



**SUMMARY AND PUBLICATION OF BEST PRACTICES  
IN ROAD SAFETY IN THE MEMBER STATES**

## METHODOLOGY


**THE FINAL REPORT OF SUPREME CONSISTS OF 14 PARTS:**

<b>PART A</b>	<b>METHODOLOGY</b>
<b>PART B</b>	LIST OF MEASURES COLLECTED AND ANALYSED
<b>PART C</b>	BEST PRACTICES IN ROAD SAFETY HANDBOOK FOR MEASURES AT THE COUNTRY LEVEL
<b>PART D</b>	BEST PRACTICES IN ROAD SAFETY HANDBOOK FOR MEASURES AT THE EUROPEAN LEVEL
<b>PART E</b>	REVIEW OF IMPLEMENTATION AT THE COUNTRY LEVEL
<b>PART F1</b>	THEMATIC REPORT: EDUCATION AND CAMPAIGNS
<b>PART F2</b>	THEMATIC REPORT: DRIVER EDUCATION, TRAINING & LICENSING
<b>PART F3</b>	THEMATIC REPORT: REHABILITATION AND DIAGNOSTICS
<b>PART F4</b>	THEMATIC REPORT: VEHICLES
<b>PART F5</b>	THEMATIC REPORT: INFRASTRUCTURE
<b>PART F6</b>	THEMATIC REPORT: ENFORCEMENT
<b>PART F7</b>	THEMATIC REPORT: STATISTICS & IN-DEPTH ANALYSIS
<b>PART F8</b>	THEMATIC REPORT: INSTITUTIONAL ORGANISATION OF ROAD SAFETY
<b>PART F9</b>	THEMATIC REPORT: POST ACCIDENT CARE

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18th of December 2005	17th of June 2007	17th of June 2007



## PROJECT MEMBERS:

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	ÖRK Austrian Red Cross	AT		SWOV Institute for Road Safety Research	NL
	IBSR-BIVV Institut Belge Pour La Sécurité Routière	BE		TNO Business Unit Mobility & Logistics	NL
	CDV Transport Research Centre	CZ		DHV Group	NL
	DTF Danish Transport Research Institute	DK		TØI Institute of Transport Economics	NO
	DVR Deutscher Verkehrssicherheitsrat e.V.	DE		IBDIM Road and Bridge Research Institute	PL
	CERTH/HIT Hellenic Institute of Transport	EL		PRP Prevenção Rodoviária Portuguesa	PT
	FITSA Foundation Technological Institute for Automobile Safety	ES		SPV Slovene Road Safety Council	SI
	INRETS Institut National de Recherche sur les Transports et leur Sécurité	FR		VÚD Transport Research Institute Inc.	SK
	NRA National Roads Authority	IE		bfu Schweizerische Beratungsstelle für Unfallverhütung	CH
	SIPSiVi Italian Society of Road Safety Psychology	IT		VTT Technical Research Centre of Finland	FI
	ETEK Cyprus Scientific and Technical Chamber	CY		VTI Swedish National Road and Transport Research Institute	SE
	Celu satiksmes izpete, SIA (Road Traffic Research Ltd)	LV		TRL Limited	UK
	TRRI Transport and Road Research Institute	LT		CIECA Commission Internationale des Examens de Conduite Automobile	INT
	KTI Institute for Transport Sciences	HU		ETSC European Transport Safety Council	INT
	WHO Europe World Health Organization - Regional Office for Europe				

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# **Executive Summary**

SUPREME (**S**Ummary and Publication of Best **P**ractices in **R**oad Safety in the **EU-M**ember States plus Switzerland and Norway) was launched by the European Commission (DG TREN). It started in December 2005 and was finalised in June 2007. A total of 31 national and international road safety organisations were involved as project partners. The main objectives of the project were:

- ◆ the sound identification and publication of Best Practice from the vast amount of available measures;
- ◆ the development of a strategic approach and a framework for dissemination activities of the key findings in the 27 target countries.

SUPREME covers a large variety of road safety measures at various levels. The whole process has resulted in 14 deliverables:

- ◆ Methodology (Final Report, Part A);
- ◆ List of measures collected and analysed (Final Report, Part B).
- ◆ Best Practices in road safety - *Handbook for Measures at the Country Level* (Final Report, Part C);
- ◆ Best Practices in Road safety - *Handbook for Measures at the European Level* (Final report, Part D);
- ◆ Review of Implementation at the Country Level (Final Report, Part E);
- ◆ Part F1 Thematic Report: Education and Campaigns;
- ◆ Part F2 Thematic Report: Driver Education, Training and Licensing;
- ◆ Part F3 Thematic Report: Rehabilitation and Diagnostics;
- ◆ Part F4 Thematic Report: Vehicles;
- ◆ Part F5 Thematic Report: Infrastructure;
- ◆ Part F6 Thematic Report: Enforcement;
- ◆ Part F7 Thematic Report: Statistics and In-depth analysis;
- ◆ Part F8 Thematic Report: Institutional Organisation of Road Safety;
- ◆ Part F9 Thematic Report: Post Accident Care.

### **Methodology (Final Report – Part A)**

Part A of the Final Report gives a detailed overview on the methodological approach and outlines the major steps and the work organisation of SUPREME. The methodological approach was based on:

- ◆ A comprehensive discussion and definition of Best Practice as a foundation for tool development i.e. in particular the questionnaires for standardised reporting of examples.
- ◆ A detailed focus on selection criteria which have played a major role as analytical backbone of the study.

- ◆ A detailed data collection in 27 countries (25 EU-Member States plus Norway and Switzerland). The collection was organised and supervised by a network of country experts. A list of all submitted Best Practice nominations can be found in Part B of the Final Report.
- ◆ Additionally, a questionnaire with an open, narrative format was used to gather information from key road safety experts in European as well as international road safety institutions.
- ◆ Subsequently, an in-depth-analysis of all collected measures was carried out in order to select the “final” set of Best Practice measures. This task was carried out along 9 areas of road safety work by selected experts of the SUPREME consortium.
- ◆ Finally, all 27 country expert were asked to give feedback to the selection of Best Practice Measures and to report about state of implementation from a national perspective as well as about the intended dissemination strategies at national level.

A full repository of the project can be found under the following link: [http://ec.europa.eu/transport/supreme/index\\_en.htm](http://ec.europa.eu/transport/supreme/index_en.htm) - the website presents the detailed description of the 250 submitted Best Practice nominations.

### **List of measures collected and analysed (Final Report - Part B)**

This report brings together all submitted Best Practice nominations in an easily accessible format. The list is comprised of results from the national data collection as well as from the assessment at European and international organisations.

### **Best Practices in road safety - The Handbook for measures at the Country Level (Final Report – Part C)**

The *Handbook for Measures at the Country Level* presents successful practices in road safety throughout Europe. All practices are implemented in at least one of the EU-Member States respectively in Norway or Switzerland. The document addresses policy makers and decision makers at local, regional and national levels, road safety practitioners, interest groups; in short, it is intended as a compendium for all stakeholders in road safety in a country.

The Handbook is based on the “final” set of Best Practice Measures as selected by SUPREME experts out of 250 candidates from 27 countries. Each measure is described in a standard format in order to safeguard quick orientation and comparability of findings. The selection process involved several analytic steps and feedback loops:

- ◆ In order to be labelled as ‘*Best Practice*’, a measure should comply with most of SUPREME’s internal selection criteria<sup>1</sup>, in particular its effectiveness in terms of expected reduction of road

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<sup>1</sup> See chapter “Definition of Best Practice” of this report

crashes, deaths and serious injuries should have been demonstrated in previous scientific evaluation work;

- ◆ ‘*Good Practice*’ measures fit in with most of the criteria, but suffer from a lack of data in the criteria ‘scientific evaluation of the effects’ and/or ‘cost benefit ratio’;
- ◆ ‘*Promising Practices*’ are mainly “new” measures that have not yet been subject to a full-fledged evaluation but, according to expert opinion, have a high potential of improving road safety.

As a result of this analysis 55 best, good or promising practices have been identified, covering the following nine areas of road safety work:

Area	Best Practices	Good Practices	Promising Practices
Institutional Organisation of Road Safety	2		2
Road infrastructure	5	4	1
Vehicles and Safety Devices	5		2
Education and Campaigns	1	5	1
Driver Training		3	
Traffic Law Enforcement	4	2	
Rehabilitation and Diagnostics		4	
Post Crash Care	3	2	2
Road Safety and Data collection	4	1	2
Total	24	21	10

Table 1: Best, good and promising measures in the *Handbook for Measures at the Country Level (Final Report – Part C)*

The Handbook provides a brief description of each measure and an analytic outline on effects and costs. In addition, useful links for more information are presented.

### **Best Practices in road safety – The Handbook for Measures at the European Level (Final Report – Part D)**

The *Handbook for Measures at the European Level* contains successful or potentially successful Europe-wide road safety practice as identified by European or international organisations. All examples are (or are to be) implemented at the European or international level. The target groups of this document are decision makers across different sectors and levels of government, in particular those responsible for developing and implementing road safety, transport, sustainable mobility or public health programmes and strategies at all levels of government or in the private sector.

The Handbook presents the 31 identified best, good or promising practices. The definition of best and good practices was used in accordance with *the Handbook for Measures at the Country Level*. Meas-

ures that are not yet implemented at the European or international level but have shown to be successful in one or several Member States have been ranked as ‘promising’ practices.

The practices were collected in a survey among 14 institutions. The questionnaire followed an open, narrative format. Responses were gathered via emails or in the course of personal meetings or phone interviews. This work step was supplemented by additional desk research by the authors. The final set of measures has been classified into areas which closely follow the nine themes of the *Handbook for Measures at the Country Level*:

Area	Best Practices	Good Practices	Promising Practices
Policy Framework for Efficient Road Safety	5		1
Vehicle Safety	4	1	1
Road Infrastructure Safety	1		2
Enforcement of Traffic Law		1	2
Tackling Novice Drivers’ Higher Risks			1
Campaigns		2	
Post-Accident Care		1	1
Data Collection and Analysis		4	1
Practices from Related Policy Areas – e.g. Environmental Protection and Advocating Health	1	1	1
Total	11	10	10

Table 2: Best, good and promising measures from *the Handbook for Measures at the European Level (Final Report – Part D)*

## Review of implementation at the Country Level (Final Report – Part E)

This document is intended as a supplementation to the *Handbook for Measures at the Country Level*. It contains a summary of Country experts’ feedback to the final set of Best Practice Measures, identified in the course of SUPREME. The feedback loop is an important element of the project, because in practice implementations of recommendations often have to face barriers which impede or even prevent the deployment of road safety policies. Such barriers which might stem from national legislation, lack of public acceptance or budgetary restrictions have to be addressed openly in order to objectify discussion on implementation of Best Practices.

Nine overview tables (according to the nine areas in the *Handbook for Measures at the Country Level*) present all countries which have:

- ◆ proposed a particular Best Practice Measure;
- ◆ implemented the Best Practice Measure;
- ◆ implemented a similar respectively a comparable measure;

- ◆ run pilots of the measure.

Furthermore each thematic section provides an outline of interesting information or comments which have been provided by the Country Experts. These might be comments on:

- ◆ barriers to implementation for proposed measures;
- ◆ important limitations of measures in practice.

For some areas, interesting and valuable information on general aspects has been given, e.g. in case of statistics *strategies to strive for completeness of data* or in case of infrastructure *efforts in black spot management as a major foundation for planning of road safety infrastructure*.

### **Thematic Reports (Final Report – Parts F1 to F9)**

These documents provide specific information from the nine road safety areas (“categories”) covered by SUPREME: “Education and Campaigns”, “Driver Education, Training and Licensing”, “Rehabilitation and Diagnostics”, “Vehicles”, “Infrastructure”, “Enforcement”, “Statistics and In-depth Analysis”, “Institutional Organisation of Road safety” and “Post Accident Care”.

These results are based on an extensive data collection. The collected measures were analysed, information synthesised and Best Practices were identified. Each field of road safety was tackled by a specific group of experts.

**What is SUPREME?**  
**What are the goals?**

In the White Paper 2001 "European transport policy for 2010: time to decide", the European Commission adopted a target of a 50% reduction in road fatalities. The Commission's Road Safety Action Programme 2003 "Halving the number of road accident victims in the European Union by 2010" identifies the establishment and dissemination of a framework of Best Practices as one of the key success factors for reaching the Community road safety target.

National efforts to prevent road traffic accidents reveal a broad variety of strategies and approaches such as road engineering, legislation and enforcement, training and education. Experience shows that there is a growing interest by Member States in applying measures and practices that have been proven successful in other countries. Hence, a huge potential exists towards the improvement of road safety, provided that Best Practices were thoroughly analysed and disseminated on a European scale.

