Interreg

EUROPEAN UNION

Danube Transnational Programme

RADAR

Project co-funded by European Union funds (ERDF, IPA, ENI)

O3.1 Road Safety Procedures Training Concept

RADAR – Risk Assessment on Danube Area Roads

https://www.interreg-danube.eu/radar

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1. RADAR – Building Stakeholders Capacity

The Risk Assessment on Danube Area Roads (RADAR) project aims at providing a safer transport network and safer transport mobility. To this end, various tools and methods for creating necessary outputs have been developed. The road safety procedures training concept is one of the project outputs to be delivered within the work package WP3. The trainings will demonstrate how to assess a road network for safety, prioritise road sections and match crash countermeasures to high risk sections.

Training materials and tools to perform the training courses have been developed based on the information provided by the project partners from participating countries. The information in question have been collected using a specially designed on-line survey form (D3.1.1). The aim was to collect the information on procedures of road safety assessment applied in different countries. Based on collected information, a Status Analysis (SR, D3.1.2) has been made. It provides the analysis of available road safety data, knowledge and practices in the partners' countries. It also provides necessary inputs for the creation of the training courses curriculum, where this curriculum is based on identified needs and existing European best road safety practice and international knowledge. A part of this curriculum is the existing ViDA software, and the training courses have been so tailored that they can be used with this software. Though not developed by the project, the software will be nevertheless used as a tool for the road safety training courses, due to its proven high-quality and reliability in identifying road safety deficiencies and offering engineering solutions for road safety improvement. Training syllabus (D3.1.3) is also part of the training courses, including best road safety practices and road assessment procedures, as well as star ratings, or the risk of road crashes rated by stars on a 1-5 scale. The training syllabus consists of power point presentations, as tailored concepts, created to satisfy the needs of the participating countries, in their national languages. The training plan (D3.1.4) includes 5-day trainings scheduled in 9 partner countries and in Montenegro. Translating the presentations into respective languages of the participating countries has been also part of this training concept (3.2). It includes the translation of ViDA tool (D3.2.1), power point slides and 30+ factsheets describing the risk assessment model and risk factors (D3.2.2).

The road safety procedures training concept integrates well into existing development frameworks. First of all, the commitment to a common region-wide road safety strategy, to which this concept largely contributes, is an opportunity for each politician or decision-maker involved in road safety on a national or regional level, to achieve a political goal, beneficial for all road users, including the most vulnerable ones, such as pedestrians and bicyclists. In addition, efforts must be made to include the concept as a mandatory tool for local communities and their work in the field of road safety, to ensure the bottom-up approach to this concept.

In terms of technological integration, this concept should be recognized as a new technology as it develops a common methodology for the road assessment process and prioritization of road sections that need to be improved to achieve a higher level of road safety. Likewise other road safety methodologies, such as road safety audit and road safety inspections, the concept should find its place, if not in the road safety law, then in a by-law providing for a mandatory road safety procedure training concept intended for road safety professionals and practitioners.

Collecting road safety data from participating countries, or project partners, such as general data (including the number of population, geographic area, nominal GDP, etc.), data concerning national road safety strategies, infrastructure safety management, as well as infrastructure facilities for vulnerable road users has been an objective of the RADAR Status Report. Each data set consists of even more detailed information, including, for example, road network length, road network density, crash data and speed limits (general data), or national fatality targets, road safety policies, budgets, stakeholders, etc. (national road safety strategies). The data set on infrastructure safety management concerns, for example, the implementation of the Infrastructure Safety Directive (2008/96/EC), applied standards for road infrastructure, identification of high risk roads, AADT data, priorities for assessing sections or roads to be improved, etc., while the section on infrastructure facilities for VRUs offers the overview of presence of basic infrastructure intended for pedestrians, cyclists and motorcyclists.

A comparative analysis based on collected data has been made to support the objectives of this report, i.e. to help understand and implement the training curriculum tailored for the target audience and each participating country.

2. Training plan

The purpose of the Training Plan is to identify the appropriate training strategies and activities required to achieve the desired learning outcome during the implementation of RADAR Project.

This RADAR Training Plan establishes procedures to plan, develop, implement, and maintain RADAR training program and curriculum.

The RADAR Training objective is to increase knowledge and skills, build capacities of PPs, road safety specialists, ASPs and engineers in road infrastructure safety. Level of understanding on prioritization of where to invest to reduce severe injuries.

Training will demonstrate how to assess a network for safety, prioritize road sections and match crash countermeasures to high risk sections.

The learning activities provide the opportunity to present this information in an objective way to support decision-making. This is based upon risk assessment and on information gathered about which road attributes lead to high risk.

Training courses will be held in 10 countries and will:

- Present the road safety data that highlights the scale of road trauma in the region
- Demonstrate the data required and methods to be used for ranking infrastructure road safety priorities in each country
- Present and explain the road design features that increase the frequency and severity of crashes, using many local case studies and examples
- Teach the use of data capture via video camera and its processing and analysis via ViDA online software
- Ensure that trainees understand and can repeat the process

Training courses involve taking participants through the process of assessing a network for how its safety could be improved. They involved working with the data required to carry out this process and selecting how to best reduce risk.

There will be transfer of know-how and procedures to the operating personnel and professionals of the organizations in charge of road safety through the training. There will be explanation of successful methodologies and how to use the free-to-air software ViDA.

The teaching approach will be based on 3-day face-to-face PowerPoint lectures, practical exercises, including worked examples and case studies as well as 2-day training in form of Webinar.

Target groups for the training are operative personnel and engineers of National Road Authorities and experts and professionals of sectoral agencies working in road safety on daily basis.

