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## **Deliverable D 7**

<b>Evaluation report</b>
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## Control Sheet

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## Abbreviations

Abbreviation	Meaning
DG MOVE	Directorate General Mobility and Transport of the European Commission
EC	European Commission
CDV	Transport Research Centre, The Czech Republic
RSA	Road Safety Audit
RSI	Road Safety Inspection
SPSS	Statistical Package for the Social Sciences

## Definitions

Term	Definition
Trainee	Participant of the PILOT4SAFETY training
Observer	Member of PILOT4SAFETY project visiting the practical audit/the inspection
Host auditor/inspector	The auditor/inspector from host (local) organization
Visiting auditor/inspector	The auditor/inspector from foreign organization
Local road safety manager	Member of host (local) organization
Secondary Roads	Two-lane single paved road carriageway (see Deliverable D2 - Safety prevention manual for secondary roads, chapter 1.3)

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## **Executive Summary**

The PILOT4SAFETY project, co-financed by the European Commission (DG MOVE), aims at using the framework of the Directive 2008/96/EC on road infrastructure safety management as a template for safety applications on secondary roads. The project applied some of the Directive's approaches related to training and certification of road safety experts as well as to Road Safety Audit (RSA) and Road Safety Inspection (RSI) procedures to selected secondary roads in the European regions represented in the project. The goal of PILOT4SAFETY was to share good practice and define common agreed training curricula and tools for the qualification of road safety experts (auditors and inspectors). Verification in field studies took place to check if such qualifications could be reciprocally recognized across the different European regions.

The activities within task 8 (Evaluation of results) aimed at evaluating the tasks 5 (Training), 6 (Execution of Road Safety Audit) and 7 (Execution of Road Safety Inspection). This Deliverable D7 contains the methodology of evaluation and its results. The report was prepared by CDV (Task 8 leader).

## Introduction

The European Parliament and Council on 19/11/2008 issued the Directive 2008/96/EC on road infrastructure safety management, which foresees a series of safety checks, as well as the training and certification of road safety experts (auditors and inspectors). The Directive is mandatory only on the TEN-T road network, therefore when the Directive is adopted by the Member States, it is usually applied with priority or only to the TEN-T road network (covering only a part of the EU road network), while the highest number of fatalities occur on the secondary roads. To overcome this barrier, PILOT4SAFETY applied the directive's approach to selected secondary roads in the EU regions represented in the project. The Road Safety Audit (RSA) and Inspection (RSI) were chosen as suitable tools.

Deliverable D7 – “The evaluation report” presents the activities conducted within Task 8 – The evaluation. Task 8 aimed at the evaluation of the RSA/RSI training organized in Brussels within Task 5 and at the evaluation of practical RSA and RSI conducted within Tasks 6 and 7. The methodology is described and the results are presented together with a short summary in this report.

# 1 Methodology

## 1.1 The evaluation - introduction

The aim of the PILOT4SAFETY project is, among others, to produce a set of suggestions and recommendations regarding the international training, certification and participation of road safety experts. It is based on the evaluation of pilot trainings and practical exercises, which were carried out within tasks 5, 6 and 7. Thus it was necessary to gain feedback from the trainees regarding their opinions on the training, as well as from the road managers and participants of the practical RSA/RSI in order to find out the barriers and advantages resulting from the international way of conducting RSA/RSI. It was also necessary to ask representatives of the involved regions and members of the Reference Group for their opinions on the potential usage of PILOT4SAFETY results in the safety management of secondary roads.

The evaluation is divided into two categories:

- a) **Internal evaluation** –the evaluation of RSA/RSI training conducted in task 5 and practical RSA/RSI carried out in tasks 6 and 7.

1. Evaluation of RSA/RSI training interprets the feedback received from the trainees. This feedback was important not only to improve the ongoing training carried out within Task 5, but the opinions of trainees were also integrated into the recommendations for future training (see Deliverable D7b). The evaluation was carried out using feedback questionnaires completed during and after the training (Figure 1). The topic of interest was mainly the structure of the training (e.g. length of the training and sessions, topics and composition of the sessions, extent of homework and practical exercises).

2. Practical RSA and RSI conducted within Tasks 6 and 7 were also evaluated. The topics of special interest were the suitability and benefits of the presence of visiting experts in RSA and RSI teams and the identification of barriers during the conducting of practical RSA/RSI.

b) **External evaluation** –is based on questionnaires filled out by members of the Reference Group and representatives from the regions involved. The topics of special interest were the suitability and benefits of the presence of visiting experts during the conducting of RSA and RSI abroad, international certification versus national training, the requirements for education, etc.

## 1.2 Internal Evaluation – methodology

The internal evaluation consisted of two parts:

- Evaluation of RSA/RSI training
- Evaluation of practical RSA/RSI

### 1.2.1 Evaluation of RSA/RSI training

This evaluation was conducted through the use of questionnaires completed by the trainees. The answers were mostly processed manually and partly also in the SPSS software. The findings from the questionnaires were used not only for the evaluation of the whole training, but the ongoing training was also adapted according to the feedback from the trainees (the feedback gained from the evaluation of the RSA course was further used for preparing the RSI course - see Figure 1).

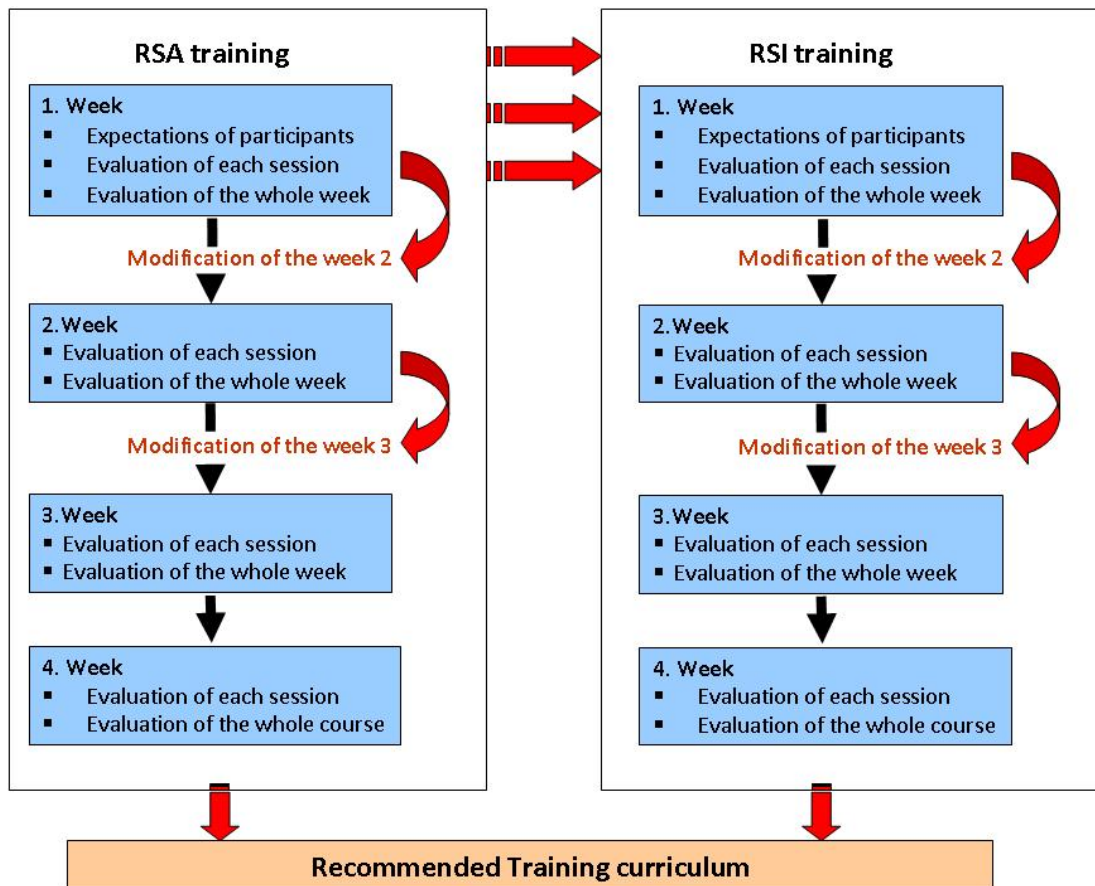


Figure 1: Structure of the internal evaluation – training

There were four types of evaluation sheets used according to the stage of the training:

