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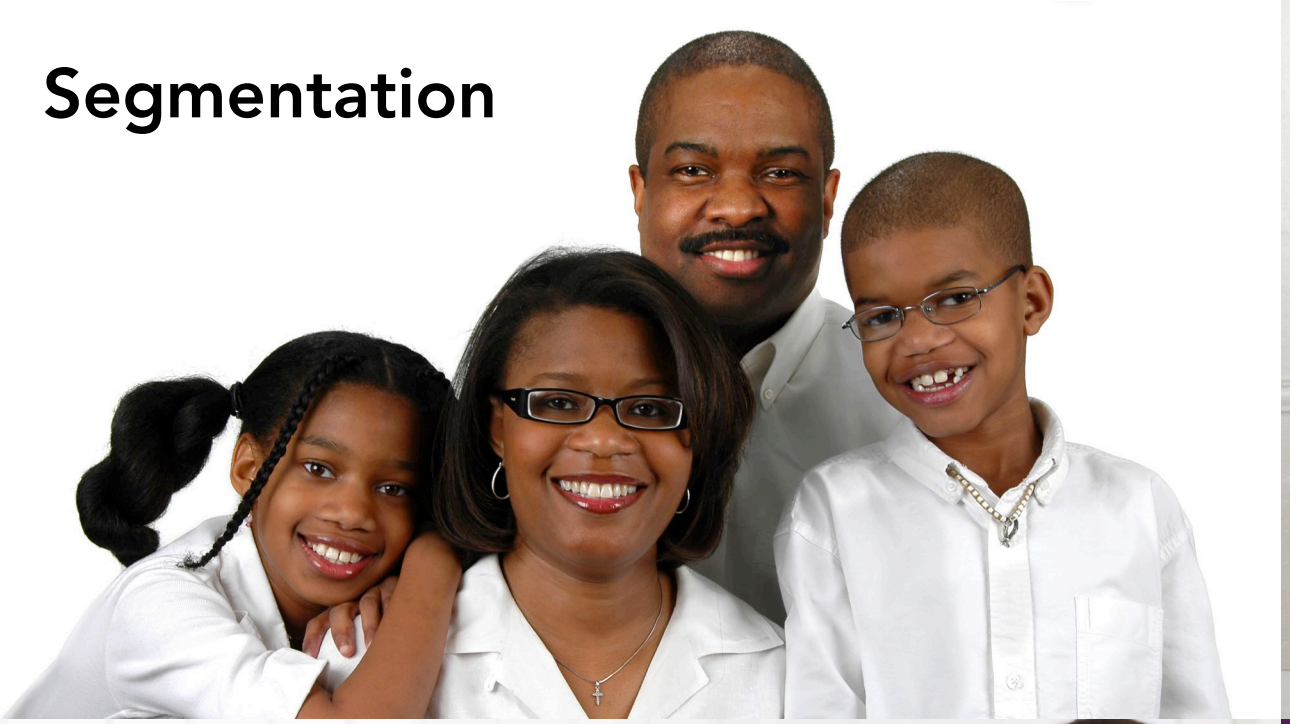
AI Demystified for Executives

End-to-end AI Strategy for Financial Institutions

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.

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2 - Invest in Data Engineers

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

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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.

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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