The main objective of SUPREME - Summary and Publication of Best Practices in Road Safety in the Member States - was to collect, analyse, summarise and publish Best Practices in the field of road safety in the Member States of the European Union as well as in Switzerland and Norway, with the vision of implementing them in as many Member States as possible.

Thus **main objectives** of the project were:

- ◆ Sound identification and publication of Best Practice from the vast amount of available measures;
- ◆ Development of a strategic approach and a framework for dissemination activities of the key findings in the 27 target countries.

The **target audiences** of the project are decision and policy makers at all levels, from European to local, as well as the scientific community and practitioners in the field. The aim is to provide user specific information on outstanding safety measures in view of implementation in other countries or at the European level.

The **results** of the project fed into 14 deliverables:

Part of Final Report	Name
Part A	Methodology
Part B	List of Measures Collected and Analysed
Part C	Best Practices in Road Safety <i>Handbook for Measures at the Country Level</i>
Part D	Best Practices in Road Safety <i>Handbook for Measures at the European Level</i>
Part E	Review of Implementation at the Country Level
Part F1	Thematic Report: Education and Campaigns
Part F2	Thematic Report: Driver Education, Training & Licensing
Part F3	Thematic Report: Rehabilitation and Diagnostics
Part F4	Thematic Report: Vehicles
Part F5	Thematic Report: Infrastructure

<b>Part F6</b>	Thematic Report: Enforcement
<b>Part F7</b>	Thematic Report: Statistics & In-depth Analysis
<b>Part F8</b>	Thematic Report: Institutional Organisation of Road Safety
<b>Part F9</b>	Thematic Report: Post Accident Care

Table 3: 14 SUPREME Deliverables

**SUPREME –**

**the way to reach the goals**

# 1. Organisation of work

## 1.1 The Project Team

The project team was comprised of a notable group of institutions and experts with long-standing experience in the field of road safety. The tasks of the project were shared between several working groups:

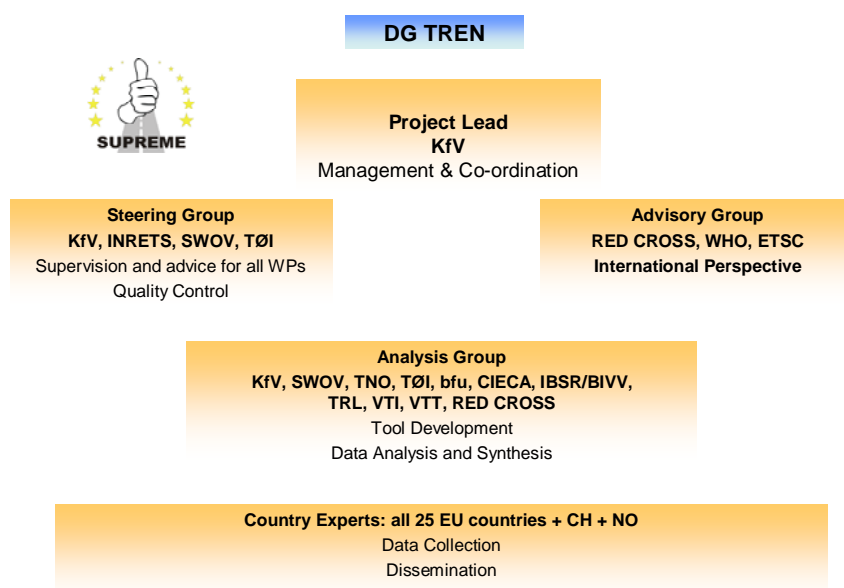


Chart 1: Structure of the Consortium

- ◆ the Steering Group gave advice to all work packages and provided quality assurance of all deliverables;
- ◆ the Advisory Board helped in closing knowledge gaps with regard to specific areas and added the international perspective of road safety;
- ◆ the Analysis Group was concerned with the development of the questionnaire and with the analysis and synthesis of data;
- ◆ the large group of Country Experts from all EU-Member States, Norway and Switzerland collected and described Best Practices in their respective countries, gave feedback to the final set of identified Best Practice Measures and provided dissemination strategies for the results.

## 1.2 Task division – the work packages

The workload was divided into seven work packages (see chart 2)

Seven work packages, as outlined in the following chart, gave additional structure to the work load:

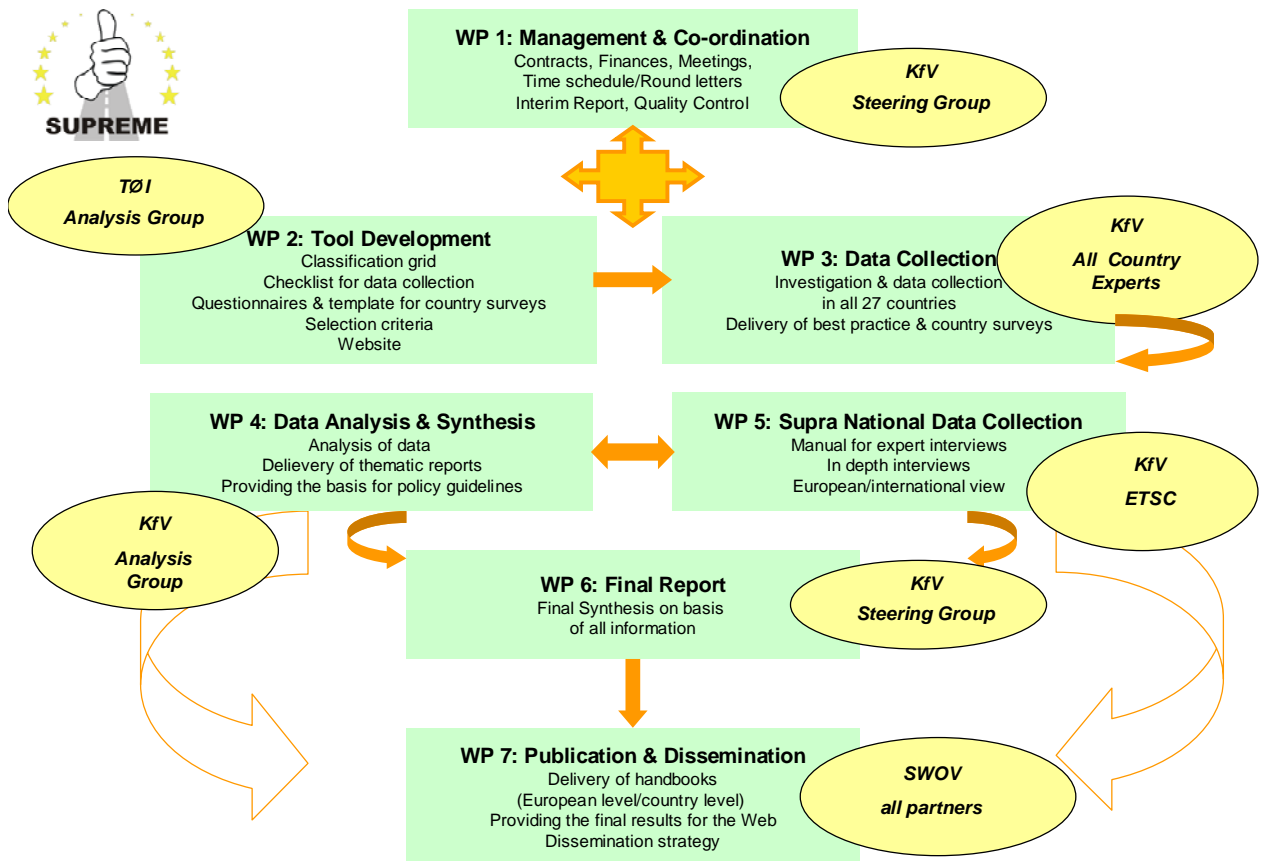


Chart 2: Work breakdown structure

### 1.2.1 WP1 – Project management and coordination (lead: KfV)

This work package included the administrative, technical as well as the financial management of the project by the co-ordinator KfV, supported by the Steering Group members, INRETS, TØI and SWOV.

### 1.2.2 WP2 – Tool development (lead: TØI)

The main target of this work package was the development of the tools (standardised questionnaire) for collection and description of Best Practice Measures. Another important target was the creation of a project website for information exchange.

The largest part of the workload went to TØI (WP-lead), KfV and the Analysis Group. In addition, all country experts were asked to give support by providing a first rough overview on potential Best Practice Measures in his/her country.

### 1.2.3 WP3 – Data collection (lead: KfV)

All EU-Member States, Norway and Switzerland took part in this work package in order to collect Best Practice Measures in their country and to describe them by using the standardised questionnaire. In the Netherlands, there were even two institutions involved: SWOV as a Country Expert in cooperation with TNO, the latter with special emphasis on two categories, “Vehicle” and “Infrastructure”. The European organisation CIECA placed special emphasis on the category “Driver Education, Training and Licensing”. The British organisation TRL collected Best Practice Measures not only from the UK but also from overseas (USA, Canada, New Zealand and Australia).

### 1.2.4 WP4 – Data analysis and synthesis (lead: KfV)

In this work package the extensive scope of data collection was analysed and synthesised and final Best Practice candidates were identified. The Analysis Group and the Steering Group fulfilled this task in close co-operation with each other. The outcomes of this process were **the nine Thematic Reports** according to the nine categories:

- ◆ Education and Campaigns - ISBR (BE)
- ◆ Driver Training, Testing and Licensing - CIECA
- ◆ Rehabilitation and Diagnostics - bfu (CH)
- ◆ Vehicle - TNO (NL)
- ◆ Infrastructure -VTI (SE);
- ◆ Enforcement - VTT (FI)
- ◆ Statistics and In-depth Analysis - SWOV (NL)
- ◆ Institutional Organisation of Road Safety - TØI (NO)
- ◆ Post Accident Care - The Austrian Red Cross (AT).

All country experts took the information and the recommendations of these nine reports as a basis to provide an assessment of the current road safety situation in their countries.

The Thematic Reports were the basis for creation of the *Handbook for Measures at the Country Level*.

### 1.2.5 WP5 – *Supra National Data Collection* (lead: KfV)

The goal of the *Supra National Data Collection* was to (re)view European-wide or cross border road safety measures. Interviews with selected institutions and safety experts provided information for road safety measures on a European level. The resulting report was an important basis for the elaboration of the *Handbook for Measures at the European Level*.

### 1.2.6 WP6 - *Final report* (lead: KfV)

The Final Report consists of several parts and was produced in close cooperation of KfV with SWOV, ETSC, TØI and the Steering Group. All project partners commented the draft version.

### 1.2.7 WP7 - *Publication and dissemination* (lead: SWOV)

The results of this work package are starting points of dissemination and publication of the project results:

- ◆ *The Handbook for Measures at the Country Level* as well as *the Handbook for Measures at the European Level* ( Part C and D of the Final Report);
- ◆ the SUPREME project website, containing the Handbooks and the complete data set (Best Practice Measures from 27 countries);
- ◆ an Information Day for European and international organisations in Brussels will be organised to initiate the dissemination of results at the European level in 2008.

Dissemination is based on 27 dissemination strategies (one for each participating country) which were discussed at the final meeting of the SUPREME project.

## 1.3 Milestones and time schedule

The project started in December 2005 and ended in June 2007. The following tables outline the major milestones in terms of meetings and deliverables. Following the plan, three meetings between the Commission and the Steering Group took place. Furthermore, there were a number of project meetings. A 1<sup>st</sup> project meeting with the Analysis and the Steering Group to initiate WP2 – tool development - was held in February 2006, in Vienna. The Kick-off meeting with the whole network of project partners present as well as a representative of the Commission took place one month later, in March 2006. The 2<sup>nd</sup> meeting with the Analysis and the Steering Group, in September, offered the opportunity to discuss the results of data collection and to clarify all steps for data analysis.

Meeting	Date	Participants	Purpose
First meeting with DG TREN	18th Jan. 06	DG TREN, L, SG	Clarification of study design
First Analysis meeting	6th/7th Feb. 06	L, SG, AG, AB	Discussion of selection criteria and tools
Kick off meeting	13th/14th Mar. 06	DG TREN, all	Presentation of tools and work plan
Second Analysis meeting	14th/15th Sept. 06	L, SG, AG	Selection of Best Practice, first analysis, reporting structure
Second meeting with DG TREN	17th Oct. 06	DG TREN, L, SG, ETSC	Discussion of the interim report, outlook on the handbooks
Third meeting with DG TREN	24th May 07	DG TREN, L, SG, ETSC	Discussion of the draft final report and the draft handbooks
Dissemination meeting	12th/13th June 07	DG TREN, all	Internal Presentation of final results and discussion of dissemination strategies
Information day	2008	DG TREN, L, ETSC, European/international	Presentation of final results to stakeholders at European level

Table 4: Meetings

L=Lead, SG=Steering Group, AG=Analysis group, all=full SUPREME Consortium, AB=Advisory Board

Following the contract, the deliverables were produced (see table below).

