

# ICORSI

Independent Council for  
Road Safety International

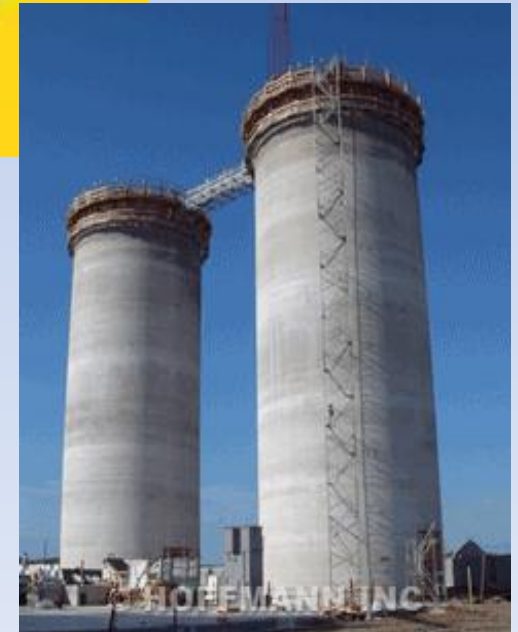
## International Symposium

### Road Safety Around the World: Future Concerns

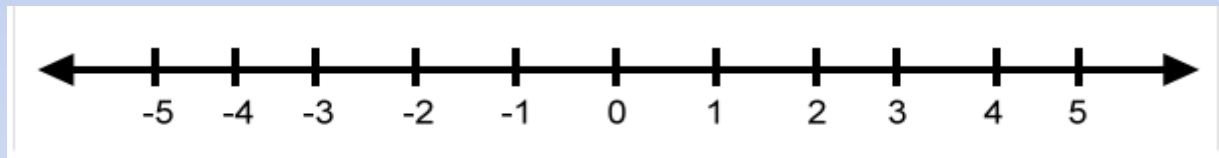
Paris, 19 March 2018



TATA TRUSTS



- Much safety research is done and published.
- How much is used in practice?



I will argue that:



1. Practice (in NA) relies too heavily on opinion, too little on findings of research.

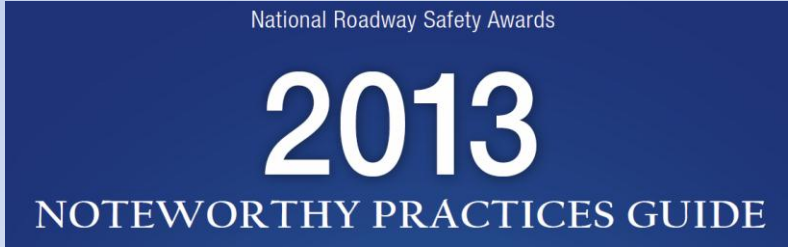
2. Findings are at times disregarded; influenced by external interests; the body of knowledge is polluted; the research function is unplanned.

# Uneasiness 1



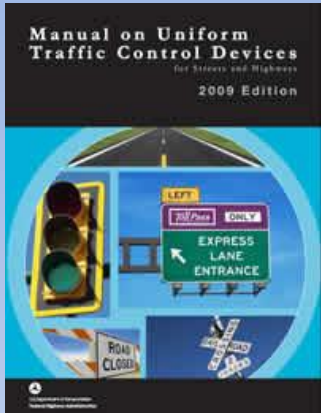
# Raised Pavement Markers

Alignment	AADT	CMF R2L
R>1640'	<5K	1.16
	5-15K	0.99
	15K-20K	0.76
R<1640'	<5K	1.43
	5-15K	1.26
	15K-20K	1.03



# Winner

**Alabama:** Raised Pavement Markers – A Low Alternative for Run-off-the-Road Crashes



**MUTCD (2009): Don't use unless "... engineering judgment indicates the benefits of enhanced delineation of a curve..."**

Das et al. (2013): "Intuitively convinced by its safety benefits ...LADOTD..."



**FHWA/IN/JTRP-2006/6. "... Iowa, Pennsylvania, and Michigan indicated that they do not plan to adopt the NCHRP (HSM) guidelines."**

Why?

