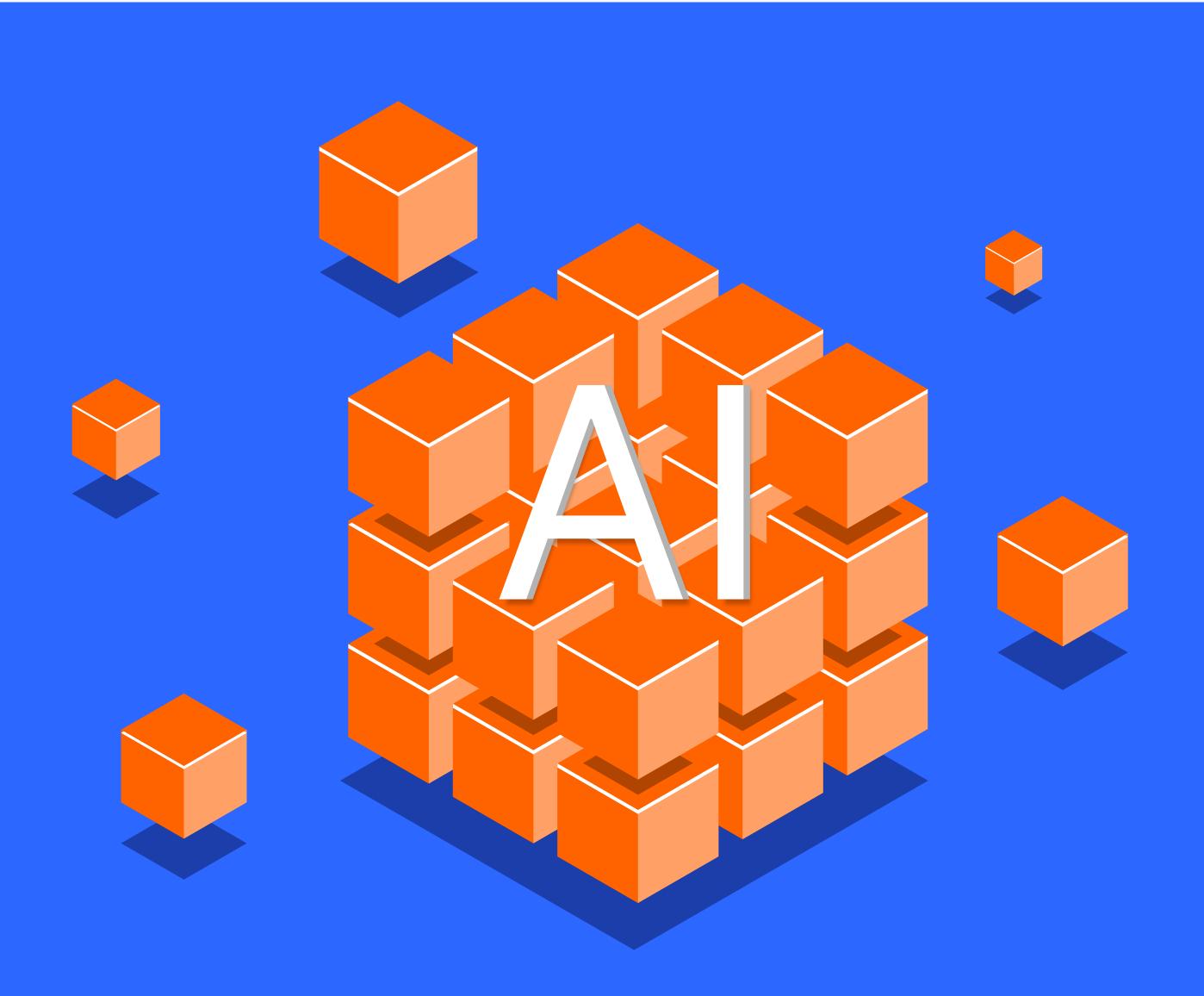
BRIDGING EXPECTATIONS AND REALITY:

