

Integrated Offline and Real Time Modelling



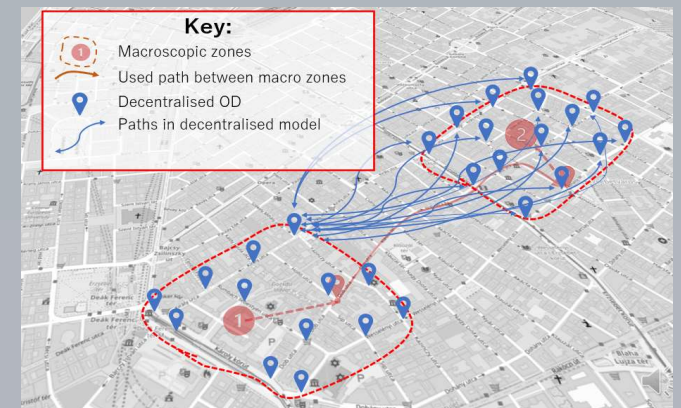
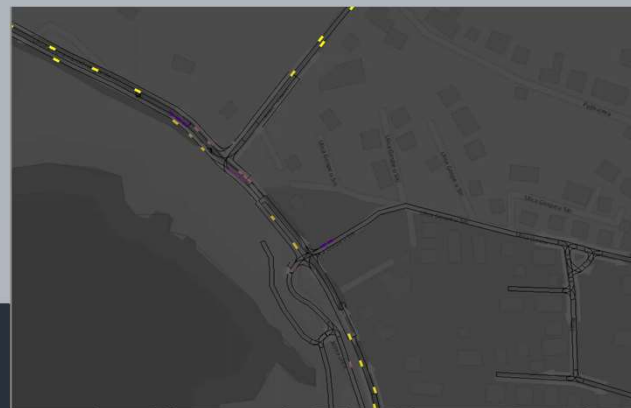
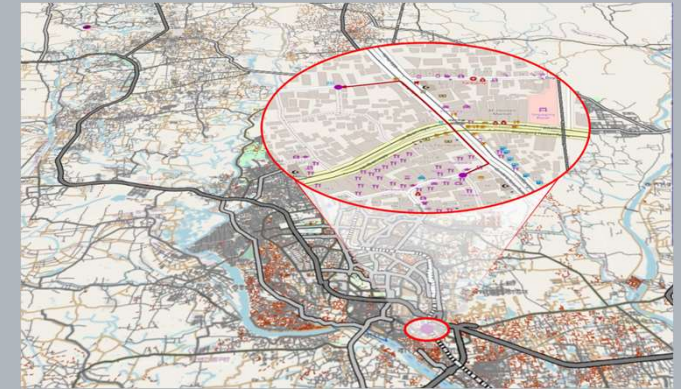
Part of the Smart Transport Evolution Programme (STEP)

Chris Cuckson – Transport Modeller, CYC

Bence Verebelyi – Managing Director, RelativeGAP



Data Driven Transport Modelling



Smart Travel Evolution Programme



RELATIVE GAP

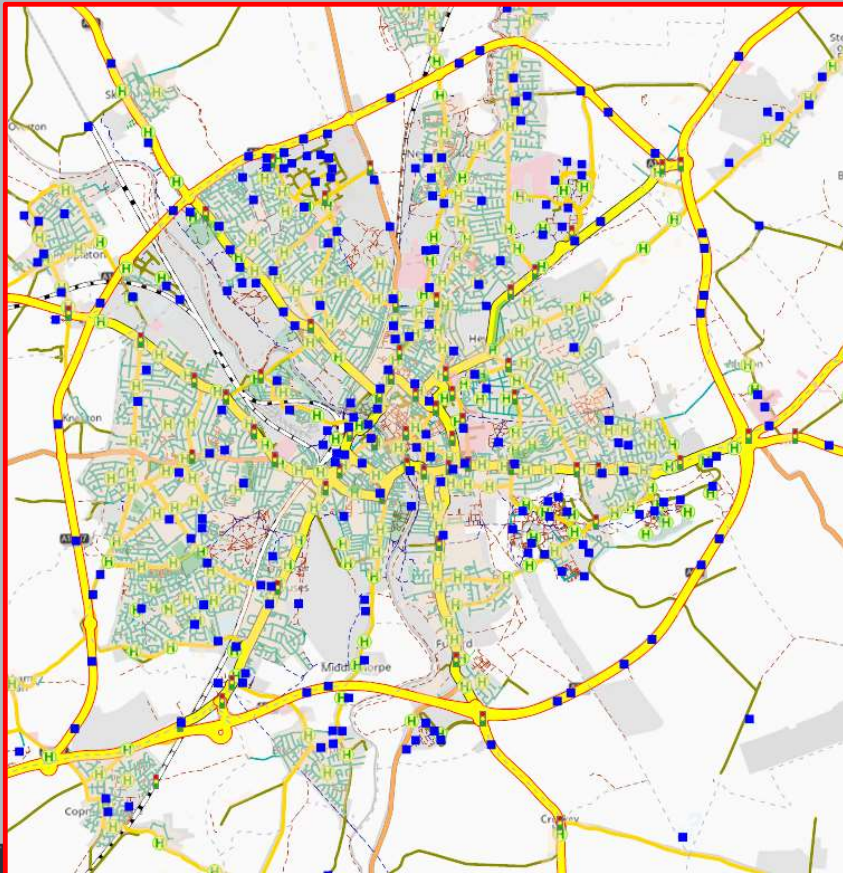
„Through the Smart Transport Evolution Programme we are pioneering new, intelligent systems to build upon the city’s great connectivity and history of transport innovation.”

