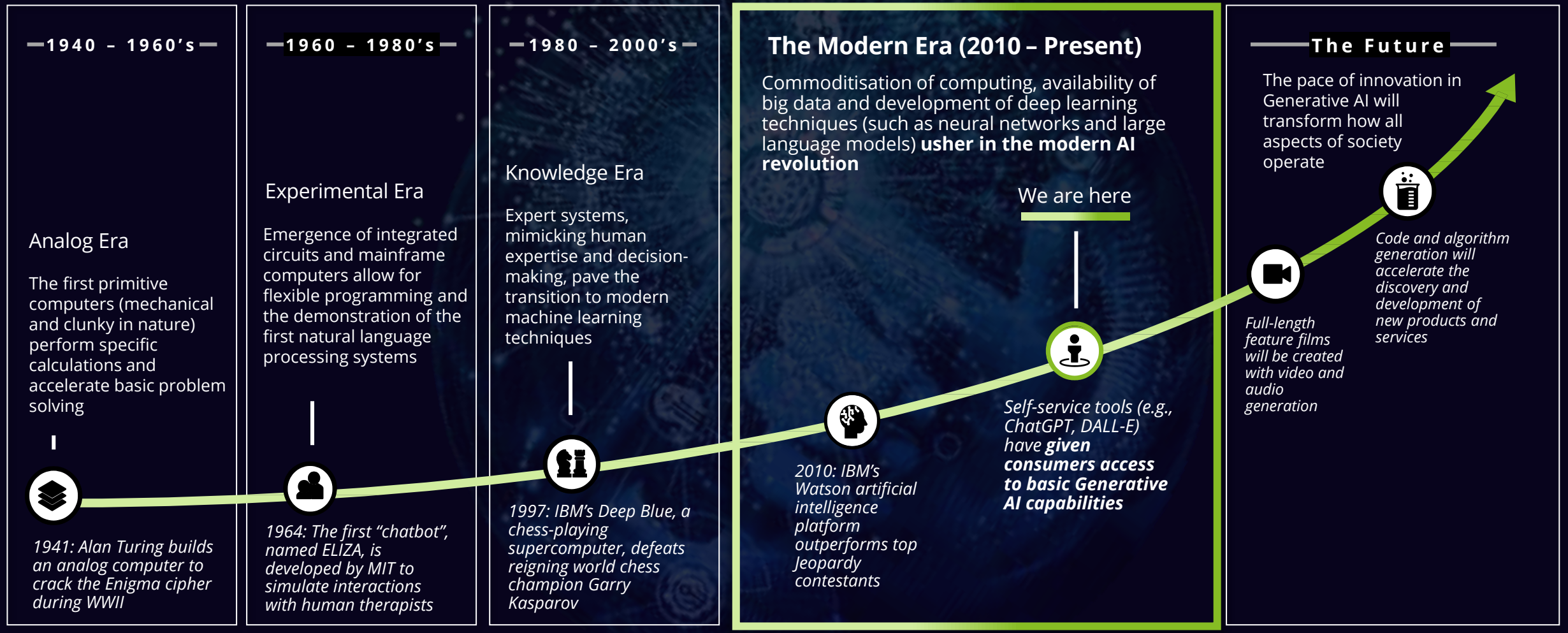
The collective pace of innovation, awareness, business adoption and economic impact signals an "iPhone moment for AI", propelling the promise of AI into transformative outcomes in which businesses must leverage the technology to stay competitive in the market.

We've brought together a range of leading experts from across the globe to develop this short perspective. Our aim is to guide you through the complexity and jargon associated with hype cycles, enabling you to truly understand how Generative AI could transform your business.

We believe the transformational opportunities that Generative AI presents for all industries are extraordinary and exciting. But, as with any new technology, there are associated risks which need proper consideration.

A history of Generative AI

The Computing and Artificial Intelligence Innovation Curve



What is Generative AI?

Let's start by setting some context...

Five days after its launch, ChatGPT had more than **ONE MILLION USERS.** (Greg Brockman, Co-Founder of OpenAI).

WHAT IS GENERATIVE AI?

The ability of machines to create outputs across various modalities creating new content like text, images, videos and music autonomously via prompts

HOW DOES IT WORK?

Generative AI is powered by foundation models such as OpenAI's GPT-4, NVIDIA's Megatron and Google's PaLM, which are trained on vast amounts of data and computation to perform a broad range of downstream tasks

WHY IS IT IMPORTANT?

Innovations in machine learning and the cloud tech stack coupled with the viral popularity of publicly released applications have propelled Generative AI into the zeitgeist

WHO IS INVOLVED?

Big Tech is building and enabling access to foundation models and start-ups are developing user applications on these underlying models – and companies are beginning to adopt

WHO OWNS THE TECHNOLOGY?

There are a few players in the market who own foundation models for generating images, video, audio and coding including (but not limited to) Open AI, Google, AWS, Cohere, Midjourney and Microsoft

Example Modalities

Code

Image

Text

Audio

Video

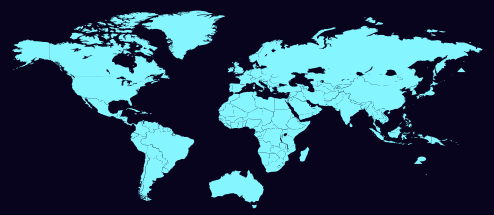
Should you believe the hype?

The economic potential of Generative AI has been estimated to be larger than the UK's GDP which was $3.1 trillion in 2021

SO, THERE'S VALUE POTENTIAL...

There is huge potential for individual business impact, with Generative AI significantly decreasing costs for creating knowledge-intensive content such as IT code, marketing copy and creative design.

ECONOMIC IMPACT



$791 Billion
Global Revenue by 2026 for AI application [1]

ENTERPRISE APPLICATION

79%
Of leaders reported full-scale deployment for 3 or more AI applications [2]

GLOBAL AI SPENDING CAGR

27%
By 2026
Global spending on AI forecasted to reach $154B in 2023 and $300B by 2026 [3]

[1] Source: IDC
[2] Source: Deloitte "State of AI in the Enterprise 4th Edition"
[3] Source: Deloitte "A new frontier in artificial intelligence"

...BUT WHY SO HIGH?

One of the reasons we at Deloitte believe that Generative AI will become an enduring part of our lives and the way businesses operate is that the technology is easily accessible to all today. Anyone can interact with ChatGPT and ask, "what should I have for dinner tonight?" or "can you plan the itinerary for my next vacation?" ChatGPT can even write your CV if you provide enough information.

With accessibility and experience comes possibilities. As people become more familiar with this technology they will begin to consider the impacts it could have on their day to day lives, including how they approach work.

