# INJURY MITIGATION TO PROMOTE VISION-ZERO ACHIEVEMENT

Dimitrios Nikolaou, George Yannis, Simona Roka National Technical University of Athens, 5, Heroon Polytechniou str, Zografou Campus GR, 15773, Greece 🛞 IDIADA Automotive Technology, PO Box 20 Santa Oliva 43710 L'Abornar Tarragona, Spain Arplus<sup>®</sup>

The IMPROVA project aims to enhance safety systems by comprehensively understanding the link between immediate injuries and their long-term consequences (LTC), and evaluating its impacts using virtual testing (VT) Human Body Models (HBMs). The project focuses on new and upgraded vehicle interiors in highly automated vehicles as well as vulnerable road users (VRUs).

## **OBJECTIVES**

dentify, understand, and describe the issue of serious injuries and LTC due to road traffic accidents and permanently improve knowledge basis. Make LTC tangible by developing a method allowing for purposeful data collection and LTC assessment. **P**ropose linkages between criteria based results from physical or virtual tests and wider knowledge from field data to assess LTC. **R**efine HBMs regarding their capabilities to predict injuries related to LTC (long term injuries, LTI). Objectively assess risks for serious injuries and LTC: Development of HBM based virtual testing procedures. Vigorous policy support for technical and behaviour change countermeasures against LTC. Address and mitigate the long term consequences associated with road traffic injuries at EU level and abroad.

### **METHODOLOGY**

Long-term consequences Understanding and quantification of the issue.

Virtual testing to upgrade HBMs, procedure development & validation.

Improva Formula to predict LTC based on pre-cash, crash and post-crash parameters.

**LTC** Prevention with Next-Gen Protective Systems, including post-crash care.

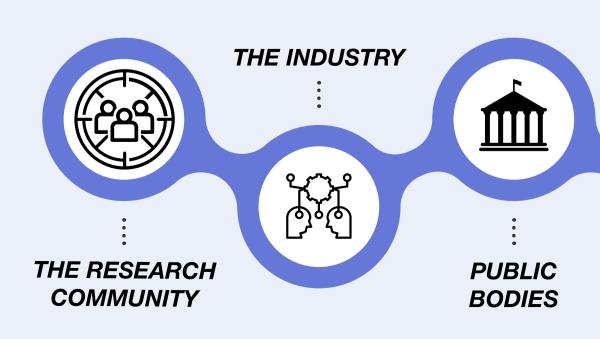
RULE

MAKING



### IMPACT

**IMPROVA** is setting a baseline and validated methodology for research, regulation and policy making regarding the LTC and the reduction of their influence on the society, specifically to tackle the needs of the following target groups:

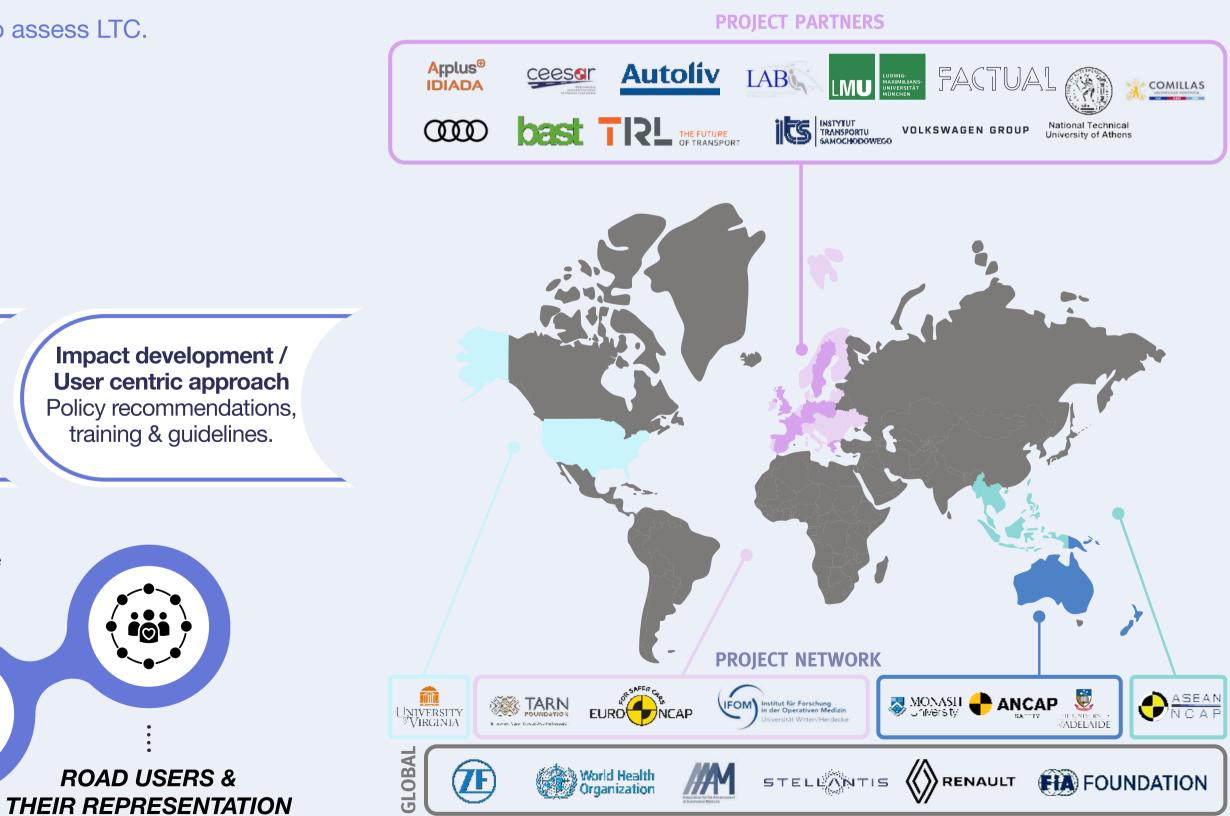




**@Research Village Associations Stand** 

**PROJECT DURATION** 48 MONTHS

**STAY UP TO DATE** Subscribe to newsletter.





### 1 JUNE 2024 - 31 MAY 2028