

Please...

\$\$\$

Thankyou

of CPA's are set to retire in the next decade

The number of accountants dropped

6 0/6 between 2019-2022



The rate of CPA graduates

WILL NOT MATCH

those leaving the industry

1099/W2 Compliance **Accounting Client Write-Ups Anti-Virus Audit/Trial Balance Business Process Automation Business Valuation Client Portals Contact Management Customer Relationship Management** Dashboards **Data Loss Prevention Desktop Publishing** Document Management/Storage **Due Date Tracking End Point Detection & Response**

Fixed Asset Hosted/Web Based Client Write-Up Internal Financial Accounting Intranet **Intrusion Detection Payroll Practice Management Remote Access Research Tools** Sales & Tax Compliance Scheduling **Tax Planning Tax Preparation Video Conferencing** Web Application Firewall **Web Filtering**









































GOTO MENTICOM



USE CODE

83918111



Join at menti.com | use code 6818 4798



Menti

Mentimeter

LEA Global

M •

Menti

LEA Global

0 2

Join at menti.com | use code 6818 4798

Mentimeter

Choose a slide to present

What do you hate about your job everyday that you do on a daily basis?

All responses to your question will be shown here

Each response can be up to 200 characters long

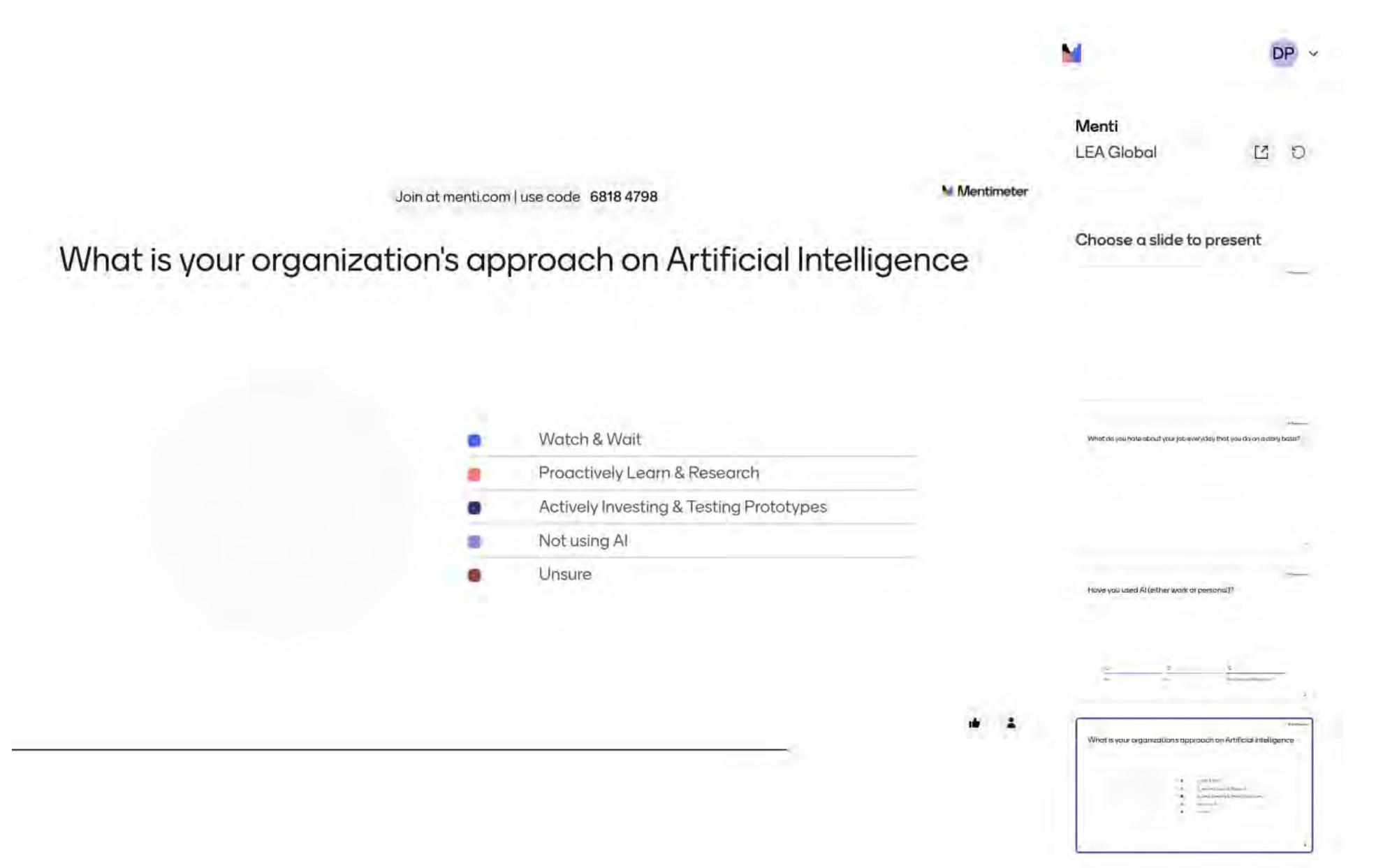
Turn on voting to let participants vote for their favorites



Introduced An Introduced, or premionally

What is your organization's approach out Artificial Intelligence.

1.5



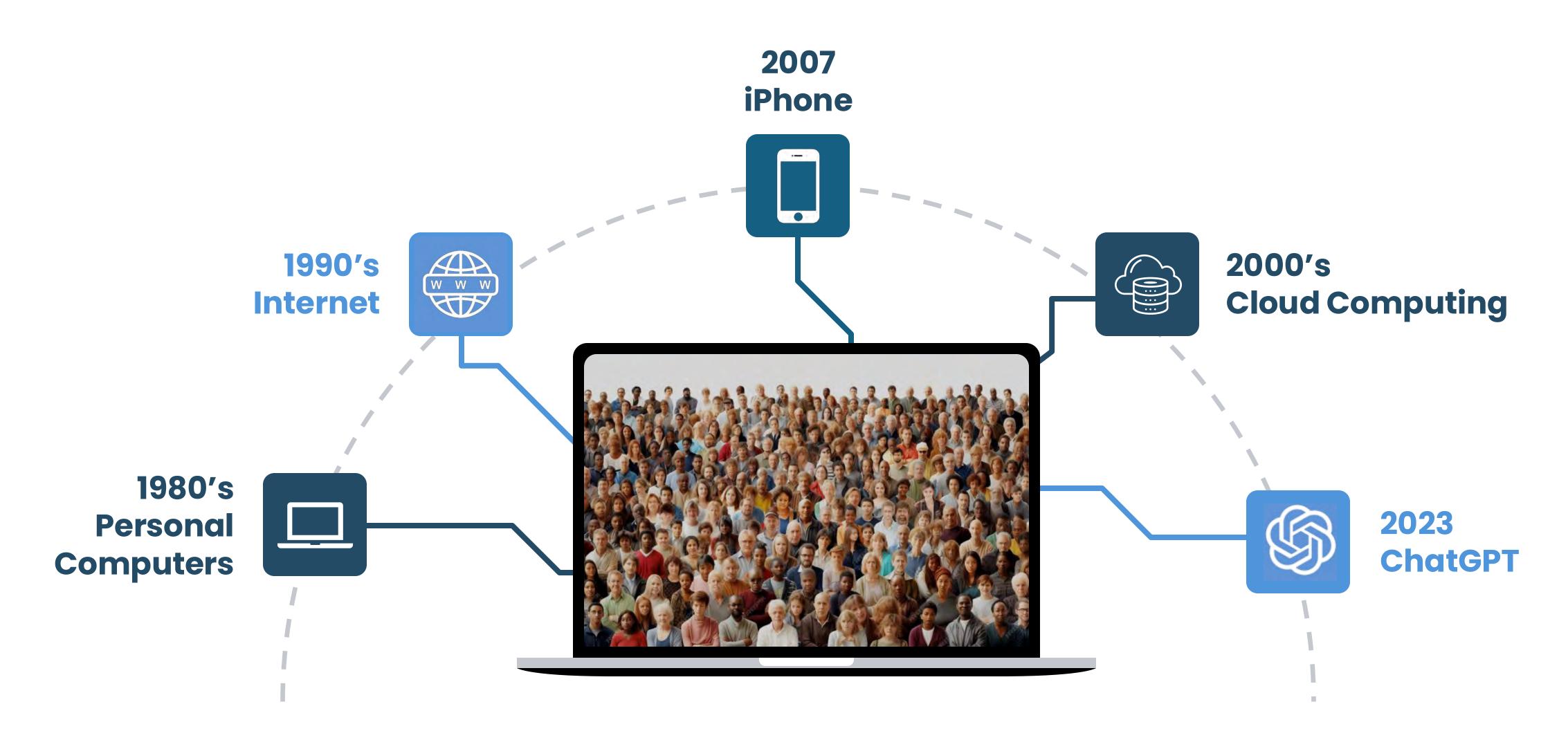




WHY ARE WE HERE?

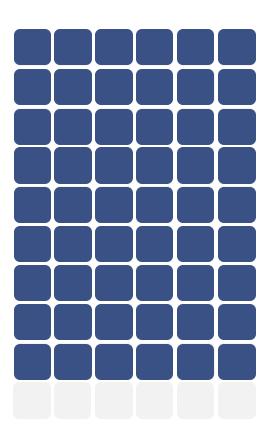
ADVANCES IN TECHNOLOGY

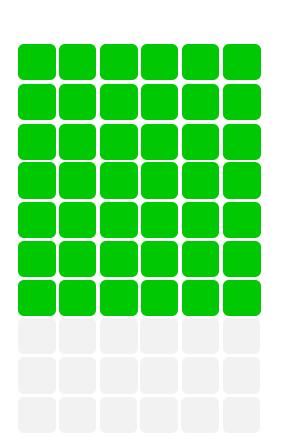
THAT TRANSFORMED OUR EVERYDAY LIVES

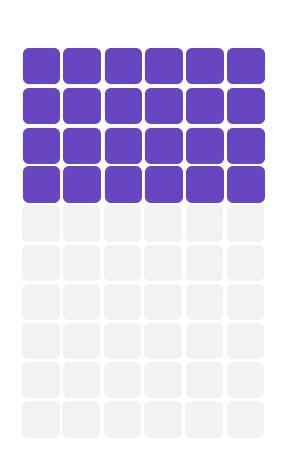


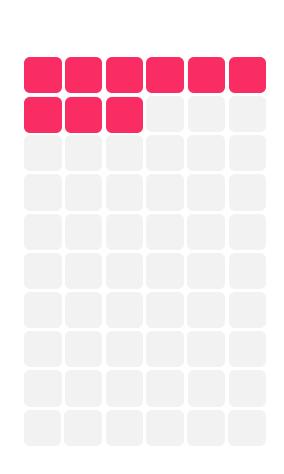
THE SPEED TO 100 MILLON USERS

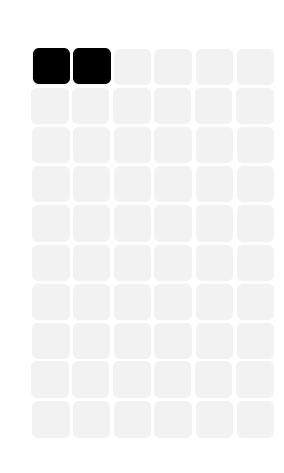
ChatGPT changed how everyday users thought, interacted, and understood Gen Al













WhatsApp Facebook



Instagram







TikTok

months **ChatGPT**

months

months

months

months

THE IMPACT OF AI ON OUR WORK LIVES & PERSONAL LIVES IS ONLY STARTING

THE IMPACT OF AI ON OUR WORK LIVES & PERSONAL LIVES IS ONLY STARTING

AI COULD AUTOMATE UP TO:

of hours worked in the US by 2030*

30% 100M

Al jobs globally ***

64% 35%

of CEO's believe it is critical to business success

**

of the workforce will need to be retrained and reskilled



OpenAl Buys Johnny Ive's Startup io for \$6.5B

May 22, 2025



OpenAl Buys Windsurf for \$3B

May 6, 2025



OpenAl Announces a New Al Model, Codex

May 16, 2025



Google Announces Over 100 Updates at I/O Conference

May 21, 2025



Microsoft Build 2025 Announces Integration with DeepSeek

May 21, 2025



Anthropic Announces New Al Models Opus & Sonnet

May 21, 2025



Salesforce Buys Informatica for \$8B

May 27, 2025



AI TRAINING COSTS

YEAR	MODEL NAME	MODEL CREATORS/CONTRIBUTORS	TRAINING COST (USD) INFLATION-ADJUSTED
2017	Transformer	Google	\$930
2018	BERT-Large	Google	\$3,288
2019	RoBERTa Large	Meta	\$160,018
2020	GPT-3 175B (davinci)	OpenAl	\$4,324,883
2021	Megatron-Turing NLG 530B	Microsoft/NVIDIA	\$6,405,653
2022	LaMDA	Google	\$1,319,586
2022	PaLM (540B)	Google	\$12,389,056
2023	GPT-4	OpenAl	\$78,352,034
2023	Llama 2 70B	Meta	\$3,931,897
2023	Gemini Ultra	Google	\$191,400,00

Al model training cost is the estimated value of the training hardware, the hardware's utilization rate, and duration of training time.

I ANJUST AN ANAME





WHAT IS ARTIFICIAL INTELLIGENCE?

MACHINE LEARNING

Robotic Process Automation

Gen(erative) Al

What is it?

What type of data is required?

Training

Examples

Accounting Software

Systems trained on data to identify patterns, make predictions, and/or decisions

Structured data
Unstructured data

Labeled and /or unlabeled data

Client Risk Scoring
Revenue Forecasting

Thomson Reuters (Tax Results based on usage)
Sage (Cash Flow Trends)

Automates routine, rule-based tasks by mimicking human actions

Structured data
Pre-defined rules

Requires people to define the rules & workflows for automation

Document Extraction / Classification
Automated Journal Entries

Thomson Reuters (Tax Automation)

Wolters Kluwer (Data Consolidation / Financial Close)

Generates new content (i.e. text, images, music, etc.)

Structured Data
Unstructured data

Deep learning & large datasets

Audit Commentary
Personalized Client Insights

Wolters Kluwer (Draft Communications) QuickBooks (AI Assistant)

ARTIFICIAL INTELLIGENCE (AI) **EXPLAINABILIT** TOKENS LANGCHAIN **PARAMETERS** OPEN SOURCE AI SPARSE REWARDS BIAS & FAIRNESS NATURAL LANGUAGE PROCESSING (NLP) TRAININGDATE CONTEXT WINDOWS ☐ CLOSED SOURCE AI REINFORCEMENT LEARNING MULTIMODAL RETRIEVAL AUGMENTED GENERATION (RAG) NEURAL NETWORKS

Artificial Intelligence

The broader field of developing machines and/or software capable of performing tasks that typically require human intelligence, such as decision-making, understanding, learning, and creativity.

Machine Learning

Systems trained on data to identify patterns, make predictions, and/or decisions.

Robotic Process Automation (RPA)

Automates routine, rule-based tasks by mimicking human actions.

Gen(erative) Al

Generates new content (i.e. text, images, music, etc.)

Deep Learning

Subset of machine learning that uses artificial neural networks to model complex patterns in data. Commonly used for tasks involving large amounts of unstructured data (i.e., images, video, speech).

Neural Networks

A machine learning model inspired by the brain, consisting of interconnected nodes (neurons). Neural networks learn from data by adjusting internal parameters (weights) during training through a process called neural learning, enabling them to recognize patterns and make predictions.

Natural Language Processing (NLP)

A branch of AI focused on enabling computers to understand, interpret, and respond to human language in a meaningful way.

Supervised Learning

Type of ML where the model is trained on labeled data. The model learns to map inputs to the correct outputs by being given examples of input-output pairs.

Unsupervised Learning

Type of ML where the model is trained on data without explicit labels. The model must find hidden patterns or structures in the data.

Reinforcement Learning

ML technique where an agent learns to make decisions by interacting with its environment, receiving feedback in the form of rewards or penalties. Goal is to maximize the cumulative rewards over time.

Federated Learning

Distributed ML approach where models are trained across multiple devices or servers holding local data samples without sharing the data itself

Foundation Models

Highly generalized, large-scale model trained on large datasets to understand and generate a wide range of content, from text to images. Two main types: proprietary and open source.

Pre-Training

Process of taking a pre-trained AI model and retraining it on a smaller, specific dataset to adjust it for a particular task. Allows the model to better fit the unique requirements of the application.

Generative Pre-Trained Transformer (GPT)

Type of LLM developed by OpenAI, designed to generate human-like text based on input prompts. Pre-trained on vast amounts of data and can be fine-tuned for specific tasks.

Fine-Tuning

The process of taking a pre-trained language model and further training it on a specific dataset to improve its performance on a targeted task. Fine-tuning adjusts the model's parameters to better align with the specific requirements or domain, enabling more accurate and relevant outputs for specialized applications.

Parameters

Adjustable values within a machine learning model that determine how the model processes data and makes predictions. Help model learn patterns, relationships, and rules from the training data enabling it to generate meaningful responses or perform specific tasks.

Prompting

Act of providing input or instructions to a language model, guiding it to generate the desired output. Can include context, questions, or commands that lead the model to produce responses aligned with the task.

Inference

Process of using a trained machine learning model to make predictions or generate outputs based on new data.

Tokens

Basic units of text that a language model processes. Can represent words, subwords, or characters and are used to break down language into smaller parts for Al.

Chain of Thought

A reasoning process where a model generates intermediate steps to arrive at a final answer, helping improve accuracy by breaking complex tasks into smaller, logical components.

Training Date

The cutoff point in time when an AI model was last trained on data.

Context Windows

The maximum amount of text or information a language model can process at once, determining how much prior context the model can consider when generating responses.

Training Data

A dataset used to teach a machine learning model. The model learns patterns, relationships, and behaviors from this data to make predictions or perform tasks. The quality and size of the training data are crucial for the model's performance on real-world applications.

Chunks

Numerical representations of data (like words or documents) in a multi-dimensional space where similar data points are closer together.

Embedding

Numerical representations of data (like words or documents) in a multi-dimensional space where similar data points are closer together.

Vector Search

Method of retrieving data points based on their numerical representations (embeddings).

Vector Database

A specialized database designed to store and manage high-dimensional vectors, which are numerical representations of data such as text, images, or audio. It enables efficient searching, retrieving, and comparing data based on similarities in their vector representations, commonly used in applications like recommendation systems, natural language processing, and Al-powered search engines.

Metadata

Provides additional context or information about other data, such as the source, author, creation date, or tags associated with a document or image. Helps in organizing, searching, and retrieving relevant data.

Indexing

Process of organizing and storing data in a way that allows for efficient retrieval during a search. Allows for faster and more accurate search and retrieval tasks.

Retrieval Augmented Generation (RAG)

A framework that enhances generative models by retrieving relevant information from external sources and using it to generate more accurate and contextually informed responses.

Similarity Score

Quantifies how closely two pieces of data (i.e. text, images, or embeddings) match in a vector space. Higher scores indicate greater similarity between the items.

Imitation Learning

A training technique where a model learns to perform tasks by mimicking expert demonstrations, replicating actions based on observed behaviors to achieve desired outcomes.

Agents

Autonomous entities in artificial intelligence that perceive their environment, make decisions, and take actions to achieve specific goals, often in dynamic and interactive settings.

Self-Play

A training technique in which an agent improves its performance by competing or interacting with copies of itself, allowing it to learn strategies through trial and error without external supervision.

Sparse Rewards

A scenario in reinforcement learning where feedback or rewards are provided infrequently, making it challenging for the agent to learn effective actions since it only receives occasional signals about its performance.

Agentic

Describes systems or models that exhibit autonomous decision-making, goal-directed behavior, and the ability to take independent actions in pursuit of objectives, often in dynamic environments.

Bias & Fairness

Bias occurs when an algorithm produces unfair results because it reflects pre-existing prejudices in the data. Fairness aims to create Al systems that make impartial decisions and are transparent in their operation, ensuring they are ethical and equitable.

Hallucinations

Occur when a model generates incorrect or nonsensical information that isn't based on the provided data when they fabricate details or provide plausible-sounding but incorrect answers.

Grounding

Ensuring a model's responses are based on real-world knowledge or context, enhancing accuracy and relevance by connecting outputs to reliable information.

Explainability

The degree to which the processes & decisions made by the Al system can be understood by humans.

LangChain

Framework designed to facilitate the development of applications powered by LLM's.

Open Source Al

Refers to AI tools, models, or frameworks that are publicly available and can be freely used, modified, and shared by anyone.

