



LAND-USE AND TRANSPORT INTEGRATION IN SCOTLAND



TRANSPORT SCOTLAND

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ANNUAL REPORT 2012

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1 INTRODUCTION

1.1 The LATIS Service

1.1.1 The Land-Use and Transport Integration in Scotland (LATIS) service, managed and delivered by Transport Scotland, offers tools to assist organisations with transport planning, scheme and policy appraisal. They are primarily used by Transport Scotland to achieve its delivery priorities:

- Improved connections across Scotland and internationally;
- Better journey times, better reliability, quality and accessibility;
- Increased safety, more innovation;
- Continuously improving performance and organisation;
- Low carbon technology and infrastructure, reduced emissions.

1.1.2 LATIS delivers these by facilitating the planning and design of strategic transport interventions and the testing of innovative policies to encourage modal shift, improve journey time reliability, improve safety and reduce emissions.

1.1.3 LATIS, in supporting the work of Transport Scotland, aims to serve the Scottish Government's overall purpose, which is "to focus Government and public services on creating a more successful country, with opportunities for all of Scotland to flourish, through increasing sustainable economic growth."

1.1.4 The LATIS service has four key elements as follows:

- transport and land-use modelling capability (TMfS and TELMoS);
- a user (customer) engagement programme;
- a data collection facility; and
- project management.

1.2 This Annual Report 2012

1.2.1 This Annual Report, the 5th to be produced by the LATIS service, reviews the work of the service in terms of project management, user engagement, model development, model application, model (user) support and data collection. It also demonstrates if and how the objectives of the previous Annual Report have been met.

1.2.2 This Report covers the year starting 1st September 2011 to the start of the new Framework Commission for LATIS in 23rd May 2012. A number of workstreams started under the previous LATIS Commission were taken to conclusion by those consultants during this reporting period. These will be summarised.

1.3 Annual Report 2011

1.3.1 The following objectives were identified for the work of a future LATIS Commission within the last Annual Report, pending successful procurement.

User Engagement Objectives

	Objective
1	Hold a joint LATIS/STAG user group to consider the links between appraisal and modelling in more detail.
2	Build on the relationships with stakeholders by introducing a LATIS support network.

Model Development Objectives

	Objective
1	Update the LATIS national and regional models to reflect changes to the transport network and updated planning policies and allocations.
2	Continue to develop national and regional models to support the Scottish Government's Infrastructure Investment Plan (IIP)
3	Develop alternative forecasts of travel demand and trip-making for application to project appraisal and design.

Model Application objectives

	Objective
1	To provide support to current ongoing and forthcoming approved LATIS applications.
2	To continue to support and make more effective use of regional models.
3	To promote the use of LATIS for the appraisal of projects contained within the Scottish Government's Infrastructure Investment Plan (IIP).

Data Collection Objectives

	Objective
1	Prepare a data collection programme that supports the appraisal work required by the IIP.
2	Ongoing data collection that supports specific model applications and other Transport Scotland Directorates.

Model Support Objectives

	Objective
1	Provision of ongoing technical support to those installing and using LATIS models where possible, subject to the outcomes of procurement.

The key elements of LATIS and progress against the objectives in 2012 above will be reviewed in turn.

2 LATIS MANAGEMENT

2.1.1 Transport Scotland seeks to manage the LATIS service to ensure it meets the needs of users while also achieving technical excellence. The management of the Commission during this period was facilitated by scheduled meetings and reports as follows:

- Client Progress Meetings and Commission Progress Meetings, and,
- This Annual Report.

2.1.2 The following scheduled meetings were not held during this reporting period;

- Quarterly Steering Group Meetings;
- Bi-annual Directors' Meetings; and,
- Bi-annual Data Collection Progress Meetings.

2.1.3 A number of meetings were held with Steering Group members to inform the procurement of subsequent LATIS Commission consultants.

3 USER ENGAGEMENT

- 3.1.1 The LATIS user engagement programme in 2012 focussed upon integrating and transferring the LATIS website, previously managed by the LATIS Commission holder, to the Transport Scotland website and rationalising its contents. The new arrangement also enables the use of Google Accounts and Apps for LATIS management and user engagement purposes.
- 3.1.2 A joint Transport Appraisal and Modelling user group day was planned for and held in June 2012 shortly after conclusion of the Framework Agreement for LATIS. The user group day content included a summary of the objectives of the new LATIS Commission which reflected, in part, those objectives suggested by attendees of the previous user group held in February 2011. The user group day also featured a workshop in which delegates were invited to submit their views on the main determinants of travel demand- population, GDP, technology etc – and ranking those factors in terms of their significance/strength and certainty. The [Delegate Feedback Report](#) can be accessed by clicking [here](#).
- 3.1.3 There was representation by LATIS at the European Transport Conference in October 2011 and two papers were presented which drew on work undertaken by LATIS. Furthermore, LATIS-related papers were delivered at the Scottish Transport Applications and Research Conference in May 2012.

