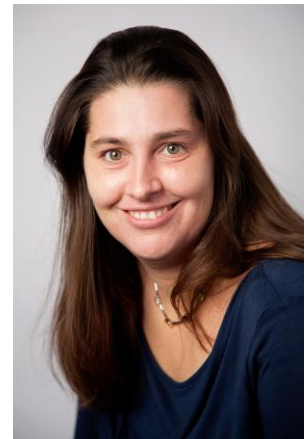




Safe System principles: from theory to practice

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Safe systems, not just road safety



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
3. **A shared responsibility** exists amongst those who design, build, maintain and use roads and vehicles and provide post-crash care to prevent crashes resulting in serious injury or death.
4. **All parts of the system** must be **strengthened** to multiply their effects; and if one part fails, road users are still protected

Paradigm shift

A safe system starts with a shift in the way of thinking:

- Ethical imperative: **no human should be killed or seriously injured** as a result of a road crash, as the blame is partly on the system.
- Once this ethical imperative is accepted, we can no longer **blame the victim or the driver;** we have to **change the system**. Hence, we must accept the four principles of a safe system

Paradigm shift; an illustration.



The Dutch story in examples

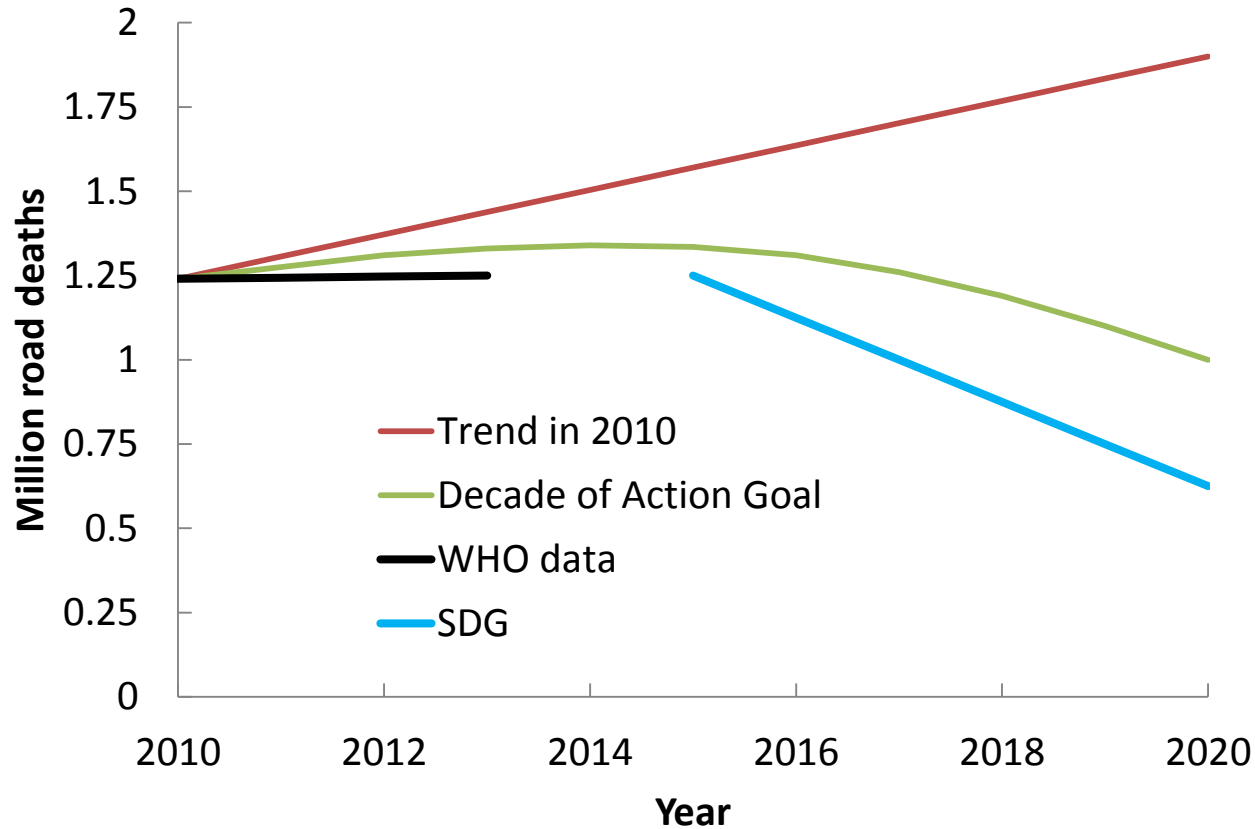


Ingredients for a paradigm shift

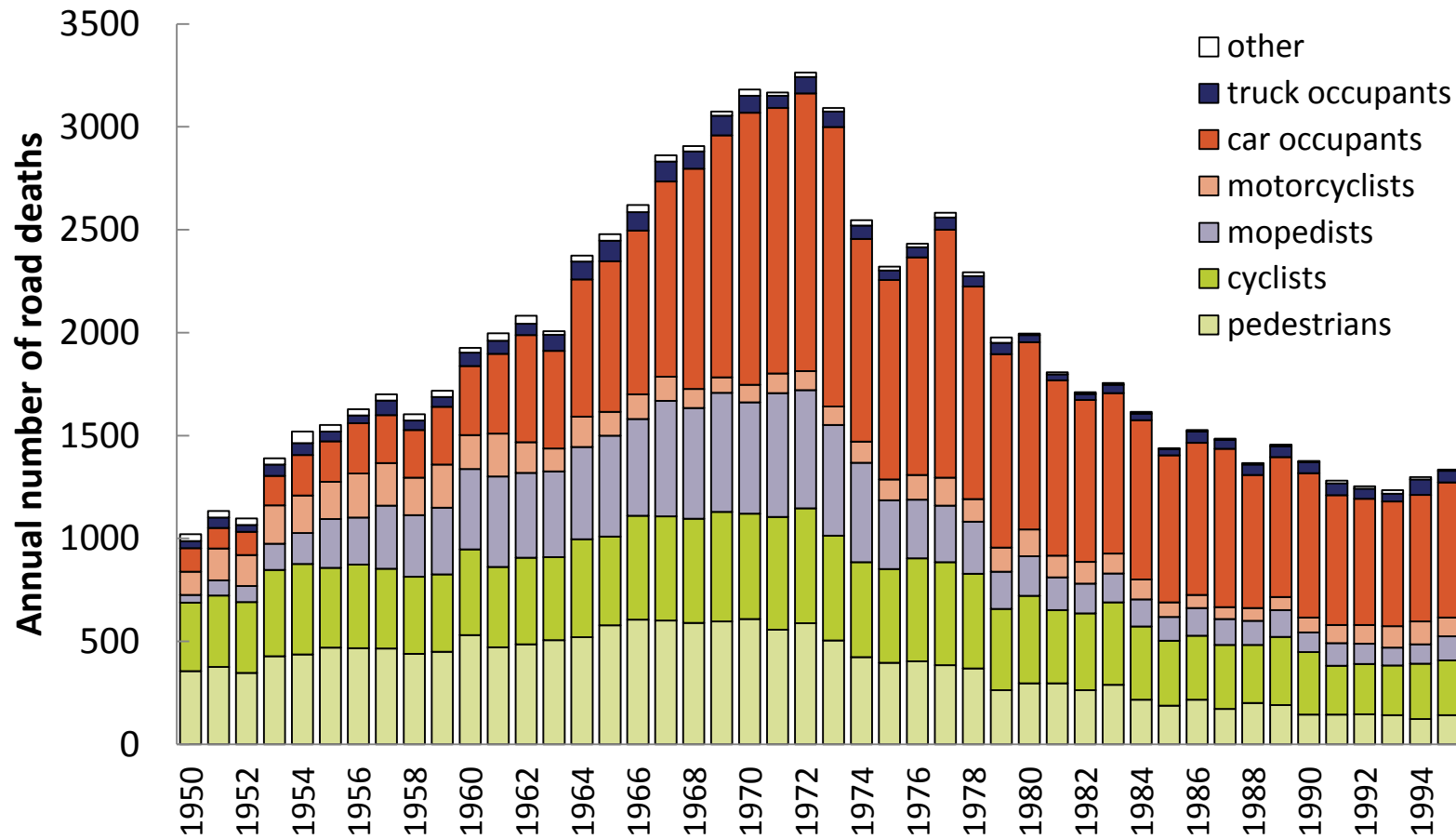
The principles of a safe system are simple and clear. But how to get there?

- Urgency for a change
- Convince and involve all stakeholders
- Leadership

Urgency for a change



Urgency for a change; the Dutch story



Involve and convince stakeholders

- A new approach is needed (urgency for a change)
- A Safe System is the way to go
- Creating a Safe System is possible and within reach (but not all roads lead to Rome; some roads roam to Leeds).



Involve and convince stakeholders; The Dutch story

Relevant stakeholders brought *each other* in line to produce a well supported approach (1993-1997).

- Provincial chairman of steering group.
- Demonstration projects
- Subsidies (50%) for road authorities' projects
- Agreeing experts (one mouth)

Leadership

- Sweden 1995/1997; “Vision zero”. Minister of Transport, Parliament, Director of Trafikverket: strong support continues until today.
- France 2002; Jacques Chirac: “the fight against poor road safety”
- Australia 2007/2008; Towards zero: Parliamentary support
- UK, Netherlands, ...

Without support from above, our efforts are in vain.

Leadership; the Dutch story

Distributed leadership.