Closed Source Al

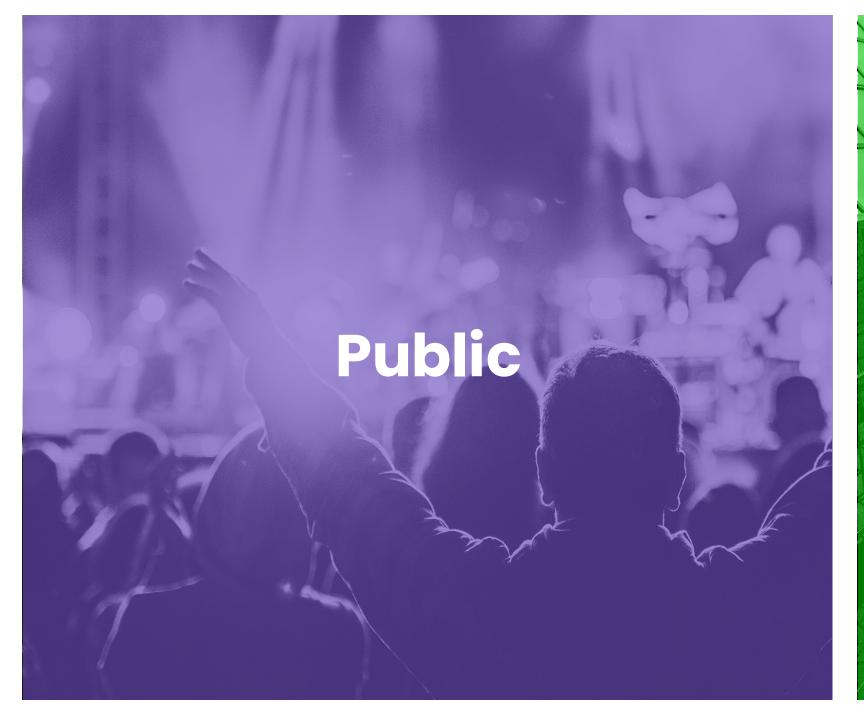
Refers to AI tools, models, frameworks that are proprietary, meaning their underlying code is not publicly available for modification or sharing.

Multimodal

Refers to models or systems that can process and integrate multiple types of data or inputs, such as text, images, audio, or video, allowing for a richer and more comprehensive understanding of complex information.

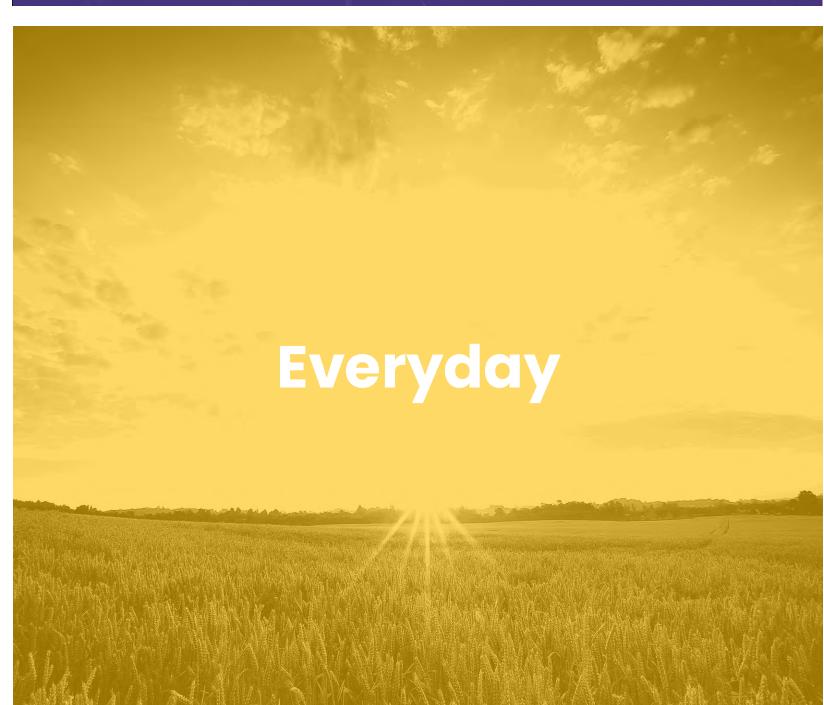
FLAVORS OF GENAL

CLARIO ADVISORS

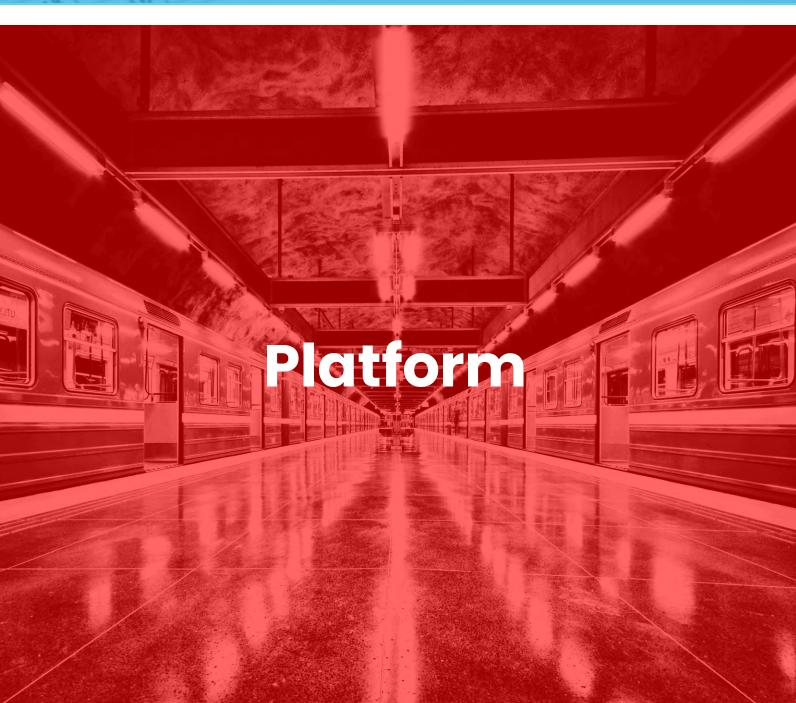


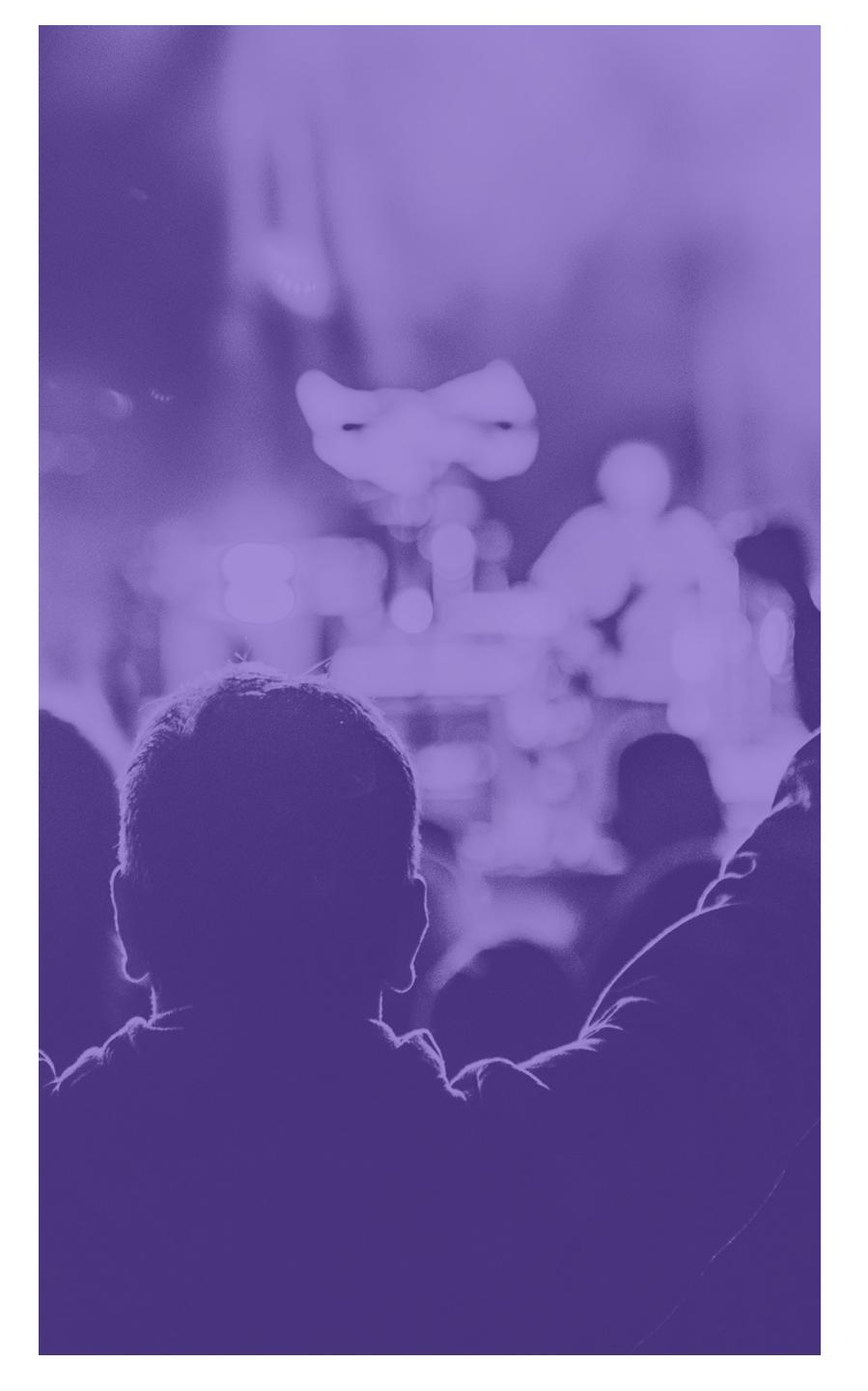












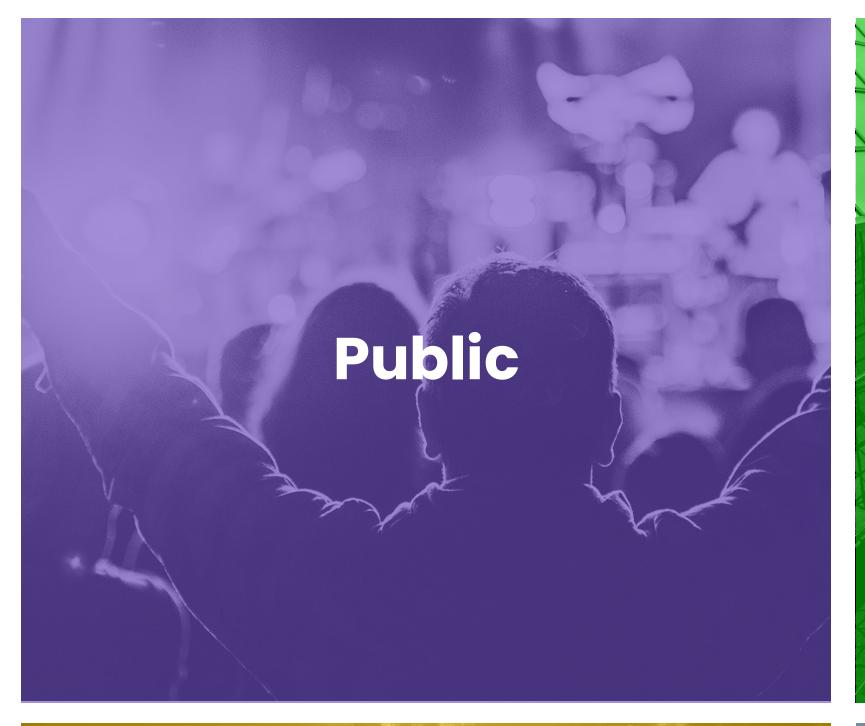
Public

Versions of Gen AI that are open platforms accessible to anyone, allowing users to interact with AI models for various tasks, such as content creation or problem-solving.



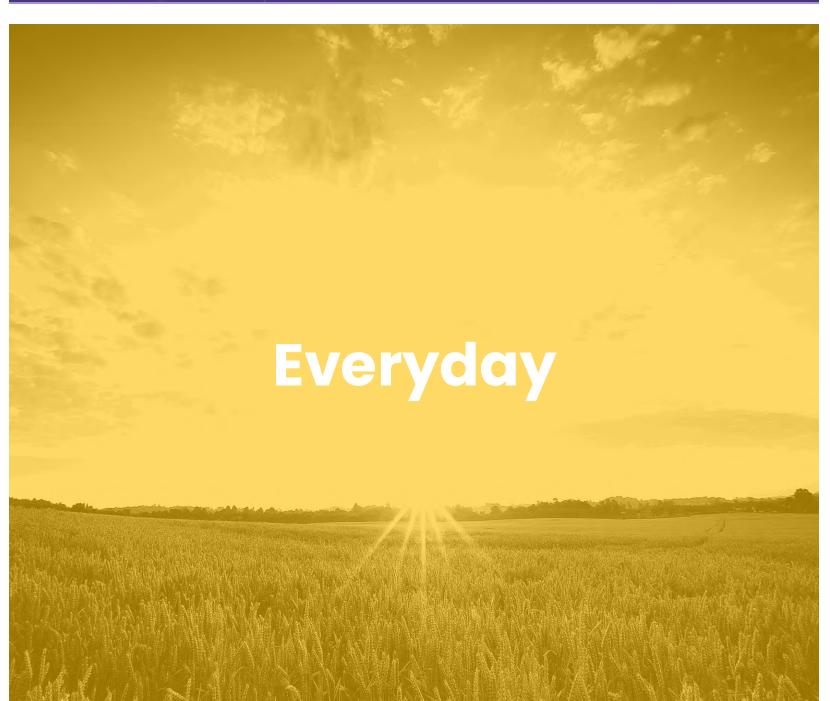
ANTHROP\C

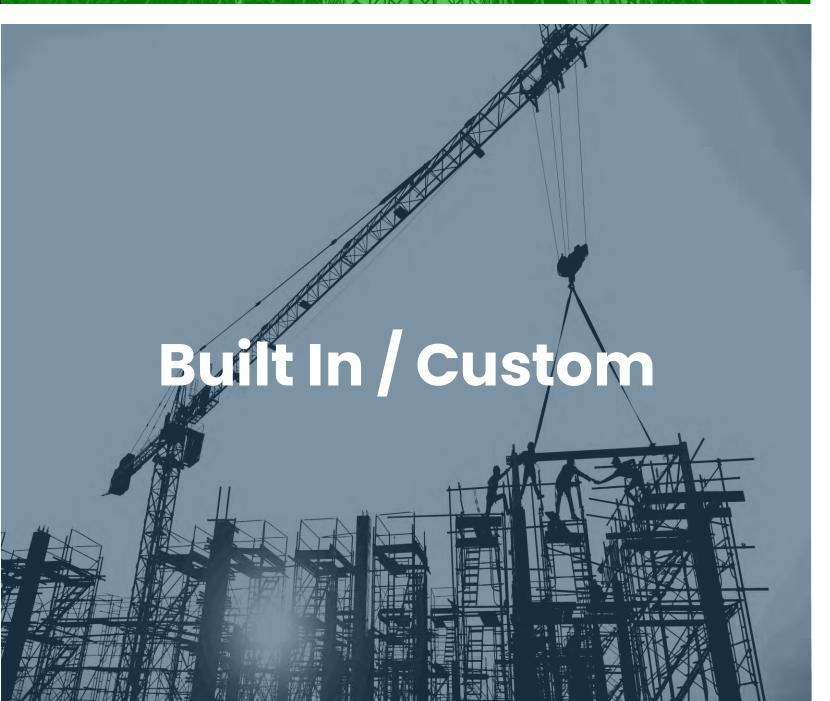


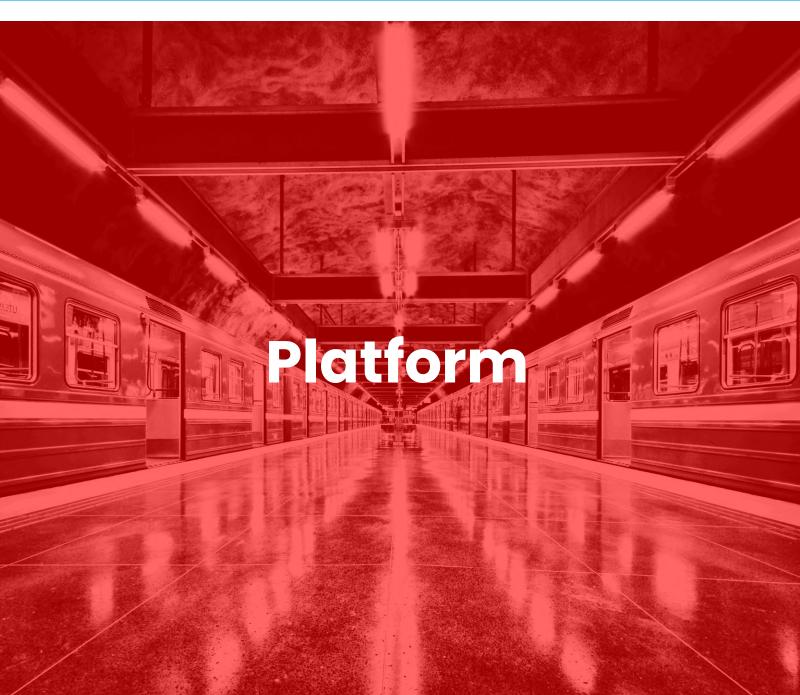


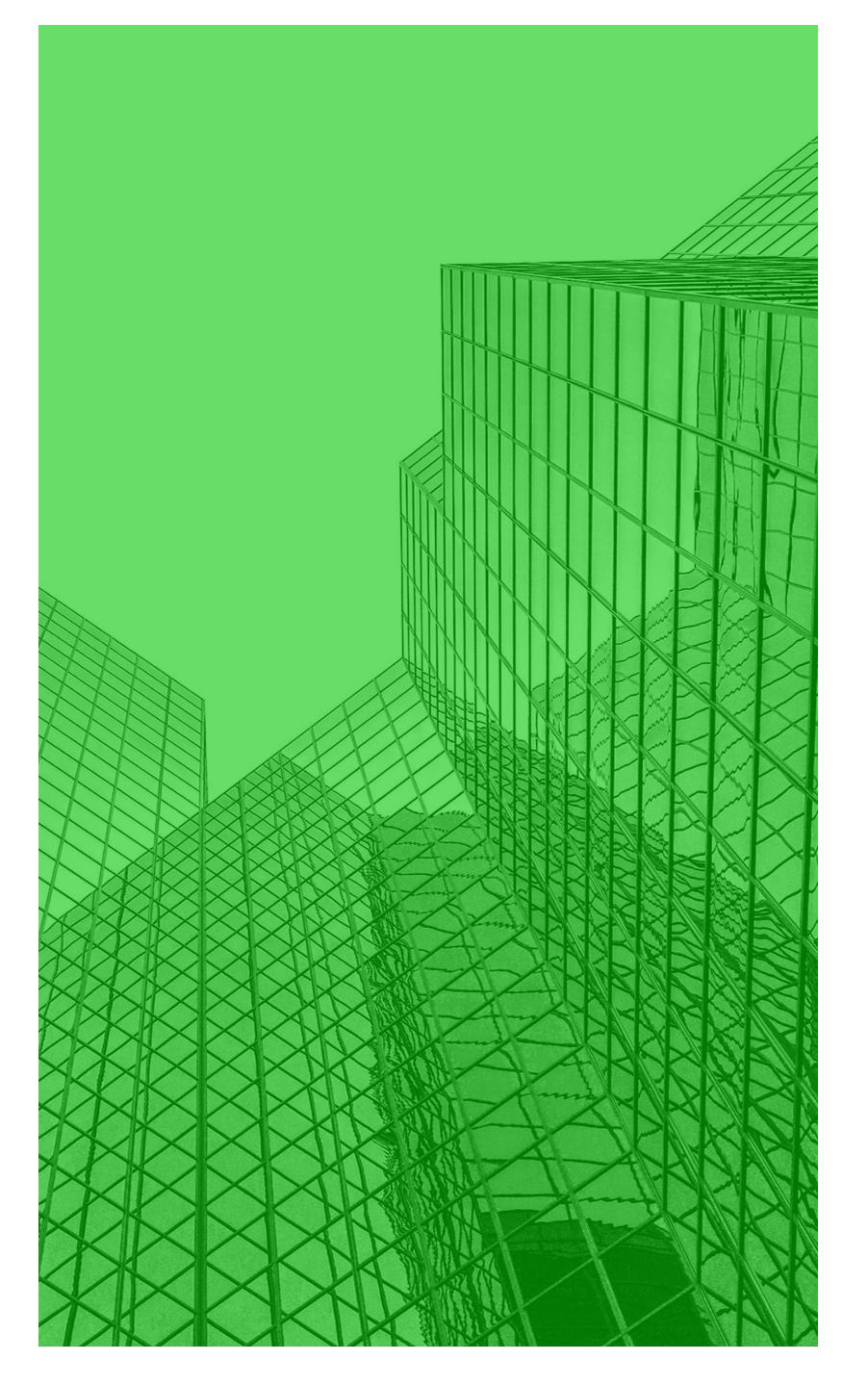












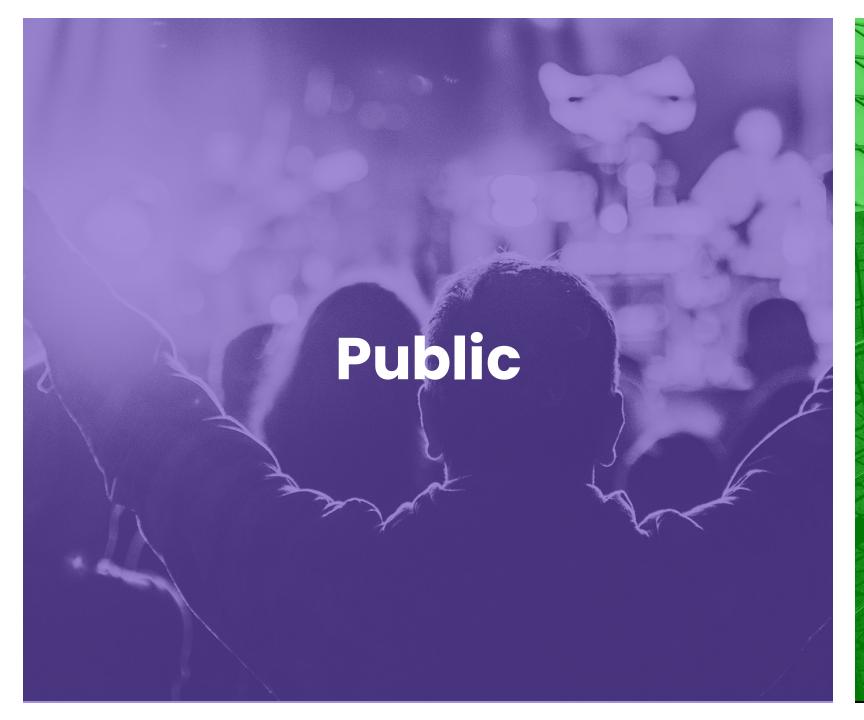
Enterprise Public

Versions of Gen AI that are tailored for business use and offer features, such as API access, data privacy, scalability, and technical support.



