

Vision Zero – The Basics



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SWEDISH TRANSPORT ADMINISTRATION

The road transport system is an open and complex system

- Infrastructure
- Vehicles
- Road users
- *Transports of goods and passengers*
- *Road users on duty*
- *Companies and organisations*

- Rules and regulations
- Enforcement
- Etc.



The road transport system is an open and complex system that is killing many people



- 1.25 Million Globally
- EU – 25 500
- USA – 37 500



Source: Index Mundi

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The Vision Zero - Swedish Parliament 1997

- Long term target is that no one should be killed or receive long term disability
- Injury outcome instead of crashes
- Holistic approach in which system designers play an important role
- Tolerance to human failures
- Mobility a function of safety



The Vision Zero European Commission 2011

“By 2050, move close to zero fatalities in road transport. In line with this goal, the EU aims at halving road casualties by 2020. Make sure that the EU is a world leader in safety and security of transport in all modes of transport.”


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UN Global Goals




By 2020, halve the number of global deaths and injuries from road traffic accidents

 Strengthen the capacity of all countries, in particular developing countries, for early warning, risk reduction and management of national and global health risks

 By 2030, provide access to safe, affordable, accessible and sustainable transport systems for all, improving road safety, notably by expanding public transport, with special attention to the needs of those in vulnerable situations, women, children, persons with disabilities and older persons

 Encourage companies, especially large and transnational companies, to adopt sustainable practices and to integrate sustainability information into their reporting cycle

 Promote public procurement practices that are sustainable, in accordance with national policies and priorities

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There is a million reasons why we crash,
and more than 90% are related to human errors



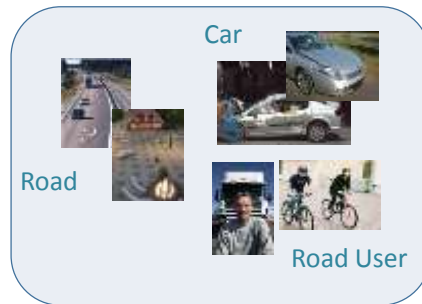
A safe system support the driver and
absorbs errors and mistakes



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The key is the road transport system as a whole Vision Zero / Safe System



A system built on human failures and human biomechanical tolerance

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Vision Zero \neq Zero Fatalities (At least not only)
Vision Zero = 5 dimensions (or more?)

1. Ethical platform
2. Vision for many stakeholders
3. Driving force for change
4. Concept of shared responsibility
5. Safety philosophy



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Vision Zero Safety Philosophy

1. Severe injuries not crashes
2. People make errors, mistakes and misjudgements
3. Humans have a biomechanical tolerance
4. Energy control is key
5. Eliminations is the target (backcasting)



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UN Global Goals / Shared responsibility



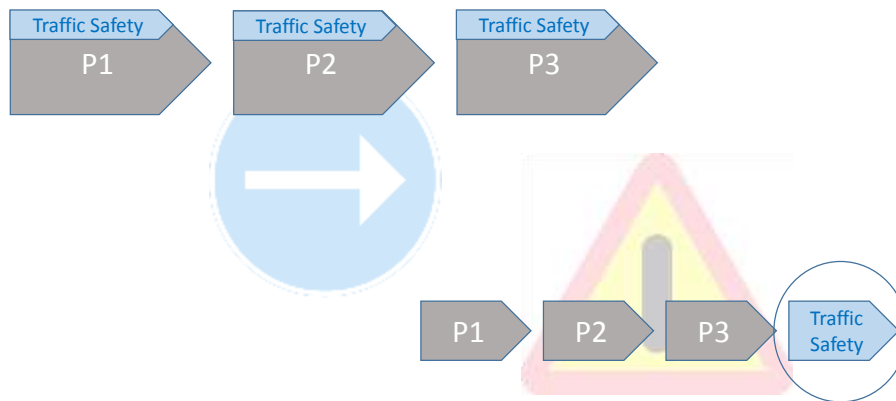
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Promote public procurement practices that are sustainable, in accordance with national policies and priorities

