Urban / Inter-urban Interface

Transport Scotland/City of Edinburgh Council – Traffic Data Sharing

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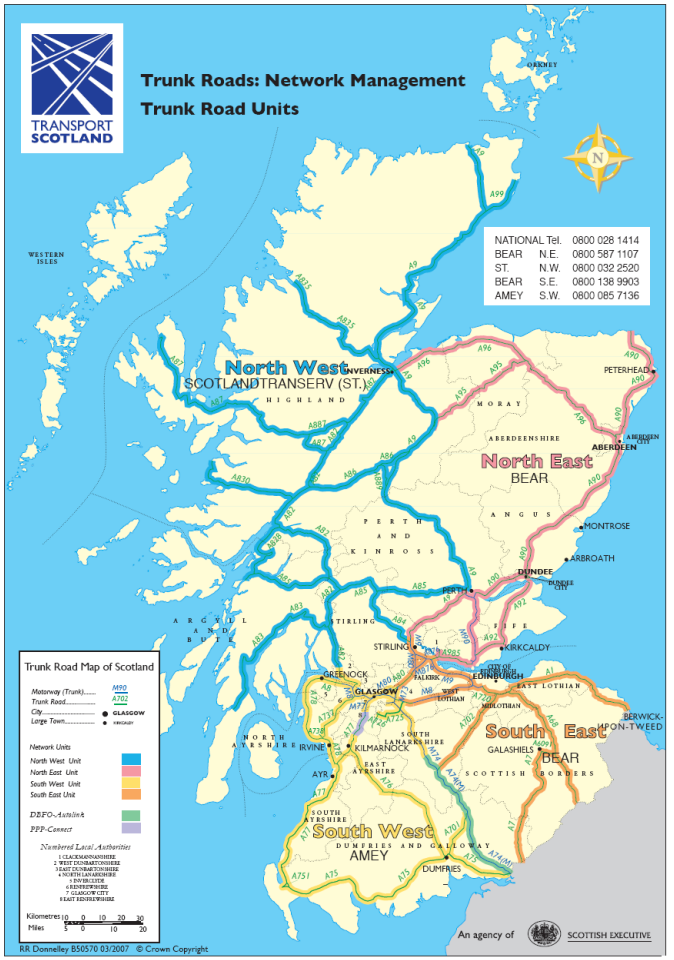
Transport Scotland

