



spymak analytics

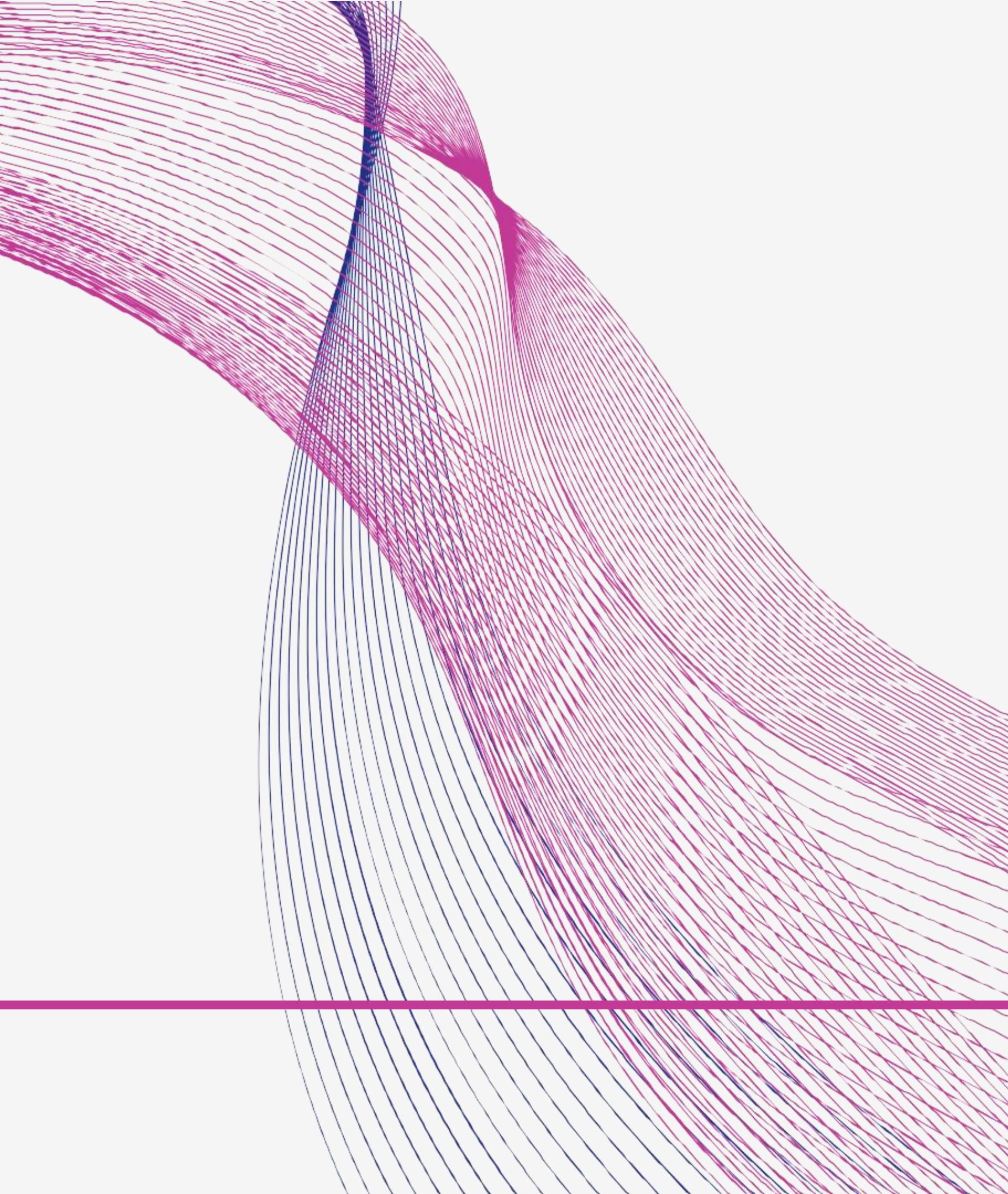
Business Proposal

Lead Prediction
WorldPlus

Group 5

2289524 | 5587205 | 5562214

5558022 | 2053845 | 5528636



Who are we?