	Objective	Progress
1	Hold a joint LATIS/STAG user group to consider the links between appraisal and modelling in more detail.	Fulfilled
2	Build on the relationships with stakeholders by introducing a LATIS support network.	The LATIS team within Transport Scotland have continued to address support queries with the assistance of Framework consultants. This objective has been addressed within the new Framework Commission for LATIS.

4 MODEL DEVELOPMENT

- 4.1.1 The LATIS models were developed during the course of the Reporting Period as part of work to develop Alternative Forecast Scenarios. This work, concluded in early 2012, produced a range of demand forecasts based on three sets of economic and demographic forecasts. This work had three objectives; to better understand the key drivers of travel demand, to better understand the responses of the model itself and to provide a range of forecasts as the basis for project appraisal.
- 4.1.2 The work involved incorporation of a revised forecast of macroeconomic growth from the Office of Budget Responsibility (OBR, April 2011) and updated 2009 population and household forecasts from the General Registers of Scotland (GROS) within the land use model (TELMoS). 2010 planning policy input data was not ready for inclusion within the alternative forecast scenarios work. The OBR forecast was also used to inform updates to the UK Department for Transport WebTAG in August 2011, specifically, the reference values used by transport models. These changes were included within the transport model, TMfS:07.
- 4.1.3 In mid-2011, the SEStran Regional Model (SRM) was developed and enhanced to facilitate application of the model to appraise the Strategic Development Plan for the area (SESplan). This incorporated latest planning policy and improved the representation of the model zones and key junctions within the A720 Edinburgh Bypass.

	Objective	Progress
1	Update the LATIS national and regional models to reflect changes to the transport network and updated planning policies and allocations.	Partially completed. Updated planning policies incorporated into SRM but not TMfS:07.
2	Continue to develop national and regional models to support the Scottish Government's Infrastructure Investment Plan (IIP)	Completed.
3	Develop alternative forecasts of travel demand and trip-making for application to project appraisal and design.	Completed in early 2012. Further analysis and scenarios to be undertaken by new LATIS consultants

5 LATIS MODEL APPLICATIONS & USER SUPPORT

5.1.1 There have been 5 ongoing and 2 new applications of LATIS during the period covered by this Report. LATIS Application requests are submitted through the latis@transportscotland.gsi.gov.uk email address.

5.1.2 A summary table of applications can be found below:

Application	Description	Model	Model user	Ultimate Client
Alternative Forecast Scenarios (continuation)	See "Model Development".	TMfS:07	MVA Consultancy Ltd.	Transport Scotland
Clyde Tunnel flow composition analysis (continuation)	To understand the origins and destinations of traffic using the Clyde Tunnel and surrounding road network.	TMfS:07	MVA Consultancy Ltd.	Transport Scotland
Glasgow Airport Strategic Transport Network Study (continuation)	Use of the model to assess the strategic transport network serving Glasgow Airport and associated needs, problems and opportunities.	TMfS:07	MVA Consultancy Ltd.	BAA Glasgow Airport
SESplan Strategic Development Plan Appraisal	Application of the SRM to assess the impacts and mitigate measures required to support the draft SDP.	SRM	MVA Consultancy Ltd.	Transport Scotland
Ravenscraig Development Transport Assessment (continuation)	Data to support the appraisal and identification of additional transport infrastructure required to support development at Ravenscraig.	TMfS:07 (STEP)	SKM Colin Buchanan	Ravenscraig Ltd.
A9/A96 NESA Assessment	Cordon trip matrix data to support a high level NESA and establish the potential economic impacts of dualling the A9 and A96.	TMfS:07	SIAS Ltd.	Transport Scotland
Mitigating Transport's Climate Change Impact	Model data to assist in updating the transport CO ₂ baseline for the TACTRAN area and to develop carbon mitigation measures and strategies.	TMfS:07	Atkins	TACTRAN (Tayside and Central Regional Transport Partnership)

5.1.3 It can be seen from the table above that LATIS models and data have supported the work of a range of external organisations during 2011-2012 in addition to policy development and decision-making within Transport Scotland. This is welcomed and demonstrates the value of investment in LATIS capabilities and user engagement to maintain and broaden the user base.