- Executive Agency of the Scottish Government

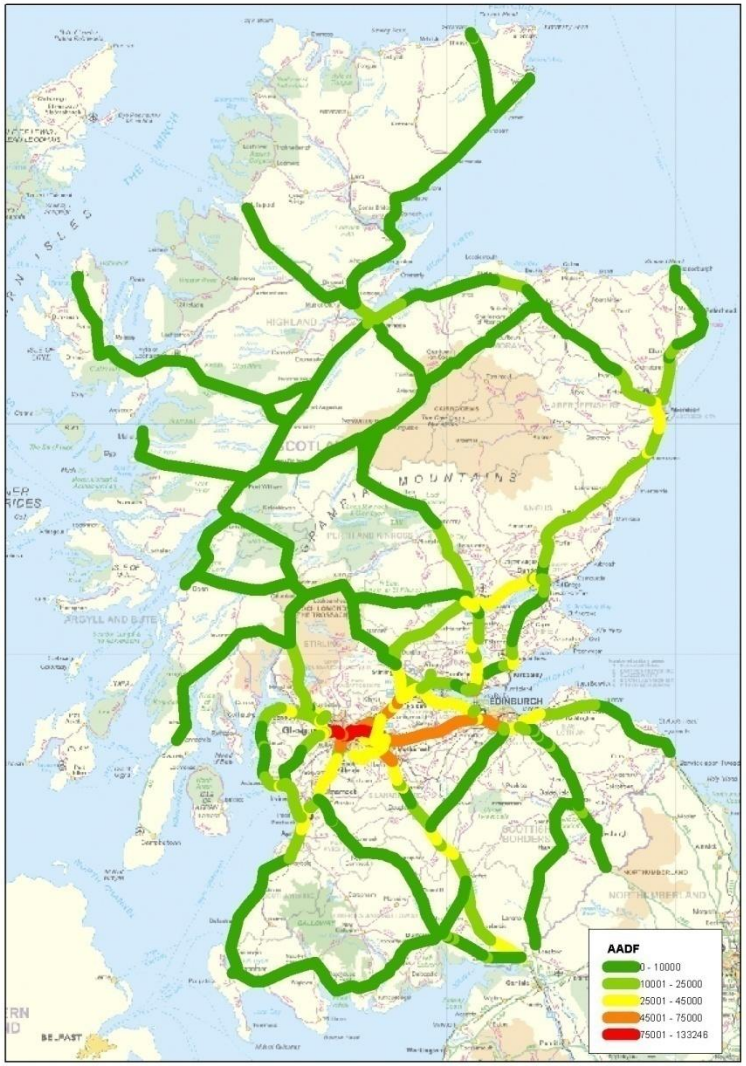
Delivery Priorities

- Improved connections across Scotland
- Better journey times, better reliability
- Greener transport alternatives, reduced emissions
- Increased safety, more innovation



The Scottish Trunk Road Network

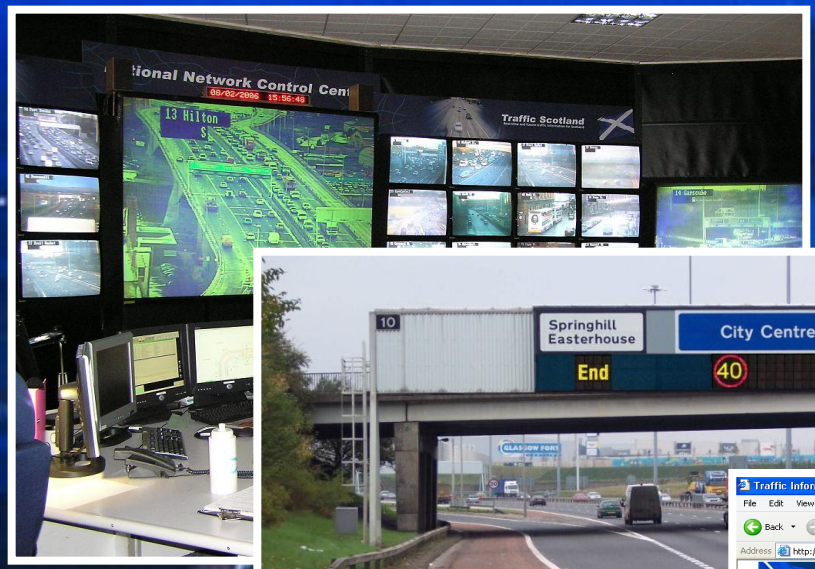
- Mix of urban, inter-urban and rural routes
- Congested conditions in the central belt
- Rural routes provide lifelines



Traffic Scotland

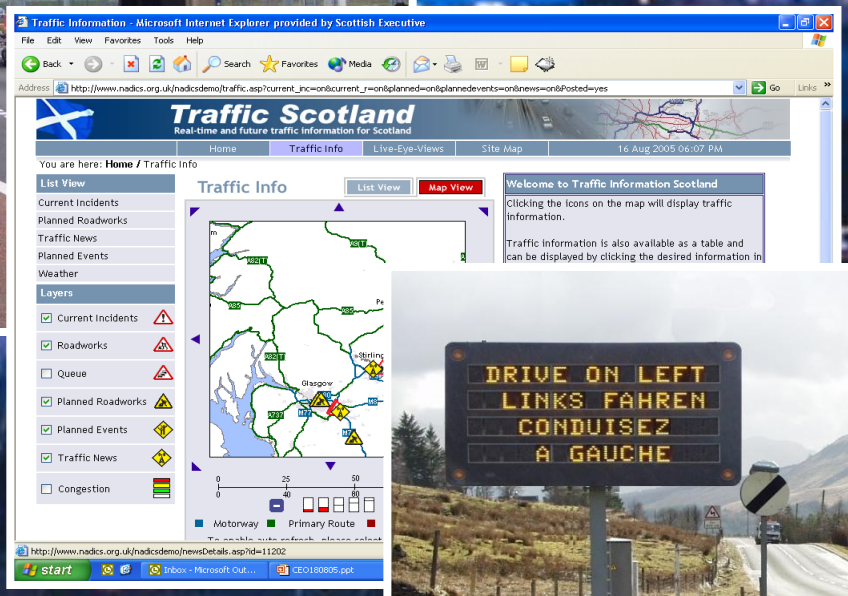
Real-time and future traffic information for Scotland

