

Helping pedestrians & cyclists become first-class citizens for traffic lights

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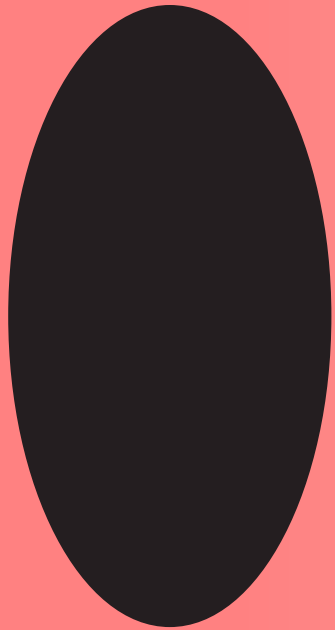


?



1st PROBLEM: DETECTION

Presence



Classification



Number

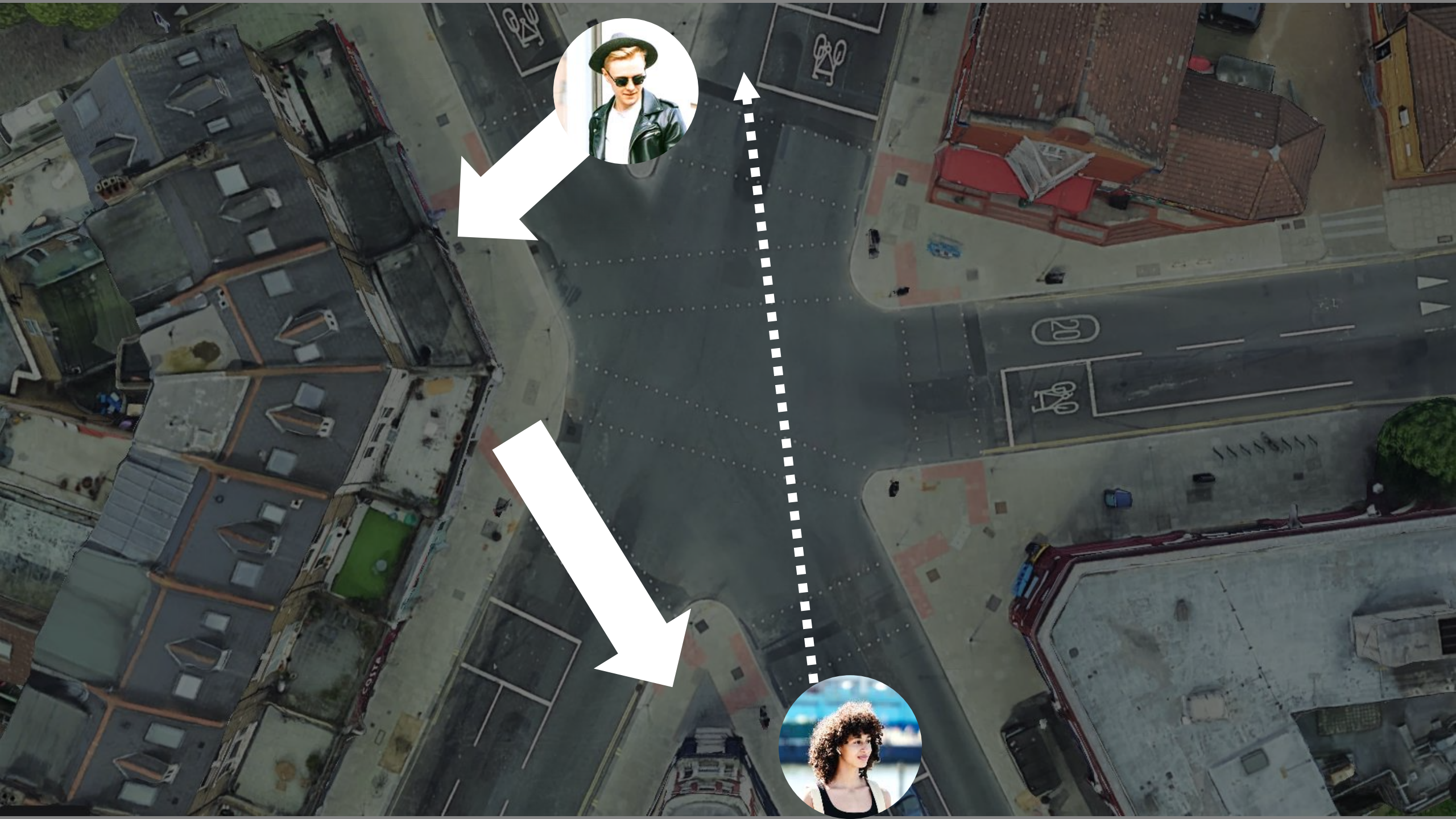


Behaviour



2022-05-04 15:13:45.413291 UTC
665 (9s - 70.99 fps)