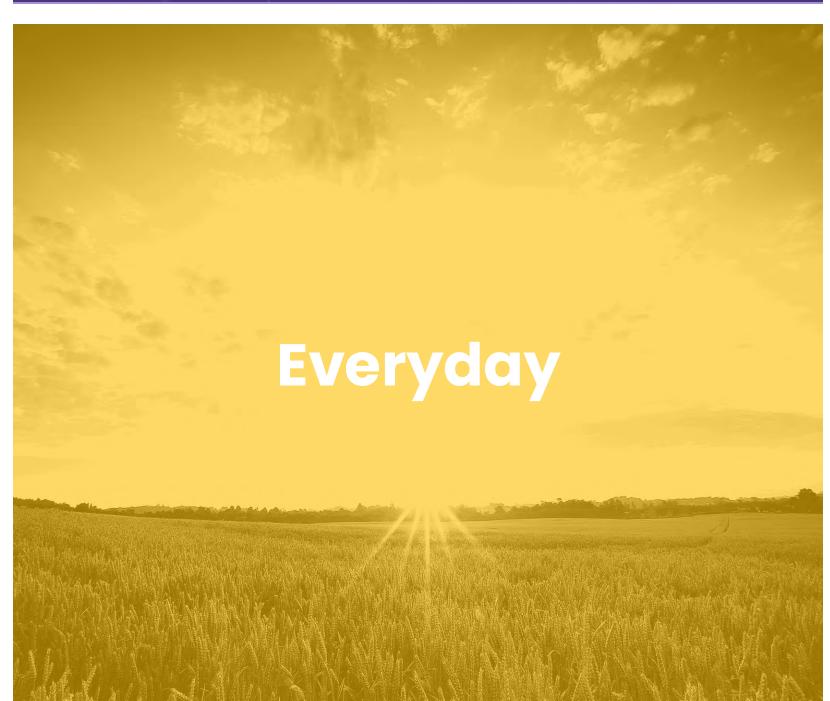
ChatGPT ANTHROP\C

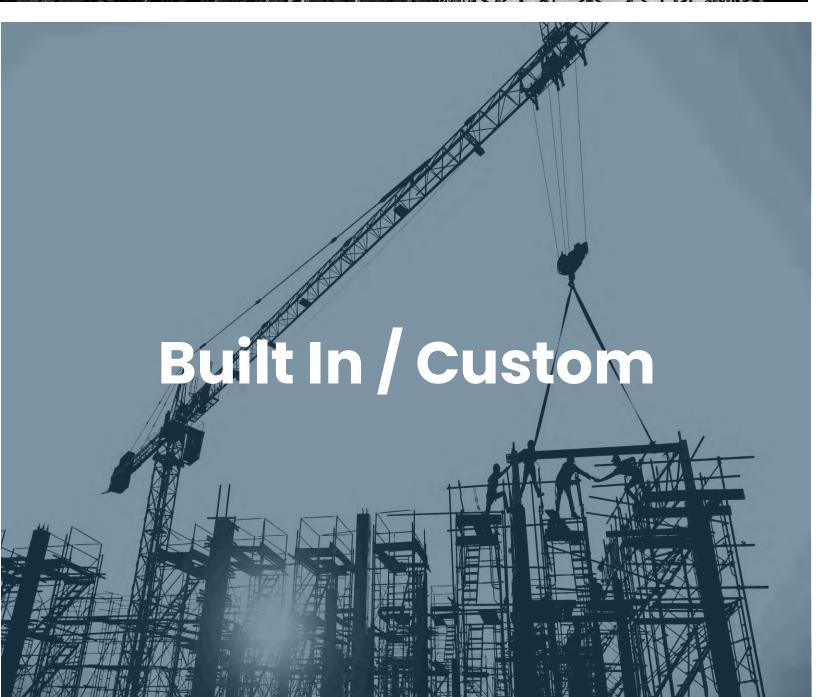


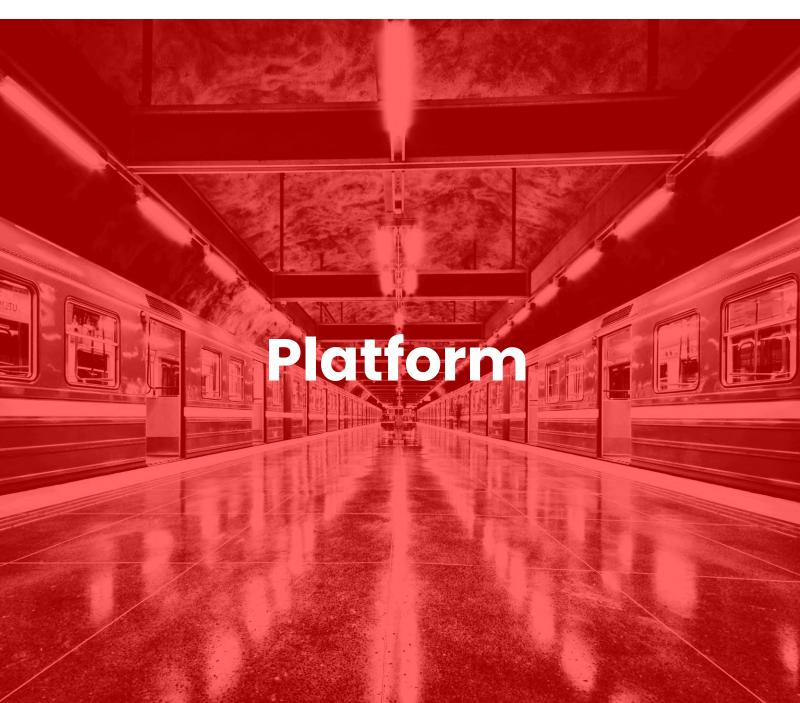














Niche/Specific

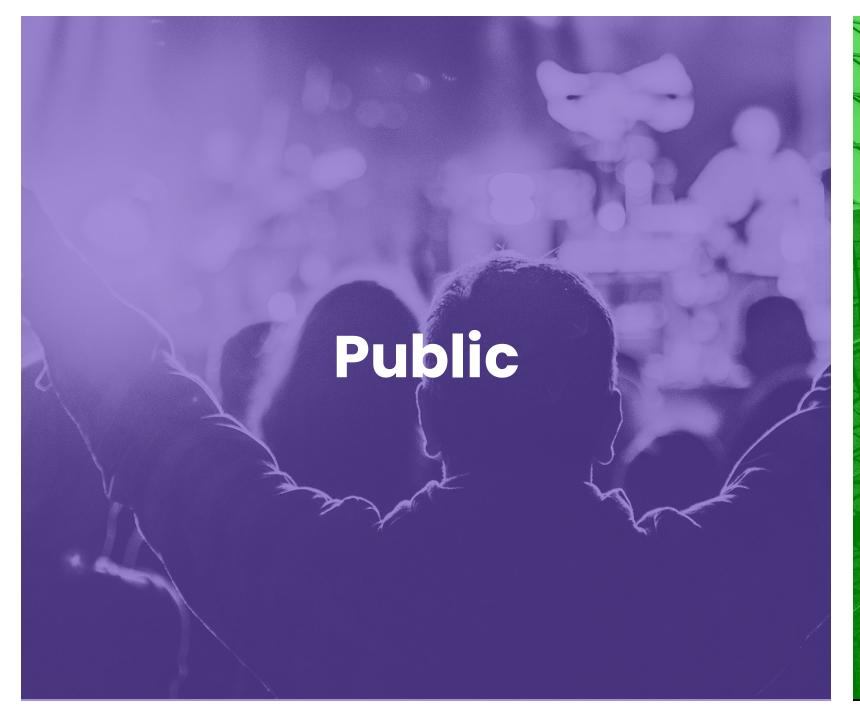
Gen Al solutions tailored to a particular use case or industry. Highly specialized & designed to meet specific business or operations needs. Focus is on addressing a particular challenge or task.





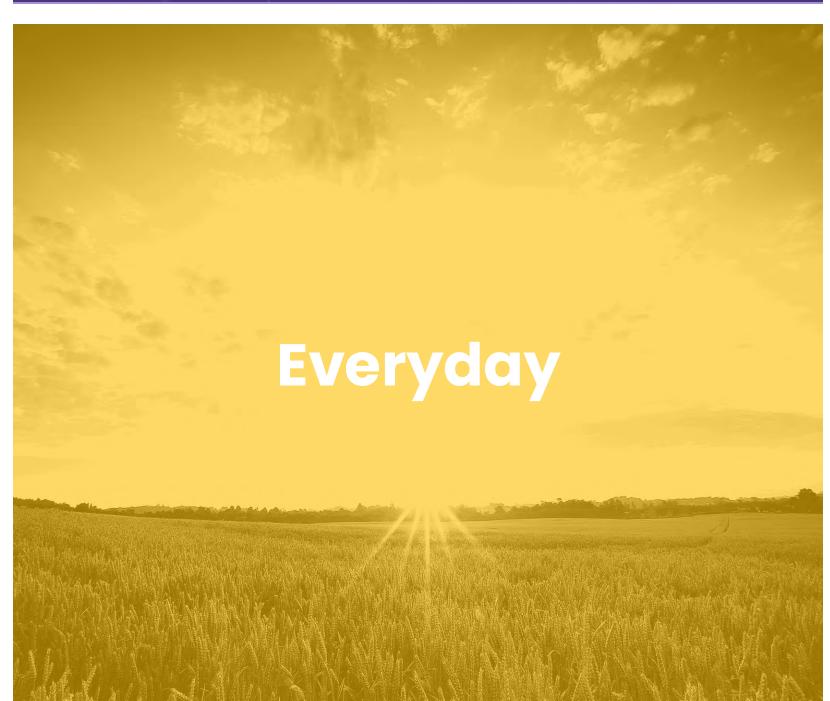




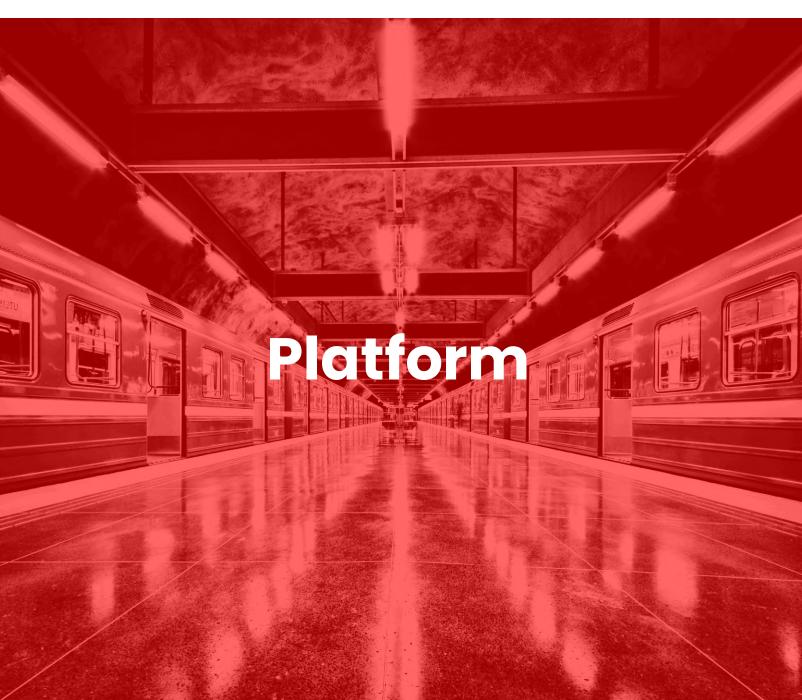










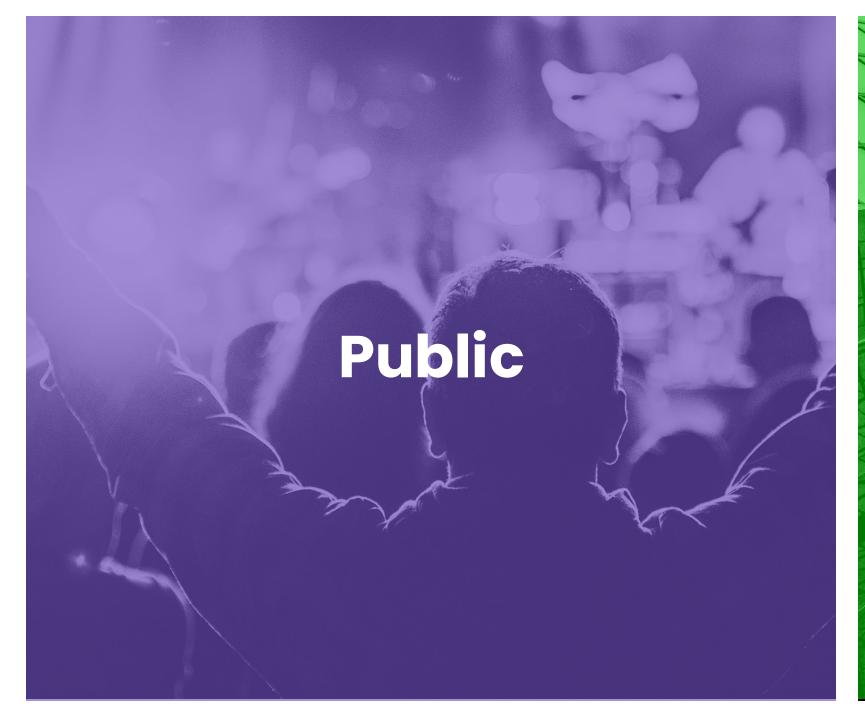




Everyday

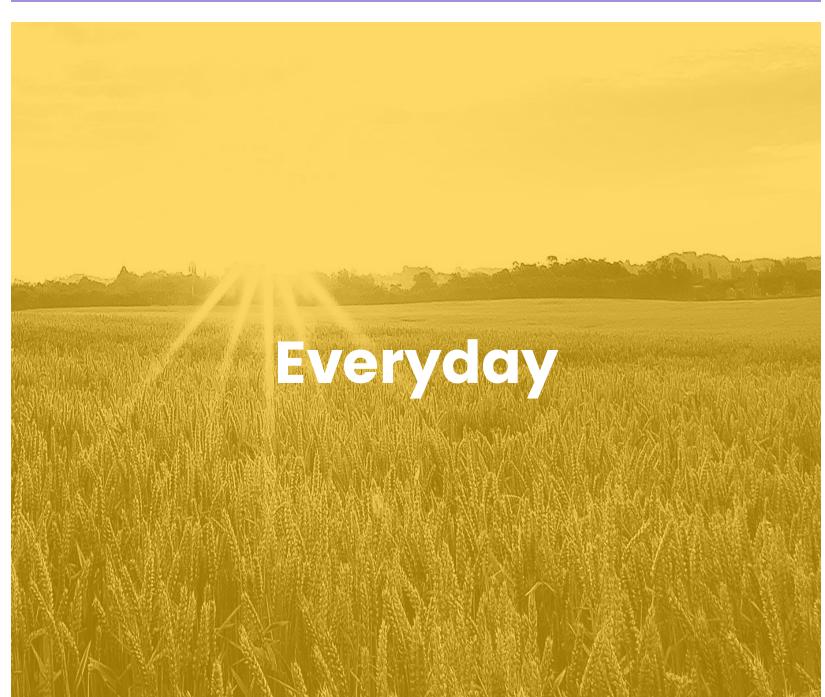
Gen Al solutions that are seamlessly integrated into everyday technologies we use, making it accessible to users in the flow of their work.

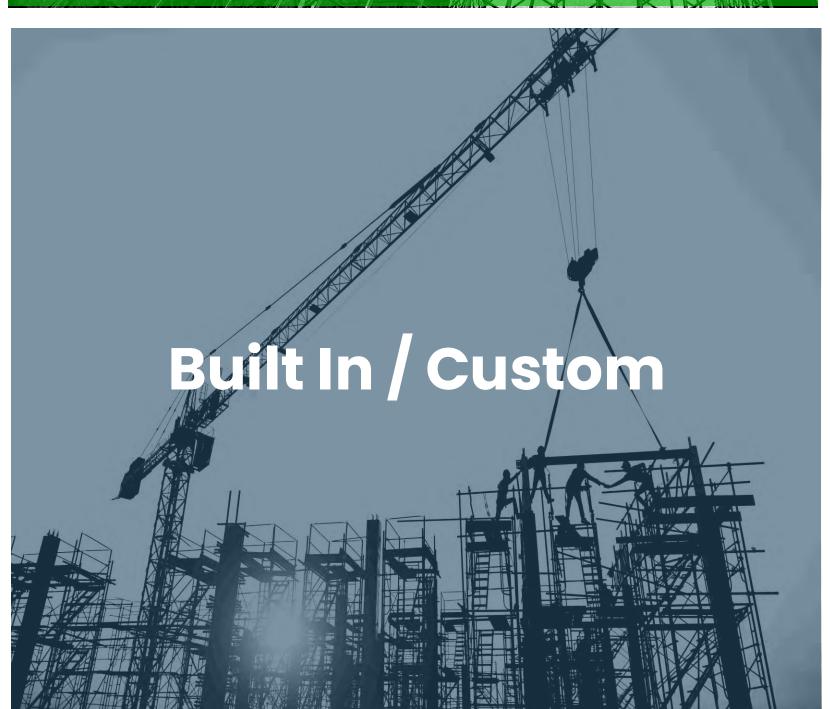


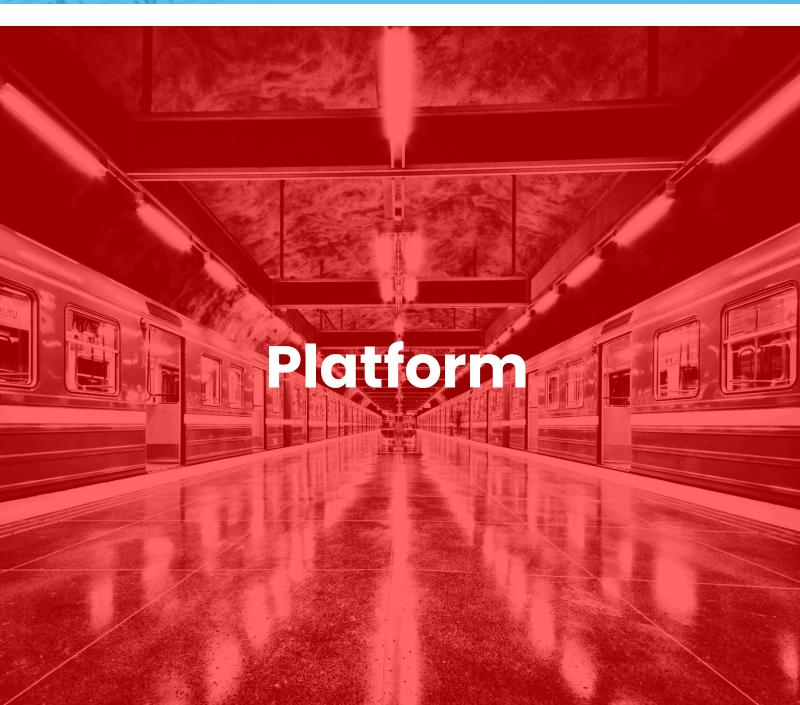














Built In / Custom

ERP specific solutions that come built-in with Gen Al capabilities tailored to specific business processes while also allowing the ability to build and customize to suit your unique needs.





