



CAREC Road Safety and Sustainable Mobility Course

February 2024

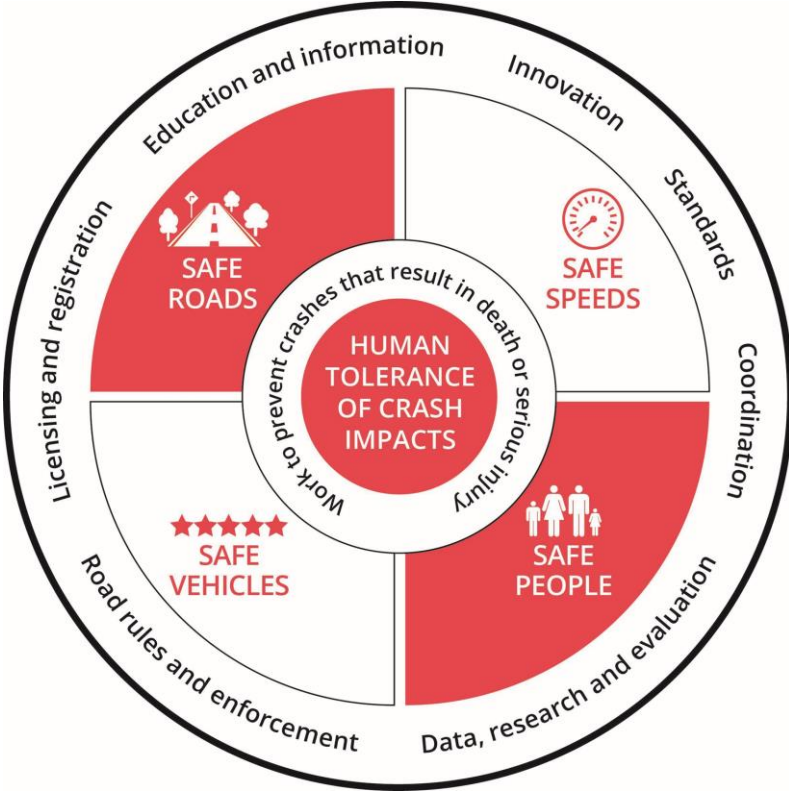
1.2 The 'Safe System' Approach & The Global Plan for the Decade of Action 2021 - 2030 – a Summary

David Cliff, GRSP

The Safe System

No one should be killed or seriously injured using the road transport system.

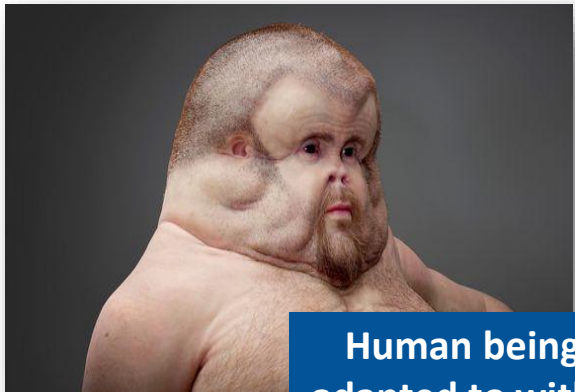
People make mistakes.



Safe Speeds

Why is Speed Such a Problem?

- How have our bodies changed over 200,000 years?
- What impact speeds can our bodies withstand?



Human beings have not adapted to withstand crash forces!



Impact speed falling from 4 meters – about 30 km/hour

As impact speeds rise above 30 km/h, survivability rapidly decreases

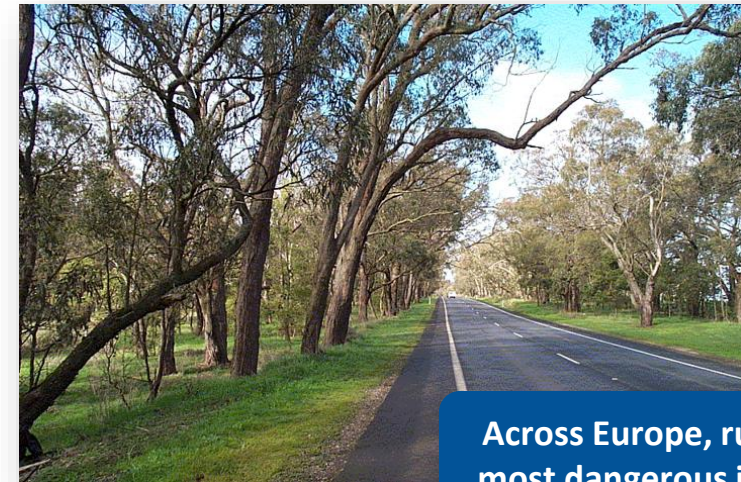
Safe System Speed Limits

“Countries with a significantly lower road mortality rate than the European Union average of 5 deaths per 100,000 population apply a 70 or 80 km/hour standard speed limit on rural, non-motorway roads.”

(European Traffic Safety Council, 2019)

Type of Infrastructure and traffic	Possible travel speed (km/hour)
Locations with possible conflicts between pedestrians/cyclists and cars	30
Intersections with possible side impacts between cars	50
Roads with possible frontal impacts between cars	70
Road with no possibility of a side impact or frontal impact (only impact with the infrastructure)	100

Mooren, Grzebieta & Job, 2014



Across Europe, rural roads are the most dangerous in terms of design

Safe Vehicles

Safe Vehicles

- Vehicle safety standards vary widely between manufacturers, models and where they are manufactured.
- Millions of zero- and one-star safety rated cars are still being produced every year.