HOW ESTABLISHED BUSINESSES CAN CRAFT AN AI STRATEGY THAT WORKS

DEEP-DIVE INTO WHEN TO RELY ON AI OR OTHER TOOLS AND EXPERTISE



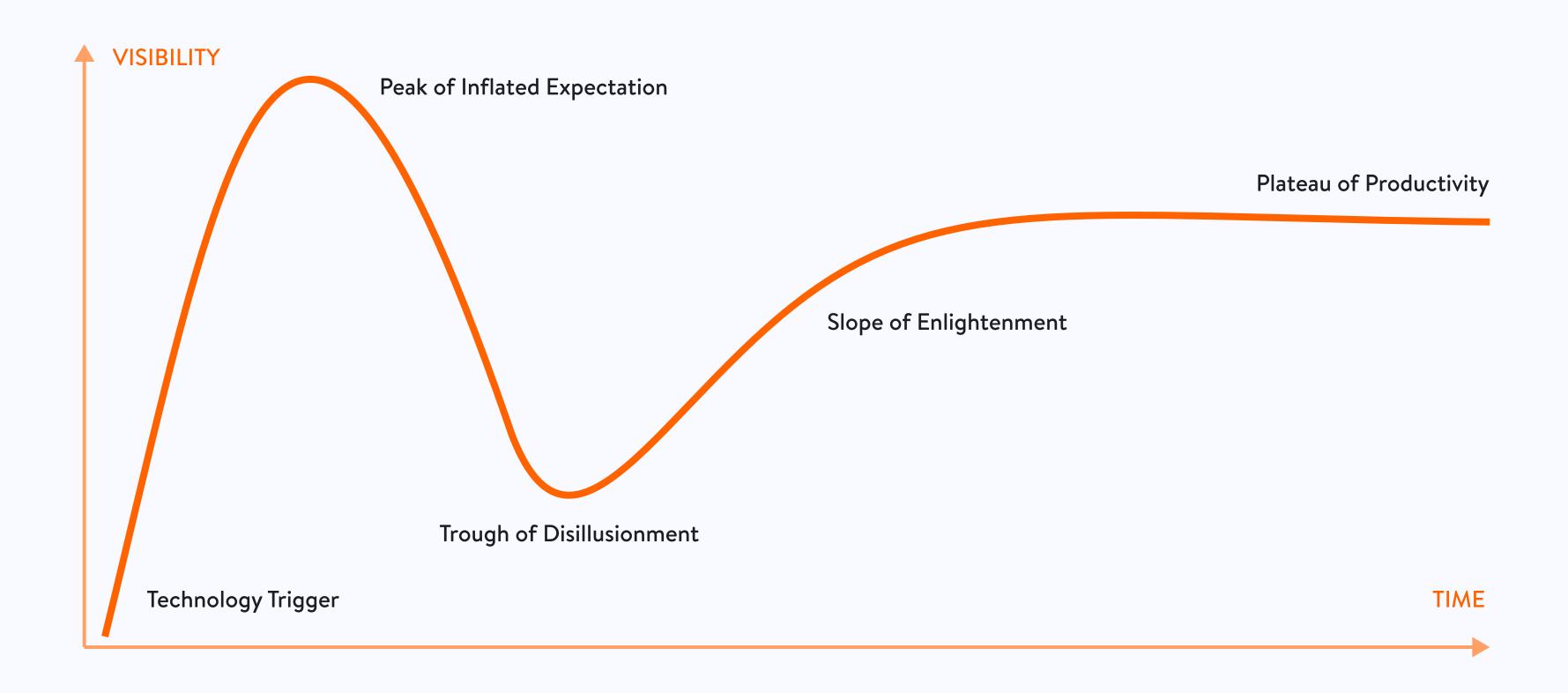
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EXECUTIVE SUMMARY

Al is becoming ubiquitous, and it's inevitable for any technological breakthrough. But to achieve productive Al workflows, businesses need to understand what Al is and, more importantly, what it is NOT. According to Gartner's Hype Cycle, every technology goes through five crucial stages, and Al is no exception. This technology is still at the "Peak of Inflated Expectations," although the gradual process of disillusionment is coming our way.

GARTNER HYPE CYCLE



To bridge a chasm between expectations and reality when it comes to AI, organizations should have a clear understanding of their data management and data lifecycle processes and a sufficient level of digital maturity. Another important aspect is realizing what problems you want to solve with AI, and together with an experienced team to discuss whether you need AI or another solution.

Read this whitepaper to get a comprehensive perception of this overhyped technology and discover how you can use it to your business advantage.

INTRODUCTION

Ask yourself: Are you adopting Al simply to follow the trend and respond to the ever-growing pressures of digital transformation, or do you have a clear understanding of specific, high-priority challenges that Al is uniquely suited to solve? This distinction is crucial. Without a focused purpose, you risk overinvesting in technology that may not deliver meaningful results.

If you're merely exploring Al's potential, consider starting with <u>Al consulting services</u>. These services provide a comprehensive analysis of your business processes, pinpoint inefficiencies, and identify issues related to data quality and storage. Only after establishing a solid understanding of your needs and data readiness should you consider which Al solutions are practical and aligned with your goals.