**1. Expectation of participants** – Expectation sheets were filled in by the trainees before the start of the training. The aim was to find out the expectations of trainees regarding the course, which topics they are interested in and which topics do they miss. Three questions were asked (two with defined answers and one open question):

- *What do you expect from the training?*
- *Which topics of the training are the most important for you?*
- *Any other expectations?*

**2. Evaluation of each session** – These sheets were filled in by the trainees at the end of each training day. Homework was not evaluated. *Level of relevance, length, understandability and completeness* of the sessions were evaluated. Every sheet consisted of four questions with defined answers (three-four possibilities) and one open question.

The **level of relevance** consisted of two parts:

- Contribution of the session to acquire new information
- Usefulness of the session for the further work of the respondents

Four categories described the relevance:

- *Very useful* (I learned something new, I will make use of it)
- *I learned something new, but I will not need it*
- *I learned only little*



- *Not useful*

Another aspect evaluated was the **length of sessions**. The trainees could choose between the following categories:

- *Reasonable*
- *Too long*
- *Too short*

The third aspect evaluated was **the understandability** of the sessions. The trainees could choose one of three possibilities:

- *Very comprehensible*
- *More or less comprehensible*
- *Difficult to understand*

The trainees then evaluated the extent to which the topic was handled – **the completeness**. This was evaluated by the following categories:

- *Yes, completely handled*
- *Partly handled*
- *No, topic was not satisfactorily handled*

**3. Evaluation of each week** - This sheet consisted of 10 questions (six questions with several defined answers and four open questions). The topics of interest were:

- Structure of sessions and topics
- Missing topics
- Suitability of homework
- Most and least useful sessions
- Achievement of expectations and objectives
- Quality of discussion
- Administrative arrangements and any other comments

**4. Evaluation of the whole course** - This sheet consisted of nine questions (six questions with defined answers, one with rating answer - see Table 1 - and two open questions). The topics of interest were: rating of main topics according to “*relevance and usefulness*”, “*completeness*”, and “*quality of presentation of the topics/issues*”, missing topics, improvement of expertise using the knowledge gained from the training in practical examples, length and extent of whole training, achievement of the objectives.

**Table 1: Example of the rating used in the evaluation of the whole course with questions regarding the rating of “relevance and usefulness”, “completeness”, and “quality of presentation of the topics/issues” treated during the training**

	<i>Relevance and utility</i>	<i>Completeness</i>	<i>Quality of presentation/carrying out</i>
<b>1</b>	<i>I learned something new and I will make use of it</i>	<i>The issue was handled completely and thoroughly</i>	<i>Very good</i>
<b>2</b>	<i>I learned something new, but I will not need it</i>	<i>The issue was handled more or less satisfactorily</i>	<i>Good</i>
<b>3</b>	<i>I learned only little, maybe I will make use of it</i>	<i>Some aspects were missing or handled only superficially</i>	<i>Acceptable</i>
<b>4</b>	<i>Personally I did not learn anything new about the topic, but the knowledge lectured here is useful for RSA practice</i>	<i>Generally more time and effort should have been devoted to the issue to handle it completely.</i>	<i>Rather poor</i>
<b>5</b>	<i>I did not learn anything new about the topic and I do not think that the knowledge lectured here is useful</i>	<i>The issue was not covered or handled sufficiently</i>	<i>It was poorly lectured / accomplished</i>

According to the technical annex of the project, the trainees should indicate a grade of acceptance of the training equal at least to 60%. The percentage grading was not used in the questionnaires, but it was possible to assign the percentage to the received answers retroactively.

### 1.2.2 Evaluation of international practical RSA/RSI

This part of the evaluation was also conducted with the evaluation sheets. Every sheet consisted of four parts according to the following categories of respondents (see the definitions on page 5):

- **Host auditor/inspector** – sheet with four questions (two open questions, two with defined answers)
- **Visiting auditor/inspector** – sheet with five questions (two open questions, three with defined answers)
- **Local road safety manager** - sheet with five questions (three open questions, two with defined answers)
- **Observer** – sheet with five open questions (or so called “topic of interests”)

The topics of interest were:

- Main barriers in the RSA/RSI process – procedural and practical barriers (procedural barriers = general barriers related to the process of conducting RSA/RSI, while practical barriers = barriers related to the particular RSA)
- The presence of the visiting expert from the point of view of the host and visiting expert, observer and local road safety manager – advantages and barriers
- Use of knowledge gained during the training
- Following the RSA/RSI procedures trained in the theoretical part of PILOT4SAFETY

The completed sheets were collected by the observer after completing the practical RSA/RSI; they were then scanned and inserted into the project webpage.

## 1.3 External Evaluation - methodology

Due to the nature of the PILOT4SAFETY project, there was a strong need for feedback not only from the participants of the training and practical exercises, but also from the members of the regions<sup>1</sup> and reference group<sup>2</sup> involved. The external evaluation was again based on the answers gained from the questionnaires. The evaluation sheet consists of 12 open questions, which were sent to the respondents by e-mail. The questions aimed at finding out the current usage of RSA/RSI in each region, the relevant legislative issues and the suitability and acceptance of conducting RSA/RSI with a foreign auditor/inspector with an international certification.

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<sup>1</sup> Involved regions: Czech republic, Greece (Central Macedonia), Spain (Catalunya), Italy, Denmark

<sup>2</sup> Reference Group: According to the PILOT4SAFETY Technical annex, the Reference Group consists of all regions that expressed their interest in the initiative

## 2 Internal evaluation - results

### 2.1 RSA Training

The training consisted of four modules. The details of training are described in “*Deliverable D4 – Report on the training in Brussels*”. Each module was evaluated separately according to the methodology introduced in chapter 2.2.

#### 2.1.1 Module 1

The evaluation was carried out in three stages:

- Expectation
- Evaluation of each session
- Evaluation of whole module

#### Expectation - results

Nine trainees articulated their general expectations regarding the whole training and the degree of interest in concrete topics. Their expectations are listed in Table 2. Three respondents also had other expectations (*to learn about road safety at the international level and to support the implementation of RSA in home country*).

Table 2: Expectations of respondents

Expertise improvement	9
Preparation for more audits due to Directive 2008/96/CE	4
More work opportunities	1

Before the start of the training, trainees were most interested in the topics concerning engineering measures and standards, typical safety deficiencies and their solutions. On the other hand, legal aspects and cost–benefit aspects of RSA were marked as the least interesting ones.

#### Evaluation of each session

The list of sessions evaluated in module 1 is showed in Table 3. The Level of relevance, Length, Understandability and Coverage of the topic were evaluated.

