Applied AI:
Streamlining Governmental Operations and Enhancing Efficiency

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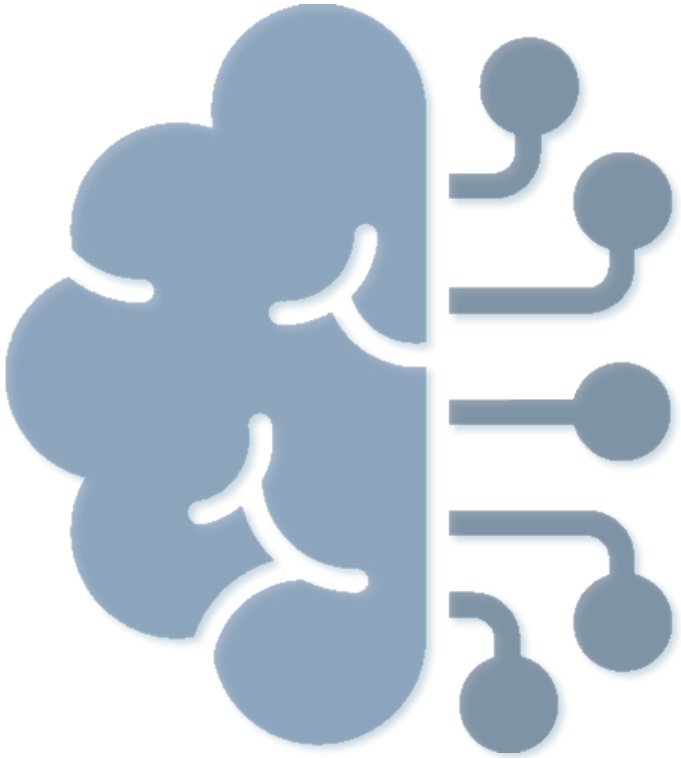

AI

Branch of computer science dealing with the simulation of intelligent behavior by computers

Capability of a machine to imitate intelligent human behavior

What is *possible*

Applied AI

Branch of AI that takes AI out of the lab, seeking to bridge the gap between theoretical and practical

Emphasizes outcomes and solutions to real-world business problems

What is *practical*

AI in the Real World

Machine Learning

Neural Network

Expert Systems

Natural Language Processing

Generative Pretrained Transformers

Fuzzy Logic

Microsoft Copilot

Self-driving Cars

Language Translation

PRACTICAL

Recommendation Engines

Virtual Travel Assistants

Information Assistants

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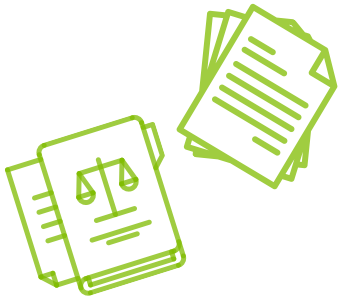
Applied AI in the Enterprise

- Extract info from docs
- Translate text to other languages
- Extract text from photos
- Detect objects in images
- Sentiment analysis
- Predict future outcomes from historical data
- Classify feedback
- Extract key elements from text



- Summarize a document
- Compare two docs
- Extract info from text
- Analyze code
- Respond to a complaint
- Create a blog post
- Review legal document
- Generate email content

Traditional AI

Predictive by nature

Task-Specific

Uses predefined algorithms and rules

Data Processing

Pattern based decision making on structured data

Limited

Limited to task it was programmed for

Voice assistants

Recommendation engines

Search algorithms

Generative AI

Innovative by nature

Creative Output

Creates new original content, including text, images, music, etc.

