



AI Demystified for Executives

End-to-end AI Strategy for Financial Institutions

A professional meeting is taking place in an office setting. In the foreground, a man wearing glasses and a dark jacket is looking down at a whiteboard, writing with a pen. Behind him, two other people are engaged in conversation. One is a woman with long hair, and the other is a man with short hair. They are all dressed in business attire. The background shows a window with a view of a city skyline.

Agenda

- Getting the context right
- Example : Understanding customer behavioural patterns
- Example : Predicting credit default
- Project approach

Segmentation



Credit



Hiring



Youth



O l'oun t'awa se n'yara
Je k'abere

(Let's start what we have come
into the room to do)

Fela Kuti, 1971



1 - Focus on business outcomes

Unfortunately data scientists, with their wealth of technical, statistical and machine learning expertise, don't always build solutions with the business problem in mind.



2 - Invest in Data Engineers

Remember, data often needs to be manipulated extensively before it can be used



3 - Start with the data you have

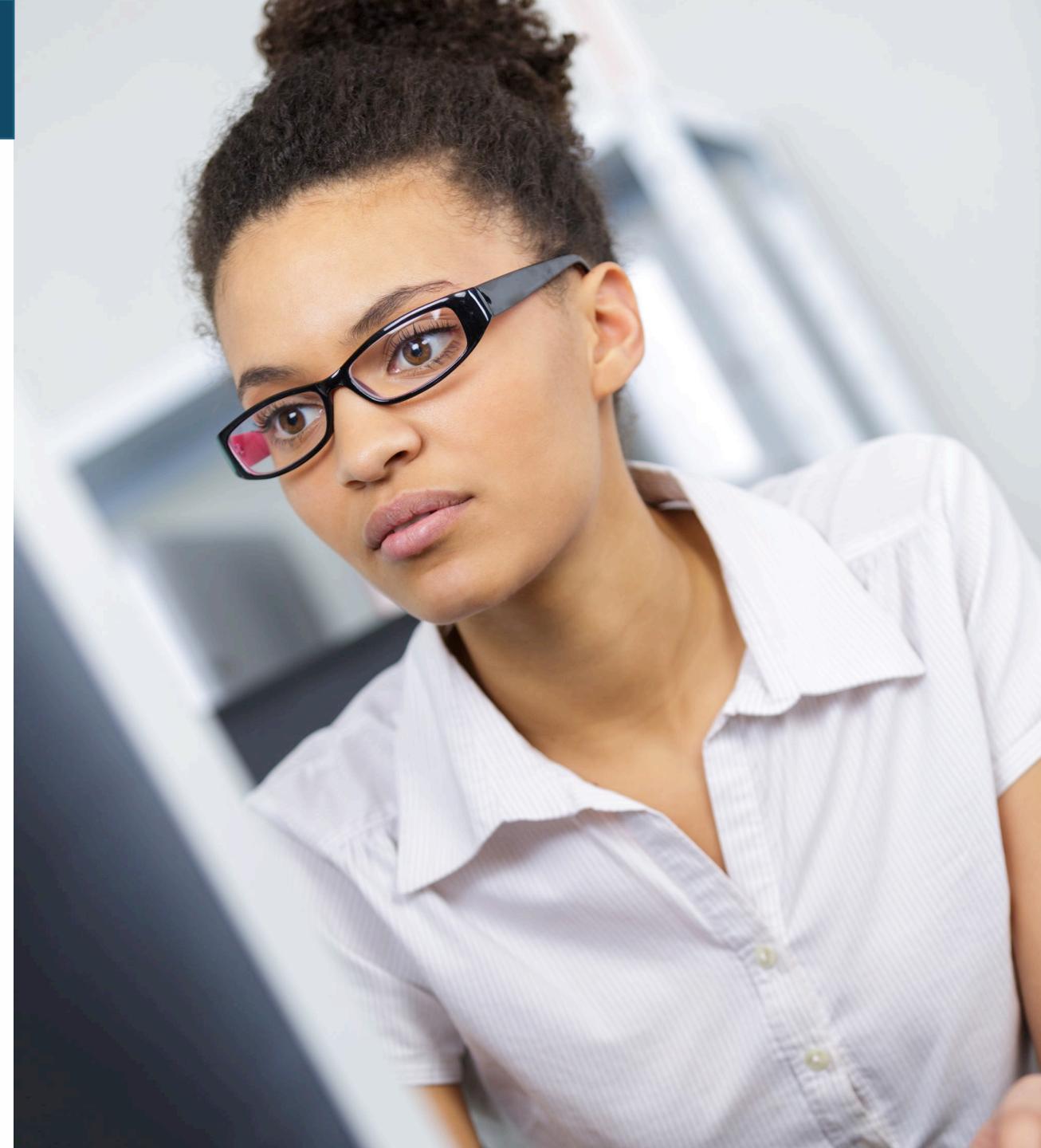
Rather than wait months for the perfect dataset to be ready, test on samples and start with the data you currently have.