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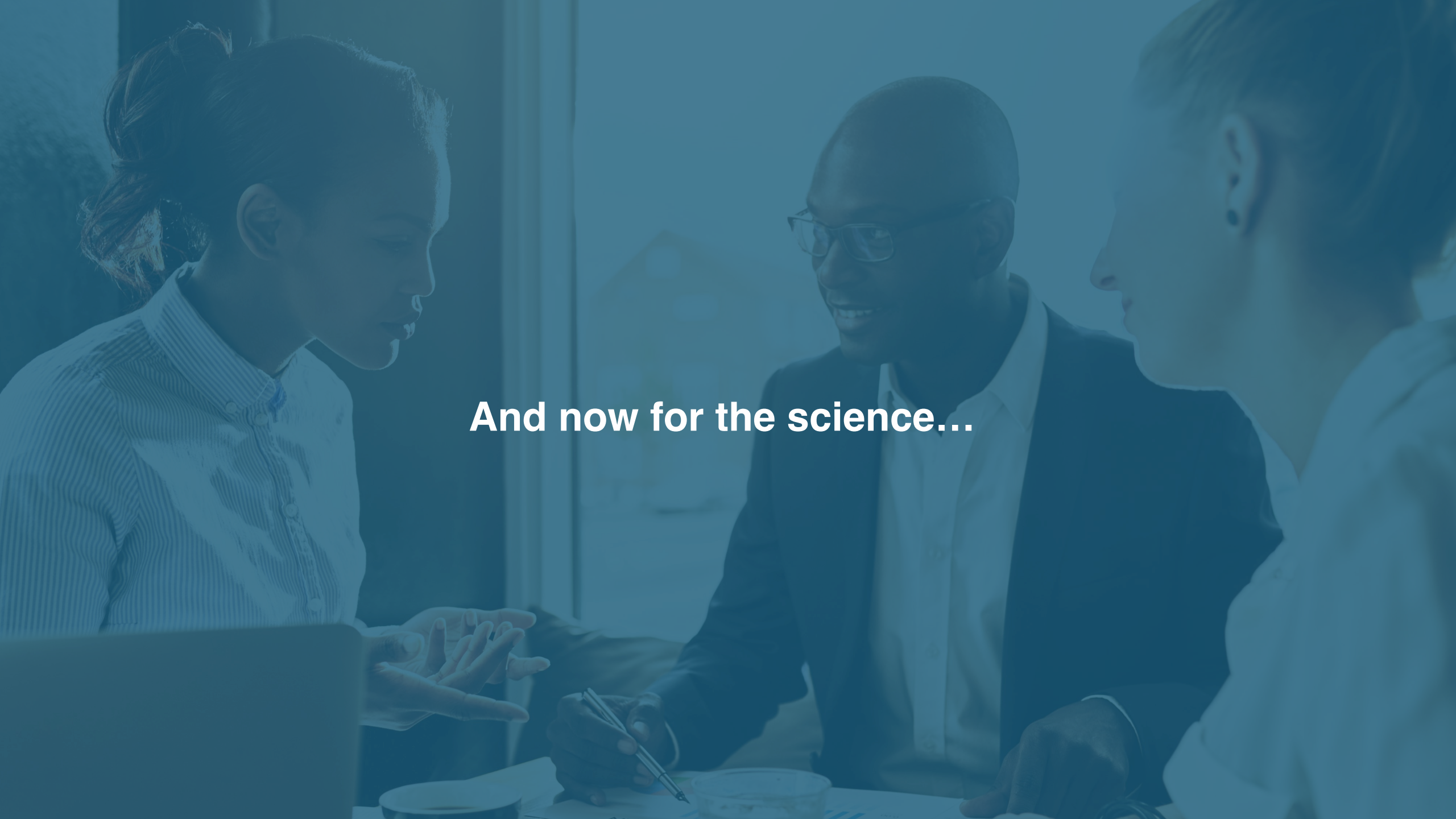
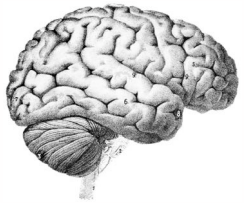

And now for the science…

How smart is a neural network?



