

EFFICIENT GOVERNMENT FUND

STAGE 1 BID - JUNE 2005

**Development of a Common Framework
for Asset Management Plans
for Scottish Transport Infrastructure**

BID NUMBER (for EG use)	
LEAD BIDDER	Hugh Murdoch Aberdeen City Council hughm@aberdeencity.gov.uk Tel : 01224 522420
BRIEF DESCRIPTION OF THE AIMS OF THE PROJECT	<p>This project has been developed by SCOTS (Society of Chief Officers of Transportation in Scotland) in response to the recommendations made in the Audit Scotland report "Maintaining Scotland's Roads" and to address the Local Government in Scotland Act 2003 that encourages Councils to develop asset management plans for major assets by developing on the previous experience of SCOTS in developing and managing the 4 year Scottish Road Maintenance Condition Survey (SRMCS). This project has realised information with financial benefits through joint procurement, contract management and data collection. The subject of this bid will build upon and extend the current project delivering repeatable and comparable data.</p> <p>The project aims are :</p> <ul style="list-style-type: none">• To create a common framework for the development of transport asset management plans for all roads authorities across Scotland• Provide a single asset management protocol for all Roads Authorities in Scotland.• To collect standard inventory items to populate a national asset management dataset.• To deliver the aspirations for a better road network as set down by the Scottish Parliament by ensuring that available finances are spent in the most productive manner through common IT systems, joint procurement, project management staff, training and research and development work. <p>The project timescale is estimated at five years.</p>

<p>CLEAR DESCRIPTION OF WHAT THE EGF MONEY WOULD BE USED TO BUY</p>	<ul style="list-style-type: none"> • Professional advice, expertise and resources to develop the link between transport strategies and policies (at national, regional and local levels) and the detailed inventory of infrastructure to ensure the use of financial resources is targeted to meet specific aims • Development of single protocol to pull together diverse asset management systems. • Collection of Inventory items to propagate system. • All of the above to be carried out by dedicated programme/ project staff • The necessary IT infrastructure to support national implementation <p>Part 2 of the submission sets out in a tabulated format the nature of work to be undertaken either by the individual authorities or collectively. It is envisaged that where the work is to be done collectively this would be funded from the Efficient Government Fund.</p>
<p>PARTNERS TO THE PROJECT LIKELY TO COMMIT RESOURCES</p>	<ul style="list-style-type: none"> • 22 out of 32 Scottish Councils (to date). These are listed at Annex 1, and the remain 10 councils are currently being asked to confirm their commitment. • Scottish Executive (Transport Group), who have indicated that the bid will be supported by staff time • UK Roads Board – A bid has been made to the Roads Board for match funding the first 2 years of the project.
<p>NAMES OF OTHER ORGANISATIONS WITH WHOM THE PROJECT HAS BEEN DISCUSSED</p>	<ul style="list-style-type: none"> • CSS (County Surveyors Society) have developed a national framework for highway asset management in conjunction with other professional bodies : UK Roads Board, CIPFA, Department of Transport, Highways Agency, Technical Advisory Group, SCOTS, London Technical Advisory Group, Transport for London, Northern Ireland Roads Service and WATO (Welsh Association of Technical Officers). The framework, now owned by the UK Roads Board, provides a high level scope for the project and would be built on as the basis for national adoption of asset management standards. • A Partnership for the procurement of road asset management systems has already been established and is being developed through a Consultancy lead project involving all Welsh authorities (working together under their professional organisation – WATO) and are keen to discuss their arrangements and benefits with SCOTS. • Audit Scotland are likely to be involved in the scrutiny of these specific efficiency savings, and already are involved with SCOTS in the development of the recently revised performance indicator for road condition and the value for money study into road maintenance.

