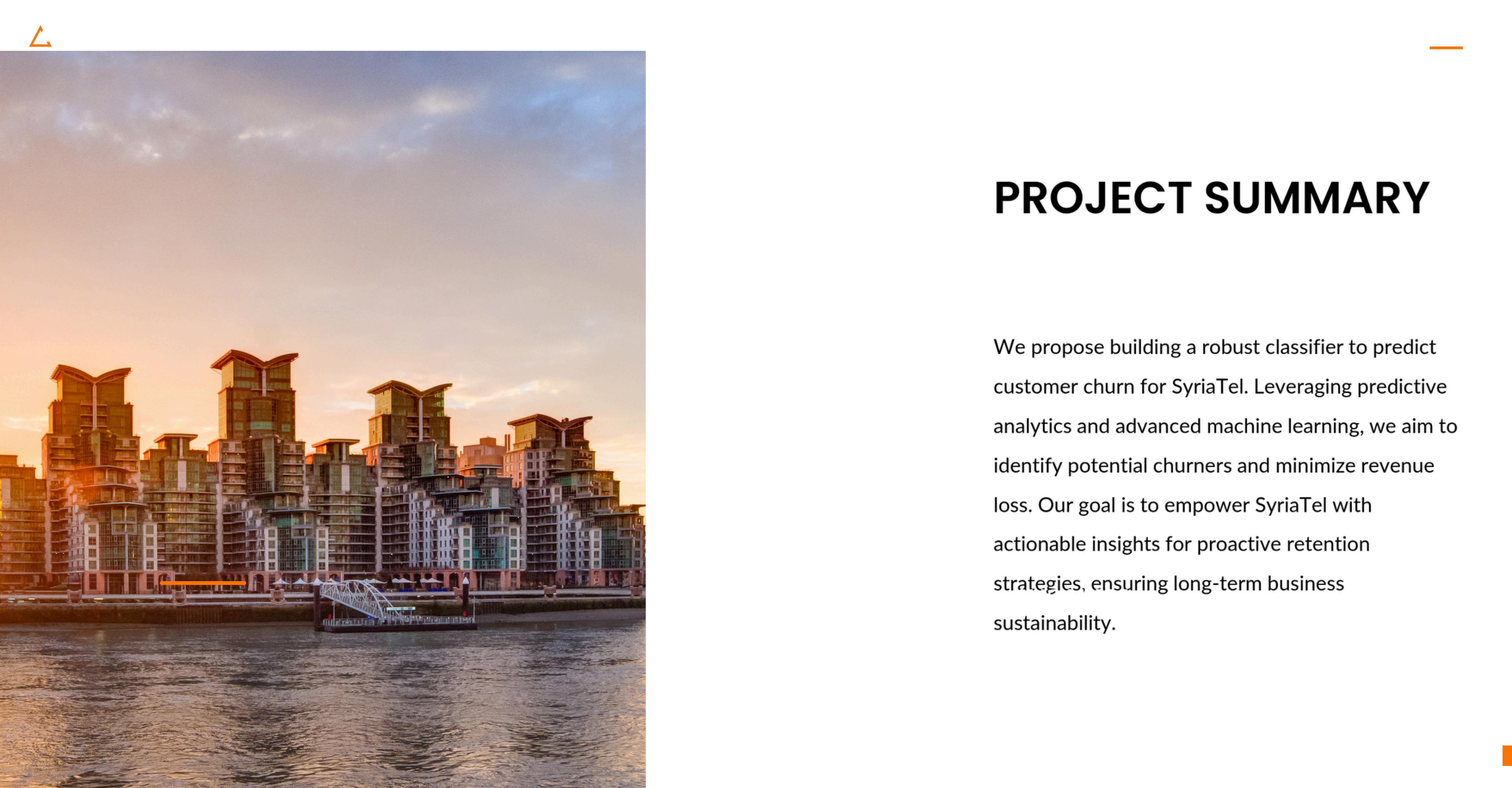




# SYRIATEL

KITILI MOURINE



## PROJECT SUMMARY

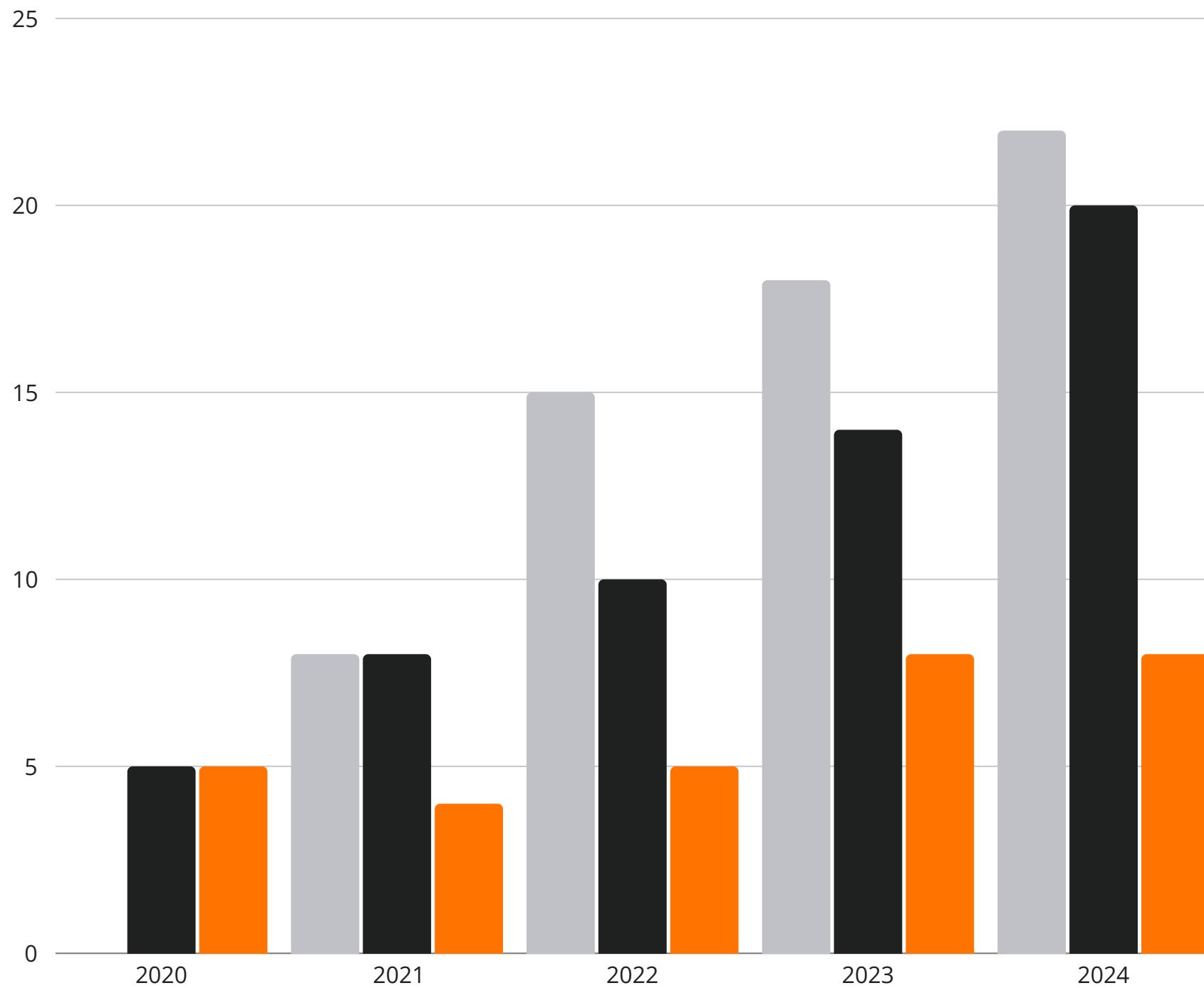
We propose building a robust classifier to predict customer churn for SyriaTel. Leveraging predictive analytics and advanced machine learning, we aim to identify potential churners and minimize revenue loss. Our goal is to empower SyriaTel with actionable insights for proactive retention strategies, ensuring long-term business sustainability.

