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# Implementing Safe System and Vision Zero Principles in the DRC: Lessons from Europe and Capacity Building through AfroTrans Project

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**Keywords:** Vision Zero and Safe System Approach, Road Safety Management in the DRC, AfroTrans project.

## Background

Road traffic accidents are a major health, social, and economic issue in the DRC. In 2021, official data listed 3,364 fatalities (WHO), but estimates suggest nearly five times that number, at 15,651. Like other low- and middle-income countries, the DRC faces high road death rates, especially affecting pedestrians, motorcyclists, public transport users, and informal operators. Road safety management suffers from rapid urbanisation, poor infrastructure, weak enforcement, fragmented responsibilities, and unreliable crash data.

High-income European countries like Germany, Austria, and Poland have significantly reduced road traffic deaths via Safe System and Vision Zero approaches. In 2023, fatalities in these countries were 5,134- three times lower than in the DRC, which has a larger population and more vehicles. These approaches emphasise that human life and health are top priorities, and no loss of life in traffic is acceptable. European experience demonstrates that systematic, data-driven safety management and strong institutions effectively lower traffic risks.

## Aim

This paper aims to explore the applicability of Safe System and Vision Zero principles in the Congolese context, identify key structural and institutional constraints to their implementation, and examine how the AfroTrans project supports the contextualised, gradual, and sustainable adoption of these principles through capacity building and knowledge transfer.

## Method

The study adopts a qualitative and comparative approach. It draws on a review of European road safety practices and policy frameworks, with reference to Germany, Austria, and Poland, and contrasts these with the current road safety context in the DRC. The analysis focuses on

core Safe System principles, including human error tolerance, infrastructure design, speed management, shared responsibility, and data-driven safety management.

In addition, the paper draws on insights from the AfroTrans project activities, including analyses of resources and university curricula in transport engineering, academic collaboration, training programmes, and capacity-building initiatives aimed at the enhancement of university education for engineers and strengthening road and traffic engineering, road safety analysis, transport planning, and evidence-based policymaking in the DRC. The approach is conceptual and analytical, appropriate for a poster presentation rather than an empirical impact evaluation.

### **Results / Overview of Key Insights**

The analysis highlights that Safe System and Vision Zero principles are highly relevant to the DRC but cannot be directly transferred without adaptation. In the DRC, transport systems frequently prioritise vehicle movement over human safety, particularly in dense urban areas and along interurban corridors where pedestrians and motorcycles share space with high-speed traffic. Road user behaviour is strongly influenced by limited formal training, weak enforcement, and widespread informality in the transport sector.

European experience shows that aligning infrastructure, speed limits, and traffic management with human physical tolerance can greatly reduce road deaths. In the DRC, limited funding, poor maintenance, and rapid urbanisation hinder large-scale solutions. The analysis indicates that low-cost, context-specific measures such as traffic calming, better signage, safer market design, basic pedestrian facilities, and targeted speed management are practical entry points for Safe System implementation.

The review also confirms that fragmented institutional responsibilities and underreported crash data remain major barriers to proactive road safety management in the DRC, limiting the ability to prioritise interventions and evaluate outcomes. Furthermore, findings from the AfroTrans project indicate that road safety is rarely addressed in current engineering education. The analysis, therefore, explores how this gap can be addressed through curriculum enhancement, integration of RS principles into university training, and targeted capacity-building initiatives for transport professionals.

### **Conclusion**

Vision Zero should be understood as a long-term and iterative process rather than a one-time intervention. While immediate full implementation of Safe System principles may not be feasible in the DRC, their gradual and continuous adoption, supported by AfroTrans, offers a realistic pathway toward sustained reductions in road traffic risks and deaths. As a capacity-building initiative, AfroTrans plays a critical role in training a new generation of Congolese professionals in road and traffic engineering, road safety analysis, and data-driven decision-making.

By strengthening human and institutional capacity, AfroTrans enables Congolese stakeholders to continuously conceive, adapt, and implement context-appropriate road safety solutions. The analysis demonstrates that adapting European road safety principles to the Congolese context is both necessary and achievable when supported by sustained capacity development, improved data systems, and coordinated governance.