3. Targeting the identified issues

Methods of tracking road infrastructure risk used in participating countries vary from non-systematic visual identification of high-risk areas to systematic use of iRAP Risk Mapping and Star Rating procedures. With the exception of only a few countries, all of them are to some extent familiar with iRAP procedures, at least as a result of participation in an international project. In addition, hot spots management is reported to be present in about half of them, mostly for many years now and using different methods of identifying such spots.
Where iRAP methodology is not in use, the risk is mostly calculated/assessed on the basis of number and rate of road accidents/injuries, including their spatial distribution, and some measure of vehicle flow/AADT.
In general, all countries have AADT data available. However, the range, accuracy and keeping the data up-to-date can be a challenge.
Reported accuracy of the existent road accident databases mostly depends on type of the accident and/or injury. In some countries it is described as quite accurate and in others as not. Accidents with more serious consequences are less prone to underreporting. The location accuracy also varies, however it is improving with time and use of new technologies (GPS). The scope of crash type information, where existent, is in general reported as adequate.
In clear majority of countries, either the Ministry of interior directly or Traffic Police is responsible for keeping the database. In a few cases, some data is held at institutions, dealing with statistics. In general, and where existent, only limited amount of data is publicly available. More data for the road safety stakeholders is available on request.
A few challenges regarding accuracy and sharing of the data as well as hopes for the future improvement are reported.
Based on the identified issues a training concept is tailored in a way that it targets the areas where most improvements are needed, sharing the best practice examples form the best performing countries form the region and EU. Following issues have been identified and were used as a basis of developing the training syllabus and training plan:

- *Identify high risk roads*: The participants of the training course learn how and where unacceptably high risks occur and how they can be removed in a cost-effective way. This process of levelling up and working towards a minimum defined level of safety for roads in the Danube Region is a practical expression of the process of economic and social integration on a matter of strategic importance. During the training course, the various concepts related to road safety assessments are introduced and discussed with the participants, including the traffic accidents occurrence risk, the ways of precepting the road safety risks, the main causes and types of fatal and serious accidents, the typical distribution of road risk across the road network, the correlation between operating

speed and severity of road traffic accidents as well as the different ways for measuring road risk according to selected reactive and pre-emptive risk assessment methodologies. The mentioned topics are covered in the following training course sessions: (1) Introduction to RADAR and RAP Methodology (Day 1 – 60 min), (2) Overview of Star Rating Process (Day 1 – 60 min) and (3) Risk Mapping and Performance Tracking (Day 1 – 30 min).

- *Do star rating and investment plan analysis*: The participants are provided with the knowledge to implement the basic steps of the iRAP SRS methodology in the ViDA software. During the training course the participants are required to use the iRAP ViDA Demonstrator in order to perform the coding of selected 100-meter road sections and produce the iRAP SRS results. The results obtained in the IRAP ViDA Demonstrator are than discussed in detail with participants so that they gain the understanding on how to interpret the results of iRAP SRS model. After that the participants learn how to use basic tools available in ViDA software in order to filter out the resulting risks for four main types of road users and to show the results on the risk maps and in their tabular form. The participants also gain the basic knowledge on how to define SRIP investment plan parameters, calibrate and upload the datasets, and to obtain and interpret the SRIP plan results. The mentioned topics are covered in the following training course sessions: (1) Star Rating Survey - Video inspections (Day 2 – 30 min.); (2) Registering and using VIDA (Day 2 – 30 min.); (3) Coding process – basic concepts (Day 2 – 45 min.); (4) Introduction to road attribute coding (Day 2 – 45 min.); (5) Interactive exercises – coding the selected 100m road segment in ViDA Demonstrator (Day 2 – 90 min.); (6) Registering and using VIDA (Day 3 – 105 min.) and (7) Collecting and using the supporting data in the post-coding process (Day 3 – 45 min.).

- *Link costs-benefits*: The participants of the training courses are gaining the knowledge about importance of determining and using the BCR (Benefit-Cost) ratios in order to identify the most effective countermeasures and prioritise their implementation across the road network. Since the funds available for improving and reconstructing existing road network are often very limited, it is necessary to provide the knowledge on how to develop the optimal investment plan which will include only those countermeasures which will ensure the maximum reductions in the number of fatal and serious road traffic accidents on all critical road network segments in the observed analysis period. The required knowledge about the links between determined costs and benefits are provided through the following specific topics which are covered in training courses: (1) the SRIP and Implementation ready conceptual design layouts (Day 1 – 60 min); (2) Safer Roads Investment Plans – advanced concepts (Day 3 – 60 min); (3) Quality review and interpretation of safer roads investment plan (Day 3 – 60 min) and (4) Collecting and using the supporting data in the post-coding process (Day 3 – 45 min.).

- *Raise the safety of network and not only black spot*: The participants of the training courses learn about the importance of combining the various preventive and corrective road risk assessment methodologies in order to determine the existing road network safety level and develop an appropriate plan for raising the overall road network safety level in future periods. During the training courses special emphasis is given on pros and cons of using the different road risk assessment methodologies for determining the individual and collective risks of traffic accidents occurrence. The traditional "black spot" approach is compared with the iRAP Risk Mapping and iRAP Star Rating Scoring methodologies as well as RSIA, RSA and RSI road risk assessment methodologies. The participants are also encouraged to embrace the new way of thinking about road safety, i.e. they are made aware that it is not enough to focus only on the "black spots", but rather to look

for the best ways to raise the road safety of the overall road network. The mentioned topics are covered in the following training course sessions: (1) Introduction to RADAR and RAP Methodology (Day 1 – 60 min), (2) Overview of Star Rating Process (Day 1 – 60 min) and (3) Risk Mapping and Performance Tracking (Day 1 – 30 min).

