

Strategic Transport Projects Review
Report 1:
Review of Current and Future Network Performance



1st May 2008



Report 1



Authorisation

Jacobs UK Ltd in association with Faber Maunsell, Grant Thornton and Tribal Consulting has great pleasure in presenting this document on behalf of Transport Scotland.

Opinions and information provided in the report are on the basis of Jacobs U.K. Limited using due skill, care and diligence in the preparation of the same and no warranty is provided as to their accuracy.

It should be noted and it is expressly stated that no independent verification of any of the documents or information supplied to Jacobs U.K. Limited has been made.

The text may be freely downloaded and translated by individuals or organisations for conversion into other accessible formats. If you have other needs in this regard please contact:

Transport Scotland
 Buchanan House
 58 Port Dundas Road
 Glasgow
 G4 0HF

Telephone: 0141 272 7100
 Email: info@transportscotland.gsi.gov.uk
 Web site www.transportscotland.gov.uk

Crown copyright, 2007, except where otherwise stated.

Copyright in the typographical arrangement rests with the Crown.

The text in this document (excluding all logos) may be reproduced free of charge in any format or medium, provided that it is reproduced accurately and not used in a misleading context. The material must be acknowledged as Crown copyright and the title of the document specified.

Authorisation & Preparation	
Prepared by:	G Duke/G Dodds/B Sloey/G Fiddes
Reviewed by:	S Turnbull / B Arrowsmith
Approved by:	W A Duff

Version History				
Version No.	Date	Change Details	Author	Approver
A	01/05/2008	Final Report for Publication	BS/GF/BA/ST	WAD

Report Acronyms	5
1 Introduction	7
1.1 Purpose of Study	7
1.2 The Structure of the Report.....	7
1.3 Setting the Policy Context	8
2 Defining and Describing the National Strategic Transport Network	10
2.1 Context	10
2.2 The National Strategic Transport Network.....	11
2.3 Urban Networks and Strategic Nodes.....	14
3 Performance Assessment Methodology.....	18
3.1 Defining the Performance Indicators.....	18
3.2 Future Demand Scenarios	21
3.3 Review of Data Sources.....	21
4 Analysis across Corridors, Urban Networks and Strategic Nodes.....	26
4.1 Introduction.....	26
4.2 Socio-Economic ‘Drivers’	31
4.3 Strategic Transport Structure	44
4.4 Travel Demand.....	60
4.5 Improving Journey Times and Connections.....	87
4.6 Reducing Emissions and Noise	105
4.7 Improving Quality, Safety, Accessibility and Affordability	111
4.8 Summary of Performance	128
5 Performance of the Urban Networks.....	134
5.1 Aberdeen.....	134

5.2	Dundee.....	164
5.3	Edinburgh.....	184
5.4	Glasgow.....	214
6	Performance of the Strategic Nodes.....	244
6.1	Inverness.....	244
6.2	Perth.....	263
7	Performance of the Corridors.....	277
7.1	Corridor 1: Inverness to Wick / Thurso and Northern Isles.....	277
7.2	Corridor 2: Inverness to Ullapool and Western Isles.....	295
7.3	Corridor 3: Inverness to Fort William and Western Isles.....	309
7.4	Corridor 4: Aberdeen to Inverness.....	326
7.5	Corridor 5: Dundee to Aberdeen.....	346
7.6	Corridor 6: Inverness to Perth.....	363
7.7	Corridor 7: Glasgow to Oban / Fort William and Western Isles.....	383
7.8	Corridor 8: Aberdeen to North East Scotland.....	408
7.9	Corridor 9: Glasgow to Perth.....	425
7.10	Corridor 10: Edinburgh to Stirling.....	446
7.11	Corridor 11: Perth to Dundee.....	465
7.12	Corridor 12: Edinburgh to Perth.....	481
7.13	Corridor 13: Glasgow to Edinburgh.....	502
7.14	Corridor 14: Edinburgh to Dundee.....	526
7.15	Corridor 15: Glasgow to Stranraer and South West.....	545
7.16	Corridor 16: Stranraer to North West England and beyond.....	571
7.17	Corridor 17: Glasgow to Inverclyde and Islands.....	588
7.18	Corridor 18: Glasgow to North West England and beyond.....	610

