

MACHINE LEARNING TO IMPROVE CUSTOMER SATISFACTION IN INSURANCE

H2020 SOCIETAL CHALLENGES: A changing world - inclusive, innovative and reflective societies

PRODUCTIVE SECTOR: Economy and finance

PROBLEM DESCRIPTION

Seguros Lagun Aro wanted to increase customer satisfaction and prevent them from leaving the company by optimizing predictive models through Machine Learning techniques.

CHALLENGES AND GOALS

- To define mathematical models to better understand customer behaviour and to find the most suitable algorithm to create an effective prediction model
- To develop a software that will allow the company to identify those customers who are more likely to void their policies

MATHEMATICAL AND COMPUTATIONAL METHODS

The goal of the project is to use Machine Learning to perform an in-depth analysis of customer data to improve customer satisfaction and identify those customers who are less satisfied with the service.

In that sense, probabilistic methods were used to design specific classifiers for dealing with the prediction of customer churn (clients voiding their policies).

After that, we proceeded to the evaluation of the quality of the models learnt by means of robust estimation methods.



Offices of Laboral Kutxa where Seguros Lagun Aro operates

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Results and Benefits

Currently, the mathematical model developed by BCAM is used by the company – in a complementary manner to other methods – to predict customer loss and retention probabilities. The software allows the company to re-train the models in a streaming fashion; this is done in a reasonable period of time, considering the great volume of data with which they work.

The company counts with an **effective prediction model** to identify customer **loss and retention probabilities**



Data Science Group at BCAM



Seguros Lagun Aro