

Vision Zero design principles examples

 Vulnerable road users (e.g. pedestrians or cyclists) should not be exposed to vehicles at speeds over 30



vehicle speed to 30 km/h



· If not possible, then reduce the



Vision Zero design principles examples

 Car occupants should not be exposed to other vehicles at speeds over 50 km/h in 90° crossings.



• If this is not possible, separate, reduce the angle (thereby altering the vector of force of the collision such that it reduces severe injury or death), or reduce the speed to 50 km/h



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Vision Zero design principles examples

 Car occupants should not be exposed to oncoming traffic at speeds over 70 km/h if vehicles are about the same weight, speeds should not exceed 50 km/h.



• If this is not possible, then separate traffic, balance automobile weights, or reduce speeds according to the maximum differential in vehicle



weight. 👜 ep**t**isa



Vision Zero design principles examples

- Car occupants should not be exposed. to the side of the road at speeds over 70 km/h, or 50 km/h if there are trees or other potentially dangerous
- If this is not possible, separate cars from the side of the road or reduce speeds to 70 km/h or 50 km/h (according to roadside conditions) (Johansson 2009)



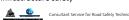


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Sustainable safety vision

- **Dutch approach** to road safety thinking (introduced by SWOV in 90's)
- "In a sustainably safe traffic system, crashes are prevented as much as possible, and when prevention is not possible, the probability of severe injury is reduced to almost zero"
- Many actions taken were aimed at improving infrastructure safety 👜 eptysa 📗 🛕 🧶



Sustainable safety approach

- 1. It recognizes that prevention efforts notwithstanding, road users will remain fallible and crashes will occur.
- 2. It stresses that those involved in the design of the road transport system need to accept and share responsibility for the safety of the system, and those who use the system need to accept responsibility for complying with the rules and constraints of the system.
- It aligns safety management decisions with broader transport and planning decisions that meet wider economic, human, and environmental
- It shapes interventions to meet the long-term goal, rather than relying on traditional interventions to set the limits of any long-term targets.





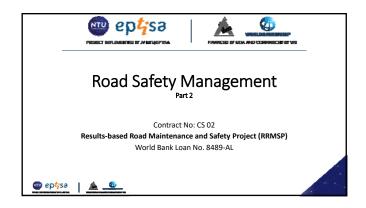
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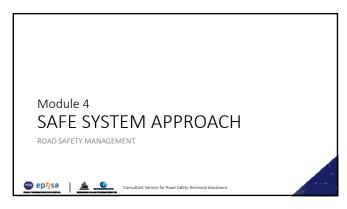


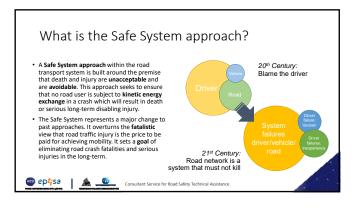


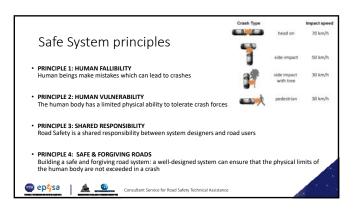












Why the Safe System approach?

- To achieve the UN's ambitious Sustainable Development Goals a new way of thinking and new strategies for road injury prevention are needed.
- The starting point for a new approach is the recognition that road deaths are unacceptable and can be avoided if effective injury prevention strategies are adopted worldwide.
- Experience have shown that the most effective strategies are those which anticipate the likelihood of human error so that crashes don't result in loss of life or health.
- This 'forgiving' or Safe System approach recognizes that whilst mistakes are inevitable, deaths and serious injuries from road crashes are evitable.





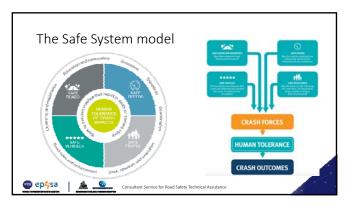
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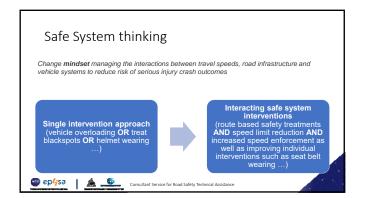
Traditional vs Safe System approach TRADITIONAL SAFE SYSTEM What is the problem? Accidents Fatalities and serious injuries People make mistakes, people are fragile Who is ultimate responsible? Individual road users System designers Incremental approach to reduce Systematic approach to build a What is the major planning approach? the problem safe road system Optimum number of fatalities Zero fatalities and serious What is the appropriate goal? and serious injuries injuries ep4sa

Long-term goal A Safe System will exist when road users are no longer exposed to death or serious injury on the network The Safe System approach draws upon: • Vision Zero (Sweden, 2005): 'It can never be acceptable that people are killed or seriously injured when moving within the road transport system' • Sustainable Safety (the Netherlands, 2006): it is based on an ethical principle to eliminate death and serious injury from the transport system, takes elimination of preventable crashes as the starting point and attaches greater weight to cost-effectiveness in determining interventions

















Characteristics of a road safety Lead Agency A lead agency for road safety is essential for the successful achievement of road safety goals Should be a governmental body. Should have the authority and responsibility to make decisions, control resources and coordinate efforts by all sectors of government (health, transport, education and the police). Should have adequate finances to use for road safety and should be publicly accountable for its

- Should take efforts to engage all significant groups concerned in road safety.
- Awareness, communication and collaboration are key to establishing and sustaining national road safety efforts.

National efforts will be boosted if one or more **well-known political leaders** can actively champion the cause of road safety (e.g. prime minister or or a Minister directly linked to the Prime Minister)

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Recommendations to improve country road safety performance

- Recommendation 1 | Identify a lead agency in government to guide the national road safety effort
- Recommendation 2 | Assess the problem, policies and institutional settings relating to road traffic injury and the capacity for road traffic injury prevention in each country
- Recommendation 3 | Prepare a national road safety strategy and plan of action

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- Recommendation 4 | Allocate financial and human resources to address the problem
- Recommendation 5 | Implement specific actions to prevent road traffic crashes, minimize injuries and their consequences and evaluate the impact of these actions
- Recommendation 6 | Support the development of national capacity and international cooperation

Source: World Report on road safety traffic injury prevention (Peden et al. 2004)

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Road safety management framework

Improving road safety performance requires a systematic and planned approach

- The establishment of an effective road safety management system is essential to address challenging road safety problems in a **systematic way**
- Countries with the safest road networks demonstrate many common characteristics in their management of road safety, such as:
 - targeting better safety outcomes
 - adopting a systematic approach to intervention
 - putting in place a range of institutional arrangements

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