

# BEATING THE 87% FAILURE RATE in AI Adoption

Despite its promise, only 13% of companies have succeeded in implementing production-grade, ROI-positive AI. We outline the major strategic pitfalls for AI development and deployment, and introduce a new approach to beating the odds and successfully embarking on an AI transformation.

## AI IS A TRANSFORMATIVE TECHNOLOGY

Like the steam engine, the assembly line, electricity and the internet, AI is a transformative technology. A recent McKinsey study estimates that AI has the potential to create between \$3.5T-\$5.8T in value annually across nine business functions in 19 industries<sup>1</sup>. AI-based systems can be implemented to improve customer service and mitigate risk in financial services, to allow better defect detection and enable predictive maintenance in manufacturing, to automate patient diagnosis in healthcare — the list goes on and on.

With its broad array of applications for a variety of core business problems across industries, AI has the power to transform organizations. It offers not only incremental improvement of existing processes, but a fundamental change in the way companies conduct their business. It is now widely accepted that **every industry will be impacted dramatically by AI within the next five years**. By enhancing human capabilities, providing real-time insights, and making use of the big data generated by connected systems and platforms, **AI is key in reducing costs, accelerating processes and improving quality**. Industries and companies that have embraced this technological revolution are already seeing huge benefits which are translated into a significant competitive edge.

## AI ADOPTION CHALLENGES

While the vast majority of enterprises understand the value of AI, only 14.6% of firms have deployed AI capabilities in production<sup>2</sup>. This disparity between intention and actual implementation is evidence of the extreme complexity of AI projects. The textbook on how to adopt AI is yet to be written. Although they vary across industries, **AI adoption challenges always originate from business related issues, technical issues, and their intersection**. Among the main topics to tackle are the need to customize a solution for specific environments, data and constraints, the requirements for robustness and scalability, the ongoing operational effort required to maintain the solution, and the constant need to adopt additional use cases in order to achieve a full AI transformation.

AI Investment and Adoption - 2020<sup>2</sup>

<i>AI in Widespread Production</i>	14.6%
<i>AI in Limited Production</i>	51.2%
<i>AI in Pilot</i>	26.8%
<i>No AI in Use</i>	7.3%

## 4 KEY FACTORS FOR SUCCESSFUL AI IMPLEMENTATION



### Building, training, and implementing a customized solution for any user environment

Every AI use case is unique. Even in the same vertical or operational area, every business uses specific data to achieve its own goals, according to a particular business logic. For an AI solution to provide the perfect fit for the data, environment, and business needs, all these specificities need to be translated and built into the solution. The customized solution is not an end in itself, but rather a means to extract the most AI value. The best ROI can be created only with a customized solution because mainstream solutions do not meet the specific needs and constraints of the business and will therefore not be effective.



### Staying on course: maintenance, updates, improvements

While achieving production can be extremely difficult, it is only the first part of the battle. The second is ensuring that the model is not derailed as data and circumstances change. Maintaining AI in production requires abilities such as insightful monitoring, optimized human-machine interaction and an automatic, easy to use update mechanism. Ongoing maintenance can be an extremely challenging and expensive aspect of AI solutions.



### Achieving robustness and scalability

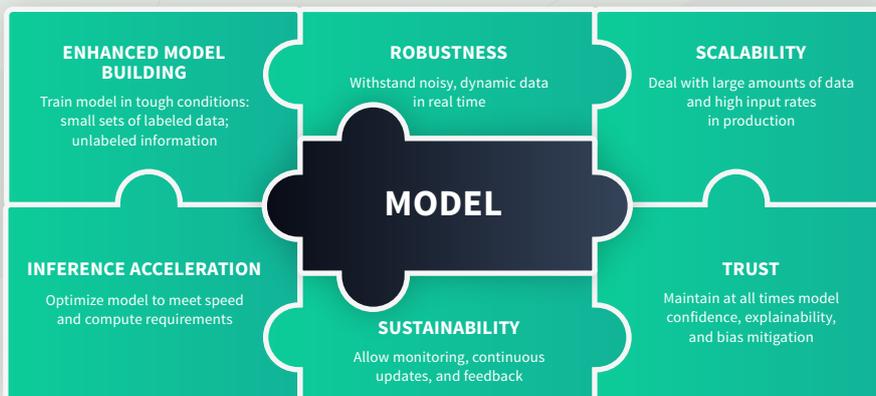
In production, an AI solution is required to cope with extreme data scenarios including noisy, dynamic and high-throughput data in real time. Integrated technologies and AI expertise are key to achieving this kind of robustness and scalability, that are the true test of effective AI.