	Date	Provided by
Interim report	17th Sept. 06	KfV
Draft final report	17th April 07	KfV, TØI, SWOV, ETSC
Final report (14 Parts)	17th June 07	KfV, TØI, SWOV, ETSC

Table 5: Overview and time schedule for deliverables according to the contract

## 2. Tools and data collection

The **study design** was based on two main cornerstones:

- ◆ A clear definition of Best Practice Measures in road safety and
- ◆ A broad network of road safety experts in all 27 countries who used this definition as a basis for deciding which measures to submit as “Best Practice from (their) home countries” to the project. Finally these experts also developed dissemination strategies for the project results.

Chart 3, below, demonstrates how the broad basis of all collected potential Best Practice Measures were condensed in several steps and how the final selection for inclusion in the handbooks for dissemination was carried out.

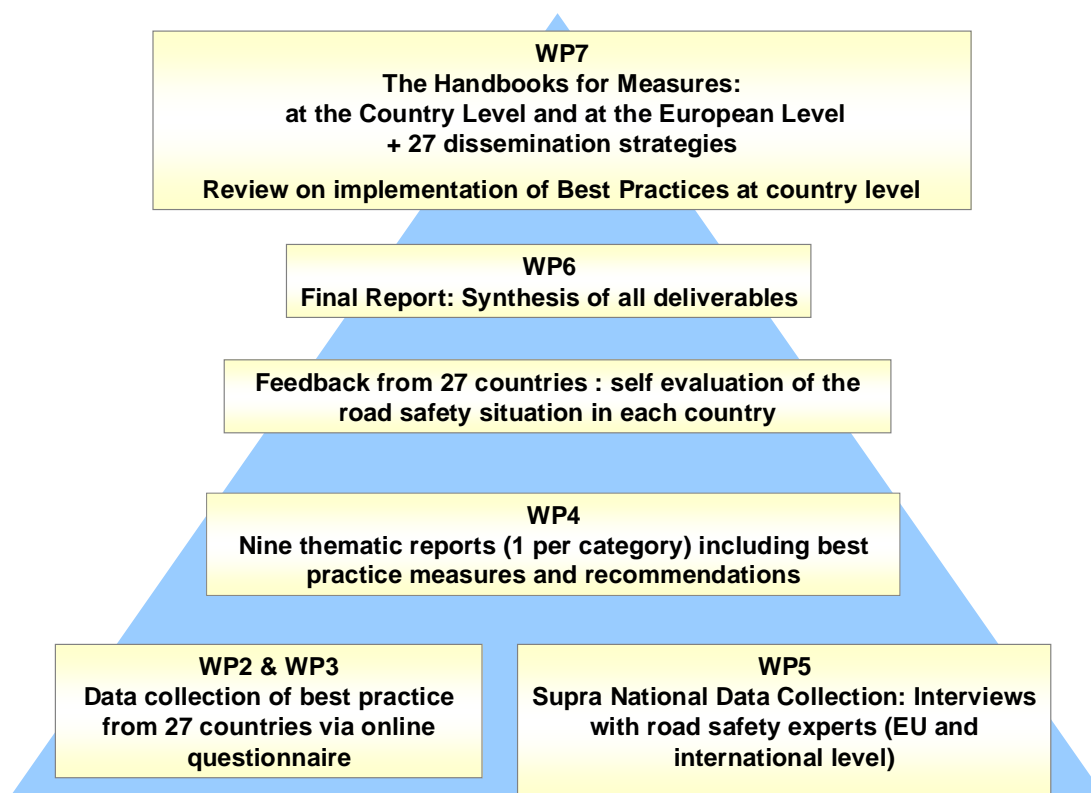


Chart 3: Pyramid of Work packages

### 2.1 Classification of road safety measures

The SUPREME project sought to cover a wide range of road safety measures at various levels such as the national, regional and local, as well as measures regarding the industry, road operators and private organisations. All kinds of areas had to be covered, from institutional organisation of road safety, penalty systems and accident surveys to driver training and post accident care. In order to

structure this broad variety as well as to draw the attention equally to all kinds of measures - a detailed system of categories was developed.

The nine categories are – as stated above: “Education & Campaigns”, “Driver Education, Training & Licensing”, “Rehabilitation and Diagnostics”, “Vehicles (incl. ITS)”, “Infrastructure (incl. ITS)”, “Enforcement”, “Statistics & In-depth Analysis”, “Institutional Organisation of Road Safety” and “Post Accident Care”. Post Accident Care is not a topic of traditional road safety work. The European Commission requested this topic - which is originally a domain of public health – in order to round off the scope of measures.

At first, a tenth category called “bundles of measures” was planned, but cancelled after much discussion at the Kick off Meeting. The concern was expressed that measures would be put into this 10<sup>th</sup> category just because they incorporated more than one measure and then be treated as only one measure. The initial idea was to present those measures there that showed synergic and enhanced effects due to integrated implementation.

To draw a clear picture of which measures should be covered by each category, subcategories and, where necessary, inclusion/exclusion criteria were defined. These nine classification grids were the basis for the further tool development (see Annex 2 for details concerning all categories), mainly for the Best Practice questionnaire (see chapter 2.4.2.).

Example - the classification grid of the category *Rehabilitation and Diagnostics*:

- ◆ “Driving under the Influence” (DUI) - Rehabilitation programmes;
  - Intervention for young drivers;
  - Interventions for experienced drivers;
  - Mixed target groups;
  - Other;
- ◆ Rehabilitation programs for non DUI-offenders;
  - Intervention for young drivers;
  - Interventions for experienced drivers;
  - Mixed target groups;
  - Other;
- ◆ Programs based in diagnostics mainly;
  - Testing elderly drivers;
  - Testing young drivers;
  - Testing conspicuous drivers;
  - Other.

## 2.2 Definition of Best Practice

The main challenge of this project was the identification of Best Practice Measures. There is no standard definition of “Best Practice” available, but obviously it refers to a road safety policy that has proven to be successful. Successful road safety policy brings about a sustained reduction in the number of road accidents or accident victims, in particular the number of fatalities and serious injuries<sup>2</sup>.

Thus road safety policy must include measures *that are known* to reduce the number of accidents or their severity, *or that can reasonably be expected* to improve road safety. An important element of a successful road safety policy is therefore that it is based on knowledge<sup>3</sup>.

In the course of the early phases of the project eight criteria were defined in order to select and describe Best Practice. These eight criteria are applied to measures in all nine categories.

1. **Focus of the measure:** Best Practice Measures (BPM) have a clearly defined focus. This includes a clear definition of the road safety problem to be solved and precise idea of how the measure will affect this problem.
2. **Size of the road safety problem:** BPM aim at reducing traffic accidents or risk factors which stand for a large proportion of severe injuries and fatalities in road accidents.
3. **Expected effects on safety:** BPM provide a quantitative assessment of the likely impact of the measure on accidents or on risk factors.
4. **Evaluation of effects:** An evaluation of effects of BPM on road safety is ideally based on accident statistics. Ideally, the implementation of BPM results in an obvious reduction of fatalities and severe injuries.
5. **Costs and benefits:** BPM provide a cost-benefit analysis with the result that benefits exceed their costs.
6. **Acceptance:** BPM have good public and policy maker acceptance.
7. **Sustainability:** BPM are not single events, they are rather characterised by duration and continuity. Likewise their effects on road safety are long term effects.
8. **Transferability:** BPM include strategies for using the measure successfully on a larger scale, either on the regional, national or European level.

Evidently, many road safety measures cannot respond to these eight criteria in numerical terms and with hard facts, because evidence-based effects or evaluation studies are rare. After data collection and data analysis we had to face the fact that the eight criteria proved to be quite restrictive and demanding.

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<sup>2</sup> A further challenge for future will be to deal also with material damages, and to reach and document reductions also in this field.

<sup>3</sup> Rune Elvik, Development of criteria for identifying best practice in road safety, unpublished paper 2006

In order to cope with these circumstances some fine-tuning of the initial selection process was necessary. Mainly for the elaboration of the Handbooks a distinction between best, good and promising examples seemed to be recommendable:

- ◆ In order to be labelled as *'Best Practice'*, a measure should comply with most of SUPREME's internal selection criteria<sup>4</sup>, in particular its effectiveness in terms of expected reduction of road crashes, deaths and serious injuries should have been demonstrated in previous scientific evaluation work;
- ◆ *'Good Practice'* measures fit in with most of the criteria, but suffer from a lack of data in the criteria 'scientific evaluation of the effects' and/or 'cost benefit ratio';
- ◆ *'Promising Practices'* in the *Handbook of Measures at the Country Level* are mainly "new" measures that have not yet been subject to a full-fledged evaluation but, according to expert opinion, have a high potential of improving road safety.
- ◆ *'Promising Practices'* in the *Handbook of Measures at the European Level* are measures that are not yet implemented at the European or international level but have shown to be successful in one or several Member States.

## 2.3 Selection of Best Practice Measures (BPM)

The selection and collection of Best Practice Measures followed two approaches – a national and an international one. The national approach used standardised questionnaires for data collection and is based on the investigations of 27 road safety experts in their home country. The second approach, the so called Supra National Data Collection was a qualitative approach based on interviews with road safety experts on a European and international scale. This research was carried out by the Austrian Road Safety Board (KfV), the European Transport Safety Council (ETSC) and TRL Limited.

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<sup>4</sup> See chapter "Definition of Best Practice" of this report

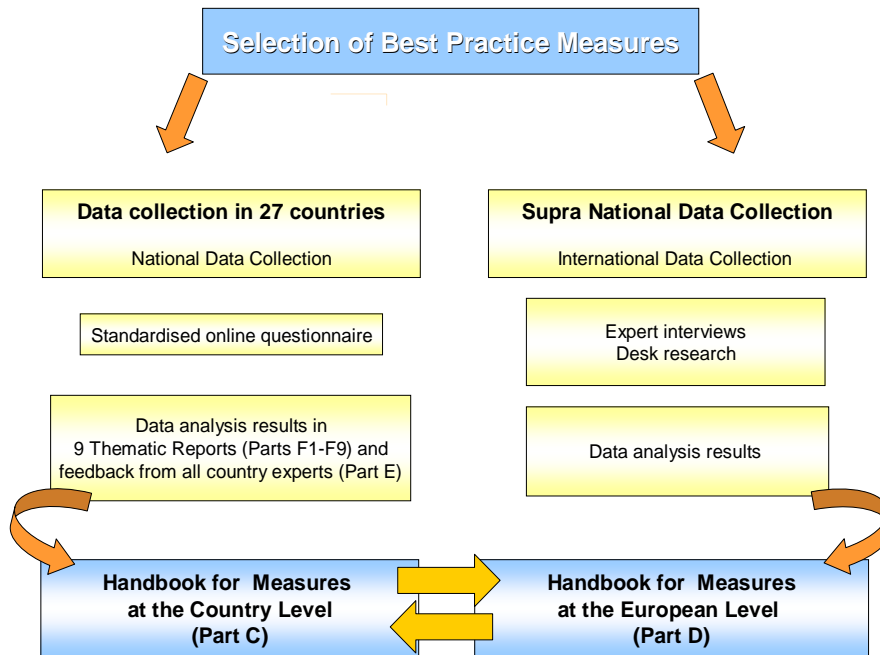


Chart 4: The two approaches of data collection

### 2.3.1 Data collection in 27 countries

The first step was to discuss the eight selection criteria and define a basis for the development of a standardised questionnaire. All country experts had to take these criteria into account when collecting Best Practice Measures in their countries. The reported Best Practice Measures should meet most of the eight criteria. It was agreed not to define a minimum number of criteria to be fulfilled in order not to scare off country experts from submitting measures.

In a second step, all submitted measures were analysed and synthesised by an expert group, the so called Analysis Group. This group was given the ambitious task of comparing all submitted measures within the categories and of picking out the “very best” per category. This process was supervised by the Steering Committee. This work resulted in nine thematic reports (one report per category), which presented the Best Practice candidates, nominated for the *Handbook for Measures at the Country Level*. The analysis of BPM included the pros and cons and discussed their key success factors as well as their critical issues.

### 2.3.2 The Supra National Data Collection

The “Supra National Data Collection” (SNDC) intended to produce an international view on Best Practice Measures in road safety. Therefore, representatives of major European and international organisations in the field of road safety were asked to contribute their experience and their visions for the future development of road safety.

