



A VISION FOR ZERO: SAFE AND SUSTAINABLE SYSTEM

An Approach To Traffic Safety To Eliminate Traffic Death And Serious Injury





43%
of all road fatalities in Africa are among pedestrians and bicyclists.

30% of people who experienced a road traffic crash were permanently disabled.
14% were unable to return to work.

In India, the poorest group of road traffic victims spent about 1/2 of their annual household income on medical care.

1.25 Million
people die each year as a result of road traffic crashes.

Out of which, **90%** of the world's fatalities on the roads occur in low- and middle-income countries.



TRADITIONAL APPROACH TO ROAD SAFETY

- **Emphasis on road user behavior**
- **Public education / Advertising campaigns**
- **Road safety training for road users**
- **Safety Regulations**



VISION ZERO: A ROAD SAFETY POLICY INNOVATION

	TRADITIONAL	VISION ZERO
What is the problem?	Accidents Risk	Fatalities & Serious injuries
What causes the problem?	Human Factors	Humans make mistakes & Humans are fragile
Responsibility?	Individual Road Users	System Designers
People's demand for road safety	People dont want safety	People want safety
What is the appropriate goal?	Optimum number of fatalities & serious injuries	Eliminate fatalities & serious injuries

SAFE SYSTEM PRINCIPLES



Humans Make Errors



Humans Are Vulnerable to Injury



Responsibility Is Shared



No Death or Serious Injury is Acceptable



Proactive vs. Reactive

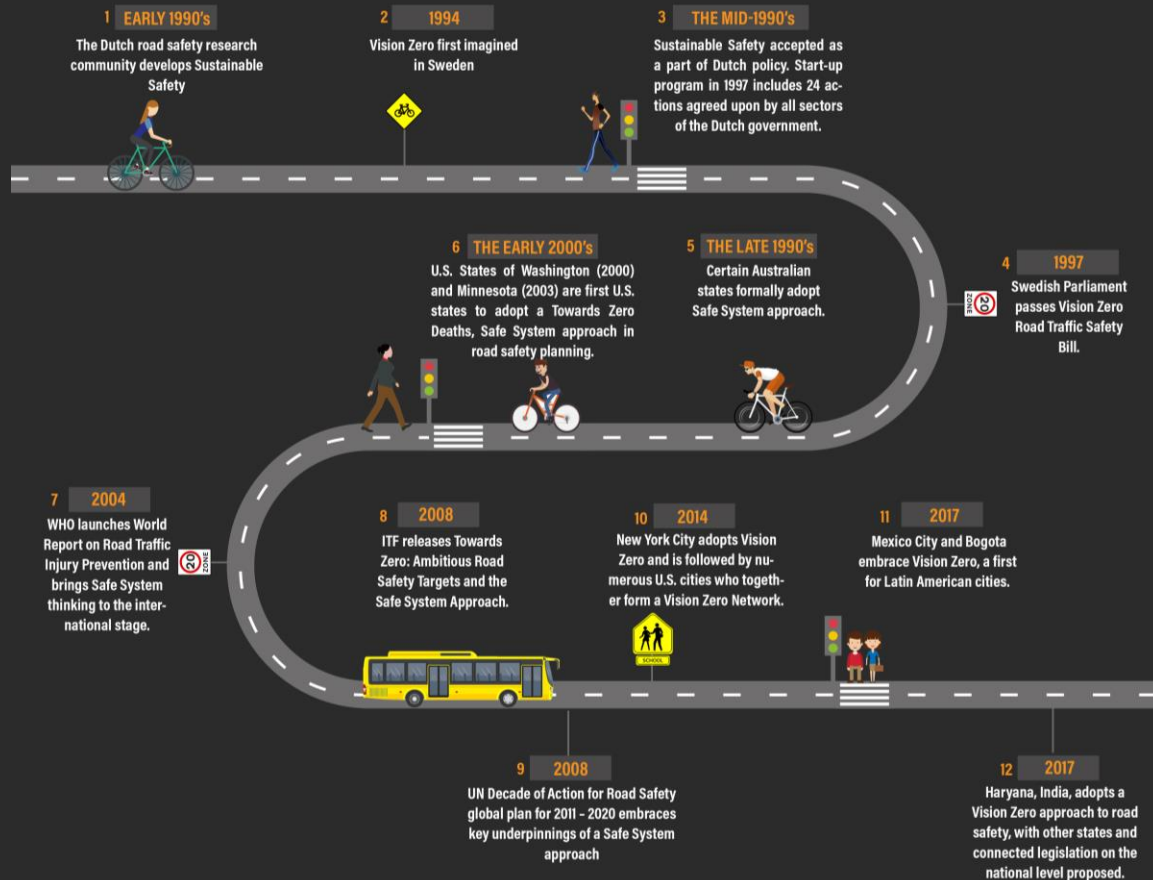


Source: Ben Welle, Flickr



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THE 'SAFE SYSTEM' TIMELINE



SAFE SYSTEM: MOST RAPID REDUCTIONS AND THE LOWEST FATALITY RATES



KEY MANAGEMENT TOOLS

SET TARGETS

Targets should be ambitious yet achievable based on historical trends and expected outcomes.