### Towards full AI transformation: adding new use cases over time

AI can help improve many different business processes within each enterprise. However, it is essential to maintain continuity in AI deployment, to prevent creating a patchwork of siloed AI solutions which can be extremely challenging to manage.

## Having a Model is Just the 1<sup>st</sup> Piece in the AI Puzzle



## THE BUILD OR BUY DILEMMA: AI'S CATCH-22

As opposed to previous technological pivots of recent years, AI implementation in production is still at a stage where neither the build, nor most buy options, provide complete solutions for companies seeking AI transformation.

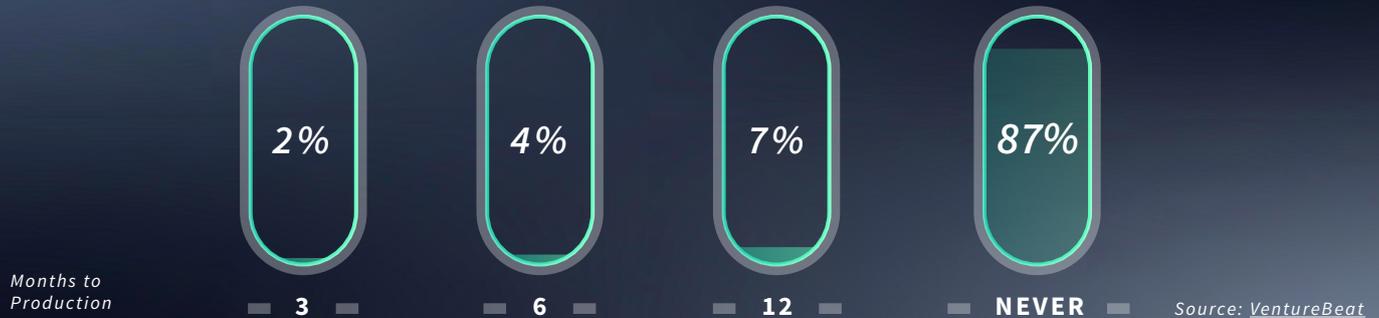
On the one hand, every problem, scenario and use case is completely unique, so providing a solution requires significant customization. For most companies and use cases, this rules out many off-the-shelf verticalized or use case-based solutions that lack the specificity required to achieve significant business impact and ROI in the long term.

Every AI use case is unique, making off-the-shelf solutions incompatible. At the same time, building an internal AI solution is extremely costly, bearing low success rates.

On the other hand, AI is an innovative technology that demands cutting-edge domain expertise. Enterprises attempting to build AI solutions in-house often opt for establishing an AI center of excellence, amassing huge costs and lengthening time to value for their AI projects. These projects, depending on scope, can take anything between one and three years to achieve — if success in production does indeed ensue.

This AI in production Catch-22 is at the core of the current massive failure rate for AI deployment, demonstrated through VentureBeat's data which points to a massive 87% of AI projects in enterprises that never reach the production stage.

### Low Success Rate For AI To Reach Production



## AI IS NEVER ONE-SIZE-FITS ALL

Enterprises need to implement a variety of different AI solutions throughout their organizations in order to remain competitive in an AI-transforming ecosystem. When trying to achieve this goal with off-the-shelf AI products, a messy patchwork of solutions is created. When building in-house, either more investment is needed in man-hours, or projects are further delayed. That is because AI is a general term that denotes a variety of technologies and approaches, each demanding unique expertise. At a manufacturing enterprise, for example, conquering the defect detection problem with AI computer vision has nothing to do with the time-series analysis which is required for predictive maintenance.

To further increase the complexity, each of these AI solutions requires independent maintenance and management, and they do not strategically interact with each other or use company data in a holistic and synergistic manner. In the long run, this dramatically decelerates the AI transformation process.

## BEYONDMINDS: FULLY CUSTOMIZED, PRODUCTION-GRADE AI IN JUST WEEKS

BeyondMinds has built the first enterprise AI platform that is universally applicable and easily adaptable for production environments across industries. On top of our platform we deliver hyper-customized, production-ready AI solutions as a service, enabling enterprises to put into effect and to scale their AI transformation, rapidly achieving AI value. While many other AI solutions can take months or years to successfully reach production, if ever, the BeyondMinds platform enables companies to achieve production-grade AI within weeks.

