agileDSS

Managing your maintenance budget with an algorithm.

Canadian leader in the transportation industry, our client has embarked on a major project to optimize the maintenance of their network. With a fixed annual budget dedicated to these activities, the client's main challenge was to allocate the preventive maintenance budget appropriately in order to minimize the risk of accidents and thus maximize passenger safety. Until now, this allocation was the result of a long, tedious and uninformed process. It is in this context that our analytics teams intervened.

Our mission: industrialize a traditional process

Our mission was to develop an algorithm for a healthy use of the annual preventive maintenance budget. To do this, our team attacked the problem in several stages:

+ Explore available data from different, more or less related sectors.

+ Carry out statistical analyses from the data in order to identify the factors that have an impact on the quality of the network.

+ Produce a relevant scoring system and define a quality threshold in order to deliver the expected algorithm.

The key to success: a close collaboration with our client

The project would never have been such a success without the close collaboration fostered with the client. The teamwork and the trust that the client placed in us allowed us to quickly understand the scope of the project and intervene quickly to deliver concrete and iterative results.

> "
> The complexity of the project lay mainly in the need to industrialize a historical and traditional methodology to make it data driven and tangible. It was also necessary to optimize this methodology so that the solution could operate to its full potential.
>
> - Sing Phommavong, Big Data Consultant
> "

Benefits of this first advanced analytics approach

With this predictive and prescriptive analysis algorithm, our client can now:

+ Make data-based choices for their annual maintenance budget.

+ Increase user security and save time and money.

+ Finally, if our analysis was limited to metal maintenance, it is nevertheless a flexible foundation adaptable for all other network components.

Technological environment	Hadoop Ecosystem