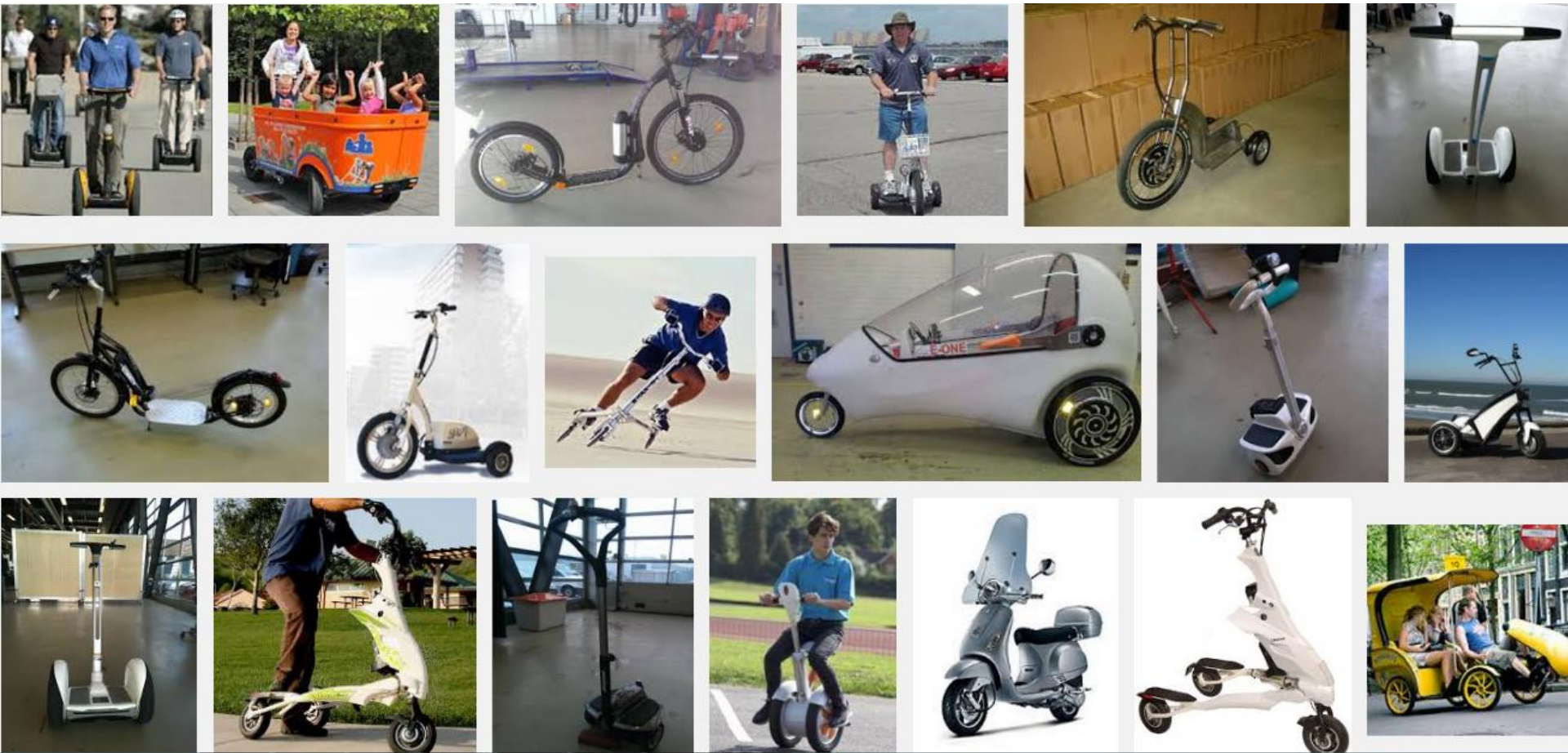
- Director of road safety (ministry of transport).
- Provincial chairman of steering group.
- SWOV management

Together they made the difference. In the Netherlands, cooperation and shared responsibility is a common concept for success.

How the Dutch story continued...

Second phase not yet started. Solutions are more complex and demand more budget.

Diversity in vehicle fleet



Roads with two functions



How the Dutch story continued...

Second phase not yet started. Solutions are more complex and demand more budget.

It is important to maintain support from stakeholders.

- Show that additional road safety improvements are still needed
- Show that the vision works (10 years of sustainable safety; TRR)
- Update the vision and its implementation strategy (SWOV 2007;2016)

Summary

- **Principles of a safe system**
 - People are human. They make mistakes.
 - People are vulnerable.
 - All road safety professionals must co-operate.
 - All parts of the system are involved.
- **A safe system starts with a paradigm shift:**
 - Urgency for a change
 - Convince and involve stakeholders
 - Leadership
- **Maintain support from stakeholders**
- **Embed the Safe System** in policy, guidelines, road design courses, relevant organisations etcetera.