	Objective	Progress
1	To provide support to current ongoing and forthcoming approved LATIS applications.	Fulfilled. A number of ongoing and new applications were completed by the outgoing LATIS consultants or current model users.
2	To continue to support and make more effective use of regional models.	LATIS enhanced and applied the SRM to appraise the emerging strategic development plan.
3	To promote the use of LATIS for the appraisal of projects contained within the Scottish Government's Infrastructure Investment Plan (IIP).	This objective has been incorporated within the objectives of the Framework Commission for LATIS.

5.1.4 The LATIS team within Transport Scotland have worked to conclude ongoing applications of LATIS and to meet the needs of new applicants. A number of technical and support queries were also handled in this period, including three in regard to the licensing and correct use of STEP.

6 DATA COLLECTION

6.1.1 The LATIS Data Collection Commission also concluded in August 2011. Besides completion of a number of ongoing data collection tasks, no further data was collected to support LATIS model development or applications in this Reporting Period. The new Commission for the Collection and Collation of Transport and Land Use Data was concluded in April 2012.

6.1.2 Nevertheless, the LATIS data repository continued to serve a number of Transport Scotland directorates and teams and external LATIS applicants. These are listed in the table below:

Application	Description	Applicant
The treatment of the indirect effects of transport schemes on output and employment in remote rural areas	Road side interview survey data for a number a sites in rural Scotland.	ITS Leeds
East Ayrshire VISUM model re-base (2011) and extension	Bus occupancy and passenger origin-destination survey data for services between Glasgow and Kilmarnock.	SKM Colin Buchanan
Longman Roundabout Landfill Site assessment	Longman Roundabout turning count data.	The Highland Council

6.1.3 There was a short discontinuity in the supply of transport data to meet the needs of teams within Transport Scotland prior to the conclusion of the Framework Agreement for LATIS. Other resource constraints mean the objectives set for data collection within the previous Annual Report have only been partially fulfilled.

	Objective	Progress
1	Prepare a data collection programme that supports the appraisal work required by the IIP.	This objective has not been fulfilled.
2	Ongoing data collection that supports specific model applications and other Transport Scotland Directorates.	Fulfilled.

7 THE VALUE OF LATIS

- 7.1.1 The Annual Report 2011, as in 2010, recognised the value of the LATIS service to Transport Scotland in terms of economics, efficiency and effectiveness. This was supported by a quantitative assessment which evaluated the opportunity costs of LATIS by comparing the on-the-shelf LATIS modelling capability with an alternative modelling strategy in which models were developed for each “application”.
- 7.1.2 This quantitative assessment has not been repeated within this Annual Report. New applications and workstreams started under the subsequent LATIS Commission will be detailed within the first Framework Commission for LATIS Annual Report to be prepared in late 2013.
- 7.1.3 Transport Scotland believes that the LATIS service offers the following qualitative benefits to us and the wider user group:
- Provision of consistent and credible evidence and policy advice;
 - Substantial project time savings as models and data are kept up to date, relevant and accessible through the Commission;
 - Scope for innovation and incorporation of best practice in modelling;
 - A forum for industry discussion and sharing of best practice; and
 - Economies of scope across the service, meaning that, through targeted investment in our modelling capabilities and data, the service enables a wider range of needs to be met more cost effectively.

8 THE YEAR AHEAD

8.1 The New Commission

8.1.1 Procurement of ongoing transport planning, modelling and audit services by external commercial consultants has concluded successfully. The structure of the new Commission, dates of the Conclusion of each Framework Agreement for LATIS and the successful Framework Participants (ranked in order of most economically advantageous tender where appropriate) within each “Lot” of the Commission are summarised within the table below:

Framework Lot	Consultants	Agreement concluded
1	SIAS Ltd. (1), Jacobs Ltd. (2), MVA Consultancy Ltd. (3)	May 2012
2	Jacobs Ltd. (1), MVA Consultancy Ltd. (2), AECOM (3)	May 2012
3	David Simmonds Consultancy Ltd.	September 2012
4	CH2M Hill Halcrow Ltd. (1), AECOM (2), SIAS Ltd. (3)	October 2012
Data	Sky High Count on Us Limited (1), Streetwise Services Limited (2), Amey OW Limited (3)	April 2012

8.1.2 The qualitative and quantitative benefits assessed in previous Annual Reports and emerging needs of Transport Scotland and the Scottish Government are reflected in the objectives, structure and scope of the new LATIS Commission. These are outlined in the tables in Appendix A.