Monitor



Control

Inform



Objectives

- Provide up-to-date accurate travel information on current traffic conditions recognising the reality of a driver's journey without distinction on road type (i.e. trunk/local)
- Expansion of geographic coverage – utilisation of DATEX II to expand geographic coverage for travel information
- Co-operation between National and Local Authorities to address key corridors in and out of population centres
- Greater granularity of data to provide added benefit to users

Aim

- A more informed customer coming onto and leaving the strategic road network

TS/CEC Traffic Data Exchange – Project Background

Examine the potential of exchanging traffic information

- Between Transport Scotland (Traffic Scotland) and City of Edinburgh Council Urban Traffic Management Control (UTMC) system

‘Proof of Concept’ trial – focussing on a specific route covering both the TS and CEC road networks

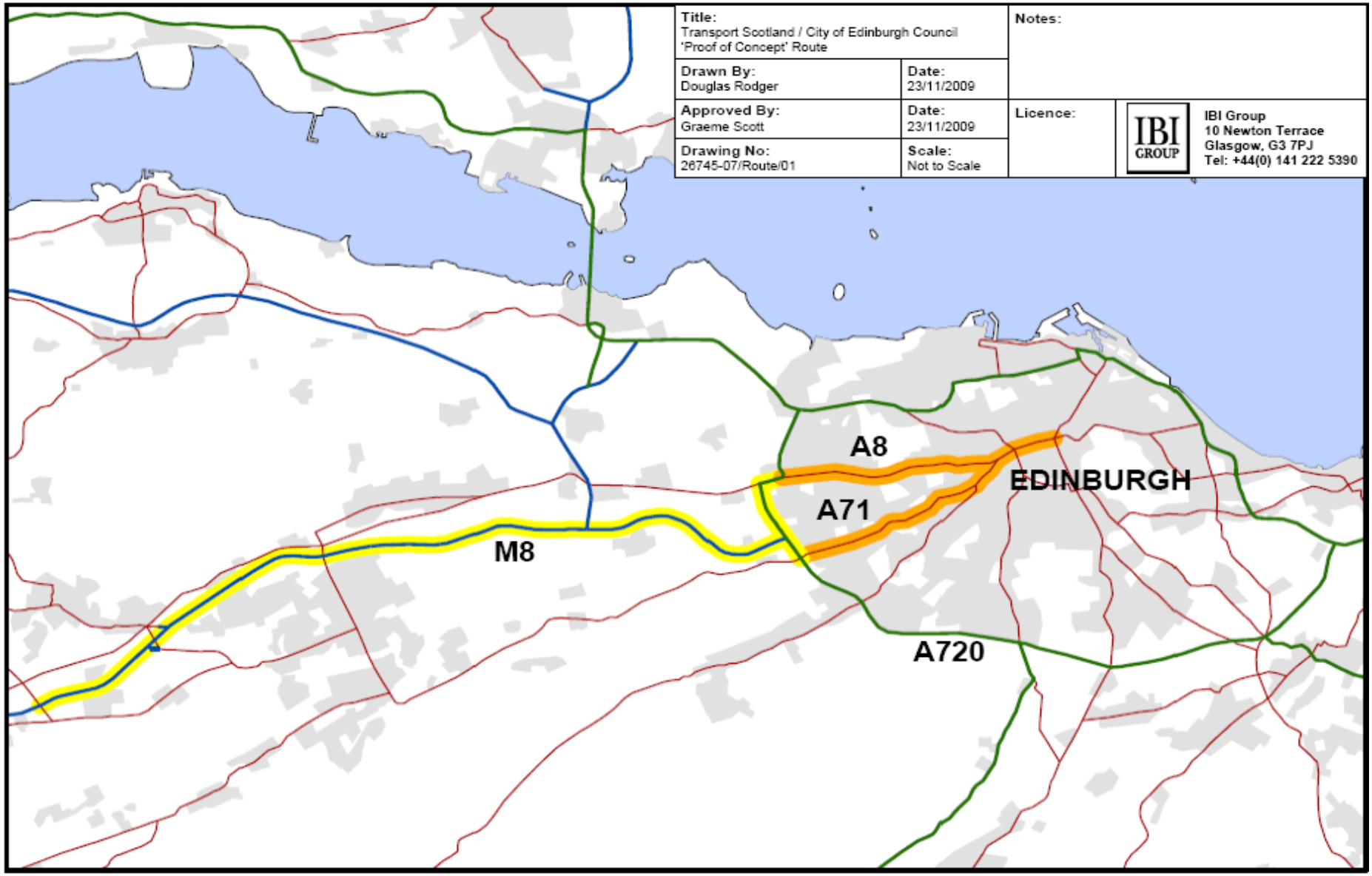
- M8 to Edinburgh City Centre via the A720 and A8 or A71