A barrier to other data and analytics solutions has consistently been adoption at scale. But the productivity gains that Generative AI can deliver on an individual basis mean its adoption is much more likely.

The dawn of Generative AI marks the start of the next productivity revolution.

Business leaders are acting now

And so should you….

WHY ACT NOW?

Gain competitive advantage: it is a strategic imperative that organisations get on the Generative AI journey early to stay competitive (regardless of industry) to benefit from its evolution

Generative AI is a great equalizer, democratising AI: understanding how and where your people are already using GenAI is key for risk mitigation and maximum value realisation

New technologies will compliment Generative AI: most future technological innovation will come from Generative AI highlighting the importance of early adoption

Futureproof your organisation through proximity to technology: there is a need to be familiar with the technology and understand its value to be ready for the next technological shift

AI will embed in most components going forward: Generative AI has changed the way we interact with computers and will continue to – both for our workforce and our customers

*"GenAI is not an isolated solution but a **flexible, versatile and scalable technology** applicable across a digital transformational journey. Embrace GenAI as a **powerful fabric** to enrich your business strategy."*

Sulabh Soral, Chief AI Officer, Deloitte

There are always myths associated with new technologies, we sort them from the facts

We understand there might be nervousness around starting your journey, but don't let the myths delay you from capitalising on Generative AI's value

MYTH	FACT
Generative AI will make obsolete the need for humans to perform work	**Generative AI** complements and accelerates the work of humans
Generative AI creates completely novel and original content	**Generative AI** is trained on existing data and therefore produces content based on patterns learned from that data
Generative AI is always accurate/always produces high quality content	**Generative AI** models are only as good as the data that they are trained on
Generative AI models can replicate human thought and emotion	**Generative AI** can mimic human actions but cannot replicate human emotional intelligence

VALUE

Efficiency	Automation of manual, repetitive, or tedious tasks
Scale	Operations at a much larger scale compared to those of which humans alone are capable
Novelty & Innovation	New, innovative ideas and solutions that may not have been considered by humans alone
Creativity	Potential to unlock new levels of creativity by generating unique, diverse outputs not limited by previous biases
Personalisation	Customized outputs for each individual user by considering their preferences
Quality	Learning from larger amounts of data and identifying patterns that humans may not be able to

Your competitors have already started exploring Generative AI opportunities

Generative AI has many applications across industries; the below use cases are just some of the possibilities...

	Energy, Resources, and Industrials	Financial Services and Insurance	Government and Public Services	Tech, Media and Telecom	Life Sciences and Healthcare	Consumer
Audio	Field Virtual Assistant	Retail Banking Transaction Support	Intelligent Agents / Student Office Hours	Translations, Subtitles and Descriptions	Automated Follow-Ups	Conversational Retail
Code	No-Code Physics-Based Environments	Database Search	Knowledge Management	Original Games Creation	Clinical Trial Data Processing	Marketing Speed
Image	New Product Development	Fraud Detection	Infrastructure Mapping	Semiconductor Chip Design	Improved Medical Imaging	Product Photography and Details
Text	Technical Document Summarization	Customer Due Diligence Reporting	Intelligent Case Management	Cybersecurity Threat Detection	Medical History Summary	Personalized Supermarket
Video (Early Stages)	Event Identification	Claims Footage	Citizen Support	Virtual Anchors	Digital Therapy	Commercial Brainstorming
3D Models & Data	Geological Assessments	Financial Model Enhancement	Disaster Recovery and Planning	Telecom Network Maintenance	New Drug Discovery	Rapid Product Design / Consumer Preferences
VALUE UNLOCKED	***Efficiency***, ***Scale***, ***Novelty & Innovation***, ***Creativity***, ***Personalisation***, ***Quality***					

PATH TO VALUE

What is your Generative AI strategy?

Your strategy should be clear on the value it wants to realise and where – it should be clear on the route you will take to get there through considered, achievable action

What's your route?

1. **Greenfield**
Creating a **new business/branch** of your business (with **no change to "legacy " business**), developing innovative solutions end to end with GenAI at the core
Main benefit: "sandboxing" GenAI transformation realising maximal impact with minimal disruption

2. **Greenfield + Brownfield**
Spin up a new business with GenAI at the core whilst performing GenAI use case development in legacy business
Main benefit: you run large scale transformation and initial PoCs which demonstrate early value in tandem

3. **Brownfield**
Making changes to the existing business either through identifying "pain points" and deciding on use cases to improve them or taking a "scientific" approach to come up with innovative solutions
Main benefit: the flexibility to start small with a pilot, test, demonstrate value and scale where appropriate

How will you enter?

RISK

Will you be a

First Mover
Prioritising innovation and opening a new door of value in your industry

Or

Fast Follower
Leveraging the investment of your peers to uptake proven models and capitalise on commercial costs

VALUE

What's critical?

Business Functions
Critically evaluate which business functions should be prioritised for GenAI incorporation – it's a balance between focusing on high costs solutions as reward could be large, and going for low cost solutions for ease of implementation but limiting the value they drive

COST TO IMPLEMENT **VS** ***VALUE OF RETURN***

What's your value play?

We know the opportunity for GenAI value add is extensive, but tapping into all areas, all at once will overwhelm your GenAI strategy and saturate the potential value each initative could realise. ***Be clear about what you are playing for to bring clarity to how you are going to play***

Efficiency, Scale, Novelty & Innovation, Creativity, Personalisation, Quality

What is your Generative AI business case?

Considerations should be made across the below 6 areas

Economic Viability

Factors affecting GenAI investment:

1. ***Run costs for training models*** – impacted by open vs closed source, types of modalities, bespoke or general models
2. ***Scaling*** – the size of the compute required should be considered at the use case and enterprise level: if training cost per chat is low but you transform a whole function, then costs will quickly climb up
3. ***Time*** – if you want to be a first mover, the costs of innovative solutions is high; or you could be a fast follower and wait for costs to flatten as the technology develops
4. ***Technology investment*** – including changes to existing infrastructure, use case development, talent acquisition and op model changes

Technology Viability

What is the ease of implementation? Would a large amount of non-GenAI tech changes be required pre GenAI, or can you jump straight in to build on what you have?

Privacy

Some technologies require the transfer of your data in order to produce outputs, meaning your data could be crossing borders – is this in accordance with data privacy laws and with your company's policies?

Risk Appetite

What is the "buffer zone" for investment return and does your proposed strategy fall inside it? Considering the number of risks GenAI poses, have you included enough investment (both in effort and money) in your strategy for risk controls and monitoring?