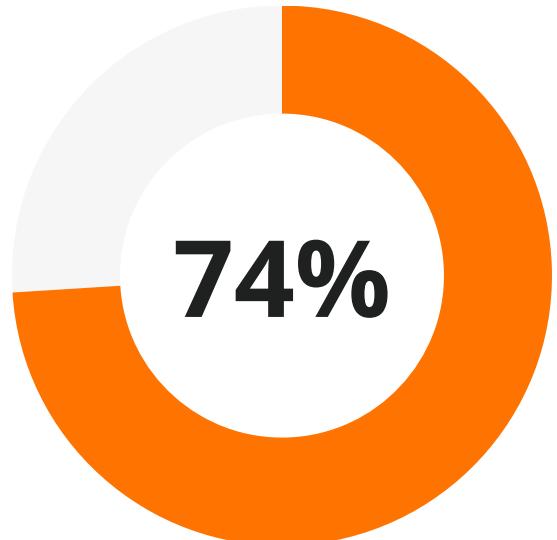


# PROJECT SUMMARY

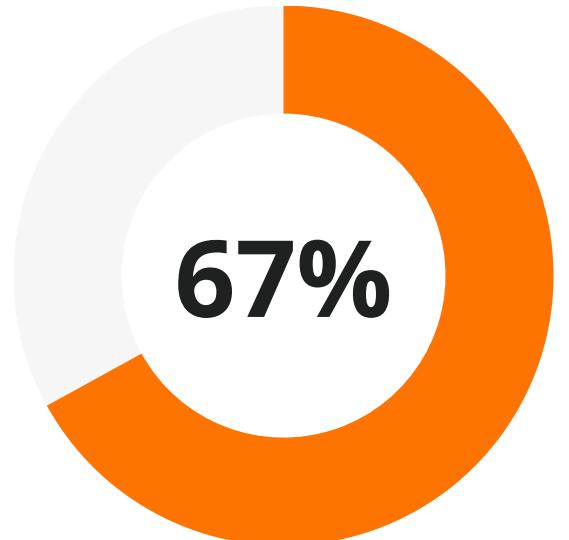
We plan to develop a powerful machine learning model to predict customer churn for SyriaTel. By utilizing predictive analytics, we aim to identify customers likely to leave and reduce revenue loss. This project will provide SyriaTel with valuable insights for proactive customer retention, ensuring long-term business success.

[Learn More](#)





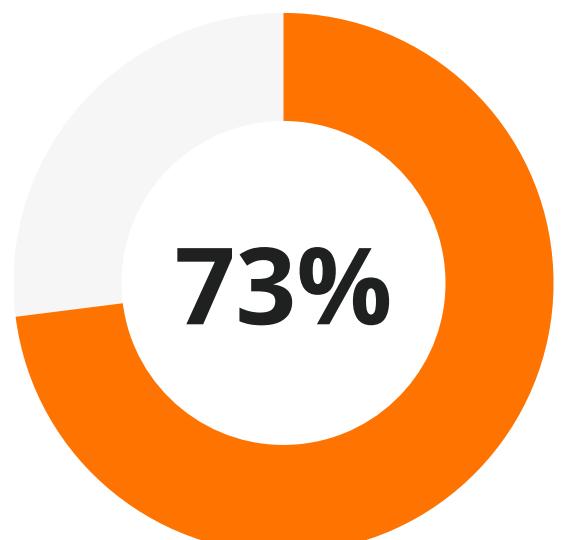
DATA 01



DATA 02



DATA 03



DATA 04

## OUTLINE

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1. Business problem
2. Data
3. Methods
4. Results