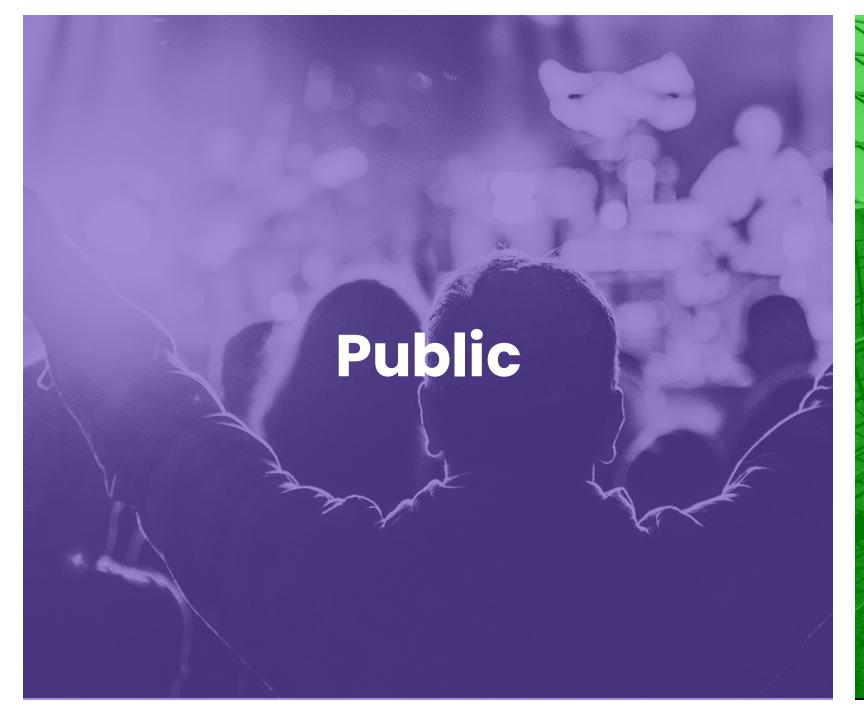






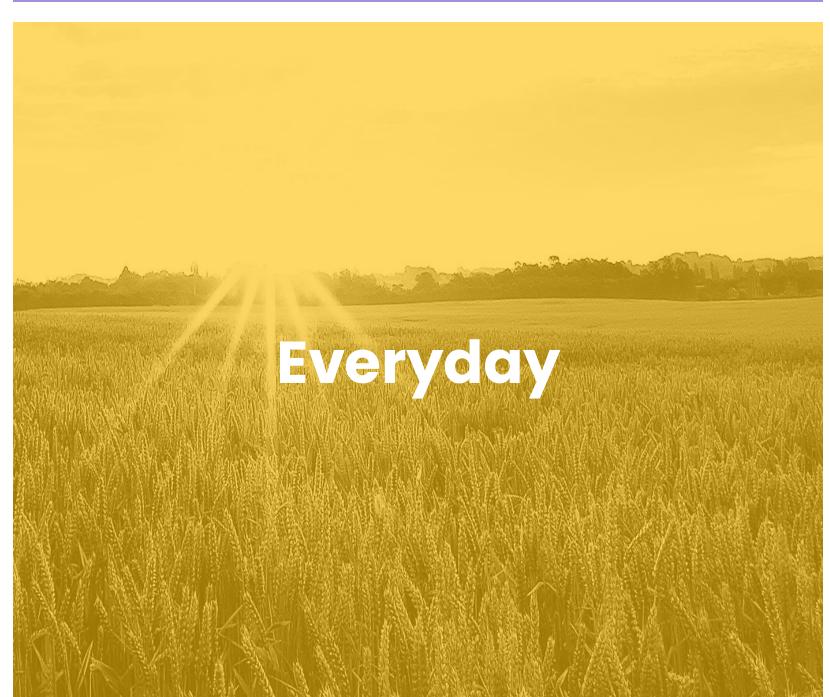


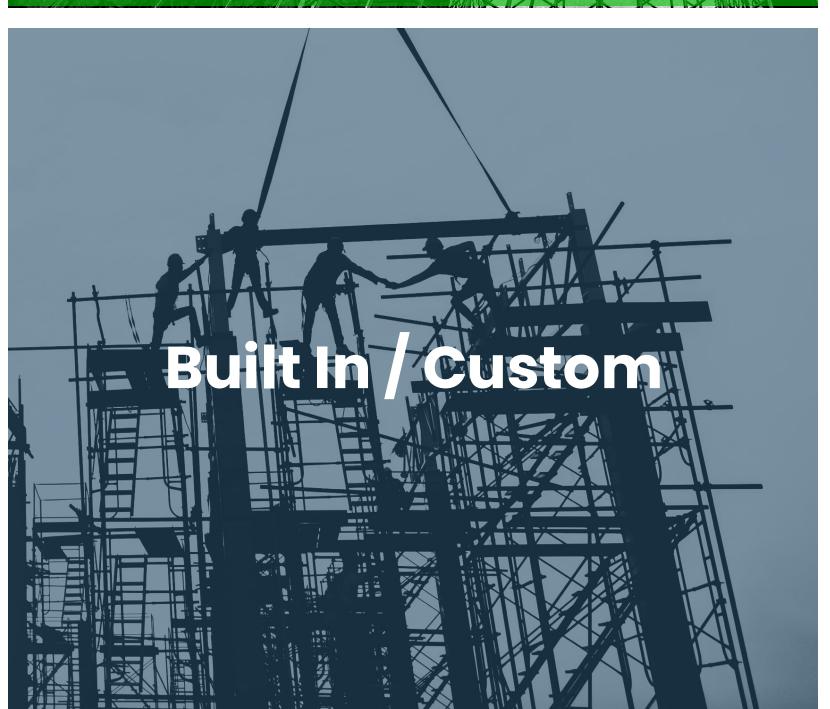


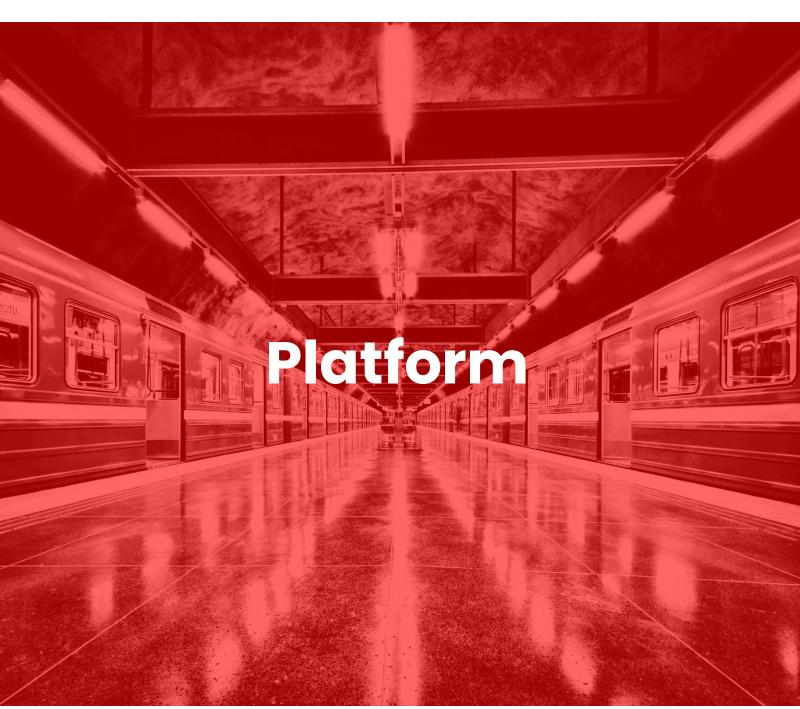


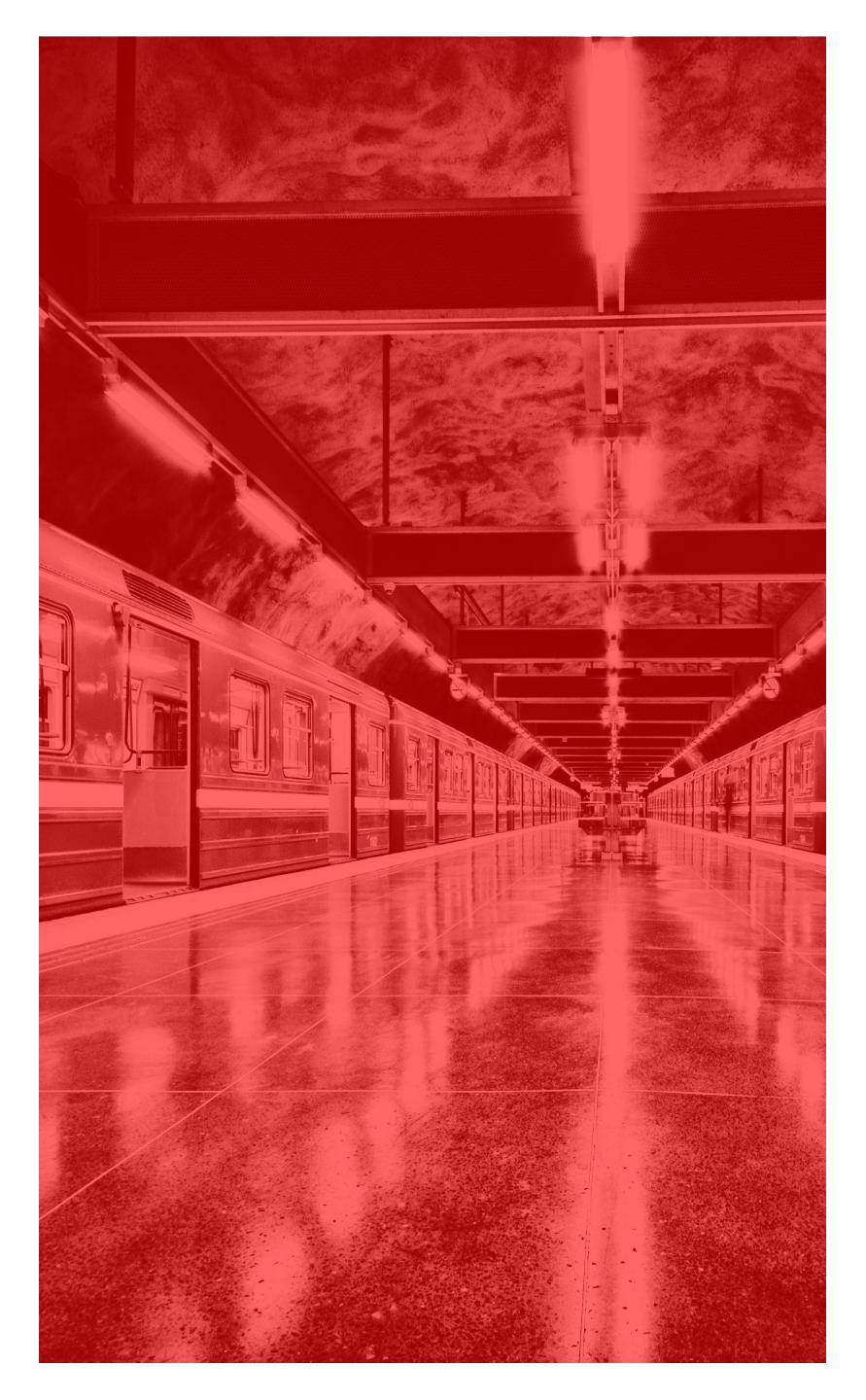












Platform

Gen Al services offered through a partner, yourself, or from a specific software platform designed to enable you to build custom Al solutions.









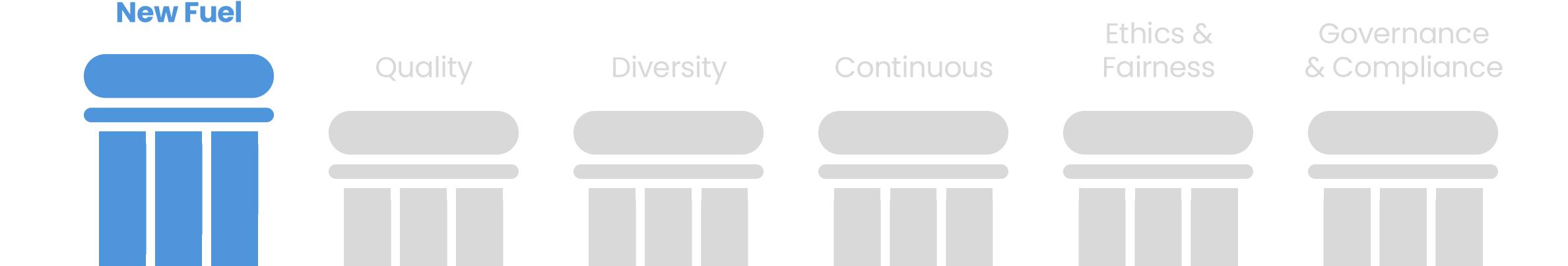


FUELING AI:

THE PILLARS OF DATA EXCELLENCE

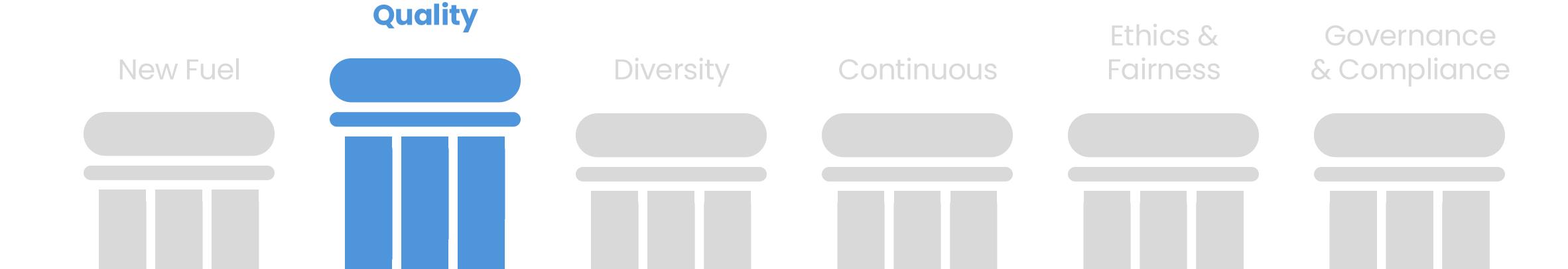
New Fuel

Data drives AI performance & value. Without sufficient, relevant, and meaningful data, AI cannot generate meaningful results.



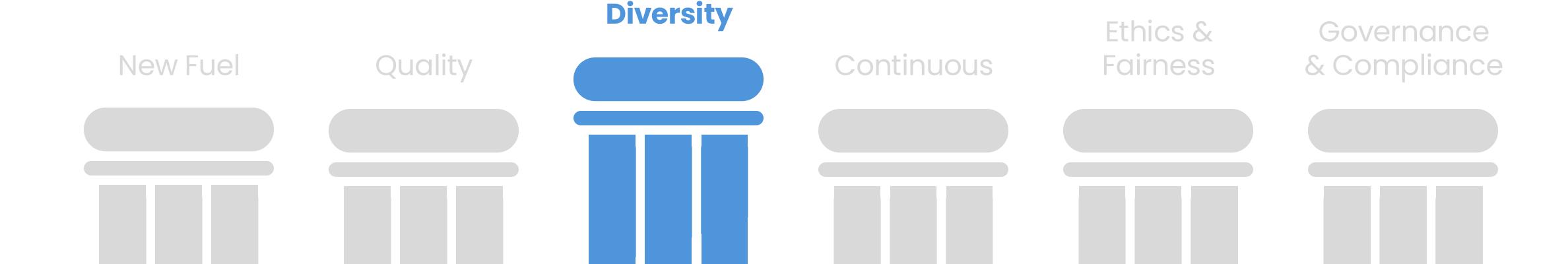
Quality

The accuracy of AI is tied directly to the data they are trained on. Poor or biased data can lead to inaccurate results.



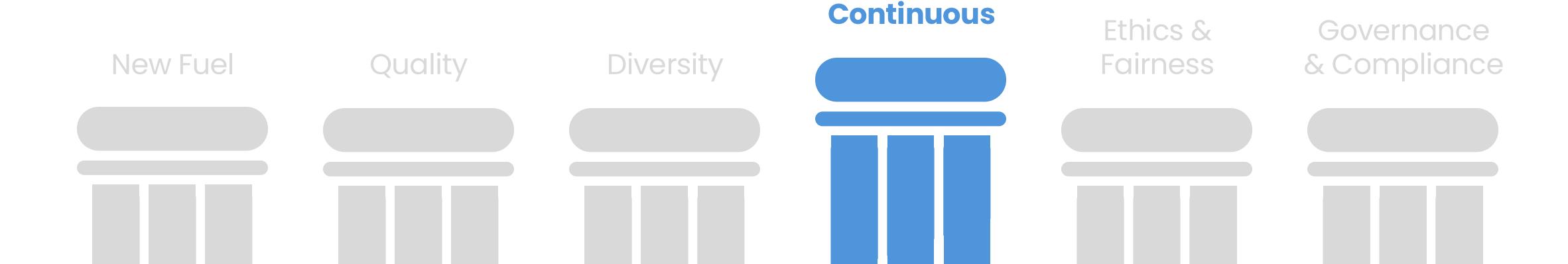
Diversity

Al systems require a range of data types: structured, unstructured, and real-time data to perform effectively.



Continuous

Al systems require continuous data updates to remain relevant and accurate over time. The more data provided the more it can learn and adapt.



Ethics & Fairness

Using representative and unbiased data is critical to prevent AI systems from producing discriminatory and/or unfair outcomes.

Al systems need to be fair, equitable, and non-discriminatory.

Ethics &

New Fuel Quality Diversity Continuous Governance & Compliance

Governance & Compliance

Effective data governance ensures AI systems are ethical, compliant, responsible, and adhere to privacy, security, and regulations.

New Fuel Quality Diversity Continuous Fairness

A Compliance Service of the Compliance Fairness Fairne

Governance

AI'S STRATEGIC IMPACT ON THE ENTERPRISE

ACCELERATING INNOVATION



ENHANCED EXPERIENCE



ACCELERATING INNOVATION

Generate new product idea, designs, and solutions faster than traditional methods.



Uses Gen AI for creating new drink flavors by analyzing customer preferences & testing combinations digitally before production.





aigitally before production.

ACCELERATING INNOVATION



ENHANCED EXPERIENCE



OPERATION EFFICIENCY & COST REDUCTION



DATA DRIVEN
DECISION MAKING



ENHANCED EXPERIENCE

Provide personalized, 24/7 support for your employees & customers improving overall engagement and satisfaction.



Uses a Gen AI chatbot to handle customer inquiries in multiple languages, improving response time & reducing costs.



ENHANCED EXPERIENCE



OPERATION EFFICIENCY & COST REDUCTION



DATA DRIVEN
DECISION MAKING



OPERATION EFFICIENCY & COST REDUCTION

Automate repetitive tasks to free up your employees' time to focus on more value-added work.



