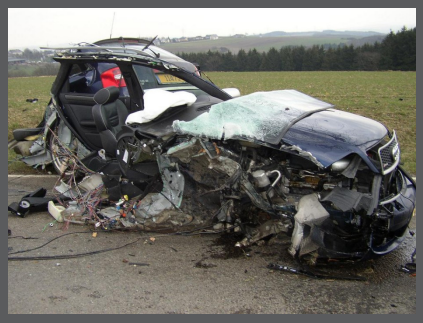

Session 1.3 Road Safety Systems

Conducting Road Safety Audits & Appraisals

Presented by: RTS & AGTT

January 2022

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The Holistic Approach to Road Safety

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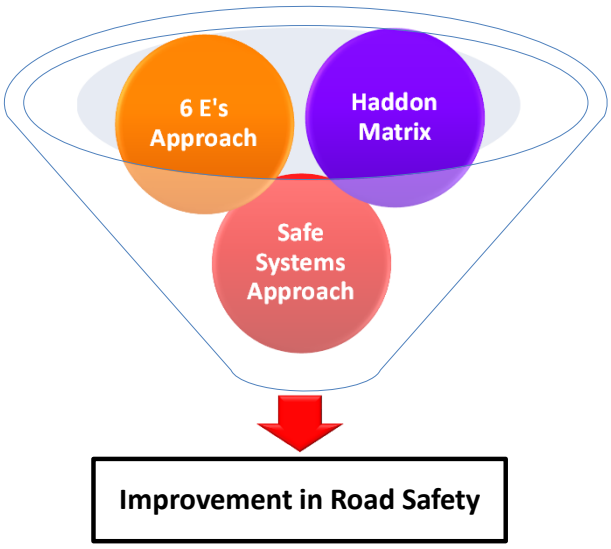
Existing, globally accepted road safety approaches.



HOLISTIC APPROACH TO ROAD SAFETY

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3

The E's of Road Safety: 3, 4 and 6 Es

- Enforcement strategies
- Engineering strategies
- Education Strategies
- Emergency Response Strategies
- Empowerment Strategies
- Evaluation Strategies

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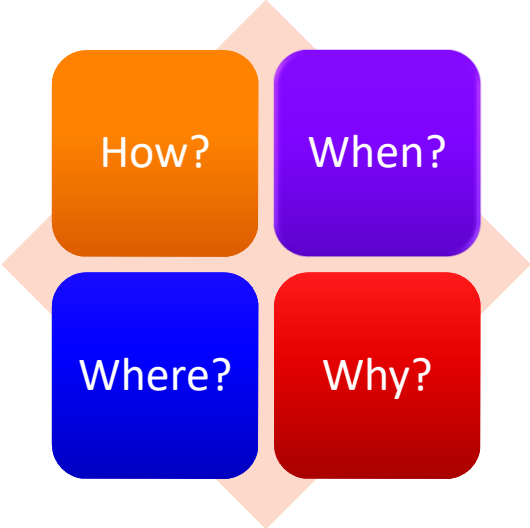
The E's of Road Safety: 3, 4 and 6 Es

Enforcement Strategies



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The E's of Road Safety: 3, 4 and 6 Es

Engineering Strategies

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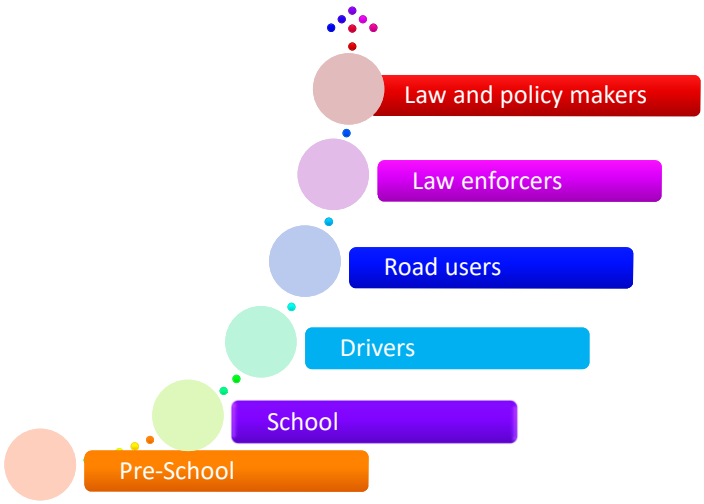
The E's of Road Safety: 3, 4 and 6 Es