7.19	Corridor 19: Edinburgh to North West England and beyond.....	631
7.20	Corridor 20: Edinburgh to North East England and beyond.....	648
8	Summary	665
8.1	Introduction.....	665
8.2	Existing Transport Infrastructure	666
8.3	Socio-economic context	667
8.4	National perspective.....	667
8.5	Regional perspective.....	668
8.6	The journey to work.....	668
8.7	Journey time reliability.....	669
8.8	Emissions	669
8.9	Conclusion.....	670
9	Next Steps	671
	Technical Reference.....	672
	Appendix A – Areas of Economic Activity Technical Note	679
	Appendix B – Map showing the RTP areas.....	704
	Appendix C – International Comparisons	705

Report Acronyms

AADT	Annual Average Daily Traffic*
ATC	Automatic Traffic Counter
CCTV	Closed Circuit Television
ENEVAL	Environmental Evaluation Programme*
GDP	Gross Domestic Product
GNER	Great North Eastern Railway*
GVA	Gross Value Added.*
HGV	Heavy Goods Vehicle
HITRANS	The Highlands and Islands Transport Partnership
KSO	Key Strategic Outcome*
MVkm	Million Vehicle Kilometres
Nestrans	North East of Scotland Transport Partnership
P-&-R	Park and Ride
PT	Public Transport
RTP	Regional Transport Partnership*
SERIS	Transport Scotland database*
SEStran	South East of Scotland Transport Partnership

SMART objectives	Specific, Measurable, Achievable, Relevant, Timed objectives
SPECS	Speed Enforcement Camera System*
SPT	Strathclyde Partnership for Transport. The Regional Transport Partnership for the West of Scotland.
SRTDb	Scottish Road Traffic Database*
STAG	Scottish Transport Appraisal Guidance
STPR	Strategic Transport Projects Review
SWP	STPR Work Package
Tactran	Tayside and Central Scotland Transport Partnership
TELMoS	Transport / Economic / Land-use Model for Scotland*
TMfS	Transport Model for Scotland*

* Further explanation of term detailed in Technical Reference section

1 Introduction

1.1 Purpose of Study

In 2006 the Scottish Executive published its National Transport Strategy (NTS). This strategy outlined the vision for the country's transport network and the context for transport policy in the next 20 years. One of the mechanisms for delivering the National Transport Strategy is the Strategic Transport Projects Review (STPR), which will identify a programme of transport interventions for the period 2012 to 2022 and beyond. Jacobs, in partnership with Faber Maunsell, and supported by Grant Thornton and Tribal Consulting, has been commissioned by Transport Scotland to undertake this review. This review is made up of a number of discrete work packages:

- GWP1 – Inception Report;
- SWP2 – Overall Management of the Commission;
- SWP3 – Review of Current and Future Network Performance;
- SWP4 – Determine Expectations, Gaps and Shortfalls;
- SWP5 – Identify Potential Interventions and Sift Options;
- SWP6 – Appraise Candidate Interventions;
- SWP7 – Strategic Environmental Assessment.

Throughout the study the focus is on undertaking an evidence-based assessment covering all modes of transport. Once the performance of the current network has been carried out a number of SMART objectives will be established based on the overall framework of the three Key Strategic Outcomes (KSOs) identified in the National Transport Strategy. The appraisal and subsequent prioritisation of the interventions will be carried out in accordance with the requirements of the Scottish Transport Appraisal Guidance (STAG).

This report (Report 1) covers a number of specific tasks which have been undertaken as part of SWP3:

- Identification of the national strategic transport network;
- Definition of a set of relevant and well-defined performance indicators across all modes of transport that can be used effectively and consistently to measure current conditions and forecast future conditions;
- Assessment of the existing performance of the network, using the available TMfS and additional information; and
- Forecast of the performance of the network to 2022 using the TMfS and other information sources.

1.2 The Structure of the Report

Following this introductory chapter, the remainder of this report is set out as follows:

- Chapter 2: Defining the National Strategic Transport Network;
- Chapter 3: Performance Assessment Methodology;
- Chapter 4: Identification of issues across Urban Networks, Strategic Nodes and Corridors;
- Chapter 5: Performance of the Urban Networks;
- Chapter 6: Performance of the Strategic Nodes;
- Chapter 7: Performance of the Corridors; and
- Chapter 8: Summary
- Chapter 9: Next Steps.

Meanings of acronyms and other terms are included in the glossary and technical reference sections.