Your data is (probably) good enough right now.



4 - Test often

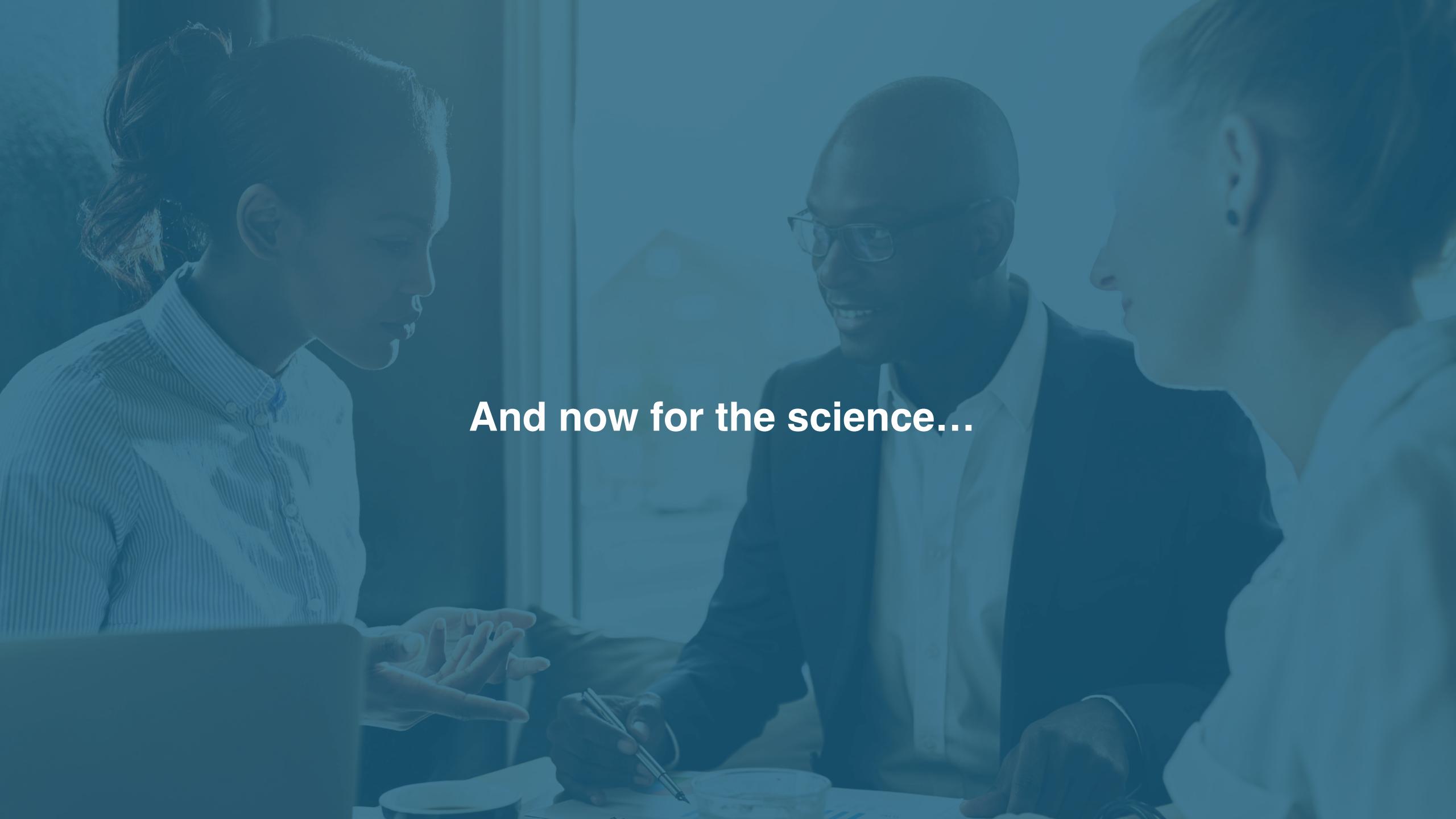
The additional value from a 0.01% advance in accuracy achieved over many, many hours of toil is unlikely to change business outcomes.