Capacity Required

Would building your GenAI solutions need sandboxing and then incorporation into the existing function (meaning extra resources)? Or do you have the capacity and skills to implement side of desk in BAU? Do you the users of the solutions have time to do the required training to ensure solution value is realised? How will all of this affect BAU performance?

Competitive Advantage

Will the strategy deliver an advantage over your competitors? If not, is the value it will return significant enough despite the lack of advantage? If you choose not to move with your competitors, this may have further negative repercussions as technology development builds on the existing solutions

Who are the key players that will inspire and drive this transformation?

A cultural shift is required among business leaders to redesign business practices and incorporate GenAI across all aspects of business operations

Sponsors

Drive the GenAI agenda providing strategic support with an understanding of the AI ecosystem

Champions

Actively advocate for GenAI adoption and provide domain expertise to prioritise use cases. Drive conversations to integrate GenAI across the business

Orchestrators

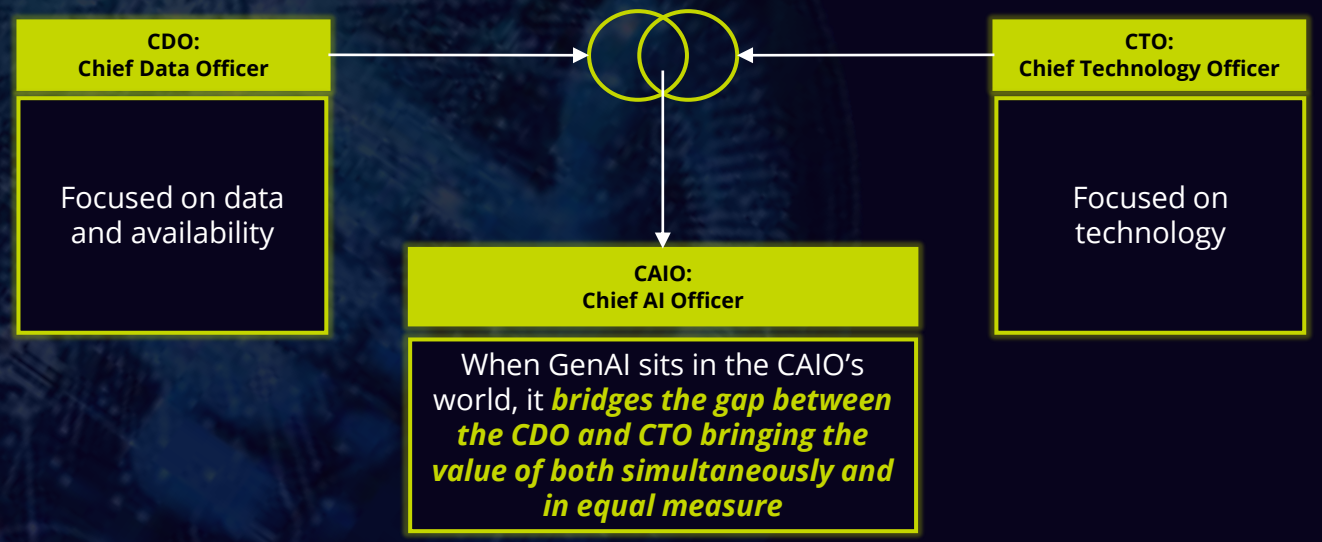
Lead development, provide support, track and manage activity and coordinate efforts to align stakeholders to ensure cohesive GenAI strategy

Executors

Directly implement specific AI related projects and initiatives. Contribute to research, PoCs and GTM pursuits

It is no secret that for ***impactful change to occur it must come from the top***, which is why board and CEO level sponsorship for Generative AI transformation programmes and initiatives is ***absolutely critical***, especially when its application is not yet fully understood across an organisation.

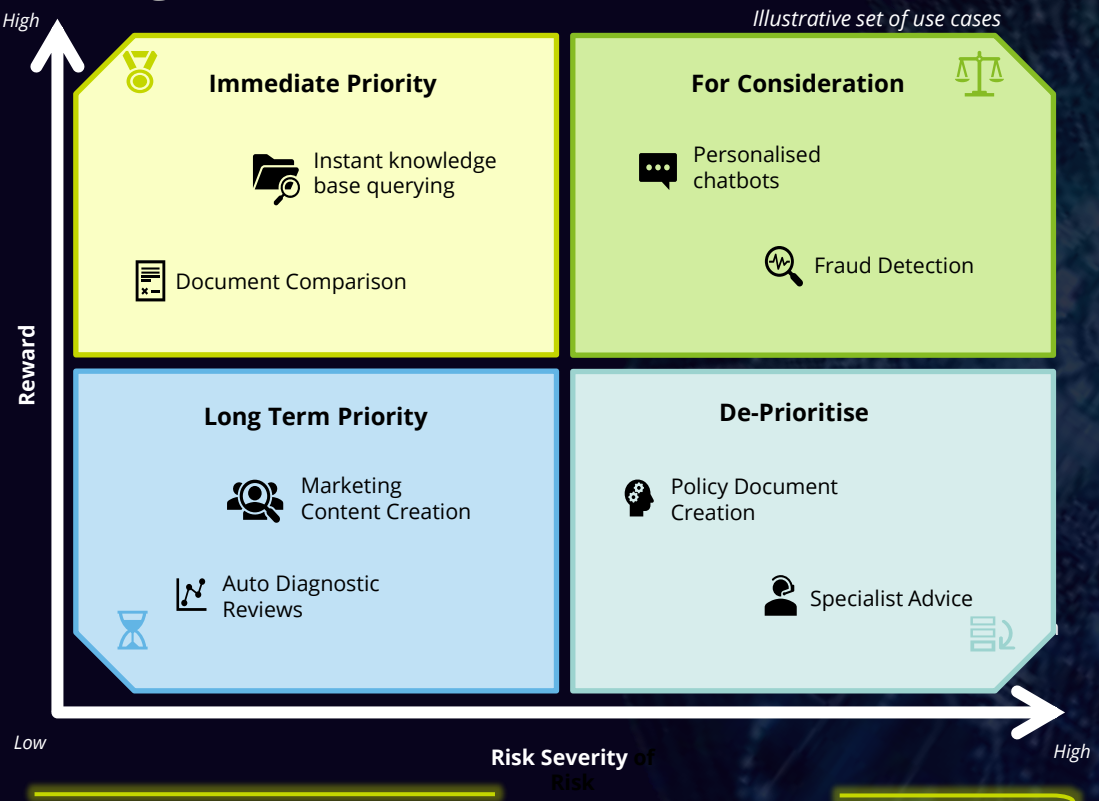
In many organisations, the ownership of the AI strategy and agenda can vary. It often falls under senior leadership, such as the Chief Technology Officer (CTO), Chief Data Officer (CDO), Chief Information Officer (CIO), or ***Chief AI Officer (CAIO)***.



