

"The Development of a Total Quality Indicator for the Assessment of Travel Demand Management Measures: Focus on Road Safety Policy"

> Hans Tormans Davy Janssens Tom Brijs Geert Wets

Transportation Research Institute (IMOB) Hasselt University Diepenbeek, Belgium hans.tormans@uhasselt.be – www.imob.uhasselt.be Travel Demand Management TDM Vienna 2008

Outline



- -Overview
- -Goal
- -Background
- -Road Safety Focus
- -Model Structure
- -Methodology
- -Output
- -Conclusions and further research



- Goal

- Background

- Road safety focus

- Model Structure
- Methodology
- Output
- Conclusions

- Overview
 - Total Quality Management
 - Development Indicator
 - -TDM-Measures
 - -Road Safety Policy

Travel Demand Management TDM Vienna 2008





- Overview - Goal

- Background

- Road safety focus

- Model Structure
- Methodology
- Output
- Conclusions

- Goal
 - -Position local road safety policy
 - -Guide to local policy makers
 - -Allow for benchlearning
 - Direct to TQM-level in road safety



Οv	'er	vi	e١	N	
~ •	0.		~ .		

- Goal

- Background

- Road safety focus

- Methodology

- Output - Conclusions

Model Structure

- Background
 - 2001: Mobility Plan Flanders
 - Directives for sustainable mobility policy
 - Local mobility plans
 - · Domains of interest: 'accessibility', 'road safety', 'liveability', 'attainability' and 'nature and environment'

-2008: Evaluation stage

- Update
- Integral policy

Travel Demand Management TDM Vienna 2008

5





- Overview

- Goal

- Background
- Road safety focus
- Model Structure
- Methodology
- Output
- Conclusions
- Road Safety Focus
 - -Limited scope
 - -Major issue in policy plans
 - Socially unacceptable
 - -Clear (ambitious) targets
 - -Multi-level responsibility



	\sim						
_	O١	$I \cap$	rv	L	ρ	ΛI	
	\bigcirc	10	I V	5	C	v v	

- Goal
- Background

- Road safety focus

- Model Structure
- Methodology
- Output
- Conclusions

Model Structure

- Total Quality Environment

- TQM = "all manners in which an organization meets the needs and expectations of its customers, personnel, financial stakeholders and society" (EFQM)
- Applied in public sector

- Staged: ladder of development

- 1. Ad-hoc oriented
- 2. Isolated approach
- 3. System oriented
- 4. Integrated approach (level of TQM)

Travel Demand Management TDM Vienna 2008





- Overview

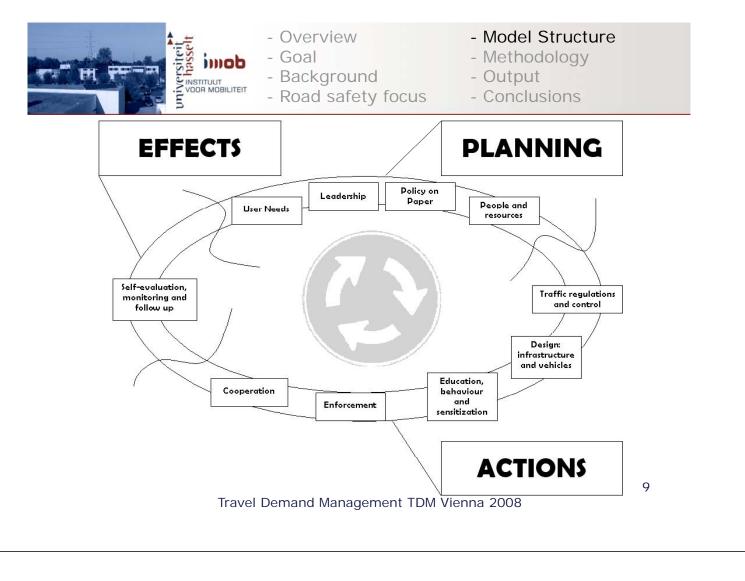
- Goal
- Background

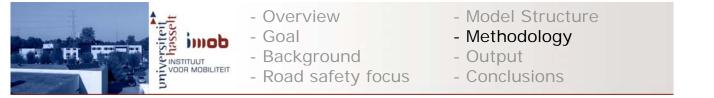
- Road safety focus

- Model Structure
- Methodology
- Output
- Conclusions

Conceptual model

- Road safety policy making
 - Dynamic
 - Circular process (cfr. Deming cycle)
 - Based on continuous improvement
- -Phases (3)
- -Modules (10)
- -Aspects (1-4)
- -Levels (4)





- Methodology
 - -Marking based on indicators
 - Focus on organizational and operational aspects
 - -Positioning, not evaluating
 - -Criteria for indicators
 - Development of questionnaires



- Background

- Road safety focus

- Model Structure

- Methodology
- Output
- Conclusions

- Output
 - Guide towards higher quality and sustainability
 - Suggestions based on (international) best practices
 - Introduction of new, promising concepts
 - -Estimation of effects (AB-modelling)

Travel Demand Management TDM Vienna 2008

11



- Overview - Goal

- Background

- Road safety focus

- Model Structure
- Methodology
- Output
- Conclusions

Conclusions and further research

- -Adapt model to other domains
- Benchlearning vs. benchmarking
- Implementation in practice
- Inputation of proposed strategy in travel prediction model (Feathers)
- Validation issues
- -Weighting considerations



Thank you!



hans.tormans@uhasselt.be

Travel Demand Management TDM Vienna 2008