James Gilchrist, Assistant Director for Transport, Highways and Environment, City of York

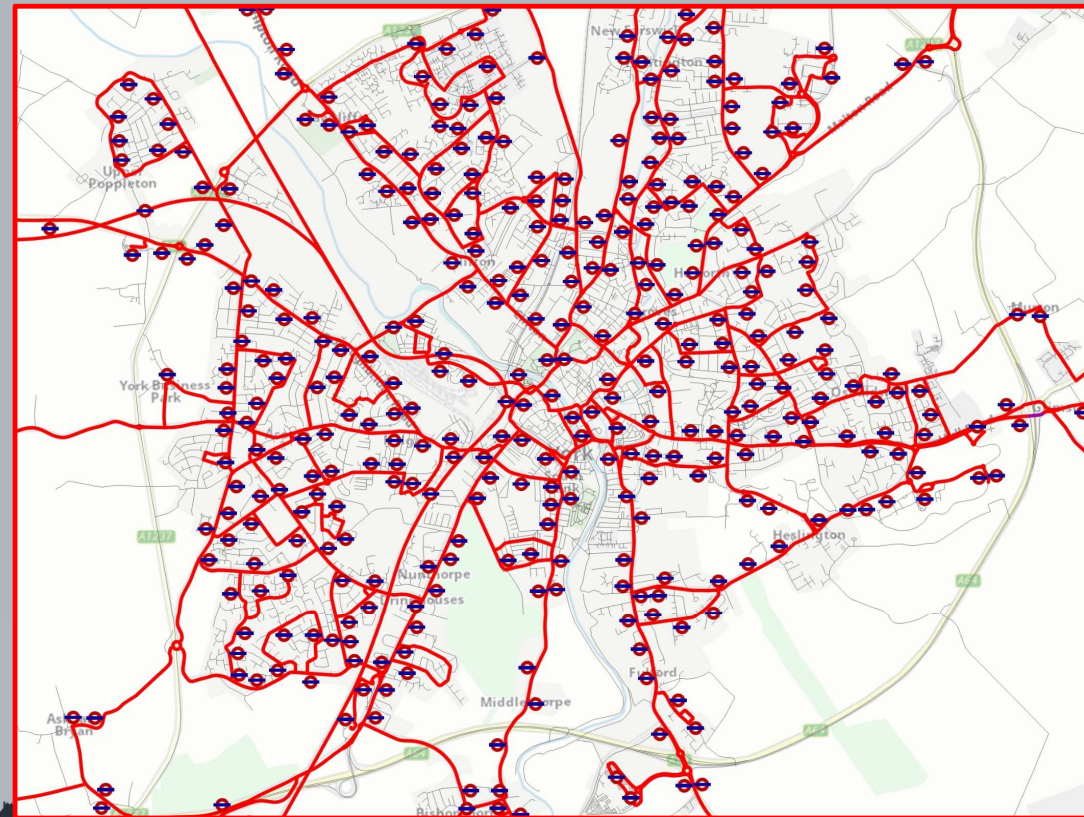
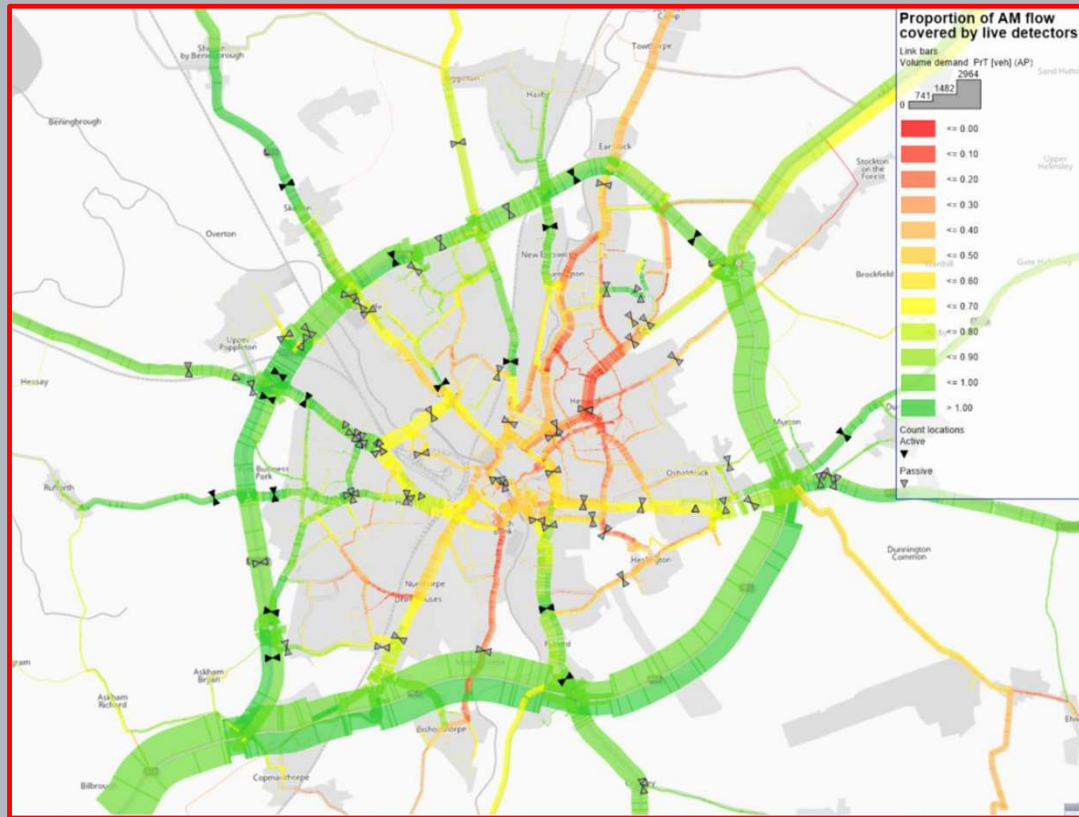