The SNDC was also required to focus on special topics such as barriers to implementation, necessary conditions, framework requirements, essential aspects for cooperation, visions and suggestions for the future. Hence, the SNDC was called upon to close gaps and provide knowledge from representatives of different organisations and fields of work.

In order to collect the experience of expert's qualitative guidelines were developed to be answered either in written form or in face to face interviews. The results of these investigations were incorporated into the *Handbook for Measures at the European Level*.

## 2.4 Tools for data collection and analysis

This chapter briefly describes the tools for data collection and analysis.

### 2.4.1 *The SUPREME project-website*

For the whole project duration the SUPREME website provided valuable support for all partners<sup>5</sup>. The website consisted of a public site including key facts about the ongoing project and a protected site, accessible only for partners and the Commission. This site was used to exchange information from the very beginning of the project. It resulted in the following:

- ◆ a discussion about the criteria defining Best Practice in road safety. Four papers on this topic were available for all partners [from R. Elvik (TØI), St. Siegrist (bfu), J. Monclus (FITSA) and R. Christ (KfV)];
- ◆ visibility of the contributions of each project partner - the project was started by asking every partner for a rough overview on Best Practice in his/her country. All the contributions were immediately put on the web;
- ◆ access to all working papers, such as presentations of meetings, templates etc.;
- ◆ availability of all reports such as the Interim Report and the nine Thematic Reports
- ◆ enhancing the information exchange between all project partners by using the detailed list with contact and role of every partner in the project.

### 2.4.2 *The online questionnaire*

The online questionnaire<sup>6</sup> was accessible to DG TREN and project members only. In order to enter a Best Practice Measure, the correct subcategory in which the Best Practice Measures (BPM) fitted best, had to be chosen. By clicking a subcategory, the first page of the questionnaire opened.

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<sup>5</sup> At the end of the project the information will be available at [http://ec.europa.eu/transport/supreme/index\\_en.htm](http://ec.europa.eu/transport/supreme/index_en.htm) (see chapter 3).

<sup>6</sup> [http://ec.europa.eu/transport/supreme/index\\_en.htm](http://ec.europa.eu/transport/supreme/index_en.htm)

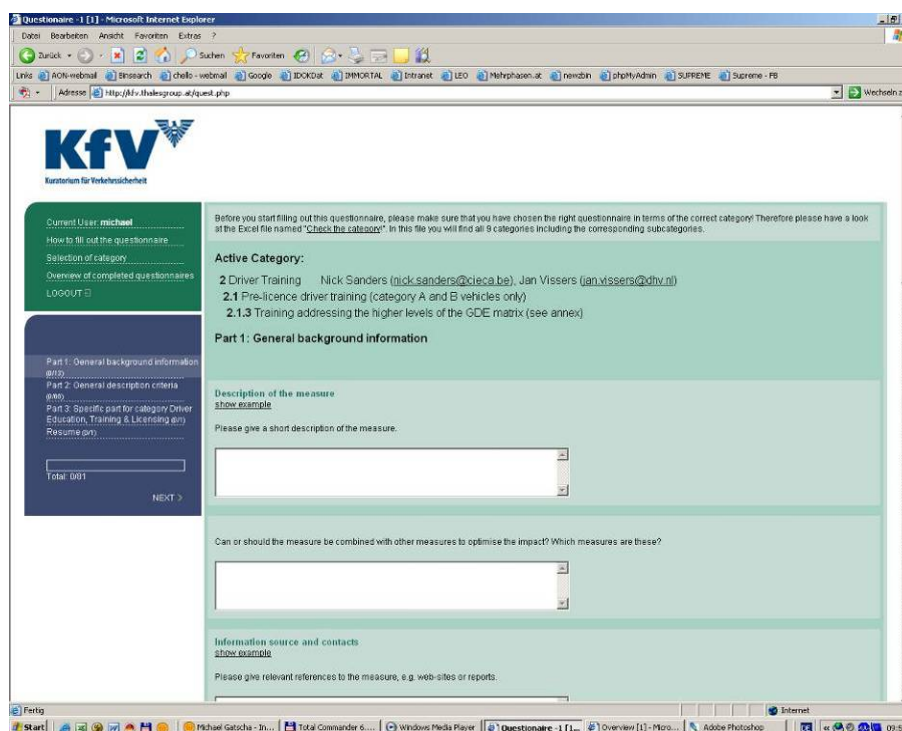


Figure 1: Screenshot of online questionnaire (first page)

Three parts had to be filled in:

- ◆ General background information about the BPM.
- ◆ The eight general description criteria: this was the “heart” of the questionnaire and identical for the 8 categories. Only the category statistics and in-depth analysis featured other criteria.
- ◆ Specific description criteria: this part varied slightly between categories. For example, regarding the category of driver testing – the question was whether the measure had been developed on the basis of scientific analysis; what quantity of driving experience was required for the learner. In case of rehabilitation questions concerned for example, whether the programme was combined with any other measures and what the main focus was.

The web-site offered some valuable support and facilitated the procedure of handling the questionnaire:

- ◆ all submitted questionnaires of the SUPREME-partners were visible on one summary page in terms of title of the measure, category, country and name of the expert;
- ◆ over the period of data collection DG TREN, the project-coordinator, the Analysis Group and the Steering Group had the possibility to read each submitted questionnaire in RTF-format;
- ◆ in this way, they could immediately send questionnaires back to Country Experts, when clarification or additional information was needed. In those cases the questionnaire reappeared in the list of uncompleted questionnaires of the relevant partner;
- ◆ when data collection was definitely completed, all project partners could read and print all questionnaires.

### 2.4.3 *Manual for the Supra National Data Collection*

The eight selection criteria were also a basis for the SNDC. In addition to these criteria, the following questions were used as a guideline for the interviews:

1. What are the most successful European and international road safety measures from your point of view?
2. What are the most promising visions and new approaches from a pan-European and international point of view? Which priorities should be set in the following years?
3. What lessons do we have to learn from “bad” practice measures? What should we avoid in the future road safety work in order to be successful?
4. Which successful measures do exist in other areas in order to increase safety, health and quality of life in general? Please describe Best Practice Measures which either road safety or which might be transferred to road safety.
5. What are the key factors of successful co-operations and networks in the road safety work (on global and/or European level)? How can the European level help the national and local levels to implement Best Practice Measures?

28 European and global organisations were contacted; 14 responded to the questionnaire. The responding experts were representatives from manufacturers, lobby organisations, police, politics, and industry. Four Best Practice proposals were received from the overseas contacts.

## 2.5 **Methodological discussion on data collection and analysis**

Two major challenges had to be met in the SUPREME-project: Firstly, all fields of road safety measures had to be covered and secondly – due to the need to cover 27 countries - a large network of road safety experts had to be involved in the project work. These two facts posed a lot of opportunities as well as a certain amount of risks.

In brief, the advantage was a broad and fruitful information exchange, an intensive discussion between experts with diverse professional background and expertise coming from different organisations in numerous countries. We had the opportunity to learn from each other which is always paired with the challenge of developing a common understanding and balancing a broad range of working styles and cultures. And of course, the organisational backing of the experts varied to a huge extent: some partners were able to draw on the resources of large non-profit organisations or universities whereas other partners had to rely solely on individual experts.

The broad range of themes (based on the premise that all areas of road safety measures had to be covered) bears the potential to benefit from diverse expert opinions. However, the definition of Best Practice as the key result of methodological discussions was a demanding task. According to our experience such studies, which aim at a broad survey in numerous countries and topics, have to compromise between the need for:

- ◆ detailed and in-depth description of single measures;
- ◆ coverage of a broad range of themes.

Since – in terms of scope and geographical coverage – this study was unprecedented, we had to develop the methodological framework along these two requirements. In our view, we have met the challenge successfully although – as is usual in most ventures – next time we would modify some of the steps taken. In the following section, we would like to highlight some of the major milestones in the course of our work in order to illustrate critical steps and inherent challenges.

### 2.5.1 *Evaluation and efficiency assessment*

One of the key points is that, at the end of the day, the major lines of argument in the evaluation and assessment of safety measures will always focus on accident statistics. It is important to be aware of the analytical limits of such data. Accidents statistics reveal a lot about circumstances of accidents but have limited value as regards the explanation of accident causes. In most cases of standard accident statistics the “clear notion” of the accident problem currently limits itself to a target group and to their accident data. It is evident that the “clear notion” should also include information on the mechanisms that make measures efficient and effective. It is important to point out which key features in the framework of risk models are actually backed up with valid factual information based on statistical data. Such risk models would be a considerable achievement for various reasons. Modelling would be a solid foundation in terms of:

- ◆ harmonised and comparable evaluation results;
- ◆ setting-up cost-benefit rankings;
- ◆ assessment of the sustainability of measures;
- ◆ key information for the transfer of measures between countries;
- ◆ identification of adverse side effects.

In particular, the first point turned out to be a crucial issue in the methodological discussion. It is only possible to evaluate measures for which relevant statistics are available therefore - in a first step - measures were excluded for which evaluations do not exist or for which the statistical basis of evaluations is not available. As a result, we had to acknowledge that the most frequent barrier for road safety measures from being labelled as Best Practice according to the SUPREME definition was the lack of stable evaluation results and/or efficiency assessments.

SUPREME – as many other previous surveys with similar aims – was challenged by the lack of evaluations or the existence of longer-term statistical evidence on the effectiveness of measures. As a consequence of this discussion it was proposed to add additional criteria, i.e. the description of mechanisms which determine the effect of the measure.

### 2.5.2 *The questionnaire*

The questionnaire was developed by a group of experts coming from different institutions and professional backgrounds. Thus many methodological considerations and features of a broad range of measures were taken into account. The resulting questionnaire was quite complex in order to meet the quality criteria of data collection: as an implicit consequence SUPREME could not strive for a huge quantity of completed questionnaires due to the limited resources (given the number of countries and areas to be covered). The discussion on the questionnaire made the conflicts between a broad survey and the need for detailed information on individual measures evident. A decision in favour of comprehensive information was taken. As a consequence, in certain fields only a very limited number of measures were submitted.

### 2.5.3 *The Supra National Data Collection (SNDC)*

It turned out to be quite difficult to gain the requested information from the experts who were addressed in the course of the SNDC. The deadline for data collection had to be postponed and some of the institutions and organisations did not respond at all. The quality of answers in the questionnaire was quite heterogeneous. Thus, given the initial information alone it was difficult to assess and compare measures. Only by way of additional desk research was the thematic depth and detailedness sufficient to serve as key input for the *Handbook for Measures at the European Level*.

### 2.5.4 *Adjustment of the study design*

As in many other projects to some extent, minor or more significant modifications to the study design had been launched in order to optimise the outcomes of SUPREME. Upon discussion with the Commission, it was agreed to modify the initial approach.

### 2.5.5 *Methodological issues concerning data analysis for selected themes<sup>7</sup>*

## **Thematic Report - Education and Campaigns**

In general, the authors introduced the term of promising practices which conform best to the selection criteria which had been established in SUPREME. Strictly speaking, the lack of evaluation results for measures in this field made it difficult to speak of Best Practices. The authors came to the conclusion that the selection of ultimate Best Practices would have required a complete and representative sample of all existing and past measures in European Road Safety Education. This would have implied an exhaustive in-depth literature study plus numerous expert interviews – an exercise which was clearly far beyond the scope of this study.

As a solution, the authors emphasised the quality arguments in the description of the selected measures in order to illustrate crucial features of promising practices.

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<sup>7</sup> The experts of the categories vehicles, infrastructure and statistics did not give statements.

### **Thematic Report - Driver Testing, Training and Licensing**

The authors of this report stated that there was a discussion whether a measure which has effectively identified risk factors in the programme design is sufficient to be considered as Best Practice. The conclusion was that there are too many other variables influencing the effectiveness of the measure for this variable to be considered sufficient on its own. For example, although a measure such as the Swiss obligatory 2nd phase training for novice drivers has successfully identified risk factors which need to be included in the programme, the timing of the measure (intervening up to 3 years after the driving test) may undermine the effectiveness of the programme. To quote another example: the mere fact that risk factors for young drivers have been identified in the new Norwegian driver training curriculum – designed on the basis of the GDE-Matrix (Goals for Driver Education) – cannot guarantee the effectiveness of the measure. Therefore, the authors conclude that the reality check of the measure, i.e. the experience stemming from implementation over a longer period is just as important as the design or content of the measure, and a good design alone cannot guarantee effectiveness.