Table 3: List of sessions in Module 1

Session 6	Current EU Road Safety Policy and Action Plans
Session 7	Road Safety Factors (Human – Environment – Vehicle System) – Theory
Session 8	Road Safety Engineering Factors – Overview
Session 9	Overview of the Geometric Parameters Affecting Road Safety
Session 10	Characteristics of Different Secondary Road Types
Session 11	Characteristics of Different Secondary Road Types
Session 12	Characteristics of Different Intersection Types
Session 14	Characteristics and Requirements of Different Secondary Road Users – User Perceptions
Session 15	Characteristics and Requirements of Different Secondary Road Users – Pedestrians and Persons with Impaired Mobility
Session 16	Characteristics and Requirements of Different Secondary Road Users – Cyclists
Session 17	Characteristics and Requirements of Different Secondary Road Users – Powered Two Wheelers
Session 18	Characteristics and Requirements of Different Secondary Road Users – HGV
Session 19	Accident Analysis and Statistics – Overview on Accident Data
Session 22	Accident Analysis and Statistics – Infrastructure related data
Session 23	Road Safety Engineering Measures and Design Standards - Specific Definition and Use of SEM
Session 24	RSE Measures – Road Surface Conditions
Session 25	RSE Measures – Road Equipment and Passive Safety
Session 26	RSE Measures – Road Design Guidelines
Session 27	Workshop on Regional RD Standards

Session 28	Other Fundamental Safety Elements - Tunnel Safety
Session 29	Other Fundamental Safety Elements - Accident Prediction Models
Session 30	Other Fundamental Safety Elements – Road Markings Characteristics
Session 31	Other Fundamental Safety Elements – Road Sign Characteristics
Session 32	Typical Safety Relevant Road Planning Deficits
Session 33	Safety Effects of Structural Measures to Improve Road Safety at Black Spots

### a) Level of relevance

The number of trainees rating the session as *very useful* mostly varied from three to six (out of nine trainees). The sessions P14 and P23 were *very useful* for seven trainees and the session P17 even for eight trainees. On the other hand, the sessions P16 and P29 were *very useful* only for two trainees. The *I learned only little* category occurred more frequently than *I learned something new, but I will not need it*. The category *not useful* was used only for the sessions P15 and P18 by one trainee and for P29 by two trainees.

### b) Length

A rating that strongly predominated was *reasonable*. Ten sessions (P6, P7, P8, P14, P17, P23, P24, P28, P30 and P31) were evaluated purely as *reasonably long*. Eight sessions had mixed results – most trainees considered them as *reasonably long*, but some also as *too long* (P16 for three trainees and P19 for five trainees). Only five sessions were *too short* for several trainees: P27 (one trainee), P33 (two), P12 (three), P32 (three) and P20 (five). Session P29 was found to be both *too long* (two trainees) and *too short* (one), but also *reasonably long* (six).

### c) Understandability

The sessions were mostly evaluated only as *well comprehensible* (P6, P7, P15, P17, P19, P23, P25, P27, P28, P30, P31, P33) or *well and less comprehensible* - P8 (2), P9 (3), P10, 11(4), P12 (1), P14 (1), P18 (2), P20 (1), P24 (2), P26 (1), P32 (1). There were only two problematic sessions regarding understandability. One trainee considered the session P16 as *difficult to understand* and six trainees as *more or less comprehensible*; the session P29 was *difficult* for three trainees and *less comprehensible* also for three trainees.

### d) Coverage of the topic

The majority of sessions had mixed results, with most trainees seeing the topic as *completely covered* and a few (one to three) trainees missing some issues. The trainees mentioned the missing issues concretely in additional comments. Only four sessions were evaluated by all trainees as completely handling the topic: P14, P17, P23 and P28. The category *topic was not satisfactorily handled* was used only for sessions P20, P29 and P32 by one trainee respectively.

### e) Comments

The trainees had the possibility to give comments. The comments usually contained some remarks to the structure of the session (e.g. proposing more examples, alternative approach) or its content (missing issues). Some trainees only stated their impressions.

### Evaluation of the whole module

The trainees evaluated the first module rather positively. The structure of the training and order of sessions and topics was considered logical by all trainees. Two trainees quoted the topics they missed:

- Accidents with animals
- More information about intersections
- Information about the problems of bridges, approaches to various bridges, relevant literature

The idea of homework was well accepted. Trainees mostly achieved the objectives that they expected (see Table 2 and 4). All trainees considered the discussions during the sessions satisfactorily fruitful.

Table 4: Expectations of trainees

Expected objectives fully achieved	6
Expected objectives partly achieved	3

Five trainees shared some ideas on how to improve the training:

- Be careful about overlaps between sessions; try to illustrate not only by means of reality, but also extracts of plans; more practical exercises needed
- It is important to see real situations and how to solve them in different countries
- More examples, more interactive materials, more practical materials and less theory
- Some speeches might be more adapted to secondary road issues. More practical and interactive sessions
- There were some overlaps between sessions, especially those about road design.

### The sessions that contributed the most

The trainees differed strongly in the perception of the usefulness of sessions – some named only one or two topics, some trainees almost everything. To get some overview of the relevance of individual sessions, see the table of frequencies with which each session was named as *the most useful*.

Table 5: Perception of usefulness of sessions

Session	P7	P8	P9	P10	P12	P14	P15	P16	P17	P18	P19	P20	P23	P24	P25	P26	P27	P28	P30	P31	P32	P33
Nr. of trainees	4	3	4	2	2	2	1	1	3	2	3	1	4	2	2	4	1	4	5	5	4	4

### The sessions that contributed the least

As the least useful sessions, the trainees named Session P29 (Accident Prediction Models) and the sessions P24 and 25 (Road Surface Condition and Road Equipment). They were mentioned five times.

### Other comments

In the final comments, the trainees mostly expressed their general impression and opinion on the duration of the training week. Two respondents stated that the five day duration of the module is right; three trainees considered it as too long and would prefer to reduce it (by having more sessions per day or organizing more two-day seminars).

## 2.1.2 Module 2

The evaluation was carried out in two stages:

- Evaluation of each session
- Evaluation of the second module in general

### Evaluation of each session

The list of evaluated sessions in module 1 is showed in Table 6.

Table 6: List of sessions

Session 35	Examples of Typical Deficiencies on Secondary Roads
Session 36	Examples of Black Spots on Secondary Roads
Session 37	Railway Crossings on Secondary Roads
Session 38	What is Road Safety Audit?
Session 39	Why do we need RSA?
Session 40	Legal Aspects of RSA

Session 41	Legislative Concerns – Presentation by Trainees
Session 42	Sharing participants' past experiences in audits
Session 43	Benefits and Costs of RSA
Session 44	Participants and Responsibilities in RSA
Session 45	introduction to Data Requirements

The second module differed from the first one in the number of sessions and trainees who responded. Six to nine trainees (first day 6, second day 9, and third day 7) evaluated 11 sessions. Although the evaluation regarding the relevance of the sessions was still the most diverse of all aspects, it was not as diverse as in case of the first module. The sessions were found to be predominantly relevant. The length of sessions was mostly considered to be adequate, as well as the understandability and coverage of topics.

#### a) Level of relevance

Two sessions were evaluated purely as *very useful* (P40 and P42). Other sessions received various combinations of evaluations, the most frequently being *very useful* and *I learned only little* – P35 (4 trainees and 2 trainees), P38 (7 and 1), P39 (8 and 1), P43 (5 and 1) and P 45 (6 and 1), sometimes completed with *not useful* – P36 (4, 1 and 1) and P44 (4, 2 and 1). The session P41 was rated as *very useful* and *I learned something new but will not need it* and *I learned only little* (7, 1 and 1). P37 aroused the most mixed reactions, for which all categories were used (2 – 1 – 2 – 1).

#### b) Length

The sessions were most often evaluated only as *reasonably long* – P38, P39, P41, P42, P43, P44, P45. The sessions P35, P37 and P40 were evaluated as *reasonable* for most trainees. Only one trainee stated it was *too long*. The session P36 was *reasonable* for five trainees and *too short* for one.