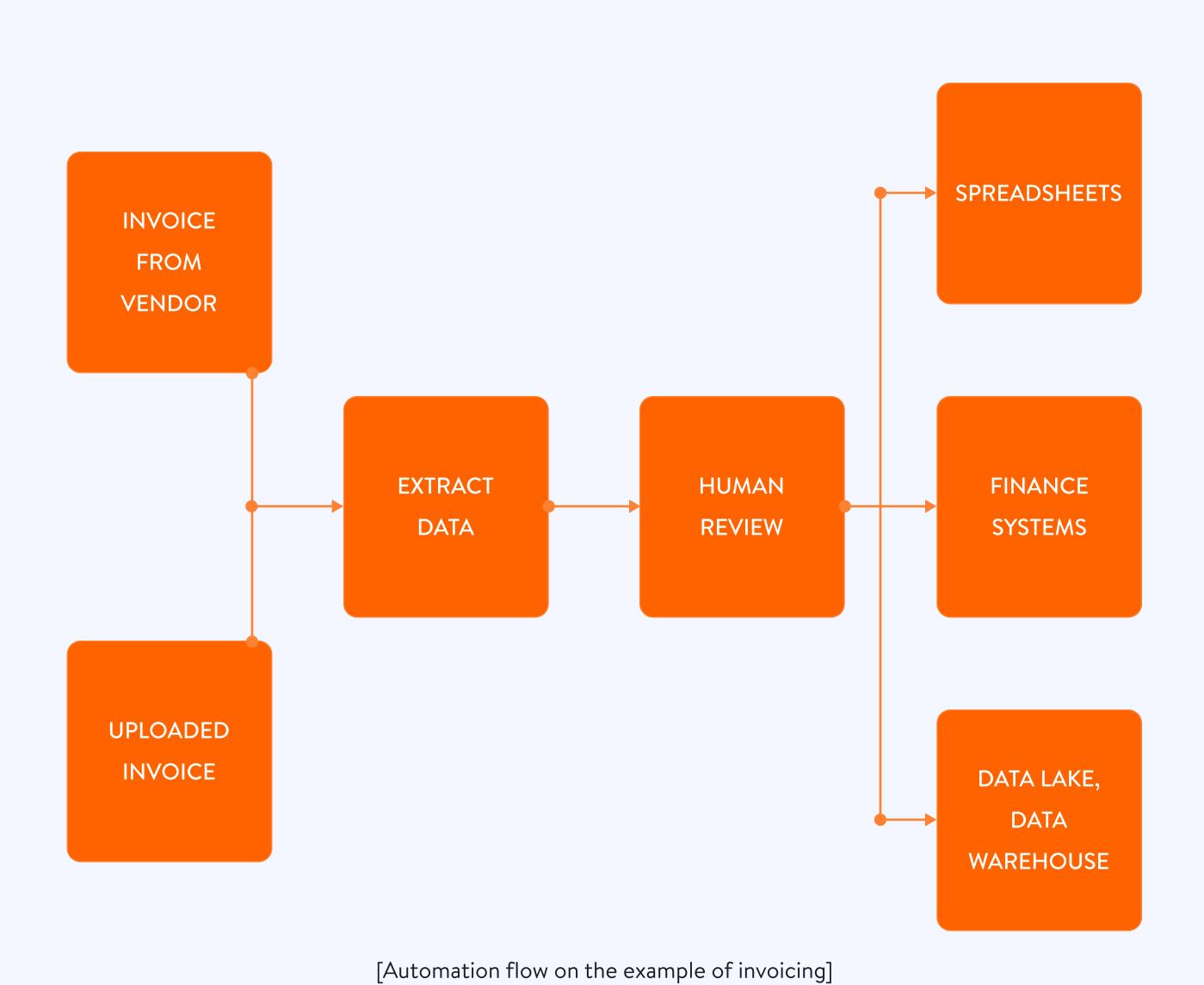
As Al technologies evolve, the focus is moving from open-source public Al models to customized enterprise solutions. Technologies like retrieval-augmented generation (RAG) and small language models (SMLs) are paving the way for more targeted, efficient applications. This shift underscores the need to stop experimenting aimlessly with Al and instead focus on deploying it strategically to address critical, time-sensitive problems.

This whitepaper covers what it takes to become Al-driven, how to prepare for it, and how not to confuse Al with any other technology. The best way to understand a certain concept is by comparing it to another so let's discover in what way Al and automation are different, as these two terms are often confused.

