



# Interreg



## Danube Transnational Programme RADAR

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



**Your Road Safety is on our  
RADAR.**

## O T.3.2. i Databases on Pilot Actions

TA6 RISM - SLOVENIA



**RADAR – Risk Assessment on Danube Area Roads**



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

Internal Report Hierarchy Level			
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1.0	24.11.2021.	Draft Report on Pilot Action on TA6 Database in Slovenia	Klemen Filipič, AMZS
1.1	26.11.2021	Corrections, title change	Klemen Filipič, AMZS

## Abbreviation list

AADT	Annual Average Daily Traffic
AMZS	Automobile and Motorcycle Association of Slovenia
iRAP	International Road Assessment Programme
PA	Pilot Action
PP	Project Partner
RADAR	Risk Assessment on Danube Area Roads
SR4S	Star Rating for Schools
TA	Thematic Area
VRU	Vulnerable Road User

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# 1. Introduction

The RADAR (*Risk Assessment on Danube Area Roads*) project implements learning and transnational cooperation activities at different levels to help the responsible road safety organizations in the Danube area identify risk on their road networks. The project also helps them reduce risk systematically, by improving infrastructure and road layout. RADAR addresses all road users but pays particular attention to vulnerable road users as well as to safety on major roads near schools. It also holistically approaches the issue of safety and tackles speed as a major risk on roads.

The fifth Work Package of the project aims to give the project partners practical experience in using techniques, information and countermeasures to reduce road casualties. With the help of Pilot Actions (PA), testing of best practice and methodologies become possible. In the extension period of the RADAR project, PP AMZS is a responsible project partner for the sixth thematic area (TA6) – RISM in Slovenia. The pilot action on TA6 consists of the preparation and implementation of a road infrastructure safety assessment using the iRAP Star Rating for Schools (SR4S) methodology and an expert assessment of the suitability of the use of this methodology in Slovenia.

The aim of the RADAR Pilot Action on TA6 is to show road authorities steps to be taken to enhance road safety for vulnerable road users in the vicinity of schools and beyond through a dedicated methodology with the ability to compare the results and upgrades between different locations. As the Road Infrastructure Safety Management (RISM) Directive 2019/1396 / EC foresees systematically taking vulnerable road users into account, the RADAR of Pilot Project on TA6 also aims to verify the possibility of using the SR4S methodology in this field in Slovenia.

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The aim of this document is to present the databases created during the making of the Pilot action report and implementation ready road layout plans.

The assessment of road infrastructure was done on five site visits/inspections in five different towns/cities in Slovenia. In total, the assessment was done on 15 selected locations in the vicinity of five different schools. Assessment was conducted with the help of iRAP SR4S coding forms on which data, relevant to assessment of road infrastructure was collected.

In addition, extensive amount of photo material was collected on each assessed location.

## 2. Process of data collection

### 2.1. iRAP SR4S coding forms

Site visits were performed in July and August 2021. iRAP SR4S coding forms were filled in on each of assessed locations during site visit. The forms served as medium for the infrastructure assessment data to be entered into SR4S web application.

	Place	Date	No. of coding forms
Site visit 1	Dravograd	30.7.2021	3
Site visit 2	Kočevje	5.8.2021	2
Site visit 3	Stara Cerkev	5.8.2021	2
Site visit 4	Murska Sobota	11.8.2021	4
Site visit 5	Idrija	18.8.2021	4
Total			15

### 2.2. Photo material collection

Photo material was collected as seen in the following table:

	Place	Date	No. of photos
Site visit 1	Dravograd	30.7.2021	20
Site visit 2	Kočevje	5.8.2021	29
Site visit 3	Stara Cerkev	5.8.2021	16
Site visit 4	Murska Sobota	11.8.2021	41
Site visit 5	Idrija	18.8.2021	40
Total			146



### 3. Database on Pilot Action on TA6 in Slovenia

#### 3.1. Databases of iRAP SR4S coding forms

iRAP SR4S coding forms with selected attributes for the iRAP Star Rating 4 Schools infrastructure assessment that were used during site visits have been scanned and uploaded to the following folders in Seafile:

- 04 RAD\_PM/WP6\_Extension/AT4.3 Pilot Actions TA5 and TA6/4.3.3 Implementation-Ready Road Layout Concept Plans TA6/SLO\_Pilot\_action\_TA6\_Database/Coding forms/Dravograd
- 04 RAD\_PM/WP6\_Extension/AT4.3 Pilot Actions TA5 and TA6/4.3.3 Implementation-Ready Road Layout Concept Plans TA6/SLO\_Pilot\_action\_TA6\_Database/ Coding forms s/Kocevje
- 04 RAD\_PM/WP6\_Extension/AT4.3 Pilot Actions TA5 and TA6/4.3.3 Implementation-Ready Road Layout Concept Plans TA6/SLO\_Pilot\_action\_TA6\_Database/ Coding forms /Stara Cerkev
- 04 RAD\_PM/WP6\_Extension/AT4.3 Pilot Actions TA5 and TA6/4.3.3 Implementation-Ready Road Layout Concept Plans TA6/SLO\_Pilot\_action\_TA6\_Database/ Coding forms /Murska Sobota
- 04 RAD\_PM/WP6\_Extension/AT4.3 Pilot Actions TA5 and TA6/4.3.3 Implementation-Ready Road Layout Concept Plans TA6/SLO\_Pilot\_action\_TA6\_Database/ Coding forms /Idrija

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The coding forms contain the coded attributes from the iRAP SR4S assessment. The SR4S methodology includes selected attributes from general Star Rating procedure that affect the most the safety of pedestrians as vulnerable road users.

The coded attributes were:

- Carriageway
- Land use - driver-side
- Land use - passenger-side
- Area type
- Speed limit
- Median type
- Shoulder rumble strips
- Paved shoulder - driver-side
- Paved shoulder - passenger-side
- Intersection type
- Intersection channelization
- Intersecting road volume

- Intersection quality
- Property access points
- Number of lanes
- Lane width
- Curvature
- Quality of curve
- Grade
- Road condition
- Skid resistance / grip
- Delineation
- Street lighting
- Pedestrian crossing facilities - inspected road
- Pedestrian crossing quality
- Pedestrian crossing facilities - intersecting road
- Pedestrian fencing
- Speed management / traffic calming
- Vehicle parking
- Sidewalk - driver-side
- Sidewalk - passenger-side
- Sight distance
- Vehicle flow (AADT)
- Pedestrian peak hour flow across the road
- Pedestrian peak hour flow along the road driver-side
- Pedestrian peak hour flow along the road passenger-side
- Operating Speed (85th percentile)
- School zone warning
- School zone crossing supervisor

