

A review of international sources for road safety measures assessment



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Overview

The efficiency assessment of road safety measures is considered to be an extremely useful tool in decision making; in particular, cost-benefit and cost-effectiveness analyses are carried out in several countries, in a more or less systematic way.

The objective of this research is to present findings from a review of current practices for road safety assessment worldwide gathered in various handbooks, manuals, research projects and other international reports.



This review comprises the preliminary results of the work carried out in the framework of the on-going Working Group on the assessment of the effectiveness of road safety measures, of the Joint Transport Research Centre (JTRC) of the Organisation for Economic Cooperation and Development (OECD) and the International Transport Forum (ITF).

In particular, the most important international initiatives for providing standardized and accurate methods or tools for the estimation of safety effects of road safety measures are presented. Furthermore, the procedural and technical limitations of these methodologies are discussed, as is the lack of knowledge and data on the safety effects of road safety measures but also the potential for transferability of the assessment results.

Emphasis is given to the added value of the safety assessment process and the related results to the various stages of the road safety decision making at local, regional national and international level.

Road safety measures assessment objectives

WG of JTRC – ITF/OECD



- to facilitate international collaboration to address the common need for information about effects of safety measures and to stimulate greater efficiency in the development of reliable safety effectiveness estimates and their dissemination. The objectives of the Working group are:
 - To evaluate opportunities for and obstacles to international collaboration in the development of crash modification functions (CMFs)
 - To develop a theoretical basis for assessing countermeasure effectiveness and a framework for assessing the confidence that can be placed on crash reduction estimates
 - To examine the availability of cost-effectiveness assessments of road safety interventions, and review the quality and transferability of the estimates available
 - To provide recommendations that can improve and harmonise research methods and reporting standards, and thereby increase the potential for transferability and mutually beneficial ongoing international collaboration.