- *Respond to Directive not only as transposition to national law but through implementation of Network Safety Assessments*: The participants are informed of the importance of implementing the appropriate network safety assessment methodologies in all phases of planning, design and operation of the road infrastructure in the TEN-T road network. The possibility of expanding the protocols from 2008/96/EC Directive to lower levels of roads is also considered. The training courses provide participants with understanding of general principles of safety impact assessment (RSIA) at pre-design stage, of safety audit (RSA) at the design stage, regular inspections (RSI) at operation stage and the ranking of high accident concentration road network sections. These topics are covered in the introduction to RADAR and RAP Methodology training course session (Day 1 – 60 min).

- *Set targets*: The participants learn how to precisely define goals and objectives for future road safety assessment projects. The ways of the measuring and tracking the achievement of defined targets will also be discussed. These topics are covered in the following training course sessions: (1) Overview of Star Rating Process (Day 1 – 60 min) and (2) Risk Mapping and Performance Tracking (Day 1 – 30 min).

- *Establish safer road found*: The participants are informed about the importance of forming special road safety funds within regular or investment funds dedicated for direct investments in road safety upgrades in terms of road safety equipment and measures at locations with most effectiveness.

- *Invest in safety*: The participants learn how to allocate the available funds into implementation of most cost-effective countermeasures in order to achieve maximum cost-effective results: improved overall road traffic safety level and reduced possibility of serious and fatal traffic accident occurrence on the observed road network together with significant reductions in social and external costs in the overall road traffic system. These topics are covered in the following training course sessions: (1) the SRIP and Implementation ready conceptual design layouts (Day 1 – 60 min); (2) Safer Roads Investment Plans – advanced concepts (Day 3 – 60 min) and (3) Quality review and interpretation of safer roads investment plan (Day 3 – 60 min).

- *Case study examples* - Some projects are funded by the EU or IFIs. In the majority of participating countries there is no dedicated road safety fund or budget present or the funds are not used for infrastructural improvement. Where present, there is no specific report of implementation. About half of participating countries do use EU funding for road infrastructure safety upgrades at the moment. This issues are addressed during (1) the SRIP and Implementation ready conceptual design layouts (Day 1 – 60 min); (2) Safer Roads Investment Plans – advanced concepts (Day 3 – 60 min) and are addressed during day 4 and 5 webinar sessions covering the RADAR Thematic Areas and specific problems.

4. Training course Syllabus

Based on he identified road safety issues and areas where most improvement is expected the following Syllabus was developed:

	SESSION	ACTIVITIES
Day 1	**1. Introduction**	
	1.1. Introduction to RADAR and RAP Methodology (60 min.)	■ Basic road safety assessment concepts ■ Traffic accidents occurrence risk ■ Causes of fatal and serious traffic accidents ■ Examples of dangerous locations on road network
	2. Basic concepts of road safety risk assessment and safer road investment plan development	
	2.1. Overview of Star Rating Process (60 min.)	■ Basic Elements of Star Rating ■ Project planning, Data Collection, Star Rating Calculation, Results review and analysis
	2.2. Risk Mapping and Performance tracking (30 min.)	■ Input data ■ Risk mapping methodology process ■ Data collection and assignment ■ Risk Map types ■ Risk rates calculations ■ Risk Map comparison
	2.3. SRIP and Implementation ready conceptual design layouts (60 min.)	■ Creating SRIP plans ■ SRIP economic analysis – basic concepts
	3. Discussion (30 min.)	

	SESSION	ACTIVITIES
Day 2	**1. Introduction to Road survey process**	
	1.1. Star Rating Survey - Video inspections (30 min.)	■ Inspection Technology ■ Example of inspection systems ■ Examples of images collected by unaccredited and accredited road survey system ■ Survey process planning ■ Quality assurance
	2. Introduction to VIDA – iRAP online software	
	2.1. Registering and using VIDA (30 min.)	■ ViDA registration ■ ViDA login ■ Using the ViDA SRS Demonstrator
	3. Introduction to road Coding and SRS model	
	3.1. Coding process – basic concepts (45 min.)	■ The coding process – Road attribute groups ■ Star Rating Score (SRS) equations ■ Fatality estimation equations
	3.2. Introduction to road attribute coding (45 min.)	■ Coding system ■ Basic principles of coding ■ Coding of Designs

	4. Practical coding Exercises	
	4.1. Interactive exercises – coding the selected 100m road segment in ViDA Demonstrator (90 min.	■ Coding examples of different road sections

	SESSION	ACTIVITIES
Day 3	**1. Safer Roads Investment Plans**	
	1.1. Safer Roads Investment Plans – advanced concepts (60 min.)	■ Countermeasure types ■ Calculating the economic benefits and costs ■ BCR ratios and prioritisation of countermeasures ■ Using the ViDA Trigger sets ■ Defining the economic parameters in ViDA ■ Dataset calibration
	1.2. Quality review and interpretation of safer roads investment plans (60 min.)	■ Countermeasure checks ■ Makro and micro checks ■ Casualty map ■ Exploring the issues in star rating, engineering standard issues and maintenance issues
	2. Using ViDA and Interpreting results	
	2.1. Registering and using VIDA (105 min.)	■ Using the SRS Demonstrator – advanced examples ■ Data Filtering in ViDA ■ SRS Map, SRS Table, SRS Chart, Risk worm ■ Detailed condition Report ■ SRIP Table, SRIP Plan and Predicted Casualty Map ■ Using the Advanced project settings and Dataset calibration
	3. Supporting Data collection	
	3.1. Collecting and using the supporting data in the post-coding process (45 min.)	■ Demographic and economic data ■ AADT data, motorcycle, bicycle and pedestrian flow data ■ Road traffic accidents data ■ Operating speed data
	4. Discussion	
	4.1. Discussion and conclusions on training stage 1 and introduction to stage 2 training (30 min.)	