Working together to improve and make a difference

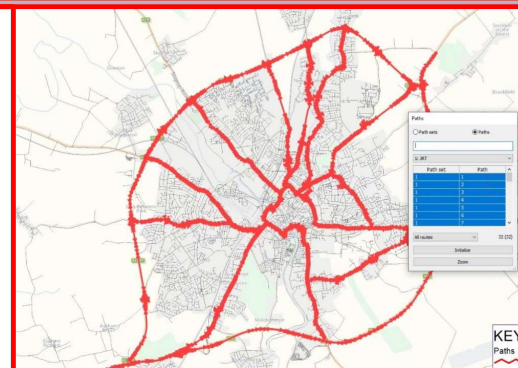
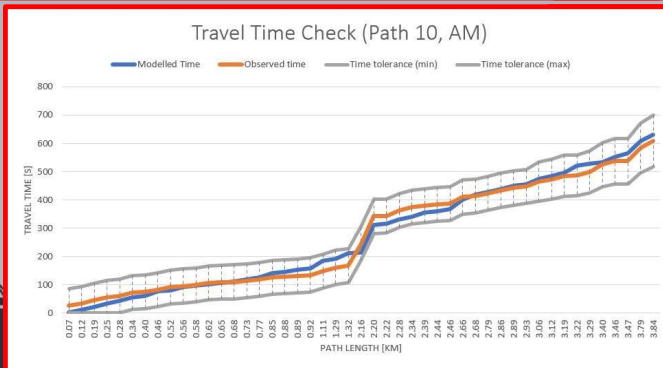
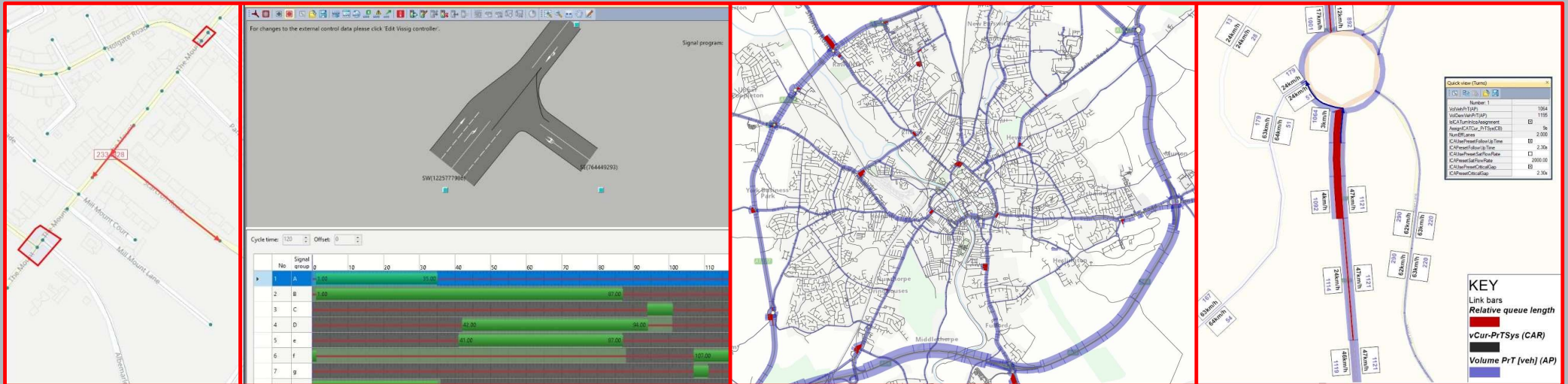
The Strategic Transport Model