### **Thematic Report - Rehabilitation and Diagnostics**

The authors summarised that the measures submitted represent a very small sample of all the measures that are applied in this field in the partner countries. Efforts had been undertaken to motivate some country-partners to describe further quite well-known potential Best Practice Measures; but these attempts were not very successful. Only one measure could be added with the help of documentation sent by the Dutch colleague. However, none of the few reported measures had been properly scientifically evaluated.

### **Thematic Report - Enforcement**

The author stated that almost half of the proposed measures concerned speed enforcement, especially fixed speed cameras. Enforcement of drink driving, use of safety devices and legal issues were represented by several measures each. But there were no proposals e.g. in sub-sub categories such as driving time regulations, enforcement at borders, enforcement of foreign vehicles or administrative support systems. This was the case even though examples of such measures were specifically asked for from national contact persons after it became evident that no such measures had been submitted in the first round of the survey.

In addition, the effectiveness of the proposed measures in many cases had to be assessed by the author on the basis of incomplete data. Proper evaluation studies were rare and in most cases the decision whether the measure passed the effectiveness criterion was based on the description of the measure itself, its effect mechanism, size of the target group and previous knowledge of the effectiveness of similar measures. No clear rules for this process could be developed, but the decisions for the inclusion or exclusion of the measure from further analysis was verbally justified.

### **Thematic Report - Institutional Organisation of Road Safety**

To some extent this theme differs from the other 8 themes. Unlike e.g. for infrastructure measures, large parts of the current institutional organisation are, to a very high extent, pre-determined by the political and administrative system. The authors took the approach to outline the major issues related to this theme: e.g. goals, coordination and decentralisation, incentives and responsibilities, resources and quality control. Along these lines, the guiding ideas for institutional organisation of road safety have been developed. A comprehensive, though to-the-point, report was compiled based on a concise set of Best Practices and the related description of the major quality criteria for the selected measures.

### **Thematic Report - Post-Accident Care**

The authors of the report took a straight-forward approach in setting up a ranking of the measures which have been submitted. The ranking is underpinned with considerations on cost-QUALY<sup>8</sup> relations. The arguments on the cost-QUALY relations help to determine the character of the measure and – to a certain extent – also to bridge the lack of evaluations and studies.

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<sup>8</sup> QUALY: quality-adjusted life years

# **SUPREME results**

This chapter provides an overview of results of the SUPREME project: results of data collection, the *Handbook for Measures at the Country Level*, the *Handbook for Measures at the European Level*; key elements of the dissemination strategy are presented and an overview of the nine Thematic Reports.

### 3. Results from data collection at the country level

In total 250 Best Practice nominations were submitted by the project partners, taking the eight selection criteria into account. The category “Education & Campaigns” received the highest amount of contributions, followed by the categories “Infrastructure” and “Enforcement”. An overview on the complete data collection is available on the European website (Final Report, Part B):

[http://ec.europa.eu/transport/supreme/index\\_en.htm](http://ec.europa.eu/transport/supreme/index_en.htm)

Country	Category									
	1(Ed)	2(D)	3(R)	4(V)	5(I)	6(En)	7(S)	8(I)	9(P)	Σ
Austria	1	3	2	0	4	1	0	3	0	14
Belgium	8	3	4	1	6	4	1	2	0	29
Czech Republic	3	0	0	1	2	1	1	0	0	8
Denmark	5	1	0	1	3	4	0	1	1	16
Estonia	1	1	0	1	0	2	1	0	1	7
Europe*	0	0	0	3	0	0	0	0	0	3
Finland	0	0	0	0	2	1	0	1	1	5
France	2	0	0	0	0	1	0	1	0	4
Germany	11	5	2	0	2	0	0	1	0	21
Greece	3	0	0	0	0	0	0	0	0	3
Hungary	2	0	0	2	2	1	0	0	0	7
Ireland	5	0	0	0	3	0	0	0	0	8
Italy	0	0	0	0	0	1	2	0	0	3
Latvia	3	0	1	3	1	1	1	0	0	10
Lithuania	1	1	0	0	1	1	0	0	0	4
Luxembourg	0	1	0	0	0	0	0	0	0	1
Malta	1	1	0	0	1	1	1	0	0	5
Netherlands	2	1	0	2	2	3	4	5	2	21
Norway	1	2	0	1	2	1	0	1	0	8
Poland	1	0	0	0	0	0	0	1	1	3
Portugal	1	0	1	0	0	0	0	0	0	2
Slovakia	3	0	0	0	0	2	0	1	0	6
Slovenia	13	2	0	0	0	0	0	0	0	15

Spain	3	1	0	2	4	4	0	3	1	18
Sweden	1	3	0	0	4	6	0	0	0	14
Switzerland	1	2	1	0	1	0	1	2	1	9
Unit. Kingdom	1	0	0	0	3	1	1	0	0	6
Total	73	27	11	17	43	36	13	22	8	250

\*) Measures implemented on European level

(1) = Education & Campaigns

(2) = Driver Training, Testing & Licensing

(3) = Rehabilitation & Re-licensing

(4) = Vehicles (incl. ITS)

(5) = Infrastructure (incl. ITS)

(6) = Enforcement

(7) = Statistics & In-depth Analysis

(8) = Institutional Organisation of Road Safety

(9) = Post Accident Care

Table 6: Submitted questionnaires per country and category

Several steps of analysis and a selection process took place. The following table presents Best Practice, good and promising measures per country.

Country	Selected measures		
	Best Practice Measures	Good Practice Measures	Promising Measures
Austria		2	
Belgium		2	1
Czech Republic			
Denmark	1	2	
Estonia			1
Finland	2		1
France	2	1	1
Germany	1	1	
Greece			
Hungary			
Ireland			
Italy			
Latvia		2	1
Lithuania			
Luxembourg			
Malta			
Netherlands	4	3	2
Norway	1		
Poland			
Portugal			

Slovakia			
Slovenia			
Spain			
Sweden	1	2	
Switzerland	2	1	1
Unit. Kingdom	2	1	
Various countries	8	4	2
Total	24	21	10

Table 7: Submitted questionnaires per country according to Best Practice, good and promising measures.

## 4. Results from Supra National Data Collection (SNDC)

The European and international organisations that responded were:

ACEA (European Automobile Manufacturer Association);

CIECA (International commission for driver testing);

EC DG-TREN (European Commission Directorate-General Energy and Transport);

ERTICO (Intelligent transport systems and services-Europe);

ETF (European Transport Workers Federation);

ETSC (European Transport Safety Council);

EuroNCAP (European New Car Assessment Programme);

FEVR (European Federation of Road Traffic Victims);

OECD/ECMT (European Conference of Ministers of Transport);

RED CROSS Europe;

SEI (Stockholm Environment Institute);

T&E (European Federation for Transport and Environment);

TISPOL (European Traffic police network);

UNECE (United Nations Economic Commission for Europe);

WHO (World Health Organisation).

The following measures on the European level were nominated by the respondents:

Campaigns: TISPOL campaign

UN ECE Road Safety Week/Road Safety Day

Red Cross Road safety campaign

Vehicles: Fitment of vehicles with collision avoidance/collision severity mitigation systems (BAS, ESC)

EuroNCAP

European Enhanced Vehicle Safety standards for pedestrian protection

Daytime Running Light

World Forum for Harmonisation of Vehicle Regulations (UN ECE working party 29)

Infrastructure: Road Safety Audit

Low Cost Remedial Measures

Traffic Calming

Civilised Cities and Urban Design.

Enforcement: European Seat Belt Directives

0,5 ‰ BAC Limit EC Recommendation

Speed Cameras

Speed Control

Alcohol Checks

Measures covering more than one area:

Swedish Vision Zero

Policy maker statement in France 2002: "Road Safety is one of top three priorities in France"

Conventions and Resolutions adopted under the auspices of the UN ECE.

DG-TREN Road Safety Unit officials mentioned several European measures as suggestions for Best Practice, such as Euro BOB, EUchires, Nuit européenne sans accident, SARAC2, SUNFLOWER+6, the European Road Safety Charter and the European Road Safety Observatory.

The Supra National Data Collection also took a look at overseas' measures, TRL investigated and nominated Van Reenen Pass Community Emergency Medical Service in South Africa, Road Safety Action Plans in New Zealand, the Crash Analysis System in New Zealand, and Costa Rica's Seat belt Campaign.

Further, Supra National Data Collection presented good practice nominations from other areas (e.g. social or medical field) that could serve as examples in road safety work, aspects that should be avoided, visions and ideas of the experts for cooperation. At the end specific recommendations were derived concerning Best Practice Measures, implementation and future focal points of road safety work.

## 5. The nine Thematic Reports

The so called Analysis Group had the task of synthesizing the information from all 250 submitted Best Practice Measures (BPM). This task was divided into the nine categories, so that each group of experts took care of only one category, typically in his area of expertise (see chapter “task division, WP4”) The main intention of this work step was to prepare concise information and to assess BPM for the *Handbook for Measures at the Country Level*. Therefore, the thematic reports were intermediate products for further processing. The eight criteria served as a basis of assessment within each category, but every Analysis Group expert was free to develop a specific assessment strategy for his/her own category. Each Thematic Report consisted of:

- ◆ general overview on relevant studies and projects concerning the referring category;
- ◆ description of the specific assessment strategy and the analysis process;
- ◆ of all measures collected and analyzed;
- ◆ policy recommendations and expertise.

The authors of the Thematic Reports are:

- ◆ for Education & Campaigns - Peter Silverans (IBSR) and Pieter De Neve (IBSR);
- ◆ for Driver Education, Training & Licensing - Nick Sanders (CIECA) and Jan Vissers (DHV);
- ◆ for Rehabilitation and Diagnostics - Jacqueline Bächli-Bietry (bfu), Yvonne Achermann (bfu) and Stefan Siegrist (bfu);
- ◆ for Vehicles - Tariq van Rooijen (TNO), Ben Immers (TNO) and Isabel Wilmink (TNO);
- ◆ for Infrastructure - Leif Sjögren (VTI) and Hans Thulin (VTI);
- ◆ for Enforcement - Veli-Pekka Kallberg (VTT);
- ◆ for Statistics & In-depth Analysis - Ellen Berends (SWOV);
- ◆ for Institutional Organisation of Road Safety - Alena Erke (TØI);
- ◆ for Post Accident Care - Markus Fiala (ÖRK) and Peter Kaiser (ÖRK).

Each Analysis Group expert was supported by a member of the Steering Committee. The selection of the final BPM was done in close cooperation with the Steering Group. A list of all collected measures can be found in Final Report Part B.

## 6. Handbook for Measures at the Country Level

The *Handbook for Measures at the Country Level* (Part C of the Final Report; one for all 27 countries) - is the major policy oriented synthesis of the study results, aimed at Member States. It contains a large variety of practices of best, good and promising road safety measures from all parts of Europe. It is not a scientific report, but a valuable pool of information.

The *Handbook for Measures at the Country Level* demonstrates that road safety improvements can be reached through implementation of relatively simple measures and examines successful experiences elsewhere in Europe. “Reinventing the wheel” and “trial and error approaches” to road safety can thus be largely avoided.

Some road safety areas, e.g. vehicles safety, are largely under the responsibility of the European Commission and other international bodies. However, as most areas remain within the responsibility of national governments, those areas are increasingly delegated to regional or local authorities. The *Handbook for Measures at the Country Level* provides a basis of information and possible measures for national, regional and local policy makers and decision makers, for road safety practitioners, for interest groups, etc.; in short, for all those who are professionally involved in road safety work. The Handbook describes Best Practice Measures in the nine areas:

- ◆ Institutional organisation of road safety;
- ◆ Infrastructure;
- ◆ Vehicles and safety devices;
- ◆ Road safety education and campaigns;
- ◆ Driver training;
- ◆ Traffic law enforcement;
- ◆ Rehabilitation and diagnostics;
- ◆ Post Accident Care;
- ◆ Road safety data and data collection.

Each section of the handbook provides some general information about the aims and the general principles, illustrated by a number of best, good and promising practices in the area.

There is a warning that the inventory of measures should not be misunderstood as a “going shopping” guide. It stresses that there should always be an underlying road safety concept and a strategic vision before starting to implement concrete measures.

The table in Annex 3 shows all the measures that were elected within the nine Thematic Reports.

In the *Handbook for Measures at the Country Level*, the measures are structured according to two criteria:

- ◆ implementation area;
- ◆ differentiation between best, good and promising measure.

Furthermore, interesting information is provided to complete the picture of measures.

The selection process of the nominated Best Practice measures involved several analytic steps and feedback loops.

