



FEDORA: Federation of network optimisation services, simulation foresights, and data alchemy for adaptable, agile, secure, and resilient multimodal traffic management

Scientific Responsible
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Lack of orchestration, structured and standardized integration protocols and metadata descriptors, incorporation of real-world traffic complexities and nuances, underutilization of valuable resources, model uncertainties and integration of micro-mobility services and VRUs result in suboptimal performance in addressing complex issues related to the management of mobility services and infrastructure and a divergence from EU's sustainable mobility targets. FEDORA aims to pave the way towards advanced traffic and network management through the development of a federated spaces platform offering a holistic framework of innovative solutions and services that enable precise and pro-acting sensing of supply and demand, facilitate optimal operation of transport services, and advances learning and evolution in complex environments. At the operational level, FEDORA offers a collaborative space of data that can realize advanced data alchemy processes using interconnected services and tools, a space of advanced traffic management optimisation services and a multi-modal simulation space to create and assess future mobility scenarios. The approach is validated in six thematic demonstrations in Vienna, the Basque country, Reggio Emilia, Nicosia, Budapest and Denmark, covering varying EU urban and rural contexts, infrastructure maturity levels, multimodal mobility services availability, organisation/operational structures and social conditions. Interaction with existing programmes on roadmapping and recommendations at national, EU and global level will be promoted, allowing a multiplication effect of project's results.