	SESSION	ACTIVITIES
Day 4	**1. Thematic Area 1 – General road safety and SRIP**	
	1.1. Webinar – presentations on Thematic Area 1	■ Examples of existing sections and design files that will demonstrate how RAP tools can be used to prepare implement measures form TA1
	2. Thematic Area 3 – ITS, speed management and traffic calming approaches	
	2.1. Webinar – presentations on Thematic Area 3	■ Examples of existing sections and design files that will demonstrate how RAP tools can be used to prepare implement measures form TA3

	SESSION	ACTIVITIES
Day 5	1. Thematic Area 2 – Provision for Vulnerable Road Users	
	1.1. Webinar – presentations on Thematic Area 2	▪ Examples of existing sections and design files that will demonstrate how RAP tools can be used to prepare implement measures form TA2
	2. Thematic Area 4 – Infrastructure safety of roads in the neighbourhood of schools	
	2.1. Webinar – presentations on Thematic Area 4	▪ Examples of existing sections and design files that will demonstrate how RAP tools can be used to prepare implement measures form TA4

5. Country specific approach – Ensuring unified methodology across the region

For each training course a set of examples and case studies are prepared. The participants will be given printouts of four cases/images of typical road cross sections in the country where the training is performed. They then have to use the knowledge obtained form the theoretical parts of the training and perform road safety assessments using unified ViDA Demonstrator platform.

At the final part of the exercise the coding of the participants and the presenter is discussed, and all misinterpretation are debated. The presenters are then asked to suggest country specific countermeasures and the country specific Safer Roads Investment Plan is developed. The SRIP and the results of the suggested countermeasures are then evaluated using ViDA demonstrator

6. Training material

Based on the identified issues a set of training material is prepared, including PowerPoint slides with factsheets and Coding Manual describing the model and the risk factors in road assessment.

Training material is translated into the local languages of countries where training session will be performed. Translations include the following languages: German (Austrian), Slovenian, Hungarian, Bulgarian, Czech/Slovakian, Serbian/Croatian/Bosnian, Moldovan

The training material sets are stored on the project file management platform (Seafile) due to large size of the files (>4GB)

APPENDIX 1

Preview of the training materials and tools used

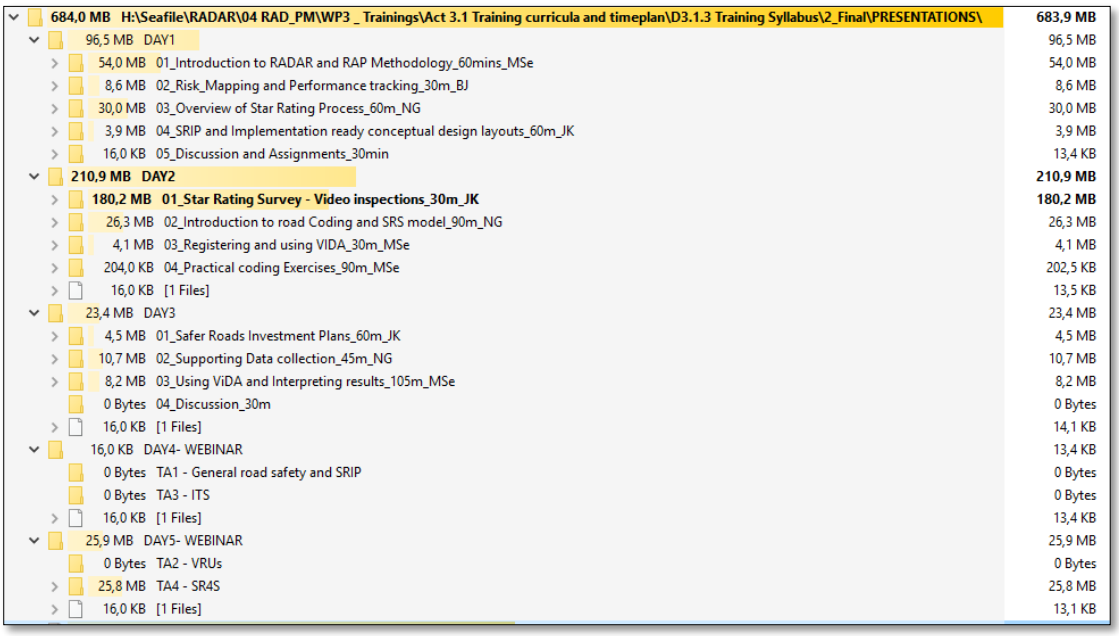


Figure 1 Provew of the file foder holding prepared PPT presentation according to the Training Syllabus