Within this process some measures were combined (e.g. measures for home zones and for 30 kmph zones), some measures were added by desk research to complete an area or to create a better overview. After this step of analysis a further assessment was done:

- ◆ In order to be labelled as ‘*Best Practice*’, a measure should comply with most of SUPREME’s internal selection criteria<sup>9</sup>, in particular its effectiveness in terms of expected reduction of road crashes, deaths and serious injuries should have been demonstrated in previous scientific evaluation work;
- ◆ ‘*Good Practice*’ measures fit in with most of the criteria, but suffer from a lack of data in the criteria ‘scientific evaluation of the effects’ and/or ‘cost benefit ratio’;
- ◆ ‘*Promising Practices*’ are mainly “new” measures that have not yet been subject to a full-fledged evaluation but, according to expert opinion, have a high potential of improving road safety.

The following table lists all measures represented in the *Handbook for Measures at the Country Level*.

Categories and Subcategories	Title of measure	Country
<b>Institutional organisation of road safety</b>		
Road safety visions	Sustainable safety (B)	NL
Road safety visions	Vision Zero	SE
Road safety programmes and targets	Federal action programme for greater road safety (P)	CH
Efficiency Analysis	TARVA (B)	FI
Resource allocation	Road safety fund (P)	BE
<b>Road infrastructure</b>		
Land use and network planning	Hierarchical, mono-functional road network (G)	NL
(Re)construction and design	Low speed zones in residential areas (B)	various
(Re)construction and design	Roundabouts (B)	various
(Re)construction and design	Measures against tree colli-	FR

<sup>9</sup> See chapter “Definition of Best Practice” (Final Report, Part A)

	sions(P)	
(Re)construction and design	High risk site management (G)	various
Signing and marking	Rumble strips (B)	SE
Signing and marking	Variable message signs (G)	various
Maintenance	Winter maintenance (B)	FI
Quality assurance	Road safety audits (B)	various
Quality assurance	Road safety inspections (G)	various
<b>Vehicles and safety devices</b>		
Safe car design	Euro NCAP (B)	various
Two wheeler crash protection	Mandatory bicycle helmet use (P)	various
Vehicle conspicuity	Daytime Running Lights (B)	various
Vehicle conspicuity	Bicycle side reflection (B)	various
Driver Support system	Intelligent Speed Assistance (P)	various
Prevention of unsafe traffic behaviour	Alcohol Ignition Interlock (B)	various
Prevention of unsafe behaviour	Event Data Recorders (black boxes) (B)	various
<b>Road safety education and Campaigns</b>		
Road safety education	The road safety label in the Netherlands: Zebra Seef (P)	NL
Road safety education	Educative continuum (G)	FR
Road safety education	Flash! A multi media theatre monologue (G)	BE
Drink Driving Campaign	The BOB-Campaign (G)	BE
Seat Belt Campaign	Goochem, the armadillo (G)	NL
Campaign on pedestrian visibility	The sign of light (G)	LV
Campaign for young car passengers	Speak Out! (B)	NO
<b>Driver training</b>		
Training in Driving Schools	The initial driver training (G)	DK
Accompanied Driving	More experience for learner drivers (G)	SE
Insight-based driver training	Safety Halls (G)	SE

<b>Traffic law enforcement</b>		
Speeding	The safety camera programme (B)	UK
Speeding	Automatic speed enforcement (B)	FR
Speeding	Section control (B)	NL
Drink Driving	Random Breath Testing (B)	various
Seat belt and child restraints enforcement	Targeted seatbelt enforcement (G)	DK
Penalty point system	Penalty points (G)	LV
<b>Rehabilitation and Diagnostics</b>		
Rehabilitation of severe violators	Mandatory driver improvement (G)	AT
Rehabilitation drink-driving offenders	Training course for recidivist drunk drivers (G)	CH
Rehabilitation of young offenders	Rehabilitation seminar for novice drivers (G)	DE
Diagnostic assessment	Traffic- psychological assessment of drunk drivers (G)	AT
<b>Post accident care</b>		
First Aid	First aid courses integrated in driver training (G)	various
Emergency calls	Promoting the implementation of eCall systems (P)	FI
Efficient emergency responses	Towtrucks on the motorway (G)	NL
Efficient emergency responses	Emergency lanes in congestion (B)	DE, CH
First treatment and transportation	The use of a mobile intensive care unit (B)	DK
First treatment and transportation	Transport of road crash victims by helicopter (B)	NL
Psychosocial support	Psychological support for road crash victims (P)	ES
<b>Road safety data and data collection</b>		
Road crash statistics	Correcting for underreporting of road traffic fatalities (B)	NL
Road crash statistics	The Rhone road trauma register (B)	FR
Exposure data	The National Travel Survey (B)	UK
Exposure data	The road safety information system (P)	LV

Safety Performance Indicators	Monitoring speed and drink-driving offences (B)	CH
Safety Performance indicators	Monitoring mobile phone offences (G)	UK
In-depth crash data	In-Depth analysis of heavy truck crashes (P)	NL

Table 8: Best (B), good (G) and promising (P) measures presented in the *Handbook for Measures at the Country Level*

There was a vivid information exchange during the process of analysing the measures between the experts writing the *Handbook for Measures at the Country Level* and the experts of the *Handbook for Measures at the European level*.

The author of this report is Ingrid van Schagen (SWOV).

## 7. Handbook for Measures at the European Level

The *Handbook for Measures at the European Level* (Part D of the Final Report) aims at completing the information provided in the *Handbook for Measures at the Country Level*. It contains successful or potentially successful Europe-wide road safety practice, identified by European or international organisations. All examples are (or are to be) implemented at the European or international level. The target groups of this document are decision makers across different sectors and levels of government, in particular those responsible for developing and implementing road safety, transport, sustainable mobility or public health programmes and strategies at all levels of government or in the private sector.

The Handbook presents 32 identified best, good or promising practices. The definition of best and good practices was used in accordance with the Handbook for Measures at the National Level. Measures that are not yet implemented at the European or international level but have shown to be successful in one or several Member States have been ranked as ‘promising’ practices.

The practices were collected in a survey among 14 institutions. The questionnaire followed an open, narrative format. Responses were gathered via emails or in the course of personal meetings or phone interviews. This work step was supplemented by additional desk research by the authors. The final set of measures has been classified into areas which closely follow the nine themes of the *Handbook for Measures at the National Level*.

The *Handbook for Measures at the European Level* is not a scientific report but a valuable pool of information. The *Handbook for Measures at the European Level* also explores the synergy that could be obtained by linking road safety to other areas of life such as public health, environment or other transport modes of safety practice.

The SNDC inquiry provided the first input on Best Practice Measures. As the data were of different quality and did not cover the whole picture of international road safety work, additional desk research was done by the authors. Two analysis steps were conducted:

(1) Assessment of the quality of the measure in meeting the eight selection criteria (effectiveness, added value of implementation at the European level, evaluation, etc.)

(2) Nomination of further measures that have been proven as Best Practice by research (and had not been named by the respondents) and measures that provide an added value on the EU level. Additionally, there was a view on the measures of the *Handbook for Measures at the Country Level* in order to get informed about aspects that would help implementation and improvement of national measures.

The Handbook presents the identified best, good or promising practices. The definition of best and good practices was used in accordance with the *Handbook for Measures at the Country Level*. Measures that are not yet implemented at the European or international level but have shown to be successful in one or several Member States have been ranked as ‘promising’ practices.

Category	Title of measure
<b>Policy instruments</b>	<b>Swedish Vision Zero (B)</b> <b>Dutch Sustainable safety (B)</b> <b>Common targets for road safety in Europe (B)</b> <b>Leadership and political will - French success story (B)</b> <b>Impact Assessment Guidelines and Dissemination by DG TREN (B)</b> <b>Safe Communities Movement (P)</b>
Vehicle safety	EuroNCAP (B) Daytime Running Light (B) Advanced seat belt reminders in front seats (B) Intelligent Speed Assistance (P) Fitting of vehicles with Electronic Stability Control (ESC) (P) Alcolocks (G)
<b>Infrastructure safety measures</b>	<b>Safety on secondary roads (B)</b> <b>EU wide application of infrastructure safety management (P)</b>
Enforcement	TISPOL, the European Traffic Police Network (G) EU-wide introduction of best enforcement methods (P) EU-wide system for facilitating cross-border enforcement (P)
<b>Education and campaigns</b>	<b>Road Safety Week/Road Safety Day (G)</b> <b>Road Safety Charter (G)</b>
Tackling young drivers higher risks	Guidelines for Driver Training (P)
<b>Post accident care</b>	<b>Emergency call system “eCall” (P)</b> <b>Rettungsgasse (G)</b>

Data collection and analysis	Safety Performance Indicators (B) European Road Safety Observatory (ERSO) (P) Crash Analysis System in New Zealand (B) US Fatality Analysis Reporting System (FARS) (G) SARTRE study (G)
<b>Practices from other policy areas:</b>	<b>A Cardiff process for road safety? (B)</b> <b>Using health professionals as advocates for road safety (P)</b> <b>Promoting healthier transport modes (G)</b>

Table 9: Best Practice (B), good (G) and promising (P) measures presented in the *Handbook for Measures at the European Level*

The author of this report is Graziella Jost (ETSC).

## 8. Review of Implementation at the Country Level

The country surveys (feedback of Country Experts to final set of Best Practice Measures) focussed on the strengths and weaknesses of each country with regard to the recommendations and Best Practice Measures which had been introduced in the nine Thematic Reports. Thus, they formed an important element of the study design:

- ◆ For obvious reasons it was crucial to discuss the proposed set of recommendations and Best Practice Measures from a national perspective, i.e. based on the current state of play in national road safety policies.
- ◆ Country surveys provided complementary information, especially for the dissemination plans. In practice, the implementation of recommendations often has to face barriers which impede or even prevent the deployment of road safety policies. Such barriers might stem from national legislation, lack of public acceptance or budgetary restrictions. These have to be taken into account when aiming at the transformation of measures from one country to another.

A review of implementation (of Best Practices) at country level is available in the Final Report Part E. This report is a synthesis of the feedback provided by all 27 Country Experts. It gives insight into the current state of implementation of the proposed best, good and promising road safety measures. Potential barriers for implementations are discussed along with special successful adaptations of measures.

The authors of this report are Alena Erke (TØI) and Bernhard Schausberger (KfV).

## 9. Dissemination Strategy

Dissemination of the project results is based on two key elements. The first one is the European website, which provides all necessary information, the second one is the large network of project partners who will enhance and survey the dissemination process.

On the European website [http://ec.europa.eu/transport/supreme/index\\_en.htm](http://ec.europa.eu/transport/supreme/index_en.htm) the main project data and results are presented. All parts of the Final Report can be downloaded (in English):

- ◆ Part A – Methodology<sup>10</sup>;
- ◆ Part B – List of all measures collected and analysed;
- ◆ Part C - *Handbook for Measures at the Country Level*;
- ◆ Part D – *Handbook for Measures at the European Level*,
- ◆ Part E – Review of implementation (of Best Practices) at the Country Level;
- ◆ Part F1 to F9 - Thematic Reports according to the nine areas of road safety work.

The commission will seek to translate the *Handbook for Measures at the Country Level* into all official EU languages in due course.

According to European Commission requirements, no paper versions of the final report are produced, the main source for publication is the website.

In the course of the project all 27 country experts elaborated **dissemination strategies** for his/her country. These strategies were presented and discussed in the final project meeting. The initial dissemination event is planned as an **Information Day**, which will take part in Brussels in 2008. Parallel to this presentation of the project results to a broad international public, seminars and workshop at national level will enhance publication and dissemination of the identified road safety measures.

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<sup>10</sup> The authors of this report are Karin Weber (KfV), Klaus Machata (KfV) and Eveline Braun (KfV).

# **Annex 1**

## **BPM Questionnaire**

Please see website: [http://ec.europa.eu/transport/supreme/index\\_en.htm](http://ec.europa.eu/transport/supreme/index_en.htm)

Here you can find a template but also the complete data collection.

The questionnaire was completed by 27 country experts for the potential Best Practice measures nominated by them.

## **Annex 2**

# **Classification grids**

The classification grids helped the country experts to classify a nominated measure and to put it into the correct category.