Education Strategies



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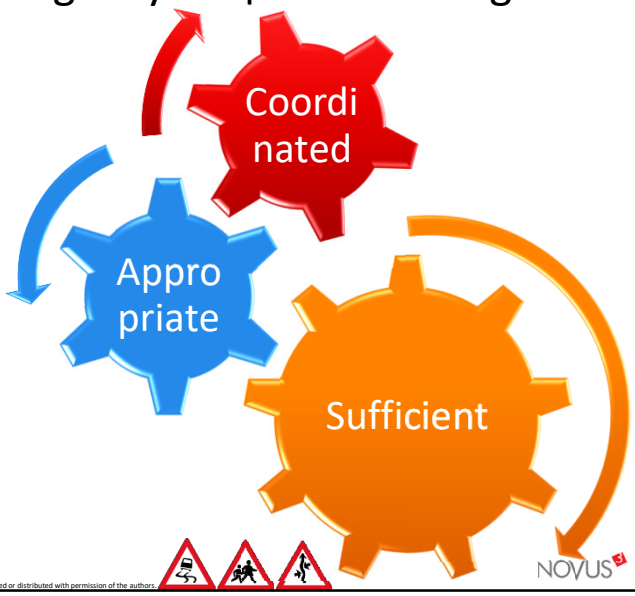
The E's of Road Safety: 3, 4 and 6 Es

Emergency Response Strategies



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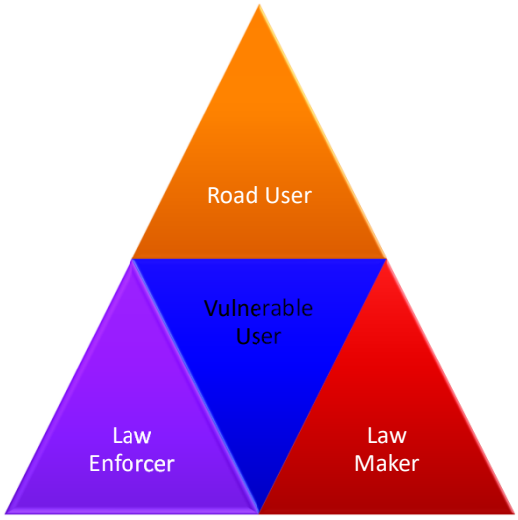
The E's of Road Safety: 3, 4 and 6 Es

Empowerment Strategies



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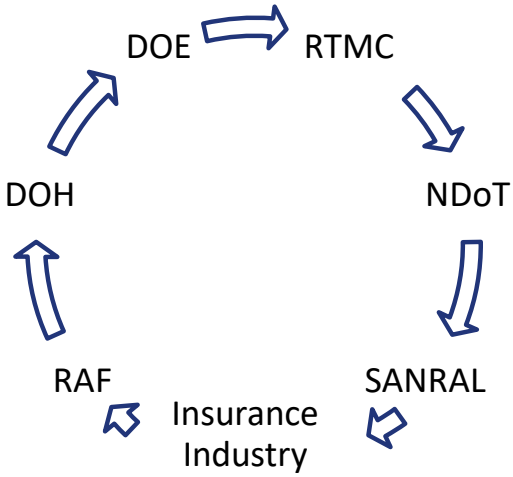
The E's of Road Safety: 3, 4 and 6 Es

Evaluation Strategies



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ROLES AND RESPONSIBILITIES

		Human factors	Vehicle factors	Road /Environment factors
PRE-CRASH	Crash prevention			
CRASH	Injury prevention			
POST-CRASH	Life sustaining			

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HOLISTIC APPROACH TO ROAD SAFETY

The Haddon Matrix

		Human factors	Vehicle factors	Road /Environment factors
PRE-CRASH	Crash prevention	Education Training Attitudes Enforcement Behaviour		
CRASH	Injury prevention	Use of restraints		
POST-CRASH	Life sustaining	First aid skill Access to EMS		

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The Haddon Matrix

		Human factors	Vehicle factors	Road /Environment factors
PRE-CRASH	Crash prevention		Roadworthiness Crash avoidance system	
CRASH	Injury prevention		Restraints & Air bags Crash-worthiness	
POST-CRASH	Life sustaining		Ease of access Fire risk	

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The Haddon Matrix

		Human factors	Vehicle factors	Road /Environment factors
PRE-CRASH	Crash prevention			Safe Road design Maintenance
CRASH	Injury prevention			Protection and assistance Barriers, road verges, arrestor beds
POST-CRASH	Life sustaining			Road verges Alternatives