Figure 2 Preview of the Croatian translations of the PPT

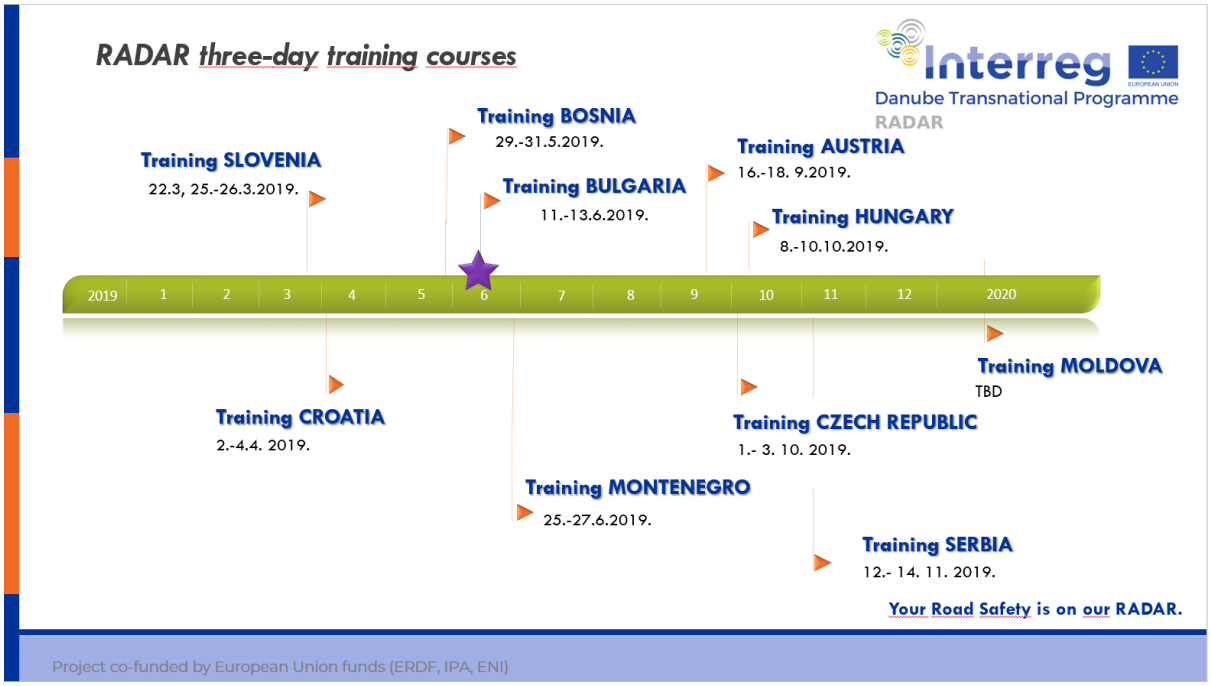


Figure 3 Preview of the Training courses time plan (2019)

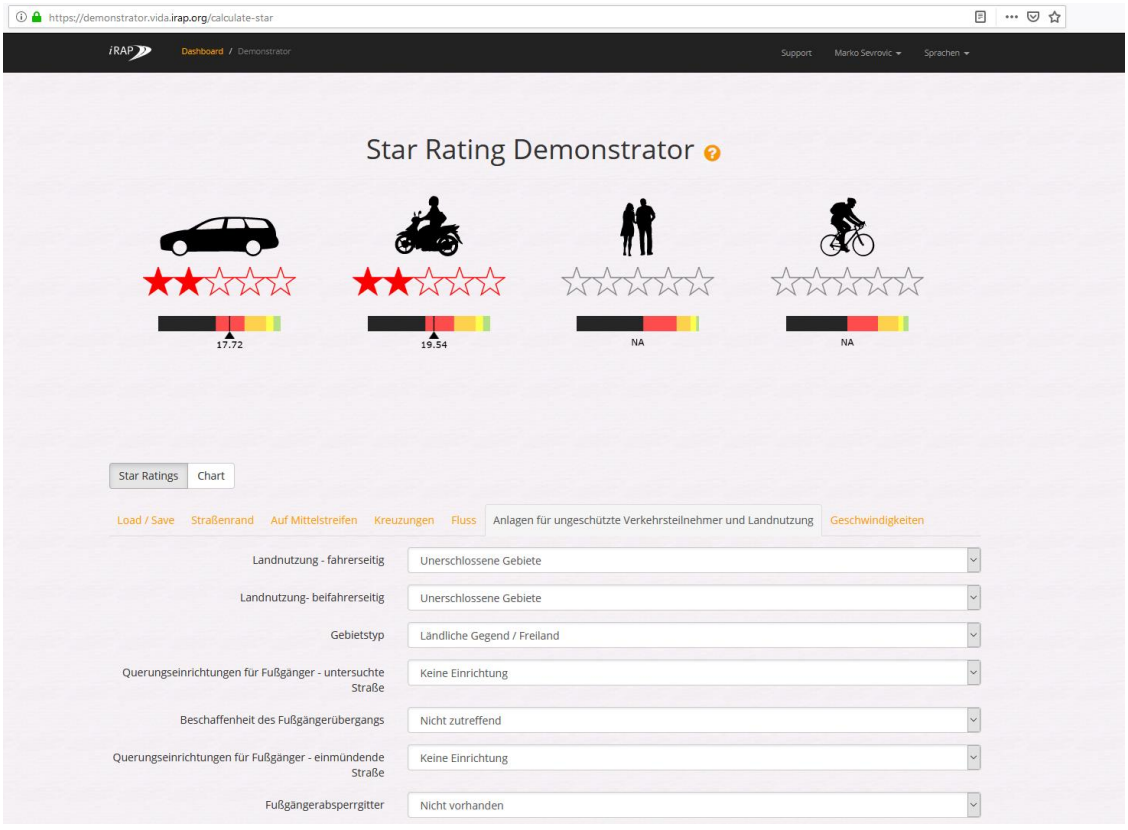
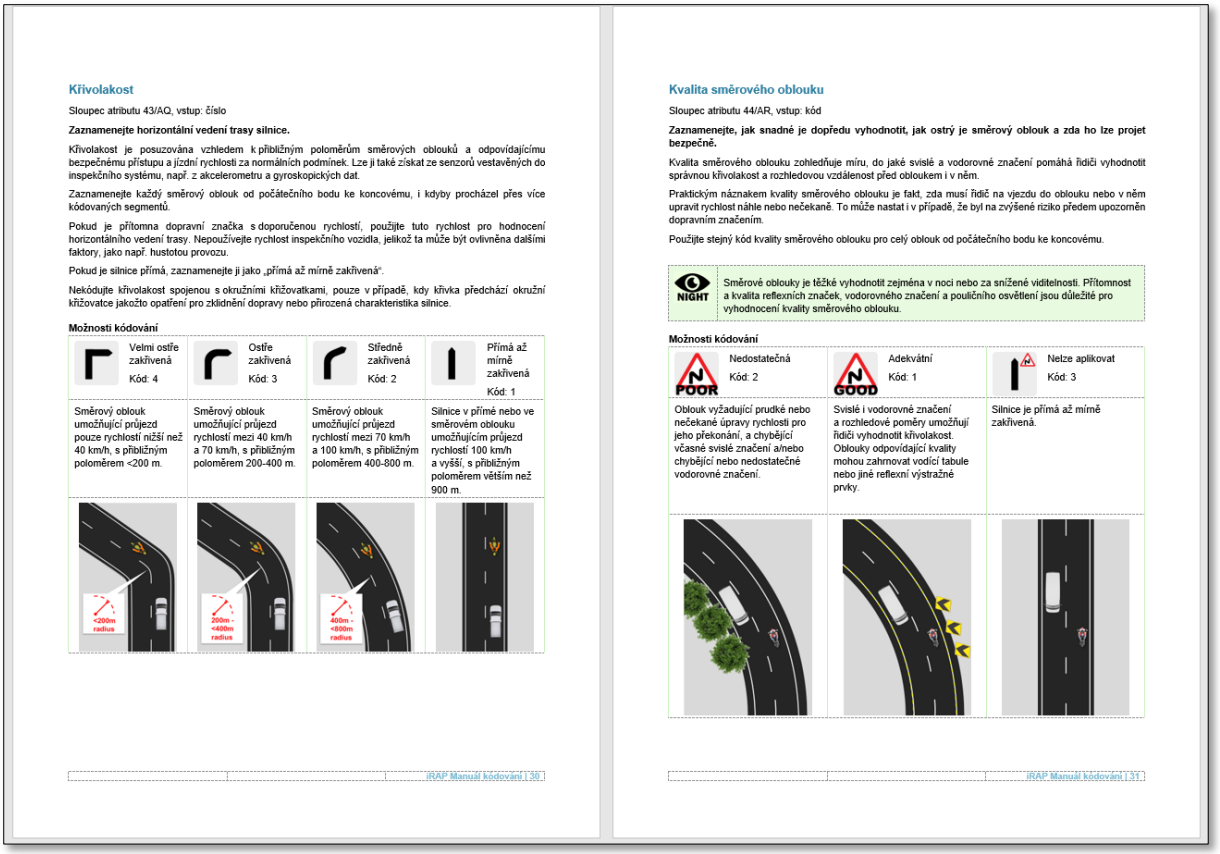