5 - Trust your data scientists

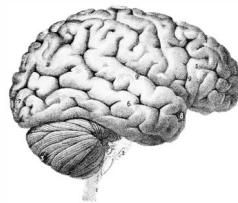
Success is heavily dependent on you trusting the science behind the methods and taking the often uncomfortable step of testing in the real world



A photograph of four diverse professionals in a meeting. A woman with blonde hair in a striped shirt is on the left, gesturing with her hands. In the center, a Black man wearing glasses and a dark suit is smiling and looking down at a document. To his right, a woman with long dark hair is also smiling. On the far right, another person's profile is visible. They are all seated around a table with papers and coffee cups.

And now for the science...

How smart is a neural network?



Human Brain : 85 billion



Cat : 1 billion



Mouse : 75 million



Cockroach : 1 million



Fly : 100,000



A photograph showing a man in a light blue shirt and dark trousers standing behind a bank counter, interacting with a woman and two young children. The woman is holding a small child, and another child is standing next to her. The background shows typical bank signage and equipment.

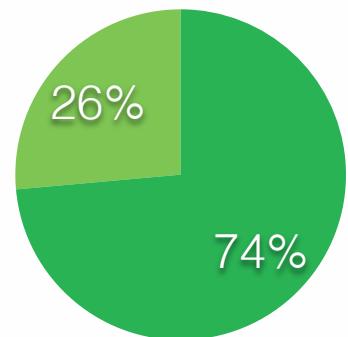
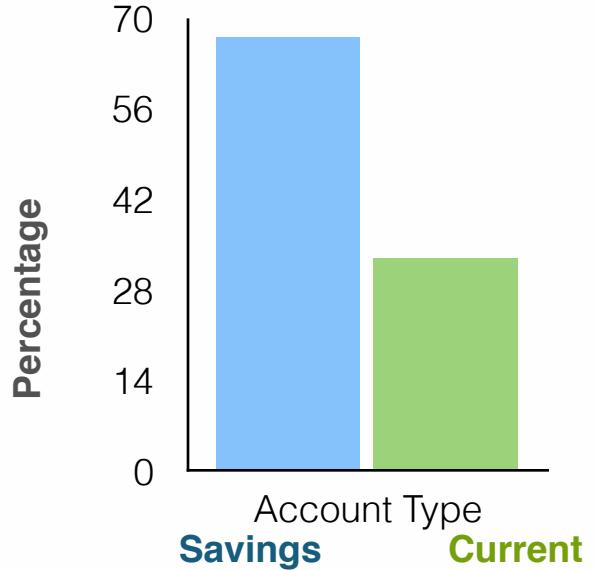
Identifying and understanding customer behavioural patterns for a West-African Bank



Our client needed a way to reduce the number of dormant customer accounts, preferably **before** they became dormant.

We identified the leading indicators to account dormancy and...

... devised a strategy to prevent later dormancy



- No Change - 245
- Reactivated - 88



26% account reactivations vs 10% in the control group



Case study:

Pan African Pay-TV Digital Media Company

Our client has a large month-to-month cash payment customer base.

Unfortunately, the default rate for this segment is very high, since there is essentially no obligation on customers' part.

Our client wanted to avoid the cost to recover these customers as well as the loss of revenue after payment default.



We used a **machine learning** method to model monthly historical customer behaviour.