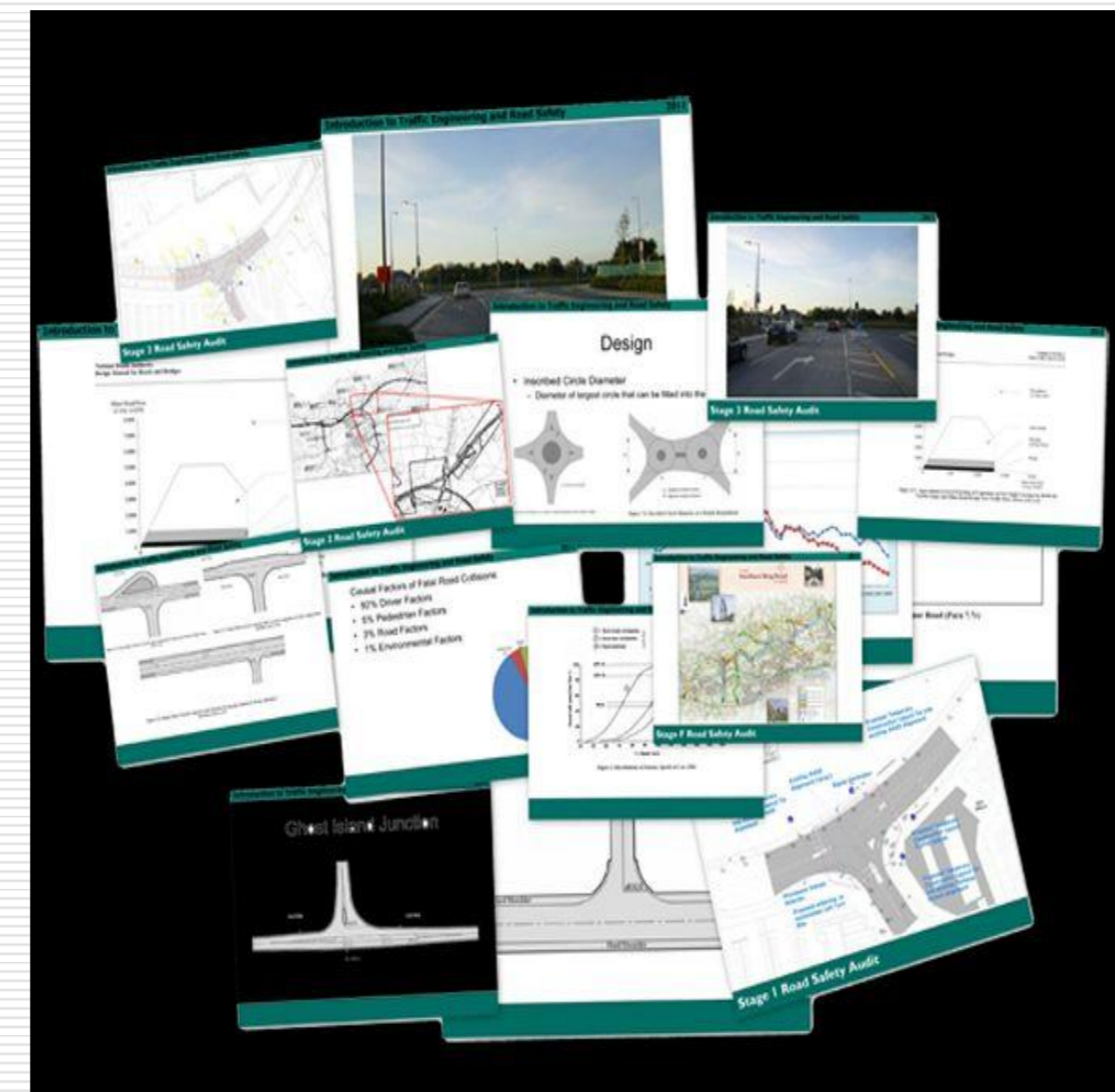


International Road Safety Initiatives and Experiences

The most important international approaches and initiatives are analysed, concerning handbooks and manuals, research project results and other studies and reports.

Handbooks, manuals and toolkits

- [The handbook of road safety measures](#)
- [The Highway Safety Manual](#)
- [The CEDR Report](#)
- [The FHWA Clearinghouse CMFs](#)
- [The Cochrane reviews](#)
- [Countermeasures that work: A Highway Safety Countermeasure Guide For State Highway Safety Offices - 5th Edition \(2010\)](#)
- [Austroads Road Safety Engineering Toolkit](#)
- [International Road Assessment Programme \(iRAP\) Road Safety Toolkit](#)



Research projects

- [The PROMISING project](#)
- [The ROSEBUD thematic network](#)
- [The SUPREME project](#)
- [The RANKERS project](#)



Other reports

- [The IRTAD Annual Reports](#)
- [EC Technical Assistance for the Road Safety Action Programme 2011-2020](#)
- [I-cars network, Thematic group on impact assessment measures](#)

Existing national approaches and initiatives

National experiences were also reviewed:

Australia	Greece	Spain
Austria	Ireland	Sweden
Canada	Japan	United Kingdom
Finland	Netherlands	United States
Germany	Norway	

Discussion

- Quite a few developed countries consider efficiency assessment of road safety measures as a very useful tool in decision making.
- Cost-benefit and cost-effectiveness analyses are carried out in several countries, in a more or less systematic way, at national, regional or local level.
- There is a decade of efforts for gathering the results of cost-benefit analysis of road safety measures in several international scientific initiatives, which have resulted in a few comprehensive handbooks which aim to gathering, harmonizing and improving the existing knowledge on the effectiveness of road safety measures with final objective
- The publication of the Highway Safety Manual (AASHTO, 2010) builds on efforts in many parts of the world and is reflective of deep interest in quantitative assessment of safety decisions utilizing CMFs.



- A more widespread or fruitful use of efficiency assessment of road safety measure is in most cases limited, as several technical and institutional barriers exist. The most important barrier is the lack of knowledge and data on the safety effects of road safety measures.
- An important research effort has been dedicated towards the standardization of the methods for estimating the safety effects of road safety measures. Issues targeted concern mainly the accuracy of the estimation and the conditions and necessary adjustments required to allow the transferability of the safety effect estimates to different settings or countries.

- There is certainly need for further research, more assessment initiatives, but also the adoption at international level of standardized procedures for providing specific information that describes the countermeasure studies and for carrying out the cost-benefit assessment of road safety measures.



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