



Twin-Safe: Advancing Road Safety Through Twinning

Summary of Deliverable 2.1

Roadmap for improvements

<https://twin-safe.com>



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Summary

The TWIN-SAFE project aims to enhance the overall development of the Faculty of Transport and Traffic Sciences University of Zagreb (FTTS) by improving its research and educational processes and activities. A special emphasis is placed on road safety, which is one of FTTS's primary research topics. The project's overarching ambition is to establish FTTS as a centre of excellence in multidisciplinary road safety research, education, and innovation through strategic partnerships with Lund University (LU) and Hasselt University (HU). As such, TWIN-SAFE aligns with FTTS's vision to be an integral part of the European Higher Education Area and the European Research Area, thereby supporting the development of the economy and the social community.

The first step in that process is to map current research framework at FTTS and its practices. This task is a part of the second work package of TWIN-SAFE entitled "Mapping phase". The objectives of the aforementioned WP are:

- Develop a strategic framework to identify focus areas and priorities for new lab infrastructure at FTTS;
- Define the purpose, scope, space, equipment, and resource needs for establishing new laboratories at FTTS;
- Conduct an analysis of competing regional institutions to determine the unique expertise FTTS can provide;
- Identify new road safety research opportunities and trends to guide investments in lab infrastructure

This deliverable provides a comprehensive framework for strategic development and positioning within the European research community, thus enabling the institution to better address emerging challenges and opportunities in road safety and transport engineering. The main focus of internal changes is directed to the improvement of research infrastructure and project management practices.

This deliverable describes the existing laboratories at FTTS, detailing their research and educational activities over the past five years, as well as the equipment and space allocation for these laboratories. Additionally, the deliverable focuses on two Centres of Excellence that are currently active at FTTS, outlining their specific focus areas and key achievements.

The second part of the deliverable presented a review of leading road safety research institutions within the EU, with a specific focus on their research activities, laboratory facilities, and available equipment, providing essential context for FTTS's positioning within the broader European research landscape. Furthermore, the deliverable addressed current project management practices at FTTS, including the role of the Office for Projects and Technology Transfer and the allocation of human and financial resources. In addition, project management practices are compared to those at HU and LU to identify strengths, weaknesses, threats, and opportunities for FTTS.

Based on the aforementioned, designated enhancements for FTTS in terms of research strategies and project management practices are defined. Additionally, the deliverable outlines a development plan for the Centre of Excellence in Road Traffic Safety (CERTS), providing a five-year vision and strategic research direction for the road safety group at FTTS.

Lastly, the deliverable outlined an Open Science framework that defines principles and practices regarding open access publishing, data sharing, and collaboration, establishing guidelines that will facilitate data exchange within the TWIN-SAFE project and beyond.

Overall, the deliverable serves as a comprehensive framework for developing research activities by applying best practices and a lesson learned approach. This enables FTTS to refine its policies and

practices in alignment with successful models from the broader research community, ultimately facilitating the achievement of its vision and promoting faster integration into the European Research Area.

The deliverable targets several key audiences. Primarily, it is aimed at the FTTS management board and administration, providing a comprehensive strategic roadmap for enhancing research outcomes through improvements in laboratory infrastructure, project management practices, and the development of CERTS. Additionally, it is highly relevant for academic and research staff at FTTS, as it details significant changes and improvements in research strategies, project management, and Open Science practices that directly impact their work and research environment. Furthermore, this deliverable is designed to inform TWIN-SAFE project partners by offering a thorough overview of various road safety research institutions within the EU and presenting a comparative analysis of project management and Open Science practices at HU, LU, and FTTS. This information promotes knowledge sharing and benchmarking among project partners, supporting the collaborative goals of the TWIN-SAFE project.

The conclusions of this report will be used as input for the development of a new Strategic Program of Scientific Research at FTTS in 2025.