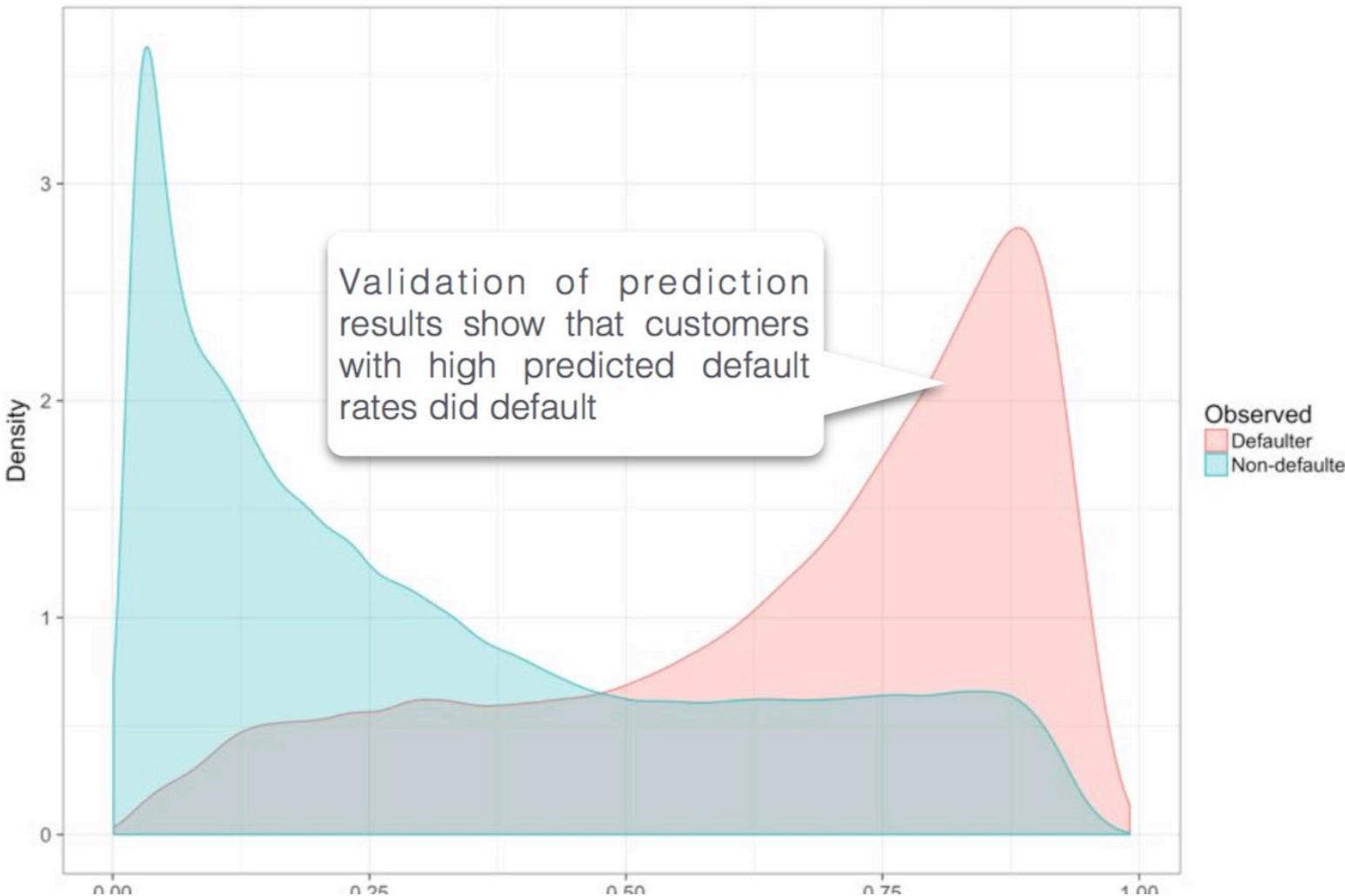
The machine learning method includes cross-validation to **validate** the model.

The model is **robust to outliers and missing data**, and performs consistently well month to month.



We created a dynamic, supervised machine learning model which predicted likely defaulters with **90% accuracy**

Prediction Distribution





So far the project is generating over **\$2million per month**

A structured approach to project execution

Phase		
1.		Data Discovery & Review
2.		Classification & Mapping
3.		Solutions Design
4.		Project Roadmap
5.		Move/Store data
6.		Clean up data
7.		Aggregate and Segment
8.		Forecast
9.		Run small-scale tests
10.		Optimise/Analyse/Model/Learn
11.		Integrate and automate
12.		Roll out platform

Why Ixio?

At Ixio, we do it differently. We take a business-led and science-driven approach to data. Problems are solved using the full weight of advanced statistical and programming ecosystems, like R and Python. This allows our data scientists to drill far deeper into complex problems than is possible with commercial packaged solutions.

Using a science-led solution approach, our data team can bring to bear numerous different tools to the challenge of excavating insight from complex data. This multi-faceted toolset, enabled by agile code development, is increasingly in demand by our clients.

We revel in complexity, thrive on challenge, do not fear data quantity, dirty data, poor classification or opaque relationships.

It is this experience and mindset that we bring to bear when we support organisations to solve their most challenging business problems.





At Ixio Analytics, we pride ourselves on combining advanced skills in data science with a deep and empathetic understanding of business issues. We will always work closely with you to define clear and trackable benefits upfront.