Trial will initially focus on the provision of journey time information that can be used in the following ways:

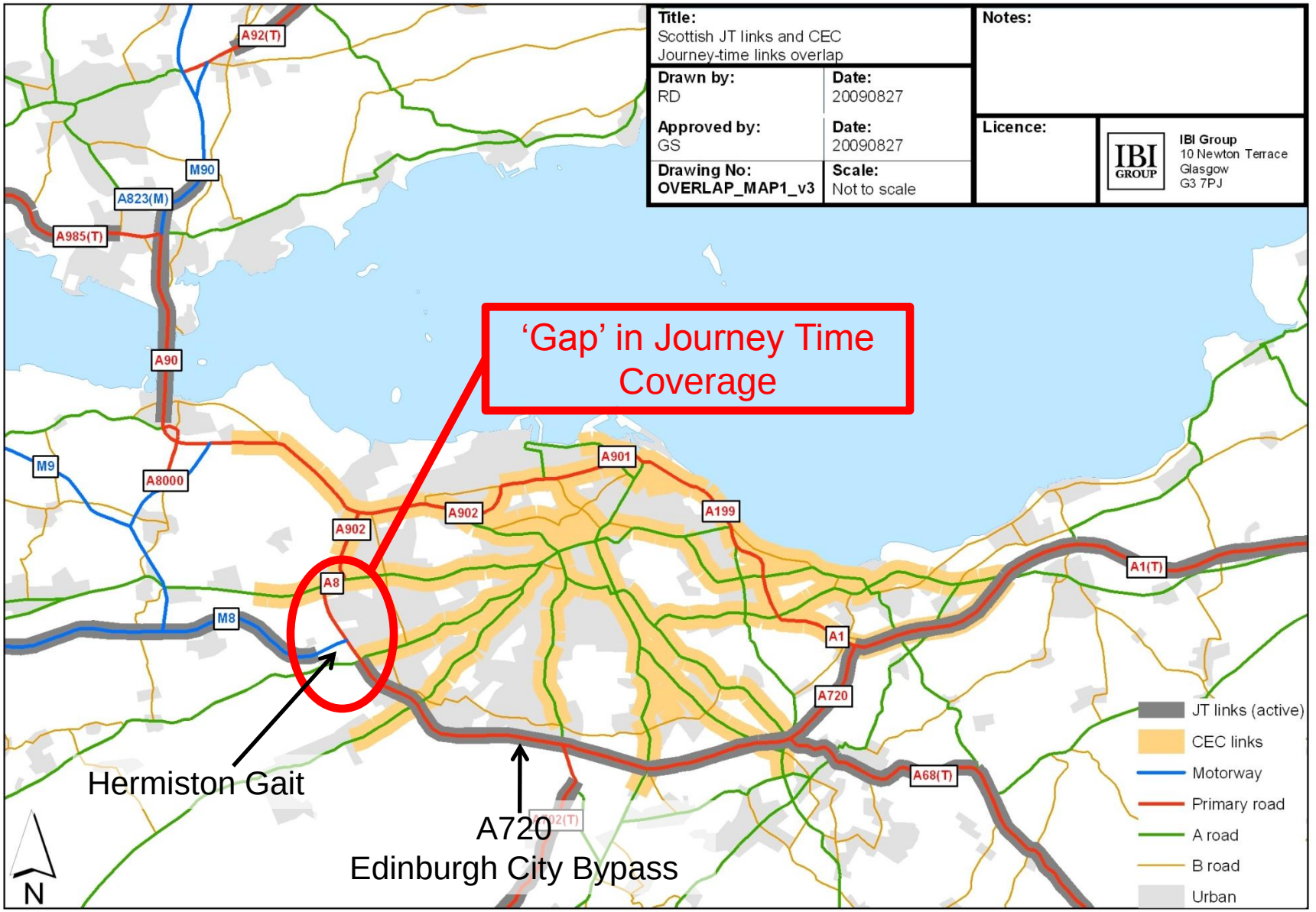
- Displayed on roadside VMS
- Displayed on TS and CEC web services

