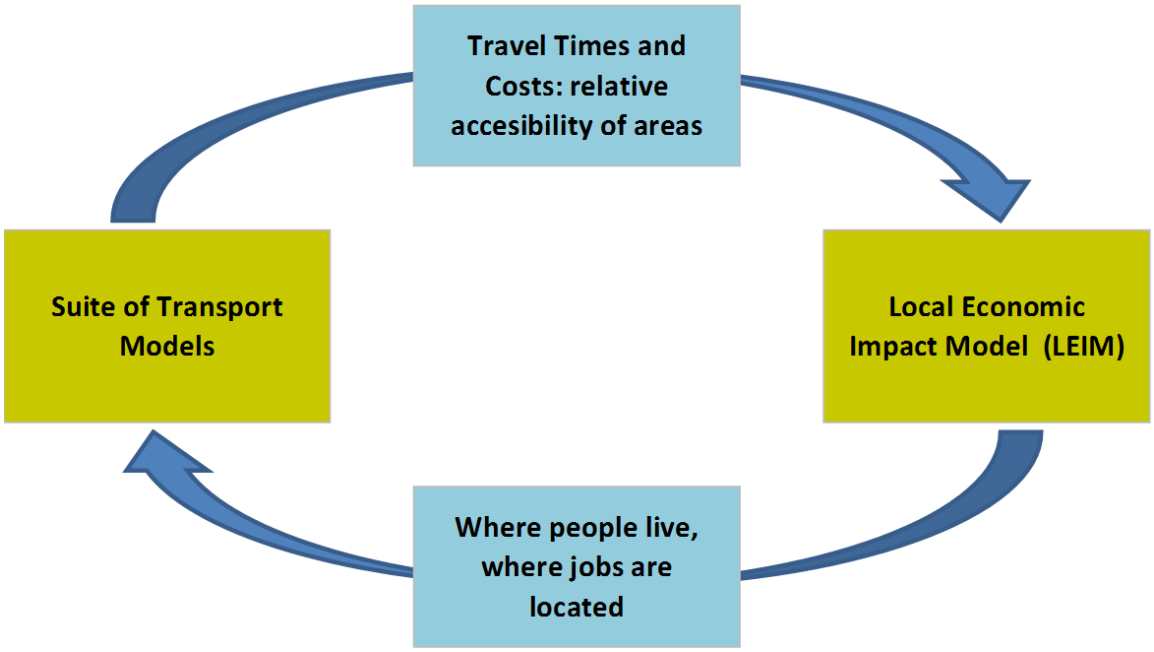
What is the Solent Regional Transport Model (SRTM)?

SYSTRA

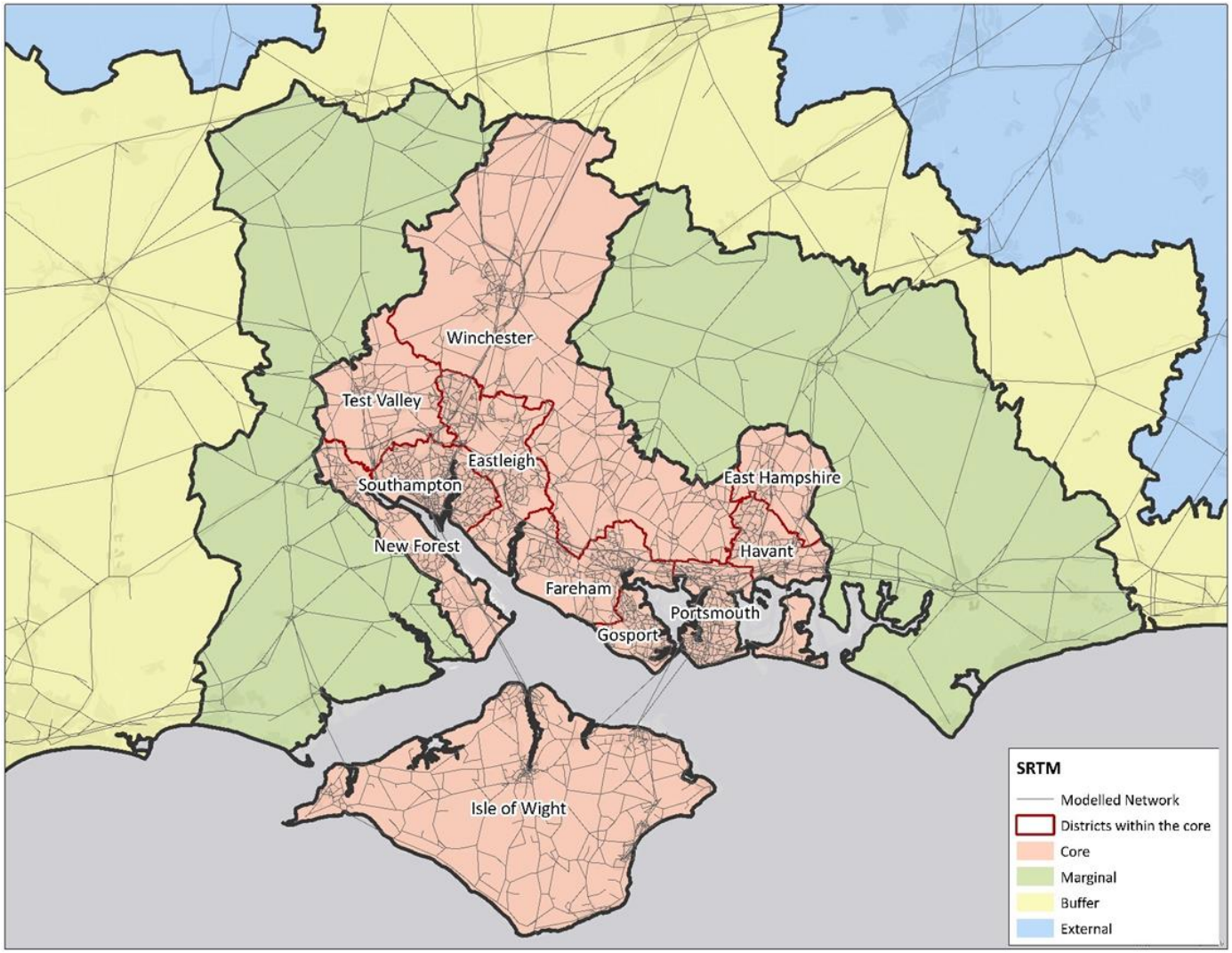
SRTM Concept – a multi-modal transport model, covering highway and public transport modes, which allows testing of the impacts and benefits of land use and transport interventions.

