# How Aible flips the script on traditional Data Science



### The majority of data science projects fail



"A Mere **10%** of Organizations Achieve Financial Benefits With AI"

According to the Annual MIT Sloan Management Review, BCG Study 2020

"AI projects are characterized by **high failure rates** and take a long time to move from pilot to production. Slightly more than 50% make it from pilot to production, and those take an average of nine months."

Gartner report: A CTO's Guide to Top Artificial Intelligence Engineering Practices, Published 29 October 2021

#### Top steps where AI projects fail at include:



**Use Case Definition:** Business users wanted something from the AI that was not achievable with the data on hand.



**Data Availability:** Is the data available, is it clean enough, can it be enhanced to enable the use case.



**Business Impact:** Adjusting the model to meet the needs of business and explaining how it will affect their business KPI if adopted at scale.



**Explainability:** Explaining to business what the AI has learnt.



**Model Deployment:** Any data manipulation made during model training has to be recreated, the code packaged for deployment, and the servers sized appropriately.



**End User Adoption:** Working with end users to ensure they adjust their behavior based on the recommendations of the AI. If their behavior doesn't change, business impact can't be delivered.

#### Traditional data science processes follow this order:

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- First, **Data Scientists** work with **Business Users** to understand / define the use case.
- Second, **Data Scientists** look for the data to enable the use case.
- $3 \rightarrow 2 = 1$  Third, Data Scientists train the models for accuracy.
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- Fourth, **Data Scientists** adjust the models to maximize business impact and explain the models to **Business Users**.



Fifth, **Data Scientists** work with **IT teams** to get the models deployed.



Finally, **Data Scientists** work with **End Users** after the models are deployed.

Fundamentally, **this process places humans at the beginning, middle and end** of the process. This would be appropriate in a world where there are very few opportunities to use AI to improve business performance. But you can't solve an exponential opportunity / problem by using a linear solution like people.

### AI-First Scalable Approach with Aible

Aible believes that there are many opportunities to deliver business impact from our data using AI and you need an AI-first scalable approach to extract value from your data. You need to fully automate the first few steps to sufficiently de-risk the project before spending peoples' time on it. You need to engage all relevant stakeholders earlier in the process to ensure success.

This is how Aible does this:



### Augmented Data Engineering

Aible Sense Everywhere (ASE) scans data sources to detect and curate valuable datasets. Aible Sense evaluates datasets to confirm whether they are useful for analysis or predictive modeling. It does this completely automatically and at extremely low cost by using Serverless techniques and object stores. Typically analysis of a dataset takes minutes and cents on GCP/AWS/Azure.



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### Augmented Analytics

Then Aible Explore automatically evaluates millions of possible variable combinations and highlights the key analytical insights / patterns in the data. These insights are easily consumable by business users and even end-users. As users interact with the insights, Aible Explore reveals related insights. This process helps users understand the data and better define their Use Case based on the patterns in their data. It often also exposes issues with the data that only business and end-users would fully understand.

Aible's Collaborator capabilities make it easy for even end-users to productively engage with theprocess and provide feedback at scale without getting overwhelmed.

Collaborators see just selected charts and the corresponding discussion and feedback.

Finally, this step begins the process of explaining what the AI is learning which helps with early 'buy-in' from business and end-users which is crucial to the success of AI projects.





## Augmented Data Science & Machine Learning

Then Aible Optimize allows business users to see exactly how the AI would affect their business KPIs. Users answer a few questions about the benefits of a correct prediction, the costs of incorrect predictions, and any constraints such as budgets, operational resources, or fairness objectives. Aible trains and adjusts the underlying predictive models to deliver business impact and quantifies the expected benefit of deploying the AI. Aible Optimize further explains what the AI has learnt beyond what Aible Explore had already revealed.



### Speed & Cost of Analysis at Fortune 500 Company

Data Sources		<b>75</b> Datasets <b>100M+</b> Rows	Total time to implement Aibl on customer's GCP account <b>15 minutes</b>	
Benchmark Results	10x Speed	1,000x Savings	10,000x Insights	
	Project Time	Compute Cost	Number of Insights	
Traditional Servers	4-6 Months	\$200K	500-1,000 VARIABLE COMBINATIONS	
Aible's End-to-End Serverless	14 Days	< \$80	150 Million	

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# Automated Deployment & Integration

By using serverless techniques, Aible automatically deploys the models in the customer's own cloud in a scalable way without having to figure out how to size the servers. All DevOps steps including creating and deploying necessary data transformation code, setting up secure gateways, etc. are handled completely automatically in less than a minute. Aible also automatically integrates the model with common platforms like Salesforce, Tableau, Boomi, etc. as well as any place where Google Maps can be integrated.





### Crowdsourced Feedback & Realtime Adjustment

Aible Anywhere explains the reasoning behind the predictions / recommendations to end users, allows them to adjust the aggressiveness of the AI with a single click, and collects feedback at scale. All other solutions assume one AI fits all. But some salespeople are better at handling a large volume of leads while others prefer fewer but better leads. Aible ensures each user receives recommendations that meet their preferences. Then Aible Monitoring ensures user adoption and makes sure users are not harming themselves by adjusting the AI too much.

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Thus, Aible conducts the same steps in a different order, ensures the first few steps are completely automated so users only engage with projects after they have been significantly de-risked, and builds buy-in from business and end-users far earlier in the process. This is why Aible remains the only enterprise AI company that guarantees business impact in 30 days. See dozens of real world case studies of value creation in 30 days at aible.com/solutions.

### Final Consideration in Current Turbulent Times

All models are wrong, but some are useful, for a time. Predictive models generalize patterns in the training data to predict the future. But when underlying conditions change, such as rising inflation, market shifts, etc. the training data no longer reflects the current data that the model is trying to predict. In traditional approaches, experts then have to retrain the AI with more recent data. Aible on the other hand pre-trains dozens of alternative models that would be more effective if business circumstances change, monitors for shifts in the data that indicate such changes, and recommends adjusting to a more appropriate model to maximize business impact in the changed circumstances. Essentially it deals with changes by anticipating and preparing for such changes. That is why only Aible does Data Science, Scenario Planning, and Optimization all at the same time.

### Get Started with Aible

The Only Enterprise AI That Guarantees Impact in 30 Days. enaible.aible.com/free\_trial