> *"Every forward thinking organisation should have a Chief AI Officer."*
>
> **Sulabh Soral, Chief AI Officer, Deloitte**

Which use cases or fields of play should you prioritise?

Generative AI is vulnerable to bias and errors; therefore, it is best to use a Risk vs Reward approach when prioritising use cases



Considerations:

1. **Is GenAI the right too**l to solve your business challenge? Or can it be tackled using another data / analytics / AI solution?
2. What is the **financial viability** (e.g., investment and talent pool availability)?
3. What is the **technical viability** considering your existing tech stack?

Filling the 2x2 matrix with use cases which balance risk and reward is a great starting point

Priority	Types of Risks	Risk	Reward	Mitigation strategy
Immediate Priority: strong incentive from business to develop these use cases, with fewer risks and hurdles to overcome	• Hallucinations (lack of truth function)	High Medium Low	High Medium Low	• Ensure there is a 'human-in-the-loop' (a subject matter expert) to train and validate the AI system effectively • Clear guidelines and policies defined to ensure adherence
For Consideration: high demand for use cases, but also high risk to customers / employees which will slow down progress	• Biased outputs • Sophisticated phishing / fraud	High Medium Low	High Medium Low	• Conduct 'chauffeured' model validation to ensure biased outputs are limited • Create a customised scorecard for model results and display key security KPIs
Long Term Priority: lower motivation to develop technology but also lower risk impact to business in case of technology malfunction	• Ethical use • IP protection	High Medium Low	High Medium Low	• Set up AI ethics framework and ensure comprehensive training has been conducted by all relevant persons in organisation • Define clear governance / reporting lines to manage risks
De-Prioritise: Complex use cases (e.g., providing niche advice) with high risk impact to customers / business	• Biased outputs • Data privacy • Malicious behaviour	High Medium Low	High Medium Low	• Sensitive data should be anonymised and encrypted • Conduct algorithmic impact assessments to ensure privacy by design and adherence to GDPR

PEOPLE

GET YOUR PEOPLE READY

What skillsets do you need to deliver GenAI solutions?

"What skills do I need for GenAI?" is the question on everyone's lips – to cut through the complexity we have summarised the skills required into 4 key roles, all of which sit under the traditional data science bucket

Historically the role of "Data Scientist" has been a catch all term that can mean everything and nothing all at the same time. This makes it an extremely difficult role to hire into / upskill, as it's not clear what is *actually* required. If you want to get ahead of the curve with GenAI delivery, we suggest the below breakdown

Data Scientist

ML Engineer

As an ML Engineer you are probably ex "Data Science". You need deep industry / business domain understanding to build models that will drive the required outputs. Through this knowledge we support in the training of models, build pipeline and refine models where required

Cloud AI Engineer

As a Cloud AI Engineer you probably have ML Engineer experience but also some software expertise. Your job is to safely deploy and scale GenAI solutions, working with technologies like APIs. You will work closely with Prompt engineers to monitor and track the impacts of your scaling to ensure GenAI outputs are correct

ML Ops

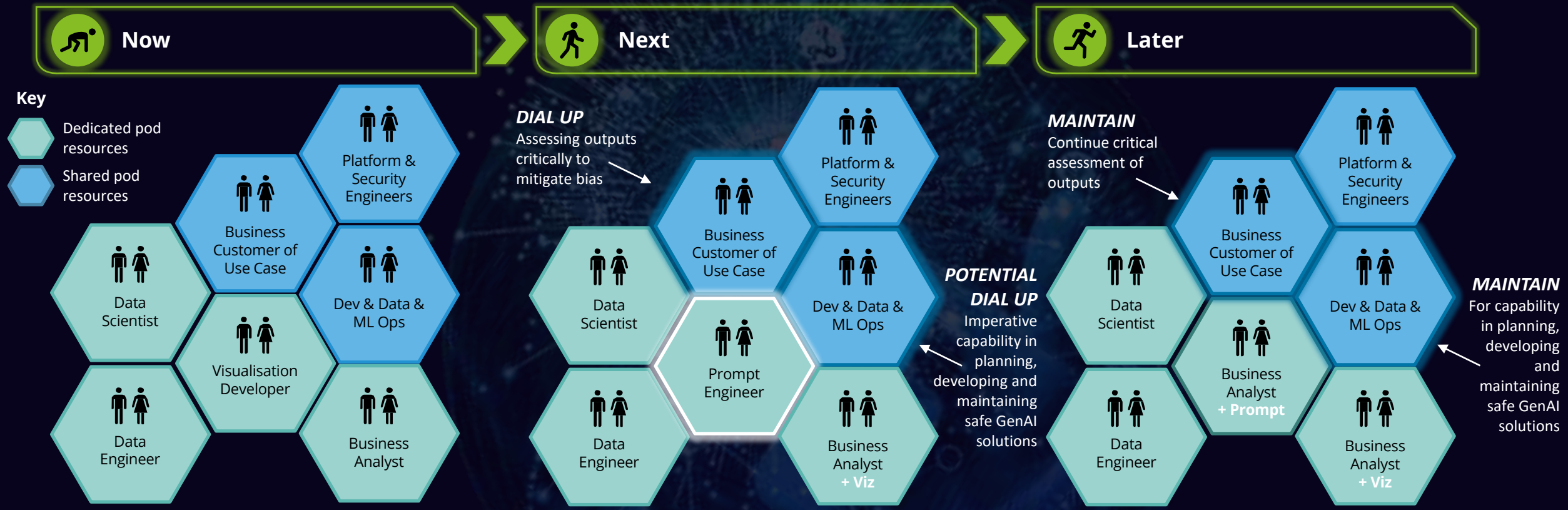
Once Cloud AI Engineers have finished their deployment and industrialisation, your job in ML Ops is to monitor, run and improve the solutions, implementing the required controls. You will spend your time fixing bugs and ensuring compatibility with the other technologies

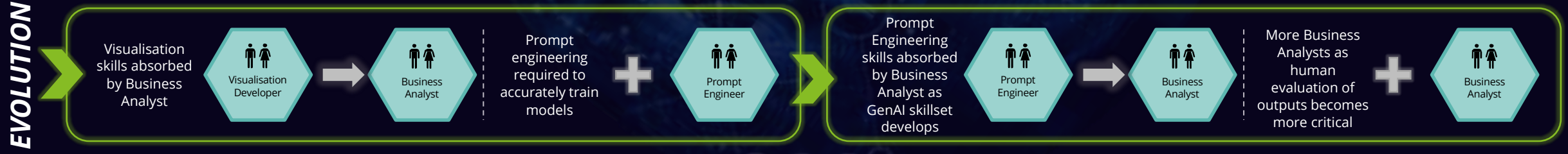
Prompt Engineer

The AI Prompt Engineer plays a pivotal role in developing and refining AI language models, ensuring they generate accurate, coherent, and contextually relevant responses. You will collaborate closely with cross-functional teams to shape the next generation of AI-powered applications

How should your talent evolve to keep pace?

