

Collecting big data in the transport and urban mobility sector: what for?

Over the past decades, the ability to collect large amounts of data – particularly thanks to the spread of smartphones – has contributed to the evolution of the urban mobility sector, in terms of planning, service development and practices (Boutueil & Aguilera, 2018; Ninot, Baffi & Coulaud 2026). The ability to generate and collect large amounts of data is particularly crucial on the African continent, where this has always been complicated by a lack of reliable sources, low technical skills and a lack of human and financial resources to sustain data collection and analysis systems (Kinyondo & Pelizzo, 2018).

While initiatives such as hackathons are spreading, Intelligent Transport Systems are becoming essential in urban mobility projects, and transport network mapping is becoming possible in many African cities, several questions remain. For example, the reliability of the data collected, particularly when it comes to data from sensors, smartphones, etc., is questionable. Besides, beyond data collection, data analysis and interpretation of results require the prior definition of specific objectives, the structuring of processing approaches and methods, and the mobilisation of technical skills – all the more so with the ever-accelerating development of AI. How are these objectives defined, and by whom? What training programmes are currently available to provide the skills needed to "make sense" of the data collected?

Finally, given the rapid pace of change in societal and technological contexts, data collection and analysis require regular updates and collection campaigns, and therefore maintenance that is not always anticipated by public authorities, equipment suppliers and international donors. This session will also reflect on the interactions between the public and private sectors, with the digital sector showing particularly strong momentum in Africa and elsewhere.