Human Brain : 85 billion

Cat : 1 billion

Mouse : 75 million

Cockroach : 1 million

Fly : 100,000 ✓

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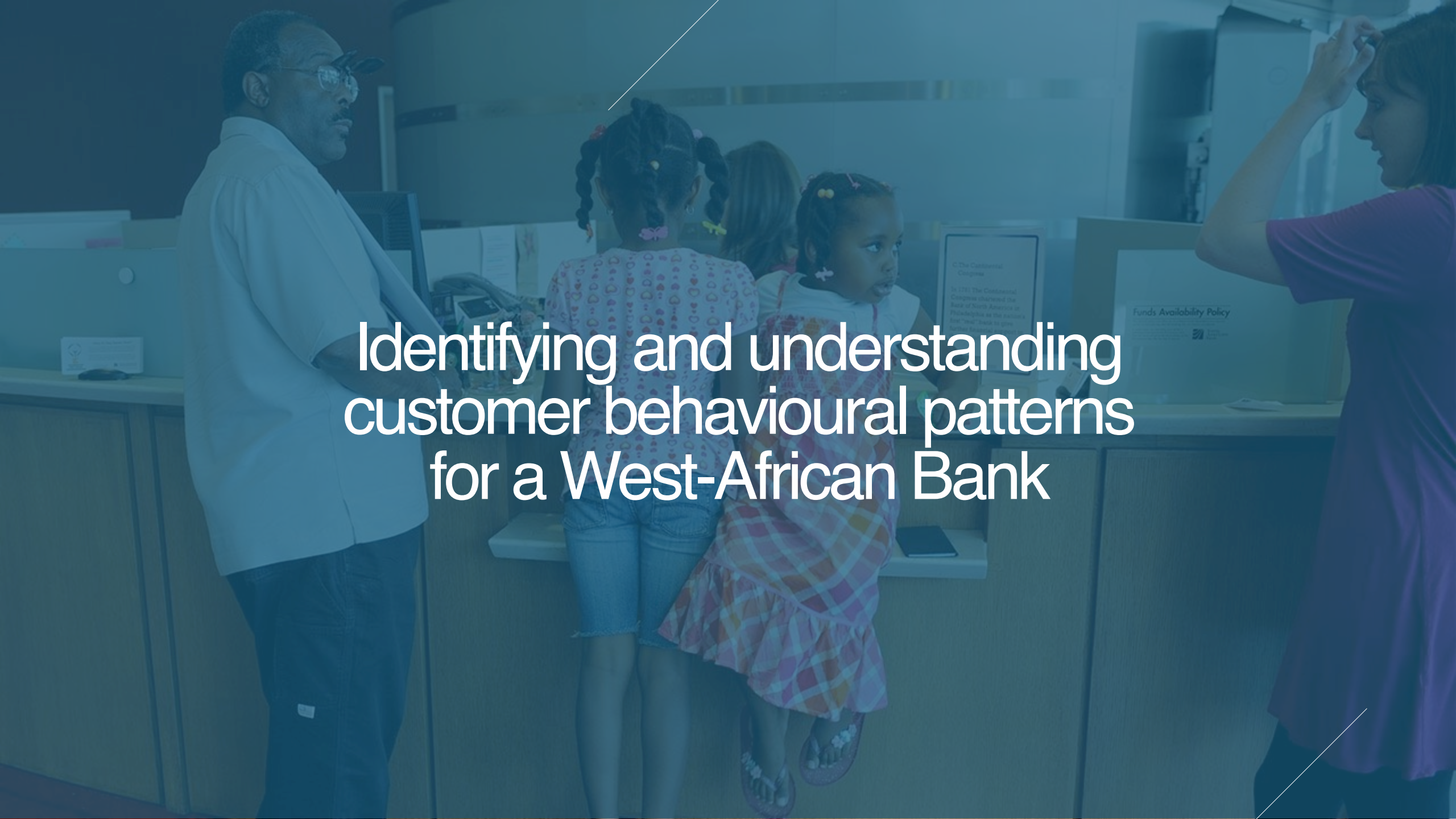

Identifying and understanding customer behavioural patterns for a West-African Bank

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

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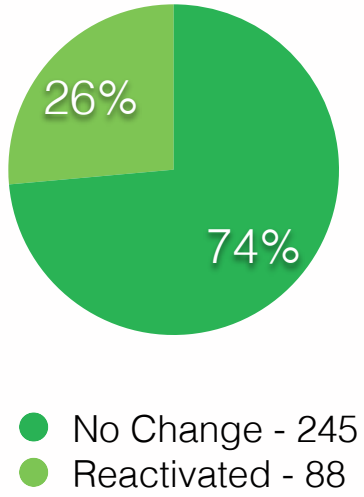
We identified the leading indicators to account dormancy and...