# PROJECT GOAL

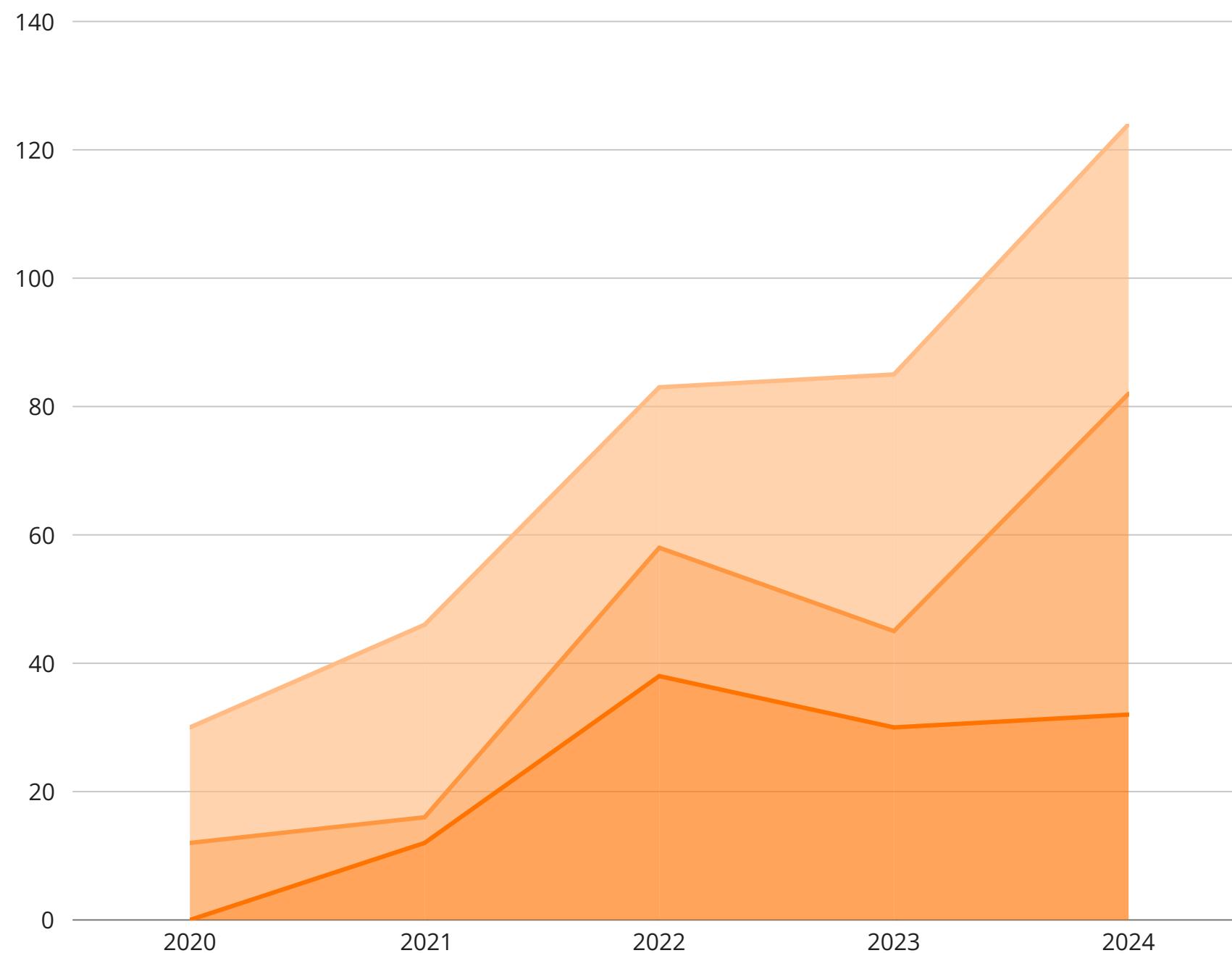