Figure 4 Preview of German (Austrian) Translation of the ViDA Online road assessment toolkit



Křivolakost

Sloupec atributu 43/AQ, vstup: číslo

Zaznamenejte horizontální vedení trasy silnice.

Křivolakost je posuzována vzhledem k přibližným poloměrům směrových oblouků a odpovídajícímu bezpečnému přístupu a jízdní rychlosti za normálních podmínek. Lze ji také získat ze senzorů vestavěných do inspekčního systému, např. z akcelerometru a gyroskopických dat.

Zaznamenejte každý směrový oblouk od počátečního bodu ke koncovému, i kdyby procházel přes více kódovaných segmentů.

Pokud je přítomna dopravní značka s doporučenou rychlostí, použijte tuto rychlost pro hodnocení horizontálního vedení trasy. Nepoužívejte rychlost inspekčního vozidla, jelikož ta může být ovlivněna dalšími faktory, jako např. hustotou provozu.

Pokud je silnice přímá, zaznamenejte ji jako „přímá až mírně zakřivená".

Nekódujte křivolakost spojenou s okružními křižovatkami, pouze v případě, kdy křivka předchází okružní křižovatce jakožto opatření pro zklidnění dopravy nebo přirozená charakteristika silnice.

Možnosti kódování

Velmi ostře zakřivená Kód: 4	Ostře zakřivená Kód: 3	Středně zakřivená Kód: 2	Přímá až mírně zakřivená Kód: 1
Směrový oblouk umožňující průjezd pouze rychlostí nižší než 40 km/h, s přibližným poloměrem <200 m.	Směrový oblouk umožňující průjezd rychlostí mezi 40 km/h a 70 km/h, s přibližným poloměrem 200-400 m.	Směrový oblouk umožňující průjezd rychlostí mezi 70 km/h a 100 km/h, s přibližným poloměrem 400-800 m.	Silnice v přímé nebo ve směrovém oblouku umožňujícím průjezd rychlostí 100 km/h a vyšší, s přibližným poloměrem větším než 900 m.
<200m radius	200m - <400m radius	400m - <800m radius	

Kvalita směrového oblouku

Sloupec atributu 44/AR, vstup: kód

Zaznamenejte, jak snadné je dopředu vyhodnotit, jak ostrý je směrový oblouk a zda ho lze projet bezpečně.

Kvalita směrového oblouku zohledňuje míru, do jaké svislé a vodorovné značení pomáhá řidiči vyhodnotit správnou křivolakost a rozhledovou vzdálenost před obloukem i v něm.

Praktickým náznakem kvality směrového oblouku je fakt, zda musí řidič na vjezdu do oblouku nebo v něm upravit rychlost náhle nebo nečekaně. To může nastat i v případě, že byl na zvýšené riziko předem upozorněn dopravním značením.