### PRODUCTION GRADE

Every solution built on the BeyondMinds platform is designed as a robust, end-to-end state of the art AI system — that goes far beyond a simple trained model. The platform includes a range of capabilities such as monitoring, security and compliance, smart feedback, data and model version control, explainability, and more, all working in tandem to allow the creation of a production-grade solution. Included among these integrated technologies are robustness and stabilization tools that can leverage noisy, unstructured, or small data sets to meet the most demanding production requirements and extreme data scenarios.

 CUSTOMIZED

Every BeyondMinds solution is built on top of the BeyondMinds platform, serving the specific business needs of each use case within each organization. As mentioned above, every AI use case is unique: even in the same vertical or operational area, every company uses specific data, sets unique business goals and is driven by an idiosyncratic business logic. All these specificities are meticulously – but rapidly – built into every BeyondMind’s solution, ensuring that it provides a perfect fit for the specific customer data, environment, and business needs.

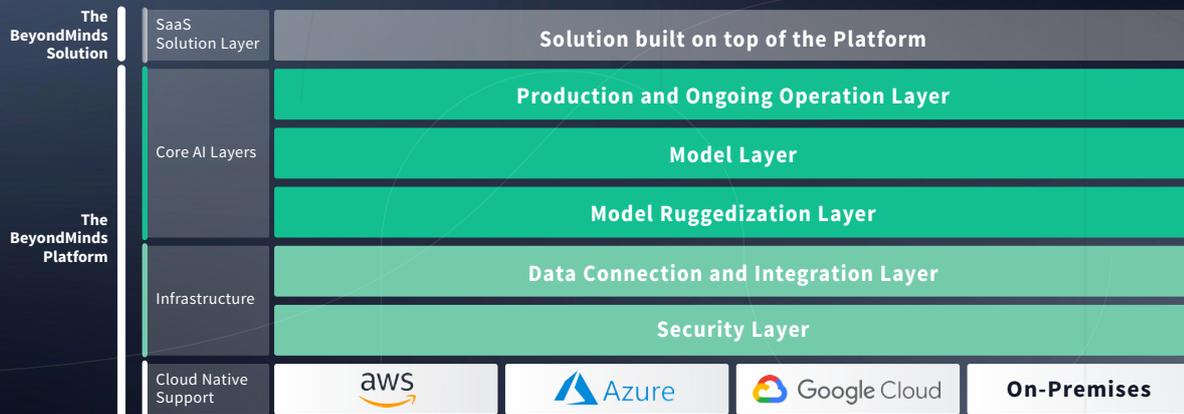
 AI-AS-A-SERVICE

BeyondMinds Enterprise AI software solutions are delivered as a service to ensure continuous improvement and increasing value over time. As a partner in production, BeyondMinds enables organizations to deploy and maintain AI solutions with minimal involvement on their side. BeyondMinds is dedicated to always keeping the AI solutions on the rails, even with shifting data and requirements. Ongoing AI maintenance considerations and costs, which often burden AI projects post-implementation, are mitigated and streamlined. BeyondMinds works with the customer to fully transform the organization, aligning their AI needs and use cases to make sure that all AI solutions are synergetic rather than siloed. This is a significant enabler of AI at scale and further future-proofs the organization.

While the BeyondMinds AI platform helps enterprises solve specific and unique use cases, it also enables a company-wide AI transformation. Its modular technology stack supports scalability, so enterprises can efficiently expand their AI goals and address each and every use case in the company on a single platform; and by using a single platform, enterprises are able to ensure continuity of data and processes throughout their organizations.

The platform’s intuitive and user-friendly management interface offers a no-code experience so that a variety of stakeholders, not just data scientists, can deploy, manage, monitor, and maintain the AI solution. By empowering more employees to take control of AI with rich data visualization and straightforward, actionable insights, the interface helps to eliminate bottlenecks in the process so that the AI solutions are managed effectively. Further contributing to faster value creation is the ability of the interface to support the simultaneous management of multiple use cases.

**A Full AI Transformation on Top of a Universal Platform**



BeyondMinds’ mission is to create AI partnerships that enable the world’s most sophisticated companies to benefit quickly and enduringly from AI’s benefits, while freeing themselves of the risks and burdens of its development and ongoing maintenance.



**FAST TRACK YOUR JOURNEY FROM AI PROMISE TO AI VALUE:**  
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