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SUMPs for BSR | SUMP training programme module 3

Lessons learned from school campaign – camera AI as a data source

Interreg Baltic Sea Region
Co-funded by the European Union
SMART GREEN MOBILITY
SUMPs for BSR

Understanding real school mobility - data gap

From declarations to real behaviour

We had a clear data gap

- We didn’t know how students (16-19) actually travel to school in everyday conditions

No reliable data on:

- Walking
- Cycling
- car drop-offs

Available data was:

- too general
- not up-to-date
- based on declarations
- not comparable

Different travel modes but no real data

Why schools? A natural mobility hotspot

High-intensity, everyday mobility in a controlled environment

Good place to understand real mobility patterns

Why schools:

- high concentration of trips
- clear peak hours (morning / afternoon)
- mix of travel modes:
  - walking
  - cycling
  - car drop-offs

Real user

Integrated evidence base
↓
Better planning & decisions

Our approach: combining behavioural & automated data

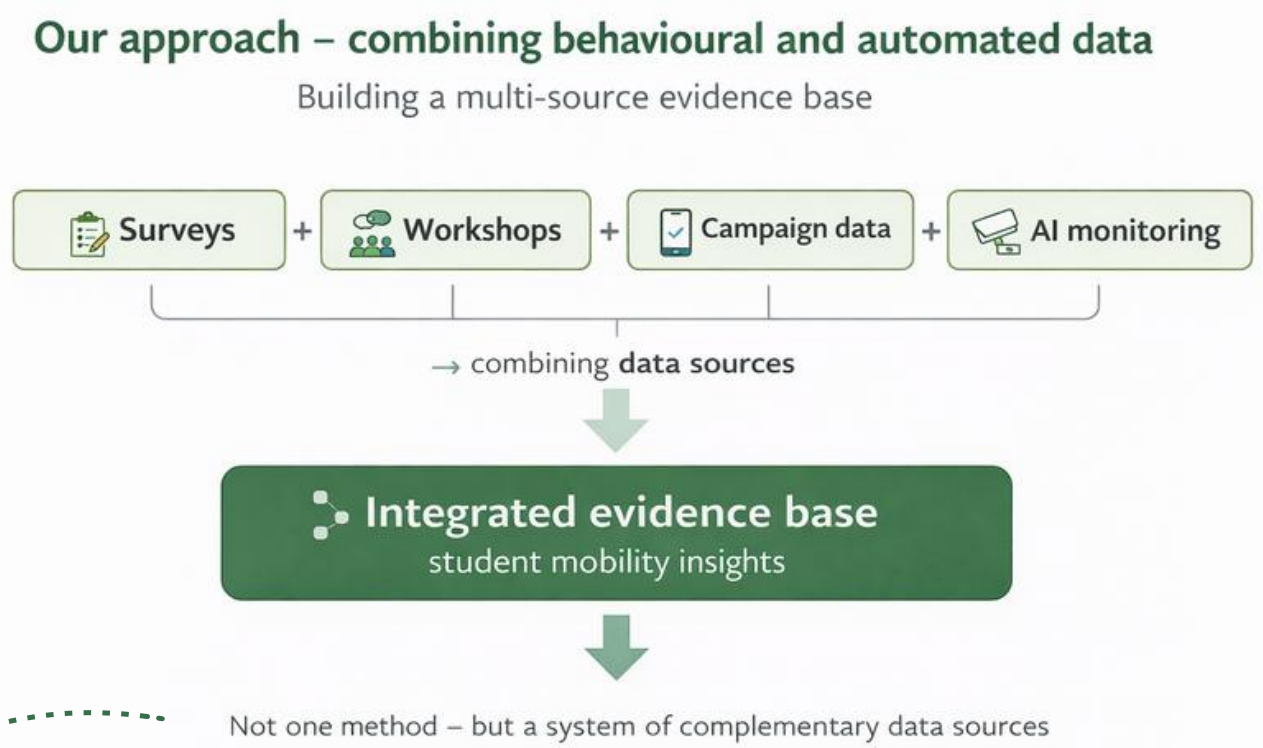
Building a multi-source evidence base

We designed a multi-method approach

✓ surveys (citywide)
✓ workshops (selected schools)
✓ campaign data (app-based)
✓ automated monitoring (AI)

