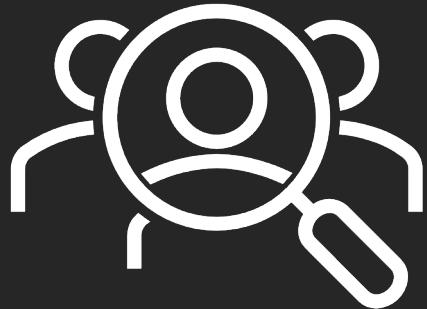


UNIVERSAL PLUS

*Targeting Promising
Customers*



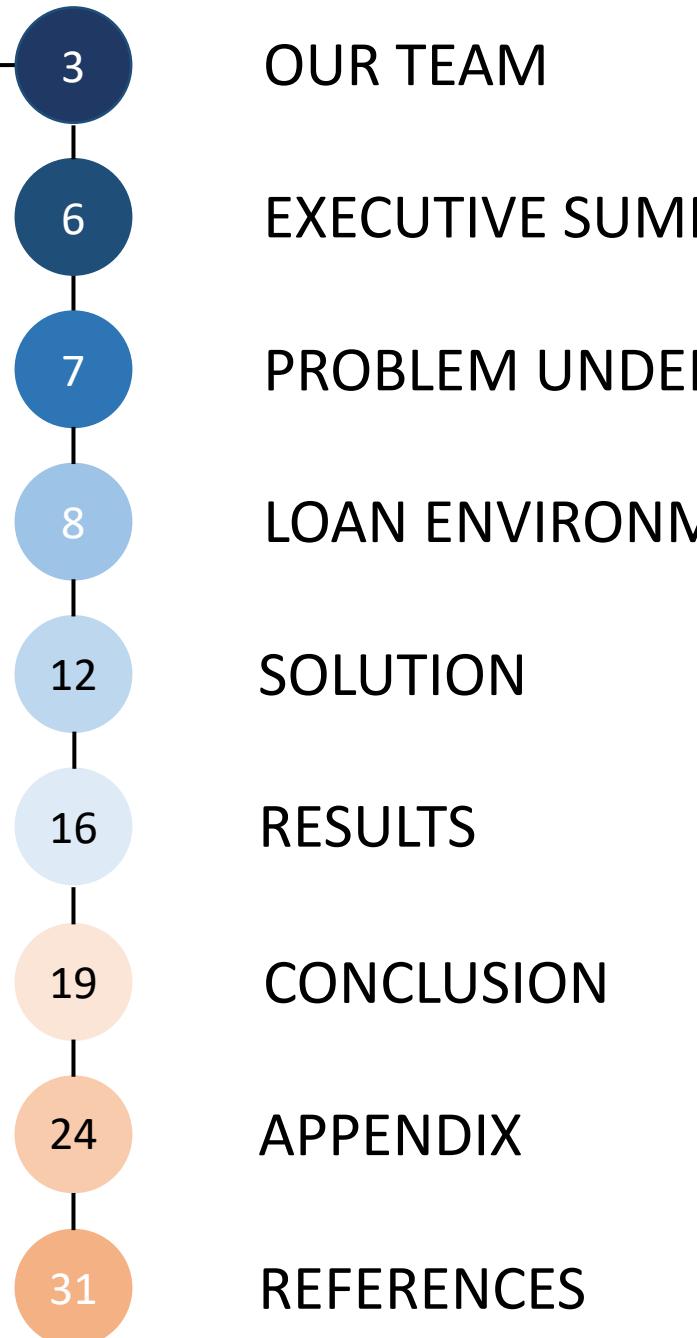
London • Frankfurt • Taipei • Moscow • Milan • Istanbul • Nashville