The Strategic Transport Model



Strategic Model Calibration

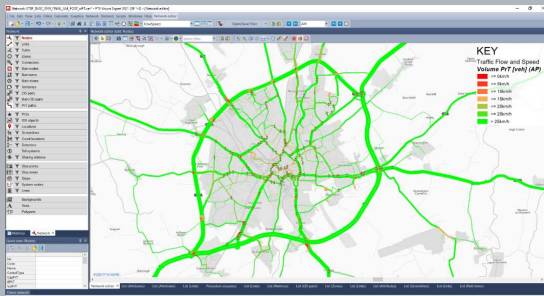


Model Structure

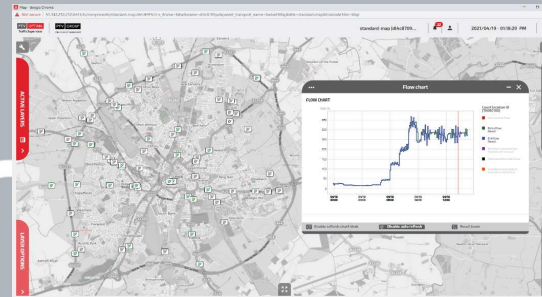
PTV VISUM

PTV OPTIMA

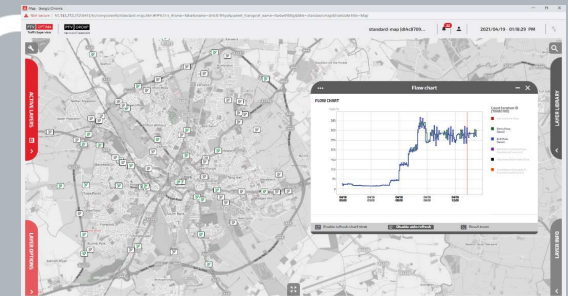
PTV OPTIMA



2022 Base Year



2022 Baseline



Live Forecast

Data Platform

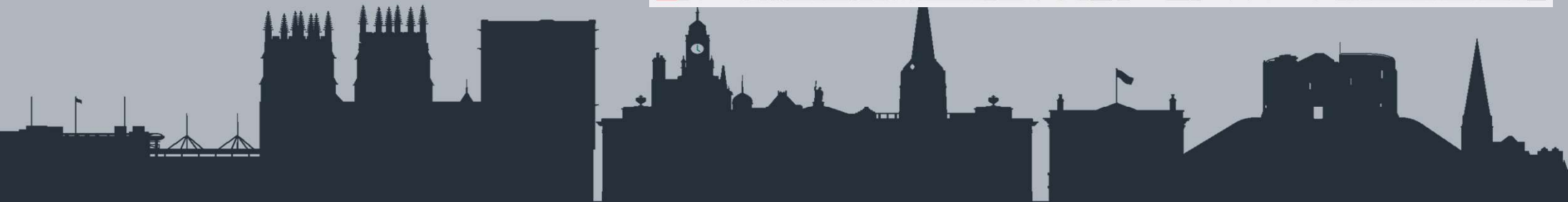
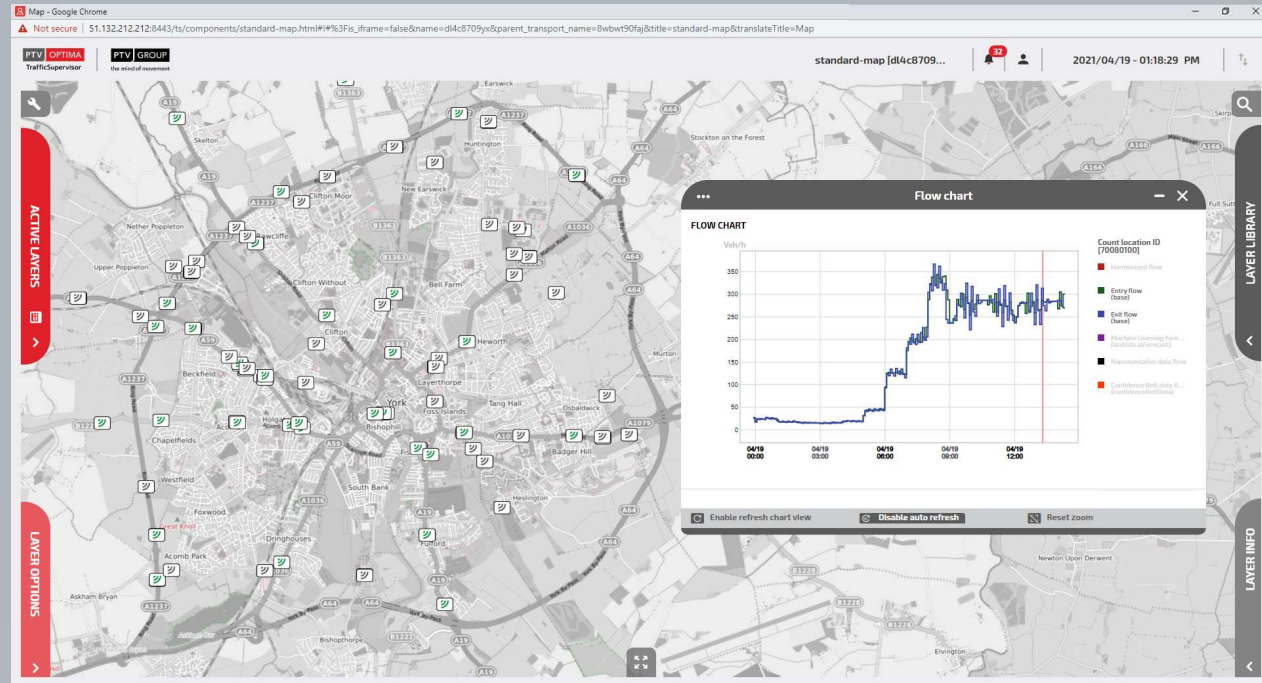
Live data available to Optima in York