In order for humans to collaborate effectively with machines you must ensure fluency and adaptability to new technologies – let's look at the evolution of the Technical Delivery Pod as an example





How will your operating model need to evolve?

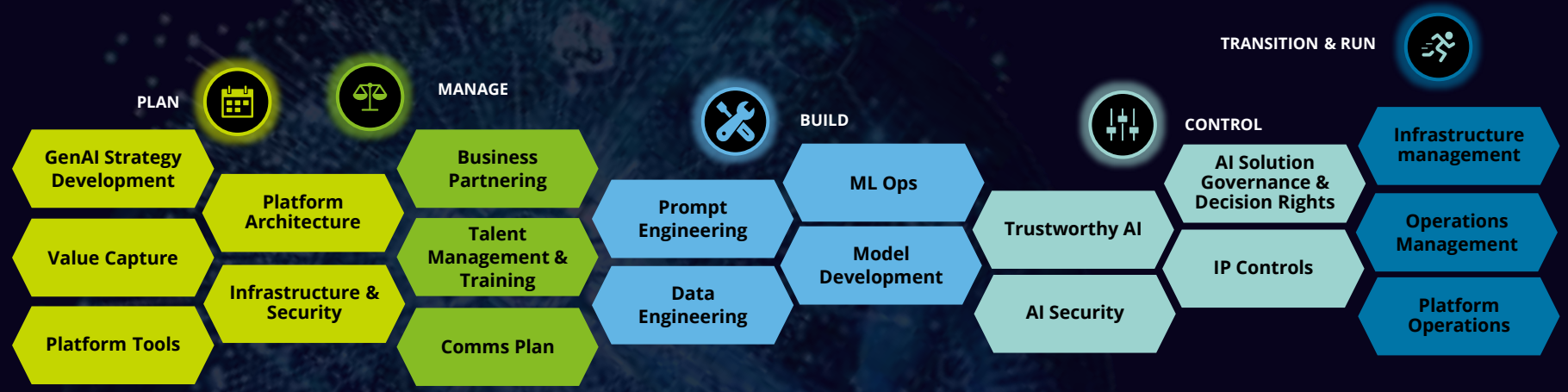
Your operating model should drive the safe and consistent delivery of GenAI solutions, instilling confidence in the decisions made from the insight generated

Capabilities to successfully scale GenAI

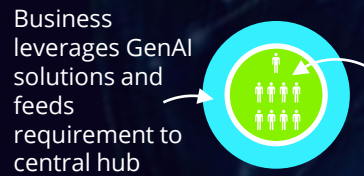
To unlock the potential of Generative AI and derive meaningful value, we must consider additional capabilities and enhance the existing ones to effectively embed guardrails and industrialise AI solutions

Organising these capabilities for effective delivery

Embedding digital ethics in the production process improves AI robustness, accessibility, productivity, deployment and operations, ensuring risks are methodically addressed as the organisation matures



‘Centralised’ Model



- ⊕ Consistency and centralised control of GenAI strategy and build activity
- ⊕ Greater collaboration between GenAI practioners
- ⊖ Lacks flexibility in responding to business needs
- ⊖ Disconnected from end users of AI solutions

‘Centre of Excellence’ Model

- ⊕ Increased adherence to standards and best practices
- ⊕ Greater understanding of business requirements
- ⊕ Increased knowledge sharing and upskilling
- ⊖ Requires greater coordination and community effort

‘Dispersed’ Model

- ⊕ GenAI practitioners acquire deep domain knowledge
- ⊕ Business functions prioritise initiatives locally
- ⊖ Siloed delivery due to lack of coordination
- ⊖ Lack of consistency
- ⊖ Poor knowledge sharing

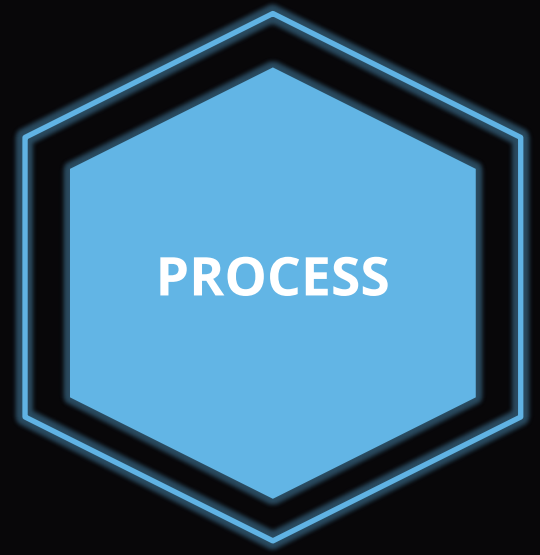
What are the partnership options for GenAI delivery?

If you are low on BAU capacity and / or have an immature GenAI workforce, partnering with a GenAI delivery organisation is a safe and sturdy option for accelerating your use case delivery

Partner collaboration

Go it alone

Offering	Description	Example Ask	Benefits	Considerations
Foundry Service	A flexible and fluid capacity model for the delivery of small scale GenAI projects and enhancements; can scale project talent resources up and down with demand	"We want to increase our capacity to build GenAI solutions whilst improving our processes. This is to have an increased level of consistency and achieve a higher retention of talent and lower costs."	• Scale project resources up and down based on demand while minimizing impact on BAU operations • Access to mature capabilities to augment internal capabilities • Reduced start-up costs and overhead (e.g., costs related to talent acquisition, headcount burden)	• Not recommended for large scale transformations as costs can increase beyond practicality – best suited for many small projects and enhancements requiring skilled resources
GenAI-as-a Service (GenAI-A-A-S)	Meet your organisation's ongoing GenAI needs through strategically managing and enhancing technology applications, digital, cloud and infrastructure	"We want to improve our GenAI capability with fewer suppliers but produce better insights as well as improve solution quality, business satisfaction and demand management capabilities."	• Converts a build and maintenance operation into a service operation • Drives sustained business value on a proactive basis • Builds solutions quickly, cost-effectively and efficiently accelerating delivery	• GenAI as a Service sits separately to your BAU meaning upskilling of existing employees is unlikely and each time you want to build a GenAI solution (without hiring or upskilling) you will need GenAI-A-A-S
GenAI Advisory	SMEs in your industry collaborate with GenAI experts and as a team form a deep understanding of your unique needs before providing recommendations for your GenAI journey	"We would like a partner to help us with the design of a GenAI solution including key deliverables required, considerations and a plan for delivery."	• Access to expertise that's not available in-house • Obtain a strategy that is tailored to your objectives in an accelerated timeframe • Lower in cost that implementation services	• Implementation of proposed solution can be challenging if details / expansion is needed without advisory team engaged
Solo Journey	Leverage existing talent and capability in your business to scope, plan, develop, deploy and manage in-house GenAI solutions without external interaction	"We want to launch a team that can end to end deliver our GenAI solution – we have the time, talent and intention to deliver this without partnership to keep our external spend at a minimum."	• No external partnership costs • Full ownership and control of outcomes and timeframes • Opportunity for existing staff to showcase capability and have pride in solo accomplishment	• Unforeseen expertise requirements that are not available can hinder progress