GLOBAL OFFICES





AGENDA





Yu-Hsuan Huang



Artem Korytko



Thies Schroeder

WB8 -DATA SCIENCE



Mehmet Fatih
Karademir



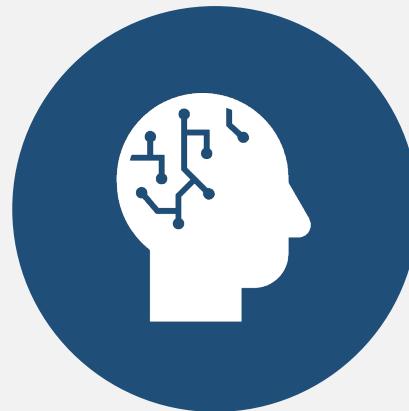
Daniel Tedeschi



Graham Chalfant

WB8 - STRATEGY

EXECUTIVE SUMMARY

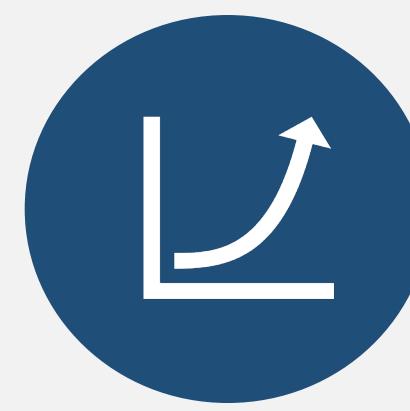


Machine Learning
Model

Per 100,000 Customers



Target Promising
Customers



Estimated Increase