#### c) Understandability

The sessions were evaluated predominantly as *well comprehensible* by all trainees; only P41 was seen as *more or less comprehensible* by one trainee and P44 by two trainees.

#### d) Coverage of the topic

The sessions were mostly evaluated as covering the topic *completely* by all trainees; the sessions P36, P44, and P45 were seen by one trainee as *partly* covering the topic.

#### e) Comments

The sessions within module 2 did not receive many comments. The remarks usually concerned the relevance of the session for the trainee or his country, the impressions of the trainees or the structure/content of the session.

### Evaluation of the whole module

Trainees evaluated the module rather positively without many comments. The structure of the module and order of the sessions was considered to be logical by all trainees except one, who pointed out some overlaps in the part about cost-benefit aspects. The idea of homework was well accepted. Trainees more or less achieved the objectives they expected. The discussions during sessions were mostly found to be fruitful.

Table 7: Expectations of trainees

Expected objectives fully achieved	4
Expected objectives partly achieved	2

### The sessions that contributed the most

The module was considered generally more useful and practical than the first one. Some trainees mentioned the useful sessions (All, P42, P44, P35, P36, and P38 – 45). Others rather referred to the topics and information that interested them:

- Biographic references very useful, this second week was more practical than the first one
- Knowing how things are organized elsewhere, data requirements, intention to make shared platform of information
- Practical examples - video from Austria, experiences with RSA from other countries

### The sessions that contributed the least

As the least useful, one trainee named P37 and other P45. Others did not mention anything.

### Other comments

There were no comments.

## 2.1.3 Module 3

The evaluation of the third module was reduced to the assessment of individual sessions; the overall evaluation of the week was not carried out. There were only six sessions reviewed by seven trainees.

### Evaluation of each session

Table 8: List of sessions

Session 47	Procedures and Stages: Characteristics and Elements of Each Stage
Session 48	Procedures and Stages: Case Studies
Session 49	Checklist: Reason – Choice – Structure - Use
Session 50	Reporting Method
Session 51	Tools and Methods
Session 52	Practical RSA on some small case studies (part 1)

The sessions of the third module were mostly considered to be relevant, adequately long, well understood and handling the topic completely. Only a few comments were received.

#### a) Level of relevance

The sessions P47 – P52 were evaluated rather uniformly even from the point of view of relevance. The sessions P48, P49 and P52 were marked by all trainees as *Useful and I learned something new* and this category was also used by the majority of respondents for the other sessions.

#### b) Length

All sessions except one were seen as *reasonably long* by all the trainees. The length of session P52 was considered *adequate* by three trainees and *too short* by three trainees.

#### c) Understandability

Sessions P49 and P52 were seen as *well comprehensible* by all trainees, others gained a mixed rating as *well comprehensible* and *more less comprehensible*: P47 – 6/1, P48 - 6/1, P50 – 5/1, P51 – 5/1.

#### d) Coverage of the topic

According to all trainees, all sessions covered the topic completely.

## 2.1.4 Module 4

The programme of the fourth module consisted of the presentations of practical examples made by the trainees. This module was just two days long. The content of the module was evaluated by six trainees. The rating was entirely positive; all aspects got the highest rating from all trainees.

## 2.1.5 Whole training

### Relevance, completeness and quality

Several topics (see Table 10) were evaluated according to the relevance, completeness and quality of the presentation. The evaluation was done by the rating scale from 1 to 5 (see Table 9). The rating was then converted into the percentage scale.

Table 9: Rating used

rating	Relevance and utility	Completeness	Quality of presentation/carrying out
1	<i>I learned something new and I will make use of it</i>	<i>The issue was handled completely and thoroughly</i>	<i>Very good</i>
2	<i>I learned something new, but I will not need it</i>	<i>The issue was handled more or less satisfactorily</i>	<i>Good</i>
3	<i>I learned only little, maybe I will make use of it</i>	<i>Some aspects were missing or handled only superficially</i>	<i>Acceptable</i>
4	<i>Personally, I did not learn anything new about the topic, but the knowledge lectured here are useful for RSA practice</i>	<i>Generally, more time and effort should have been devoted to the issue to handle it completely.</i>	<i>Rather poor</i>
5	<i>I did not learn anything new about the topic and I do not think that the knowledge lectured here is useful</i>	<i>The issue was not covered or handled sufficiently</i>	<i>It was poorly lectured / accomplished</i>

Table 10: Evaluated topics

Name of the topic
Principles of road safety engineering
Characteristics of different secondary road types
Characteristics of different intersection types
Characteristics and requirements of different secondary road users
Accident analysis and statistics, accident causation and risk assessment
Road safety engineering measures and design standards
Fundamental safety elements
Typical safety deficiencies and safety treatments
Principles and processes of RSA
Cost - benefits of RSA and of road safety measures
Legal aspects of RSA
Practical exercises
Sharing experience from abroad

The results are shown in Table 11. The evaluation is transferred into %. It is evident that the training was evaluated as very successful – all evaluated criteria received results higher than 90%.

Table 11: Results

	relevance	completeness	quality
average rating of all topics	1, 36 (91%)	1, 4 (90%)	1, 07 (98%)
average interval of ranking for all topics	1 - 1,85	1 - 1,85	1 - 1,42

### Missing topics

All trainees agreed that the programme of the training was exhaustive and no topic was missed.



### **Benefits of training for trainees**

All trainees agreed that the training improved their expertise to some extent. There were four possible answers – Yes / Yes, a bit / Not much / Not at all. Five trainees answered *yes*, one trainee answered *yes, a bit*.

### **Use of knowledge obtained from the training during the practical RSA in Module 4**

The aim was to find out if the training was useful for trainees when conducting the practical audits during module 4. The trainees could choose from the following five answers:

- I worked primarily on the basis of knowledge obtained during the training
- I used many new things that I learned during the training
- I used few things that I learned
- I did not utilize anything; I worked as I did before the training
- I utilized the method lectured during the training, but I used to work like that already before the training

All trainees marked the answer *I used many new things that I learned during the training*, so it indicates that the training was useful for them.

### **Length and extent of the training**

Regarding the length and extent of the training, there were five possible answers:

- It was too long and included too many unnecessary parts
- It was too long, all parts were important, but could have been handled more quickly
- The length and extent were adequate
- The training was rather short, the subject deserves more time
- It was too short and did not include some important parts

Two trainees answered that the length and extent were *adequate*; the rest of them considered the training *too long, with all parts being important*.

### **Achievement of expected objectives**

All trainees fully achieved the expected objectives.

## 2.2 RSI Training

The training consists of four modules as described in “*Deliverable D4 – Report on the training in Brussels*”. Each module was evaluated separately according to the methodology introduced in chapter 2.2. The evaluation and feedback carried out earlier during the RSA training led to minor changes in the training programme of the RSI training - preliminary part (module 1).

### 2.2.1 Module 1

The evaluation was carried out in several stages:

- Expectation
- Evaluation of each session
- Evaluation of first module

#### Expectation - results

Eleven trainees expressed their general expectations and the degree of interest in concrete topics of the training. Almost all trainees expected expertise improvement (see table 12). As the result of the training, trainees expected to be able to carry out inspections better, help to improve road safety, implement the Directive into national law and make use of foreign experiences.

Table 12: Expectations of trainees

Expertise improvement	10
Preparation for more inspections due to Directive 2008/96/CE	4
More work opportunities	2

Before the start of the training, the trainees were asked about their preferences regarding the topics on offer. The preferences of the trainees were diverse; they were most interested in the topic of Principles and Process of RSI and the least in Characteristics of Different Road Users and Accident analysis and statistics. Trainees were also most interested in the topics concerning concretely road safety inspection and its practical execution.

#### Evaluation of each session

The list of evaluated sessions within module 1 is shown in Table 13.