Uses AI to write marketing copy for online ads, reducing time spent on content creation & boosting conversion rates.

NEW REVENUE STREAMS



EXPERIENCE



OPERATION EFFICIENCY & COST REDUCTION



DATA DRIVEN
DECISION MAKING



NEW REVENUE STREAMS



TRANSFORMING BUSINESS MODELS



DATA DRIVEN DECISION MAKING

Move to more agile, Al-driven business models, offering personalized experiences / products at scale.



Gen AI tool allows professionals to quickly generate design ideas, reducing time to market & increasing the ability to personalize campaigns.

& COST REDUCTION



DATA DRIVEN
DECISION MAKING



NEW REVENUE STREAMS



TRANSFORMING BUSINESS MODELS



NEW REVENUE STREAMS

Al-generated content, art, music, and/or code can be monetized, enabling new forms of products and/or services.



Uses Gen AI to design new apparel, allowing them to create unique collections rapidly & appeal to niche markets.

DATA DRIVEN
DECISION MAKING



NEW REVENUE STREAMS



TRANSFORMING BUSINESS MODELS

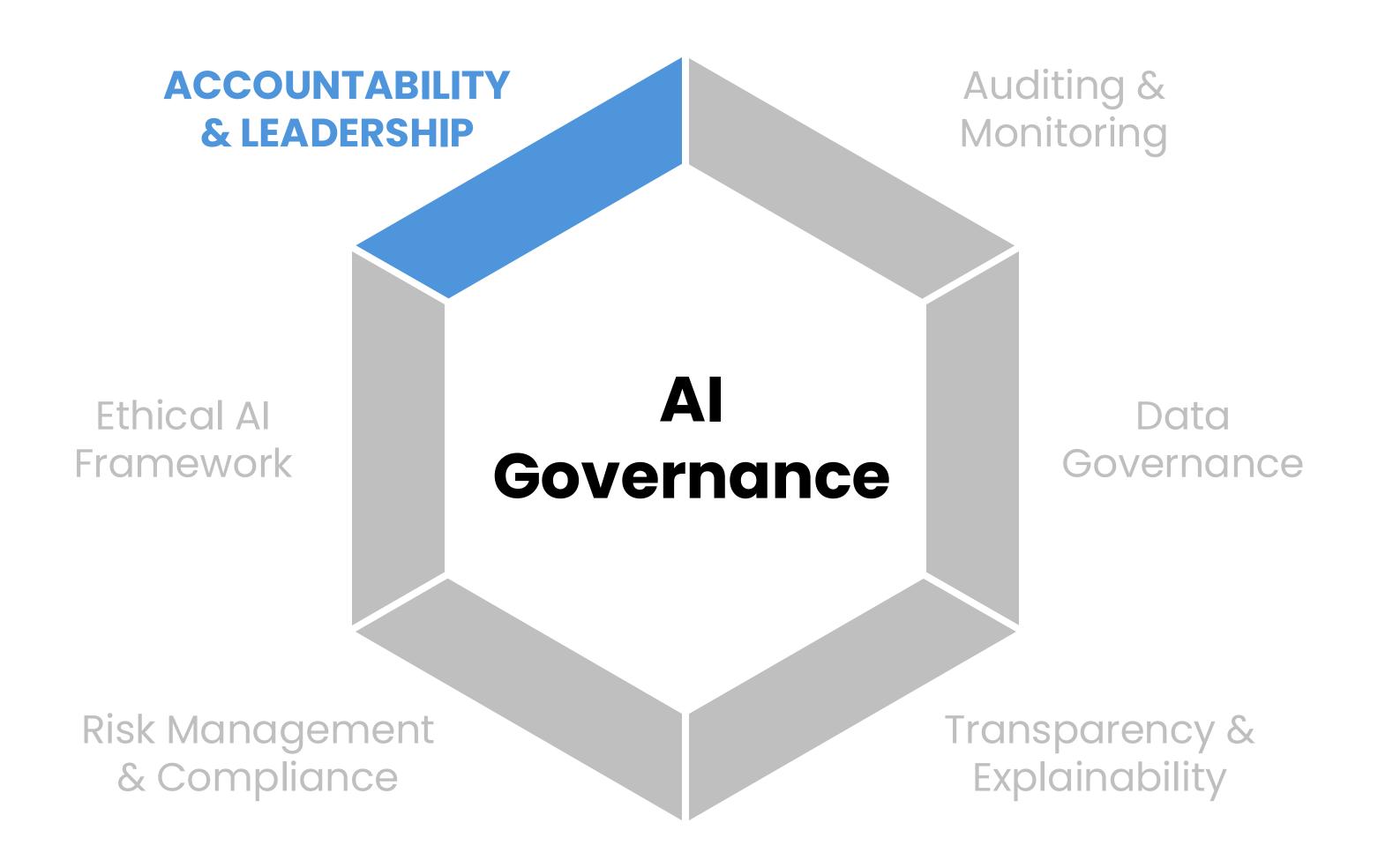


TRANSFORMING BUSINESS MODELS

Analyze massive data sets to identify trends, customer preferences, and emerging opportunities.

Uses AI to generate recommendations & optimize content creation based on viewer preferences, driving higher engagement & subscription retention.

SHAPING THE FUTURE AI GOVERNANCE



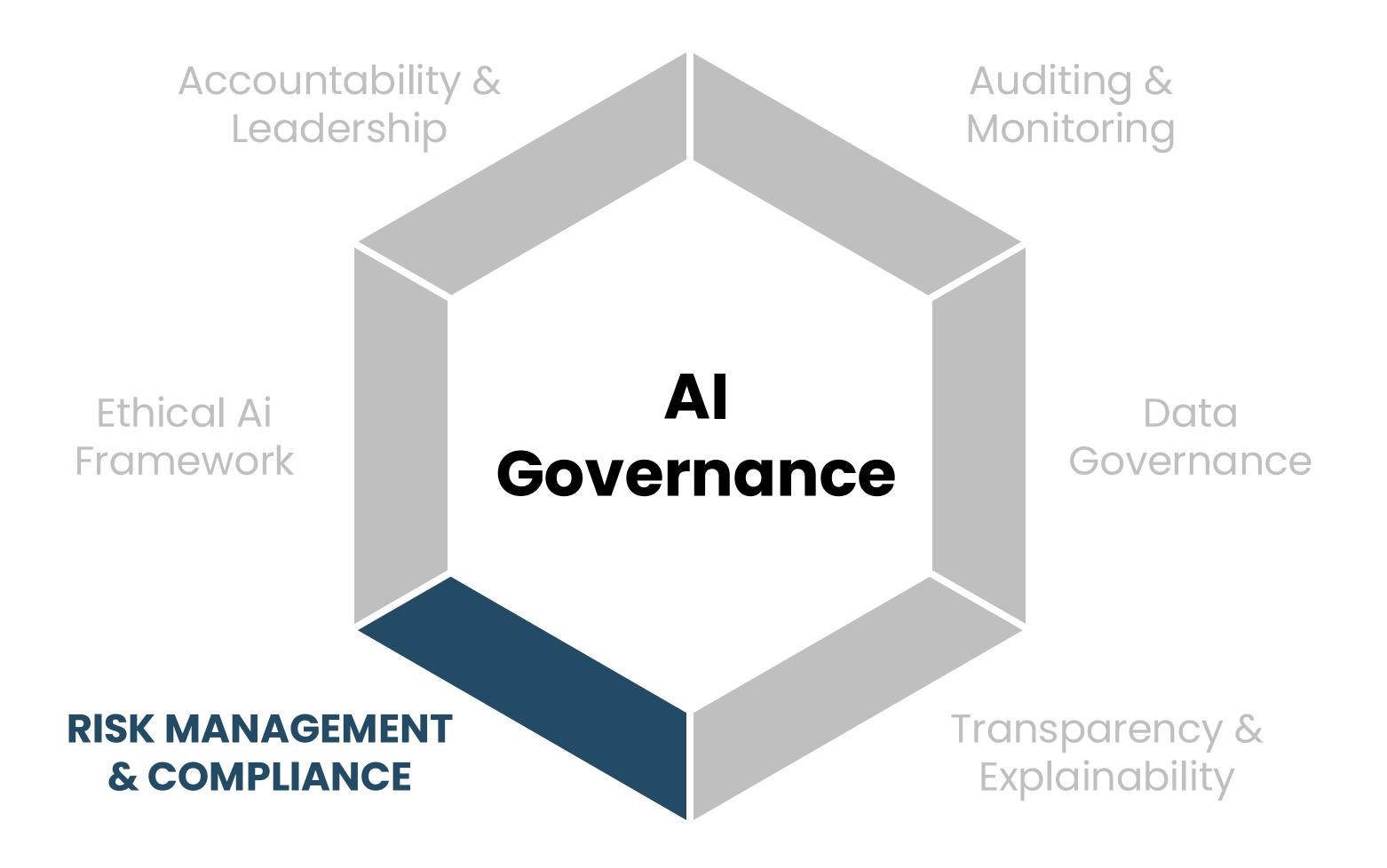
ACCOUNTABILITY & LEADERSHIP

Assign roles & responsibilities for Al at the C-Suite to ensure alignment with corporate goals and standards. Create an Al governance board to review all Al initiatives based on your internal policies.

Accountability & Auditing & Leadership Monitoring ETHICAL AI Data **FRAMEWORK** Governance Governance Risk Management Transparency & Explainability & Compliance

ETHICAL AI FRAMEWORK

Establish principles to guide Al decision making, development, & deployment. You need to ensure fairness, transparency, and nondiscrimination.



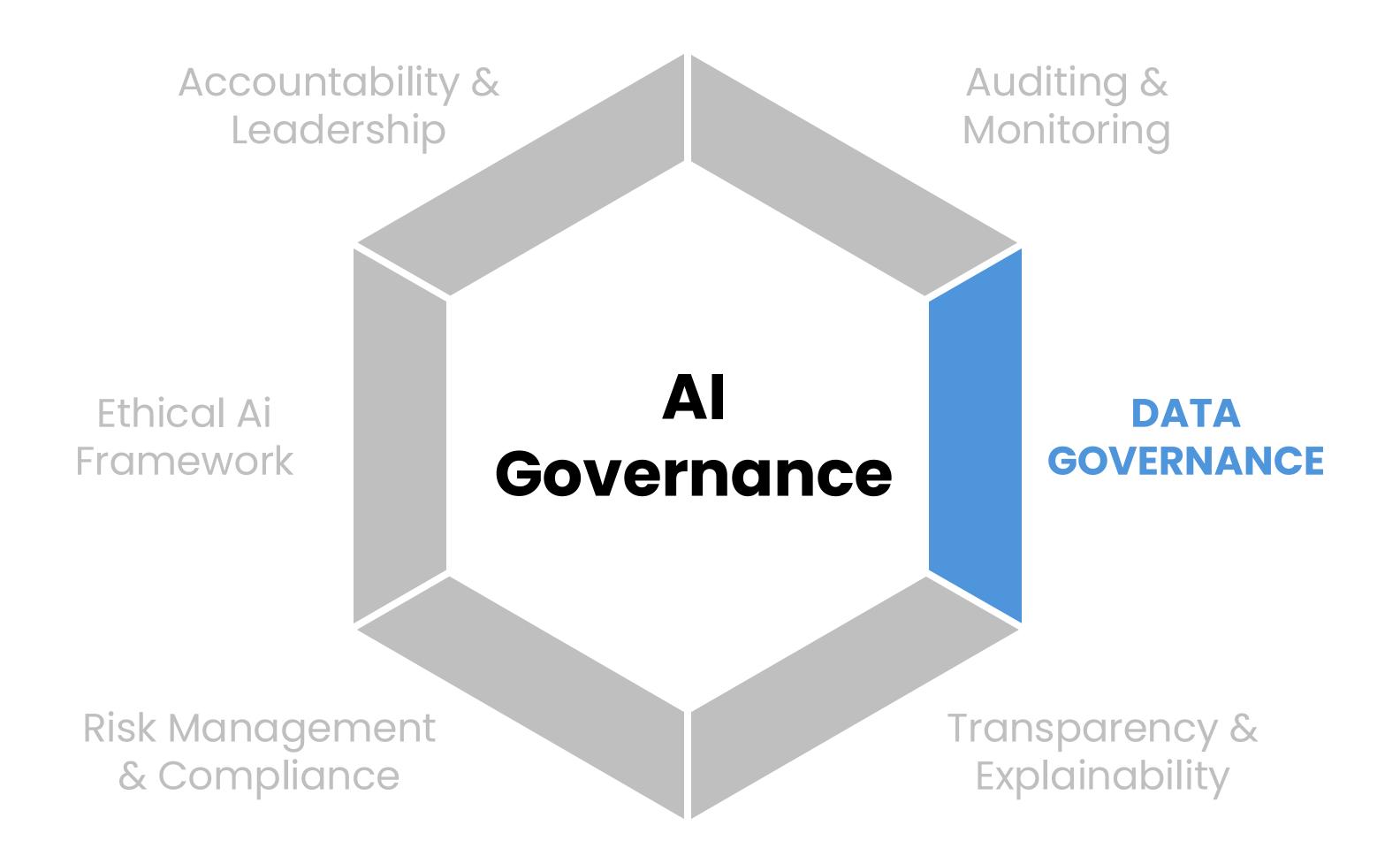
RISK MANAGEMENT & COMPLIANCE

Ensure your AI systems comply with existing legal and regulatory stands, and/or other industry specific requirements. Be proactive to be prepared for changes to laws and expectations around AI.

Accountability & Auditing & Leadership Monitoring Ethical Ai Data Framework Governance Governance Risk Management **TRANSPARENCY &** & Compliance **EXPLAINABILITY**

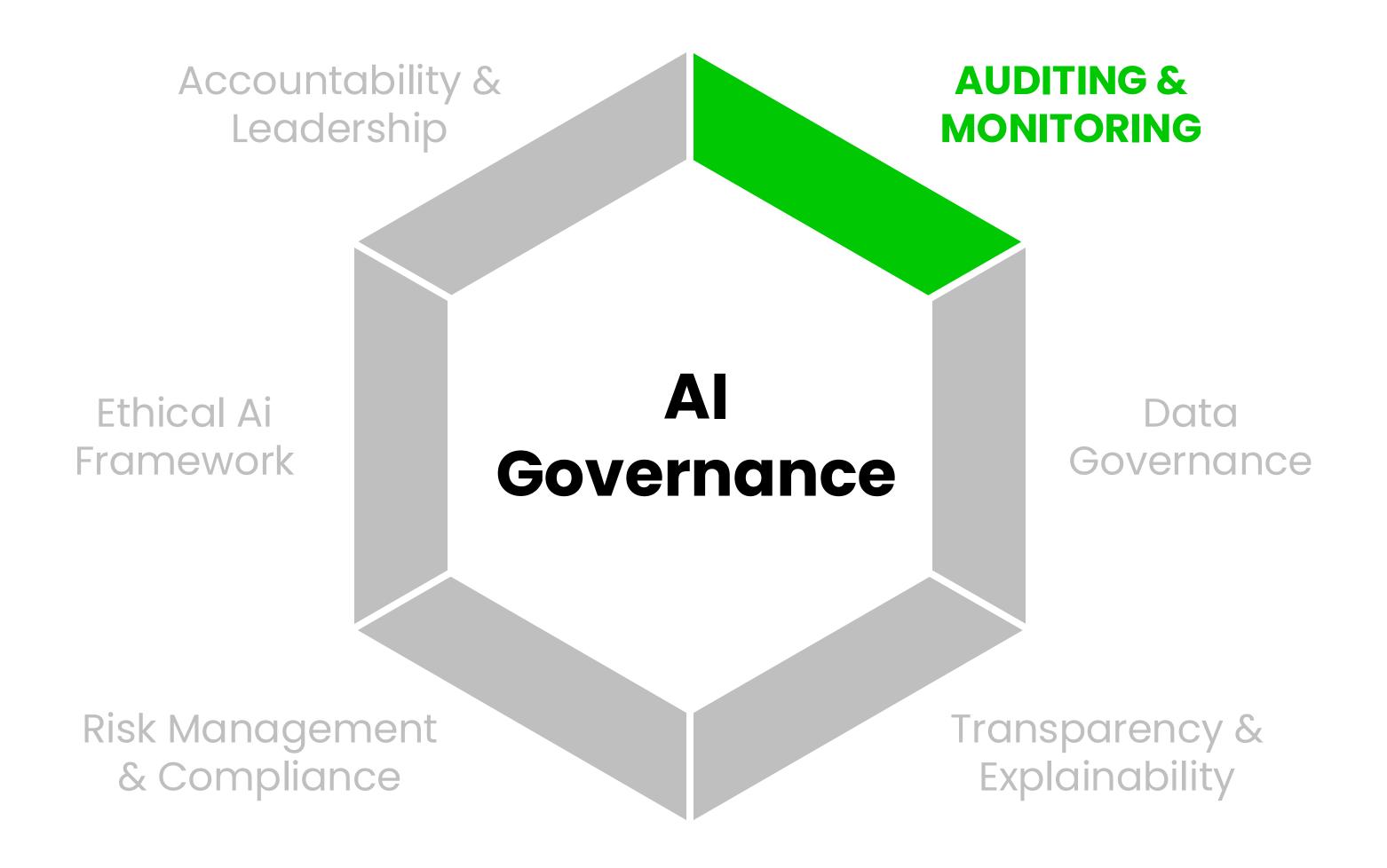
TRANSPARENCY & EXPLAINABILITY

Al models must be understandable to stakeholders (internal / external) with clear explanations on how decisions and / or predictions are made.



DATA GOVERNANCE

Implement strong data governance practices to ensure the quality, security, use of data.

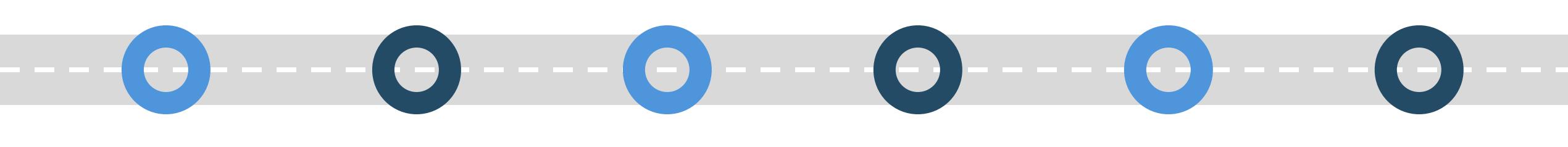


AUDITING & MONITORING

Regularly review AI models to ensure they perform as expected, adhere to ethical standards, and comply with evolving laws / regulations.

SUCCESSFULLY DEPLOYING AI TO YOUR ORGANIZATION

SUCCESSFULLY DEPLOYING AI TO YOUR ORGANIZATION

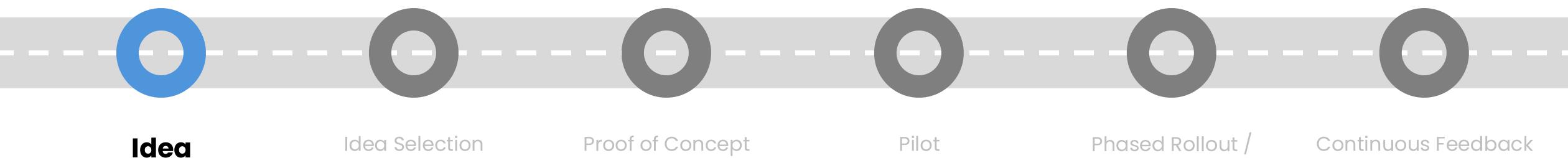


Idea Generation Idea Selection Proof of Concept

Pilot

Phased Rollout / Scaling

Continuous Feedback



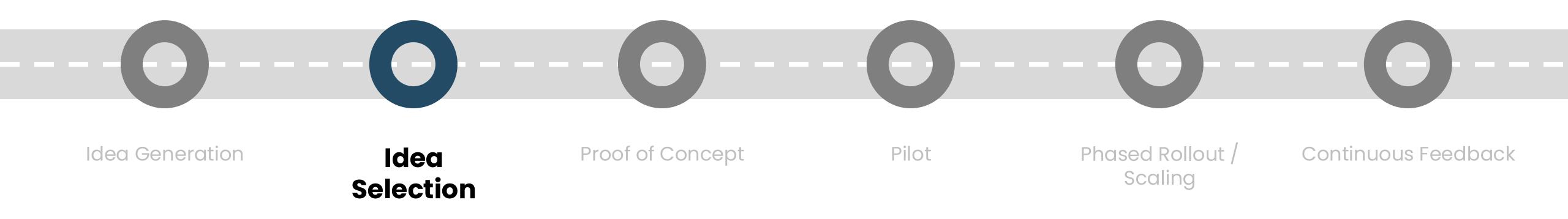
Generation

Scaling

IDEA GENERATION

Solicit ideas from every employee on potential AI use cases.