**Relentless
Innovative
Empowering**

Business Problem

WorldPlus,
a banking company

Challenges

Lead Identification

Minimising marketing costs

Maximising conversions

Market Research

- Average interest rate was ~2% in Jan'22, now it is ~3x more with some providers offering close to 6%
- 61% of UK adults save money either every or most, months
- Information gap among consumers concerning interest rates
- Savers shifting from easy access savings accounts with low-interest rates to term deposits in significant numbers since the start of 2023
- ~£250B in deposits do not earn any interest

Solution Process

Lead Prediction Model

01

Assess and clean data
using multiple methods

02

Visualise and gather
insights

03

Predict customers with
highest conversion propensity

04

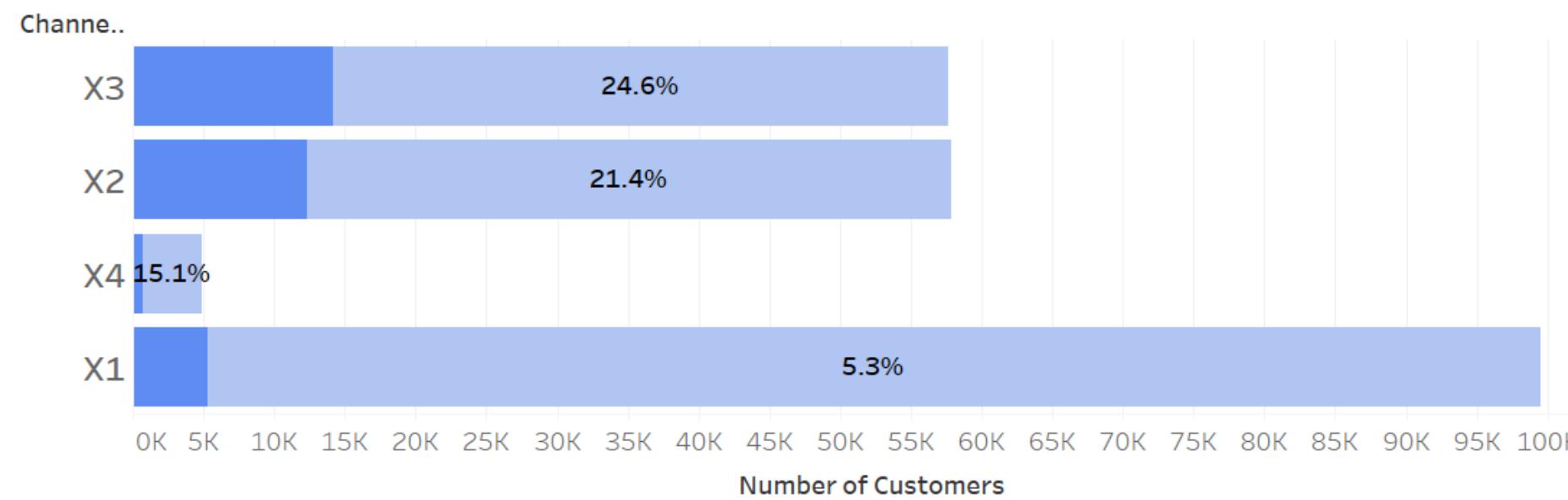
Efficiently target leads with
highest conversion