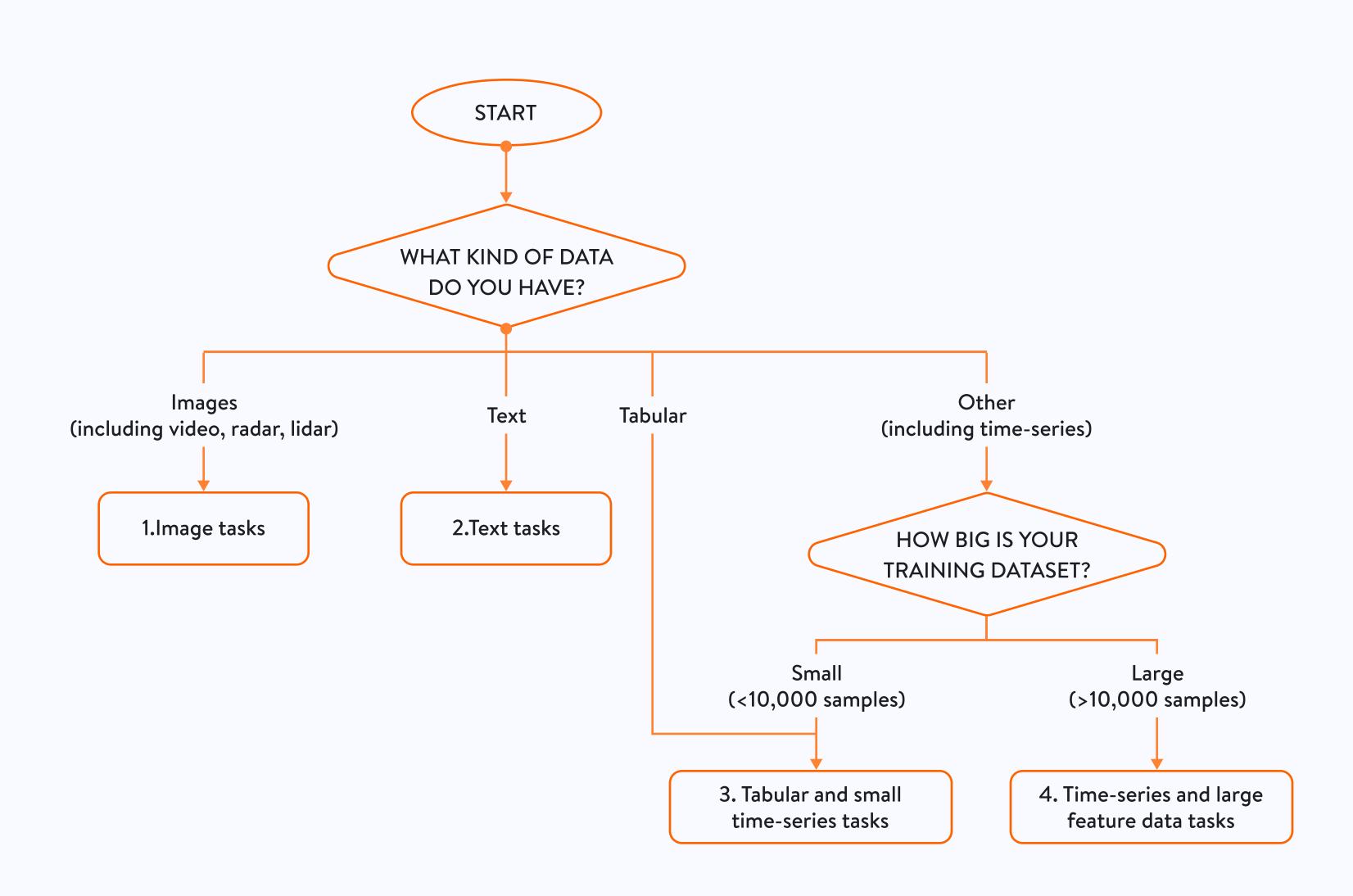
AI VS AUTOMATION: KEY DIFFERENCES

Understanding the difference between AI and automation can save you lots of time and money, as you'll know when it suffices to use an automation tool instead of investing in the lengthy process of AI model training.

Automation simplifies task execution, reducing the need for human intervention. Such solutions are most efficient when you need to eliminate manual work and optimize employees' workflow. For instance, healthcare claims processing can be automated to reduce manual data entry errors and speed up reimbursement processes for patients and healthcare workers. Similarly, automating invoicing in finance reduces the risk of human error and ensures timely payments. Thus, automation is a solution to straightforward repetitive issues to help businesses deliver faster and more efficient services.



Artificial intelligence is best suited for complex tasks that resemble human intelligence or even surpass it at times. All models are capable of parsing large amounts of data to extract insights, find correlations or errors, and even make predictions based on historical and real-time datasets. All use cases are numerous as are All models. That's why All can be a confusing technology, as preparing for its adoption can take as much time as training All models, not to mention choosing which model is most applicable in your case.



[How to choose an Al model according to MathWorks flowchart]

Even though the difference between Al and automation seems clear for the most part, reminding yourself of a difference and refreshing it is important.

