

Conductor failure analysis [utilities]



Business Objective

- To identify lead indicators associated with the failure of electrical conductors
- Predict failure of conductors across locations based on identified key variables



Benefit

- A proactive step for maintenance and preventing unplanned downtime
- Increase operational efficiency
- Provide the exact root causes for conductor failure



Expected Outputs

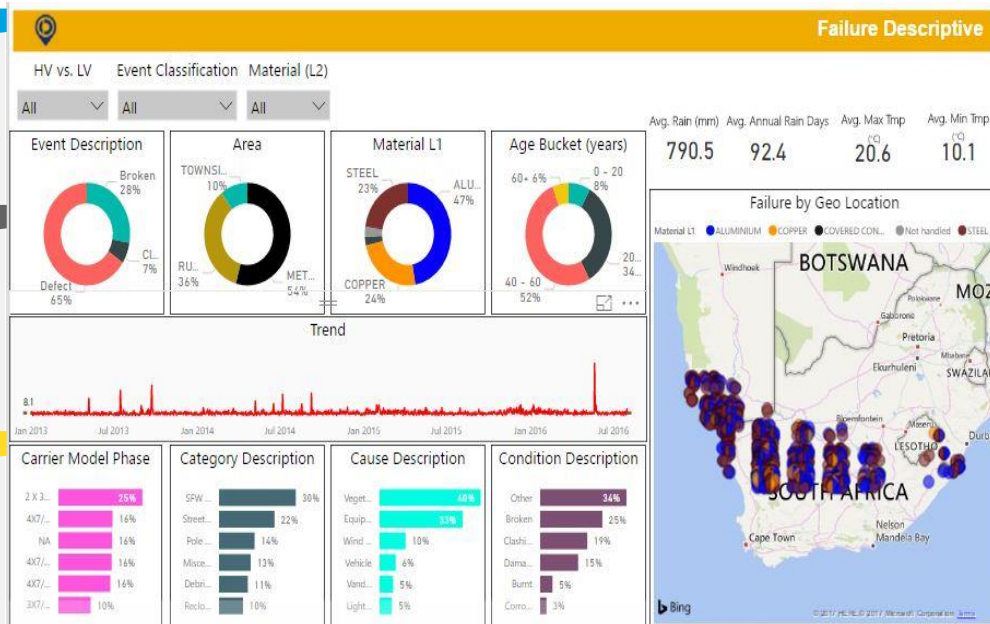
- Identify key variables causing conductor failure
- Predictive model to predict failure of conductors in the next 12 months

- Conductor and bay related data
- Data was for all the conductors operating in the western regions of Australia

- Failure predictions was based on logistic regression model
- Decision Tree – a supervised learning algorithm was used to identify factors those are responsible for the failure.

- Identify KPI's/root causes for conductor failure
- Predictive modelling techniques to predict conductor failure

- Statistical models and visualization are the key components of the app



Failure prediction model of electrical conductors was based on supervised learning and logistic regression model. These predictions help to prevent unplanned downtime and to increase operational efficiency.