RELATIVE GAP

(I) Traffic Flow Count

Approx. 100 traffic flow counters, with 'hourly PCU' being pushed to Optima with <1 minute latency, every <5 minutes

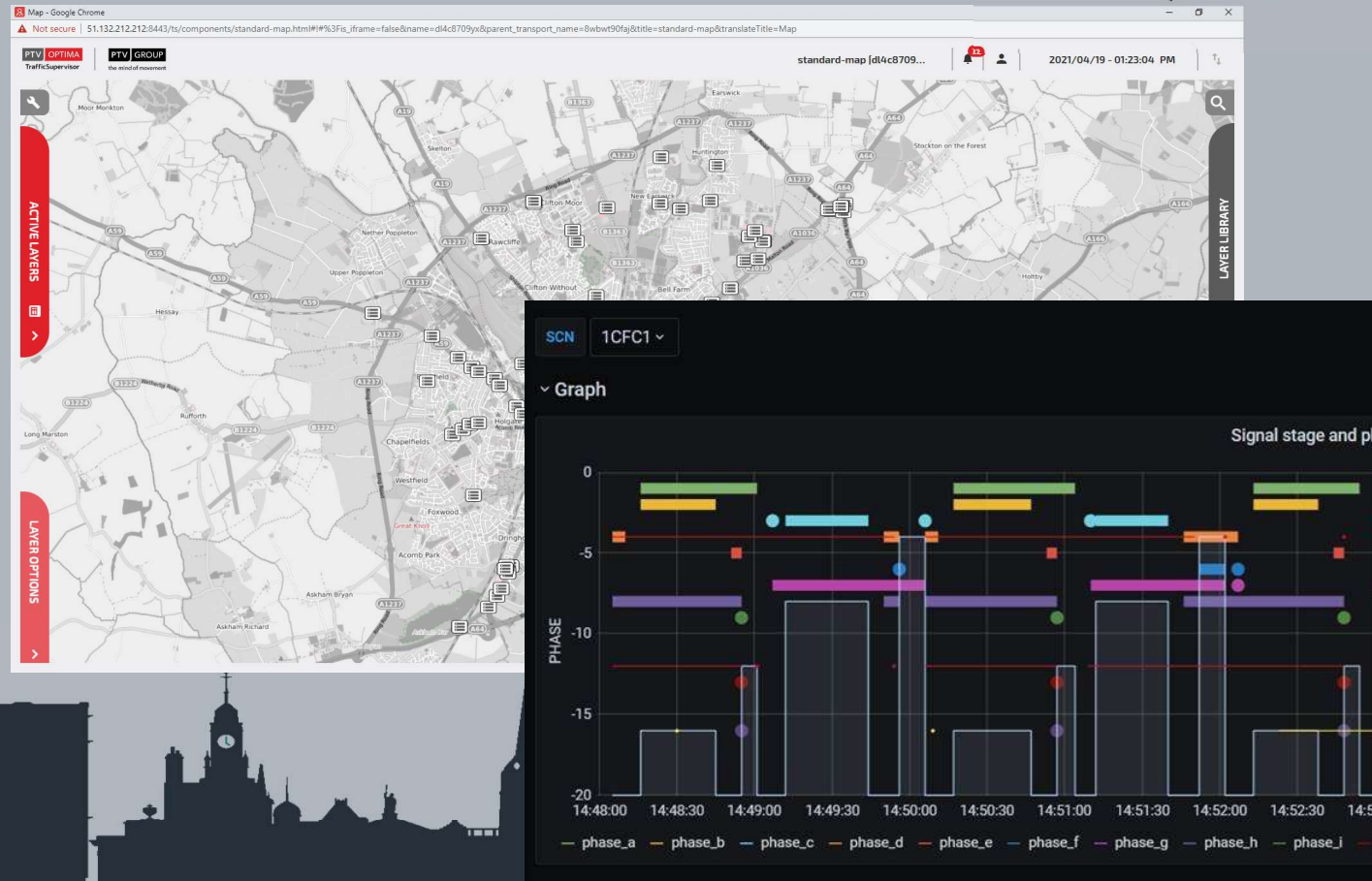


Working together to improve and make a difference

Live data available to Optima in York

(2) Signal Data

Approx. 150 signal controllers.
 Half send interstage start times and cycle times for cycles as they complete with <1 minute latency