FEATURE	AUTOMATION	AI
□ Task type	Repetitive, predefined tasks	Complex tasks requiring decision-making
E Learning ability	Does not learn or adapt; follows set rules	Learns from data and improves over time
☑ Decision making	Executes tasks without interpretation	Makes interpretive decisions based on learning
Application scope	Limited to specific processes	Broad applications across various domains

However, Al and automation can work together as well. To illustrate, imagine a customer support system. Automation can handle FAQs by instantly providing predefined answers. But when customers present unusual complaints, Al-powered tools can analyze the context and offer personalized responses or escalate the issue to a human agent. Another example is cybersecurity: automation can regularly update firewall rules, while Al actively monitors network activity to identify and respond to potential threats in real time.

In a world flooded with diverse technologies, it's easy to confuse a simple problem for a complex one and vice versa. By understanding the core differences between Al and automation and recognizing where each excels, businesses can make smarter decisions about which tools to use and when.

WHEN TO USE AND NOT USE AI: REAL-LIFE SCENARIOS IN KEY INDUSTRIES

Every industry is unique, with its own goals, risks, and, in particular, datasets stored across diverse systems and siloed in various departments. That's why using AI effectively means tailoring it to fit specific needs.

For example, <u>Databricks' report</u> on data and AI states that the retail sector is leading the way in AI adoption due to a highly competitive market and fluctuating customer needs. Financial service companies are also heavily invested in AI, but they take things slow and steady because of strict regulations. Meanwhile, healthcare (though also a highly regulated industry) is a top adopter of natural language processing (NLP), as it generates a whopping 30% of the world's data (<u>Arcadia survey</u>, 2023) and healthcare organizations desperately need to derive meaning from it.

That said, Al isn't the answer to every challenge. In some cases, other technologies like advanced analytics, robotic process automation (RPA), or even traditional software solutions might be better suited. For instance, RPA is excellent for automating repetitive tasks like invoice processing or data migration, while advanced analytics tools are great for generating insights without the complexity of Al. Choosing the right technology ensures that businesses achieve their goals without overcomplicating their processes.

Let's break down when AI works like magic—and when it doesn't—across different industries:

INDUSTRY	WHEN TO USE AI	WHEN NOT TO USE AI
Supply chain	Predicting demand trends, optimizing delivery routes, managing warehouses better, and cutting waste.	Handling tasks where data is messy and unreliable, or where quick thinking is crucial such as which drivers to assign to which delivery routes.
• Healthcare	Assistance in diagnosing diseases with image analysis, predicting patient outcomes, personalizing treatments, and speeding up drug research.	Situations with limited or patchy data, or where ethical concerns make Al less practical such as allowing an Al solution to solely monitor patient's health metrics and provide real-time recommendations.

INDUSTRY	WHEN TO USE AI	WHEN NOT TO USE AI
Manufacturing Manufacturing	Spotting equipment issues before they cause downtime, automating quality checks, and boosting production efficiency.	Processes that are too unpredictable or lack enough past data for Al to learn from. It can be the production of a new product that should be supervised by humans first to gather enough data so that Al eventually could take over.
	Catching fraud as it happens, improving credit scoring, assessing risks, and automating regulatory compliance.	Strategic planning or negotiations that call for human judgment and experience in situations like value negotiations with clients or ethical considerations on credit scoring where people can find workarounds and show empathy.
Retail and consumer goods	Creating personalized shopping experiences, adjusting prices smartly, and managing stock with predictive analytics.	Tasks where customer behaviors are too random or where privacy rules make it tricky to use data. For instance, experienced specialists can handle customer complaints better and suggest flexible ways to improve relationships.

INDUSTRY	WHEN TO USE AI	WHEN NOT TO USE AI
Energy and utilities	Predicting equipment failures, optimizing energy usage, and making renewable energy forecasts more accurate.	When external factors change too fast (e.g. abrupt weather changes or catastrophic events) for Al to keep up, or when sensor data is inconsistent. In these cases, human intervention and judgment are necessary to fix issues on-site.

By knowing when Al shines and when it's better to rely on other tools or human skills, businesses can get the most out of this technology while steering clear of costly mistakes.

HOW TO BUILD A FEASIBLE AND WELL-PREPARED AI ADOPTION STRATEGY

What makes or breaks a successful Al adoption strategy? Microsoft combined efforts with IPSOS to study this phenomenon by <u>surveying 1300 technology and business leaders</u> across diverse industries and countries. They've identified that clear leadership vision and guidance are the most impactful in terms of Al success. However, the path to creating business value with Al also depends on your Al readiness level.

There are five stages of Al readiness: exploring, planning, implementing, scaling, and realizing. These stages are influenced by five Al drivers: business strategy, technology and data strategy, Al strategy and experience, organization and culture, and Al governance.