CONTROLS ARE KEY

Why do I need to make room for risk and ethics in my GenAI strategy?

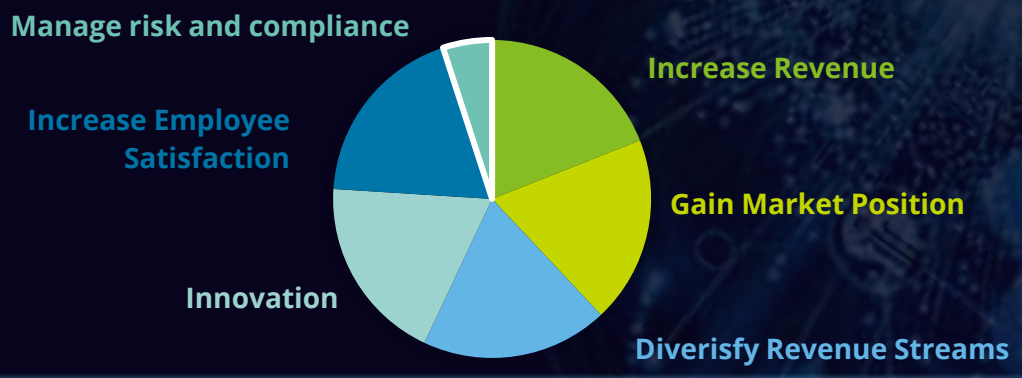
A once "must have" has now becomes a contributing factor in determining the value your GenAI initiatives can unlock

When defining a technology strategy, often risk and regulation are given a smaller share of the pie than their sales, market ownership and innovation counterparts because they are seen as "box ticking" components rather than "value generating" components.

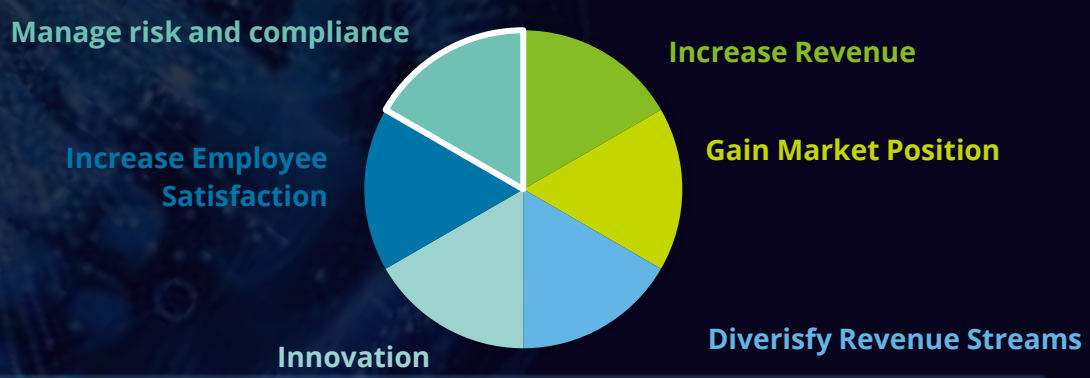
GENAI DEMANDS A SHIFT TO THIS BELIEF. RISK AND REGULATION ARE NO LONGER AN EXERCISE IN TECHNOLOGY MANAGEMENT – THEY ARE STRATEGIC LEVERS TO PULL ON IF YOU WANT TO REALISE MAXIMAL VALUE IN THE MINIMAL TIME.

A GenAI strategy with regulation and risk controls considered in equal measure to other strategic levers deploys trustworthy, ethical and fair AI and embeds governance and trust at all stages. This allows you to take a ***strategical decision-making approach to compliance, preventing regulation from stifling innovation and value realisation***.

Traditional Strategic Priorities



Post Generative AI Revolution Priorities



A new competitive advantage unlocked

Just as your organisation demonstrates that it is a responsible business by including ESG within its strategy, investing in adequate controls and governance will be essential for brand reputation as society adjusts to this new technology. With societal fear of machines and an increasing media focus it means that the stigma of regulatory breeches or "GenAI gone wrong" will be magnified. Therefore, controls and governance should not just be considered as ethically the right thing to do, but strategically and competitively important.

What are the key risks and how can you proactively mitigate them?

Controls and managing risk can no longer be an afterthought; risks and their corresponding mitigations should be planned into delivery in the same way as working groups, entry / exits gates and resource deployment

AI carries significant risks and ethical considerations

WHAT ARE THE RISKS?

Inaccuracy (”hallucination”)

Explainability

Bias

Confidentiality & Privacy

IP Protection, Copyright, & Infringement

Prompt injection (targeted malicious prompts designed to mislead the AI model)