Location		STAR RATING FOR SCHOOLS	
Username	KP	Date	30.7.2021
School	DS VEKNAH TUCOV	DIJAVOGRAD	
Road name	G1-1	Section name	D240
Comments	TRG 4. JULJA 32		
Road Environment		STAR RATING FOR SCHOOLS	
Land Use Left	Undeveloped            Residential            Commercial            Industrial            Farming            School		
Land Use Right	Undeveloped            Residential            Commercial            Industrial            Farming            School		
Area Type	Rural            Urban		
Vehicle Parking	None            One Side            Two Sides		
Sight Distance	Absolute            Poor		
Road Type		STAR RATING FOR SCHOOLS	
Number of Lanes	<input checked="" type="checkbox"/> 1&1 <input type="checkbox"/> 2&1 <input type="checkbox"/> 2&2 <input type="checkbox"/> 3&2 <input type="checkbox"/> 3&3 <input type="checkbox"/> 4&4		
Lane Width	<input checked="" type="checkbox"/> Wide <input type="checkbox"/> Medium <input type="checkbox"/> Narrow		
Shoulder Runable	<input checked="" type="checkbox"/> Present <input type="checkbox"/> Not present		
Road Condition	<input checked="" type="checkbox"/> Good <input type="checkbox"/> Medium <input type="checkbox"/> Poor		
Grip	<input checked="" type="checkbox"/> Good <input type="checkbox"/> Medium <input type="checkbox"/> Poor		
Grade	<input checked="" type="checkbox"/> 0% to 7.5% <input type="checkbox"/> 7.5% to 10% <input type="checkbox"/> > 10%		
Carriageway Type	Asphalt            Gravel            Concrete		
Founding sponsor:	Major donor:	Made safer by:	Global programme partner:
Road Features		STAR RATING FOR SCHOOLS	
Middle of the road	Centre line            Wide line            Hacking            Turn Lane            Pedestrian path		
Lines & Signs	Adequate            Poor		
Street Lighting	Present            Not present		
School Zone		STAR RATING FOR SCHOOLS	
School Warning	No School Zone            No School		
Crossing Supervisor	Supervisor            No School		
Sidewalks		STAR RATING FOR SCHOOLS	
Sidewalk Left	None            0 to 0.5m            0.5 to 1m            1 to 2m            2 to 3m            3 to 4m            4 to 5m            5 to 6m            6 to 7m            7 to 8m            8 to 9m            9 to 10m            10 to 11m            11 to 12m            12 to 13m            13 to 14m            14 to 15m            15 to 16m            16 to 17m            17 to 18m            18 to 19m            19 to 20m            20 to 21m            21 to 22m            22 to 23m            23 to 24m            24 to 25m            25 to 26m            26 to 27m            27 to 28m            28 to 29m            29 to 30m            30 to 31m            31 to 32m            32 to 33m            33 to 34m            34 to 35m            35 to 36m            36 to 37m            37 to 38m            38 to 39m            39 to 40m            40 to 41m            41 to 42m            42 to 43m            43 to 44m            44 to 45m            45 to 46m            46 to 47m            47 to 48m            48 to 49m            49 to 50m            50 to 51m            51 to 52m            52 to 53m            53 to 54m            54 to 55m            55 to 56m            56 to 57m            57 to 58m            58 to 59m            59 to 60m            60 to 61m            61 to 62m            62 to 63m            63 to 64m            64 to 65m            65 to 66m            66 to 67m            67 to 68m            68 to 69m            69 to 70m            70 to 71m            71 to 72m            72 to 73m            73 to 74m            74 to 75m            75 to 76m            76 to 77m            77 to 78m            78 to 79m            79 to 80m            80 to 81m            81 to 82m            82 to 83m            83 to 84m            84 to 85m            85 to 86m            86 to 87m            87 to 88m            88 to 89m            89 to 90m            90 to 91m            91 to 92m            92 to 93m            93 to 94m            94 to 95m            95 to 96m            96 to 97m            97 to 98m            98 to 99m            99 to 100m		
Sidewalk Right	None            0 to 0.5m            0.5 to 1m            1 to 2m            2 to 3m            3 to 4m            4 to 5m            5 to 6m            6 to 7m            7 to 8m            8 to 9m            9 to 10m            10 to 11m            11 to 12m            12 to 13m            13 to 14m            14 to 15m            15 to 16m            16 to 17m            17 to 18m            18 to 19m            19 to 20m            20 to 21m            21 to 22m            22 to 23m            23 to 24m            24 to 25m            25 to 26m            26 to 27m            27 to 28m            28 to 29m            29 to 30m            30 to 31m            31 to 32m            32 to 33m            33 to 34m            34 to 35m            35 to 36m            36 to 37m            37 to 38m            38 to 39m            39 to 40m            40 to 41m            41 to 42m            42 to 43m            43 to 44m            44 to 45m            45 to 46m            46 to 47m            47 to 48m            48 to 49m            49 to 50m            50 to 51m            51 to 52m            52 to 53m            53 to 54m            54 to 55m            55 to 56m            56 to 