Multifaceted modelling approach

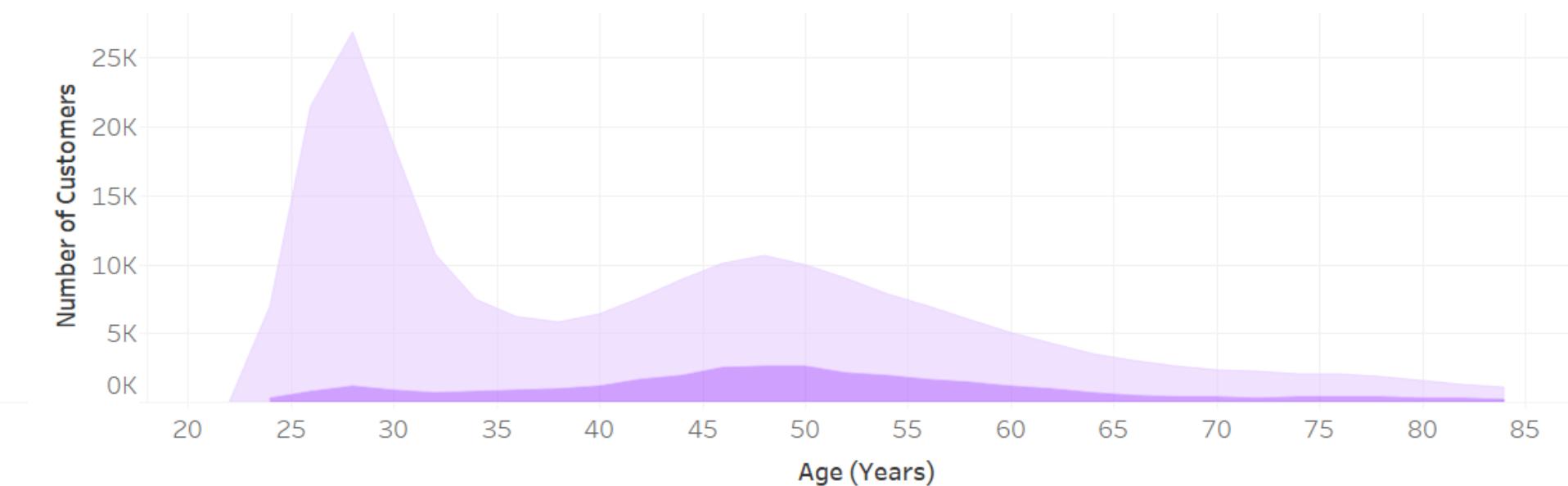
Customer Conversion Rates by Different Factors

