■ Road Accident Analysis – Stakeholder Summary

■ Executive Summary

This analysis of UK road accident data highlights key patterns across vehicle type, road type, geography, and time trends. The findings provide actionable insights to improve road safety, reduce casualties, and guide policymaking.

■ Key Findings

1. Accident & Casualty Trends: 195.7K casualties and 144.4K accidents**, down ~12% YoY**. Fatal casualties declined by **33.3%,** but serious/slight injuries remain high.

2. Vehicle Type: **Cars (155.8K casualties, ~80%)** dominate accident involvement. Two-wheelers (15K+) and vans (15.9K) also significant. Buses & agricultural vehicles minimal contributors.

3. Road Type: Single Carriageways (**145K casualties**) are the most accident-prone roads. Dual carriageways and roundabouts less severe but still relevant.

4. Urban vs Rural: Urban areas **(61.9%)** record more accidents than Rural **(38.1%).** Higher traffic density is the main driver.

5. Light Conditions: Daylight accidents **(73.8%)** dominate compared to darkness **(26.1%).** Suggests traffic density > visibility as the main risk factor.

6. Geographic Hotspots: High density in London, Manchester, Birmingham, Leeds. Urban clusters are consistent across the dataset.

7. Seasonal Patterns: Summer months **(May–Sept)** show higher accident spikes. Correlated with tourism, holidays, and higher traffic volume.

■ Recommendations

1. Vehicle Safety Focus: Stricter enforcement for cars and two-wheelers (speeding, seatbelt, helmet laws).

2. Road Infrastructure: Improve single carriageways with better lighting, dividers, and markings.

3. Urban Road Safety: More zebra crossings, bike lanes, speed calming measures.

4. Seasonal Campaigns: Run summer safety awareness before peak travel months.

5. Night-Time Safety: Improve street lighting and encourage reflective clothing for cyclists/pedestrians.

6. Hotspot Monitoring: Prioritize high-risk urban zones for targeted traffic enforcement.

■ Next Steps

- Integrate real-time accident monitoring dashboards.
- Partner with city councils & transport agencies for targeted interventions.
- Define KPIs to track improvement: accidents per 10K vehicles, wait time for emergency response, YoY casualty reduction.