Crash test - New 2019 Nissan NP300 (manufactured in South Africa) vs second-hand Nissan Navara NP300 (manufactured in Europe).

Almost identical looking vehicles; however, the European-made vehicle is dramatically safer.



Risks of SUVs and Utilities for Pedestrians, Cyclists and Other Vehicle Occupants

- Pedestrians or cyclists hit by a utility (as compared with an average car), the risk of:
 - serious injury increases by 90%
 - fatal injury by almost 200%.

Risk of fatal injuries to vulnerable road users increases as the bonnet height of the vehicle hitting them increases.

Occupants of a car involved in a crash with an SUV have a higher risk of serious injury (20% increase).

[International Energy Agency](#) - average SUV consumes about 20% more fuel than the average medium-sized car to drive the same number of kilometres. Fuel use translates directly into CO₂

Safe Road Users

Safe Road Users – the Enforcement Focus

- Reduce speeding – **Globally, the number one problem!**
- Increase the perception of enforcement:
 - Alcohol impaired driving.
 - Safety belts and child restraints.
 - Motorcycle helmets.

There are other behaviours that require enforcement, but the 'Fatal Four' require the most focus.



Road User Behaviour Problems

Key road trauma generating behaviours are not knowledge or skills problems, they are behaviour problems:

There are no skills required to:

- Wear a safety belt
- Use child restraints
- Wear full face, highly visible motorcycle helmets
- Comply with speed limits
- Not consume alcohol before driving

Safe Roads and Roadsides

Safe Road Design



Well-marked raised pedestrian crossings with lighting.



Wire rope barrier - prevents head on collisions and impacts with roadside objects.

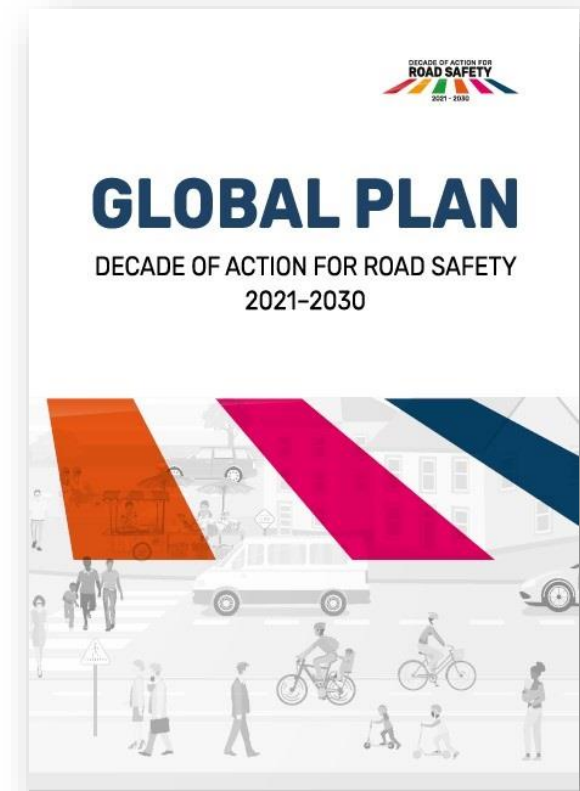
Global Plan – Decade of Action for Road Safety 2021 to 2030

What is the Global Plan?

Developed by:

- *World Health Organization*
- *United Nations Regional Commissions*
- *United Nations Road Safety Collaboration; and*
- *other stakeholders*

Guiding document to support the implementation of the Decade of Action 2021–2030 and its objectives.



<https://www.who.int/publications/m/item/global-plan-for-the-decade-of-action-for-road-safety-2021-2030>

Purpose of Plan



Achieve at least 50% reduction in deaths and injuries

- Call for all countries to act, highlighting urgency for action and emphasizing that *action is possible*
- Inspire and guide countries to develop and implement plans that are adapted to local contexts

DECADE OF ACTION FOR ROAD SAFETY
2021-2030

TARGET

reduce road traffic
deaths & injuries

BY AT
LEAST **50%**

What to do: areas of action



- Multimodal transport & land-use planning
- Safe road infrastructure
- Safe vehicles
- Safe road use
- Post-crash response



Multimodal transport & land-use planning



Safe road infrastructure



Safe vehicles



Safe road use



Post-crash response

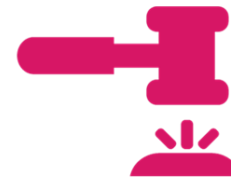
How to do it: implementation



- Financing
- Legal frameworks
- Speed management
- Capacity development
- Gender perspectives
- Technologies
- Focus on low- and middle-income countries



Financing



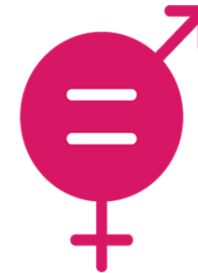
Legal Frameworks



Speed Management



Capacity Development



Gender Perspectives



Technologies



Focus on Low- and Middle-Income Countries

Who should do it: sharing responsibility

- Government
- Civil society
- Private sector
- Funders
- UN Agencies



Government



Civil Society



Private Sector



Funders



UN Agencies

Thank You!