2nd PROBLEM: PRIORITISATION

No action



Time
allocation



Treated
equally



Prioritised



VS



...without reducing overall
throughput



Prioritised based on weights, not binary or time



Leverages the richness of detection data



Adapts to the complexity of the real world



Incredibly flexible model required...
...sounds a bit like AI



Microsimulation

AI

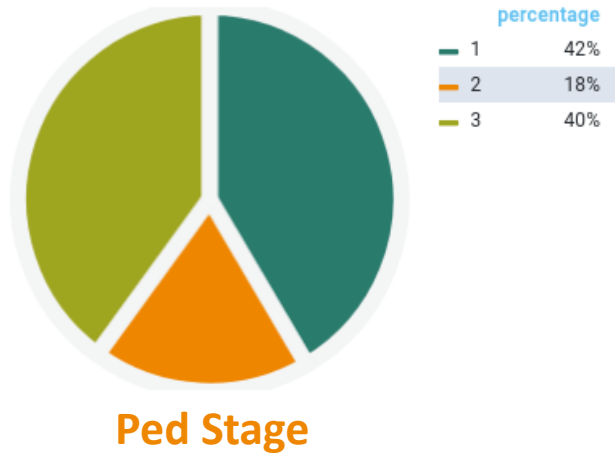




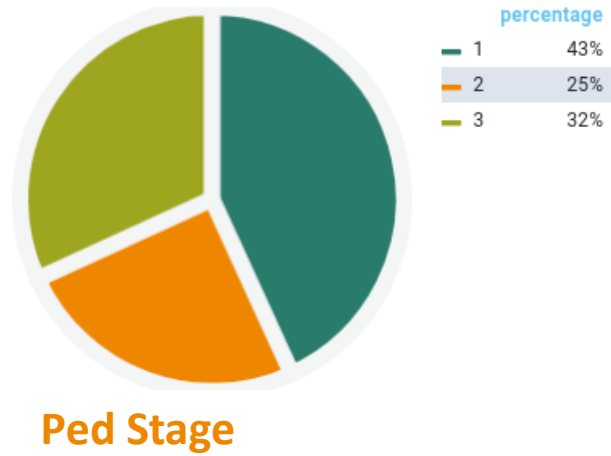