Table 13: List of sessions

Session 5	Current EU Road Safety Policy and Action Plans
Session 6	Road Safety Factors (Human – Environment – Vehicle System) – Theory
Session 7	Road Safety Engineering Factors – Overview
Session 8	Overview of the Geometric Parameters Affecting Road Safety
Session 9	Road Equipment and Passive Safety
Session 10	Characteristics and Requirements of Different Secondary Road Users – Cyclists
Session 11	Characteristics of Different Secondary Road Types - Introduction
Session 11	Characteristics of Different Secondary Road Types
Session 13	In-depth Look at Users Perceptions Regarding Road Safety on Secondary Roads
Session 14	Characteristics and Requirements of Different Secondary Road Users – Powered Two Wheelers
Session 15	Characteristics and Requirements of Different Secondary Road Users – Pedestrians and Persons with Impaired Mobility
Session 16	Characteristics and Requirements of Different Secondary Road Users – HGV
Session 17	Overview on Accident Data
Session 18	Infrastructure related data
Session 21	Specific Definition and Use of Safety Engineering Measures, Forgiving and Self explaining Roads
Session 22	RSE Measures – Road Surface Conditions
Session 23	Road Design Guidelines
Session 24	Workshop on Regional RD Standards
Session 27	Tunnel Safety

Session 28	Road Markings Characteristics
Session 29	Road Sign Characteristics
Session 30	Relevant Road Planning Deficits
Session 31	Safety Effects of Structural Measures to Improve Road Safety at Black Spots

### a) Level of relevance

The number of trainees who labeled the session as *very useful* mostly varied from four to eight (out of 11 respondents). Only the sessions P28 and P29 were very useful for all trainees, the session P21 for 10 trainees. The category *I learned only little* was used equally to *I learned something new, but I will not need it* and the category *not useful* was used the least frequently – only by one trainee for sessions P10, 11, 12, 16, 25 and 26.

### b) Length

The rating that strongly predominated was *reasonable*, but only seven sessions (P6, 8, 15, 19/20, 22, 27 and 30) were evaluated purely as *reasonably long*. Other sessions had mixed results.

### c) Understandability

The sessions were mostly evaluated only as *well* or *less comprehensible*. Only four sessions were purely *well comprehensible* (P6, 14, 28, 30). Sessions P5, P10 and P12 were marked as *difficult to understand*, each by one respondent.

### d) Coverage of the topic

Eleven sessions were marked purely as completely handling the topic: P 6, 8, 13, 14, 15, 19/20, 21, 22, 28, 29 and 31. Others had mixed results (usually with few trainees seeing the topic as partly handled, only P5 and P25/26 were marked as not satisfactorily handling the topic, each by one trainee).

### e) Comments

The trainees had the possibility to give comments. The comments usually contained some remarks on the structure of the session (proposing more examples, more discussion, an alternative approach...) or its content with regard to RSI. Mostly there were no comments. Three comments for one session were the maximum number.

## Evaluation of the whole module

The trainees evaluated the training rather positively without many reminders. The structure of the training and order of the sessions was considered to be logical by all trainees, nobody had any additional comments and nobody missed any topic. The acceptance of homework was mixed, but rather positive.

Table 14: Acceptation of homework

I was better prepared for the course and it did not burden me	4
I was better prepared but it was difficult or time consuming	1
Not useful, but it did not burden me	1
Not useful, but time consuming	1
Other	1

Trainees more or less achieved the expected objectives.

Table 15: Expectations of trainees

Expected objectives fully achieved	5
Expected objectives partly achieved	3

All trainees except one considered the discussions during sessions as fruitful. Four trainees gave some ideas as to how to improve the training. One asked for a more in-depth approach to practical

techniques for measuring and tracking; one would have preferred an explanation on site of inspection; two trainees would appreciate to at least have the abstracts of presentations at their disposal in advance.

### **The sessions that contributed the most**

The trainees differed strongly in their perception of the usefulness of sessions – some named only one or two topics, some trainees almost everything. The sessions of the last day were appreciated by most trainees, especially road marking and signing. The presentation concerning accident statistics and analysis was also frequently named (4), and presentations on road safety engineering (4); the sessions on Tunnel Safety, and Characteristics and requirements of users were also named more than once.

### **The sessions that contributed the least**

The trainees did not agree at all on the session **that contributed the least**; 13 sessions were named, but mostly only once. Two trainees stated that all sessions were more or less useful.

### **Administrative arrangements**

Several issues were evaluated under the heading of the administrative arrangements – the quality of communication, administration, timetable, training materials, and refreshment. All of these aspects were considered satisfactory by all trainees, except the timetable, training materials and refreshment – each was not fully satisfactory for one trainee.

### **Other comments**

Nobody added any comment.

## **2.2.2 Module 2**

The evaluation was carried out in two stages:

- The evaluation of each session
- The evaluation of the whole module

### **Evaluation of each session**

The list of evaluated sessions within module 2 is shown in Table 16.

Table 16: List of sessions

Session 33	Examples of Typical Deficiencies on Secondary Roads
Session 34	Examples of Black Spots on Secondary Roads
Session 35	Railway Crossings on Secondary Roads
Session 36	What is Road Safety Inspection?
Session 37	Why do we need RSI?
Session 38	Legal Aspects of RSI
Session 39	Legislative Concerns – Presentation by Trainees
Session 40-41	German Practice for RSI
Session 42	Regional Guidelines for RSI
Session 43	Sample Videos of Risky Roads and Safe Roads
Session 44	German (BAST) Road Monitoring and Assessment System
Session 45	Sharing participants' past experiences in audits
Session 46	Benefits and Costs of RSI
Session 47	Participants and Responsibilities in RSI
Session 48	Data Requirements

Altogether, 12 trainees evaluated 15 sessions. The evaluation from the point of view of relevance was of course the most diverse, depending on the experience and professional orientation of the trainees. The length of sessions was mostly considered adequate, as well as the understandability and coverage of topics.

#### a) Level of relevance

The number of trainees rating the session as “*very useful*” mostly varied from 6 to 9 (out of 11- 12 evaluators). No session was very useful for all trainees; session P 45 was very useful for 10 trainees and sessions P 37 – 39 for 9 trainees. Category “*I learned only little*” was used equally to “*I learned something new, but I will not need it*”, and the category “*not useful*” was used the least frequently – only by one trainee for sessions P 40 – 46.

#### b) Length

The rating that predominated the most was “*reasonable*”, but only three sessions (P 33, 42, 44) were evaluated purely as reasonably long. Other sessions had mixed results.

#### c) Understandability

The sessions were mostly evaluated only as *well or more or less comprehensible*. Only three sessions were purely *well comprehensible* (P33 - 35). No session was marked as *difficult to understand* by any trainee.

#### d) Coverage of the topic

Only five sessions were marked purely as *completely* handling the topic: P33, 35, 43, 44 and 48. Others had mixed results (usually with few trainees seeing the topic as partly handled, only P40/41, 42 and 45 were marked as *not satisfactorily* handling the topic, each by one trainee).

#### e) Comments

The trainees had the possibility to give comments. Most sessions were commented on by a few trainees. Some comments were rather general, but some were constructive reminders to the point.

### Evaluation of the module

Eleven trainees carried out the module evaluation. They evaluated the training rather positively without many suggestions for improvements. The structure of the training and order of sessions and topics during the week was considered to be logical by all trainees; nobody had any additional comments and nobody missed any topic. The acceptance of the idea of homework was rather positive:

Table 17: Acceptation of homework

I was better prepared for the course and it did not burden me	8
I was better prepared but it was difficult or time consuming	2
Not useful, but it did not burden me	0
Not useful, but time consuming	0
Other	0

Trainees more or less achieved the objectives that they expected. All trainees except one considered the discussions during sessions fruitful. Four trainees gave some ideas on how to improve the training and what could make sessions better. More interactive sessions, videos and practice with some hardcopy notes and more practical examples were requested.