in Revenue of **166%**

PROBLEM UNDERSTANDING



Assumptions Mortgages – Revenue - Cost

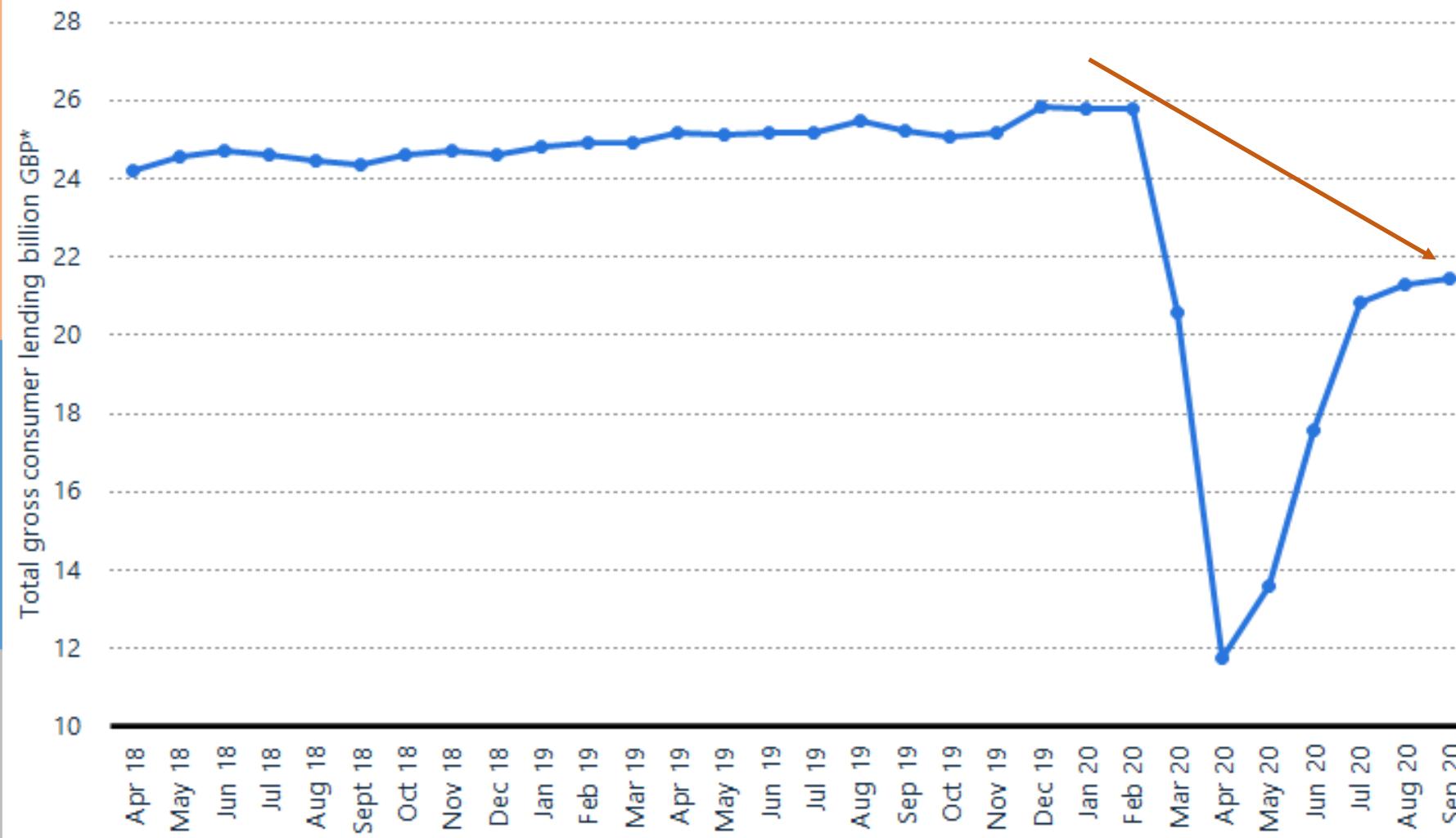


CURRENT MORTGAGE ENVIRONMENT



Consumer lending plummets⁽²⁾

Competition Increases



Mortgage acceptance rates escalate



UK mortgage approvals rise to 13-year high

'000



Source: Bank of England

© FT

MORTGAGE MARKET OVERVIEW