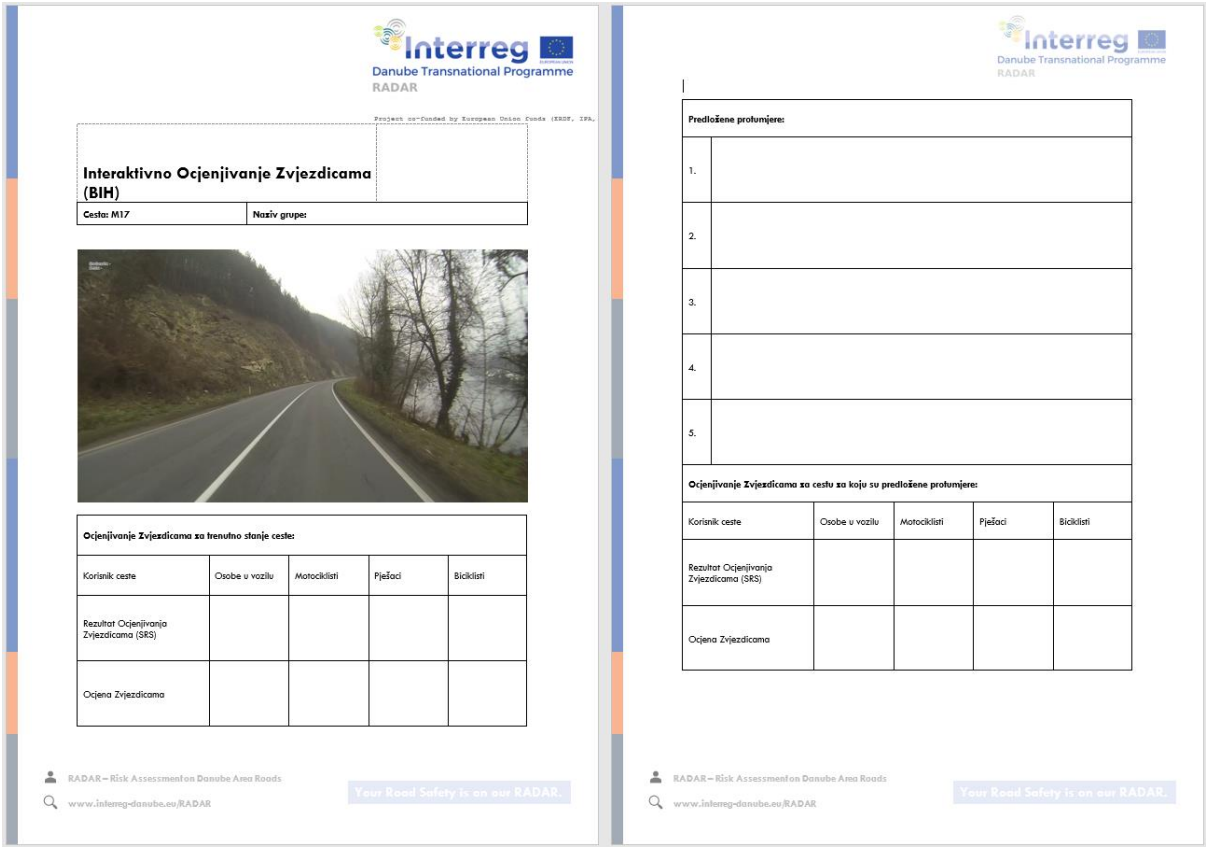
Použijte stejný kód kvality směrového oblouku pro celý oblouk od počátečního bodu ke koncovému.

NIGHT Směrové oblouky je těžké vyhodnotit zejména v noci nebo za snížené viditelnosti. Přítomnost a kvalita reflexních značek, vodorovného značení a pouličního osvětlení jsou důležité pro vyhodnocení kvality směrového oblouku.

Možnosti kódování

POOR Nedostatečná Kód: 2	GOOD Adekvátní Kód: 1	Nelze aplikovat Kód: 3
Oblouk vyžadující prudké nebo nečekané úpravy rychlosti pro jeho překonání, a chybějící včasné svislé značení a/nebo chybějící nebo nedostatečné vodorovné značení.	Svislé i vodorovné značení a rozhledové poměry umožňují řidiči vyhodnotit křivolakost. Oblouky odpovídající kvality mohou zahrnovat vodící tabule nebo jiné reflexní výstražné prvky.	Silnice je přímá až mírně zakřivená.

Figure 5 Preview of the iRAP Star Rating Coding Manual (Czech Translation)



Interreg
Danube Transnational Programme
RADAR

Project co-funded by European Union funds (ERDF, IPA,

Interaktivno Ocjenjivanje Zvjezdicama (BIH)

Cesta: M17	Naziv grupe:

Ocjenjivanje Zvjezdicama za trenutno stanje ceste:				
Korisnik ceste	Osobe u vozilu	Motociklisti	Pješaci	Biciklisti
Rezultat Ocjenjivanja Zvjezdicama (SRS)				
Ocjena Zvjezdicama				

RADAR – Risk Assessment on Danube Area Roads
www.interreg-danube.eu/RADAR
Your Road Safety is on our RADAR.

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RADAR

Predložene protumjere:	
1.	
2.	
3.	
4.	
5.	

Ocjenjivanje Zvjezdicama za cestu za koju su predložene protumjere:				
Korisnik ceste	Osobe u vozilu	Motociklisti	Pješaci	Biciklisti
Rezultat Ocjenjivanja Zvjezdicama (SRS)				
Ocjena Zvjezdicama				