Table 18: Expectations of trainees

Expected objectives fully achieved	8
Expected objectives partly achieved	2

### The sessions that contributed the most

Perception of the usefulness of sessions varied. Almost all sessions were named at least by one trainee as *contributing the most*; some of them more often – session P47 (Participants and Responsibilities in RSI) was mentioned by five trainees, session P45 (Sharing Participants Past Experiences in Inspections) by four trainees. Two trainees considered all sessions as contributing.

### The sessions that contributed the least

Eight trainees agreed that all the sessions were useful and contributive. One trainee stated that session P47 (Participants and Responsibilities in RSI) contributed the least for him.

### Other comments

Two trainees gave the reminder that the training materials were not available on the website.

## 2.2.3 Module 3

Eight to 12 trainees evaluated five sessions and the practical part. Compared to previous training modules, the evaluation was relatively homogenous, even from the point of view of relevance. It seems that this module was the most interesting for the trainees.

### Evaluation of each session

The list of evaluated sessions within module 3 is shown in Table 19.

Table 19: List of sessions

Session 49a	Procedures and Stages: Characteristics and Elements of Each Stage
Session 50	Reporting Method
Session 51	Practical Illustration
Session 52	Checklist: Reason – Choice – Structure - Use
Session 53	Tools and Methods
Session 54a-e	Practical RSI on some small case studies

#### a) Level of relevance

The number of trainees who awarded the session as *very useful* varied from seven to 11. No session was *very useful* for all trainees; session P50 was *very useful* for 11 trainees and sessions P49a and 52 for 10 trainees. Category *I learned only little* was used twice more often than *I learned something new, but I will not need it*, and the category *not useful* was used the least frequently – only by two trainees for sessions P53.

#### b) Length

The rating that strongly predominated was *reasonable*. Three sessions (P49, 50 and 51) were evaluated purely as *reasonably long*. Session P52 was also considered *too long* by two trainees, Session P54 *too short* by one trainee and P53 both *too long* (two trainees) and *too short* (one trainee).

#### c) Understandability

The sessions were mostly evaluated only as *well* (by 7 – 10 trainees) or *more less* (1 – 4 trainees) *comprehensible*. No session was purely *well comprehensible* and no session was marked as *difficult to understand* by any trainee.

#### d) Coverage of the topic

All sessions of this module were marked purely as *completely handling* the topic, except Session P53 which was considered as *partly handling* the topic by one trainee.

## Evaluation of the whole module

Eight trainees carried out the evaluation of the module. The trainees evaluated the training rather positively without many reminders. The structure of the training and order of sessions were considered logical by all trainees except one, nobody had any additional comments and nobody missed any topic. The idea of homework was rather positively accepted:

Table 20: Acceptance of homework

I was better prepared for the course and it did not burden me	3
I was better prepared but it was difficult or time consuming	4
Not useful, but it did not burden me	0
Not useful, but time consuming	0
Other	1

Trainees achieved the objectives they expected. All trainees except one considered the discussions during the sessions as fruitful. Three trainees gave some ideas how to improve the training. They asked for -more discussion, more practical examples and exercises on site.

Table 21: Expectations of trainees

Expected objectives fully achieved	6
Expected objectives partly achieved	1

### The sessions that contributed the most

The trainees were quite united concerning the usefulness of sessions - all of them marked the practical part as contributing the most. One trainee added also session P52 and 53.

### The sessions that contributed the least

Six trainees agreed that all the sessions were useful and contributive. One trainee stated that the first and second session contributed the least for him.

### Other comments

One trainee suggested more exchanges between regions.

## 2.2.4 Module 4

The programme of the fourth module consisted of the presentations of practical examples made by the trainees. This module was just two days long and was evaluated by 12 trainees. All trainees mentioned that the sessions were structured in logical order. Regarding the suitability of homework, all except one mentioned that preparation at home was possible and suitable. The average time for conducting practical RSI was estimated to be 2 – 3 days, including the site visit.

## 2.2.5 Whole training

### Relevance, completeness and quality

Several topics (table 22) were evaluated according to the relevance, completeness and quality of the presentation. The evaluation was done by the rating scale from 1 to 5 (see tab 9). The rating was then converted to a percentage scale.

Table 22: Evaluated topics

Name of the topic
Principles of road safety engineering
Characteristics of different secondary road types
Characteristics of different intersection types
Characteristics and requirements of different secondary road users
Accident analysis and statistics, accident

causation and risk assessment
Road safety engineering measures and design standards
Fundamental safety elements
Typical safety deficiencies and safety treatments
Principles and processes of RSI
Cost - benefits of RSI and of road safety measures
Legal aspects of RSI
Practical exercises
Sharing experience from abroad

The results of the evaluation are shown in Table 22. From the table, it is clear that the training was evaluated as very successful.

Table 23: Results

	relevance	completeness	quality
average rating of a topic	1, 46 (89%)	1, 40 (90%)	1, 32 (92%)
average interval of ranking for all topics	1,25 - 1,83	1,08 - 1,75	1,08- 1,66

### Missing topics

Only three trainees mentioned that they missed some topics, in particular modeling, more practical sessions and low-cost counter-measures.

### Benefits of training for trainees

All trainees agreed that the training improved their expertise to some extent. There were four possible answers – Yes / Yes, a bit / Not much / Not at all

Nine trainees answered “yes”, three trainees answered “yes, a bit”.

### Use of knowledge obtained from the training while conducting the practical RSA in Module 4

The aim was to find out if the training was useful for trainees when conducting the practical audits during module 4. The trainees could choose from the following five answers:

- I worked primarily on the basis of knowledge obtained during the training
- I used many new things that I learned during the training
- I used few things that I learned
- I did not utilize anything; I worked as I did before the training
- I utilized the method lectured during the training, but I used to work like that already before the training

Four trainees marked that they worked *primarily* on the basis of obtained knowledge; four trainees marked the answer *I used many new things that I learned during the training*. Only one marked that he *worked as he did before the training*. The results indicate that the training was useful for trainees.

### Length and extent of the training

Regarding the length and extent of the training, there were five possible answers:

- It was too long and included too many unnecessary parts
- It was too long, all parts were important, but could have been handled more quickly
- The length and extent were adequate
- The training was rather short, the subject deserves more time
- It was too short and did not include some important parts

All respondents answered that the length and extent were *adequate*.



## Achievement of expected objectives

Eight trainees *fully* achieved the expected objectives, three trainees *partially*.