High Competition



Larger banks



Acquisition costs

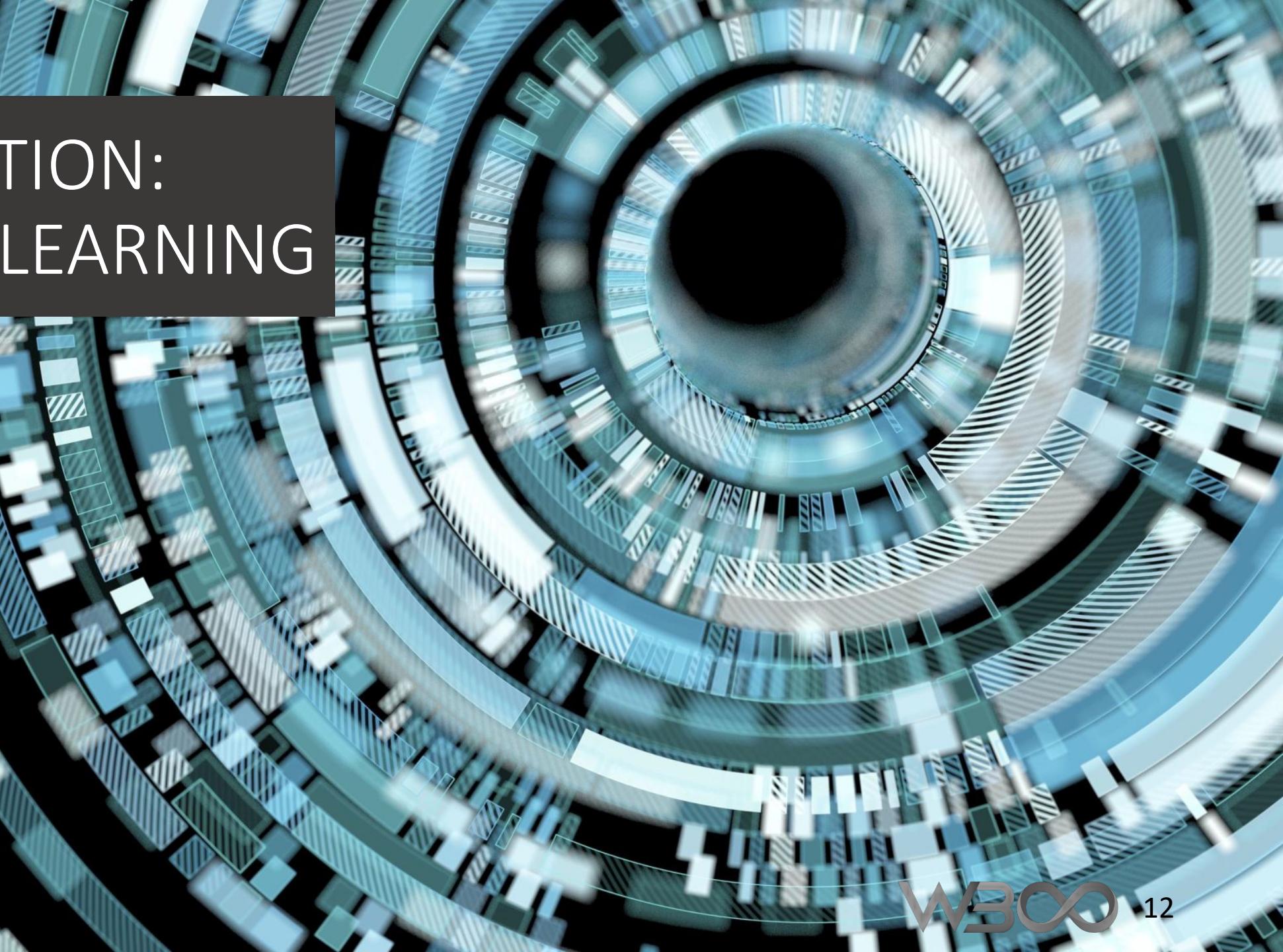


Interest rate cutting



How to stay competitive?

SOLUTION: MACHINE LEARNING



REVENUE ANALYSIS

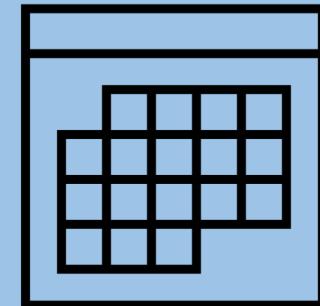
Avg. Annual Revenue / Correct Prediction: £ 5,000



Avg. Mortgage
£200,000 (3)



Avg. Interest
Rate 2.5% (7)



Avg. Term
25y – 30y (5)