- Developed to test and compare alternative scenarios, proposals and the impacts they would have over many years.
- Looks at flows and journey times of traffic, public transport, (and active travel demand)
- relationship between transport provision and the local economy, and between transport and physical development.



- Developed to assist in the investigation and assessment of different policies, strategies and infrastructure, operational interventions and management on land-use and transport provision.

SRTM Model Areas & Core Local Authorities



Applications of SRTM & Successes

SYSTRA

Who can use the SRTM

SRTM runs and outputs are available on a bureau basis to a wide range of existing and potential users including:

- Hampshire County Council, Southampton City Council, Portsmouth City Council, Isle of Wight Council, and District and Borough Councils within Hampshire;
- Highways England;
- Department for Transport (DfT) and other government departments;
- Network Rail;
- Public Transport Operators;
- Partnership for South Hampshire (PfSH);
- The Solent Local Enterprise Partnership (LEP);
- Chambers of Commerce;
- Other interested organisations, including academia, developers and health boards; and
- Consultancies working on behalf of any of the above.

When to use the SRTM

- **Preparing Business Cases**
  - For example new Highway schemes such as bypasses or Public Transport schemes such as new rail routes
- **Funding applications**
  - When applying for Government grants such as the Transforming Cities Fund
- **Local Development Planning**
  - Testing Local Plans for local authorities including household and employment land use as well as mitigation schemes
- **Aiding Strategy Formulation**
  - Such as transport strategies and land use strategies to guide future infrastructure and development
- **Air Quality Assessments**
  - Including understanding the impacts of CAZ schemes
- **Highway/Public Transport Scheme development**
  - Testing alternative scheme designs for new or improved infrastructure or testing the impacts of service changes including shutting sections of roads for maintenance
- **Development Applications**
  - Testing the impacts of individual development sites (whether housing, employment or mixed use).
- **Inputs into other models**
  - Including micro-simulation models and more detailed local/junction models

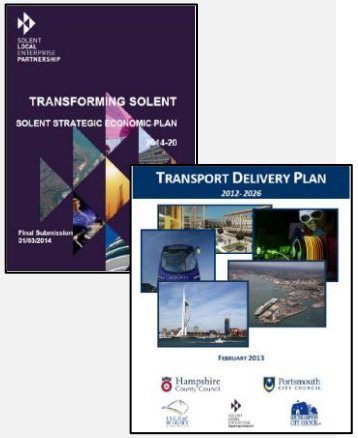
SRTM Applications and Bid Funding (sample) History