Upshot: Judgment

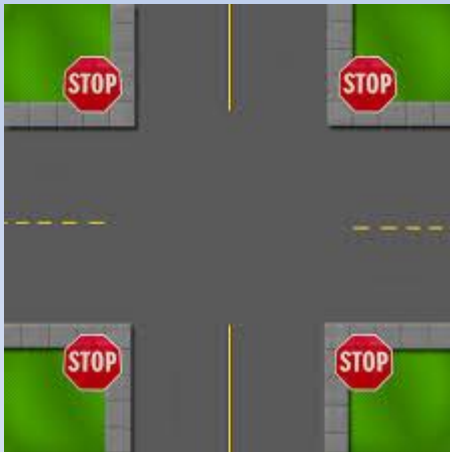
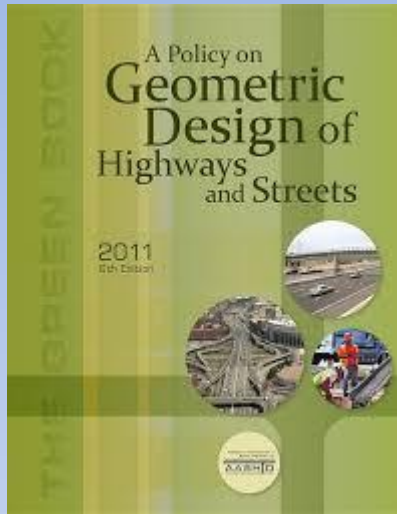


Evidence



“When I hear the words ‘engineering judgement’, I know they are just going to make up numbers” (Feynman, 1993, Challenger inquiry)

Uneasiness 2, 3, 4, 5, ...



## Evaluation of the Safety Performance of Continuous Mainline Roadway Lighting on Freeway Segments in Washington State

WA-RD 855.1


Ida van Schalkwyk , Ph.D.  
Narayan Venkataraman, Ph.D.  
Venky Shankar, PhD, P.E.  
John Milton, Ph.D., P.E.

March 2016

Add your own examples ...



## Why the uneasiness:

- Decisions without knowledge of safety (Story 1)
- Inconvenient findings easy to disregard (Story 1)
- Evidence-based policy or ? (Story 2)
- Made to order research findings? (Story 2)
- ...

Consequence: Harm to the road user

Conclusion: Reform practice ↔ research relationship



## The Paper

Two stories and twelve issues  
40+ pages, cannot cover.

### Story 1: Early days of edgelineing

- How it was implemented on hunch
- How two RCE's surprised
- How the results were disregarded

### Story 2: About glass beads

- How to synthesize evidence (Stewardship, Miller, Bahar)
- How knowledge is polluted

# Two sides of same coin

If decisions can be based on opinion then

**research will be of little influence**

**life, limb and resources will be wasted**



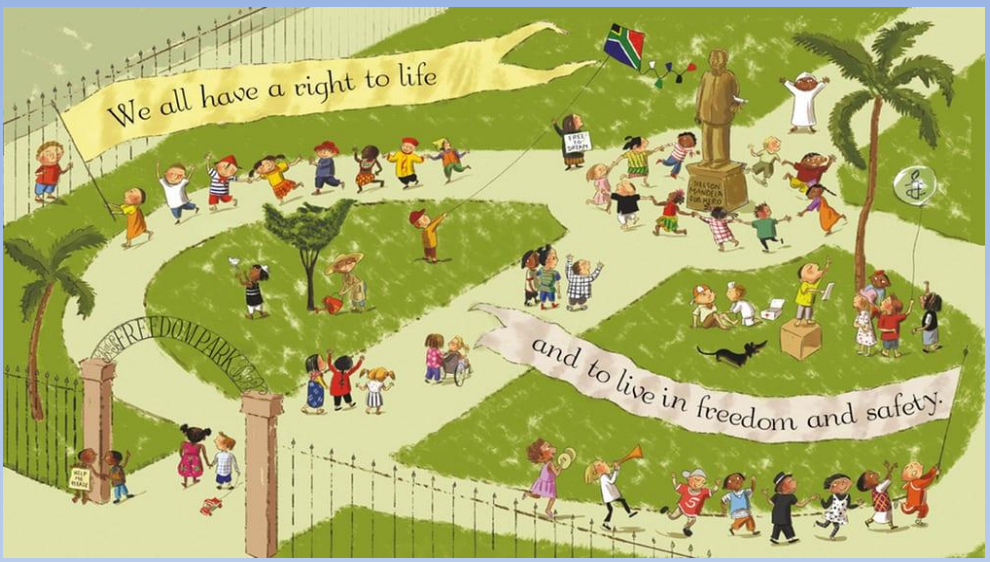
Even in research  
potential harm may  
not be disregarded

**WMA**  
**Declaration of Helsinki**  
Ethical Principles for Medical Research  
Involving Human Subjects  
2013

In my tribe the prospect of harm  
even in wide implementation is  
easily set aside.

What would have happened  
in the private sector if findings  
of harm were ignored?

The road is a product.  
It can be made safer and less safe  
We decide.



Proposal: *Declaration of Road User Rights:*  
*Decisions that substantially affect the safety of many should take into account the **fact-based expectation** of their consequences.*



**Reform is needed.  
What to do?**