Goal: reliable evidence on student mobility

Key idea: behaviour + real-time data



From concept to real-world testing

AI-based monitoring implemented in a real school environment

1. Location selected
(near school = high mobility intensity)

2. AI camera installed
(real street conditions)

3. Continuous monitoring
(morning & afternoon peaks)

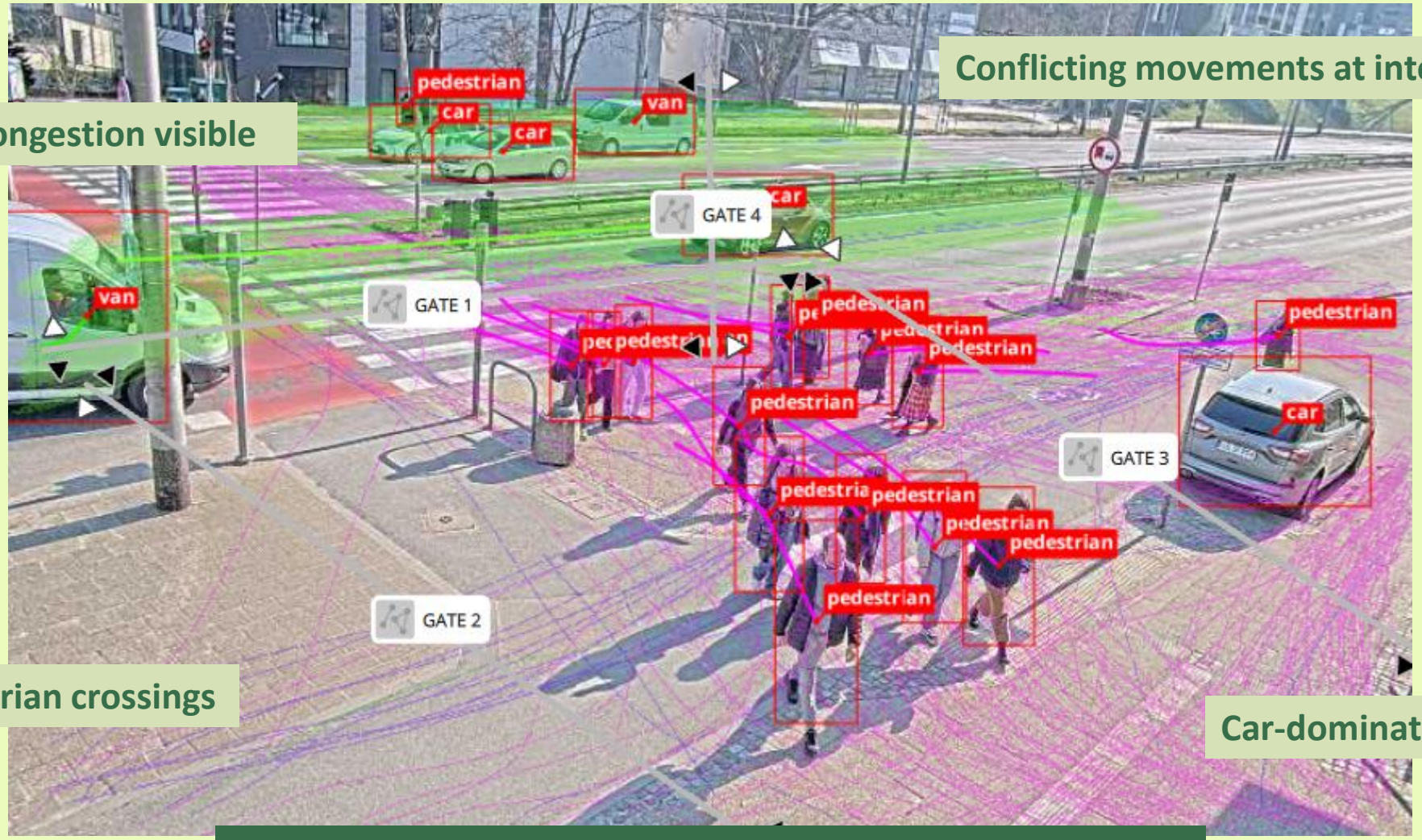
4. Data automatically processed
(mode detection & counting)

