

## Business problem

Road traffic injuries (RTIs) are a major public health problem. The annual global status reports on road safety, launched by the World Health Organization (WHO), highlights that the number of road traffic deaths has exceeded one million in recent years. That is over 3000 people dying on the world's roads every day.[1] Therefore, analyzing the various factors that could help predict accident severity can guide the government administration to implement changes in a timely manner that may reduce the number of fatalities & serious injuries.

In the past few years, the volume of research in the areas of accident analysis and prediction has been increasing. Among the analytical data mining solutions, supervised machine learning (ML), has become a popular scientific method to predict the severity of accidents. The reasons for this popularity, can be referred to the capacity present in ML to identify the existing patterns in the data and make predictions via the establishment and evaluation of diverse algorithms. Moreover, the ability of MLs to handle large amounts of data is an additional asset for this purpose, as the data on road traffic accidents are often sparse and largely extended.