Companies that are more Al-driven better appreciate the value of Al. Thus, only three percent of organizations that are in the stage of exploring reported that they understand why Al is valuable, whereas a whopping 96 percent at the realizing Al readiness stage consider Al a worthwhile investment. Below are key opportunities that organizations at different Al stages should focus on when creating a comprehensive and successful Al adoption strategy.

STAGE 1. EXPLORING.

- Align business and Al objectives to form a long-term vision for adopting this technology.
- Compose an Al investment plan that helps set the stage for gradual and less risky Al planning and implementation.
- Make data available and accessible for Al use as well as roll out a cloud infrastructure to run Al models at scale.

STAGE 2. PLANNING.

- Shift to prioritizing Al use cases that align with business objectives.
- Develop a comprehensive Al adoption plan that ensures alignment between Al initiatives and business goals, facilitating effective resource allocation and technology deployment.
- Identify Al models best suited for prioritized Al use cases.
- Begin to implement responsible Al practices, incorporating ethical frameworks and regulatory compliance into Al strategies.

STAGE 3. IMPLEMENTING.

- Ensure strong leadership support and Al appreciation across the entire organization to prepare for scaling Al initiatives.
- Build and integrate Al models, setting up necessary infrastructure, and ensuring data readiness.
- Expand the diversity of roles and experiences involved in Al projects.
- Focus on managing AI operations, including model maintenance, cost management, and securing AI endpoints.

STAGE 4. SCALING.

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STAGE 5. REALIZING.

- Measure the value of Al at scale.
- Appoint a Chief Al Officer to oversee Al initiatives.
- Use Al across most business functions to build an Al-driven organization.

Progressing through these stages requires a strategic approach, emphasizing leadership support, cultural readiness, skill development, and robust governance to fully realize Al's potential for your business.

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BENEFITS OF AI IMPLEMENTATION ACROSS INDUSTRIES

Industries can gain different benefits from implementing Al. A real-estate medium-sized company from the USA and a large medical device manufacturer in Austria have different priorities, goals, and rules to follow. Not to mention lots of other business workflow intricacies. Difference confuses. We all want a tried-and-true Al approach that we can easily customize to different business needs but that's not possible. And it's for the better, as Al is an evolving technology and its adoption should be (and for the near future will be) cautious and under professional supervision.

Let's explore how different industries can benefit from a well-prepared Al adoption strategy.



HEALTHCARE

Real-life example:

At the Miami Cancer Institute, an Al computer vision model improved the positive predictive value for diagnosing breast cancer by 10% compared to traditional methods.

Benefits:

- Enhancing healthcare delivery
- Discovering new treatments, medical devices, and medications to improve patient outcomes
- Delivering point-of-care insights to support quick diagnosing and treatment
- Streamlining administrative tasks and unburdening physicians

Benefits:

- Enabling smart warehouse planning for cost-efficient storage
- Predicting overstock and understock to avoid unexpected expenses and customer losses
- Forecasting customer demand and scheduling supply to increase customer satisfaction and maintain service flexibility



SUPPLY CHAIN

Real-life example:

The 5G-LOGINNOV project, led by the Institute of Communication and Computer Systems (ICCS), employs Al and 5G technology to automate the detection of container seals at ports. Al analyzes videos from quay-side cranes and verifies seal integrity, improving accuracy and operational safety while reducing human intervention in high-risk environments.



Real-life example:

GE Vernova released Proficy, a new Albased software solution that helps manufacturers extract sustainability insights. This software helped an automotive Tier 1 manufacturer achieve 18% energy savings on plant heating systems.

Benefits:

- Enhancing operational efficiency through root-cause analysis
- Manufacturing customer-tailored products to personalize service delivery
- Improving anomaly detection and equipment failures with around-theclock factory monitoring

Benefits:

- Increasing productivity and efficiency of bank workers
- Ensuring deeper data insights to provide customers with personalized financial services
- Improving market responsiveness to stay competitive



FINANCIAL SERVICES

Real-life example:

Finny, a startup backed by Y Combinator, utilizes Al to streamline client acquisition for financial advisors. By analyzing extensive data, Finny's platform identifies and prioritizes potential clients who align with an advisor's target niche, enhancing lead quality and conversion rates. Such a solution reduces the time advisors spend on unqualified prospects, allowing them to focus on client relationships and business growth.



Real-life example:

The fashion retailer ASOS employs a feature called style match within its app, enabling customers to upload photos of clothing items and receive personalized recommendations based on visual analysis. This Al-driven approach helps ASOS maintain its competitive edge by providing tailored shopping experiences.