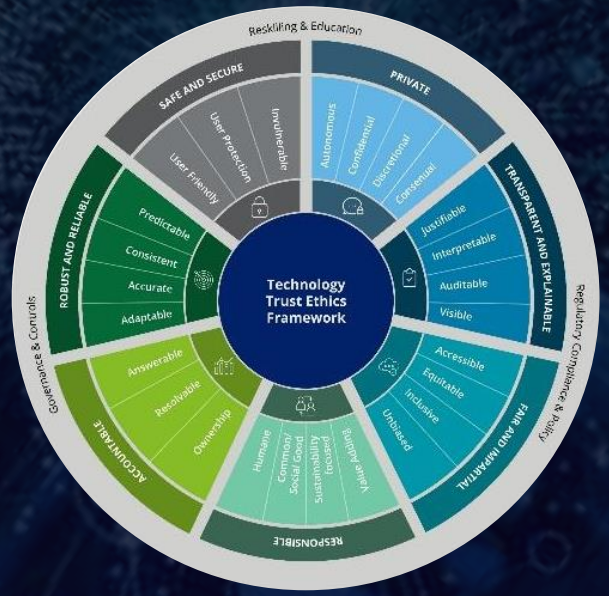
Misuse

Environmental

Regulatory Landscape

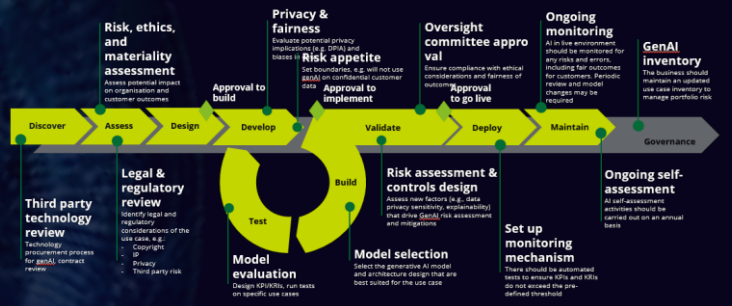
The regulations around AI and ML are rapidly evolving: the proposed EU AI Act, the UK National AI strategy and the Data Protection and Digital Information Bill, just to name a few

THE FRAMEWORK TO MITIGATE



Our Trustworthy AI Framework provides a comprehensive methodology for assessing risk and proactively implementing the required controls, whether they be preventative, detective or for training and creating awareness

CONTROLS ACROSS DELIVERY



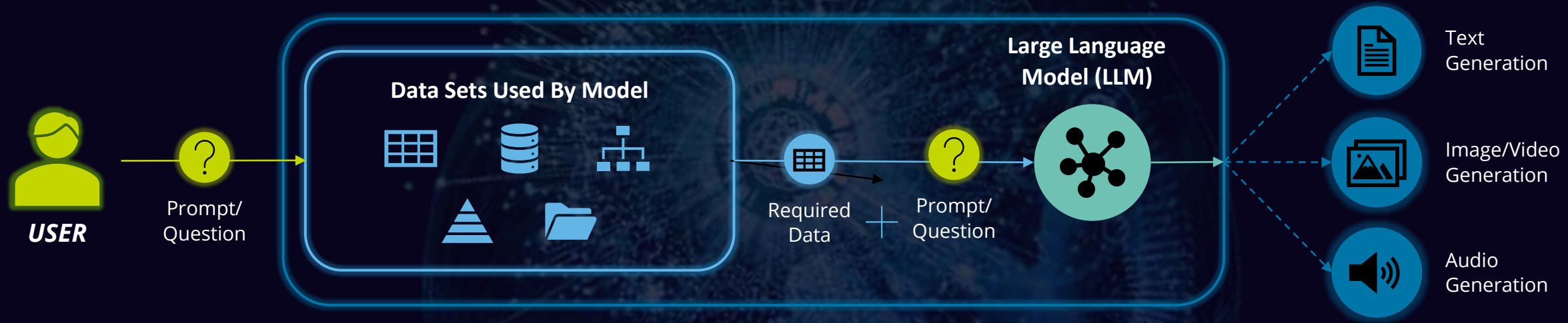
We have developed a use case development framework to ensure all the required controls and governance are included throughout the development lifecycle

GET STARTED & REALISE VALUE

Data is a determining factor for your Generative AI success

In many ways the data management capabilities you have built for traditional analytics are required for GenAI, but key areas to dial up are quality, governance, availability and ownership clarity

The ideal GenAI solution consolidates data in near real time, and then governs / secures that data in a consistent/regulatory compliant way. To understand the requirements, consider the lifecycle of data in a GenAI solution



1

Governance and consistency is key

- Consistency and high quality data is essential for GenAI – this comes from standardisation of business definitions, clear data ownership / stewardship and strong governance

2

Training the model via prompts

- The role of the Prompt Engineer enters here – training the model via giving it prompts, validating outputs with the business and training the model accordingly

3

Training the model with vast amounts of high quality, specific data

- LLMs need training to produce correct outputs. This requires huge amounts of good quality data; as such, the availability of data is extremely important. There should be lots of data points available for training at a low latency
- These vast amounts of data require scalable and flexible storage (the storage solutions need to handle structured, semi structured and unstructured data)
- Vector databases transform unstructured data into strings of numbers which can be stored more efficiently than their unstructured equivalents. You need ETL processes which transform data into vectors ready to be stored in vector databases

4

Data inputs are specific in their format

- You need to model and prep data for input into model training
- It is the combination of a prompt and its required data that is consumed by the LLM to generate the required output

5

6

Awareness of data privacy and security is paramount

- Privacy and security is always important to remain compliant, but it is particularly key if your LLM is open source (e.g., OpenAI)
- This can be in part mitigated by building and deploying your own GenAI solutions within your enterprise boundaries, but of course, this comes with a price for skill and time

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Outputs need to be integrated into your other technologies to drive the desired value

- There needs to be consideration for how GenAI outputs will be integrated into existing technologies to drive their desired value
- Outputs also need to be stored where storage, again, needs to be scalable and flexible (this can be achieved via vector databases)

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TECHNOLOGY

GET STARTED & REALISE VALUE

Get your Generative AI stack right the first time

Although it has always been pivotal to make decisions on platforms and your technology stack based on use cases, Generative AI is less forgiving than traditional analytics

Type of Tech Stack	Client Context	Next Steps for Solution
1 **Traditional Data & Analytics Stack**	"We've put prior investment into our platforms and data architecture without a use case led approach but would now like to start building on it to drive value via use cases."	Given ***platforms and architectures for data and analytics are flexible and buildable***, there is a ***good opportunity to realise value*** via use cases without significant rework of / additions to what you already have
2 **Generative AI Stack**	"We've put prior investment into our GenAI technology stack (with our existing architecture in mind) without a use case led approach but would now like to start building on it to drive value via use cases."	Given ***GenAI technology is use case dependent***, there has possibly been a ***loss of investment*** due to ***stack not aligning with priority value fields of play***; possibly need to invest further into different technologies to facilitate desired use case build

HOW TO GET YOUR STACK RIGHT THE FIRST TIME

1. Ideate use cases across different value plays
2. Validate and prioritise using the reward vs risk framework, considering the financial and technical feasibility
3. Scope out the technology required to deliver, monitor, evaluate and improve your prioritised use case(s) with your existing tech stack in mind
4. Plan your use case delivery with the required controls and governance in place
5. Ensure required change management for connection of solution(s) into existing business technologies and ways of working for true value realisation

Technology considerations

When delivering a GenAI solution, you need to scope out the technology required to deliver, monitor, evaluate and improve it – below are some of the considerations you should make in your investigation

LLMs and GenAI solutions are expensive to run, so it is important to know the balance between managing costs vs impact. Ideally compute should sit with data to avoid mass movements of data and facilitate low latency responses; containers are recommended so multiple people can run the model concurrently across the business

Integration into business operational technologies and ways of working – implementing the necessary change management so solutions don't "sit on the shelf"

The training of people to ensure they feel confident to use the tools and know how to critically evaluate outputs is the most important piece of this puzzle – ***GenAI outputs might only be as accurate as the data that feeds them, but GenAI outputs are only as valuable as the understanding of the people that use them***

As detailed in the previous section, GenAI needs a lot of low latency, high quality, consistent data with scalable and flexible storage and secure sharing controls

Knowing what models are running where with what data needs to be undisputable for meeting regulation – the inclusion of governance tooling in your solution is key to maintain model registries, to have clear lineage ensuring high risk AI models are visible, to understand the use of data solutions etc.