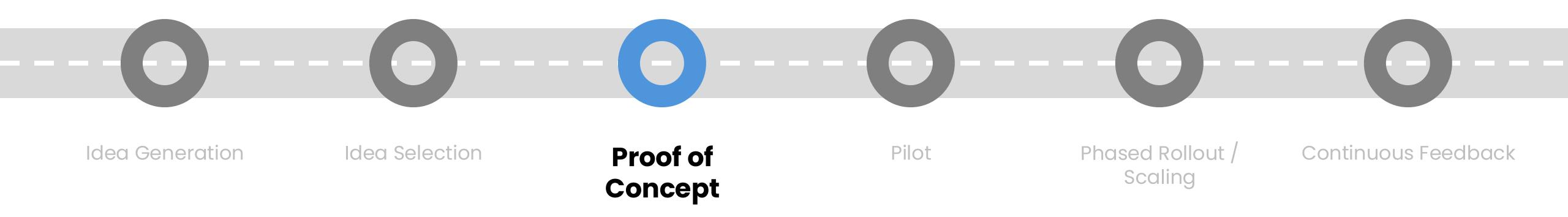
Have stakeholders across the organization who understand both the operational challenges & potential opportunities for the use cases.



IDEA SELECTION

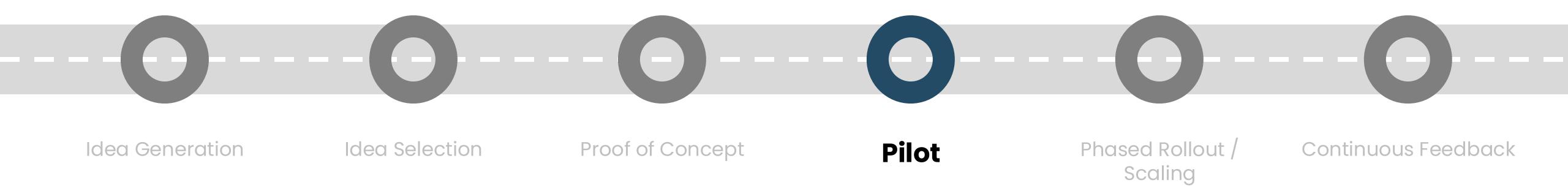
Create a structured / repeatable use case prioritization process using criteria that accounts for: Business Value, Technical Feasibility, Speed to Market, and Risk & Complexity

Utilize your Al governance to review the use cases and to make final decisions.



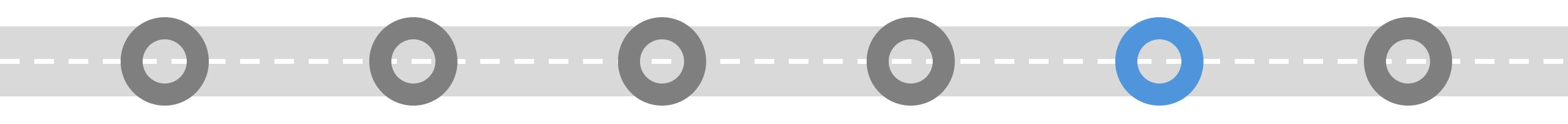
PROOF OF CONCEPT

Once a use case is selected to move forward ensure requirements are understood. The focus should be on a specific part of your organization or a small group of users to gather insights to test the value and feasibility of the solution. Set clear goals. Use AI governance to determine if work should continue.



PILOT

After the PoC is successful, expand the deployment to a small but diverse group of users and / or parts of the organization. Gather feedback and monitor the Al's performance. Effort should be focused on change management and training the users on how to use the solution as well as the impacts to their jobs.



Idea Generation

Idea Selection

Proof of Concept

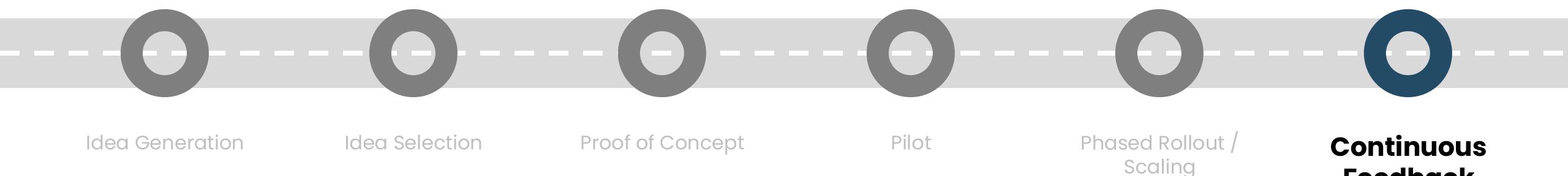
Pilot

Phased Rollout / Scaling

Continuous Feedback

PHASED ROLLOUT / SCALING

Move from Pilot to larger rollouts across your organization using your Al governance. Focus on ensuring the Al system integrates into your existing workflows and systems. Auditing & monitoring are in place to address data privacy, security, and laws / regulations.



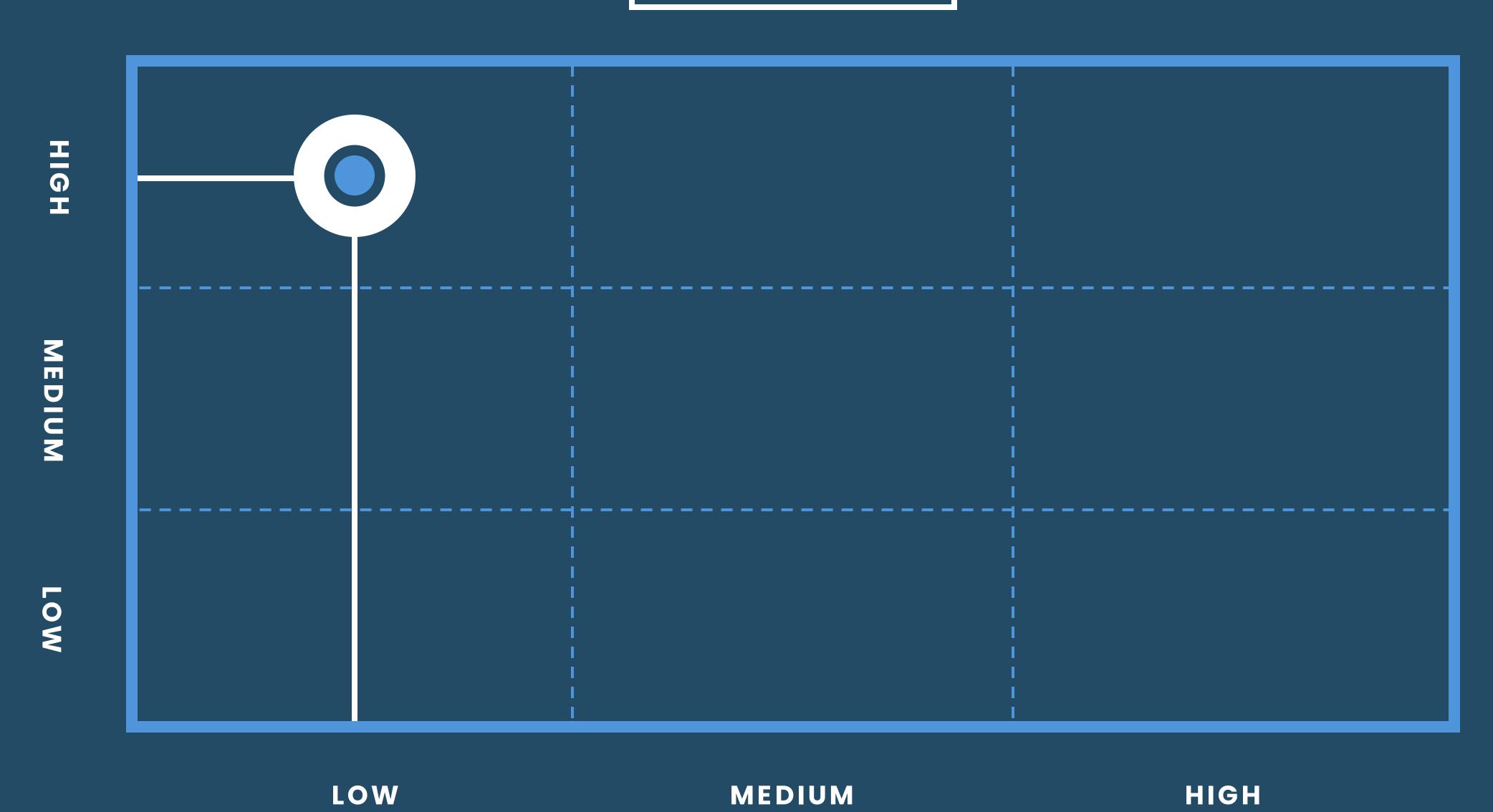
CONTINUOUS FEEDBACK

Feedback

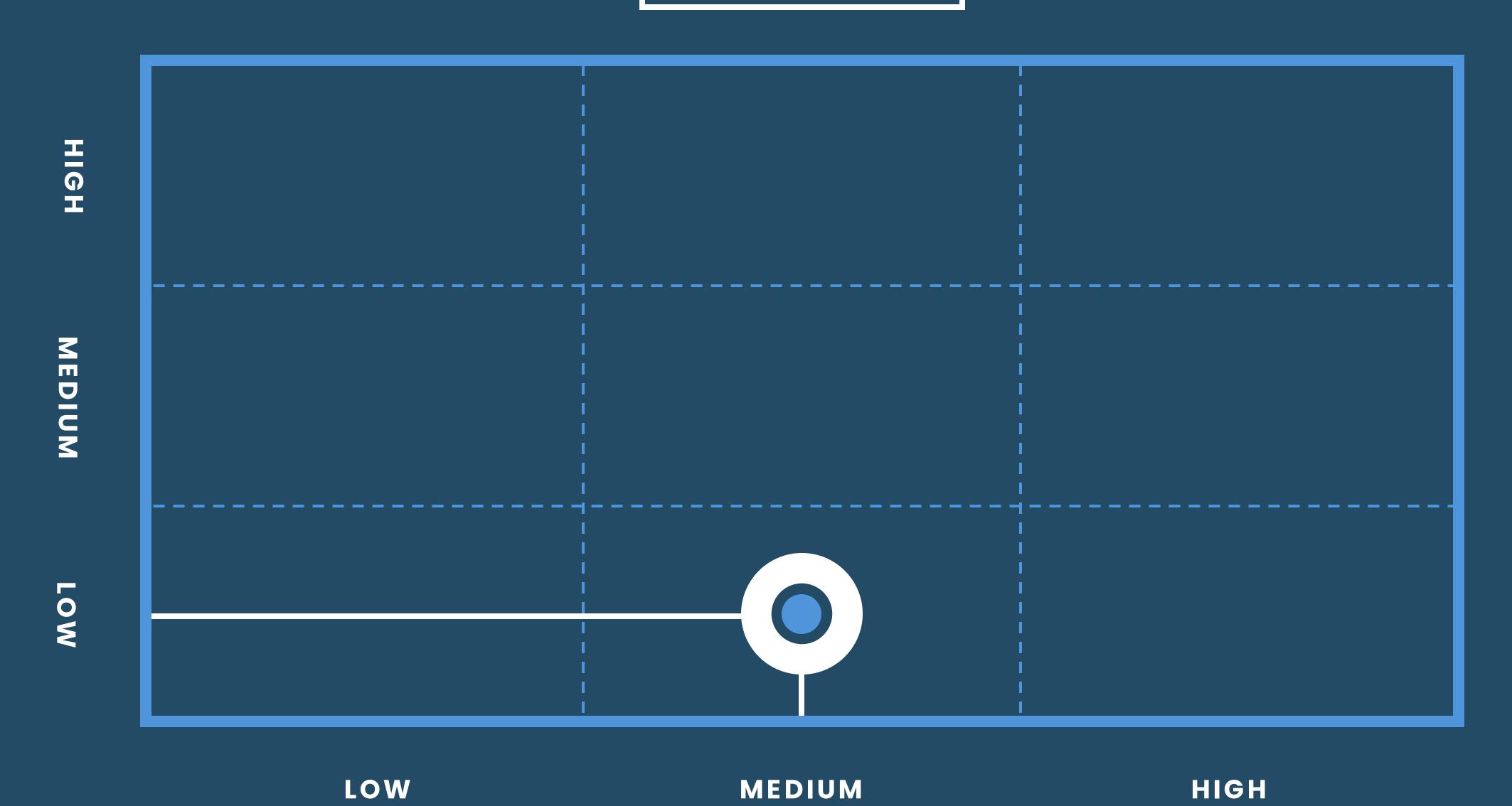
Continuously monitor the performance, user feedback, business impact, and ROI. Be prepared to retire solutions as new technologies come out and or requirements change.