Benefits:

- Personalizing and optimizing customer experiences
- Anticipating demand for popular products
- Recommending new products

Differences in Al use make this technology particularly fascinating, as its optimization powers range from maritime logistics to fashion stores. No matter how big or small your organization is, Al can be helpful, and with due preparation and thorough implementation, you can ensure quick ROI.

5 CHALLENGES THAT CAN KILL YOUR AI PROJECT IF NOT TIMELY ADDRESSED

Al challenges can prevent businesses from investing in this technology as they may sound too complicated. But in fact, recognizing those challenges is already taking you halfway in your Al journey, as you don't need to deal with all of them at once. You can start with developing an Al proof-of-concept which can highlight typical issues that you need to address first. So prioritization and steady action are your most trusted allies during Al adoption.

1. DATA DEPENDENCY AND QUALITY ISSUES

Al models require high-quality datasets to function effectively, and here lies one of the first significant challenges: data availability, accessibility, and integrity. Al models are only as good as the data they are trained on, meaning biases, inaccuracies, or gaps in datasets can lead to flawed outputs.

However, many organizations may overestimate the readiness of their data infrastructure. The more digitally mature your business is, the more data you produce. Managing quickly increasing datasets can get daunting and a custom <u>data lifecycle management framework</u> can help you tame disorganized and disparate datasets.

Take healthcare, for instance. Al solutions designed to diagnose illnesses rely on diverse medical data and if certain critical datasets have missing values or errors, the results can be biased and impact patients' treatment, which, in turn, can become life-threatening. Organizations should not only collect data but also clean, normalize, and protect it, which can be a resource-intensive process.

2. ETHICAL AND REGULATORY CONCERNS

Concerns about data privacy, accountability, and bias often arise when implementing Al systems. On the organizational level, companies should compose their own rules and guidelines on how to use Al so as not to harm brand image.

However, it's also important to study regional Al laws and regulations to keep regulatory fines and reputation losses at bay. According to the <u>Artificial Intelligence Index Report 2024</u>, the number of Al regulations continues to increase globally, making it safer for enterprises to adopt this technology.

For instance, in 2023, the number of Al-related laws and regulations in the United States increased by 56.3 percent. In the same year, the legislative body of the European Union released the EU Al Act which is the first Al regulation to monitor Al use and distribution in Europe.

3. INTEGRATION WITH EXISTING SYSTEMS

Al is rarely a plug-and-play solution. Legacy systems, often deeply embedded within organizations, can resist seamless integration with Al technologies. This incompatibility can lead to operational disruptions or significant additional costs for upgrades and restructuring.

Furthermore, Al implementation often demands a cultural shift. Employees may resist changes, fearing job displacement or struggling to trust Al-driven decisions. To mitigate these issues, organizations need clear communication strategies from the leadership and training programs to align teams with Al's potential benefits.

4. LONG-TERM ALLOCATION OF COSTS AND RESOURCES

Al adoption is a long-term commitment rather than a one-time investment. Apart from the high upfront costs of acquiring Al tools, there are ongoing expenses necessary for Al model maintenance, updates, security patches, and scaling. However, a thorough cost-benefit analysis of Al solutions can help you set feasible budgets and timelines and compose a frictionless Al adoption strategy with quick ROI.

A lack of in-house AI expertise or experienced and trustworthy external consultants or partnerships can also prolong and complicate AI implementation and adoption across the organization. By analyzing available resources and defining areas where you need additional support and expertise, you can build a plan for AI team composition that would be most efficient for your organization.

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5. UNREALISTIC EXPECTATIONS

The amount of content materials worshipping AI benefits is increasing, but they don't give an understanding as to why this technology is the future and how to prepare for it but merely create hype and breed unrealistic expectations.

It is important to remember that AI will not solve all of your problems without human oversight, clear objectives, and constant iteration. Many organizations who dive into AI without a realistic understanding of its capabilities end up disappointed when they don't achieve immediate, positive outcomes. Business leaders should understand that AI is not a shortcut but a long-term enabler. Building this understanding within the organization is crucial to ensure sustainable adoption.

By proactively and iteratively recognizing and addressing core Al challenges, organizations can maximize Al's potential while minimizing its risks.

YALANTIS: YOUR GUIDE ON THE AI ADOPTION PATH

The Yalantis AI team has worked with businesses of all sizes to develop tailored AI solutions and help clients achieve tangible business workflow optimization. Here are three ways we've helped organizations effectively implement AI:

2. 1. OPTIMIZING HR PROCESSES WITH AI ASSISTANCE

- Challenge: A client struggled with time-consuming manual HR processes such as monitoring increasing employee databases and handling diverse employee queries.
- Solution: Our team developed an Al-powered HR assistant based on the embedded large language model (LLM) with contextual independence and automatic updates of the knowledge base.
- Results: The system increased HR operational efficiency by 40 percent and optimized employee management by 50 percent.