Pattern Recognition

Understand, predict, create content from data

Versatile

Models are not limited by task

Copilot

ChatGPT

DALL·E

DEMO: Counting Cars

Classic Vision vs. Creative Intelligence

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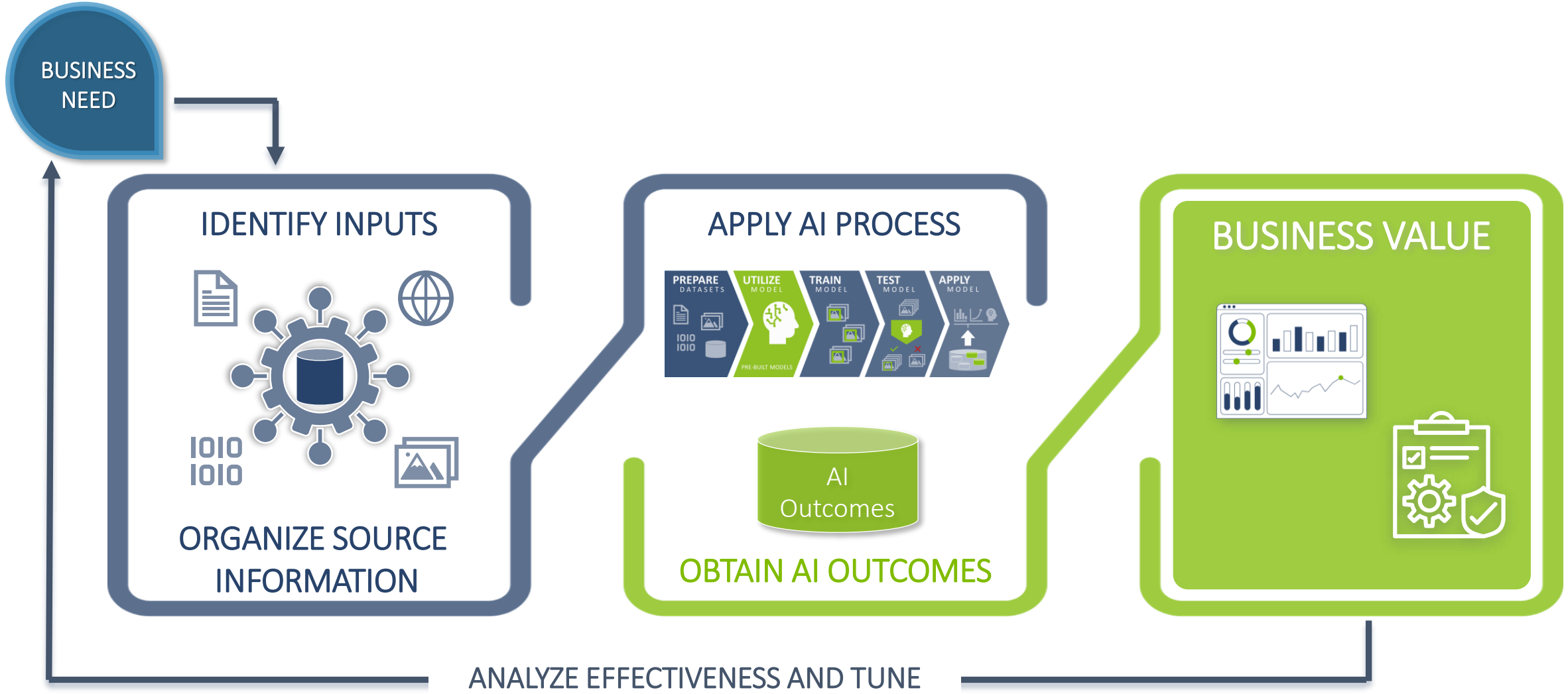
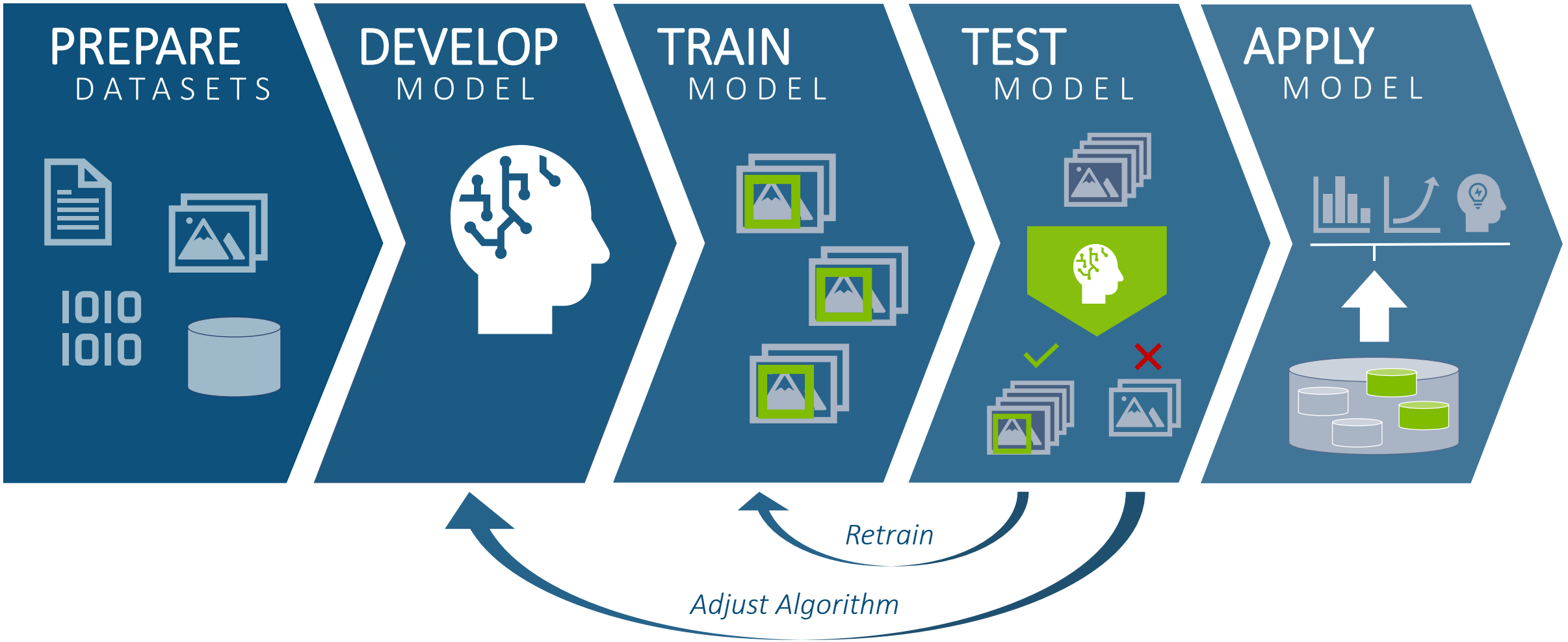
Generated by AI