CHOOSE AND APPLY INTERVENTIONS

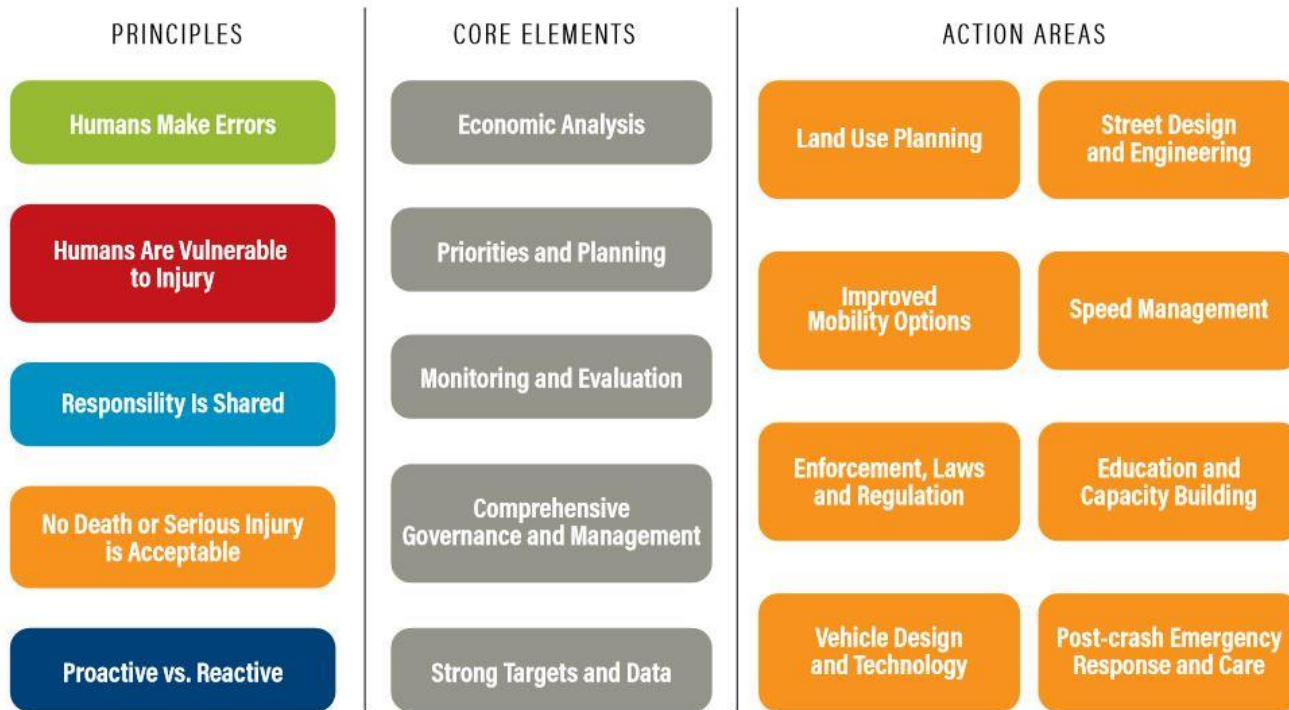
Choose interventions based on empirical evidence. Understand expected outcomes.

MONITOR AND EVALUATE PROGRESS

Develop a robust and systemic monitoring and evaluation process to measure progress. Do not create a 'fear to failure' environment.



SAFE SYSTEM APPROACH



Note: Principles are multicolored, core elements are in grey, and action areas are in orange.