2,000
years

Stage Time Distributions

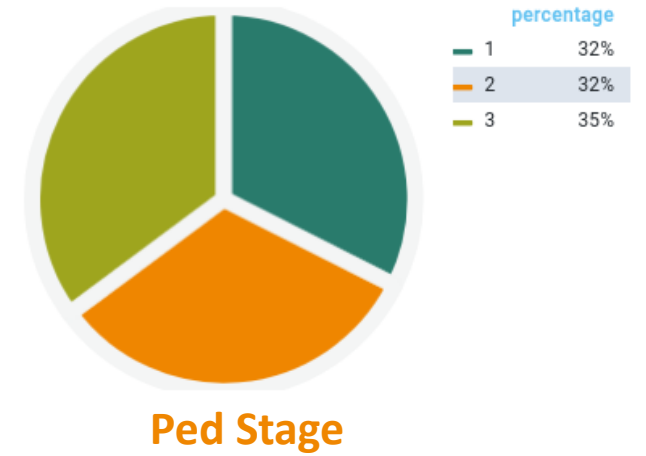
Original



AI: Equal Weighting



AI: Ped Priority





Detected



Prioritised



3rd PROBLEM: PROOF

Expert Observation



1 site, hours

A/B Test



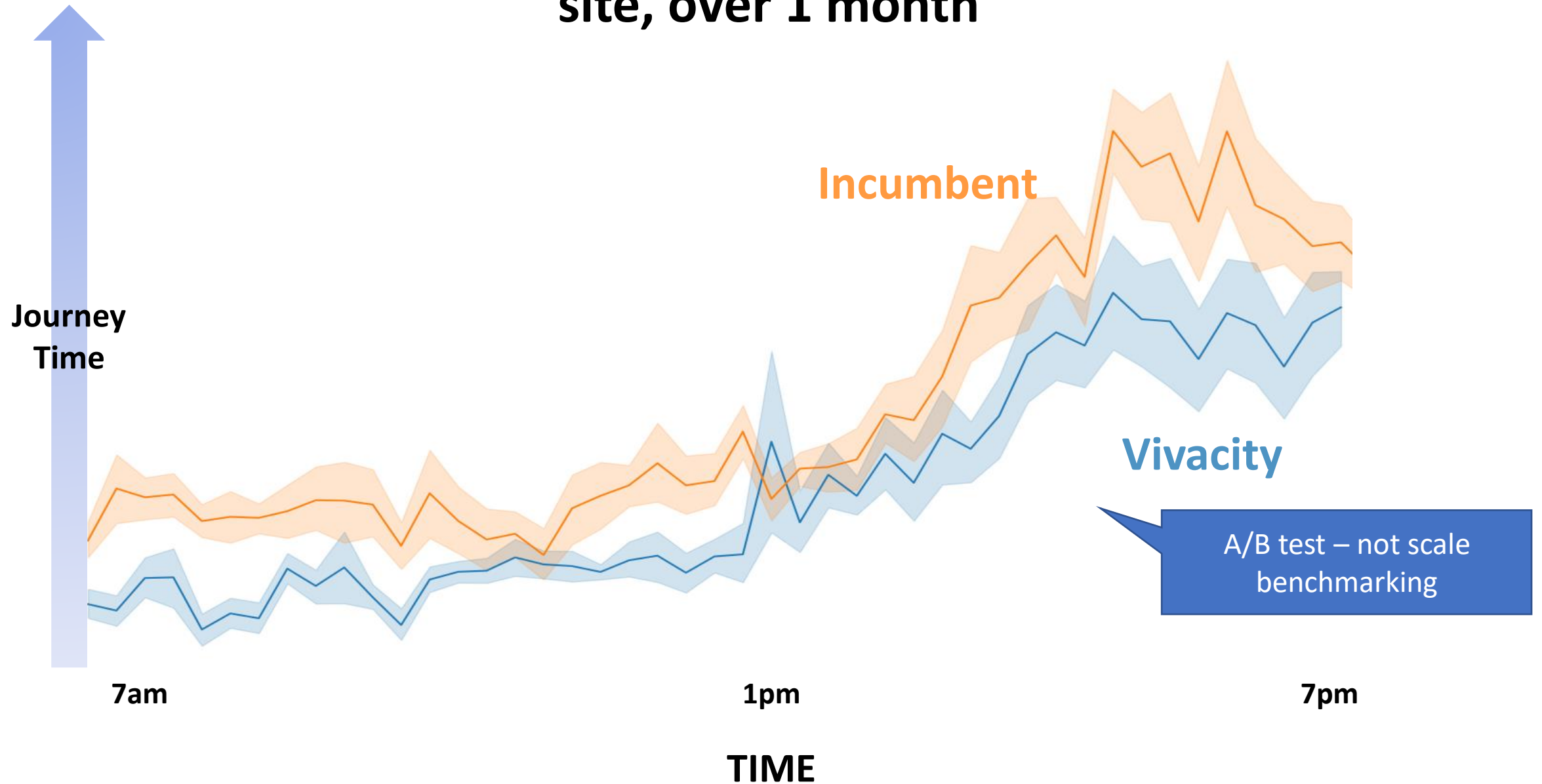
1 site, weeks

Scale Benchmarking

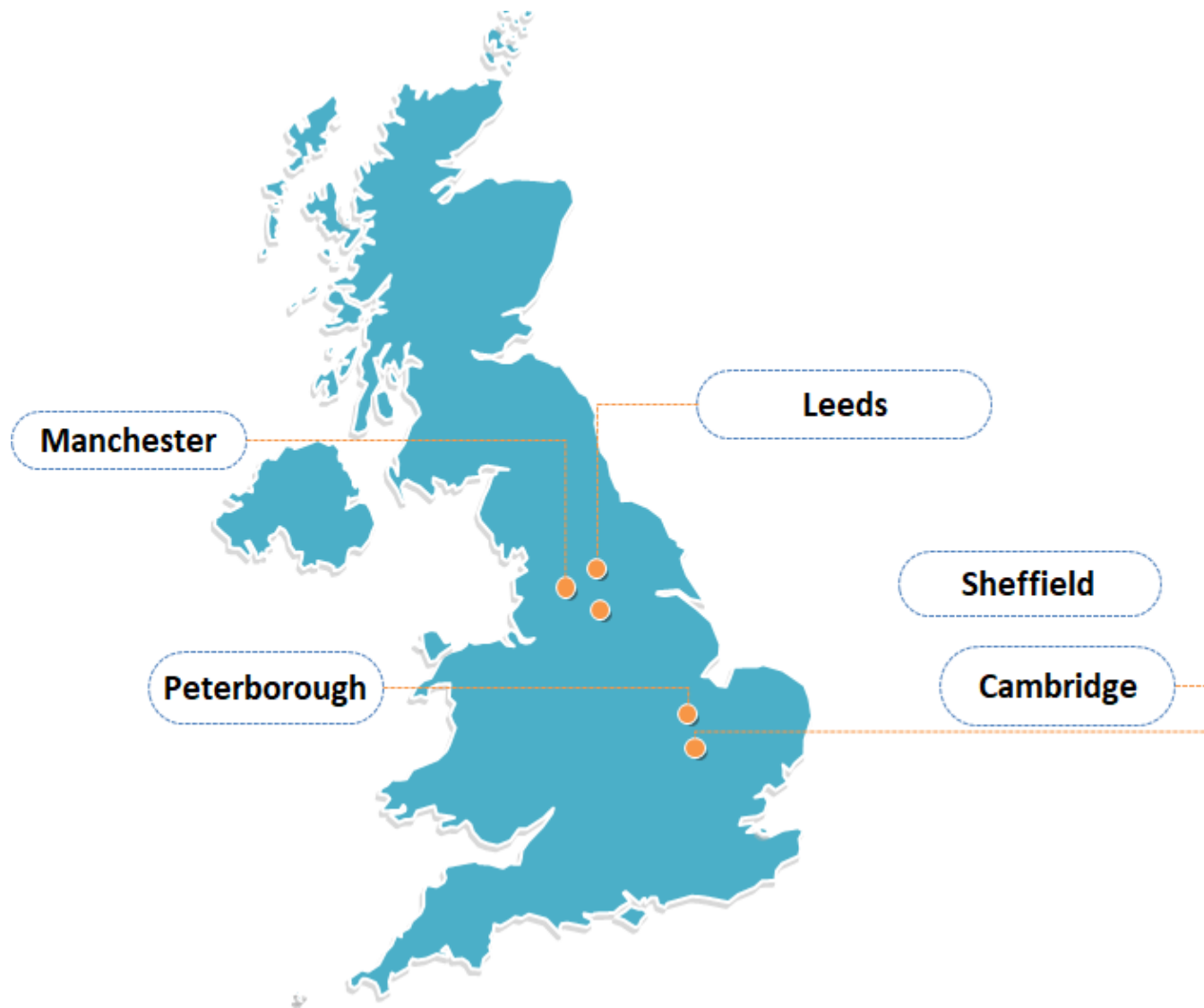


Many sites, months

23% reduction in journey time proven at one site, over 1 month



Deployments across the UK



**Full Smart Junction Trials:
Cambridge and
Peterborough**

**Sensors for UTC detection:
Leeds and Sheffield**

... + 80 cities with sensors



- ✓ Detection
- ✓ Prioritisation
- ✓ Proof

Next:

- 1. Early Adopter Programme**
- 2. Scale-up benchmarking**



Thank you.

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Presentations will be uploaded onto TTF Conference Website within the next 7-10 days

