

OUTPUT 05

Development of road safety inspection methodology

The task will be implemented under working package 3 (WP3. Teaching materials development related to the road infrastructure safety inspection). Based on previous experience of partner countries and EuroRAP, a common RSI methodology for teaching and training purposes will be developed and expanded in accordance with Directive 2019/1936/EC. Due to the different approach to the procedures for conducting inspections in partner countries, based on the work carried out in WP2, experience, knowledge of the partners, an RSI Manual will be developed. It will be used to develop teaching and training materials under Intellectual Output 9.

The methodology will take into account the procedures RSI currently in force on the national road network in partner countries, with the support of EuroRAP expertise and experience, with modifications increasing efficiency. This is a completely novel and innovative implementation of the RSI. Until now each EU country has prepared its own methodology with negligible use of other countries experience. In compliance with provisions of Directive 2019/1936/EC (extension of the RSI to all roads financed or co-financed by EU funds), the methodology must include new procedures for regional and local roads. The developed methodology will also address the main road safety problems on the road network in the countries where practical classes on the selected road sections will be conducted (IO6-8).

The methodology will cover all elements of the road infrastructure, including its surroundings. Hazards and their sources will be identified and classified according to four areas of impact: (1) all road accidents, (2) type of accident, divided into those involving a single vehicle (mainly run-off-road), pedestrian-vehicle collision, head-on, side and rear collisions, (3) circumstance of accident, including speed, time of occurrence, roadway surface condition (due to weather conditions), (4) risk group of accident involvement, especially fatalities among pedestrians (including children and the elderly), cyclists and motorcyclists. The implementation of the task will increase the efficiency of RSI by modifying existing procedures and implementing new ones based on scientific foundations. In Poland, where the RSI procedures on national roads were implemented in 2013, the current Manual lacks a methodology for classifying identified hazards based on in-depth risk analysis.

The planned result of the task will be development of an updated methodology for performing road safety inspections. It will be verified and supplemented by:

- Implementation as part of the WP3, Intellectual Output 6-8 Practical implementation of RSI methodology on the selected road sections in Poland, Croatia and Italy.
- Specialist support based on the knowledge and experience of consortium participants that result from the completion of other RSI-related projects (e.g. SLAIN, SENSoR, RADAR).
- Development and update of the tools supporting RSI.

Target groups:

1. Research and teaching staff from institutions involved in the project.
2. Students of civil engineering and transportation engineering.
3. National, local and regional road authority staff.

Elements of innovation:

1. Development of the RSI implementation methodology in accordance with the provisions of Directive 2019/1936/EC.
2. Adaptation of the RSI implementation methodology as a universal tool for use across the EU with adaptability and for other European countries. There will be a very important contribution to the development of RISM.

Expected impact:

The developed methodology will allow for carrying out RSI in selected countries of consortium participants in practical classes on the selected road sections. Ultimately, it will be used in the teaching process (for students) and training (for staff performing RSI) throughout Europe. The innovative approach to RSI will allow the modification of existing manuals implemented in various countries adhering to Directive 2019/1936/EC. This will also allow for verification of training and teaching processes, or in the countries where there are no such procedures, their implementation.

Transferability potential:

The developed methodology, in the form of a manual, will be available on the Internet platform, which will enable its use by research centres and road authorities throughout Europe.

The division of work:

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

- The use and extension of works carried out under working package 2 (WP2. The Road

Infrastructure Safety Management – international perspective, Intellectual Output 4).

- Development of an updated RSI implementation methodology.
- Development of assumptions for implementation of Intellectual Output 6-8.
- Preparation of publications summarising completed work.

The tasks leading to the production of the intellectual output:

The leading institution (UC) will be responsible for overseeing the development of an updated RSI implementation methodology. Consortium participants will cooperate in preparing these materials, exchanging their expertise and experience. The necessary scope and detailed division of work will be defined under Intellectual Output 5.

Applied methodology:

As part of this task, a methodology based on case study will be used that allows focus on selected areas as part of the implementation of RSI in selected countries of consortium participants, with specialist support of EuroRAP. This will allow for the assessment and comparison of the value of key elements used in this procedure and the feasibility of their effective implementation.

The verification of the adopted methodology will be based on the implementation within the WP3, Intellectual Output 6-8, Pilot research of the selected road sections in Poland, Croatia and Italy.