COST ANALYSIS

Avg. Customer Satisfaction Costs Scenario 1 & 2

1% - 10%

£ 50

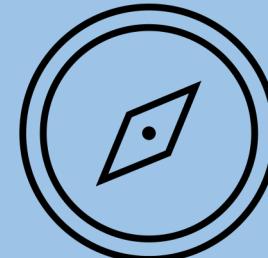
£ 500



Advertising



Customer Service



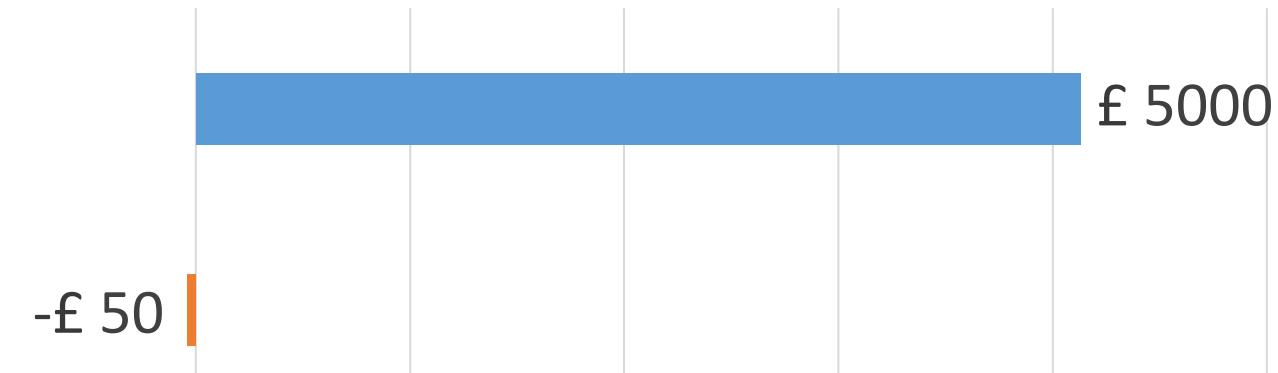
Consultations



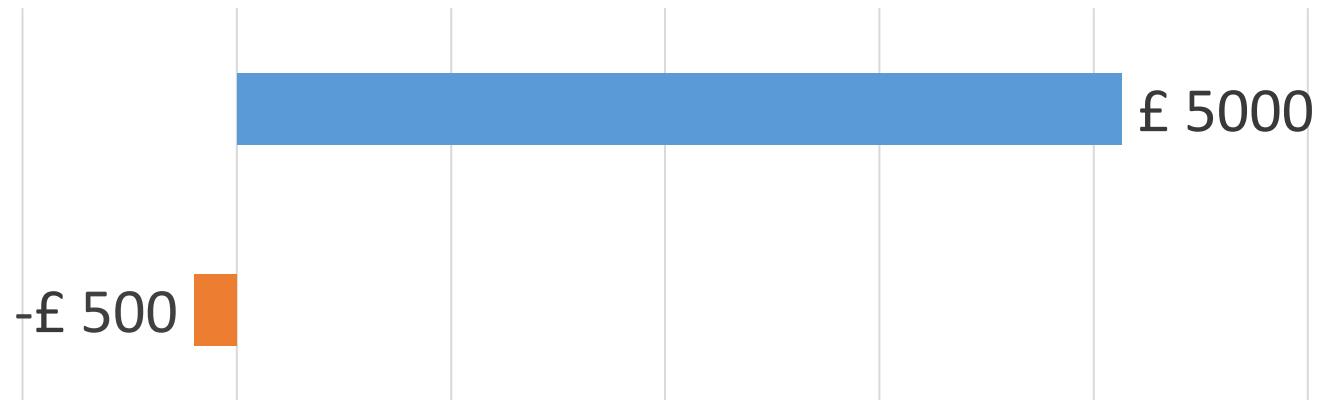
IDENTIFYING THE OPTIMAL MODEL



Scenario 1



Scenario 2



Correct Prediction



Incorrect Prediction



RESULTS





79.54%

Promising customers
targeted

> 2.5X Targeting

Will reach 2.5X as many
customers

£ 25 Million

Increase in revenue per
100,000 customers

GAIN FROM THE MODEL

WITH MODEL

£ 40,000,000

WITHOUT MODEL

£ 15,000,000

£ 25,000,000

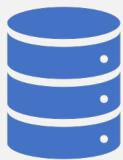
Per 100,000 customers

CONCLUSION



“

... develop and deploy a customer transaction prediction system. This system is required to predict which customers will make a specific transaction in the future.



Analyzed
Universal
Bank's data



Machine
learning
model



Targeted
80% of
promising
customers



Increase in
annual
revenue of
£ 25,000,000



MODELING POTENTIAL

Exceptional model performance with obscure data

The more data we have the more accurate the model

We can optimize other areas of your business, and use different approaches



THANK YOU
-
QUESTIONS?

