

Enhancing Active Travel Data & Reducing Costs with DeSC

ngenius.ai

Problem



Operational Nightmare

To install & maintain bespoke hardware sensors



Active Travel

Can not be captured effectively by automated solutions



£40 Million*

Spent by UK Authorities on traffic surveys per annum

*Based on customer consultation





Partners

To develop a solution that was fit-for-purpose, we worked with a number of forward-thinking authorities who are keen to use our insights to deliver innovative new active travel solutions. Over the past six months, we have worked closely with these partners to iterate our solution and prove its value using real-world data.

Trial Partners:



Norfolk
County Council



Belfast
City Council



Coventry City Council



Transport for
Greater Manchester



Department
for Transport

The Transport Technology Forum (TTF),
funded by the Department for Transport



UK Research
and Innovation

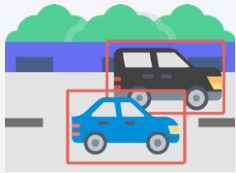
Delivered by LCRIG on behalf of DfT
and supported by Innovate UK

Solution



Zero hardware

Uses existing CCTV & redeployable cameras



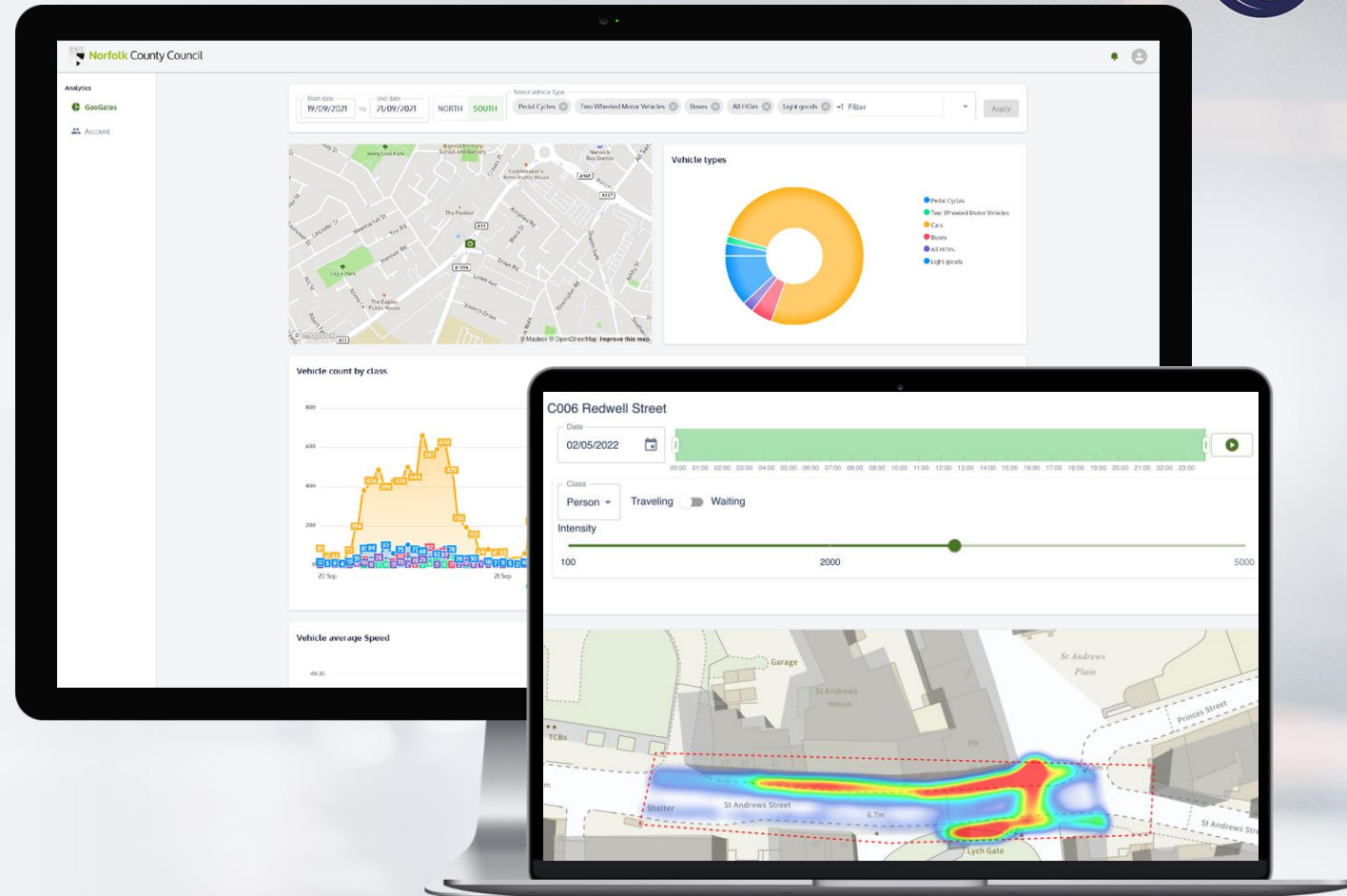
28+ Classes

Including Active Travel



A fraction of the cost

Of existing traffic survey solutions



How it works



1

Data Capture

Leverage existing or commodity infrastructure to create a network of intelligent data capture devices.



2

Interpretation

Advanced machine vision models process video streams and convert into rich data streams



3

Visualisation

Fully-anonymized statistics are presented through the ngenius.ai self-service dashboard



Features



Active Travel

Detailed analysis of counts, habits and desire lines



Traffic Volume

Get real-time insight on traffic volumes & density



Wait times

Across all classes in pre-defined zones



Pedestrian Analysis

Counts, Heatmaps and Wait Times



Heat maps & Desire Lines

See movement data for all main classifications



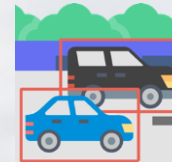
Traffic Segmentation

With over 28 different classifications



Turn Counts

For complex junctions using a single camera



Speed Monitoring

Measure speeds across classes 24/7



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Benefits



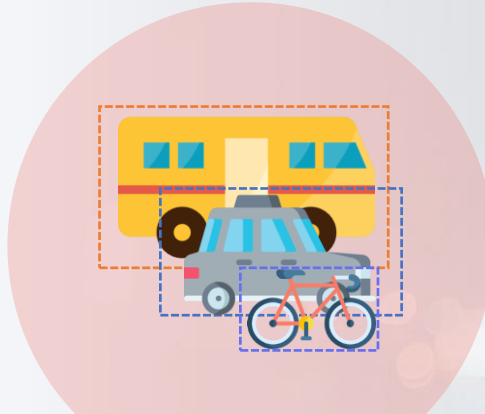
1. Flexibility



Temporary & Connected Models

*Through close consultation with local authorities we have designed a technical & commercial model that allows both **temporary & 24/7** monitoring options*

2. Accuracy



99%+ Accuracy

*During our validations, we have run numerous manual counts of footage using independent reviewers and have achieved up to **99.49%** accuracy when comparing the system outputs to the reviewers*

3. Savings



50% Cost Savings

*With our software-only approach, we are able to save an individual authority in up to **£100,000 per annum** when replacing their manual surveying.*



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Thank you.

For more information contact:

John Chapman | Co-founder

Phone: +44 7454 005 987

Email: john.chapman@ngenius.ai

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