Business Case Preparation

- Portsmouth City Centre Road Scheme
- Southampton West Quays
- Transforming Cities Fund – Southampton £56m and Portsmouth £56m
- A Better Connected South Hampshire - LSTF £17.9m
- Better Bus Area Fund - BBAF £4.5m
- Southampton Bridges to Prosperity – Local Pinch Point £2.5m
- Dunsbury Hill Farm Asda Roundabout - LEP £3.7m
- Floating Bridge Replacement (Cowes) - LEP £4m
- Whiteley Way (North Whiteley) - LEP £17.8m
- Stubbington Bypass – Solent LEP £34m
- Solent Metro (Southampton) - LEP
- Highways England
  - Maintenance Assessments
  - M3 SMP £165m
  - M27 SMP £320m
  - M3 J9 (A34) £65m
  - M27(J9) £12m-£19m
  - Southampton Eastern Approach/M27 Junctions £20m-£100m
- M27(J10)
- A326
- Waterside Rail

Local Development Planning

- Eastleigh (rejected and re-tested)
- Fareham
- Gosport
- Havant
- Southampton
- New Forest
- Isle of Wight
- Portsmouth
- Test Valley
- Winchester
- East Hampshire



Solent Transport Strategy Formulation

- DASTS –> LTSIP -> TDP
- PUSH Spatial Strategy

Air Quality Assessments (CAZ)

- Southampton CC (JAQU)
- Fareham
- Portsmouth

Part 3.

Example Model Outputs & Using the Model

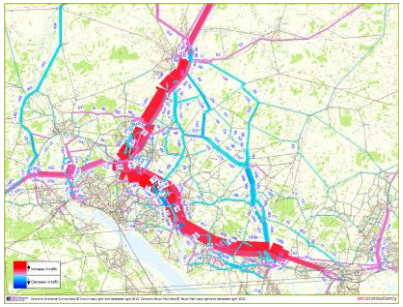
SYSTRA

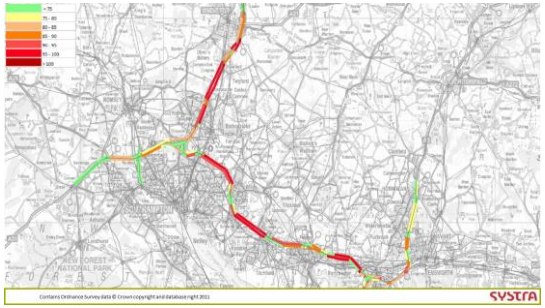
Example Model Outputs

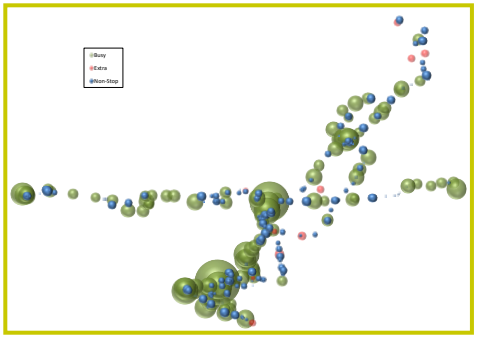
Example outputs include tables, maps and reports with information on:

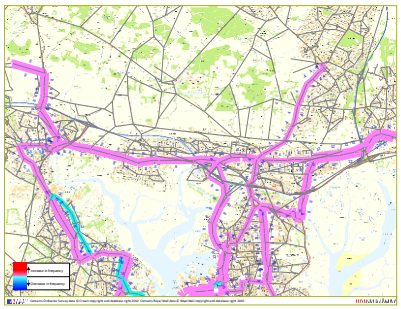
- Flow change maps (for Highway or PT)
- Delay change maps (Highway)
- Volume over Capacity plots
- Junction Hotspot identification (locations where scheme impacts mean future performance will be significantly impacted)
- Bus stop boarding by node
- Bus routes and frequency
- Changes to bus frequency
- Network statistics including speed changes, distance travelled etc
- Journey Time estimates
- Park & ride usage
- Mode shares
- Households and employment per zones
- Regional emissions data
- Annual Average Daily Traffic (AADT) estimates
- Economic scheme benefits

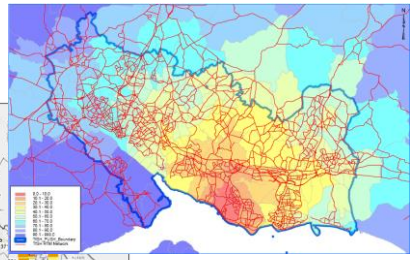
More examples can be found in Appendix E of the User Guide.

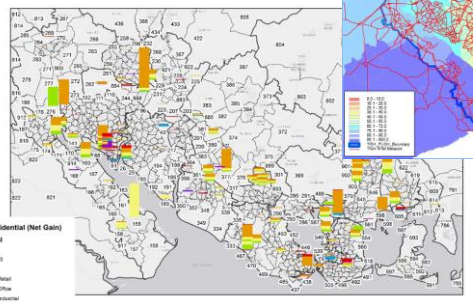












Using the SRTM Model

In order to use the SRTM model the first step is to contact the email address below with your request and so a potential discussion by phone or Teams meeting can be arranged.

SolentSRTM@systra.com