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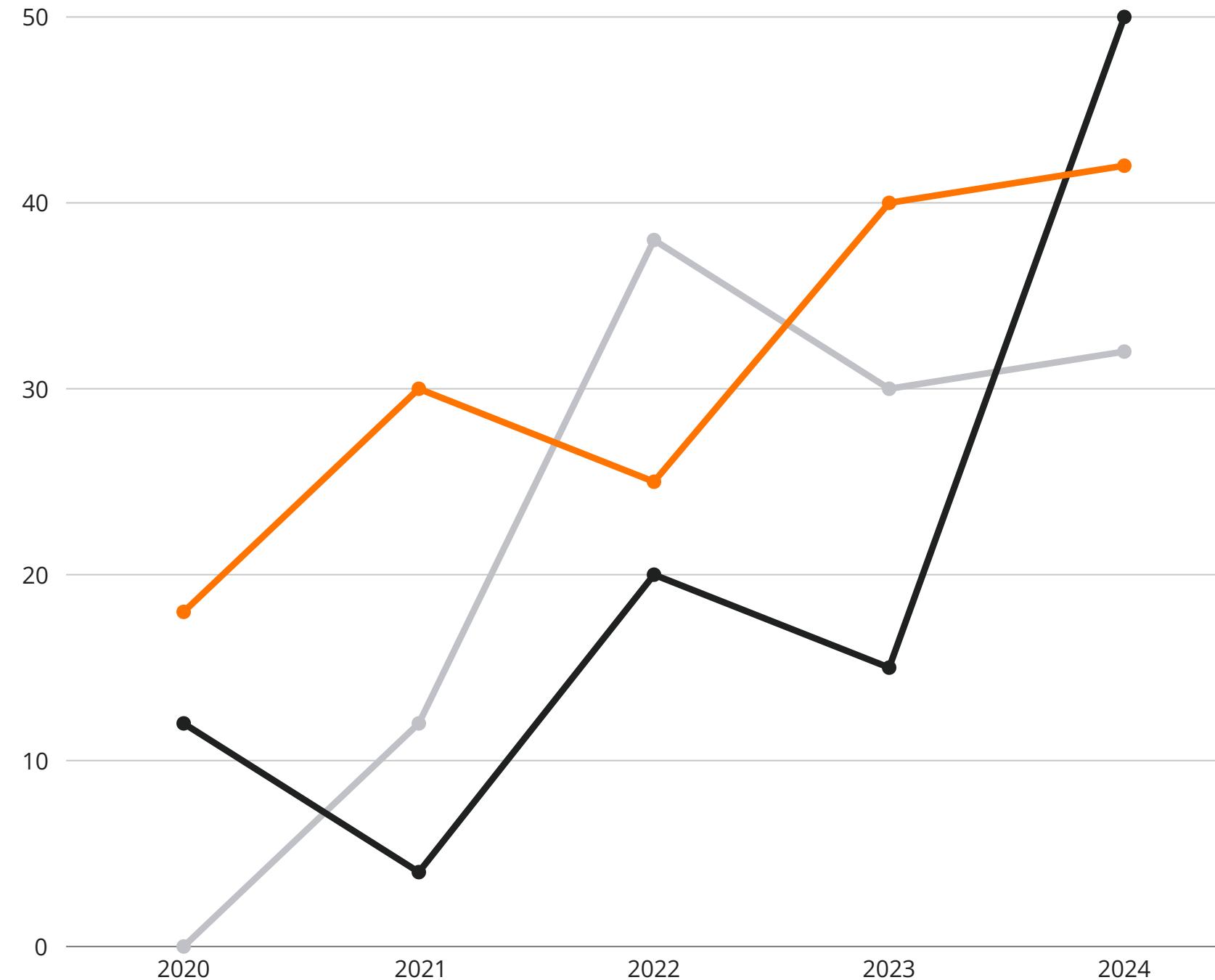