Real-life conditions, not a controlled experiment

Real movement patterns captured at a school intersection

Peak hour congestion visible

Conflicting movements at intersection

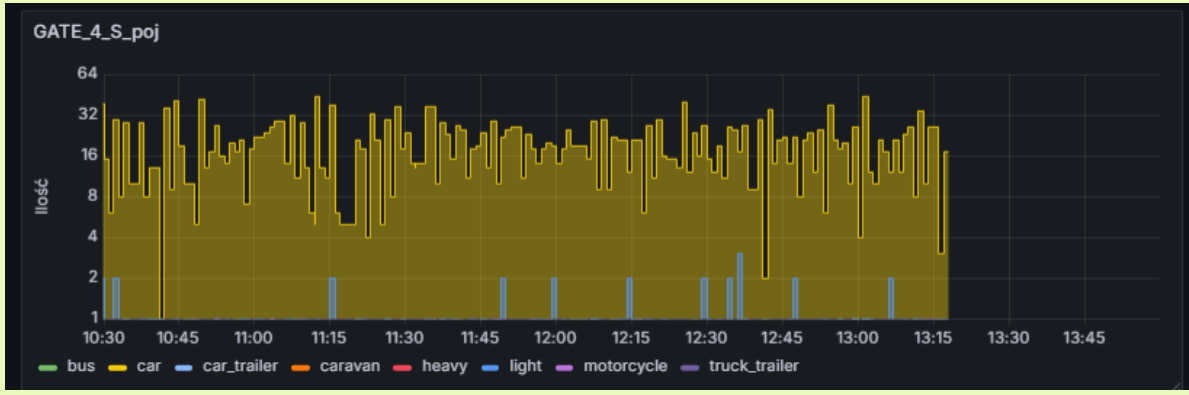


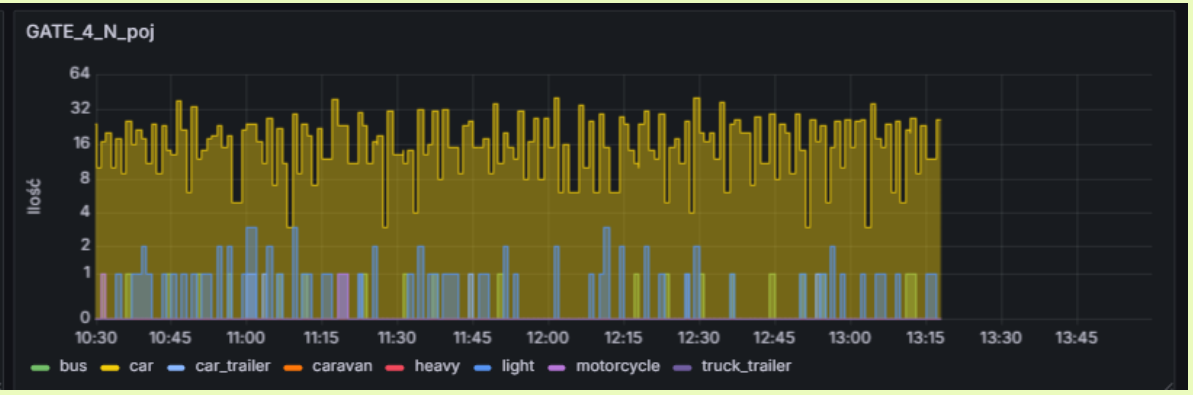
Intensive pedestrian crossings

Car-dominated traffic flows

This is how everyday mobility actually looks like

Continuous monitoring reveals patterns invisible in surveys





Lessons learned – AI & school mobility pilot

Data integration is the real challenge

Combining surveys, AI counts, app data and workshops required much more effort than expected. Without clear structure, data becomes noise.

AI gives data – not answers

Automated counts need calibration, validation and context. Without interpretation, they can mislead.

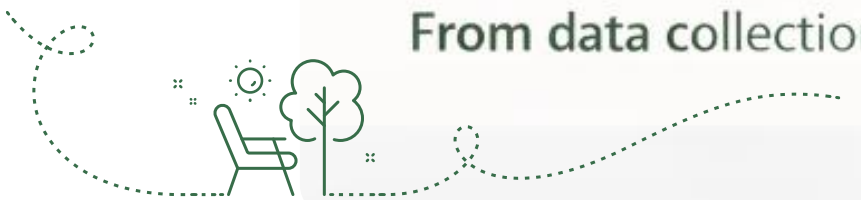
Behaviour and technology must work nogether

Campaigns changed habits. AI measured what actually happened.