	<ul style="list-style-type: none"> • Scottish Parliament's Local Government and Transport Committee during the presentation of evidence
<p>EVIDENCE THAT SUGGESTS APPROACH HAS BEEN DEPLOYED SUCCESSFULLY ELSEWHERE</p>	<ul style="list-style-type: none"> • Joint working on roads infrastructure data collection has already been established through the Scottish Road Maintenance Condition Survey (SRMCS) project. All 32 Councils have worked together to jointly procure and manage a multi-million pound contract over 5 years, and are committed to a replacement contract in due course. • Welsh roads authorities have also worked together to procure an outline framework contract. • The County Surveyor's Society as part of the framework document produced a document on Current World-wide Practice on Asset Management which includes places such as New Zealand, Australia etc.
<p>ARE THERE ANY RESTRICTIONS TO POTENTIAL FOR ENLARGEMENT OF THE PROJECT (I.E. TECHNOLOGY, NUMBER OF PARTNERS ETC)</p>	<ul style="list-style-type: none"> • No. Project could be extended to other asset groups, or to other UK authorities.
<p>BENEFITS PROJECTED FROM THE PROJECT (OTHER THAN CASH OR TIME)</p>	<ul style="list-style-type: none"> • More effective use of financial resources through better knowledge of the infrastructure and targeting of expenditure. • Common asset management framework developed for all authorities and the Trunk Road Authority based on a common baseline of information • Potential for transferability of assets and asset management functions with the future establishment of Statutory Regional Transport Partnerships • Improved accountability for expenditure (a more robust inventory will allow improved identification of resources, ownership and where money is being spent) • Contribute to 'Whole of Government Accounting' (see www.wga.gov.uk) for authorities and Scottish Executive in terms of asset valuation and depreciation • Builds on previous SCOTS work on the SRMCS • Improved record keeping and quality/consistency of asset information • Pooling and sharing of knowledge and specialist skills • Better information for political decision makers • Development of plans with input from Communities of interest in accordance with the Guidance on Best Value published by the Scottish Ministers in 2003.

	<ul style="list-style-type: none"> Asset management Plans are a specific requirement of Roads Board Codes 																												
ESTIMATED PROJECTED BENEFITS	Estimated costs and benefits have been developed based on the costs of the SRMCS programme and an estimate of costs for one large authority. Costs at stage 1 are indicative only and would be revised to reflect the more detailed costs and apportionment at Stage 2.																												
	<table border="1"> <thead> <tr> <th>TOTAL</th> <th>2006/07 (£000)</th> <th>2007/08 (£000)</th> <th>2008/09 (£000)</th> <th>2009/10 (£000)</th> <th>2010/11 (£000)</th> <th>2011/12 (£000)</th> </tr> </thead> <tbody> <tr> <td>Project Costs</td> <td>£26.78M</td> <td>100</td> <td>3295</td> <td>5970</td> <td>5805</td> <td>5805</td> </tr> <tr> <td>Individual Approach Costs</td> <td>£47.97M</td> <td></td> <td>6110</td> <td>10395</td> <td>10710</td> <td>10250</td> </tr> <tr> <td>Net Estimated Benefits (see breakdown in Part 2)</td> <td>£20.87M</td> <td>0</td> <td>2310</td> <td>4430</td> <td>4930</td> <td>4730</td> </tr> </tbody> </table>	TOTAL	2006/07 (£000)	2007/08 (£000)	2008/09 (£000)	2009/10 (£000)	2010/11 (£000)	2011/12 (£000)	Project Costs	£26.78M	100	3295	5970	5805	5805	Individual Approach Costs	£47.97M		6110	10395	10710	10250	Net Estimated Benefits (see breakdown in Part 2)	£20.87M	0	2310	4430	4930	4730
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IS A PILOT REQUIRED – SEE GUIDANCE NOTES?	No, however, it is anticipated that there will be a need to roll out the process given that some authorities are at a more advanced position than others e.g. Scottish Executive.																												
ADDITIONALLY: WHY IS EG FUNDING REQUIRED	This bid, if successful, would allow every authority and the Scottish Executive to advance asset management in a uniform and consistent manner and timescale. In time this would allow decisions on investment to be made at a national level, seen as virtually impossible without this level of commitment. Otherwise there will be progress by some authorities with others waiting until this function becomes statutory.																												
DOES THIS PROJECT COMPLEMENTARY IN ANYWAY TO OTHER EG WORK	No.																												
IS “STAGE 2 DEVELOPMENT FUNDING” REQUESTED?	Yes.																												

EFFICIENT GOVERNMENT FUND - STAGE 1 BID

**Development of a Common Framework for Asset Management Plans
for Scottish Transport Infrastructure**

Narrative Bid

1 **Background**

Asset management is a strategic approach that identifies the optional allocation of resources for the management, operation, preservation and enhancement of the infrastructure that meets the needs of current and future customers. The Local Government in Scotland Act 2003 encourages Councils to develop asset management plans for major assets.

This EGF submission builds upon the highly successful co-operative work already undertaken by SCOTS in the development, management and outputs from the Scottish Roads Maintenance Condition Survey (SRMCS) project. This project, which involved all local authorities in Scotland, is now into the third year of the four year contract. Arrangements are in hand to review the arrangements and develop a 2nd generation contract which would feed into the wider scope of asset management.