## 2.3 Practical RSA

Practical RSA is described in *Deliverable D5 – Report on Road Safety Audits*. The evaluation methodology is described in chapter 1.2.2 of the evaluation report. There were five RSAs conducted. The following topics were evaluated:

- Main barriers to the RSA process – procedural and practical barriers
- The presence of the visiting auditor from the point of view of the host, visiting auditor, observer and local road safety manager – advantages and barriers
- Practical use of knowledge gained in the training
- Following the procedures trained in the theoretical part of the PILOT4SAFETY course

### 2.3.1 Main barriers to the RSA process

#### a) Procedural barriers

The participants of the RSA process mentioned the following procedural barriers they had to face:

- Time to conduct RSA was limited. Three days is a short time to receive feedback from the design team (too short RSA process)
- Difference in road safety standards and road behaviour (road safety differences)
- The language was the barrier to understand the plans/it was necessary to translate the discussion (language difference)
- Audit brief should be delivered to foreign auditor with a week's notice

#### b) Practical barriers

- Project was under the influence of local politicians, so it will not be possible to implement the recommendation
- Project was under construction, so small chance of changing something

### 2.3.2 The presence of the visiting auditor

All five **host auditors** agreed that the presence of the visiting auditor was useful because of the *unbiased view of the topic* and *transfer of knowledge and experience*. Three of them also mentioned *more respect from local authorities* as the advantage. The only difficulty (barrier) was found in *unfamiliarity with local guidelines*, which was mentioned twice. From the point of view of the **visiting auditor**, the main benefits were found in the *experience with different methods and different culture*, which were mentioned in all cases. *Language, different legal conditions and guidelines* were mentioned as main obstacles by some auditors. From the observer's point of view, the following barriers and advantages were recognized:

#### Barriers

- different guidelines, different local traffic habits,
- necessity to translate the discussion with local staff
- unfamiliarity with local guidelines
- different language skills

#### Advantages

- unbiased view of topics, transfer of experience from abroad
- exchange of experience between auditors
- exchange of knowledge, discussions about safety effects
- independent point of view

- transfer of knowledge
- probably more respect from people involved in the project

### 2.3.3 Use of knowledge

Both host and visiting auditors agreed that they used the knowledge gained during the PILOT4SAFETY training when conducting the audit. All visiting auditors confirmed that they will use the experience from the RSA carried out abroad in the home country.

### 2.3.4 Following the procedures trained in PILOT4SAFETY training

According to the **observers**, the procedures trained during PILOT4SAFETY during the theoretical part were mostly followed in all cases. There were a few deviations from the PILOT4SAFETY procedure regarding:

- Lack of usage of the checklists – mentioned twice
- Independence - host auditor was the project manager, so he was not an independent auditor

## 2.4 Practical RSI

Practical RSI is described in *Deliverable D6 – Report on Road Safety Inspections*. The evaluation methodology is described in chapter 2.2.2. There were five RSIs conducted. The following subjects were evaluated.

- Main barriers to the RSI process – procedural and practical barriers
- The presence of the visiting inspector from the point of view of the host, visiting inspector, observer and local road safety manager – advantages and barriers
- Use of knowledge received during the training
- Compliance with the procedures given during the training

### 2.4.1 Main barriers to the RSI process

The host and visiting inspectors, observers and local road safety managers mentioned the following main procedural and practical barriers.

#### a) Procedural barriers

- Long working day (day and night visit)
- Different language skills
- Different level of knowledge

#### b) Practical barriers

- Lack of safety during the site visit
- No detailed maps were available
- Inspection was car-oriented, only the main road was driven down, not the approaches to/from the minor roads

### 2.4.2 The presence of the visiting inspector

All **visiting inspectors** agreed that their presence was useful for them because of the experience gained of different methods and culture. The different legal conditions and guidelines were the most frequently-mentioned obstacle. The language barrier was mentioned just once. From the host inspector's point of view, the main benefits of the presence of visiting inspectors were the unbiased view of the topic, the transfer of knowledge from abroad and more respect from local authorities; all these issues were mentioned twice. Unfamiliarity with local conditions and guidelines was identified as the main obstacle the, but it was mentioned only once. From the observer's point of view, the main benefit was the exchange of knowledge, which was mentioned in three cases. Different views on the topic were mentioned once. Only the legal and design standard differences were mentioned

(just once) as the main barrier. From the point of view of the **local road safety managers**, the presence of the visiting inspector was very beneficial, especially because of the unbiased view of the topic and the transfer of knowledge from abroad (mentioned three times) and because of more respect from local authorities (mentioned once). The only barrier mentioned was the unfamiliarity with local conditions (in one case only).

### 2.4.3 Use of knowledge

Both host and visiting inspectors agreed that they used the knowledge gained during the PILOT4SAFETY training when conducting the inspection. All the visiting inspectors confirmed that they will use the experience gained from the RSA abroad in the home country.

### 2.4.4 Compliance with the procedures given during the training

According to observers, the procedures given during the theoretical part of the PILOT4SAFETY training were mostly followed in all cases. There were a few deviations from the PILOT4SAFETY procedure regarding:

- The absence of the local road safety manager during one RSI
- No checklists were used in one RSI. Due to that, the team did not detect all safety deficiencies

## 3 External evaluation - results

Six completed questionnaires were received - from the UK, Austria, Turkey, Belgium, Wallonia – Belgium and Germany. The questionnaire consists of 12 open questions. The answers are summarized below.

### 1. Is the application of RSA mandatory or voluntary on secondary roads in your region (country)?

UK	Voluntary
Austria	Voluntary
Turkey	Voluntary
Belgium	Voluntary
Wallonia	Voluntary
Germany	Mandatory for trunk roads and federal state roads

### 2) Is the application of RSI mandatory or voluntary on secondary roads in your region (country)?

UK	Voluntary. RSI must be undertaken by roads authorities to identify road safety related problems and to prevent accidents in order to comply with national legislation.
Austria	Voluntary
Turkey	Voluntary
Belgium	Voluntary
Wallonia	Mandatory on regional roads
Germany	The security checks are used

### 3) What are the main barriers to conducting RSA on secondary roads?

UK	<ul style="list-style-type: none"> <li>▪ Poor management structure</li> <li>▪ Limited budgeted</li> <li>▪ Insufficient competent RSA staff</li> </ul>
Austria	Fear of high costs for road operator
Turkey	Lack of intention at road directorate level

Belgium	Lack of budget
Wallonia	No
Germany	Numerous responsibilities for different road types, which make a standardized approach complicated

#### 4) What are the main barriers to conducting RSI on secondary roads?

UK	<ul style="list-style-type: none"> <li>▪ Poor management structure</li> <li>▪ Limited budget</li> </ul> Insufficient competent RSA staff
Austria	Fear of high costs for road operator
Turkey	Lack of intention at road directorate level
Belgium	Lack of budget
Wallonia	No
Germany	Diverse responsibilities for different tasks and territories

#### 5) What are the requirements for being an auditor and what kind of training is required?

UK	RSA practitioners may operate at three levels a) Team Leader b) Team Member and c) Team Observer. Auditors operating as Team Leaders/Members must achieve the following to be permitted to undertake RSA on TERN, Motorway and Strategic Routes. <ol style="list-style-type: none"> <li>1. A minimum number of hours formal, basic road safety engineering training;</li> <li>2. Engage in a minimum number of hours of continuing Professional Development in road safety training per annum;</li> <li>3. Undertake a minimum number of RSAs per annum</li> </ol>
Austria	University degree (e.g. civil engineering, town planning...) Training course (5 days + exam) Certification process (length of experience)
Turkey	No official procedure
Belgium	May differ from region to region. The main requirements are: <ul style="list-style-type: none"> <li>▪ master degree</li> <li>▪ 3 years' experience in the road domain</li> <li>▪ knowledge of regional design rules</li> <li>▪ - to follow a training given by the regional authority</li> </ul>
Wallonia	Same as Belgium
Germany	University degree in engineering and several years of working experience + additional courses according to MAZS

#### 6) What are the requirements for being an inspector and what kind of training is required?

UK	There are no formal requirements for being a Road Safety Inspector in the UK. Road Safety Auditors may be engaged to undertake this role if they have adequate specific experience in the safety of temporary roadworks. Alternatively, Health & Safety Inspectors may undertake the RSI role if they are adequately experienced/qualified. In most cases, RSI of temporary roadwork schemes is self-regulated by roadwork contractors, with intermittent municipal enforcement.
Austria	University degree (e.g. civil engineering, town planning) Training course (5 days + exam) Certification process (length of experience)
Turkey	No official procedure
Belgium	May differ from region to region. The main requirements are: <ul style="list-style-type: none"> <li>▪ master degree</li> <li>▪ 3 years' experience in road domain</li> <li>▪ knowledge of regional design rules</li> <li>▪ - to follow a training given by the regional authority</li> </ul>