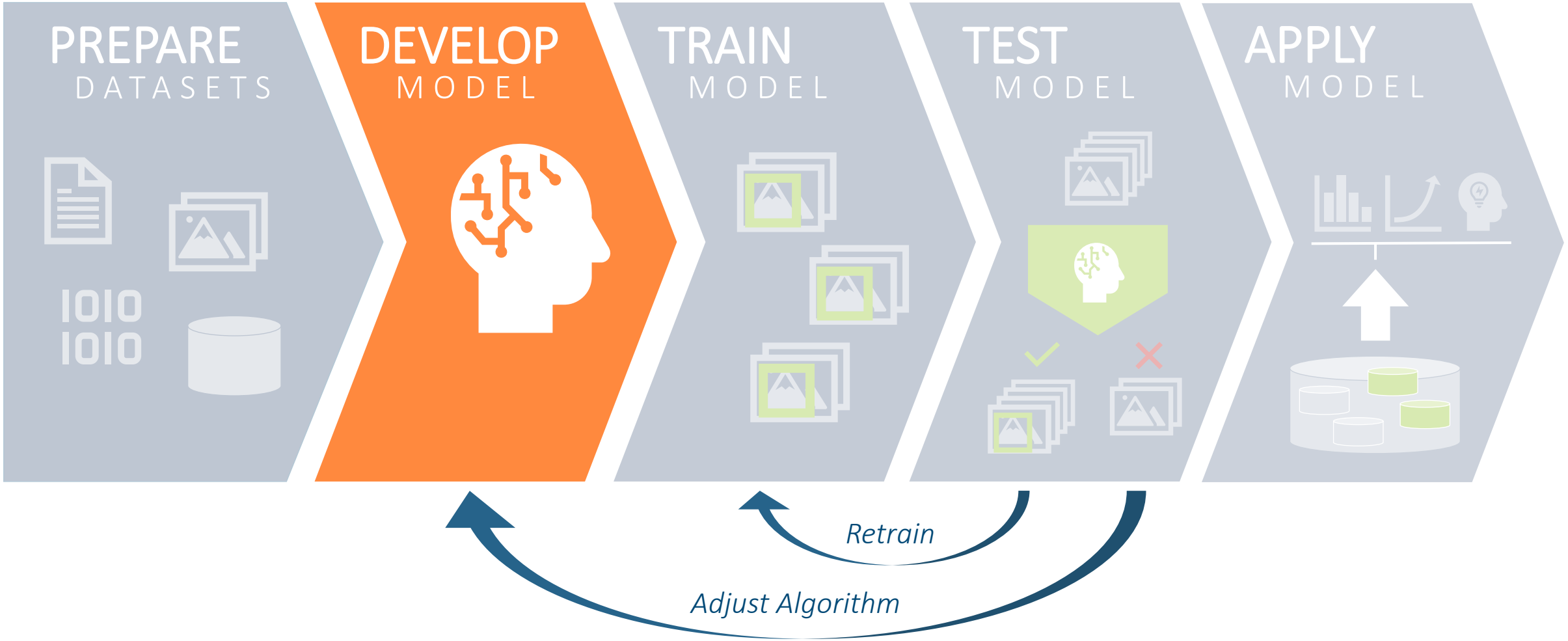
Applied AI Conceptual Model



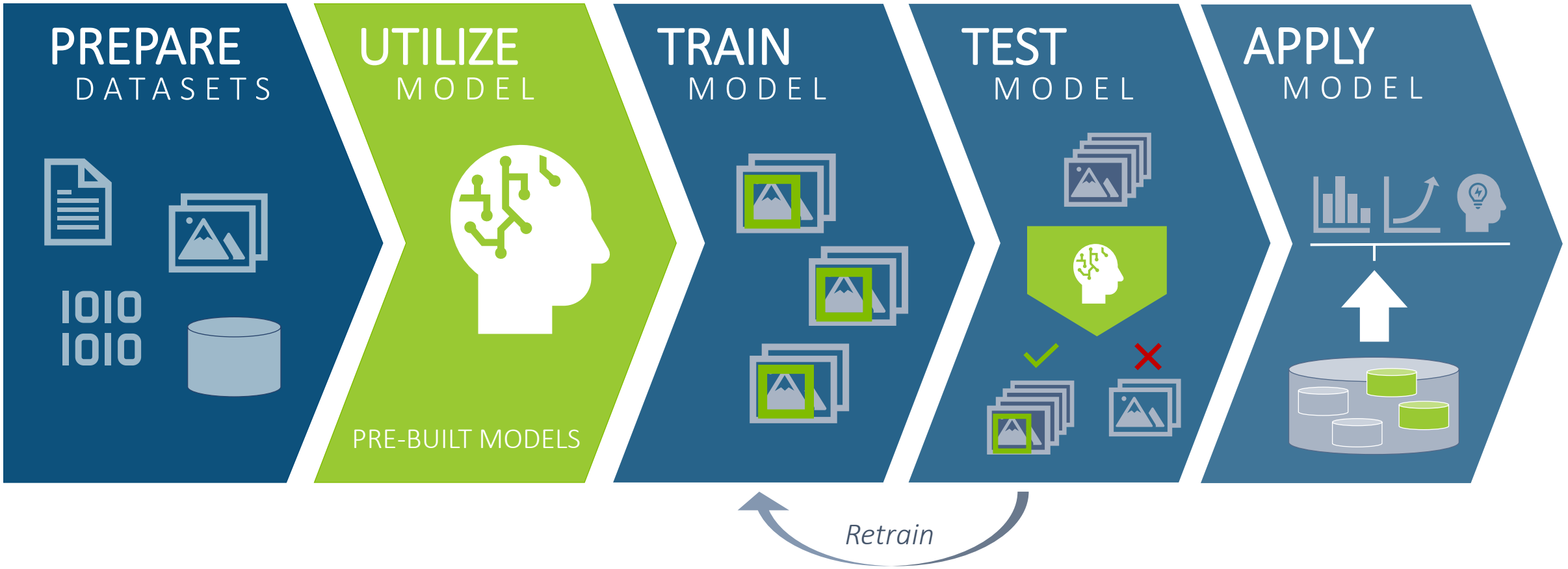