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(WHO) 2004 Injury Prevention Report recommends a Safe Systems Approach

Safe Systems Approach

Humans drive, walk, cycle etc.:

- In the road environment;
- Influenced by:
  - Education related to the use of the road system;
  - Information from the road environment; and
  - Enforcement of road rules.
- Perception of safety and crash risk.
- Humans as a (varying) limited ability to process information during a potential crash situation.
- Need to promote and design:
  - Safer vehicles;
  - Forgiving roads and roadsides;
  - Appropriate (safer) speeds.
  - Given that human body can sustain limited physical force.

Safer travel, with alert road users, making the correct choices with regard to the use of the roadway.

Source: RTMC SARSAM (2012), from Austroads.

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ROLES AND RESPONSIBILITIES: GLOBAL COMMITMENTS

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South Africa's Commitments

GLOBAL COMMITMENTS

Decade of Action (2011 – 2020), MOSCOW

The Global Plan provides a framework for the Decade of Action. The guiding principles underlying the Plan for the Decade of Action underpins the "Safe System" approach.
The goal and specific objectives of the global plan are:

To stabilize and then reduce the rate of road traffic fatalities around the world by 2020.

This will be attained through:

- Developing and implementing sustainable road safety strategies and programmes;
- Setting an ambitious yet feasible target for reduction of road fatalities by 2020 by building on the existing frameworks of regional casualty targets;
- Strengthening the management infrastructure and capacity for technical implementation of road safety activities at the national, regional and global levels;
- Improving the quality of data collection at the national, regional and global levels;
- Monitoring progress and performance on a number of predefined indicators at the national, regional and global levels;
- Encouraging increased funding to road safety and better use of existing resources, including through ensuring a road safety component within road infrastructure projects.

ACCRA Declaration

In essence the declaration commits SADC to implement and strengthen the required legislation, action and enforcement plans to ensure that measureable targets to reduce fatalities due to road accidents are met.

In this regard a target of halving fatalities by 2015 has been set in the Accra Declaration.

Moscow Resolutions, Accra Declaration and SADC Protocol

Common goals and objectives:

- Management structures for road safety
- Road safety targets and plans
- Collection of crash data and management of information
- Collaboration
- Enforcement and legislation
- Infrastructure management with special focus on vulnerable road users
- Road safety communication and education
- Harmonisation of road safety and vehicle regulations
- Land use and transportation
- Pre-hospital care and incident management
- Driver training and testing

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Summary of our Commitments

GLOBAL COMMITMENT

Road safety problems cannot be addressed in isolation.

- The 2009 Moscow Decade of Action (*First Global Ministerial Conference on Road Safety Requested by the UN General Assembly*),
- The 2009 SADC Protocol (*implementation framework by ASANRA - Association of Southern Africa National Road Safety Agencies*) and
- The 2007 Accra Declaration (*African Road Safety Conference in Ghana*).

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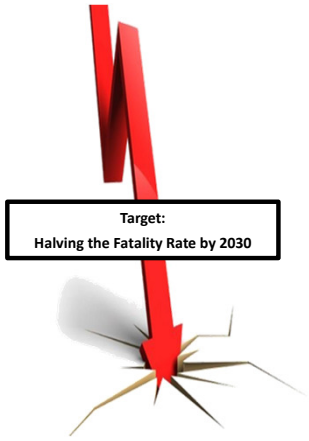
Our Collective Target in SADC



GLOBAL COMMITMENTS

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ROLES AND RESPONSIBILITIES

NATIONAL GOVERNMENT

- Department of Transport
- Department of Health
- Department of Education
- Other e.g. Dirco, Police, etc.

STATE OWNED ENTITIES (SOEs)

- SANRAL
- RTMC
- RAF
- Other e.g. SANS/SABS

- Policy
- Legislation
- Research
- Campaigns
- Structures
- Licensing
- Partnerships
- Capacitate
- Facilitate

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ROLES AND RESPONSIBILITIES

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- Private sector and NPOs
- Arrive Alive
- Insurance
- GRSP
- VAs and other (SARF, ECSA, etc.)
- Vehicle Manufactures
- Construction Industry
- Safety device manufacturers

- Activism
- Campaigns
- Education
- Partnerships
- Actions
- Funding
- Communication Platforms
- Lobby
- Capacitate

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END OF LECTURE 3

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