

**Zero Road Deaths and Serious Injuries:** 

Leading a Paradigm Shift to a Safe System.

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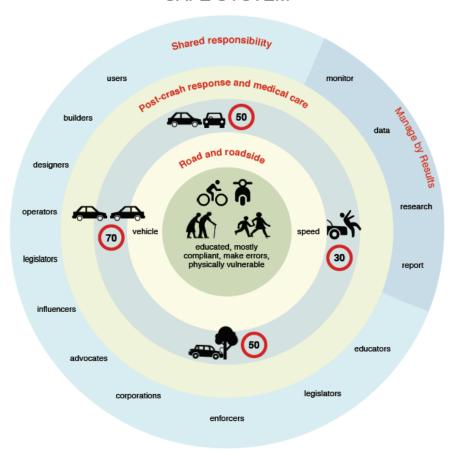
#### **Overview**

- 1. What is a Safe System?
- 2. Why a Safe System?
- 3. Why Act Now?
- 4. The Ingredients for a Safe System Journey
- 5. Recommendations



#### What is a Safe System?

#### SAFE SYSTEM





#### The four principles of a Safe System

1. People make mistakes that can lead to road crashes;

2. The human body has a limited physical ability to tolerate crash forces before harm occurs;



#### Four Principles of a Safe System (cont'd)

3. A shared responsibility exists amongst those who design, build, manage and use roads and vehicles and provide post-crash care to prevent crashes resulting in serious injury or death; and

4. All parts of the system must be strengthened to multiply their effects; and if one part fails, road users are still protected.



#### The Safe System - 2nd Guiding Principle

The human body by nature has a limited physical ability to tolerate crash forces before harm occurs.

vehicle vs vulnerable user-30km/h

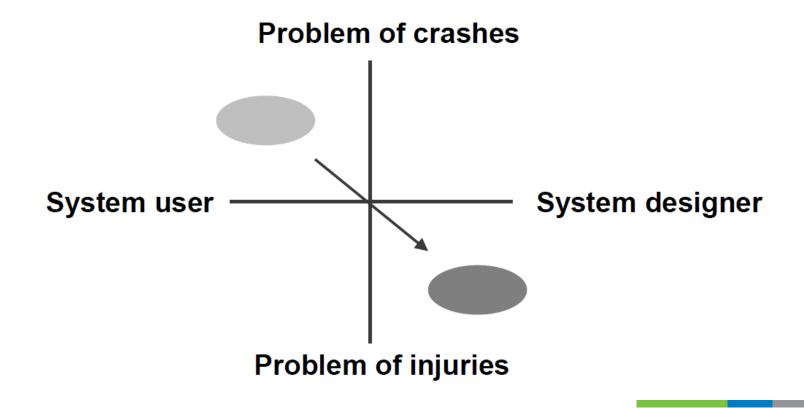
Side-on, 90 degree V2V- 50km/h

Head on collision V2V - 70km/h

No possible side/frontal collision- 100kmh+



# The Paradigm Shift to a Safe System From crash reduction to injury prevention





#### Traditional road safety approach vs. Safe System



From	То
Victim blaming	Recognising human error and minimising its consequences; shared responsibility
Emphasis on road user education and compliance	Effort to create forgiving road environment
Crash reduction	A focus on consequences, especially severe injury minimisation
Design standard compliance	Safe System solutions
Reactive black spot treatments	Proactive network/route improvement programmes
3 – E's approach (engineering/education/enforcement)	Four pillars jointly optimised (roads/use/vehicles/speeds)
Mobility-safety balance	Maximising safe mobility



#### Inherent, hidden risks (Swedish Transport Agency)











#### **Paradigm Shift to Safe System**

From user blame to safe system principles

How do road users **use** infrastructure?

Can we design our roads to achieve survivable impact speeds?

How do we mitigate crash frequency **and** severity? (e.g. roundabouts 4 vs 24 major conflict points)



#### Why a Safe System?

Focus overcomes behavioural bias

Universally applicable

Provides clear guidance for design



#### Why a Safe System (Cont'd)

Holistic integration with public policy

Inclusive for all road users

 new insights into problems & solutions, flexible framework

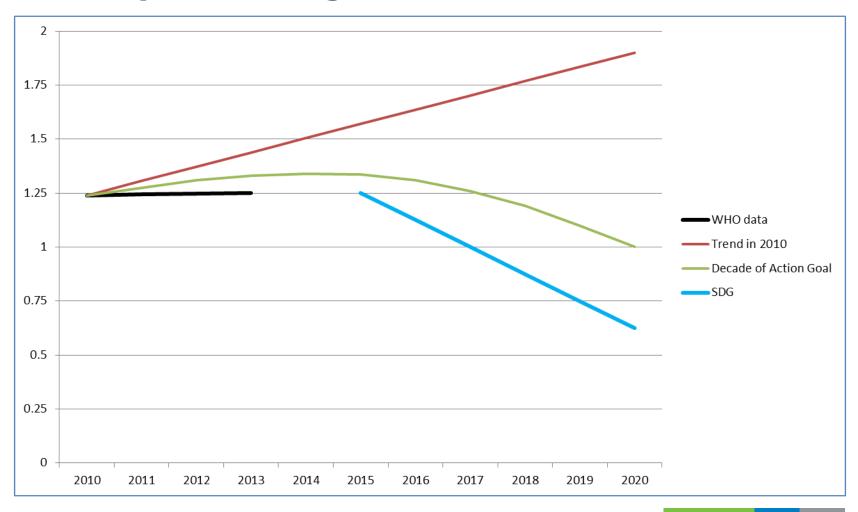


#### Why Act Now?

- Unsustainable burden- 1.25m deaths and up to 50m injuries world-wide
- Rapid motorization in LMIC's
- •UN SDG's- 50% by 2020
- Opportunity for new thinking, holistic
- Sustainable legacy for future generations



## UN Decade of Action Goal and Sustainable Development Target (millions people killed)





#### The Ingredients for a Safe System Journey

- Strong and Sustained Leadership to:
  - –Overcome persistent community awareness and demand deficits in the problem, the real dangers and the solutions through communicating evidence

–Press the political system to embrace a safe system with the four principles as foundations to guide the journey



#### **Leadership to:-**

 Foster leaders at all levels of society, including bottom up

-Ensure coordination for shared responsibility

Develop a strategy with vision and safe system principles

–Manage for results- set objectives- monitor



#### Recommendations

- 1. Think safe roads, not safer roads
- 2. Provide strong, sustained leadership for the paradigm shift
- 3. Foster urgency to drive change
- 4. Underpin aspirational goals with concrete, operational targets



#### **Recommendations Cont'd**

- 5. Establish shared responsibility
- 6. Apply a results focussed approach
- 7. Leverage all parts of a Safe System for greater overall effect and so that if one part fails, the others will still prevent serious harm



#### Recommendations cont'd

- 8. use a safe system to make city traffic safe for pedestrians, cyclists and motorcyclists.
- 9. Build safe system capacity in rapidly motorising low/middle income countries
- 10. Grow data collection, analysis and research on traffic in a safe system.



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### Merci, Thank you

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