Wallonia	Same as Belgium
Germany	To date there are no obligatory prerequisites. An inspector should take responsibility for operational tasks like: constant route monitoring, accident commissions and RSIs. For the accident commission members, a national training-course is offered. For members of the road safety inspection, an equivalent training is currently being worked on

**7) Do you think it is acceptable that foreign auditors with internationally-recognized training conduct an audit in your country/region?**

UK	This already occurs in the UK and should continue to be acceptable with some provisos. For a foreign RSA team to be appointed I think they should; 1. Hold relevant and recognized qualifications/certifications in road safety engineering/audit; 2. Have adequate experience of RSA on the type, scale and complexity of the scheme to be audited; 3. Be competent in the use of adequate technical language required to communicate effectively with the Design Team. For these reasons, mixed UK/foreign teams are likely to be the most effective.
Austria	Yes. If the education is nearly the same standard as in Austria
Turkey	Yes, it is acceptable
Belgium	Yes, if language is not a barrier and local requirements for building infrastructure are known
Wallonia	Yes
Germany	If the foreign auditor is familiar with and acts according to all pertinent guidelines and principles, additional requirements from the German national and state governments, it would be possible.

**8) What could be the advantages of the involvement of a foreign auditor in your region/state?**

UK	1. Potential for road safety knowledge transfer between auditors on RSA process and practice; 2. Increased experience of multi-national RSA teams working together and pan-European safety levels being improved; 3. Opportunities for reciprocal working arrangements in other countries.
Austria	No influence of regional factors and politicians, objective evaluation
Turkey	It will be the first time for the region, so it is better that the training of trainers and first trial starts with foreign auditor
Belgium	A foreign auditor may bring new insights to the approach of safe road design
Wallonia	No advantage
Germany	New strategic and technical aspects will be brought in by foreign auditors (giving knowledge).

**9) What could be the disadvantages of the involvement of a foreign auditor in your region/state?**

UK	1. Reduced collision prevention effectiveness of RSA if no local auditors are jointly engaged with the foreign auditors; 2. Increased commercial competition and reduced audit opportunities for local practitioners.
Austria	Long response time
Turkey	None
Belgium	Language, lack of local knowledge, additional costs
Wallonia	Lack of knowledge of local rules
Germany	An incomplete knowledge/mastering of the pertinent guidelines, principles and additional requirements could lead to weaknesses and problems in road safety constructions not, or wrongly, being identified. This may lead to a decreased acceptance of RSA.

**10) Do you think it is acceptable that foreign inspectors with internationally-recognized training conduct an inspection in your country/region?**

UK	This should be acceptable with some provisos. For a foreign Road Safety Inspector to be appointed they must; 1. Hold relevant and recognized qualifications/certifications in road safety engineering/audit related to road works; 2. Have adequate experience of RSI on the type, scale and complexity of the scheme to be audited; 3. Be competent in the use of adequate technical language required to communicate effectively with the Design Team.
Austria	Yes
Turkey	Yes
Belgium	Yes, if language is not a barrier and local requirements for building infrastructure are known
Wallonia	Yes
Germany	If the foreign inspector knows all the pertinent guidelines and principles, additional requirements from the German national and state governments and his action is in accordance with these terms, it should be possible.

### 11) What could be the advantages of the involvement of a foreign inspector in your region/state?

UK	1. Potential for knowledge transfer between auditors on process and practice; 2. Increased experience of multi-national teams working together and pan-European safety levels being improved; 3. Potential reciprocal working arrangements in other countries.
Austria	No influence of regional factors and politicians, objective evaluation
Turkey	It will be the first time for the region, so it is better that the training of trainers and first trial start with foreign auditor
Belgium	A foreign inspector may bring new insights to the approach of safe road design
Wallonia	No advantage
Germany	New strategic and technical aspects will be brought by foreign inspectors (giving knowledge).

### 12) What could be the disadvantages of the involvement of a foreign inspector in your region/state?

UK	1. Reduced effectiveness of RSI if no local auditors are jointly engaged; 2. Increased commercial competition and reduced audit opportunities.
Austria	Long response time facing a problem, expensive on-site inspection
Turkey	None
Belgium	Language, lack of local knowledge, additional costs
Wallonia	Lack of knowledge of local rules
Germany	A fragmented understanding of the pertinent guidelines, principles and additional requirements could lead to weaknesses and problems in road safety constructions that are not or wrongly identified. In turn, this decreases the acceptance of RSI.

## 4 Conclusions

The findings collected and summarized within the Deliverable D7 - *Evaluation report* were used as a basis for the preparation of the PILOT4SAFETY report – “*Next steps to common EU-training of road safety experts*”. It is important to note that the results of the evaluation are derived from a small number of respondents and influenced by the level of education and experience of every single trainee. Nevertheless, they are still considered as a valid and useful source of feedback information.

## 4.1 Summary of internal evaluation

### 4.1.1 RSA/RSI Training

The evaluation proved that the RSA training was considered as very useful for all of the trainees (all improved their experience to some extent) and that the knowledge obtained was later used by the trainees when conducting practical RSA/RSI. The expectations of trainees were fully achieved in all cases. No topic was missed, the composition of training sessions was considered as logical. The whole training was considered too long, but all lessons were found to be important. The main training topics were evaluated according to the relevance, completeness and quality of presentation and all received in average more than 90 %.

### 4.1.2 Practical RSA/RSI

Both host and visiting experts agreed that they used the knowledge gained during PILOT4SSAFETY training when conducting the audit/inspection. All visiting experts confirmed that they will use the experience from overseas RSAs/RSIs in their home country. The procedures trained in PILOT4SAFETY during the theoretical part were mostly followed in all cases. The presence of the visiting safety experts was considered beneficial by all parties, but some barriers were also identified (see report – “Next steps to common EU-training of road safety experts” for more information).

## 4.2 Summary of external evaluation

RSIs and RSAs are carried out on a voluntary basis in most of the responding countries. The main barriers to conduct RSAs/RSIs are limited budget (and fear of high costs), poor management structure, insufficient competent staff and numerous responsibilities for different road types. The requirements to become an auditor seem to be more accurate and formal than to become an inspector in some countries. The requirements can differ not only between the states, but also between the regions.

It seems that the acceptance of the participation of foreign (visiting) auditors is high, but there are some important demands regarding the relevant certification, experience, language competence and knowledge of local technical standards. The main advantages of the presence of visiting auditors are supposed to be the knowledge transfer, increased experience, the opportunities for reciprocal working arrangements in other countries, no influence of regional factors and politicians, objective evaluation and new insights into the approach of safe road design. The potential disadvantages could be increased commercial competition and reduced audit opportunities for local practitioners, additional costs and lack of local knowledge and guidelines.

The acceptance of participation of foreign (visiting) inspector is also very high, with almost the same demands as in the case of visiting auditors. The advantages and disadvantages also have almost the same nature as in the case of RSA.

## References

- [1] PILOT4SAFETY (2011). New Curriculum for road safety experts. Deliverable D1
- [2] PILOT4SAFETY (2011). Handbook. Deliverable D 2
- [3] PILOT4SAFETY (2011). Agreement about training. Deliverable D3
- [4] PILOT4SAFETY (2011). Report on the training in Brussels. Deliverable D4
- [5] PILOT4SAFETY (2011). Report on Road Safety Audits. Deliverable D5
- [6] PILOT4SAFETY (2011). Report on Road Safety Inspections. Deliverable D6

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All these references are available on the project website <http://pilot4safety.fehrl.org>; Deliverables area ([http://pilot4safety.fehrl.org/index.php?m=3&id\\_directory=6550](http://pilot4safety.fehrl.org/index.php?m=3&id_directory=6550)).