Customer churn greatly affects revenue and is a major challenge for companies. In the competitive telecommunications industry, like SyriaTel, churn is frequent. We plan to develop predictive models to foresee and prevent churn, enhancing SyriaTel's retention strategies.

# Our Data

Our dataset, obtained from Syriatel Telecommunications via the Kaggle website, encompasses extensive customer service records. It includes a wide range of customer details and usage metrics, such as call logs, charges, and churn status.





# METHODS

01

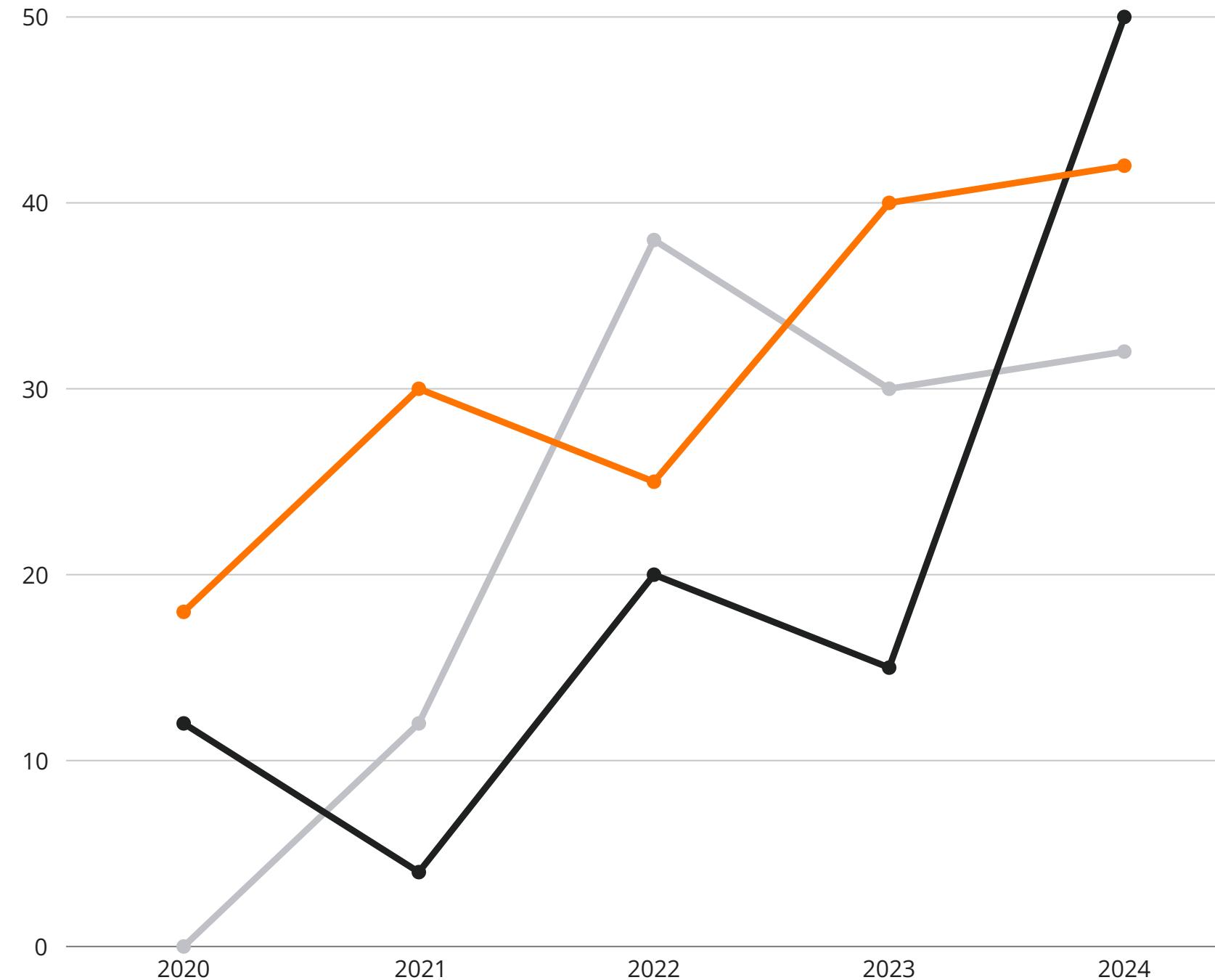
Data Loading and understanding

02

Data Preparation

03

Distribution of data



# METHODS

04

Data Pre-processing

05

Model development and evaluaion

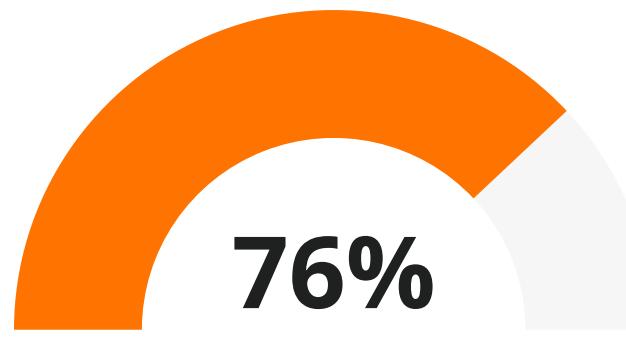
06

Model Optimization

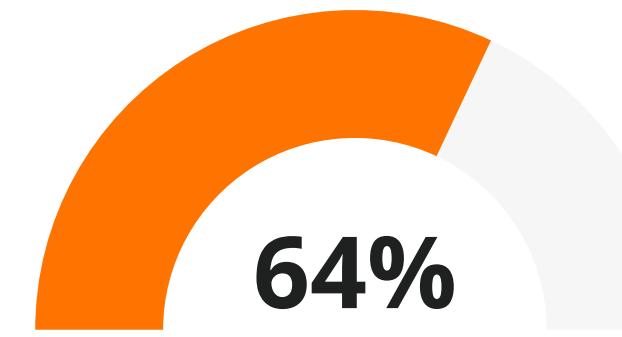


# RESULTS

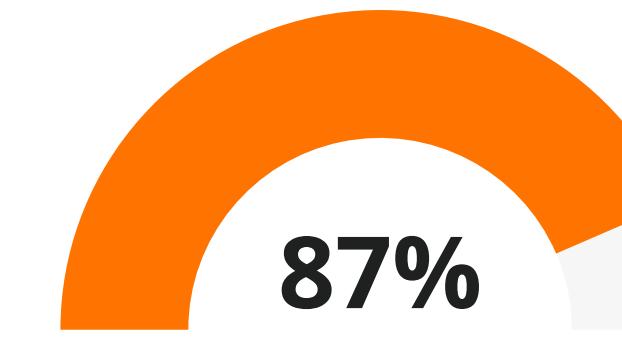
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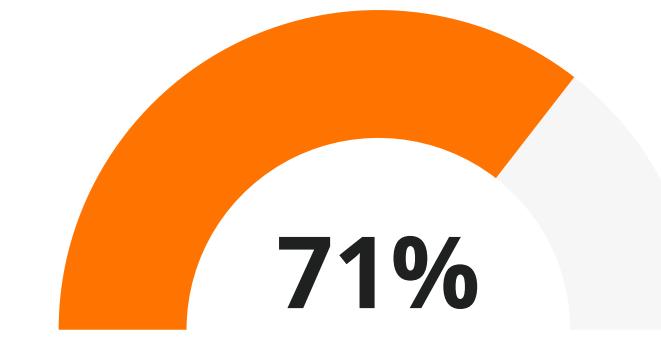
**DATA 01**



**DATA 02**



**DATA 03**



**DATA 04**

Our analysis identified the following key factors impacting customer churn:

Total Day Minutes: Usage during daytime.