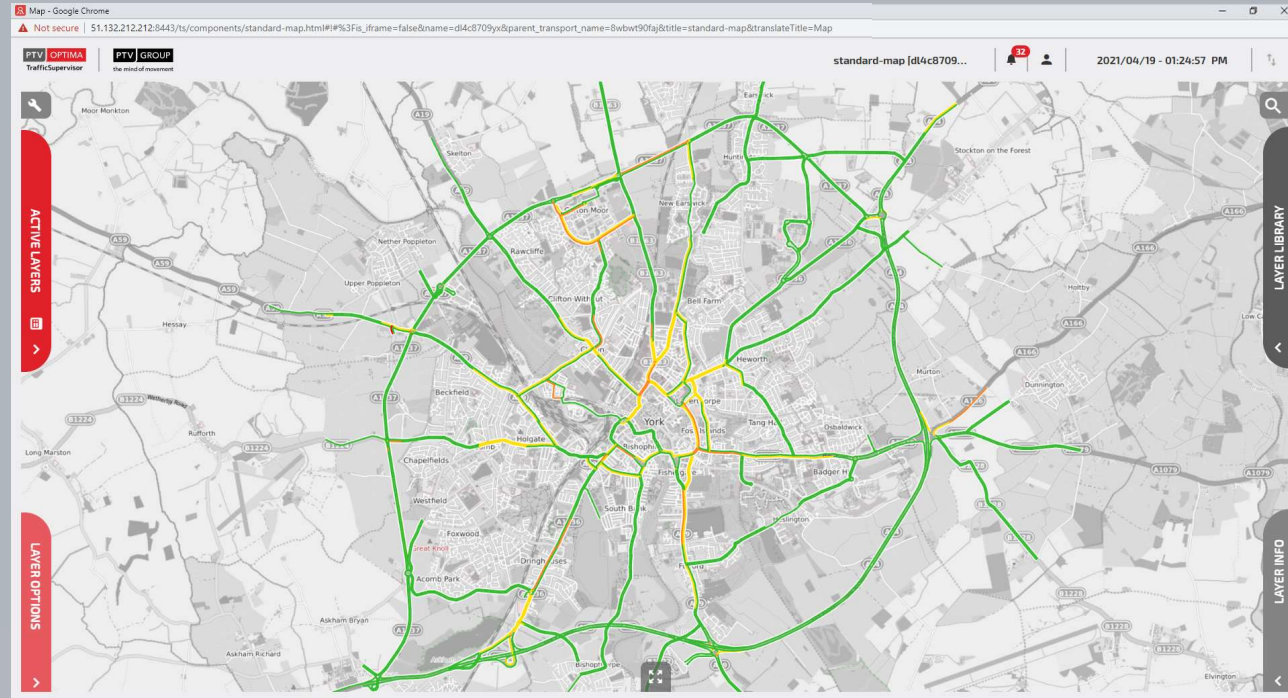
Live data available to Optima in York



RELATIVE GAP

(3) TomTom Data

Live speed data from **TOMTOM** 
pulled by Optima every <5 minutes



Working together to improve and make a difference

Benefit: Monitoring Alerts



RELATIVECAP



Network monitor for the control room

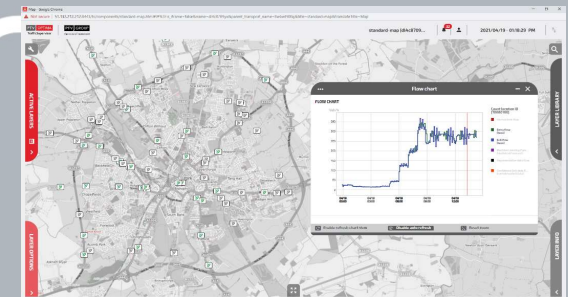
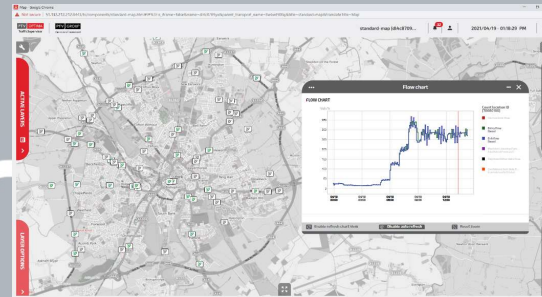
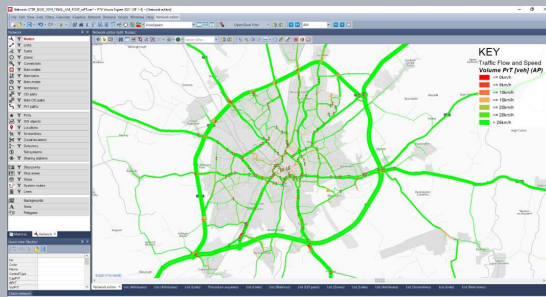
External Systems via API