## Category Campaigns

Subcategory
Driving under the influence
Seatbelt
Protection equipment
Speed
Safety distance
Vulnerable road users
Motorised 2-wheelers
Lightning and visibility
Traffic regulation
Driving license
Courtesy/ Aggression
Lorries, trucks and special transports
Fatigue
Mobile phone
Driving circumstances (weather conditions, night time driving etc
Infrastructure and road works
Technical conditions

## Category Education

Subcategory
Actions/Programmes for pedestrians
Actions/Programmes for cyclists
Actions/Programmes for car passengers
Actions/Programmes for car drivers
Actions/Programmes for pre drivers
Actions/Programmes for motorised 2-wheelers
Actions/Programmes for users of public transport
General Road Safety Education

## Category Driver Education

Subcategory	Sub-sub-category
<b>A. Pre-licence driver training (category A and B vehicles only)</b>	A1. Combinations of professional driver instruction and accompanied driving
	A2. Module-based training starting with vehicle control, then progressing to driving in traffic, etc
	A3. Training addressing the higher levels of the GDE matrix
	A4. Measures designed to encourage the self-evaluation and independent decision-making of the driver
	A5. Structured accompanied driving designed to encourage as much mileage/kilometres as possible in the pre-licence phase (e.g. logbooks, guidelines for accompanying persons, minimum kms/timeframe)
	A6. Measures encouraging a safe driving style
<b>B. Post-licence driver training</b>	B1. Obligatory or voluntary post-licence training specifically for novice drivers, focusing on the higher levels of the GDE matrix, self-evaluation, risk awareness and hazard perception
	B2. Refresher training for motorcyclists (voluntary measures)
	B3. Obligatory accompanied driving measures for novice drivers (post-licence)
	B4. Driver training programmes designed within companies to improve the company road safety record (delivery vans, heavy-goods vehicles, buses only)
	B5. Specific driver training programmes for older drivers
	B6. Specific testing and quality control of post-licence trainers
<b>C. Driver testing (category A and B vehicles only)</b>	C1. Testing addressing the higher levels of the GDE matrix (strategic mobility issues, personality factors, etc)
	C2. Measures designed to encourage/assess the self-evaluation and independent decision-making of the driver
	C3. Assessment stages (other than the official driving test) which are integrated into the pre-licence training programme

<b>D. Driver licensing (category A and B vehicles only)</b>	D1. Restrictive measures or additional conditions designed for novice drivers in the immediate post-licence phase.
	D2. Graduated licensing systems (progressive access towards full licence)

### Category Rehabilitation and Diagnostics

Subcategory	Sub-sub-category
<b>DUI rehabilitation programs</b>	Intervention for young drivers Interventions for experienced drivers Mixed target groups
<b>rehabilitation programs for non DUI-offenders</b>	Intervention for young drivers Interventions for experienced drivers Mixed target groups
<b>programs based in diagnostics mainly</b>	Testing elderly drivers Testing young drivers Testing conspicuous drivers

### Category Vehicles

Subcategory	Sub-sub-category
<b>Adaptations to vehicles (passenger cars / vans / heavy vehicles), including Driver Support Systems</b>	Active safety (support in vehicle control) Passive safety
<b>Prevention of unsafe participation in traffic (passenger cars / vans / heavy vehicles)</b>	Vehicle inspections Regulations Prevention of drunk driving
<b>Other modes</b>	Powered two-wheelers Bicycles Pedestrians Buses / coaches
<b>Other measures</b>	EuroNCAP assessment

### Category Infrastructure

Subcategory	Sub-sub-category
<b>Planning (Urban and rural)</b>	Land use Road Safety Impact Location of major equipment (Schools Network structure
<b>Construction and design (Urban and rural)</b>	Intersection geometry Pedestrian /Bicycle Design and speed Self explaining roads
<b>Equipment and exploitation (Urban and rural)</b>	Traffic managements schemes ITS (Variable message signs etc.) Road side (emergency lanes, crash absorbers etc) Pedestrian and bicyclist facilities Speed reduction (humps, chicanes etc.)
<b>Maintenance and operations (Urban and rural)</b>	Maintenance management and procedures Winter road maintenance procedures
<b>Road Safety Audits and Road Inspections</b>	Audits of road construction Assessment of major transport projects Audits of other road safety projects

### Category Enforcement

Subcategory	Sub-sub-category
<b>Speeding</b>	Fixed speed cameras Mobile speed cameras Section speed control Other speed enforcement
<b>Alcohol &amp; drugs</b>	Random breath testing Drug tests Testing devices and methods
<b>Other road user behaviour &amp; licences</b>	Behaviour at junctions Overtaking & close following Driving licences



	Driving time regulations Pedestrians and bicyclists
<b>Safety devices</b>	Seat belts Helmets Child restraints Pedestrian reflectors
<b>Vehicles</b>	Technical condition (brakes, tyres,...) Loads of lorries and trailers
<b>Legal</b>	Penalty point systems Reduced BAC limit Driver licences Sanctions Driving time limitations Other legal
<b>Other</b>	Enforcement of foreign vehicles Enforcement at borders Administrative support systems

**Category Statistics**

<b>Subcategory</b>	<b>Sub-sub-category</b>
<b>Data bases with accident, driver and victim information containing information about special topics (alcohol, safety restraints, etc.) of people involved in an accident</b>	Completeness and representativity of the accident file Special accident characteristics, Method to accurately collect Easy reporting
<b>Exposure data</b>	Population Driver population Road length Vehicle fleet Mobility

<b>Data about infrastructure, Method to collect road characteristics</b>	<p>Network characteristics</p> <p>Design characteristics sections (separation of (non)motorized traffic, obstacle free zone, barriers/median, speed, traffic calming, design consistency, overtake facilities, parking, road width, N°. of lanes, road surface, ...)</p> <p>Design characteristics intersections (separation of (non) motorized traffic, Intersection type, Traffic lights, traffic calming, ...)</p>
<b>Data about Safety Performance Indicators (surveys). Characteristics of people in traffic, independent of accident involvement</b>	<p>Alcohol and drug use of traffic participants</p> <p>Speed</p> <p>Seatbelts/restraint systems/helmets</p> <p>Daytime running lights</p> <p>Trauma management</p> <p>Offences</p> <p>Visibility</p>
<b>Data obtained from in-depth analysis</b>	Methods and collection systems on in-depth data

### Category Institutional Road Safety

Subcategory	Sub-sub-category
<b>Quantified road safety targets</b>	<p>National target</p> <p>Regional targets</p> <p>Local targets</p>
<b>Long term road safety programme</b>	A national action plan for road safety
<b>Efficiency analysis</b>	<p>Cost-benefit analysis</p> <p>Cost-effectiveness analysis</p> <p>Impact assessment</p>
<b>Resource allocation according to efficiency criteria</b>	<p>Programme budgeting</p> <p>Earmarking public revenue</p>
<b>Funding mechanisms to ensure adequate funding</b>	Setting aside part of insurance premium taxes specifically for road safety
<b>Formal coordination mechanism for road safety policy (road safety board or similar body)</b>	<p>Road safety board or council</p> <p>Advisory council for policy making</p>
<b>Safety incentive schemes in business enterprises</b>	Reward systems for safe driving

### Category Post Accident Care

Subcategory	Sub-sub-category
<b>First Aid</b>	First Aid education connected to driver education Enhancement of First Aid - motivation of road users
<b>Emergency call</b>	Sole versus several numbers Innovative/alternative emergency-call-systems
<b>Efficient response of emergency systems</b>	Aid provided by special trained persons before arrival of ambulance service Reduction of arrival time by (re)allocation of vehicles in emergency services Reduction of arrival time by means of infrastructural measures Reduction of arrival time by means of technical measures Reduction of arrival time by positively influencing behaviour of road users Aid by paramedics vs. emergency physicians on the accident-site
<b>Security and safeguarding of accident sites</b>	On site coordination between enforcement and rescue services Visibility of accident sites Visibility of persons being or working on accident sites
<b>Transportation</b>	Decrease of transport-exposure of patients Decrease in time for transport to medical facility

## **Annex 3**

# **Best Practice Measures – nominated in the nine Thematic Reports**

The main source for the *Handbook for Measures at the Country Level* are the Best Practice nominations identified in the nine thematic reports. It is a fact that not every category has identified Best Practices, but at least good or promising ones have been noted. The following table gives an overview of these nominations.

Table: Best Practice Measures nominated in the nine thematic reports

Categories and Subcategories	Title of BPM	Country
<b>Education &amp; Campaigns</b>		
General road safety education	Educative continuum	F
	RSE label for schools	NL
Actions/programmes for car drivers	“Flits”: a multi-media theatre monologue	B
Campaign: Driving under the influence	Bob	B
Campaign: Seat belts	Goochem, the armadillo	NL
Campaign: Lightning and visibility	The sign of light	LV
Campaign for young drivers	Speak out!	N
<b>Driver training, testing and licensing</b>		
This theme consisted of four sub themes. A substantial number of measures was submitted as Best Practice Measures, but due to strict application of the selection criteria, mainly the criteria “Evaluation of effects” none of them actually qualified for Best Practice. Nevertheless, the <i>Handbook for Measures at the Country Level</i> presents good and “the most promising” measures” of this category.		
<b>Rehabilitation and Diagnostics</b>		
Twelve rehabilitation programmes and diagnostic measures were submitted as potential Best Practice Measures. For the same reason as in category “Driver training, testing and licensing” no best practice measure was identified. Nevertheless, the <i>Handbook for Measures at the Country Level</i> presents good and “the most promising” measures in this category.		
<b>Vehicles</b>		
Adaptation to vehicles, incl. Driver support systems	Speed alert (ISA)	NL
	Electronic stability control (ESC)	NO, ES
Prevention unsafe behaviour in traffic	Seat belt reminders	BE
	Alcolock	BE
	Event data recorders (EDR)	NL
Other modes	Obligatory bicycle helmets	AT
	ABS on motorcycles	AT
	Bicycle side reflection + garments	NL
Other measures	Blind spot mirror	NL
	Under run protection	

	Contour marking	NL
	Daytime running lights	NO
	Euro NCAP (incl. pedestrian friendly car fronts)	NO
<b>Infrastructure</b>		
Construction and design	Roundabouts	Several countries
	Home zones	UK
	30 km/h zones	UK
Road safety audit and inspection	Road safety audit	Several countries
<b>Enforcement</b>		
Speeding	Fixed speed cameras	UK
	Speed cameras	NO
	Automatic speed enforcement	FR
	Section speed control	NL
Alcohol & drugs	Random breath testing	SE
<b>Statistics and In depth-analysis</b>		
Accident data	Check fatalities	NL
	Data collected by medical Institutes	FR
Exposure data	National travel survey	UK
	Database with background info	LV
Behaviour SPI	Speed and alcohol offences	CH
	Mobile phone offences	UK
In-depth analysis	Trucks	NL
<b>Institutional organisation of road safety</b>		
Road safety visions and targets	Sustainable safety	NL
Road safety plans and programmes	Long term road safety programme	SE, FI, NO
Efficiency analysis	Evaluation studies and decision making tools	FIN, NO
Resource allocation	Road safety fund	BE

Post accident care		
First aid	First aid course in driving education (1*)	EE, PO
Emergency call	e-call system for new cars (7*)	FI
Efficient response of emergency systems	Emergency systems with tow trucks (4*)	NL
	Routes for emergency vehicles (3*)	DE, CH
	Two tier emergency system (5*)	DK, AT, CH
Transportation	Psychological support for victims (2*)	EE
	Transport by helicopter (6*)	NL

\*) A ranking for the seven nominated measures have been rated from 1-10, with 1 being "the very best".

# **Annex 4**

## **Supra National Data Collection - Questionnaire**

This questionnaire was used to query road safety experts.

## Questionnaire Qualitative Interviews

### SUPREME Supra National Data Collection

Name:

Organisation / Institution:

E-mail:

Tel.:

Fax:

**The project SUPREME** is about collecting and publishing Best Practice Measures to increase road safety. The present “Supra National Data Collection” questionnaire intends to collect measures which were initiated at the European or international level and have Best Practice status. We therefore ask representatives of key European and international organisations to bring in not only their experience, but also their vision regarding the future development of increasing road SAFETY.

In the present questionnaire, we ask your opinion as an expert and representative of your organisation. We propose the following categories of measures (which you may supplement):

- ◆ Education & campaigns;
- ◆ Driver education, training and licensing;
- ◆ Rehabilitation and diagnostics;
- ◆ Vehicles;
- ◆ Infrastructure;
- ◆ Enforcement;
- ◆ Statistics & in-depth analysis;
- ◆ Institutional organisation of road safety;
- ◆ Post-accident care.

Other categories of measures: transport sustainability, road safety policy planning, evaluation of policies, raising the road safety profile...

The following criteria are taken into account for the evaluation of the measure in order to select Best Practice Measures:

**Focus of the measure:** Clearly define the road safety problem the measure is intended to solve

**Size of the road safety problem:** Quantitative assessment of the number of accidents, fatalities, and severe injuries the measure is expected to influence

**Expected effects on safety:** Quantitative assessment of the likely impact of the measure on accidents or accident-contributing risk factors



**Evaluation of effects:** Actual impacts of the measure on accidents or accident-contributing risk factors

**Costs and benefits:** Assessment and comparison to alternative measures

**Acceptance:** Public, policy maker, and user acceptance

**Sustainable effects:** Commitment to the continued use of the measure, long-term effects, policy makers' commitment

**Transferability:** Applicability on a wider scale, within and across countries.

Integration with other policy measures: environment, health...