Schools are not just participants – they are partners

Early engagement, co-creation and fitting into school reality made the pilot work.

From data collection to real understanding.



Advice on replicability for other cities

How to replicate AI-based traffic monitoring in your city

1 Start small, but in the right place

Pick locations where data is really missing or unclear.

Focus on specific problems, not the whole city at once

2 Combine technology with real planning needs

AI cameras are not a goal – they are a tool.

Define first what decisions you want to support.

3 Secure internal cooperation early

Involve IT, transport planners and data users from the start.

Make sure someone is responsible for using the data.

4 Prepare for data interpretation, not only collection

Raw data is not enough.
You need time and capacity to analyse and translate it into actions.

5 Test, adjust, then scale

Treat the first implementation as a pilot.

Be ready to change locations, parameters or scope.

6 Keep it simple and cost-aware

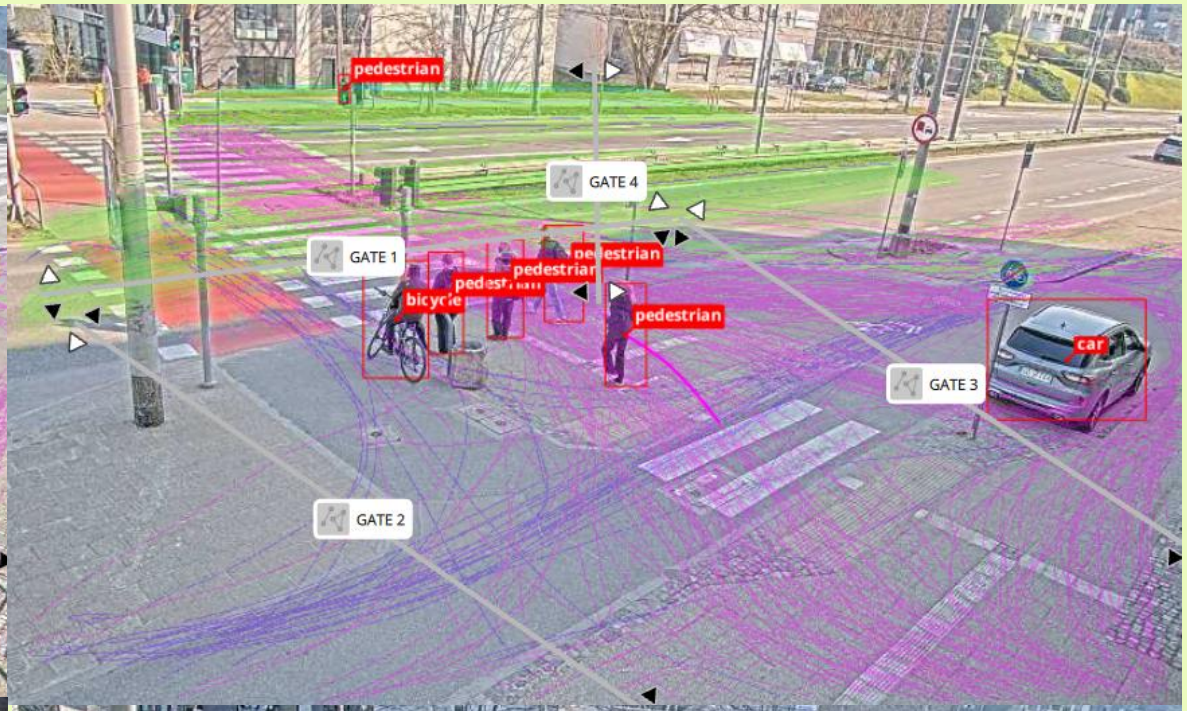
Choose solutions that are manageable for the city.

Avoid systems that require complex maintenance or external dependency.

Advice


RISE AND SAY
SNIADANIE


pedestrian
car
van
GATE 4
GATE 1
GATE 3
GATE 2


pedestrian
GATE 4
GATE 1
bicycle
GATE 3
car
GATE 2


car
van
pedestrian


pedestrian
car
bicycle

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Thank you!

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SUMPs for BSR project, co-funded by the Interreg BSR programme, is supporting transition to sustainable urban mobility planning.