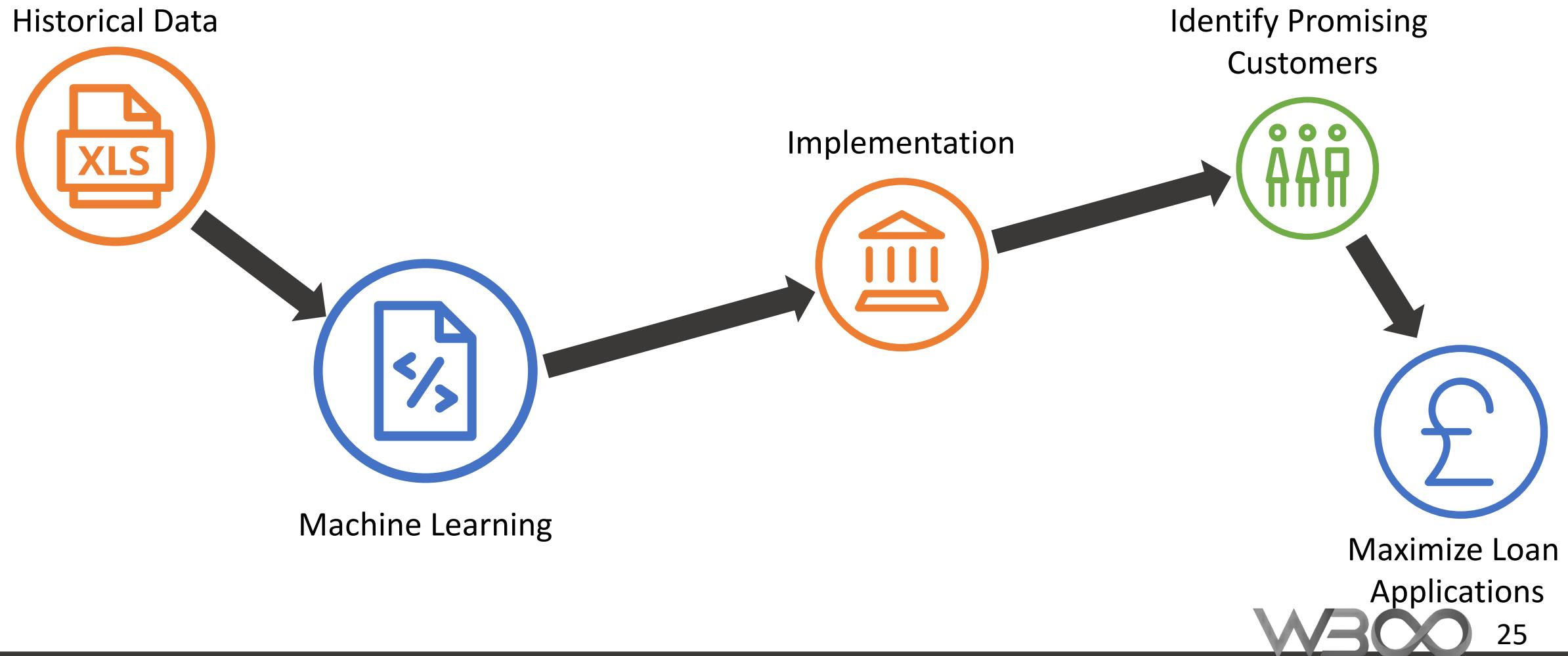
GET IN TOUCH

- Daniel Tedeschi – Daniel.Tedeschi-samaia@warwick.ac.uk / +39 3383141355
- Graham Chalfant- Graham.Chalfant@warwick.ac.uk / +44 7517705192
- Thies Schroder – Thies.schroder@warwick.ac.uk / +49 15782349282
- Mehmet Karademir – Mehmet-Fatih.Karademir@warwick.ac.uk / +44 7521454999
- Yu Hsuan Huang – Yu.Hsuan-Huang@warwick.ac.uk / +44 7561769307
- Artem Korytko – Artem.Korytko@Warwick.ac.uk / +7 9112846213