1.3 Setting the Policy Context

The STPR will be delivered in the context of:

- the Scottish Government’s high level objectives of wealthier and fairer; healthier; safer and stronger; smarter; and greener¹;
- the Scottish Government’s Economic Strategy, to create a more successful country, with opportunities for all to flourish, through increasing sustainable economic growth²;
- the current National Planning Framework, as a spatial expression of the Scottish Government’s economic, social and environmental policy taking forward spatial aspects of the economic strategy and reflecting policy commitments on sustainable economic development, climate change and regeneration³;
- the National Transport Strategy and its associated documents, with a focus on delivering the KSOs, endorsed by the Scottish Government, of: improved journey times and connections; reduced emissions; improved quality, accessibility and affordability⁴; and
- the Scottish Transport Appraisal Guidance (STAG) and its focus on objective led transport appraisal looking across the five criteria of environment; economy; safety; integration; accessibility and social inclusion⁵.

The relationship between these is illustrated in Figure 1.1.

¹ www.scotland.gov.uk/About/purposestratobj
² www.scotland.gov.uk/News/Releases/2007/11/13122603
³ www.scotland.gov.uk/Publications/2004/04/19170/35317
⁴ www.scotland.gov.uk/Topics/Transport/NTS
⁵ www.scotland.gov.uk/Topics/Transport/integrated-transport/stag

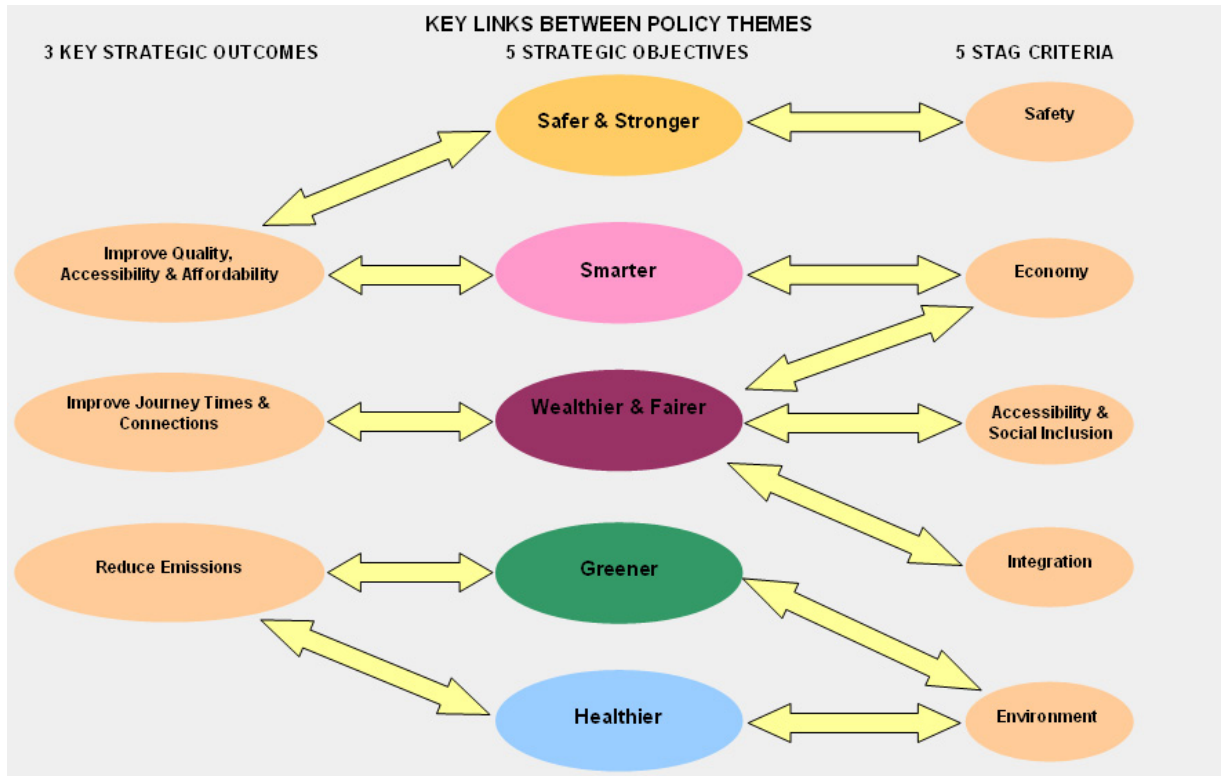


Figure 1.1: Key Links between Policy Themes