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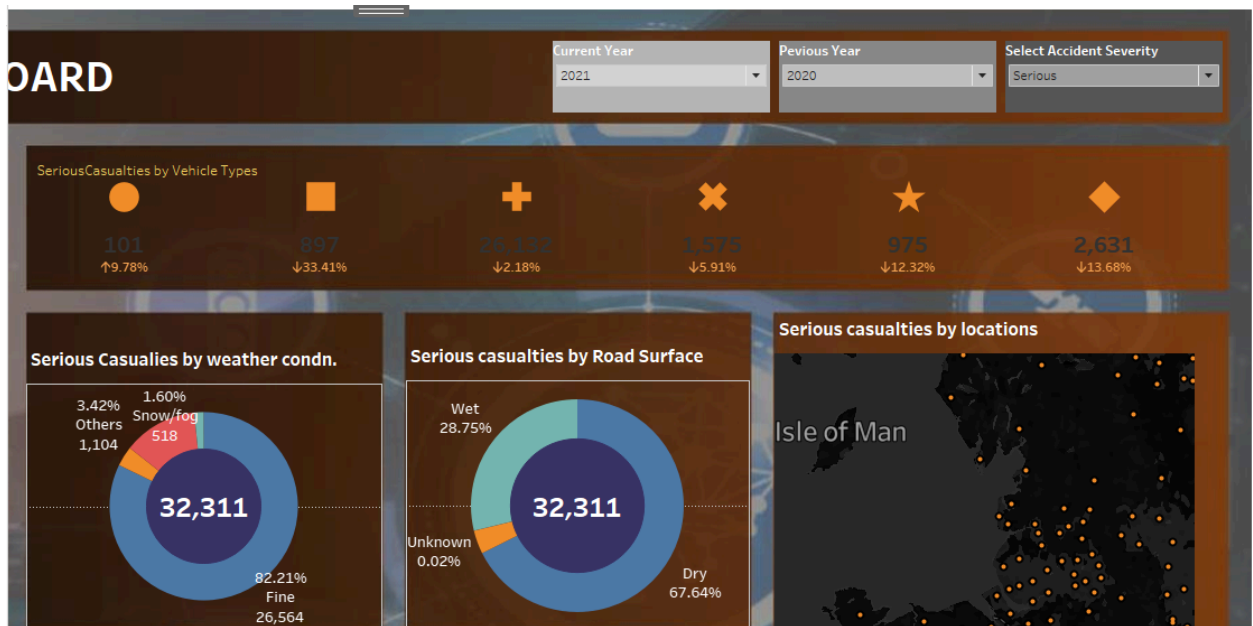
Road Accident Analysis

Introduction :

Introduction : Welcome to the Road Accident Analysis Dashboard, designed to provide comprehensive insights into road accidents and their associated factors. Every year, road accidents claim thousands of lives and cause significant economic and social impacts worldwide. Understanding the patterns, trends, and contributing factors behind these accidents is crucial for policymakers, law enforcement agencies, urban planners, and the general public to formulate effective preventive measures and improve road safety.

This interactive dashboard leverages Tableau's powerful visualization capabilities to present a rich array of data-driven analyses derived from extensive road accident datasets. Through intuitive visualizations and interactive filters, users can explore various aspects of road accidents, including their frequency, severity, geographical distribution, temporal trends, contributing factors, and more.
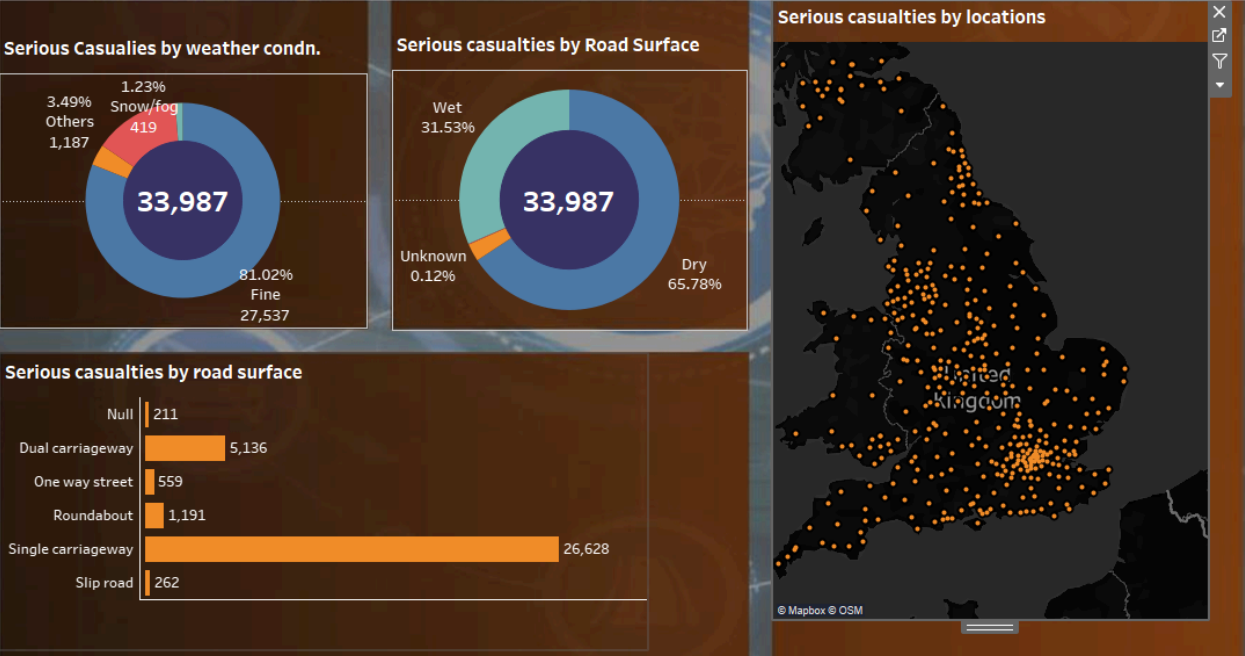
Whether you're a traffic safety researcher, a government official tasked with road safety initiatives, or a concerned citizen eager to understand the dynamics of road accidents in your area, this dashboard serves as a valuable tool for informed decision-making and proactive interventions. Let's delve into the data and uncover actionable insights to create safer roads for everyone.

