

# New Technologies in Data Collection

## 1 Day Programme

### Overview

Mobile Network data and AI Vision Analytics are two of the newer data sources to the strategic planning and operational aspects of transportation projects. They have varied benefits over existing traditional data collection sources due to their sample sizes, geographic extent, consistency, and the ability to request data in real-time or over defined time periods. Transport operators and public sector organisations are using a variety of mobile network and big data sources to improve their operational decision-making and provide a richer evidence-base for their strategic decision-making.

This course provides an introduction into how these, and other new and emerging datasets are collected, analysed, and used in the transportation industry. Alongside this, the course will provide a summary of use cases and highlight the benefits and limitations of each data source.

### Who should attend?

This course has been developed for transport professionals involved in strategic planning, incident management & planning and operational planning wishing to develop their knowledge and proficiency, ranging from private sector and public sector organisations.

### Topics covered

- ✓ Introduction to new and emerging data in transportation
- ✓ Mobile Network Data
- ✓ AI Vision Analytics
- ✓ GPS Data
- ✓ Bluetooth/Wi-Fi Data
- ✓ Ticketing Data



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### Introductions and Icebreaker Activity

#### Why Data Matters in Transport

- Overview: how data supports policy, funding and project decisions
- Real examples of data use (traffic calming, active travel, parking, safety)

#### Types of Data Collection Methods

- ATC, ANPR, video/CCTV, permanent sensors, manual counts, diffusion tubes
- AI powered sensors, ANPR, mobile data (phone & apps), GPS data, air quality from sensors
- Open datasets: volumes (TfL/DfT), weather (opensource), events (opensource), Census, Stats19 (KSI - Crashmap)

#### From Raw Data to Insights

- Data cleaning, anonymisation, and integration explained simply
- Example: journey from a dataset - dashboard - policy decision

#### Visualisation Made Simple

- Live demo: turning transport data into an easy-to-read chart/dashboard (SmartLenz short demo)

- Tips on storytelling with data (what decision-makers care about)

#### Re-energiser Activity

- Quick group energiser

#### Co-Design Workshop: Building a Mini Transport Dashboard

- Each group gets a simplified dataset (traffic counts, cycling volumes, or parking occupancy)
- Task: identify key insights + sketch a simple visualisation/dashboard that would help their community

#### Group Presentations & Discussion

- Presentation of dashboard idea
- Peer feedback & facilitator highlights
- Draw links back to real-world authority challenges

#### Wrap-Up & Next Steps

- Key takeaways from the day
- How participants can apply this learning in their projects
- Resources/links for further explanation

\*Please note the above is a preliminary programme and subject to change.

### Learning Outcomes: On completion of the course, delegates will understand:

- ✓ New technologies in data collection in transport – mobile network data, AI Vision Analytics, GPS, Bluetooth/Wi-Fi and ticketing data.
- ✓ Transportation case studies using these data sources, both in terms of strategic planning and real-time operations.
- ✓ The types of information that can be extracted from the datasets.
- ✓ How mobile network data is collected and processed.
- ✓ The measures implemented to protect privacy
- ✓ Benefits and limitations of the different sources
- ✓ How to validate and process data they receive
- ✓ Introduction into how AI Vision Analytics technology works