Total International Minutes: Usage of international minutes.

Total Day Charge: Billed cost for daytime calls.

Total Evening Charge: Billed cost for evening calls.

Customer Service Calls: Number of calls to Customer Service.

International Calls: Total international call count.

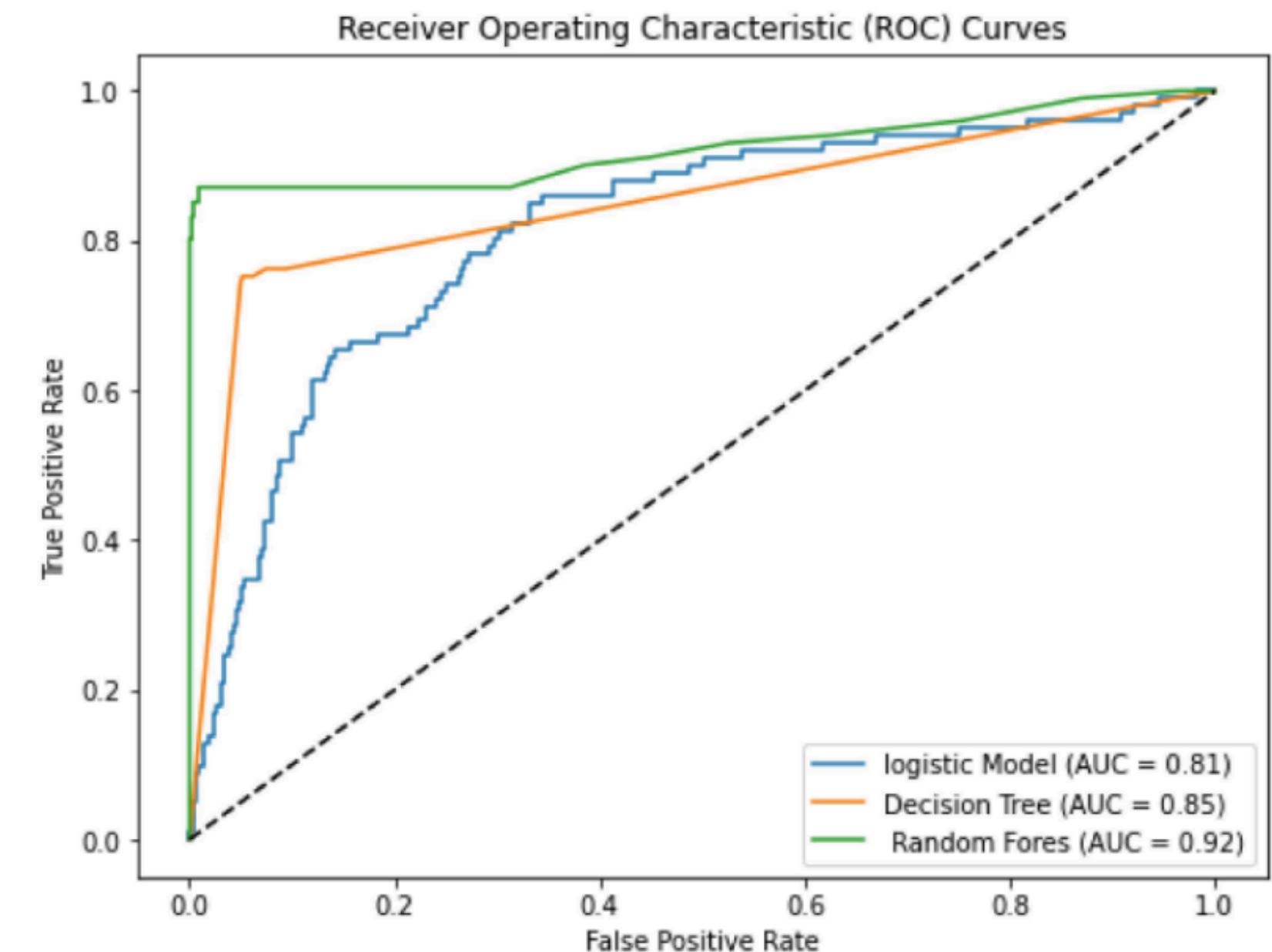
Total Charge: Sum of Day, Evening, Night, and International charges.

