Work Package 3: Theoretical and practical teaching materials related to Network Wide Road Safety Assessment

Work Package No. 3 (WP3) is an important element in implementing the planned project. As part of WP2, the needs in teaching methodology will be determined—tasks T2.2 and T2.3 of the RSIM—Network Wide Road Safety Assessment. The prepared materials will be verified and evaluated as part of the pilot training (WP4).

WP3 is divided into six tasks:

- T3.1 Model road safety infrastructure management structure
- T3.2 Network Wide Road Safety Assessment fundamentals
- T3.3 The reactive approach of NRWSA
- T3.4 The proactive approach of NRWSA
- T3.5 Integration of selected activities using proactive and reactive methods
- T3.6 Management of activities at strategic, operational and local levels

The main goal of WP3 is to prepare theoretical and practical teaching materials for six courses (D3.1 - D3.6) based on methodologies developed under WP2. The developed materials will include lectures, practical activities, fieldwork and workshops.

Implementing the assumed tasks in this package will allow the development of modern didactic-training materials, which will be a key element in the education process for the assumed three target groups and will enable the achievement of the project's main goal.

The main goal will be achieved through the implementation of specific goals:

- preparing the didactic-training materials for six courses
- conducting two educational workshops.
- cooperation and knowledge exchange between Project Partners.

Two workshops, in Italy and Sweden, are planned as part of the work, where Project Partners will discuss and develop materials. Regular online meetings will complement the workshops.

The main target group will be employees of universities and institutions that provide education in the field of RSIM.

The main result of WP3 will be the development of innovative didactic/training materials divided into lectures, practical classes, workshops, and fieldwork for six topics in the field of RSIM—Network Wide Road Safety Assessment.

To assess the qualitative and quantitative achieved goals of the package, the following measures will be used to check the values with those assumed in the project:

- development of the syllabus: the estimated number of six,
- development of the lecture materials: the estimated number of six courses,
- development of the practical class materials: the estimated number of six courses,
- development of the workshop materials: the estimated number of six courses,
- development of the fieldwork materials: the estimated number of two courses,

- implementation of recommendations obtained during pilot training: the estimated number of six recommendations, one for each course (tasks 3.1-3.6),
- the number of workshop participants: the estimated number – 28,
- workshop budget: the estimated amount €2000,
- travels of workshop participants from the project partners' countries: the estimated amount €24 900.

A detailed breakdown of the number of hours for individual courses will be determined during developing tasks T2.2 and T2.3.

Verification method of assumed indicators:

- the number of developed syllabuses,
- the number of developed didactic-training materials,
- the number of the verified didactic-training materials, in accordance with recommendations obtained during the courses,
- database of surveys evaluating prepared materials,
- invoices for the organisation of workshops,
- documents confirming the travel of project participants: flight tickets, hotel invoices, other documents confirming the use of funds,
- the number of workshop participants,

The quality of the results achieved will be assessed based on the internal evaluation of the project's steering committee.

The lead institution for the entire work package (UC) will be responsible for overseeing the coordination of work within all tasks and ensuring that the developed materials are consistent, homogeneous, and of high educational value. The leader of task T3.1 will be BUW, T3.2 UZ, T3.3 LU, T3.4 UC, T3.5 GUT, and T3.6 GUT. All partners will actively participate in the tasks in this work package. The detailed division of work will be defined during the preparation of the methodologies.

The work will be divided among all consortium participants and will include:

1. indication of a model structure for the RISM,
2. development of the methodological foundations of the NWRSA,
3. development of the reactive approach principles, which will be used in the NWRSA,
4. development of the proactive approach principles, which will be used in the NWRSA,
5. integration of selected activities with proactive and reactive methods,
6. development of materials for activities management at the strategic, operational, and local levels.

Scheduled online project meetings will allow all partners to cooperate. Work on implementing individual tasks will be assigned to particular project participants. Task Leaders and Work Package Leaders will keep track of progress. A detailed schedule of tasks will be defined as part of the preliminary work.

Two workshops in Italy and Sweden are planned as part of WP2. The host institution (UC and LU) will prepare the meeting and provide the necessary materials, rooms, and other elements. During the

workshop, each of the Task Leaders will present the assumptions for the developed tasks. Joint decisions will be made as to the final shape of the prepared NRWSA didactic-training materials.

Tasks description

The tasks will develop didactic-training materials (lectures, practical classes, workshops, and fieldwork) for three target groups on the NRWSA.

In task T3.1, the RSIM structure at different levels of network management will be discussed. Next, the methodological basis of the NRWSA in accordance with Directive 2019/1936/EC (T3.2) will be discussed.

The next task (T3.3) will develop materials on the reactive approach in NRWSA. This approach is based on the existing risk on the roads depending on the concentration of events, casualties, or their density.

The proactive method (T3.4) will be discussed in Part 4 of the materials. It estimates the future hazard based on available information about the road, its surroundings, and its geometric and traffic features.

The model RISM structure, which is based on integrating the reactive and proactive methods, will be presented in the next task (T3.5), and the principle of incorporating both approaches to obtain an objective assessment of road safety will be explained.

The last task (T3.6) will concern the development of a method supporting decision-making by road managers at the strategic, operational and local management levels.

Due to learners' different experience levels, the materials will be divided (the number of hours will be distinguished) depending on the basic knowledge level. The largest number of hours will be assigned to students (people who are just starting their professional careers in the field of RISM). On the other hand, the smallest one will concern road safety auditors and inspectors who already have a theoretical and practical background in this issue. The detailed division of class hours (lectures, practical classes, workshops and fieldwork) will be defined during the development of the methodology (T2.2, T2.3).

The criterion for assessing the progress and implementation of the project's work will be reaching the planned milestone as part of WP3: M2, which is the Completion of the development of the didactic-training materials for six courses.

The result of the implementation of M2 will be a package of 6 complete didactic-training materials divided into lectures, practical classes, workshops and fieldwork. Implementing the tasks will allow for conducting a pilot training under WP4 and making materials available on the e-learning platform under WP5. Their evaluation under WP4 will allow them to receive feedback about the necessary changes in the developed materials from people participating in the training.

Annexes 3 - Visual presentation of work packages and tasks - and 4 - Logical work matrix provides detailed correlations between tasks and work packages.

Tasks T3.1 to T3.6 will bring the following results:

- R3.1 the didactic-training materials, including the model RISM structure.
- R3.2 the didactic-training materials, including Network Wide Road Safety Assessment fundamentals.

- R3.3 the didactic-training materials, including the reactive approach of NRWSA.
- R3.4 The didactic-training materials include the proactive approach of NRWSA.
- R3.5 the didactic-training materials, including integration of selected activities using proactive and reactive methods
- R3.6 the didactic-training materials: management of activities at strategic, operational and local levels

Format of the developed materials (results): PowerPoint, Word, Excel, PDF, video file; language: English.

This work package provides 15 participants with the opportunity to carry out the work as part of implementing tasks. The target group will mainly consist of research and teaching staff from the centres involved in the project and, ultimately, from other centres in Europe who will be able to conduct training in this area in the future.

The second target group (indirect through the implementation of tasks in WP5) will be people who can use the developed materials via the e-learning platform.

- experts from organisations dealing with the RSIM at the national, European and global levels (np. PIARC, ERF, IRF),
- civil and transportation engineering students from all over Europe,
- employees of national, local government and regional road authorities and traffic engineers from all over Europe,
- auditors and road safety inspectors.