Not Purchased
Purchased

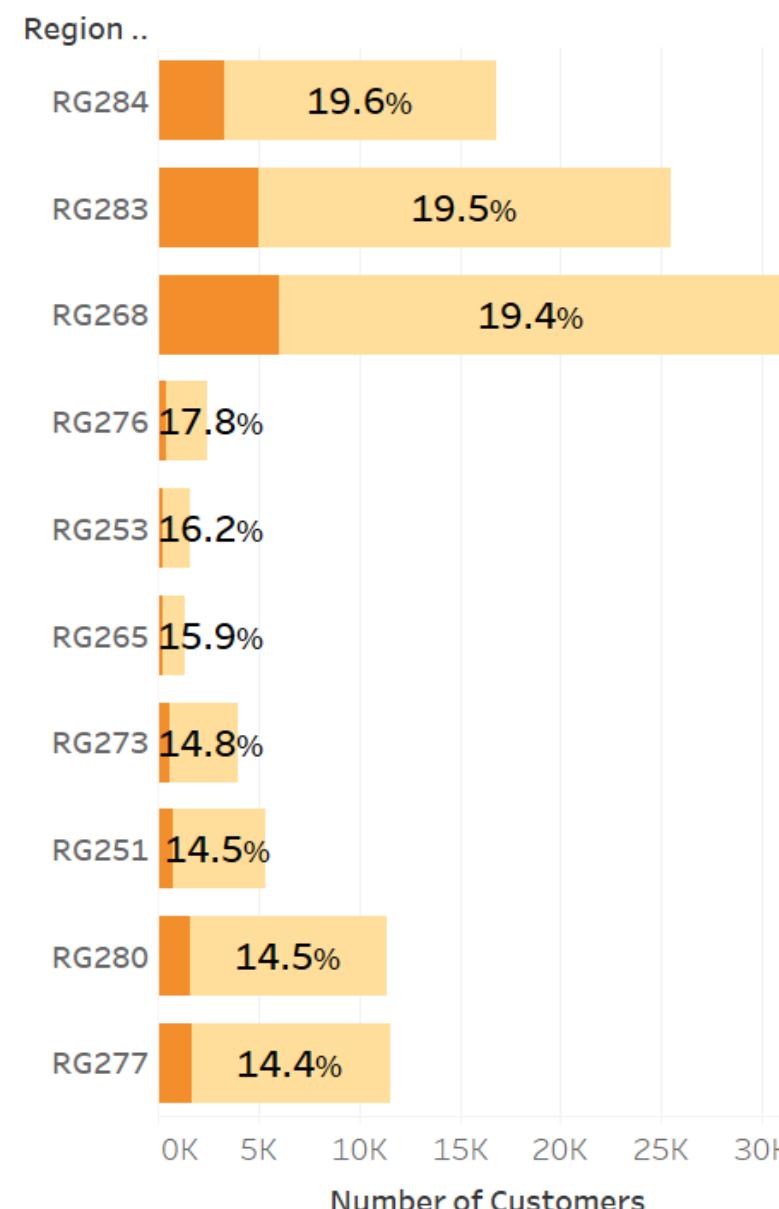
Channel Code



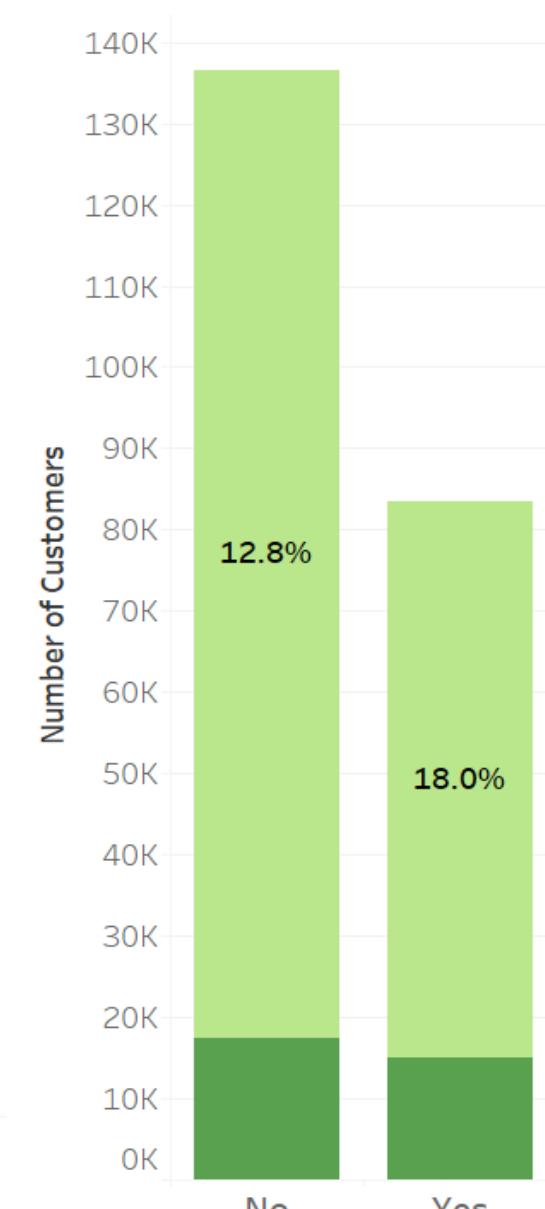
Age Distribution



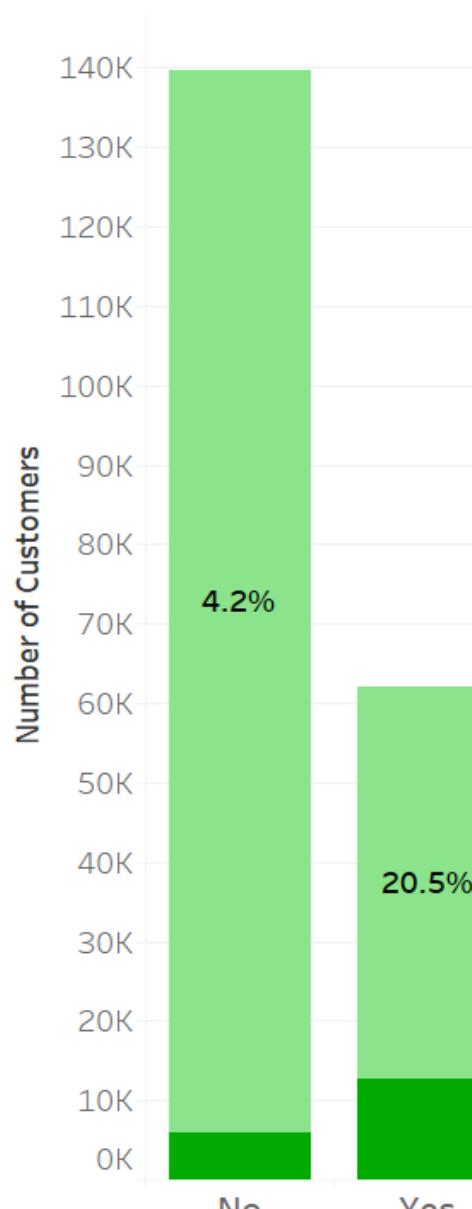
Top 10 Regions by Conversion Rate



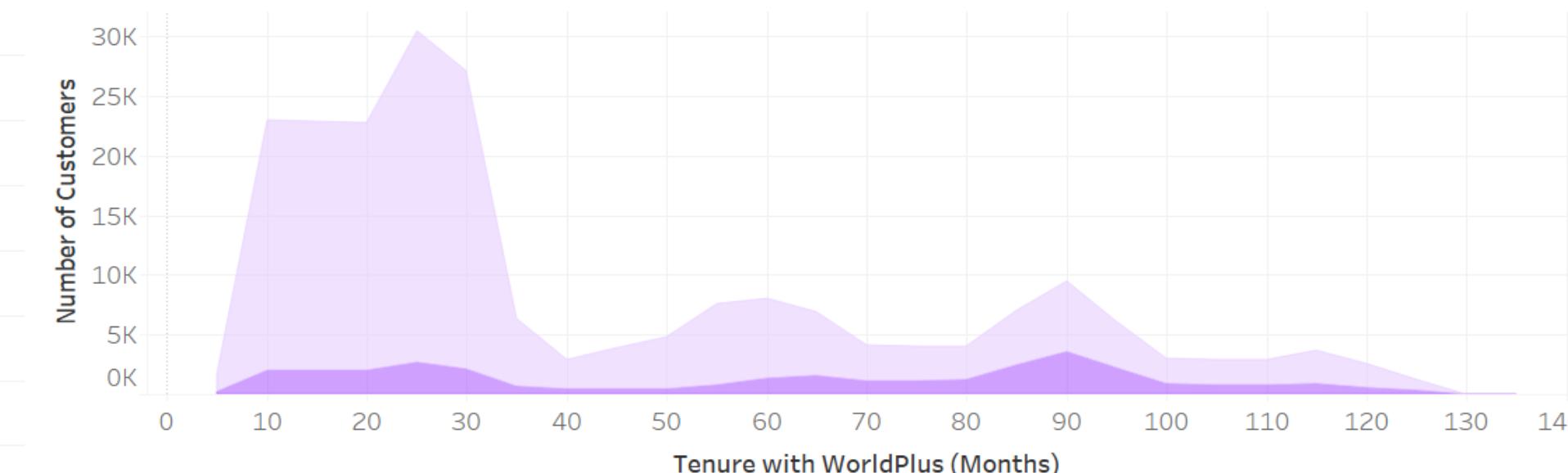