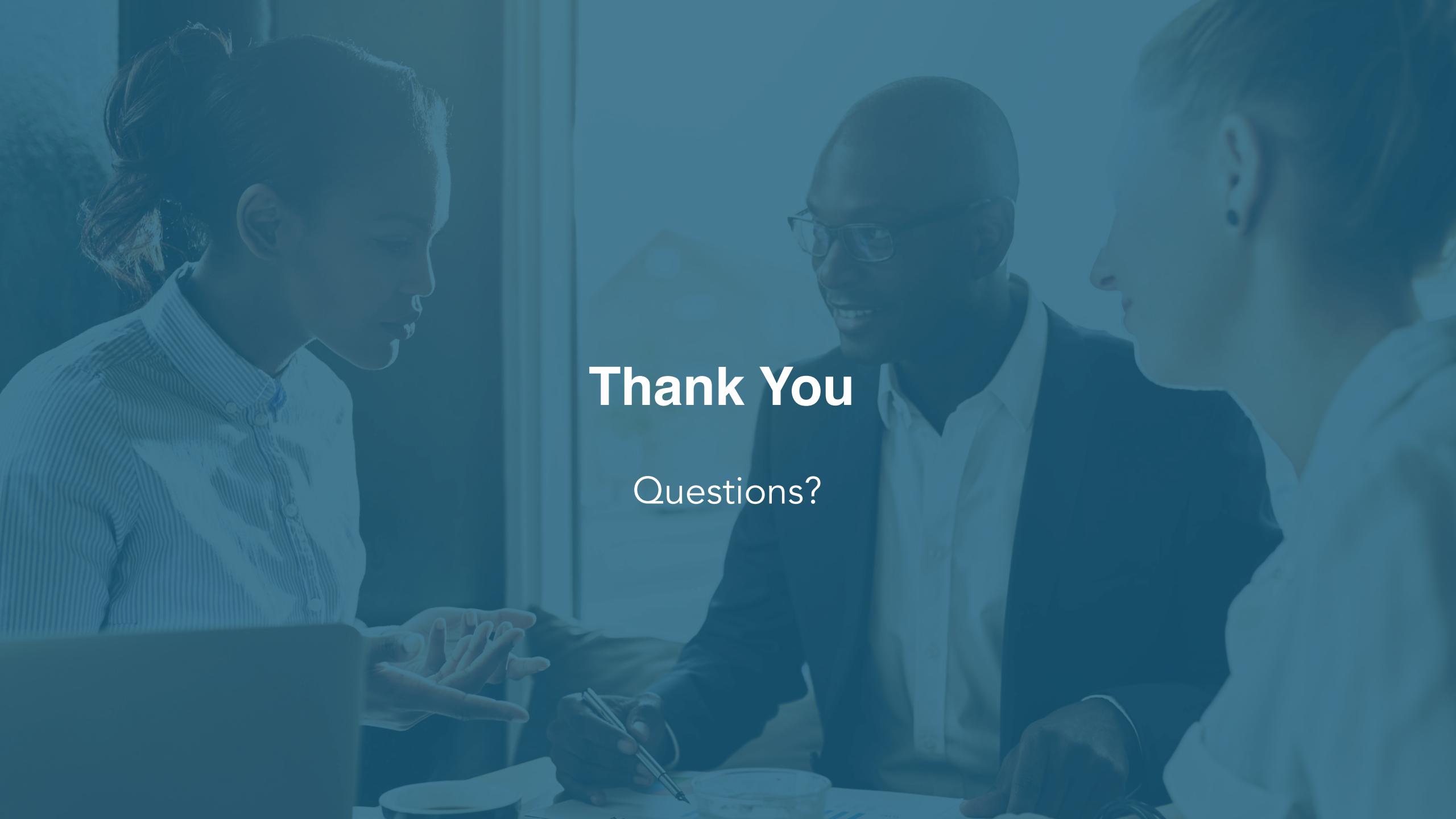
We believe that it is only by sharing knowledge that we expand the boundaries of our craft and demonstrate the art of the possible.

We look forward to working with and supporting your organisation.



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A photograph showing four people in a professional setting, possibly a meeting or presentation. A woman in a striped shirt is gesturing with her hands, while a man in a white shirt and glasses looks on with a smile. Another man in a dark suit is partially visible, and a woman's profile is seen on the right. They are all looking towards the left of the frame.

Thank You

Questions?