Benefit: Model Revalidation

PTV VISUM

PTV OPTIMA

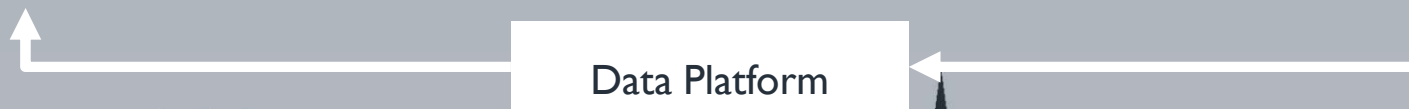
PTV OPTIMA



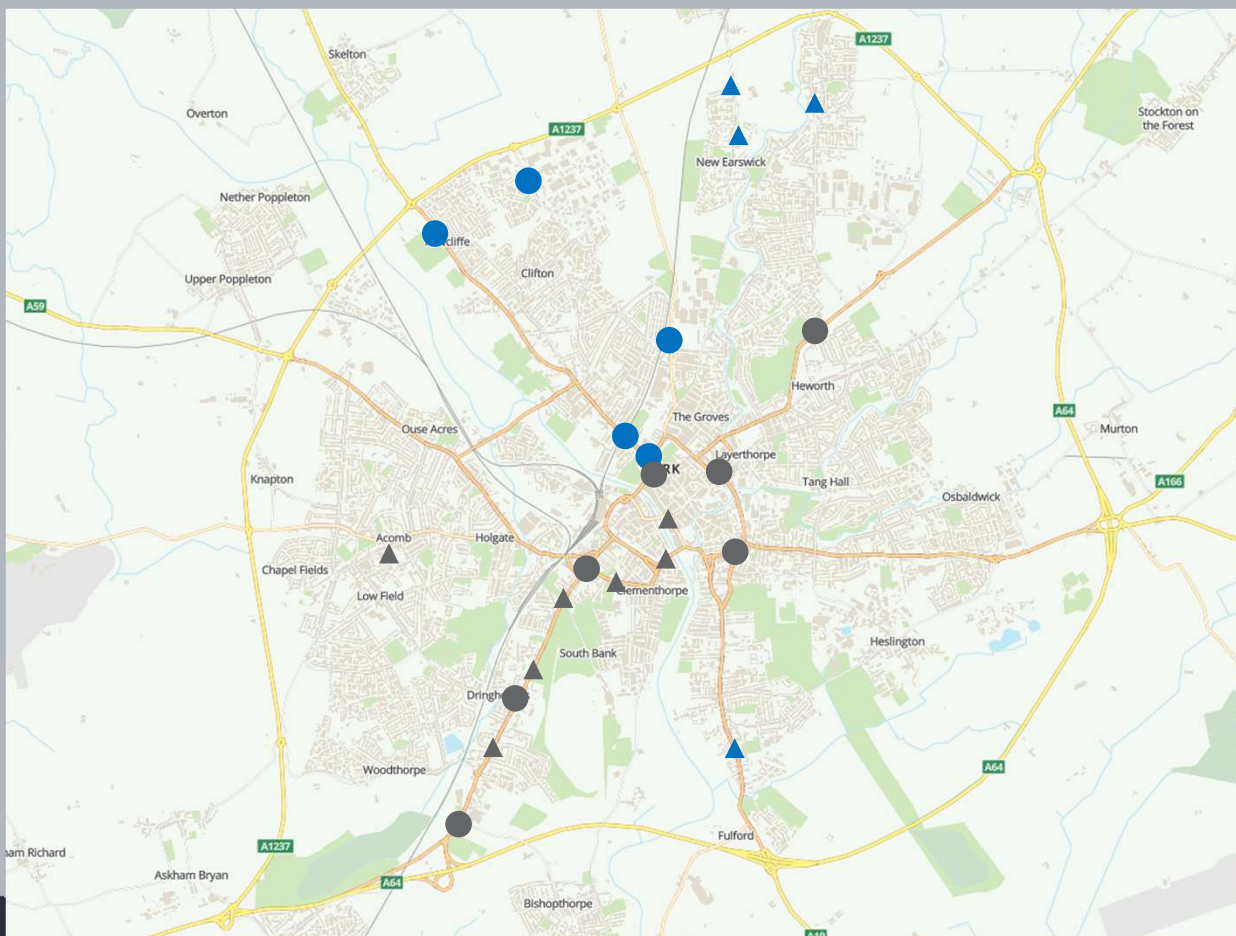
2019 Base Year

2021 Baseline

Live Forecast



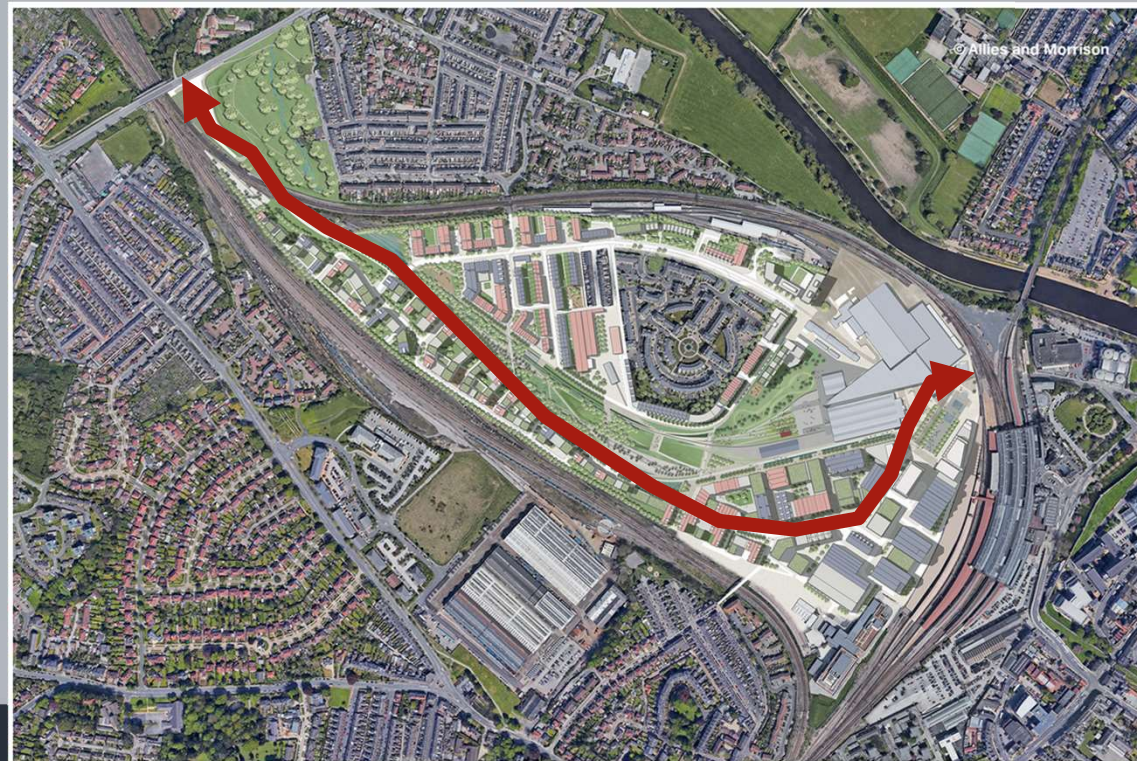
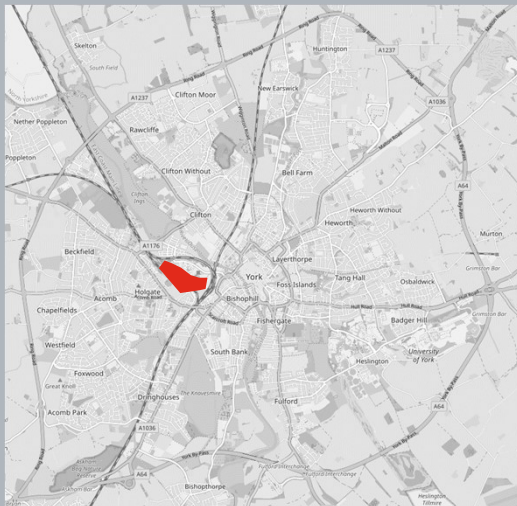
TSAR Programme Refurbished Signal Junctions



- 5 Signalised Junctions
- ▲ 4 Pedestrian Crossings
- 7 Signalised Junctions next year
- ▲ 7 Pedestrian Crossings next year



York Central



Thank You for Your Attention!



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