Active/Inactive Customers



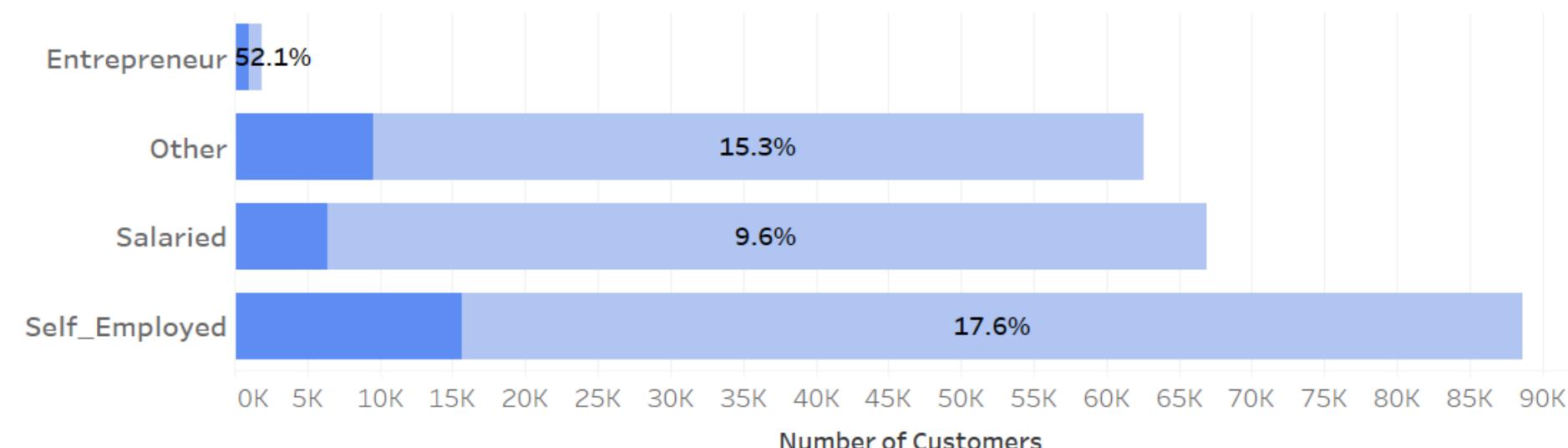
Active Credit Product

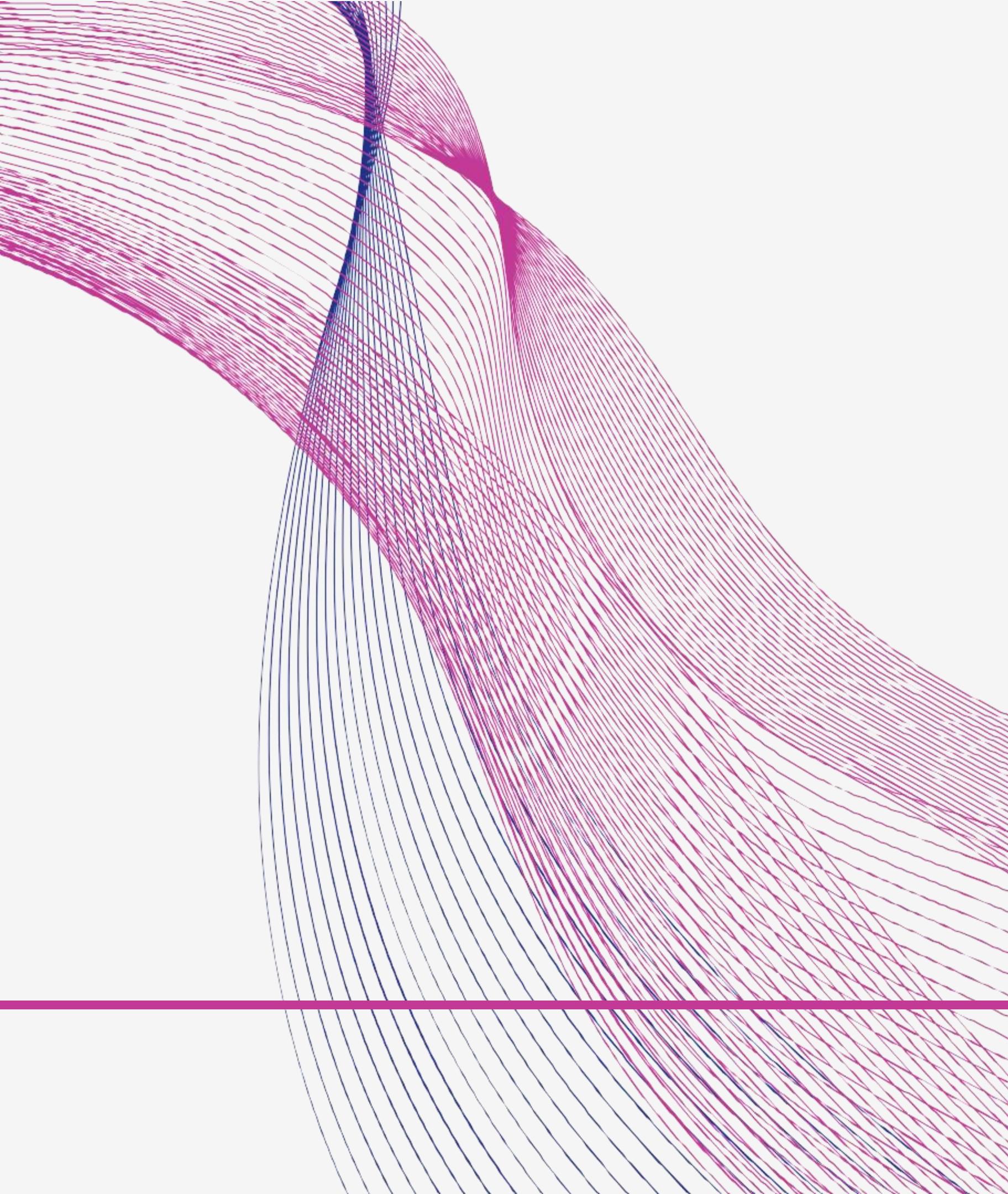


Customer Tenure with WorldPlus



Customer Occupation





Dashboard Features

- Real-Time Tracking
- Provides more real world context to the data and the decision-making process
- Quantify and visualise the impact of our model and your strategies

Features influencing customers purchase decision



Registered
customers
convert more



Customers with credit
product convert more



Channel code x2 & x3 more
effective than other
channels for lead conversion



Customers active in
last 3 months likely to
convert

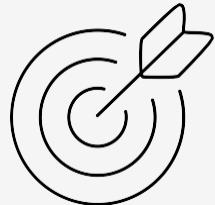


Entrepreneurs and self-
employed individuals
convert more

Power of Predictive Modelling

Targeted selection (our model)