ROAD ACCIDENT DASHBOARD

Total Accidents
163,554
↓4.13%YoY

Accident...
10K   10K
5K   5K
PY Accd.   CY Accd.
F A J A O

Total Casualties
222,146
↓3.79%YoY

Accident...
20K   20K
10K   10K
0K   0K
PY Casu.   CY Casu.
F M A N

Fatal Casualties
3,879
↓11.80%YoY

Accident...
400   400
200   200
0
PY Fatal.   CY Fatal.
F M A N

SeriousCasualties by Vehicle Types
● 101 ↑9.78%   ■ 897 ↓33.41%   ✚ 26,132 ↓2.18%   ✖ 1,575 ↓5.91%

Serious Casualies by weather condn.
3.42% Others 1,104
1.60% Snow/fog 518
32,311
82.21% Fine 26,564

Serious casualties by Road Surface
Wet 28.75%
Unknown 0.02%
32,311
Dry 67.64%

OARD

SeriousCasualties by Vehicle Types
● 101 ↑9.78%   ■ 897 ↓33.41%   ✚ 26,132 ↓2.18%   ✖ 1,575 ↓5.91%   ★ 975 ↓12.32%   ◆ 2,631 ↓13.68%

Serious Casualies by weather condn.
3.42% Others 1,104
1.60% Snow/fog 518
32,311
82.21% Fine 26,564

Serious casualties by Road Surface
Wet 28.75%
Unknown 0.02%
32,311
Dry 67.64%

Serious casualties by locations
Isle of Man

Serious Casualties
33,987
↑0.00%YoY

Accident D..

Slight Casualties
192,520
↑0.00%YoY

Acciden..

Serious casualties by road surface

Road surface	Value
Null	211
Dual carriageway	5,136
One way street	559
Roundabout	1,191
Single carriageway	26,628
Slip road	262

Serious Casualies by weather condn.

1.23%
Snow/fog
419

3.49%
Others
1,187

33,987

81.02%
Fine
27,537

Serious casualties by Road Surface

Wet
31.53%

33,987

Unknown
0.12%

Dry
65.78%

Serious casualties by road surface

Road surface	Value
Null	211
Dual carriageway	5,136
One way street	559
Roundabout	1,191
Single carriageway	26,628
Slip road	262

Serious casualties by locations

United Kingdom

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<u>Summary of the Report</u>

- The Road Accident Analysis Dashboard offers a comprehensive overview of road accident data, enabling users to extract actionable insights for enhancing road safety measures.

- Key Performance Indicators (KPIs) provide a succinct representation of critical metrics, including Total Accidents, Total Casualties, Fatal Casualties, Serious Casualties, and Slight Casualties. These metrics serve as foundational benchmarks for understanding the magnitude of road accidents.

- Donut Charts visually illustrate the distribution of Serious Casualties across different Weather Conditions and Road Surface Conditions. By examining these charts, users can discern patterns and identify high-risk conditions, thereby guiding decisions regarding driving precautions and route planning.

- Further insights are gleaned through KPIs showcasing the number of accidents involving specific vehicle types, shedding light on potential areas for targeted interventions and safety enhancements.

- Geospatial visualization on the map of the United Kingdom highlights the locations of Serious Casualties, facilitating spatial analysis and identifying regions of heightened risk. Additionally, a Bar Chart detailing Serious Casualties by Road Surface provides a comparative analysis of road conditions, informing strategies for infrastructure improvements and maintenance.

- Interactive slicers for Current Year, Previous Year, and Accident Severity empower users to dynamically filter and analyze data subsets, facilitating temporal comparisons and severity-based assessments.

- By amalgamating these analytical tools and visualizations, the dashboard equips stakeholders with actionable insights to inform evidence-based decision-making, foster targeted interventions, and ultimately mitigate the impact of road accidents for safer communities.