Considering technologies that facilitate automationn is important to support rapid solution build and minimise the operational overheads of running the solutions

Accelerate your journey & partner with us today

How can you accelerate your GenAI journey safely, whilst exploring the art of possible?

In partnering with us we can help your organisation turn its GenAI ambition into action

ENTER YOUR NEW ERA

A barrier to other data and analytics solutions has consistently been adoption at scale. But the productivity gains that Generative AI can deliver on an individual basis mean its adoption is much more likely: the fuel of this productivity revolution is the individual accessibility of GenAI.

But if you throw too much fuel on a fire, it burns beyond your control. Ensuring your approach to GenAI transformation is founded on the ***right controls*** and a plan that ensures ***safe, secure adoption*** to generate ***ethical, maximal value*** is imperative for success.

To help you understand how your organisation can scale GenAI safely whilst breaking boundaries of efficiency, productivity and creativity, we have built the ***AI & DATA LAB.***

To respond to previous waves of technical transformation, we built the IDO Scaling Lab: an immersive and interactive experience which accelerates a data and analytics journey by tackling barriers to scaling. Having seen huge success, (delivering over 150 IDO Scaling Labs to clients across industries) we have built the AI & Data Lab on these foundations.

THE LAB JOURNEY IS NAVIGATED AS A PARTNERSHIP – VIA FACILITATION BY IDO SMES AND AI INSTITUTE EXPERTS, WE SUPPORT YOU IN MAKING MEANINGFUL AND IMPACTFUL DECISIONS, ACCELERATING YOUR GENAI JOURNEY SAFELY AND TURNING YOUR AMBITION INTO ACTION.

THE AI & DATA LAB…

1. Facilitates the making of 10 key GenAI decisions outlined your organisation
2. Is delivered by handpicked IDO SMEs and GenAI experts from the AI Institute
3. Cuts though the complexity to set a baseline level of understanding
4. Focuses on “showing” rather than “telling” through demos and collaborative exercises
5. Focuses on the safe scaling of GenAI considering risk, technology and people
6. Delivers personalised content and outputs with your organisation’s goals at the core
7. Shapes a Proof of Concept (PoC) for a GenAI solution pilot
8. Engages leadership from across the organisation to ensure enterprise wide engagement

What is the AI & Data Lab?

Our AI & Data Lab modules have been developed in collaboration with The AI Institute and have been designed to cover business and technical fundamentals, address key barriers to AI scaling and build momentum by standing up the fundamentals to AI solution PoCs

We recognise that there is ***a delicate balance between innovation and achievable action*** – through stakeholder interviews and pre lab surveys we ***fine tune your AI & Data Lab content to sit exactly on this boundary***, setting your business up for maximum value realisation

AI & DATA LAB OUTPUTS

High level GenAI strategy

Prioritised GenAI use case to take forward for pilot

Consensus across key leaders on GenAI strategy

Roadmap to achieve the above through safe scaling

Generative AI practice overview

At Deloitte we have expertise and understanding which allows us to be a supportive partner to you across your strategy, implementation and monitor GenAI journey stages

High quality talent at scale

Global AI, Analytics & Reasoning	37k+
Semantic Reasoning & Inference	385+
Natural Learning Techniques	665+
Conversational AI	730+
Prompt Engineers	1200+

Consistent global recognition as a leader in the AI Space

IDC MarketScape

Deloitte named a **leader** in the Worldwide AI Services 2023 Vendor Assessment by IDC – 3 times in a row

Gartner

Deloitte named a **global leader for the 8th time in Data and Analytics** (including AI) Service Providers Worldwide – 2022

Alliances with leading GenAI tech players

NVIDIA | Deloitte

NVIDIA's "**Global Consulting Partner of the year**"...*for three consecutive years*

Google | Deloitte

Google Cloud's **Global Service Partner of the Year**...*for four consecutive years*

Scaled in-house services driving innovation

AI Institute and Trustworthy AI

Conducting **cutting-edge research** and eminence and helping clients **deliver responsible and trusted AI solutions**

SFL Scientific a Deloitte business

Acquisition of award-winning, **US-based Ph.D. Team of AI experts**

Hashedin

Software Engineering services that drive transformation, innovation, and growth

Deloitte Centre for AI Computing

Accelerate the development of **innovative artificial intelligence (AI)** solutions for Deloitte clients

Comprehensive GenAI capabilities

- AI & Data Lab
- Generative AI Strategy
- Generative AI COE & Governance
- LLM Ops / LLM as a Service
- Prompt Engineering
- POC Delivery
- GenAI Foundry
- Fine Tuning

Contacts

THANK YOU

If you would like to discuss any of the opportunities outlined in this perspective any further, please feel free to get in touch!

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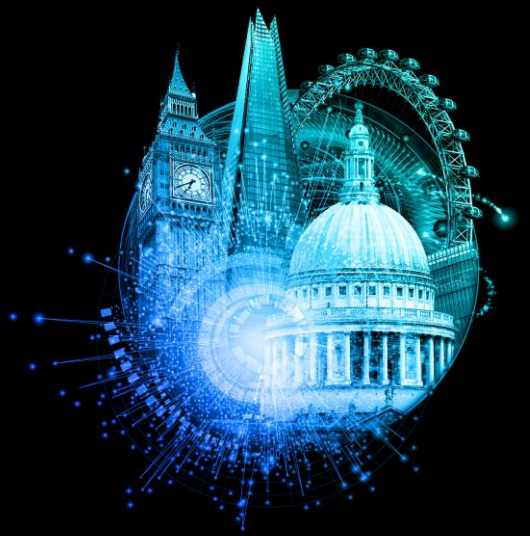
Deloitte.



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