PRIORITIZING GEN AI USE CASES





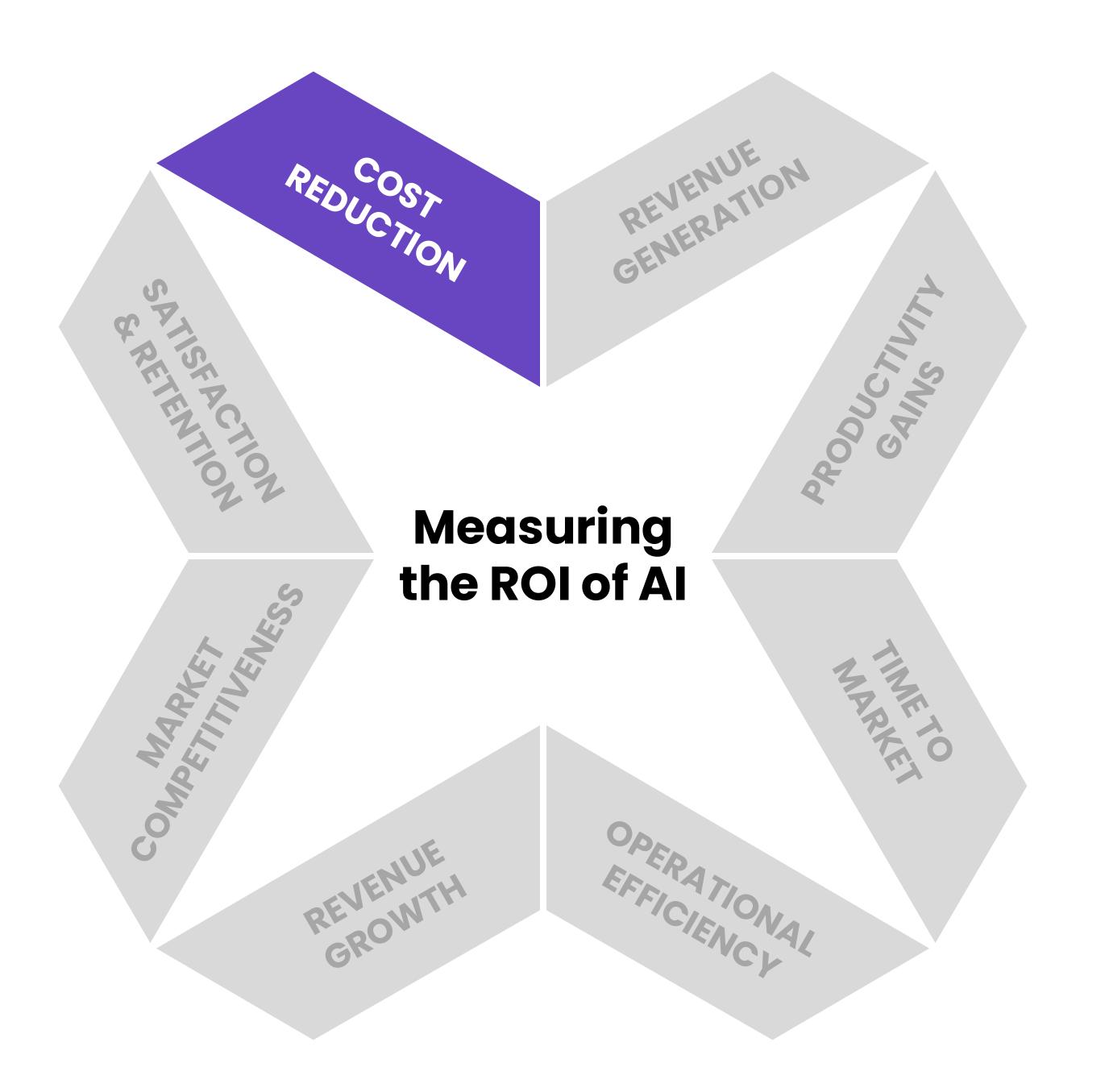
LOW MEDIUM



HIGH MEDIUM

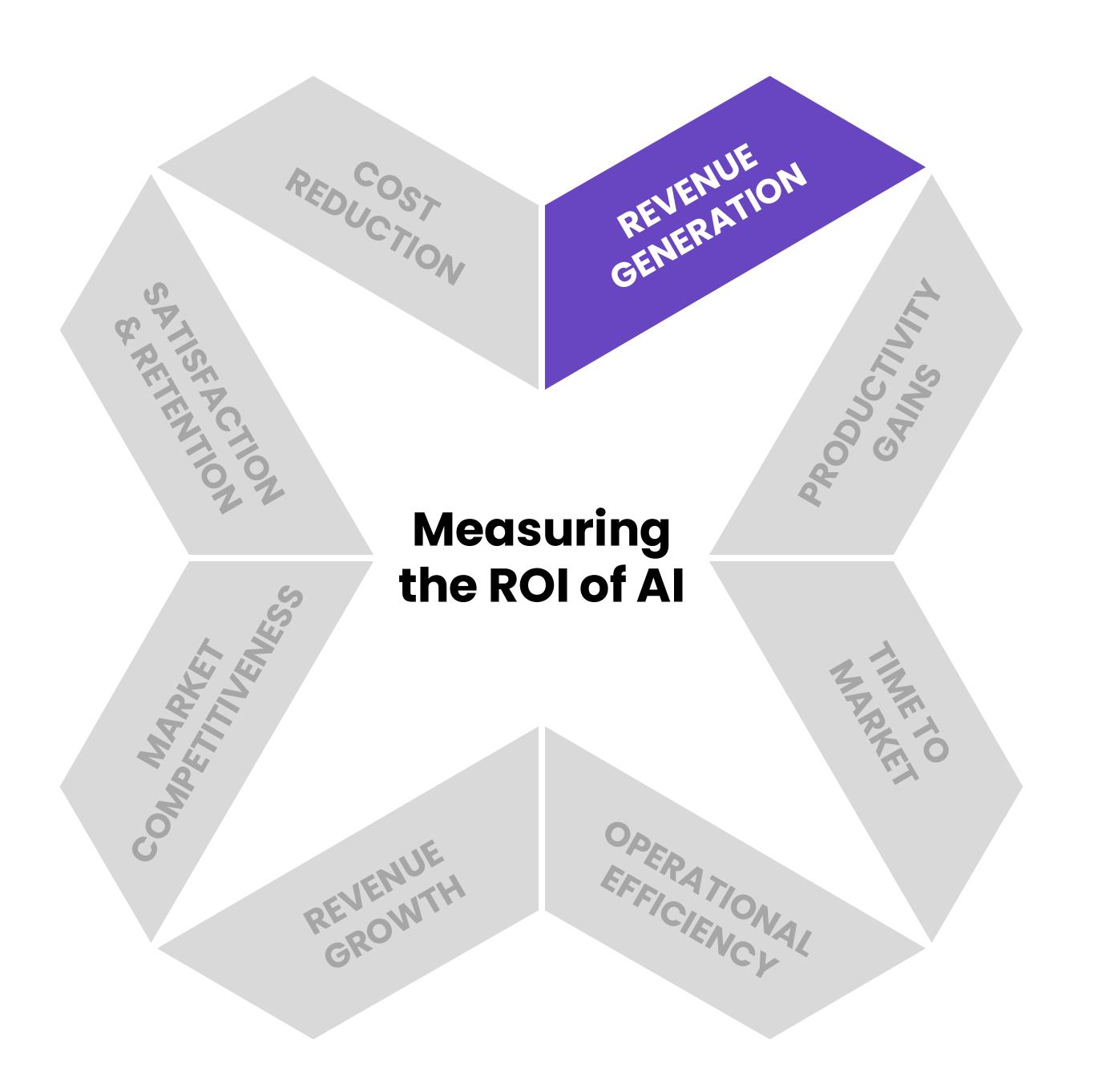
LOW MEDIUM HIGH

MEASURING THE ROI OF AI



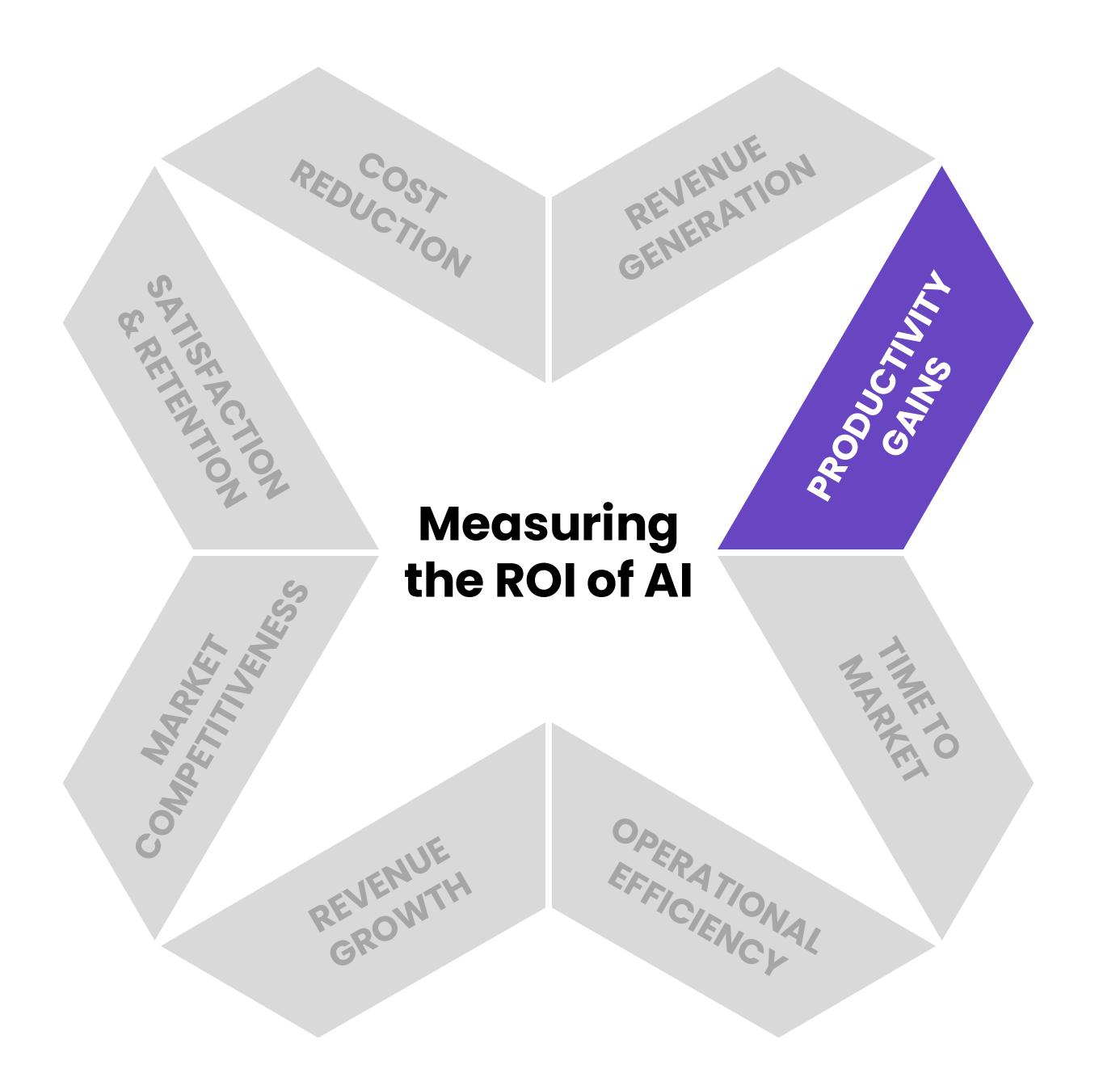
COST REDUCTION

Al can automate manual tasks, reduce operational costs, and improve efficiency.



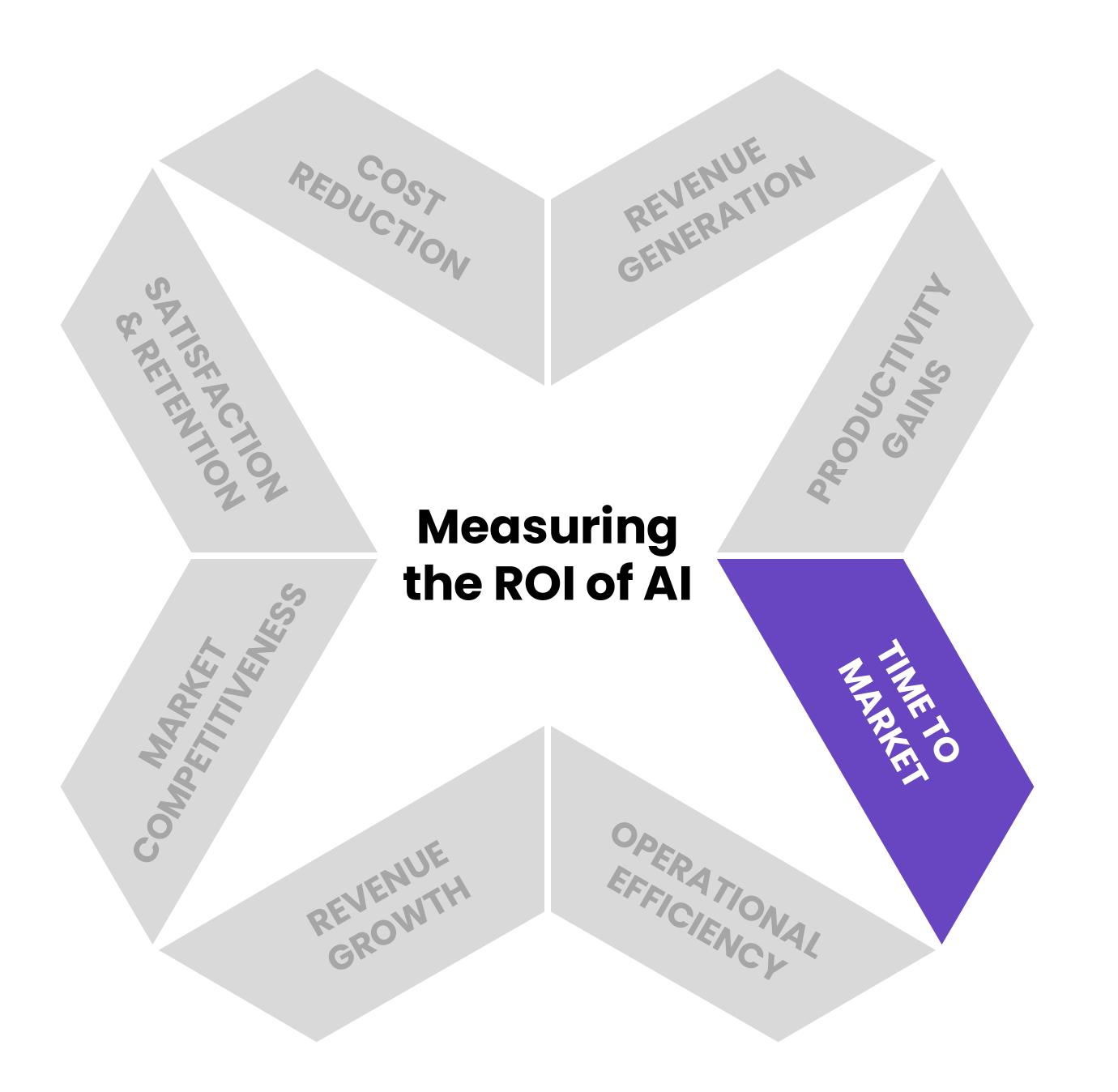
REVENUE GENERATION

Al can identify new market opportunities, optimize sales strategies, and drive personalized experiences leading to higher sales & revenue.



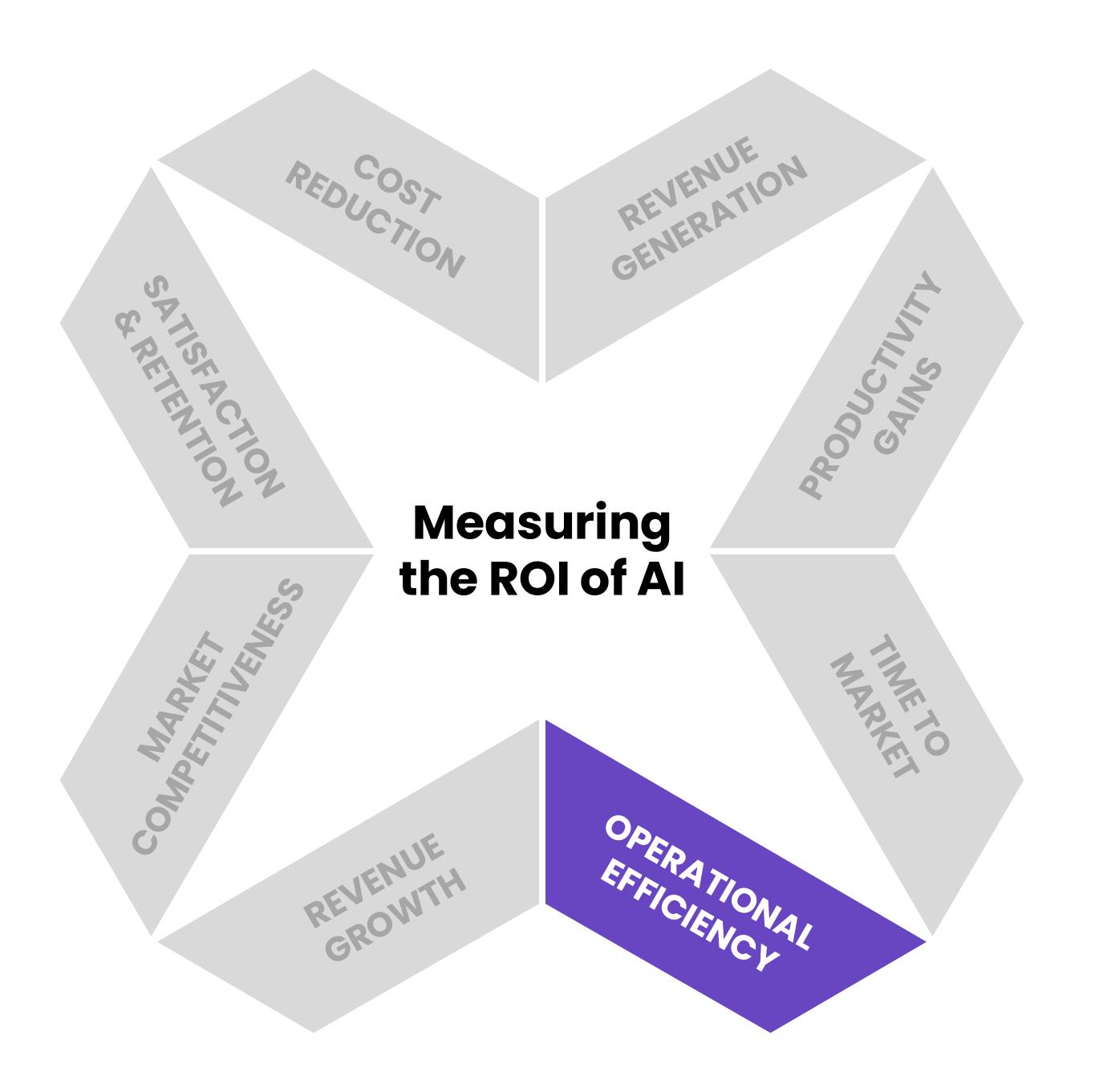
PRODUCTIVITY GAINS

Al enhances productivity by automating repetitive tasks, improving decision making with insights, and freeing up employee time to focus on other activities.



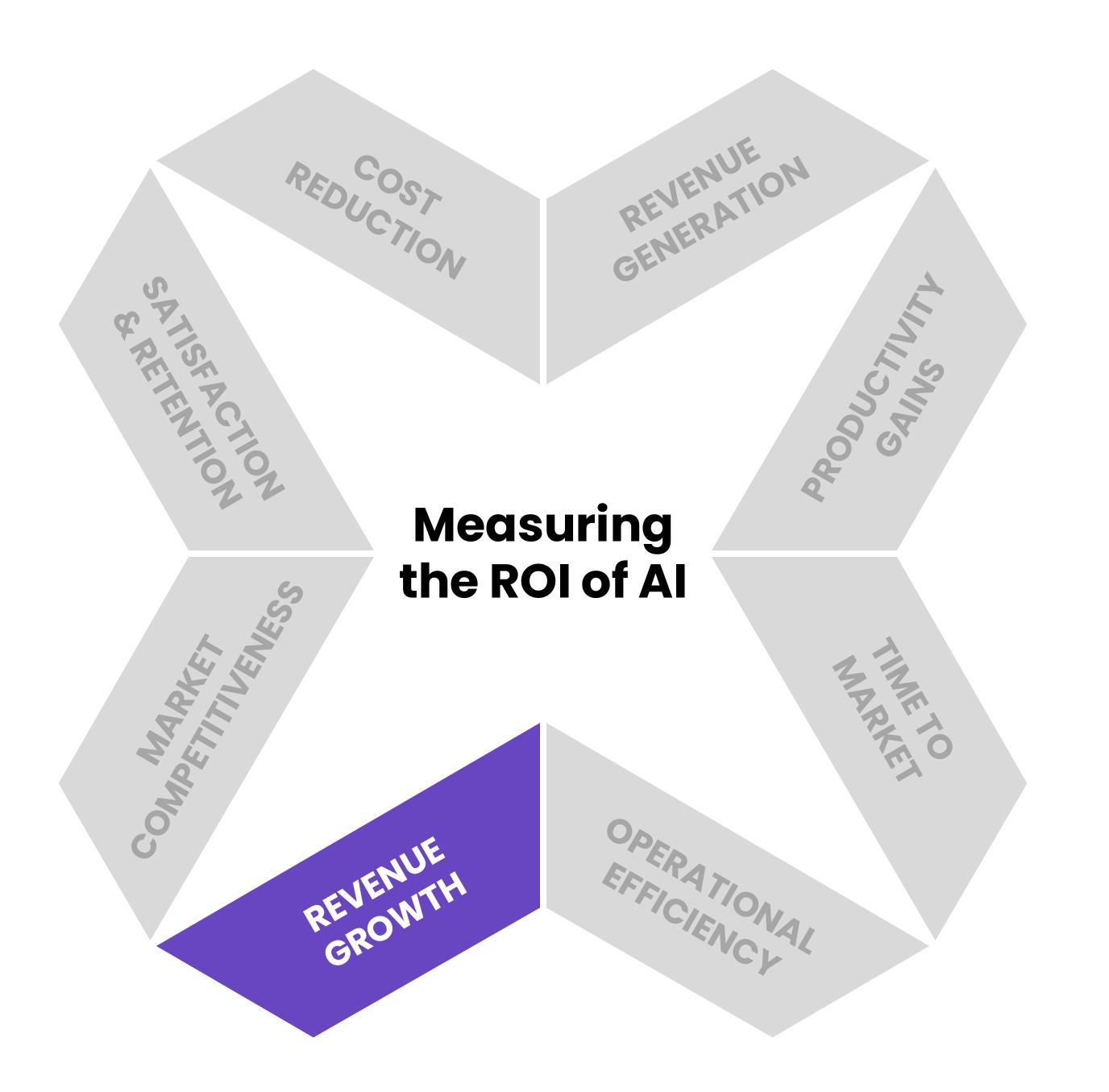
TIME TO MARKET

Al driven innovations in R&D can significantly reduce the time to bring new products & services to market.



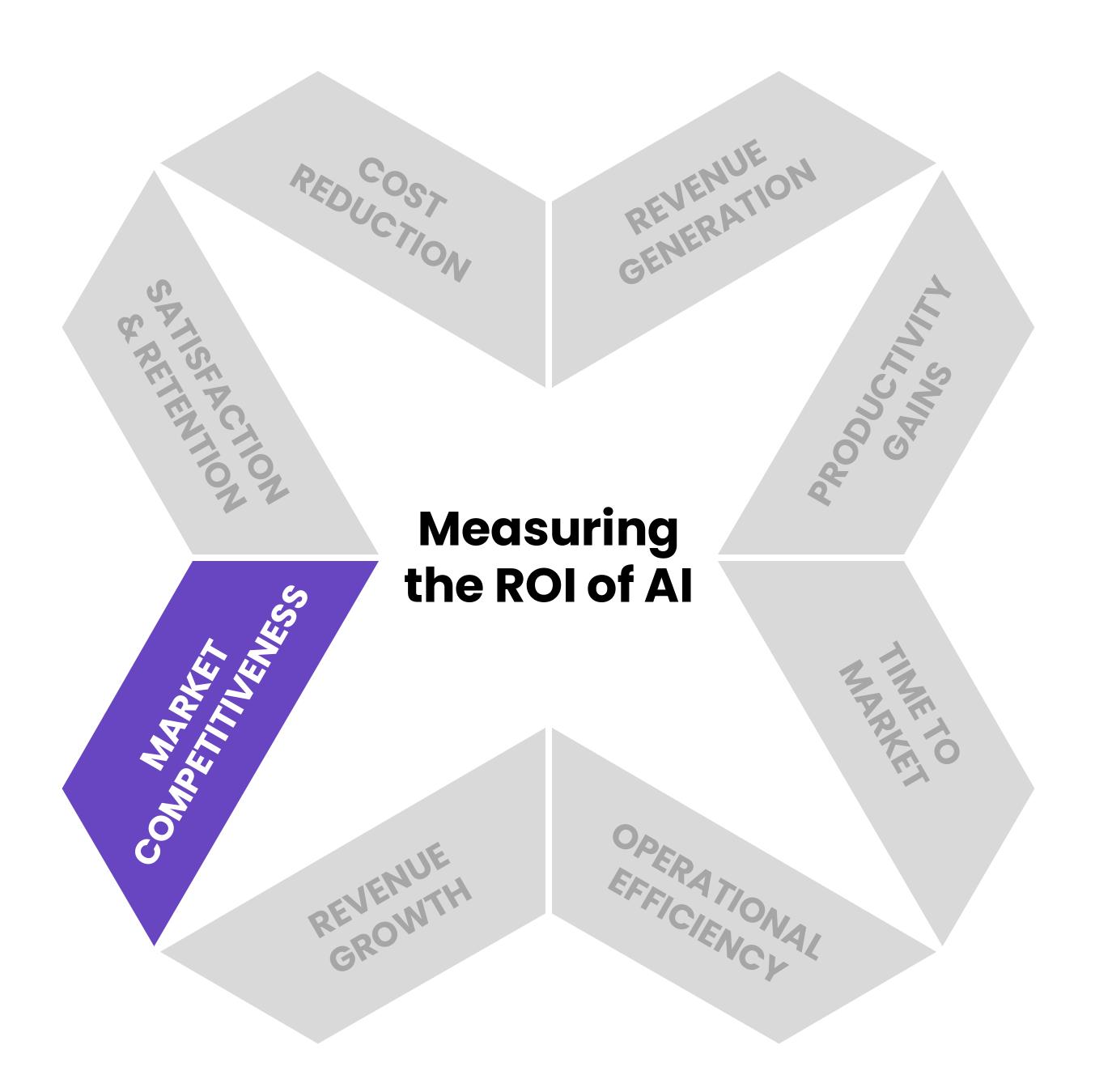
OPERATIONAL EFFICIENCY

Al streamlines operations by automating workflows, optimizing resource allocation, and reducing bottlenecks—resulting in faster, leaner, and more scalable processes.