Applying AI is a Process



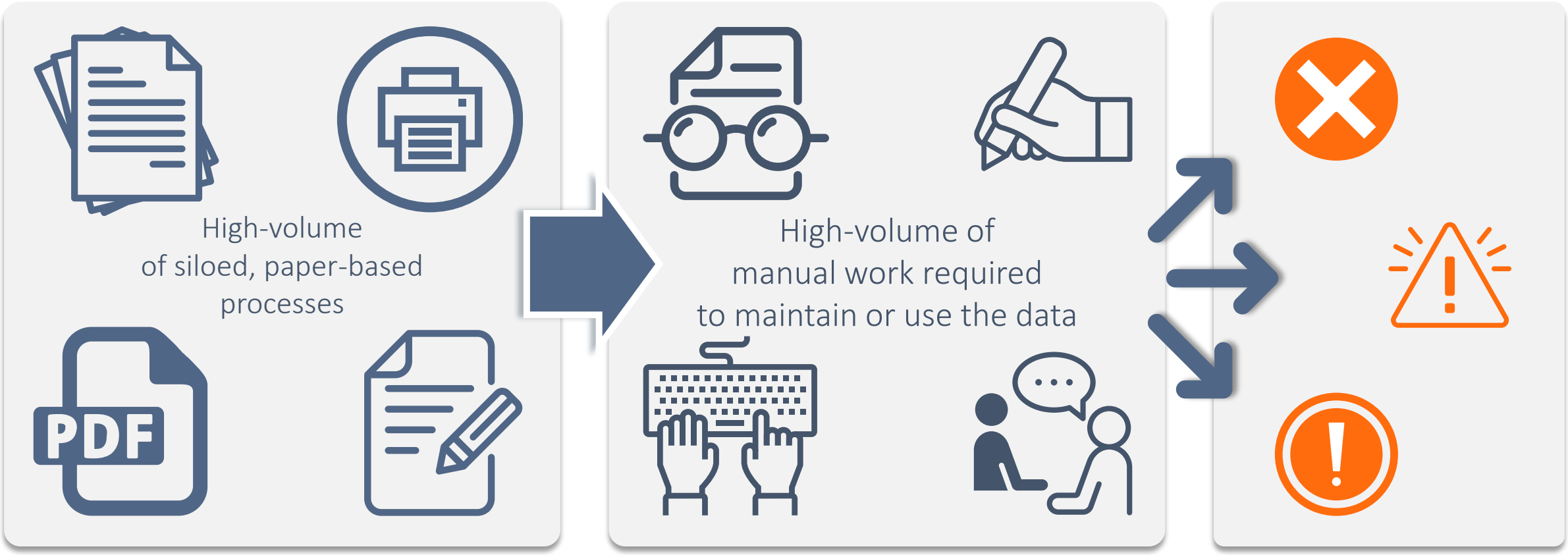
Developing a Model From Scratch is Expensive