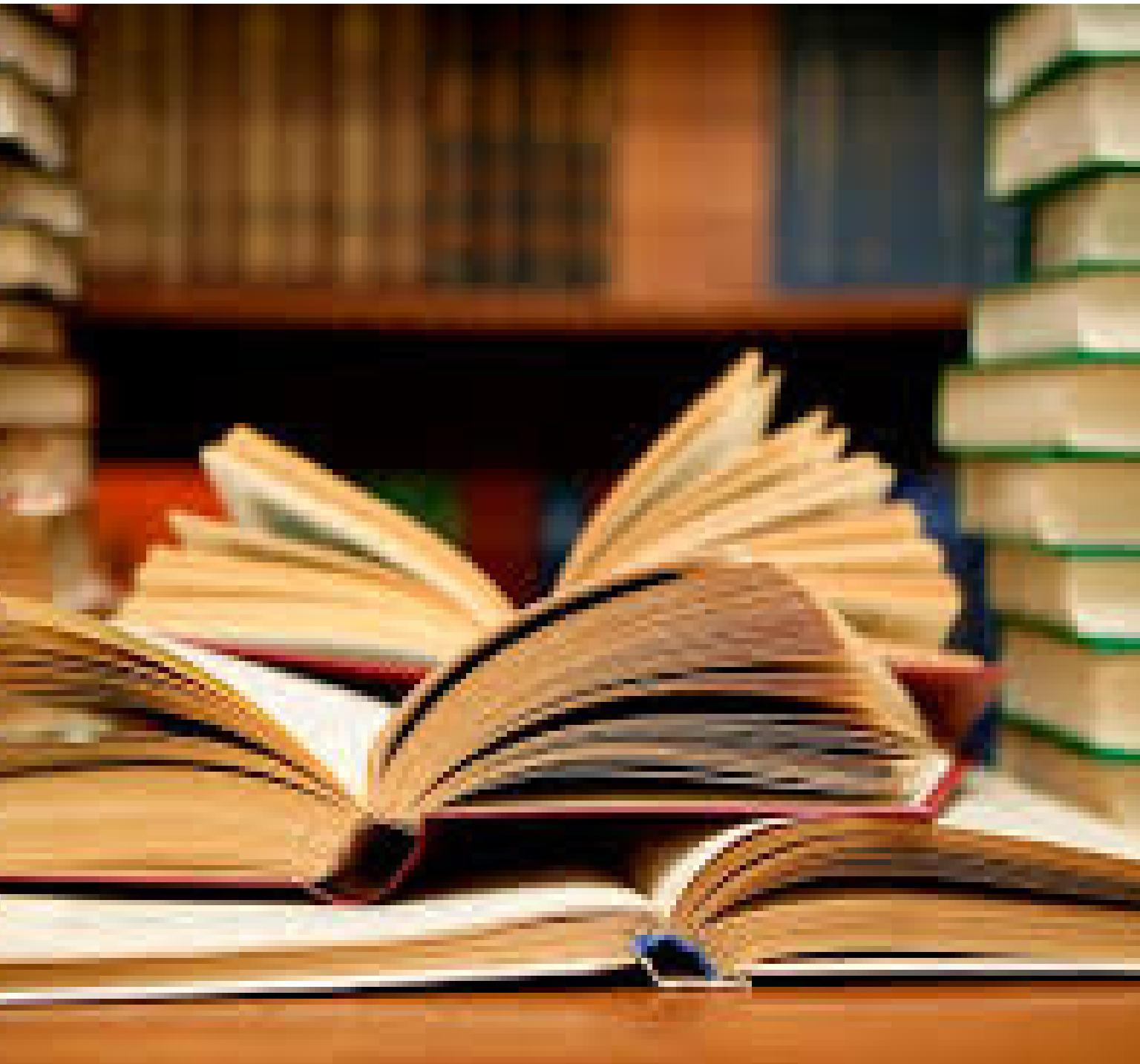
Syriatel's data analysis showed Random Forest Classifier excels, offering superior accuracy for classification tasks.

Think of it as a reliable team providing insights for confident business decisions, like predicting customer churn.

# WHY RANDOM FOREST

After my investigation, we chose Random Forest as the best option, thanks to its top AUC score, meeting our needs effectively.





## RECOMMENDATIONS

- Introduce discounts and offers to reduce churn rates and incentivize customer loyalty.
- Lower call charges to improve customer satisfaction and retention.
- Refine service agent training programs for faster and better assistance.
- Improve network coverage and service quality to minimize customer service calls and enhance customer experience.



THANK YOU