... devised a strategy to prevent later dormancy



26% account reactivations vs **10%** in the control group

Potential extra **$1m turnover** and **$10,000 bank charges** per annum

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.

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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.

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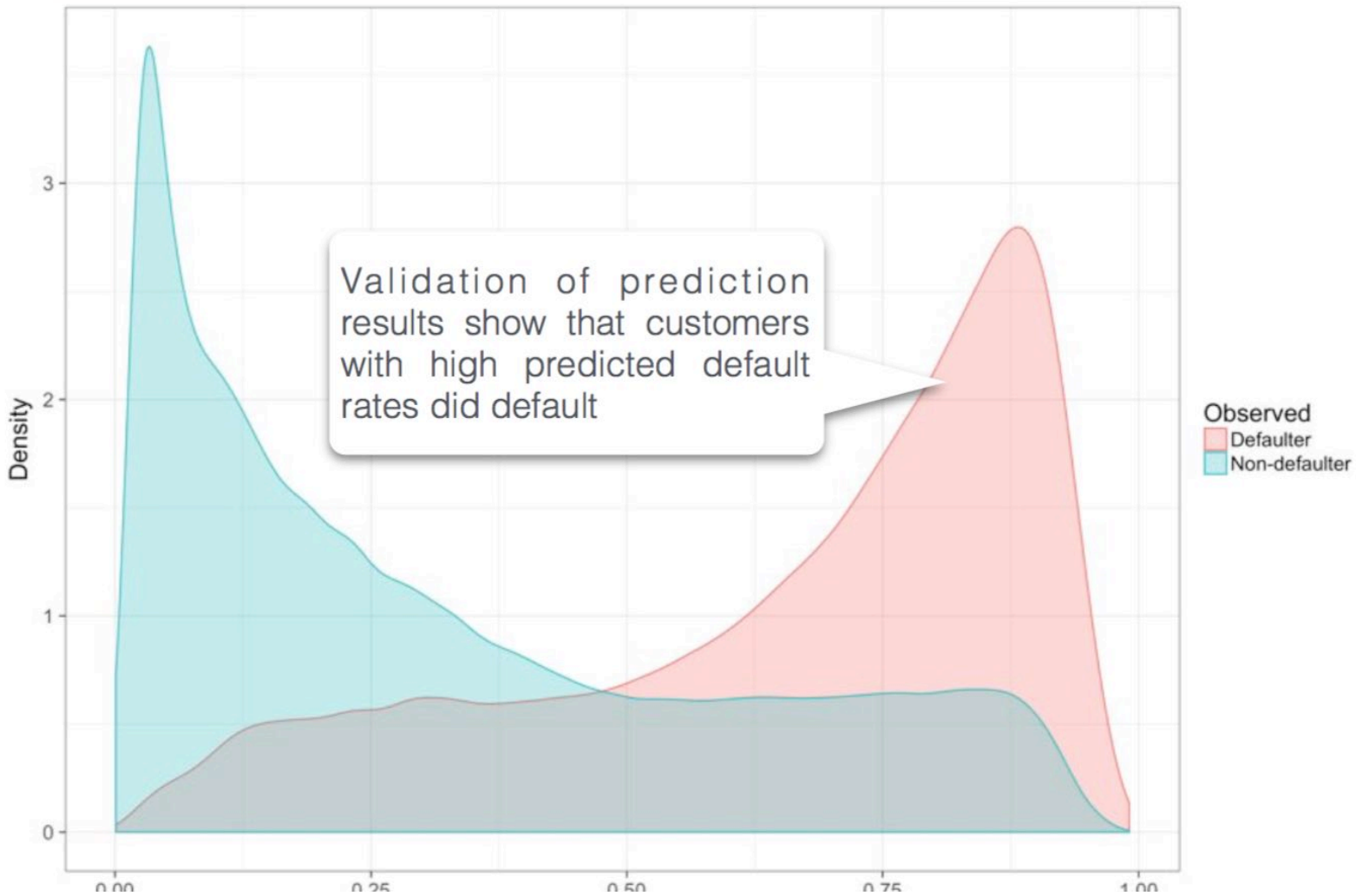
We created a dynamic, supervised machine learning model which predicted likely defaulters with **90% accuracy**

Prediction Distribution



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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

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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.

