



IVORY - AI for vision zero in road safety

Scientific Responsible
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IVORY-'AI for Vision Zero in Road Safety' is an industrial doctorates network aiming to develop a new framework for optimal integration of Artificial Intelligence (AI) in road safety research, and train a new generation of leading researchers in the field. It addresses the UN Sustainable Development Goals target 3.6 and the EC Vision Zero strategy, of halving traffic fatalities by 2030 and eliminating them by 2050. IVORY addresses the lack of common understanding of the challenges and opportunities of AI for road safety by means of 4 research goals: it aims to develop (i) responsible, fair and impactful AI for road safety, (ii) new ways of road user support and human-vehicle environment interaction, (iii) new scalable and equitable AI technologies for proactive infrastructure safety management, (iv) a sustainable knowledge sharing network on AI for road safety. IVORY outputs will not only provide more robust user support through AI in vehicle automation, but will also allow to responsibly and proactively manage the persistent problems of existing conventional, low-automation transport systems, so that new opportunities for global road safety impact can emerge. Moreover, IVORY takes a design-for-values approach for AI in road safety, operationalising the ethical principles of justice and explainability, and providing efficient AI solutions also for disadvantaged groups (e.g. vulnerable road users, low-to-middle-income countries). IVORY consists of 4 academic and 8 non-academic beneficiaries, and 8 associated partners, joining from engineering, data science and ethics of technology disciplines, from 10 countries. 13 young researchers will receive high-level doctoral education, industrial exposure, local training, and 8.5 ECTS of network-wide training on key advanced, core and transferable skills.

IVORY will create an on-line learning & networking platform for AI in road safety, to be available after the end of the project for future researchers in this field.