2. TRANSFORMING SALES STRATEGIES FOR A RETAIL LEADER WITH AN AI SALES ASSISTANT

- Challenge: Sales teams struggled with handling increasing customer requests and needed a solution to unburden their workload.
- Solution: Yalantis built an Al-driven sales assistant based on ChatGPT 3.5 Turbo LLM to gather customers' requirements by asking additional questions and suggest suitable goods.
- Results: The solution ensured a 20 percent increase in sales department efficiency and decreased customer processing time from 2-3 hours to 2-5 minutes.

3. STREAMLINING DATA MANAGEMENT IN FOOD MANUFACTURING

- Challenge: A food manufacturing company faced inefficiencies in their supply chain due to limited visibility into data, inconsistent reporting, and data maintenance difficulties.
- Solution: We designed a comprehensive and structured data lifecycle management framework that helped the client efficiently manage their huge datasets from birth to retirement. The process involved unifying all company data (including manual files) in a single data warehouse and setting up consistent data visualization and reporting.
- Results: We helped the client achieve: full operational transparency, justified decision-making, and pave the way to implementing AI/ML with a solid data engineering basis.

What sets Yalantis apart is our commitment to solving business problems, not just delivering Al for its own sake. Our process is rooted in:

- Pinpointing impactful use cases: We don't chase trends—we focus on areas where AI can truly make a difference for your company without overburdening you with costly and ineffective features.
- Tailoring solutions to fit every need: Every business is different, so we create Al systems that integrate seamlessly into your existing processes and systems.
- Building for growth: Our solutions aren't just built for today—they're scalable to grow with your business and bound to bring results for years to come. Plus, we offer extensive post-deployment support services to maintain your Al solutions.
- Driving results: Whether it's cutting costs, saving time, or increasing revenue, our Al solutions are designed to deliver ROI.

These aren't just words. They're facts, backed by the successes of our clients. We build long-term partnerships that help businesses thrive in their digital transformation initiatives. Are you ready to join the ranks of companies redefining their industries with Al? Let's make it happen together.

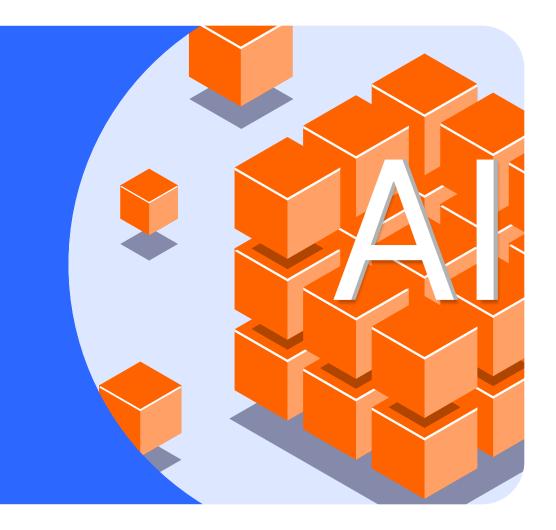
CONCLUSION

For now, businesses that haven't adopted AI aren't lagging behind in their industry but if they continue hesitating they inevitably will be in danger of remaining in the outskirts. Therefore, it's critical to start experimenting with AI early on before this technology becomes ubiquitous and you'll need much more time and effort to keep up with your counterparts.

And responsible Al adoption isn't as difficult as it may sound. Once you define your Al readiness level, realize your industry needs, recognize and solve data issues, and build a thorough Al implementation plan—Al adoption will become a feasible undertaking that can bring true value to your business. Composing a professional Al development team that shares your vision and understands the core business objectives you expect to achieve can help you along the Al journey and prepare your organization for an Al-driven future.

ASSESS YOUR AI READINESS AND BUILD A FEASIBLE AI ADOPTION STRATEGY

CONTACT US



Yalantis Al For Enterprises

RESOURCES

- 1. <u>Automation with intelligence by Deloitte</u>
- 2. The AI strategy roadmap: Navigating the stages of AI value creation by Microsoft and IPSOS
- 3. State of Data and Al by Databricks
- 4. <u>Artificial Intelligence Index Report 2024 by Stanford Institute for Human-Centered Artificial Intelligence (HAI)</u>
- 5. Arcadia survey on healthcare data use
- 6. Adopting Al at speed and scale by McKinsey
- 7. Al in manufacturing: Comprehensive guide by SAP
- 8. Al predictions for 2025 by CIO
- 9. Accelerating Al Adoption: A 4-Step Approach for Organizations
- 10. Artificial Intelligence: Key insights, data and tables by IPSOS

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