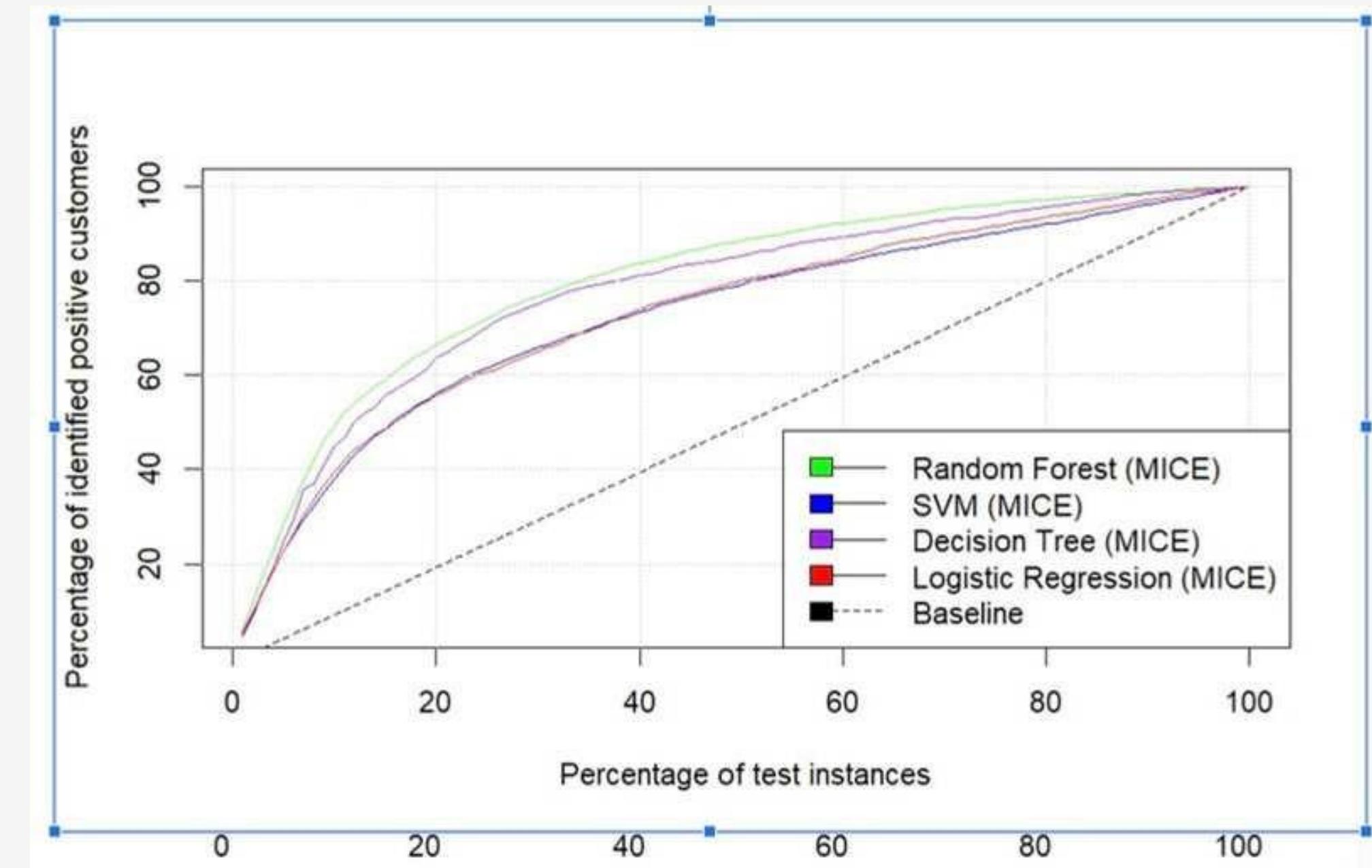
20% of data gives over 60% of
all customers who will convert



3x BETTER results!

**Random Selection (without our
model)** 20% of data gives over 20%
of all customers who will convert

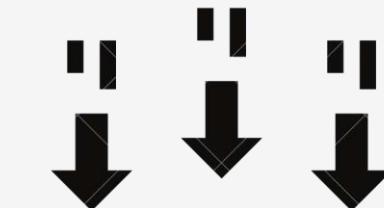
"Targeting leads with efficiency"



Financial Impact

Targeted selection
(our model)

£103



- £206.3

Random selection
(without our model)

Expected profit per customer

Recommendations

- Use our model to obtain **high-potential leads**
- Conduct **pre-registration** in branches and target active customers
- Utilise **channels "x2"** and **"x3"** for future targeting
- Introduce products tailored to the 20 to 40 year-old demographic
- **Loyalty rewards** strategies to retain new customers
- Ensuring **high service quality** and **convenience**



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Thank You!

Appendix

Source on market trends: <https://www.mordorintelligence.com/industry-reports/uk-retail-banking-market>

Interest profit assumption: 2.2% <https://www.fitchratings.com/research/banks/many-dm100-bank-net-interest-margins-have-peaked-in-2023-27-11-2023>

Deposit value assumption : 10% of the median account balance ~ 89,000

Time period assumption : 1 year

Profit: Net interest margin * deposit amount = $2.2\% * 89000 \sim 1958$

Marketing costs:

Assume a \$500 cost per customer <https://firstpagesage.com/reports/average-cost-per-lead-by-industry/>

Appendix

No model	Profit	Probability	
Positive (1)	1458	15%	218.7
Negative (0)	-500	85%	-425
	Expected profit per customer	-206.3	-206.3

Random Forest Model Mice Tuned	Amount	Probability
Profit	1958	
cost	500	
True positive	1458	0.09
False negative	0	0.05
True negative	0	0.78
False positive	-500	0.07
	Expected profit per customer	103.35