**1<sup>st</sup> question: Which Europe-wide or international measures have been, in your opinion, the most successful ones in the last few years?** Please cite only high-impact measures, measured by a manifest decrease of accidents and increase of road safety. Please answer the supplementary questions as well.

Please fill out one form for every measure.

<b>1<sup>st</sup> measure</b>
Measure name:
Measure category:
Why is this measure Best Practice?
Focus of the measure: Clearly defined road safety problem the measure is intended to solve. Aim and target group?
Size of the road safety problem: Quantitative assessment of the number of accidents, fatalities, and severe injuries the measure is expected to influence.
Expected effects on safety: Quantitative assessment of the likely impact of the measure on accidents or accident-contributing risk factors.
Evaluation of effects: Actual impacts of the measure on accidents or accident-contributing risk factors.
Costs and benefits: Assessment and comparison to alternative measures.
Acceptance: Public, policy maker, and user acceptance.
Sustainable effects: Commitment to the continued use of the measure, long-term effects.
Transferability: Applicability on a wider scale, within and across countries.
Which conditions are necessary for implementation? Which problems do you expect to appear in a Europe-wide implementation? Please outline approaches how to solve these problems.
Who should initiate the measure? How should implementation and communication work?

Please copy and paste new forms if needed for other Best Practice.



**2<sup>nd</sup> question: Visions and new approaches to increase traffic safety from a pan-European / International point of view.**

The European Union has set itself the ambitious target of halving the annual number of killed people in road traffic by 2010. The mid-term Review states that only a 17% reduction has been achieved since 2001.

Which new actions should the EU take in order to reach the 2010 target?

Which should be the priorities for the years to come? Please also explain why.

Developing Best Practice in:

Changing the people?

Changing the vehicle?

Changing the infrastructure?

Changing the system?

Other comments:

**3<sup>rd</sup> question: Bad practice: It is important to learn from mistakes.** This is the reason why we ask you about bad measures. If you cannot indicate bad measures, please indicate things which you recommend to avoid in order to implement measures successfully.

Measure Name / Focus / Category	Things to avoid	Reason

**4<sup>th</sup> question: Other areas of life: In other areas of life (health, environment, other transport modes...), internationally successful preventive measures exist. Please cite examples for Best Practice which interface with road safety or which might be transferred to road safety.**

Name / Category	Why is this Best Practice?	Reason for transfer to road safety?

**5<sup>th</sup> question: Global road safety institutional organisation.**



1. What is your opinion on the institutional organisation of global road safety? Is there a lack of coordination? According to you, should someone take the lead in global road safety work and, if yes, who?

2. Top-down / bottom-up cooperation:

Examples of Best Practice of top-down / bottom-up cooperation: how can the European / international level help the national / local levels to implement Best Practices / targets / road safety actions?

How to better integrate national / local levels in the identification of bps, solutions, action plans...?

3. According to you, what are the main obstacles for the exchange of information between different levels?

4. Horizontal cooperation:

How can one improve the exchange of information in road traffic safety work amongst the different institutions, agencies and partners at the European / international level?

**Note to the respondent**

Thank you very much for your support and the information you have provided. Please allow us to contact you if questions appear during the evaluation of the questionnaires.

The results of this work will be described in a final report and in a Best Practice measure guide. We will inform you about the completion of the reports.

**Annex 5**  
**Addresses of Project**  
**Partners**

In the following there is a listing of the names and addresses of all project partners. According to their contribution to the project there is a remark in the relating box:

SG = Member of Steering Group

AG = Member of Analysis Group

CE = Country Expert

PS = scientific Project Staff

AB = Advisory Board

AT	Austria
BE	Belgium
CH	Switzerland
CY	Cyprus
CZ	Czech Republic
DK	Denmark
EE	Estonia
DE	Germany
EL	Greece
FI	Finland
FR	France
HU	Hungary
IE	Ireland
IT	Italy
LU	Luxemburg
LV	Latvia
LT	Lithuania
MT	Malta
NL	The Netherlands
NO	Norway
PO	Poland
PT	Portugal
SK	Slovak Republic
SI	Slovenia
ES	Spain
SE	Sweden
UK	United Kingdom



AB	PS	CE	AG	SG	First Name	Last Name	Company Name	Country	E-Mail (“@” replaced by “/at”)
x	x	x	x	x	Martin	Winkelbauer	KfV	AT	martin.winkelbauer/at/kfv.at
	x	x	x	x	Eveline	Braun	KfV	AT	braun.e/at/utonet.at
x	x	x	x	x	Michael	Gatscha	KfV	AT	
x	x	x	x	x	Werner	Klemenjak	KfV	AT	
x	x	x	x	x	Klaus	Machata	KfV	AT	klaus.machata/at/kfv.at
		x			Cornelia	Nussbaumer	KfV	AT	cornelia.nussbaumer/at/kfv.at
x	x	x	x	x	Claudia	Reinprecht	KfV	AT	claudia.reinprecht/at/kfv.at
		x			Bernhard	Schausberger	KfV	AT	schausberger/at/oir.at
x	x	x	x	x	Karin	Weber	KfV	AT	karin.web/at/gmx.at
		x			Lars	Akkermans	IBSR	BE	lars.akkermans/at/bivv.be
	x		x		Pieter	De Neve	IBSR	BE	pieter.deneve/at/bivv.be
		x			Philippe	Herrent	IBSR	BE	
		x			Jan	Pelckmans	IBSR	BE	

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			x		Peter	Silverans	IBSR	BE	peter.silverans/at/bivv.be
	x	x	x		Yvonne	Achermann	bfu	CH	y.achermann/at/bfu.ch
		x	x		Stefan	Siegrist	bfu	CH	s.siegrist/at/bfu.ch
		x			Neophytos	Zavrides	ETEK	CY	zavrides/at/spidernet.com.cy
		x			Jaroslav	Heinrich	CDV	CZ	Jaroslav.Heinrich/at/cdv.cz
	x	x			Josef	Mikulík	CDV	CZ	jmikulik/at/cdv.cz
		x			Jacqueline	Lacroix	DVR	DE	jlacroix/at/dvr.de
		x			Julia	Lindemann	DVR	DE	jlindemann/at/dvr.de
		x			Gitte	Carstensen	DTF	DK	gc/at/df.dk
		x			Lotte	Larsen	DTF	DK	ll/at/df.dk
		x			Dick	Rooks	DHV	EE	Dick.rooks/at/dhv.nl
		x			Angelos	Bekiaris	CERTH/HIT	EL	abek/at/certh.gr
		x			Evangelia	Gaitanidou	CERTH/HIT	EL	lgait/at/certh.gr
		x			Óscar	Ciordia	FITSA	ES	o.ciordia/at/fundacionfitsa.org

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		x			Pablo	Lopez	FITSA	ES	
	x				Leif	Beilinson	VTT	FI	leif.beilinson/at/vtt.fi
		x	x		Veli-Pekka	Kallberg	VTT	FI	veli-pekka.kallberg/at/vtt.fi
		x		x	Nicole	Muhrad	INRETS, UMRESTTE	FR	nicole.muhrad/at/erenis.fr
		x			Peter	Hollo	KTI	HU	hollo/at/kti.hu
		x			Harry	Cullen	NRA	IE	hcullen/at/nra.ie
	x				Forbes	Vigors	NRA	IE	fvigors/at/nra.ie
			x		Nick	Sanders	CIECA	INT	nick.sanders/at/cieca.be
x					Jörg	Beckmann	ETSC	INT	j.beckmann/at/etsc.be
x					Graziella	Jost	ETSC	INT	liaison/at/etsc.be
x			x		Markus	Fiala	OERK/Austrian Red Cross	INT	markus.fiala/at/roteskreuz.at
x			x		Peter	Kaiser	OERK/Austrian Red Cross	INT	Peter.Kaiser/at/roteskreuz.at
x			x		Petra	Schmidt	OERK/Austrian Red Cross	INT	
x					Cristina	Fumo	WHO Europe	INT	cfu/at/ecr.euro.who.int

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x					Manuela	Gallitto	WHO Europe	INT	mga/at/ecr.euro.who.int
x					Francesca	Racioppi	WHO Europe	INT	frr/at/ecr.euro.who.int
x					Dinesh	Sethi	WHO Europe	INT	din/at/ecr.euro.who.int
		x			Pierangelo	Sardi	SIP Si.Vi.	IT	sardipa/at/multiwire.net staff/at/sipsivi.org
		x			Dace Gunta	Lāma	Ceļu Satiksmes Izpete	LV	izpete/at/inbox.lv
		x			Aldis	Lāma	Ministry of Transport, Road Traffic Safety Directorate	LV	aldis.lama/at/csdd.gov.lv dace-l/at/navigator.lv
		x			Andrius	Guzys	TKTI	LT	a.guzys/at/tkti.lt
		x			Maria	Attard	ADT	MT	Maria.Attard/at/maltatransport.com
		x			David	Sutton	ADT	MT	David.Sutton/at/maltatransport.com
		x			Audrey	Testaferrata de Noto	ADT	MT	audrey.testaferrata- denoto/at/maltatransport.com
x					Art	Feitsma	DHV	NL	art.feitsma/at/dhv.nl



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			x		Jan	Vissers	DHV	NL	jan.vissers/at/dhv.nl
		x			Charlotte	Bax	SWOV	NL	Charlotte.bax/at/swov.nl
			x	x	Ellen	Berends	SWOV	NL	ellen.berends/at/swov.nl
		x			Atze	Dijkstra	SWOV	NL	Atze.Dijkstra/at/swov.nl
		x			Charles	Goldenbeld	SWOV	NL	charles.goldenbeld/at/swov.nl
		x			Rene	Mathijssen	SWOV	NL	Rene.mathijssen/at/swov.nl
		x			Divera	Twsik	SWOV	NL	Divera.twisk/at/swov.nl
	x		x	x	Ingrid	van Schagen	SWOV	NL	Ingrid.van.Schagen/at/swov.nl
		x			Chris	Schoon	SWOV	NL	chris.schoon/at/swov.nl
		x			Willem	Vlakveld	SWOV	NL	willem.vlakveld/at/swov.nl
		x	x	x	Paul	Wesemann	SWOV	NL	paul.wesemann/at/swov.nl
			x		Ben	Immers	TNO	NL	ben.immers/at/tno.nl
			x		Tariq	van Rooijen	TNO	NL	tariq.vanrooijen/at/tno.nl
	x		x		Isabel	Wilmink	TNO	NL	Isabel.Wilmink/at/tno.nl

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				x	Rune	Elvik	TØI	NO	re/at/toi.no
		x	x	x	Alena	Erke	TØI	NO	Alena.erke/at/toi.no
	x				Barbara	Król	for IBDIM	PO	bkrol/at/mtib.gov.pl
	x				Joanna	Sakowska	for IBDIM	PO	jsakowska/at/mtib.gov.pl
		x			Jacek	Malasek	IBDIM	PO	jmalasek/at/ibdim.edu.pl
		x			Alain	Areal	PRP	PT	alain.areal/at/prp.pt
		x			Isabel	Ortins de Bettencourt	PRP	PT	isabel.bettencourt/at/prp.pt
		x			José Miguel	Trigoso	PRP	PT	jose.trigoso/at/prp.pt
	x	x			Sonja	Forward	VTI	SE	sonja.forward/at/vti.se
	x	x	x		Leif	Sjögren	VTI	SE	leif.sjogren/at/vti.se
	x				Hans	Thulin	VTI	SE	hans.thulin/at/vti.se
		x			Mateja	Markl	SPV	SI	mateja.markl/at/spv-rs.si
		x			Robert	Štaba	SPV	SI	robert.staba/at/spv-rs.si
		x			Anna	Hittmárová	VÚD	SK	hittmarova/at/vud.sk



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		x			Štefan	Machciník	VÚD	SK	machcinik/at/vud.sk
		x			Chris	Baughan	TRL	UK	cbaughan/at/trl.co.uk
	x				Su	Buttress	TRL	UK	sbuttress/at/trl.co.uk
		x			Jamie	Castle	TRL	UK	jcastle/at/trl.co.uk
	x				David	Lynam	TRL	UK	dlynam/at/trl.co.uk
	x				Jennifer	Scoons	TRL	UK	jscoons/at/trl.co.uk