Pre-built Models Add Speed and Reduce Cost

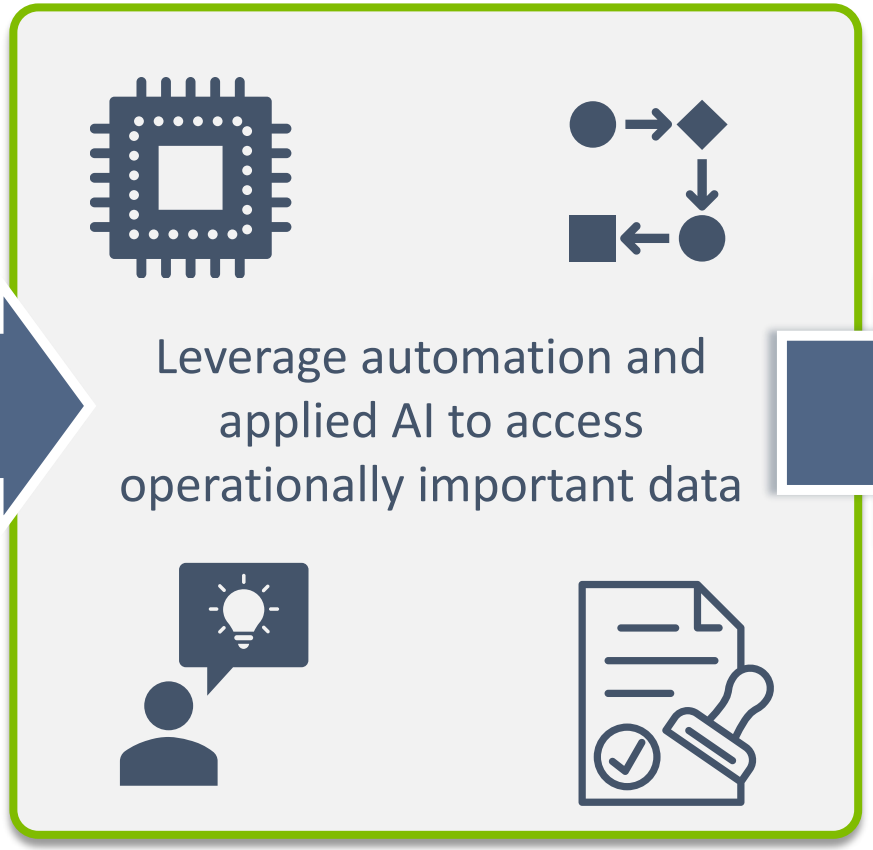


Common Challenges and Outcomes



Automating Processes with Applied AI

Paper-based processes and documents from multiple sources



Leverage automation and applied AI to access operationally important data

Reduce Process Complexity

Enhance Accuracy & Reliability

Save Time & Reduce Errors

DEMO: D2D

From Paper to Insights:
Unlocking Documents with AI

Generated by AI

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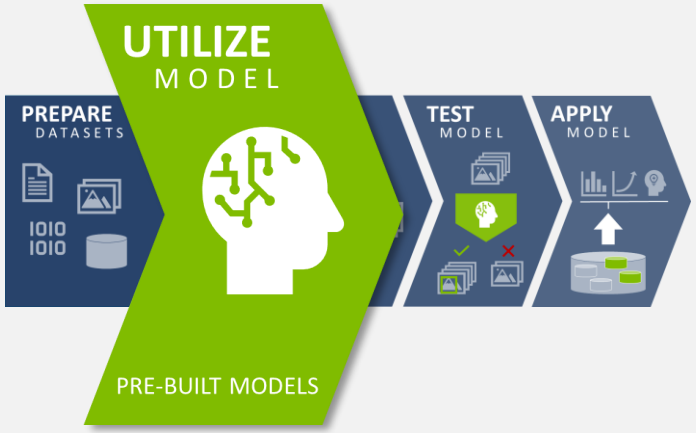
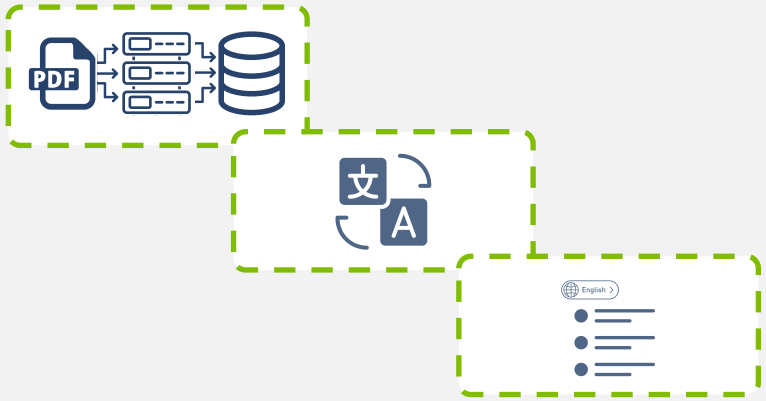
Key Takeaways



