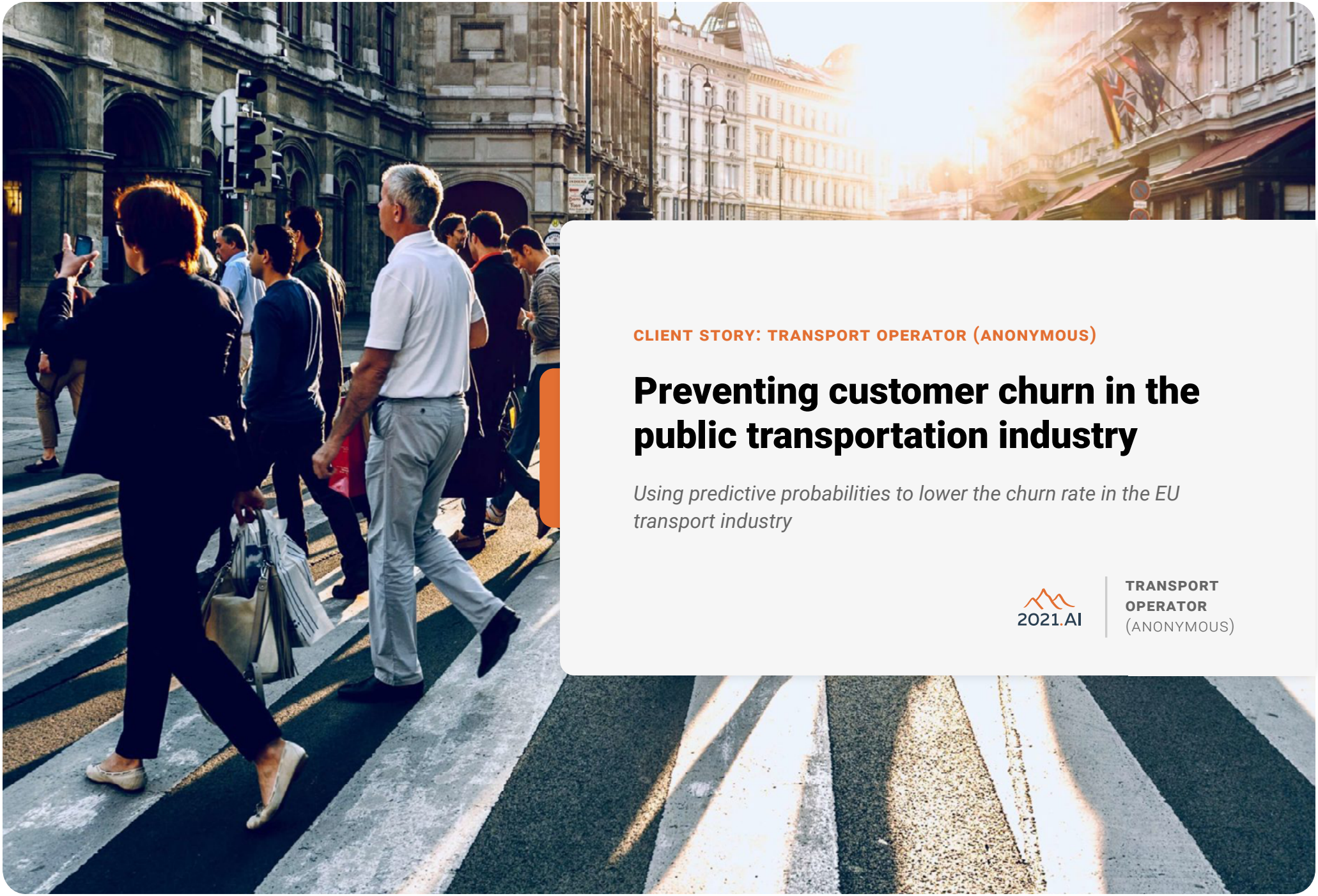

CLIENT STORY: TRANSPORT OPERATOR (ANONYMOUS)

Preventing customer churn in the public transportation industry

Using predictive probabilities to lower the churn rate in the EU transport industry

2021.AI

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This client is a railway company that offer passenger transport services on a commercial basis as well as other services related to railway operations in Denmark.

1 The Challenge

For many years, the organization have been running without a data-driven approach to customer behavior. As a result, they lacked critical insight into their customers' wants and needs, and most importantly, customer churn. One of their main challenges was to uncover information about their customers. We worked together with the management consultant company, Valcon, to figure out which variables typically influence transportation operators, and created a hypothesis that could be tested and investigated through AI.

We focused specifically on the commuter customer segment, which was previously thought of as being unconditionally loyal. The aim was to find out more about these commuters and create useful insights for new initiatives to prevent churn.

Growing the number of users and preventing customer churn is fundamental to public transport companies remaining competitive and cost-efficient. According to Forrester, acquiring a new customer can cost up to five times more than retaining an existing one.Analyzing churn helps transport organizations better understand customer behavior and grow business.

This use case tells the story of a European public transport operator, and how they took steps towards overcoming their challenges in predicting customer churn through implementing AI into their organization. They are one of the largest public transport operators in Scandinavia, operating several modes of passenger transport.

> ***« Customer churn is an issue which can be very effectively addressed through AI. Not only can it predict whether or not a customer is likely to leave, but it can offer interesting insights into the customer experience and help fine-tune business practices.»***
> Björn Preuß, Lead Data Scientist, 2021.AI

2 The Solution

We developed a churn model that provided insights as to which customers were likely to churn, and why. Customers were grouped together by churn probability, using average drivers across a segment to explain global trends that cause churn in a particular segment.

The model targets commuters, who are a valuable segment for the operator, and leverages historical commuter information, such as the type of commuter card, seniority, and means of purchase.
When an AI model is fed this information, it can accurately

predict commuter churn as a percentage. Based on how often the customer had purchased tickets, the model is able to predict the likelihood of a customer repurchasing for another period.

The overwhelming conclusion was that customers who bought a commuter card for more than one month at a time were more likely to remain loyal. The model has also revealed that customers who have been with the company for more than three months on average were more likely to stay. This data suggested to the operator that creating a satisfactory customer experience in the first three months was vital to retaining their business.

In the future, the goal is for the model to further process historical time-series data, such as weather trends, campaigns, planned track work, and car sales to yield the probability of a commuter's loyalty for the following month.

The overwhelming conclusion was that older customers who bought multiple services were less likely to churn. In comparison, younger customers with no other link to the company, rather than the targeted service, were more likely to churn. The model also revealed that customers who had been with the company for over a year were more likely to stay.

3 The Results

As a result, the operator can prevent customer churn. Thanks to insights into the factors that influence churn, it can take strategic action based on insights from previous customer behavior, lowering the churn rate and thereby optimizing costs and growing revenue. Gaining knowledge as to their most loyal customer segment enables the operator to be proactive in improving their services, ensuring customer satisfaction and longevity.

4 Project Highlights

- Applying AI provided the organization with data-driven knowledge about their customers
- By focusing on the most valuable segments of the commuter group, the AI model yielded information on what factors affected churn most
- The operator will be able to act strategically based on 2021.AI's data-driven insights The two organizations worked together to successfully recover several million in euros

The clients are Denmark's largest provider of passenger transport services and have a long tradition within rail transport, operating railway services in Denmark since their foundation in 1885. They provide long-distance and regional train services, as well as public transport in the Greater Copenhagen area.