RADAR – Risk Assessment on Danube Area Roads
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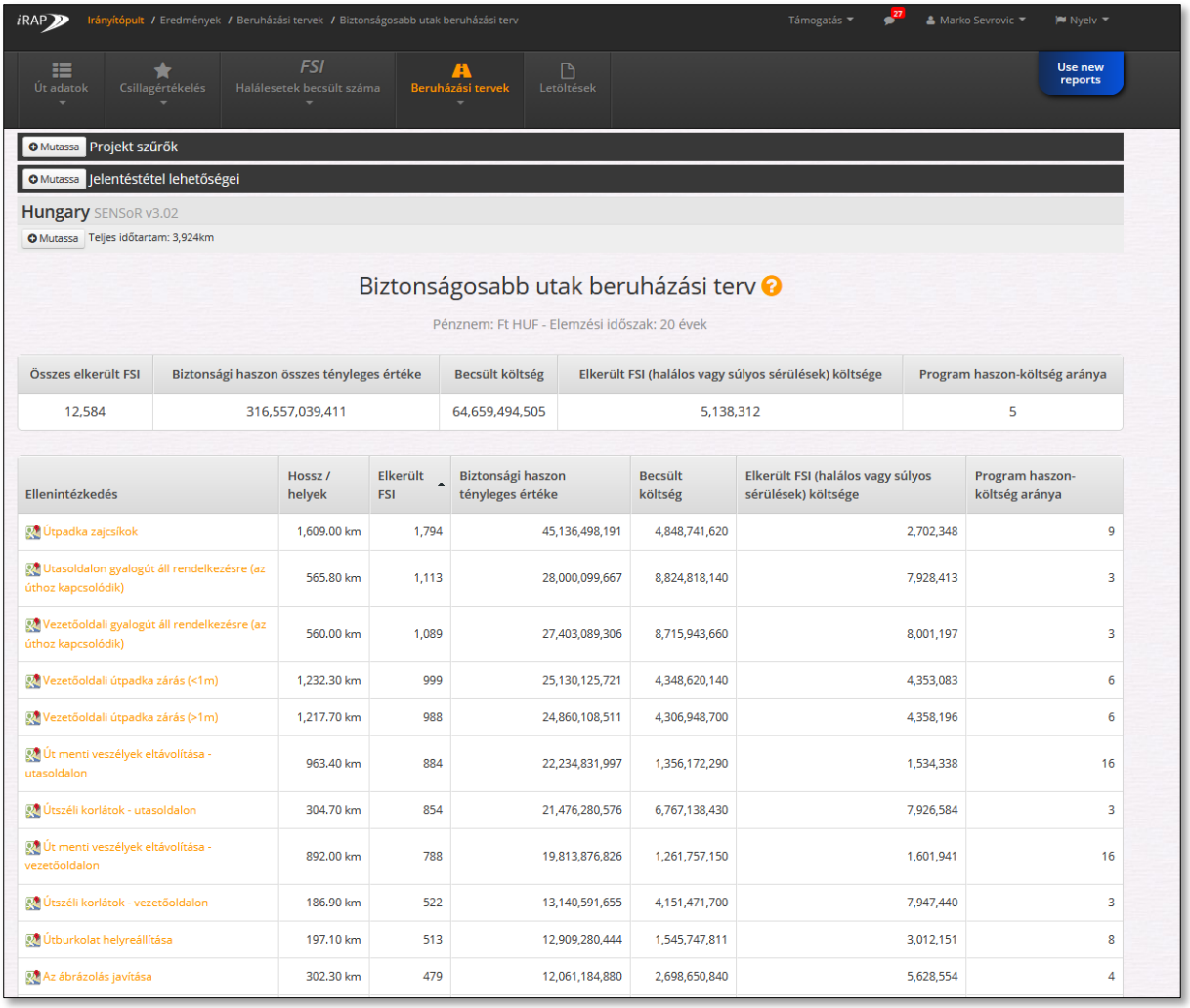
Your Road Safety is on our RADAR.

Figure 6 Example of interactive sheet for Star Rating – Bosnia and Herzegovina (M17 Road)



Biztonságosabb utak beruházási terv

Pénznem: Ft HUF - Elemzési időszak: 20 évek

Összes elkerült FSI	Biztonsági haszon összes tényleges értéke	Becsült költség	Elkerült FSI (halálos vagy súlyos sérülések) költsége	Program haszon-költség aránya
12,584	316,557,039,411	64,659,494,505	5,138,312	5

Ellenintézkedés	Hossz / helyek	Elkerült FSI	Biztonsági haszon tényleges értéke	Becsült költség	Elkerült FSI (halálos vagy súlyos sérülések) költsége	Program haszon-költség aránya
Útpadka zajcsíkok	1,609.00 km	1,794	45,136,498,191	4,848,741,620	2,702,348	9
Utasoldalon gyalogút áll rendelkezésre (az úthoz kapcsolódik)	565.80 km	1,113	28,000,099,667	8,824,818,140	7,928,413	3
Vezetőoldali gyalogút áll rendelkezésre (az úthoz kapcsolódik)	560.00 km	1,089	27,403,089,306	8,715,943,660	8,001,197	3
Vezetőoldali útpadka zárás (<1m)	1,232.30 km	999	25,130,125,721	4,348,620,140	4,353,083	6
Vezetőoldali útpadka zárás (>1m)	1,217.70 km	988	24,860,108,511	4,306,948,700	4,358,196	6
Út menti veszélyek eltávolítása - utasoldalon	963.40 km	884	22,234,831,997	1,356,172,290	1,534,338	16
Útszéli korlátok - utasoldalon	304.70 km	854	21,476,280,576	6,767,138,430	7,926,584	3
Út menti veszélyek eltávolítása - vezetőoldalon	892.00 km	788	19,813,876,826	1,261,757,150	1,601,941	16
Útszéli korlátok - vezetőoldalon	186.90 km	522	13,140,591,655	4,151,471,700	7,947,440	3
Útburkolat helyreállítása	197.10 km	513	12,909,280,444	1,545,747,811	3,012,151	8
Az ábrázolás javítása	302.30 km	479	12,061,184,880	2,698,650,840	5,628,554	4

Figure 7 Preview of the case study example of Safer Roads Investment plan in ViDA online toolkit (Hungary and Hungarian translation)