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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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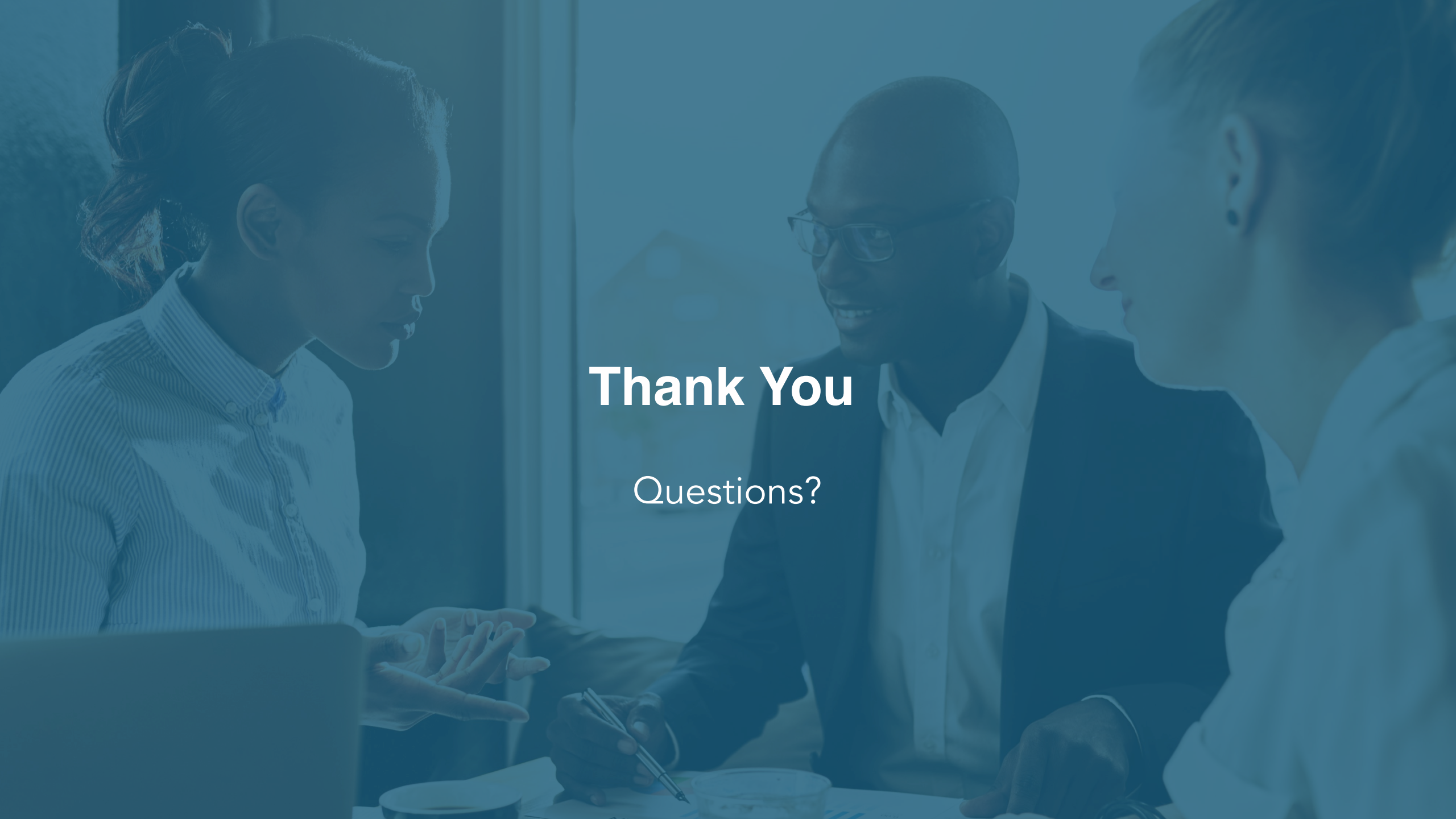

Thank You

Questions?