2 **Aims and Objectives**

The recent Audit Scotland report, 'Maintaining Scotland's Roads', identified the wide scope of inventory which is required to collect information on the road asset. It also identified the lack of knowledge of the asset by many authorities, and the limited number of authorities with electronic records.

Examples of the asset inventory items identified include: road length, road classification, length swept, bridges & structures, traffic signals, street lights, road signs, illuminated signs, bollards, gullies, verges, safety fencing, pedestrian precincts, footways, trees, non-skid surfaces, retaining walls, drainage ditches, hedges, fences, road markings.

The Audit Scotland report also posed a series of questions for authorities, which can be addressed through the development of this EGF project, namely:

- commit to the requirements of the Code of Practice for maintenance management
- relate road maintenance to transport strategies
- provide asset information to support a systematic option appraisal for effective backlog maintenance work
- plan services to minimise long-term costs
- plan resources to meet policy objectives

- provide information to support priority be given to structural maintenance in budget setting processes
- link funding to condition
- enable information, condition & other supporting records to be available electronically and in a form that will allow assessment by information overlapping
- procure and develop through partnership.

This project would create a common framework for the development of transport asset management plans for all the roads authorities across Scotland.

It will also address a number of initiatives/themes identified by the Scottish Executive:

- Joint Procurement
- Shared and support services
- productive time
- internal efficiency

It would also support the views expressed at the Local Government & Transport Committee of the Scottish Parliament in January 2005 which advocated increased partnership working and procurement between authorities and where possible working with the Scottish Executive.

An EGF project for asset management will also compliment the work already being undertaken from MGF funds – Road gazetteer & Property address database (DNAS programme) – there is potential to develop this bid further in line with proposals for establishing national infrastructure and national datasets to support not only the property asset base of the country but also that of the roads and other asset bases.

3 Current Asset Management Arrangements in Participating Organisations

All Scottish authorities have some form of road asset management arrangements in place. Six authorities have now formally committed resources to invest in local systems and development of asset management plans. However, to date almost all SCOTS members have indicated in principle that they would wish to participate in this project.

4 Outline of Project Implementation

The methodology which will be adopted will include a review the systems used across Scottish Councils & the Scottish Executive to develop a framework to link information. This can be hard details (location and nature of asset) or soft details (accident records, traffic data, inspections or complaints) which when combined together build up a comprehensive picture of requirement. The deployment of GIS mapping and linked databases will be assessed. .

The process and related activities in developing asset management plans and the corresponding roles of the authorities on a collective (all authorities) or individual basis are as set out in the table below.

ACTIVITY	COLLECTIVELY	INDIVIDUALLY
Review asset management goals to ensure consistency with corporate strategies and goals		4
Carry out a review of who hold what and in what format	4	
Establish a programme for improvement of data quality, sources and collection	4	
Identify processes as to how the quality of data collected can be maintained over time	4	
Establish levels of service covering both condition and demand aspirations.		4
Involvement of users in performance targets.		4
Assess performance gaps using performance measures and other data e.g. customer feedback		4
Document the reasons for the gaps		4
Develop lifecycle plans for each part of the overall asset	4	
Consider communication strategies and standard responses	4	
Establish a process for identifying the total funding needed to meet the published Levels of Service	4	4
Establish a process of evaluating the benefits from each pound invested by using the asset information that is available	4	4
Undertake a risk assessment and identify how these could be managed	4	
Establish a process for evaluating projects including the review of outcomes and comparing benefits	4	
Produce longer term programmes, of a minimum of ten years that brings together all works on the network. Councils may wish to produce 1,5 & 10 year plans - (short, medium & long)		4
Review current service delivery methods to identify whether there is a need to change them to support an asset management approach		4
Ensure that all resources are used for data collection when the opportunity arises		4
Establish a set of performance measures which at a Strategic level should be considered as part of the KPIs and should be developed with Audit Scotland	4	
Establish a reporting regime for each level of performance information so that those who require the information get it		4

timeously		
Include a review and improvement plan that covers all desired improvements		4
Review existing performance information collected by councils and standardise on meaningful Indicators	4	

While it is envisaged that the project will initially be developed for the road asset only, it would accrue further benefits and efficiencies in future if the rest of the non-building asset, i.e. all of the infrastructure which is managed and maintained by the public sector (roads, lands & parks, woodland, rivers, coastline, harbours etc) were to be included. However this is not planned at this first stage.

5 Financial Benefits

In respect of the estimated financial benefits projected as per the Stage 1 bid, these figures are indicative, and compare the costs of undertaking the project on an individual Council basis rather than on a collective basis.