APPENDIX



MODELING PROCESS



CONFUSION MATRIX EXPLAINED

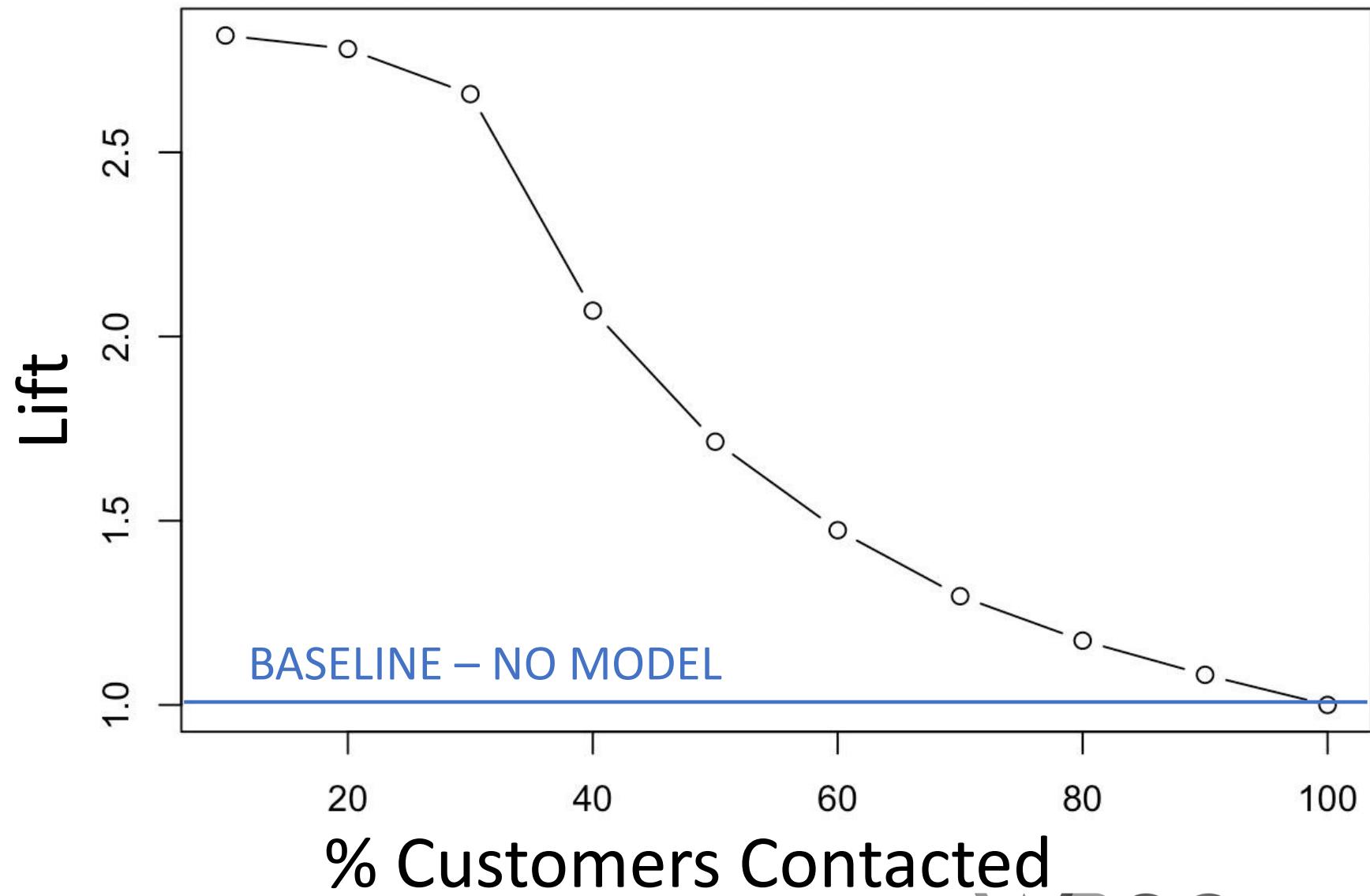
	ACTUAL NO	ACTUAL YES
PREDICTED NO	Model correctly predicted which customers were not interested	Model incorrectly predicted an interested customer as not interested
PREDICTED YES	Model incorrectly predicted a customer who was not interested as interested	Model correctly predicted an interested customer as interested

BEST RESULTS	Actual No	Actual Yes
Prediction: No	1615	59
Prediction: Yes	1083	240

COST MATRIX		Actual No	Actual Yes
Prediction: No		0	0
Prediction: Yes		(50) or (500)	5000

2.5X +
TARGETING

Lift Chart



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