8.1.3 The LATIS Commission Inception Report will be available shortly at www.transportscotland.gov.uk/latis and the Annual Report 2013 will outline the extent to which the objectives of the Commission have been met within the first year.

APPENDIX A – FRAMEWORK AGREEMENT FOR LATIS:

COMMISSION OBJECTIVES LOTS 1-4

Common Objectives
Align TMfS model outputs to national outcomes and indicators.
Provide advice on the application of new data sources/technology to improve the performance and functionality of TMfS.
Lot 1 - Maintain the support model documentation; Lot 2 – Contribute to this.
Harness knowledge sharing and best practice within the UK to maximise the TMfS 'resource'.
Update steering group and provide a steering group representative.
Provide parts of Annual Reports and the End of Commission Report.
Progress meetings and reports.
Advise Transport Scotland's Project Manager immediately of any risks.
Technical advice on an individual basis or as part of a multi-disciplinary team.
Advice on other matters, e.g. contractual and commercial issues and project management issues.
Feedback/engagement with other LATIS frameworks participants: ethos of partnering.

Lot 1 Principal Objectives
Maintain and enhance existing TMfS models.
Identify potential improvements/enhancements to assist in developing robust policies.
Contribute to Monitoring and Evaluation.
Update TMfS to reflect changes in transport supply.
Recommend an approach for the development of second tier transport models.
Improve the visual presentation of TMfS outputs.
Provide consistency and improve interfaces with other models (e.g. NMF, MOIRA, CSMM).
Present model enhancements and developments to appropriate groups.
Following amendments: calibrate and validate the model; update users; liaise with all LATIS framework participants.
Develop and instigate a risk register process and advise TS's PM immediately of any risks.
Consider enhanced modelling/functionality for other modes.
Consider additional model segmentation and trip segmentation.
Consider how to include behavioural choices in travel within TMfS.
Enhancements to provide linkages to Government targets for the climate change agenda.

Lot 2 Principal Objectives
Apply existing models (TMfS, any second tier models and/or other models in which the Employer has an interest)
Use of models within the LATIS service to:
- support development planning
- model the impacts of national transport or land use policies
- model the impacts of any road or rail scheme, or combination thereof
For each model use:
- Advise on the most appropriate model for the task
- Define the scope of the study area
- Prepare a report
- Present the results to decision makers/stakeholders
Lot 3 Principal Objectives
Provide trip end growth factors for TMfS based on the following main parameters:
- Rationalisation of Planning Data supplied by planning authorities.
- Regional Economic Growth forecasts
- National population forecasts from National Records of Scotland (formerly the General Register Office for Scotland).
Identify potential improvements/enhancements to TELMoS to assist in the development of robust policies.
Use the land-use models within the LATIS service to support the appraisal of development planning and transport interventions
- Review the model and further advise on any minor enhancements or data requirement to support the specific application;
- Define the scope of the study area, the scenarios to be assessed and the appropriate key performance indicators;
- Prepare a report with results presented graphically, in tabular format and appropriate textual information and when required present the results.
Align TELMoS model outputs to national outcomes and indicators.
Review the performance of TELMoS in predicting the effects of a change in transport and land-use supply.
Update TELMoS to reflect the changes in the transport supply.
Review the technical capabilities of the current version of TELMoS, including the software platform.
Investigate the relationship between the methodologies behind TELMoS, Housing Needs and Demand Assessments, and Housing Supply Targets.
Provide advice on the application of new data sources/technology to improve the performance and functionality of TELMoS.
Maintain the support documentation and the version control system.
Seek refinement and innovation to improve the visual representation of outputs.
Present improvements and enhancements of model developments to appropriate groups.
Provide training to any parties approved to use TELMoS.
Prepare a plan to promote TELMoS and LATIS out with the transport sector.
Support Transport Scotland in its biennial 'Assembly of Planning Policy Inputs (APPI).

Lot 4 Principle Objectives

Advise upon and agree the transport planning and appraisal undertaken to support transport projects and policies.

Undertake transport planning and appraisal required to support transport projects and policies.

Provide advice and recommendations on all matters relative to transport planning processes, the audit and assessment of study reports.

The deployment of individual staff resources within Transport Scotland as and when required.

Provide advice on, maintain and enhance transport, economic and environmental modelling tools including but not limited to NESA, PEARS and AIRE for the appraisal of transport projects and policies.

Provide advice on and prepare the Before and After Monitoring, Evaluation and Reporting of Trunk Road Projects.

Attend and prepare statements of observations, productions and precognitions associated with Public Local Inquiry or hearing or any other process associated with the procurement of projects or protection of the trunk road asset.