LEVERAGE

pre-built models for speed and reduced cost



CHAIN

multiple AI models to create composite processes for business value

APPLY

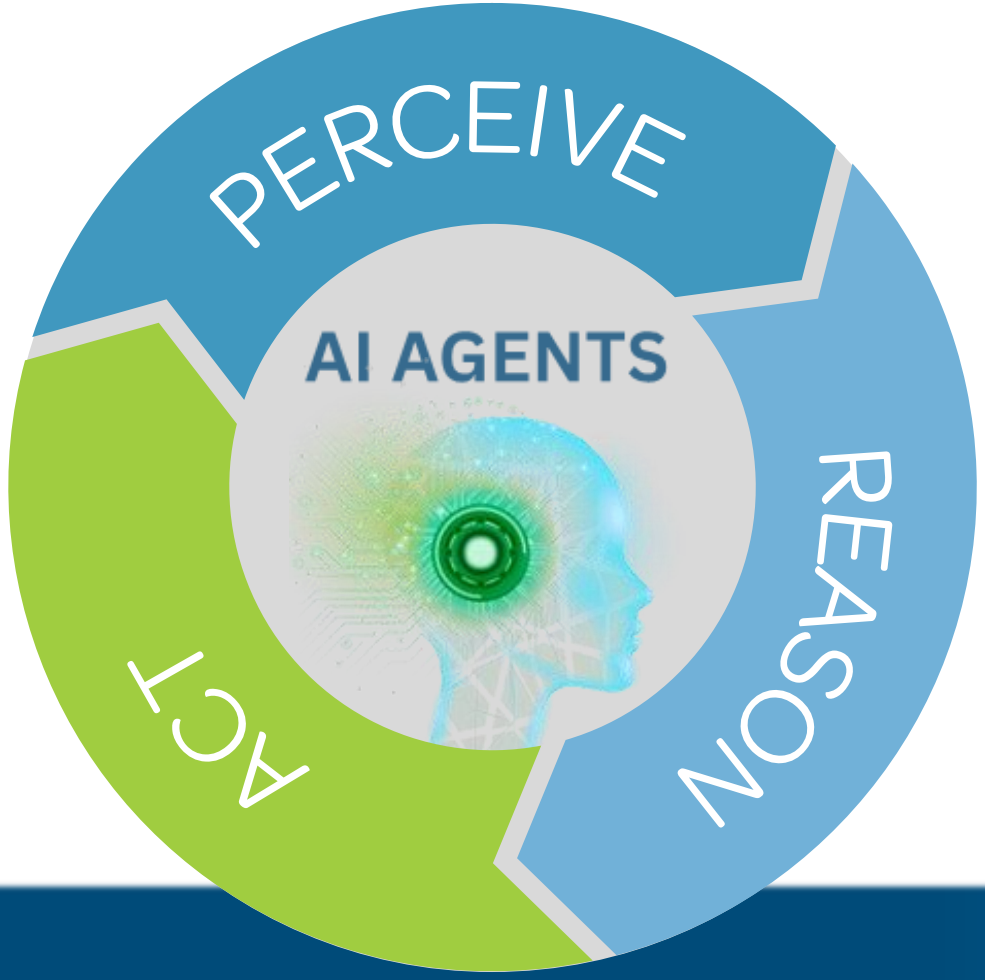
low-code/no-code AI technology for efficiency and effectiveness

AI AGENTS

Autonomous or semi-autonomous systems

Perceive their environment → make decisions → take actions to achieve specific goals

Range from simple rule-based bots to complex systems powered by machine learning and natural language processing