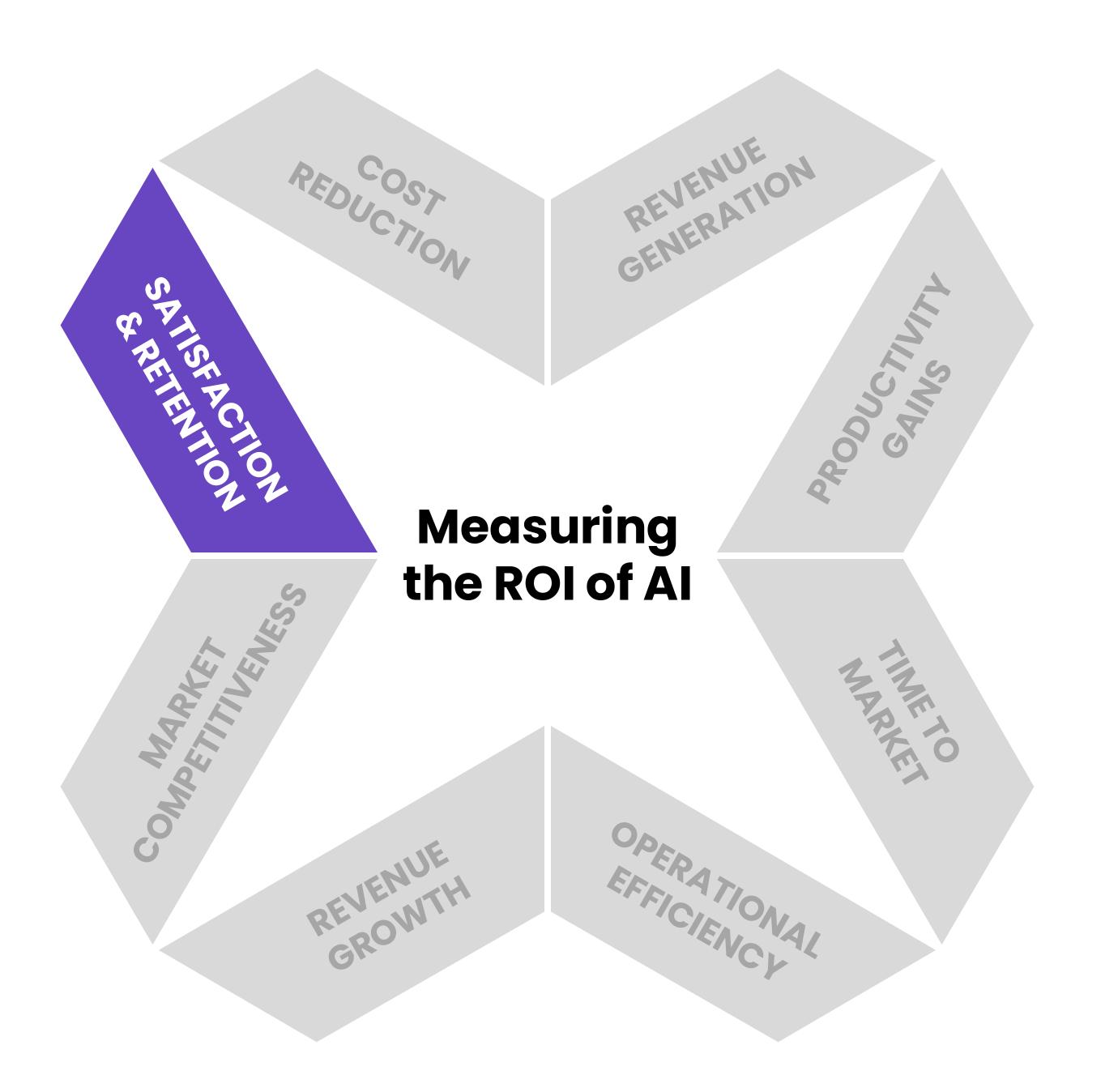
REVENUE GROWTH

Al accelerates revenue growth by uncovering high-value opportunities, enabling hyper-targeted marketing, and enhancing cross-sell/upsell effectiveness through predictive analytics.



MARKET COMPETITIVENESS

Al boosts competitiveness by enabling faster innovation, adaptive decision-making, and real-time responsiveness to market trends—keeping organizations ahead of disruption.



SATISFACTION & RETENTION

Al strengthens customer and employee satisfaction by delivering personalized experiences, anticipating needs, and enabling proactive engagement—leading to greater loyalty and long-term retention.

ASSESS THE RISK OF YOUR AI SOLUTION

Identified as a clear threat are banned (i.e. social scoring, facial recognition in public places, etc.)

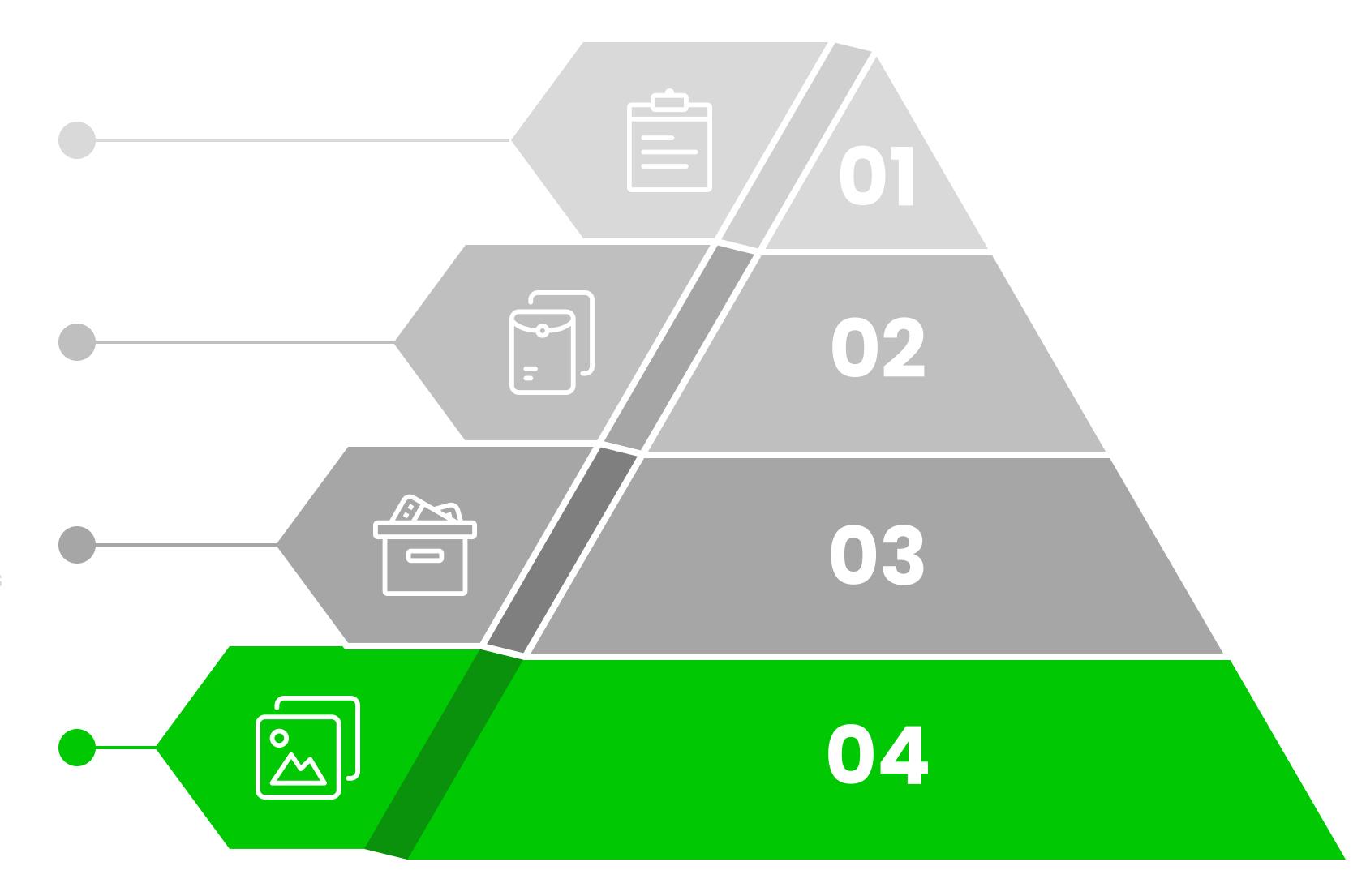
High Risk

Identified as a potential threat that will have to be demonstrated as safe (i.e. obtaining a loan, HR, etc.)

Limited Risk

Limited threats will be subjected to transparency obligations to ensure users make informed decisions.

Minimal or No Risk



Identified as a clear threat are banned (i.e. social scoring, facial recognition in public places, etc.)

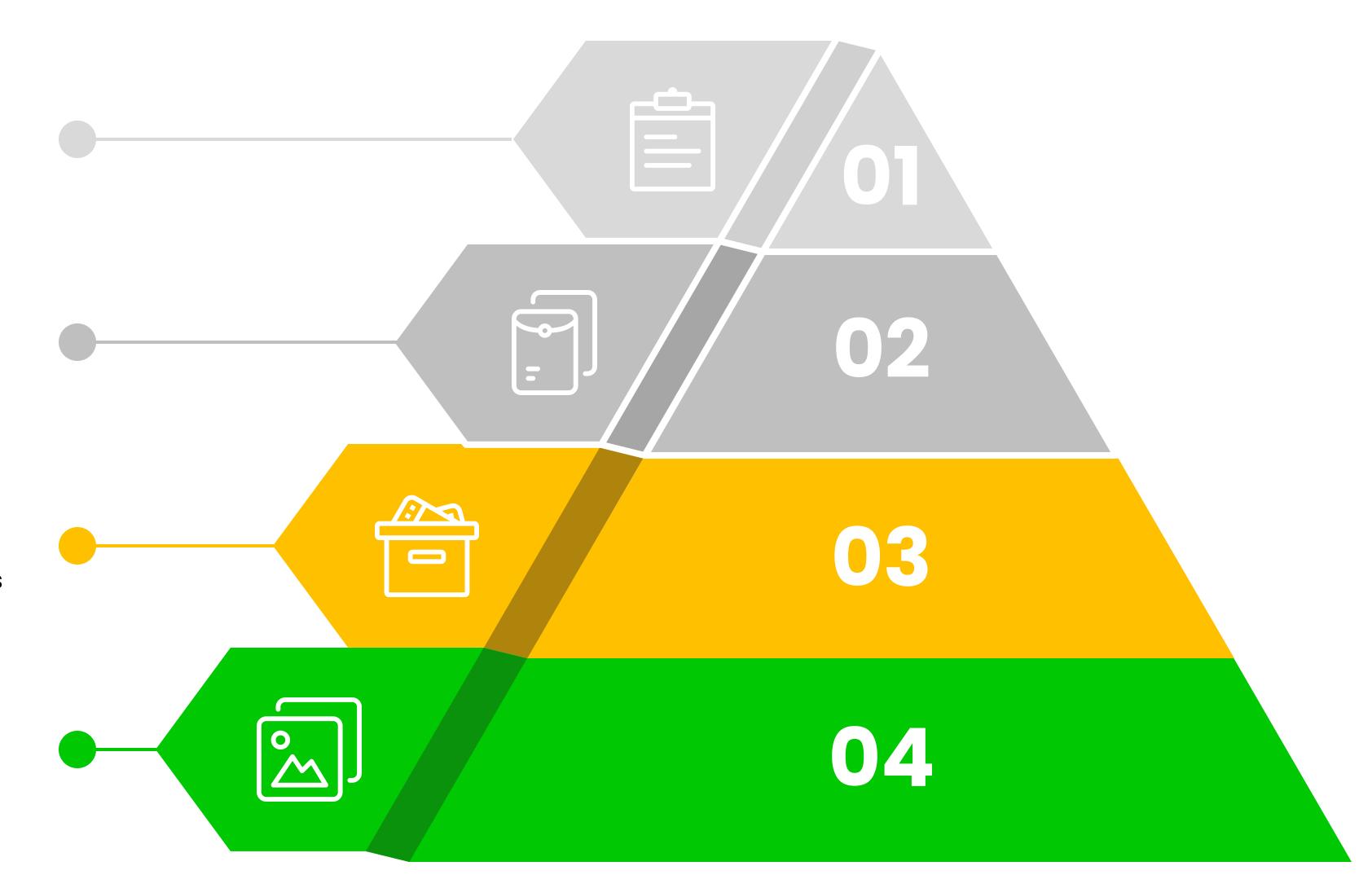
High Risk

Identified as a potential threat that will have to be demonstrated as safe (i.e. obtaining a loan, HR, etc.)

Limited Risk

Limited threats will be subjected to transparency obligations to ensure users make informed decisions.

Minimal or No Risk



Identified as a clear threat are banned (i.e. social scoring, facial recognition in public places, etc.)

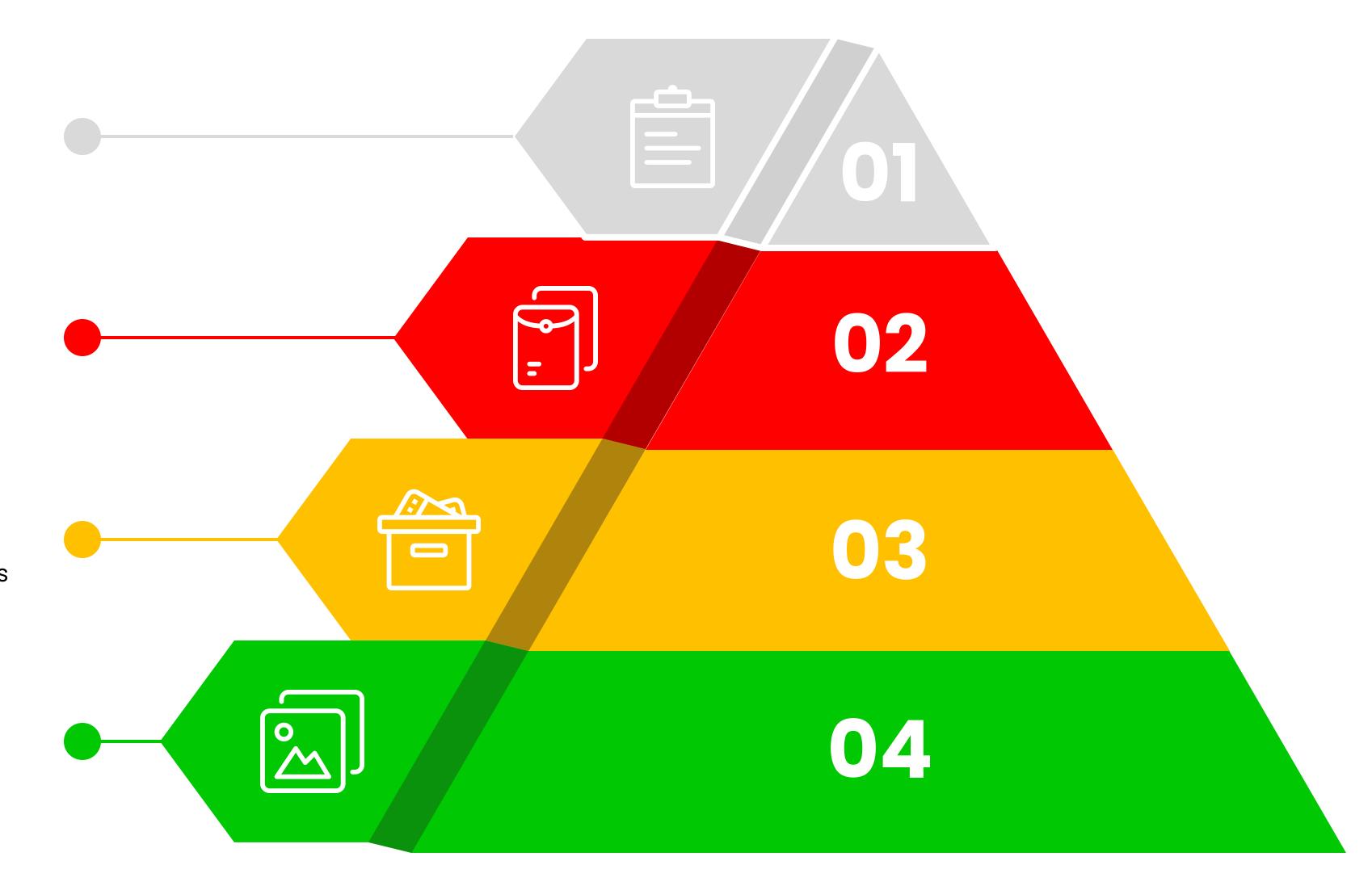
High Risk

Identified as a potential threat that will have to be demonstrated as safe (i.e. obtaining a loan, HR, etc.)

Limited Risk

Limited threats will be subjected to transparency obligations to ensure users make informed decisions.

Minimal or No Risk



Identified as a clear threat are banned (i.e. social scoring, facial recognition in public places, etc.)

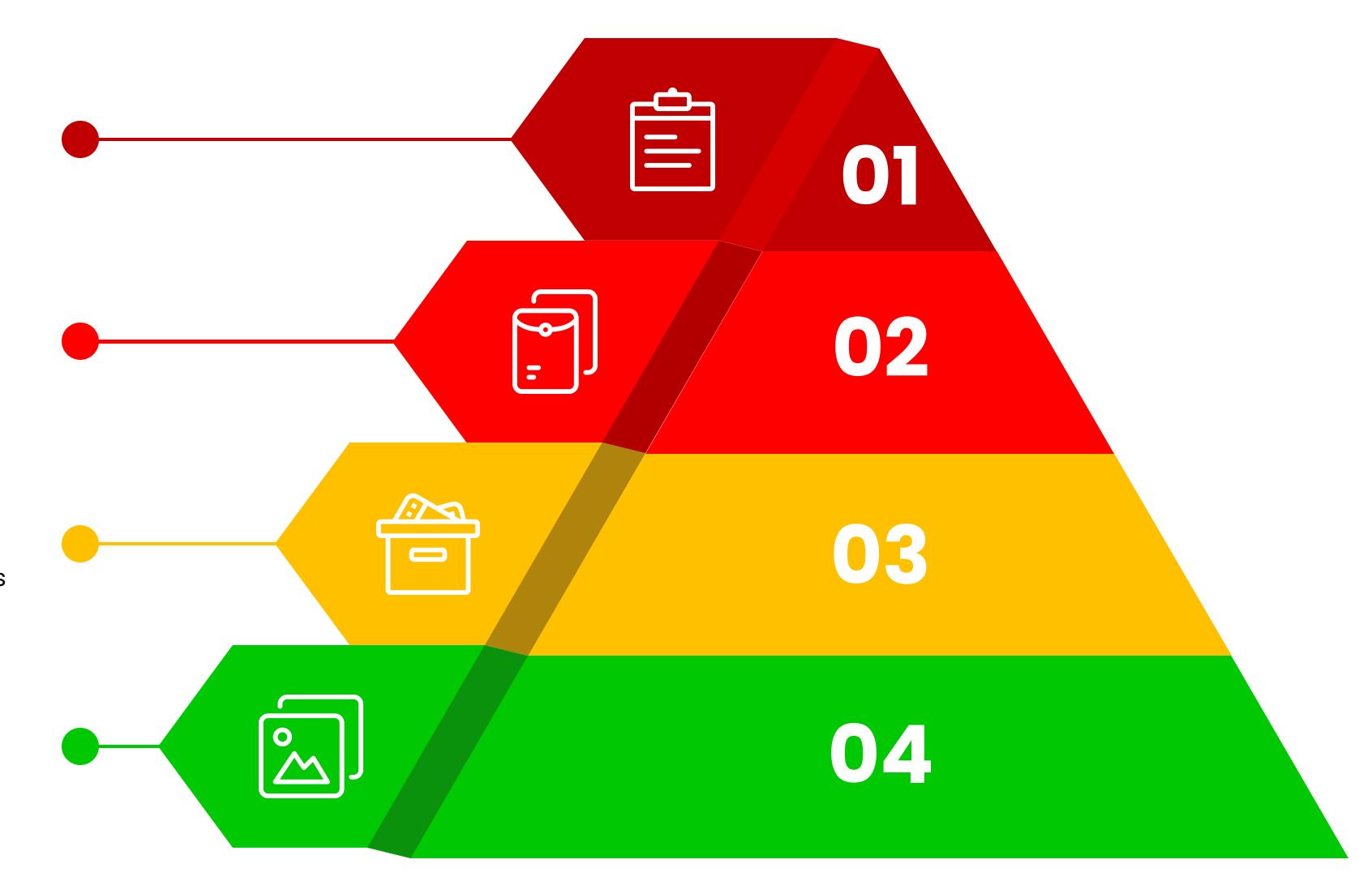
High Risk

Identified as a potential threat that will have to be demonstrated as safe (i.e. obtaining a loan, HR, etc.)

Limited Risk

Limited threats will be subjected to transparency obligations to ensure users make informed decisions.

Minimal or No Risk



QUESTIONS &



DAVID PERELES

DAVID.PERELES@CLARIOADVISORS.COM

WWW.CLARIOADVISORS.COM

CLARIO ADVISORS