57m            57 to 58m            58 to 59m            59 to 60m            60 to 61m            61 to 62m            62 to 63m            63 to 64m            64 to 65m            65 to 66m            66 to 67m            67 to 68m            68 to 69m            69 to 70m            70 to 71m            71 to 72m            72 to 73m            73 to 74m            74 to 75m            75 to 76m            76 to 77m            77 to 78m            78 to 79m            79 to 80m            80 to 81m            81 to 82m            82 to 83m            83 to 84m            84 to 85m            85 to 86m            86 to 87m            87 to 88m            88 to 89m            89 to 90m            90 to 91m            91 to 92m            92 to 93m            93 to 94m            94 to 95m            95 to 96m            96 to 97m            97 to 98m            98 to 99m            99 to 100m		
Road Edge Left	None            0 to 0.5m            0.5 to 1m            1 to 2m            2 to 3m            3 to 4m            4 to 5m            5 to 6m            6 to 7m            7 to 8m            8 to 9m            9 to 10m            10 to 11m            11 to 12m            12 to 13m            13 to 14m            14 to 15m            15 to 16m            16 to 17m            17 to 18m            18 to 19m            19 to 20m            20 to 21m            21 to 22m            22 to 23m            23 to 24m            24 to 25m            25 to 26m            26 to 27m            27 to 28m            28 to 29m            29 to 30m            30 to 31m            31 to 32m            32 to 33m            33 to 34m            34 to 35m            35 to 36m            36 to 37m            37 to 38m            38 to 39m            39 to 40m            40 to 41m            41 to 42m            42 to 43m            43 to 44m            44 to 45m            45 to 46m            46 to 47m            47 to 48m            48 to 49m            49 to 50m            50 to 51m            51 to 52m            52 to 53m            53 to 54m            54 to 55m            55 to 56m            56 to 57m            57 to 58m            58 to 59m            59 to 60m            60 to 61m            61 to 62m            62 to 63m            63 to 64m            64 to 65m            65 to 66m            66 to 67m            67 to 68m            68 to 69m            69 to 70m            70 to 71m            71 to 72m            72 to 73m            73 to 74m            74 to 75m            75 to 76m            76 to 77m            77 to 78m            78 to 79m            79 to 80m            80 to 81m            81 to 82m            82 to 83m            83 to 84m            84 to 85m            85 to 86m            86 to 87m            87 to 88m            88 to 89m            89 to 90m            90 to 91m            91 to 92m            92 to 93m            93 to 94m            94 to 95m            95 to 96m            96 to 97m            97 to 98m            98 to 99m            99 to 100m		
Road Edge Right	None            0 to 0.5m            0.5 to 1m            1 to 2m            2 to 3m            3 to 4m            4 to 5m            5 to 6m            6 to 7m            7 to 8m            8 to 9m            9 to 10m            10 to 11m            11 to 12m            12 to 13m            13 to 14m            14 to 15m            15 to 16m            16 to 17m            17 to 18m            18 to 19m            19 to 20m            20 to 21m            21 to 22m            22 to 23m            23 to 24m            24 to 25m            25 to 26m            26 to 27m            27 to 28m            28 to 29m            29 to 30m            30 to 31m            31 to 32m            32 to 33m            33 to 34m            34 to 35m            35 to 36m            36 to 37m            37 to 38m            38 to 39m            39 to 40m            40 to 41m            41 to 42m            42 to 43m            43 to 44m            44 to 45m            45 to 46m            46 to 47m            47 to 48m            48 to 49m            49 to 50m            50 to 51m            51 to 52m            52 to 53m            53 to 54m            54 to 55m            55 to 56m            56 to 57m            57 to 58m            58 to 59m            59 to 60m            60 to 61m            61 to 62m            62 to 63m            63 to 64m            64 to 65m            65 to 66m            66 to 67m            67 to 68m            68 to 69m            69 to 70m            70 to 71m            71 to 72m            72 to 73m            73 to 74m            74 to 75m            75 to 76m            76 to 77m            77 to 78m            78 to 79m            79 to 80m            80 to 81m            81 to 82m            82 to 83m            83 to 84m            84 to 85m            85 to 86m            86 to 87m            87 to 88m            88 to 89m            89 to 90m            90 to 91m            91 to 92m            92 to 93m            93 to 94m            94 to 95m            95 to 96m            96 to 97m            97 to 98m            98 to 99m            99 to 100m		
Pedestrian Fencing	<input checked="" type="checkbox"/> Present <input type="checkbox"/> Not present		
Founding sponsor:	Major donor:	Made safer by:	Global programme partner:

Figure 1 Example of the iRAP SR4S coding form

### 3.2. Databases of site visit photos

Photos, obtained during site visits have been uploaded to the following folders on Seafile:

- 04 RAD\_PM/WP6\_Extension/AT4.3 Pilot Actions TA5 and TA6/4.3.3 Implementation-Ready Road Layout Concept Plans  
TA6/SLO\_Pilot\_action\_TA6\_Database/Photos/Dravograd
- 04 RAD\_PM/WP6\_Extension/AT4.3 Pilot Actions TA5 and TA6/4.3.3 Implementation-Ready Road Layout Concept Plans  
TA6/SLO\_Pilot\_action\_TA6\_Database/Photos/Kocevje
- 04 RAD\_PM/WP6\_Extension/AT4.3 Pilot Actions TA5 and TA6/4.3.3 Implementation-Ready Road Layout Concept Plans  
TA6/SLO\_Pilot\_action\_TA6\_Database/Photos/Stara Cerkev
- 04 RAD\_PM/WP6\_Extension/AT4.3 Pilot Actions TA5 and TA6/4.3.3 Implementation-Ready Road Layout Concept Plans  
TA6/SLO\_Pilot\_action\_TA6\_Database/Photos/Murska Sobota
- 04 RAD\_PM/WP6\_Extension/AT4.3 Pilot Actions TA5 and TA6/4.3.3 Implementation-Ready Road Layout Concept Plans  
TA6/SLO\_Pilot\_action\_TA6\_Database/Photos/Idrija

Each folder contains all the photos, taken during corresponding site visit.

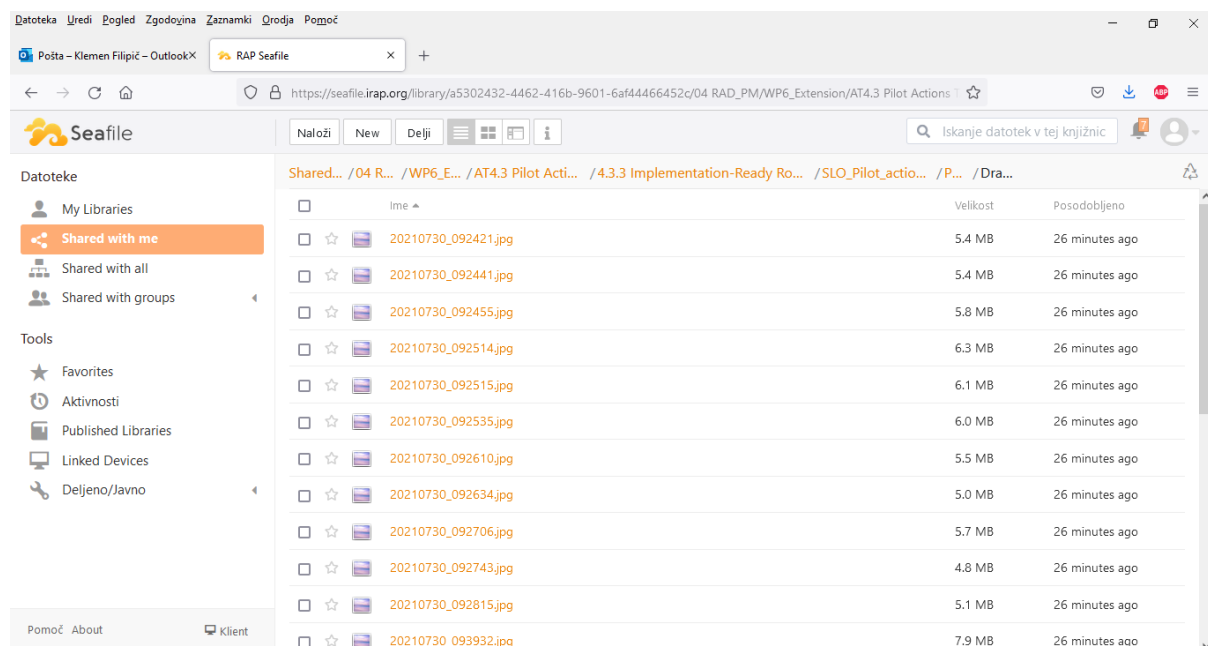


Figure 2 Example of folder with site visit photos on Seafile