From Chatbots to Taskmasters

Chatbots

The Conversational Frontline

PURPOSE

- ✓ Answer questions
- ✓ Provide information
- ✓ Handle FAQs

TRAITS

- Rule-based or NLP-powered
- Reactive
- Limited memory

Assistants

The Smart Sidekick

PURPOSE

- ✓ Help users complete tasks with context and personalization

TRAITS

- Context-aware
- Goal-driven
- Often learning-enables

Task-Driven Agents

The Autonomous Doer

I've got this, Welling

PURPOSE

- ✓ Perform specific operations or workflows independently

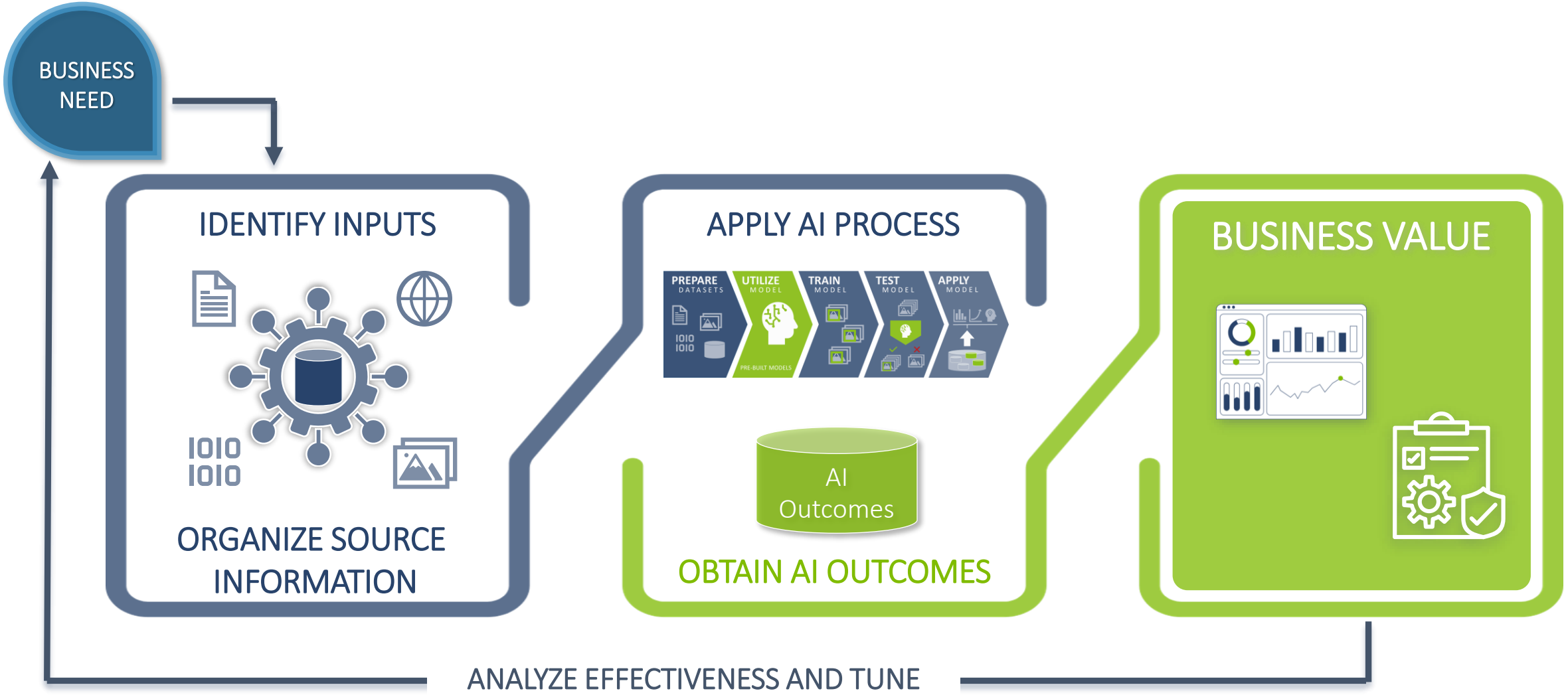
TRAITS

- Autonomous
- Often integrated with systems
- May use advanced analytics or machine learning

Demo: AI Agents

Transforming how we work and solve problems

Applying AI is an Iterative Process



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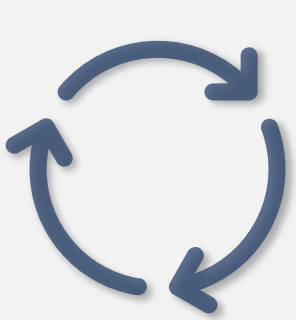
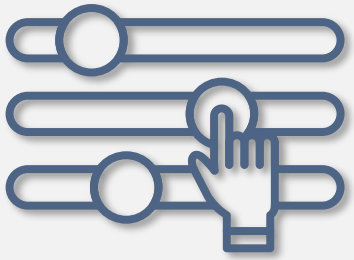


ITERATION

Applying AI is an iterative process

ACCURACY

Degree of accuracy is critical for selecting a strategy



TUNING

Measuring telemetry and tuning results improves the process

QUALITY

Quality of knowledge content affects quality of generative output

5 TIPS GETTING STARTED

1. Crawl, walk, run
2. Establish clear goals/objectives
3. Find the right use case
4. Establish the right governance policies
5. Experiment and iterate

FINAL PERSPECTIVE

Ethan Mollick • Following
Associate Professor at The Wharton Scho...
1d •

The most obvious, lowest risk way to use AI (and to get a sense of how good it is in areas that matter to you) is to ask it for second opinions in your area of expertise.

This works across most fields. And I'd go further: increasingly, not using AI as a second opinion is going to lead to worse outcomes.

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Thank you.

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