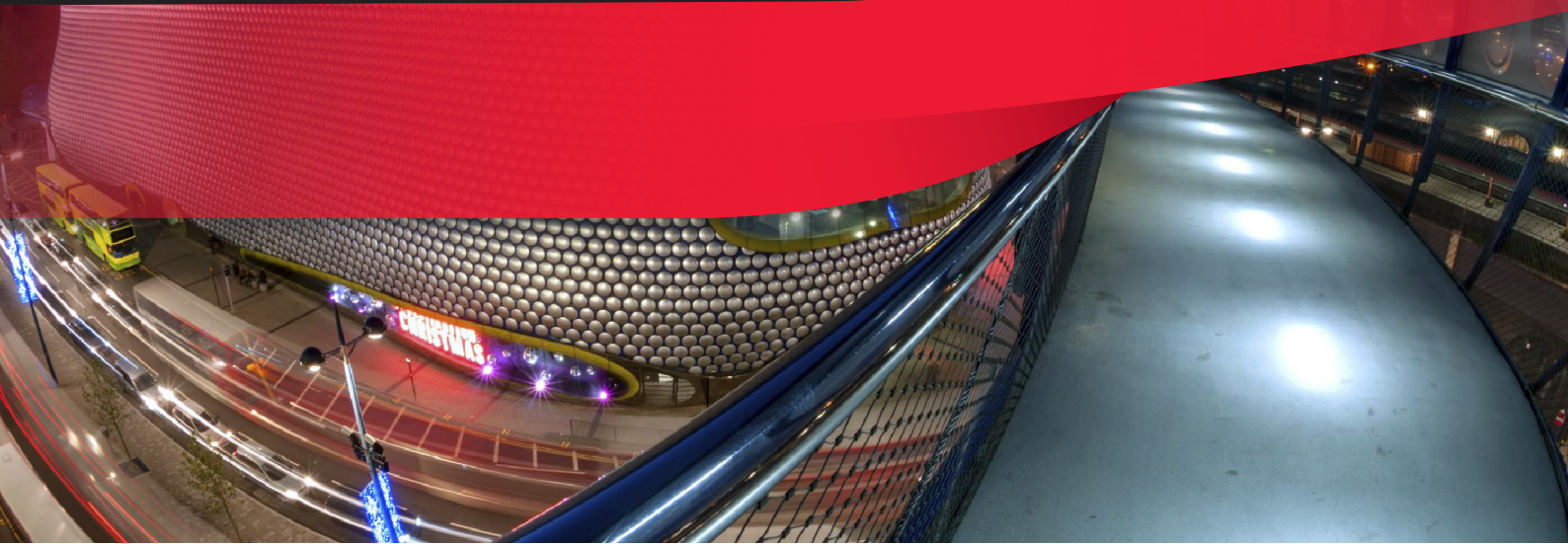


PRISM: Modelling 21st Century Policies in the West Midlands Region



About PRISM West Midlands



The West Midlands is one of the main 9 regions in the UK. With the second most populous British city, Birmingham, and the larger West Midlands conurbation, the region embraces a total population of over 5 Million inhabitants.

This is where 7 Local Authorities, Highways England and the local Public Transport Executive - Centro, have committed to one multi-strategic transport model, PRISM, which has been set up with PTV Visum.

PRISM is one of the largest and most complex strategic multi-modal transport models in the UK. It includes densely populated urban- and rural areas, a disaggregate demand model, significant detail in zoning, networks, detailed junctions and a full public transport model.

The model utilises the PTV Visum software. Bringing together the West Midlands local authorities to develop their transport policy and draw funding decisions on one common base, the model sets a new standard for state-of-the-art transport planning.

OPEN AND INTEGRATED

"One of our requirements was to be able to use the demand model predictions of public transport sub-mode choice in the assignment", says Tim Day-Pollard, PRISM Technical Lead at Mott MacDonald. "Using the powerful interfaces within PTV Visum, we were able to set up a bespoke filtering of connections for the sub-mode assignment in a way that is not usually possible."

FOCUS ON PUBLIC TRANSPORT

The challenge of today's network and supply planning is to provide passengers with an attractive service and to be efficient from an operative perspective.

This is why the Public Transport Model in PRISM has two key functions: providing travel cost information for the regional multi-modal model and serving as a basis for planning for Centro, the Public Transport Planning Executive.

PUBLIC TRANSPORT APPLICATIONS

The Public Transport (PT) - functions in PTV Visum allow planners to identify optimization potentials and implement measures for increased network performance. Centro uses the model for the following applications:

- Assessing value for money prior to investment in infrastructure
- Investment prioritization
- Scheme feasibility and initial sifting
- Long-term accessibility studies
- Long-term mobility plans
- Corridor planning

ADVANTAGES OF PTV VISUM

- Saves you time with on-the-fly analysis and lets you test more scenarios to gain deeper insights
- Multi-resolution modelling with built-in Dynamic Traffic Assignment on macroscopic and mesoscopic levels, and seamless linkage to PTV Vissim
- All the transport planning functionalities you would expect, plus advanced features such as activity-based demand modelling
- Intuitive and highly visual with 3D views
- Data fusion with maps from TomTom, HERE, and much more
- Technical support deployed within 24h, with webinars, user group meetings and an active community with large user base

<https://www.ptvgroup.com/en/solutions/products/ptv-visum/>

A RELIABLE AID

Among other projects, Centro has led the contract to build an extension to the Midland Metro, right in the heart of the Birmingham City Centre.

For this planning project, the engineers set up different scenarios and compared the results, receiving a specific input regarding:

- Metro line patronage
- Mode shift in demand model and assignment
- Total monetized benefit (journey times / fares / fuel costs / jobs)

Finally, the results were presented to the government and to the public, following an approval of the project. This new line is scheduled to open in 2016.

MAKING PT MORE ATTRACTIVE

Following the vision of UITP ([www.uitp.org](http://www UITP.org)), Centro has committed to an initiative aiming to double the share of public transport worldwide by 2025. Regarding the planning,

Centro has set up a portfolio of schemes modelled against a 2026 reference case, including:

- Timetable changes
- Bus priority
- New rail lines
- New park & ride stations

The key indicator was the accessibility of jobs within 45 minutes by public transport.