DATEX II will be utilised to exchange traffic information

Proof of Concept Route



Current TS & CEC Journey Time Coverage



Purpose

- Detailed analysis on the options that are available with regards to ‘infilling the gaps’

Giving consideration to:

- Cost
- Time to implement
- Benefits
- Constraints

- Key that recommended solution presents an efficient and robust data sharing model that can be taken forward by TS for use with other Local Authorities

Options Considered

Option 1: Existing Infrastructure

Option 2: New Infrastructure

- 2a: New TS Infrastructure
- 2b: New CEC Infrastructure

Option 3: UTMC ANPR Open Protocol

Interim Solution

- Option 1 + Option 2b – this being:
  - Integration (fusion) of data from existing monitoring sites plus the deployment of additional CEC ANPR cameras at Hermiston Gait
- Data exchange between TS and CEC via DATEX II feeds
- Can be implemented quickly and more cost effective than installing new TS infrastructure
- Allows progress while ANPR Open Protocol solution is developed
- Estimated implementation time - 4 months, by mid 2010

Long Term Solution

- Adoption of UTMC ANPR Open Protocol

UTMC ANPR Working Group – established November 2007

- Remit was to develop an open protocol for use by ANPR cameras when connecting to UTMC systems
- Provides standardised ANPR data for journey time systems
- Moves away from the use of Simple Network Management Protocol (SNMP) and embraces XML Web Service, which is used universally and can be shared with a wider audience
- Protocol is based on a camera to in-station architecture – i.e. data fed direct from out to in-station hardware
- Standards officially published in December 2009
- Website: http://utmc.uk.com/index.php
- Estimated implementation time - 12 months, by early 2011

Transport Scotland DATEX II Feed

- TS were an early adopter of DATEX II and have had an established feed since 2007
- CEC have recently implemented their DATEX II solution
- Travel time link information and calculated journey times will be exchanged between TS and CEC
- Initial focus is exchange of journey time information

- Future - additional routes published via DATEX II feed.
  - This will permit the calculation of seamless journey times for several routes to and from the trunk road network to Edinburgh City Centre

- Other future data sharing proposals
  - Event information
  - VMS legends
  - Park & Ride information

Summary / Conclusion

Delivers against objectives

- Transport Scotland
- EasyWay and European Commission

Pressure on budgets – co-operation between National and Local Governments to make best use of existing infrastructure, with cost efficiencies

Clear benefits to users

- Seamless information across inter-urban/urban divide
- Information delivered on range of media

Potential model for rollout across Scotland – and Europe?

But most importantly…

- It expands on the award-winning Traffic Scotland information Service – another original approach!

THANK YOU

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