

## **WP4 – Development of teaching and training resources with the use of remote teaching methodology**

### **IO.12 - Development of resources for safety management of unprotected road users.**

The task will be carried out under Work Package 4 (WP4. Development of teaching and training resources with the use of the developed techniques). Based on IO.4 - IO.9, the methods of remote education will be applied in the following:

- lectures (design and maintenance requirements for infrastructure in terms of pedestrian safety and comfort, including those with reduced mobility, cyclists, users of personal transport equipment, risk assessment and analysis, rules for identifying and classifying hazards and their source, etc),
- fieldwork (collecting film and photographic documentation in specific locations, identification and assessment of hazards and their source, including observation of road user behaviour),
- practical classes (procedure for selection of the location and type of solutions for unprotected road users and the procedure for lighting selection),
- design classes (variant design of infrastructure for unprotected road users with multi-criteria analysis).

The problem of fatalities among unprotected users on European roads is very serious in many countries. For example, in Poland approx. 30% of all fatalities (approx. 1,000 people a year) are unprotected road users. Managing the safety of unprotected road users also includes expertise in planning and design. Currently, in curricula and various training courses, this knowledge is insufficiently imparted to students and infrastructure management personnel. One of the causes of this may be due to the academic staff's incomplete knowledge of the field.

The planned outcome of the task will be the development of modern and innovative digital teaching and training content dedicated to remote education. As part of the syllabus of the civil and transportation engineering courses in partner universities, there will be the provision for 30 hours of lectures, 10 hours of fieldwork, 5 hours of practicals and 15 hours of design. The potential extension of the programme will be possible when universities adapt their syllabuses.

#### **Target groups:**

1. Research and teaching staff from institutions involved in the project and ultimately other European institutions.
2. Students of civil and transportation engineering.
3. Road authority staff at a national, local and regional level.

#### **Innovative elements:**

1. Building a database with classified hazards and their sources.
2. The application of RISM tools in training and teaching processes in the management of unprotected road user safety with the use of remote education methods.

**Expected impact:**

The developed resources can be applied in the teaching (for students) and training (for road infrastructure management) throughout Europe. An innovative approach to distance learning in the field of safety of unprotected road users, using support methods and tools that will significantly increase the quality of teaching and training when it is necessary to employ remote education.

**Transferability potential:**

Tools to support the educational resources in the field of safety of unprotected road users such as hazard databases, recommendations and applications. These will be made available on an online platform for the use of research centres and road authorities across Europe.

**The division of work:**

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

- Adaptation of educational resources to the needs of the updated methodology of remote education (within the framework of IO.4 – IO.9).
- Building databases containing identified hazards and their source.
- Developing recommendations for actions to improve the safety of unprotected road users.
- Preparing publications summarising the completed works.

**The tasks leading to the production of the intellectual output:**

The leading institution (GUT) will be responsible for supervising the development of teaching and training materials. Other consortium participants (apart from AAU) will cooperate in the development of these resources, sharing their knowledge and experience. Under the IO.12 the necessary scope and detailed division of work will be defined.

**Applied methodology:**

Within the framework of this task, databases will be built, with the possibility of their expansion and adaption to the needs of individual users. To support distance learning in safety management of unprotected road users, methods dedicated to academic staff, students and road infrastructure management personnel will be used (with the capacity for continuing development and increase of effectiveness).