Traffic safety → Health → Sustainability

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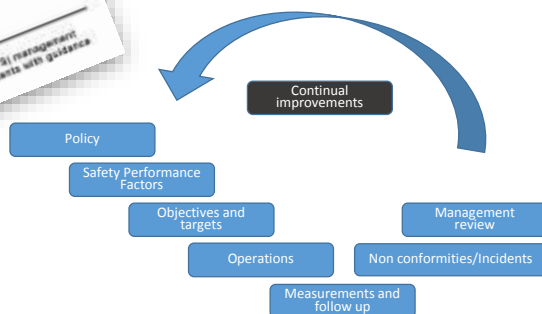
Traffic safety is one dimension in almost all processes, we have to work in an inclusive way



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ISO 39001 Process

Performance factors



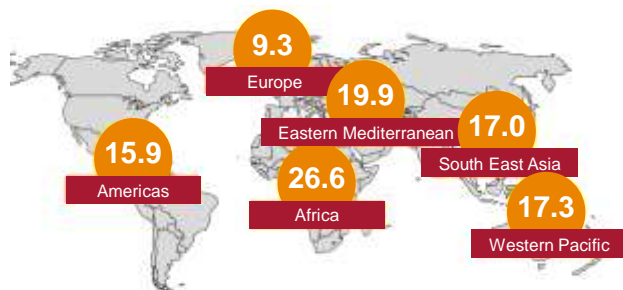
•Intermediate safety factors

- ✓ Road design
- ✓ Use of appropriate roads
- ✓ Personal safety equipment
- ✓ Safe speed
- ✓ Fitness of drivers:
 - fatigue, alcohol, distraction
- ✓ Journey planning
- ✓ Vehicle safety
- ✓ Appropriate authorisation
- ✓ Removal of vehicles and drivers
- ✓ Post crash response

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Fatalities per 100 000 population 1950-2016 Sweden

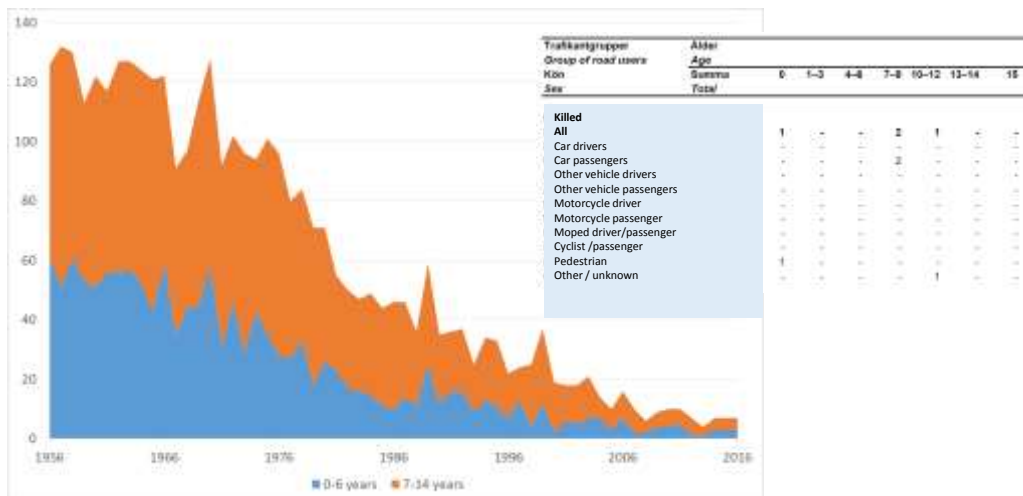
Highest 17, Lowest 2.6



Road traffic fatalities per 100 000 population

Source: WHO, Road Traffic Injuries, the Facts 2015

Children killed in traffic 1956-2016 (2013)



Trafikantgrupper Group of road users	Alder Age							
Kön Sex	Summa Total	0	1-3	4-6	7-9	10-12	13-14	15
Killed								
All	260	1	-	-	2	1	-	-
Car drivers	102	-	-	-	-	-	-	-
Car passengers	42	-	-	-	2	-	-	-
Other vehicle drivers	8	-	-	-	-	-	-	-
Other vehicle passengers	3	-	-	-	-	-	-	-
Motorcycle driver	39	-	-	-	-	-	-	-
Motorcycle passenger	1	-	-	-	-	-	-	-
Moped driver/passenger	3	-	-	-	-	-	-	-
Cyclist /passenger	14	-	-	-	-	-	-	-
Pedestrian	42	1	-	-	-	-	-	-
Other / unknown	6	-	-	-	-	1	-	-