SAFER HIGHWAY BY DESIGN



Two plus one highways and roundabouts show reductions on intercity rural roads

SAFER CITY STREETS



Beijing, China

Urban design that reduces the need for vehicle travel and fosters safer vehicle speeds



Medellín, Colombia

Traffic calming measures that reduce vehicle speeds or allow safer crossings



Mexico City, Mexico

Arterial corridors that ensure safer conditions for all road users



Rio de Janeiro, Brazil

A network of connected and specially designed bicycling



Istanbul, Turkey

Safe pedestrian facilities and access to public spaces



Ahmedabad, India

Safe access to mass transport corridors, stations, and stops

SPEED MANAGEMENT & ROAD FUNCTION

RURAL ROADS



Rural Roads
70km/h



2-Lane Roads
80-90km/h
(Milled rumble strips)



2 +1 Roads
100km/h



Motorways
110km/h



**High Standard Motorways
and Low Traffic Flow**
120km/h

URBAN ROADS



Risk of Head-on Crash
70≤km/h



**Risk of Crash
at Intersections**
50≤km/h



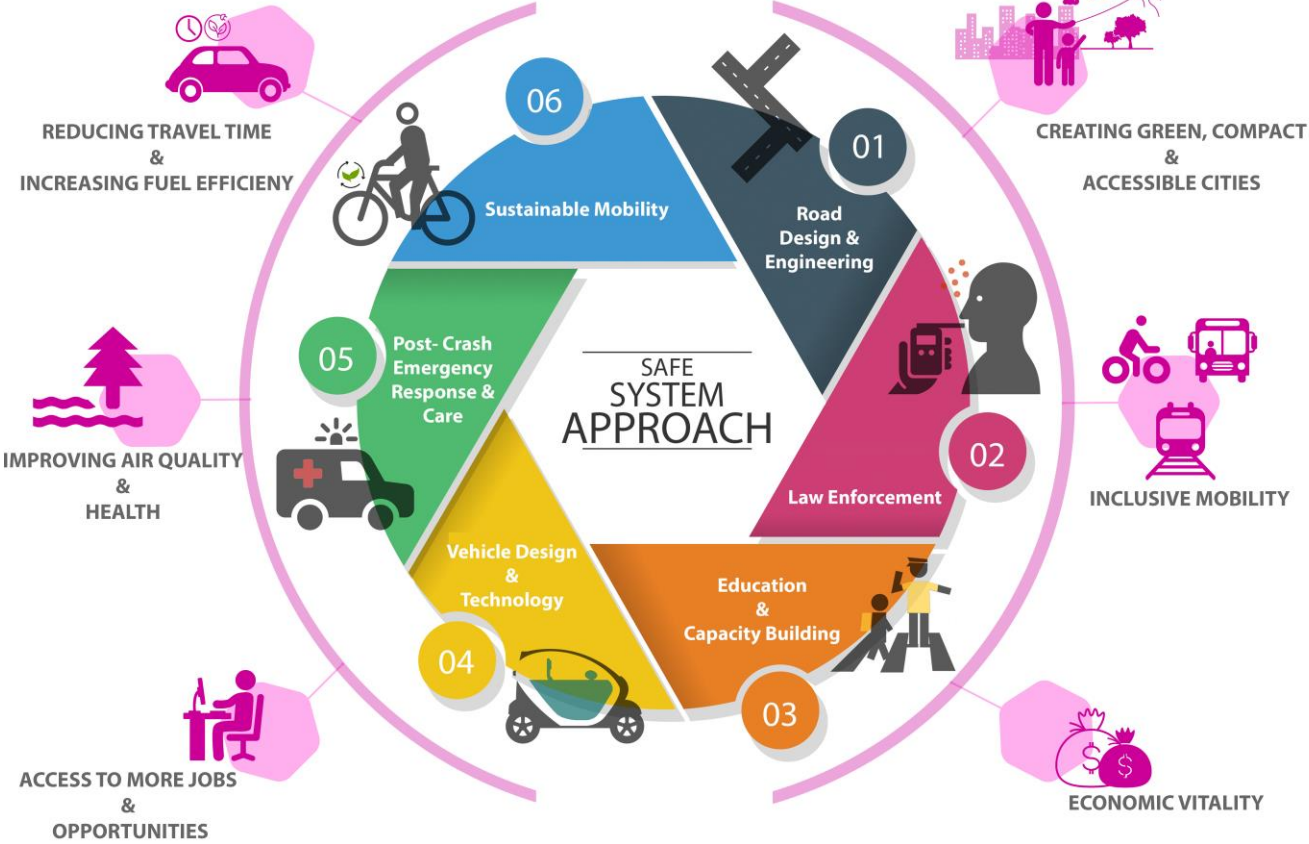
**Risk of Crash
with Obstacles**
60≤km/h




**Risk of Crash with
Vulnerable Road Users**
30≤km/h

Source: Vadeby 2016.

SAFE SYSTEM



A photograph of a busy city street with a yellow text overlay. The street is filled with pedestrians, cars, and buildings. In the background, there are signs for 'CLINICA INTEGRADA' and 'HORIZONTE'. The text overlay is a large yellow rectangle with black text.

An overemphasis on victim behavior has long relieved pressure on governments to take responsibility and act to protect their citizens.

This mindset needs to change, in terms of both public expectation and political and professional perceptions of responsibility.



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