- a) **ICT System**
By establishing a single server based extranet solution to data management for some elements there would be a one off saving for hardware. Thereafter through the procurement of a joint multi-user license and maintenance agreement it is envisaged that **£330,000** could be saved annually.
- b) **Joint Procurement & Implementation**
The joint contract preparation and tendering process when compared with individual authorities producing this work would result in a one off saving of **£750,000 every 5 years** based on carriageways and other elements of the infrastructure.
When assessing the ongoing saving from a collective approach and the bulk purchasing of inventory collection, the ongoing savings are estimated at **£850,000 /year**. This figure has been derived from costs for surveys being undertaken in England on behalf of individual authorities.
- c) **Project Management**
The establishment of a project team to deliver the project on behalf of all of the local authorities rather than each managing the process themselves would derive a saving ranging from **£1.37M to £3.07M / annum** (a mid point saving has been used for estimation purposes) depending on how the team is established and how the costs are divided between authorities.
- d) **Property**
The establishment of a project team would require accommodation costs during the term of the project. On the basis of renting suitable office space and paying for service charges it is estimated to cost around **£80000 / annum**.

e) Training and R&D

A key element of developing and rolling out asset management plans will be training of staff, the management of information and the research and development aspects that would be done by some authorities. These are collectively estimated to derive saving of **£500,000/ annum** when compared to each authority undertaking this themselves. Training and development costs would be on going but would be higher in the early years.

These savings are tabulated overleaf.

There are further 'soft' benefits from developing an asset management approach collectively. Better maintained roads have the potential to reduce the severity and number of road accidents hence reducing the costs to society from these incidents. However it is not considered appropriate to place a financial benefit from these potential savings as they are not derived directly by the authorities themselves. There is also the case that there is less public liability claims as a result of greater levels of investment but again these have not been quantified as in some cases the ability of insurers to deal with claims would potentially only result in reduced premiums which in turn would be difficult to calculate for each authority.

Finally a collective approach to developing asset management plans would ensure that all authorities were deriving the best use of their limited budget by around 2011. However, an individual approach to this would mean that there would be a number of authorities outstanding at the end of this period and hence inefficiencies in expenditure. While this would not produce any direct financial benefit which can be calculated there would certainly be long term saving by making informed judgements on expenditure and on treatment (i.e. the right treatment at the right time) rather than ad hoc arrangements that currently exist in some cases.

6 Bid for Stage 2 Development

The partners are highly committed to this project and believe that there are significant economic and strategic gains to be realised with its implementation. However, it is accepted that more detailed research and analysis is required to construct a robust Business Case for the project.

It is therefore felt essential that the Scottish Executive finance the Stage 2 work necessary to prepare a robust and comprehensive Business Case for the project. The consortium therefore requests that a Stage 2 EGF allocation of £100k be considered in order to further develop the bid.

The success of the SRMCS has demonstrated a track record in joint delivery in relation to SCOTS and its members.

PART 1

ELEMENT	ESTIMATES	TOTALS	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11
		(£000)	(£000)	(£000)	(£000)	(£000)	(£000)	(£000)
Stage 2 Development Work - Consultancy	Individual Approach Costs							
	Combined Approach Costs	100	100					
	Net Projected Benefits		0					
System & Process Development	Individual Approach Costs	3300		400	560	1000	800	540
	Combined Approach Costs	150		90	60	0	0	0
	Net Projected Benefits	3150		310	500	1000	800	540
ICT System - Software Licenses & Maintenance	Individual Approach Costs	2640		0	660	660	660	660
	Combined Approach Costs	1320		0	330	330	330	330
	Net Projected Benefits	1320		0	330	330	330	330
Joint Procurement & Implementation	Individual Approach Costs	18310		3110	3800	3800	3800	3800
	Combined Approach Costs	13160		1760	2850	2850	2850	2850
	Net Projected Benefits	5150		1350	850	850	850	850
Project Management	Individual Approach Costs	16200 to 23000		1800	3600 to 5300	3600 to 5300	3600 to 5300	3600 to 5300
	Combined Approach Costs	9900		900	2250	2250	2250	2250

	Net Projected Benefits (based on mid point)	9700		900	2200	2200	2200	2200
Property	Individual Approach Costs	0		0	0	0	0	0
	Combined Approach Costs	380		60	80	80	80	80
	Projected Benefits	- 380		0	0	0	0	0
Training & R&D	Individual Approach Costs	4125		800	925	800	800	800
	Combined Approach Costs	1550		300	350	300	300	300
	Projected Benefits	2575		500	575	500	500	500
	Individual Approach Costs	44575 to 51375 (Ave 47970)		6110	10395	10710	10510	10250
	Combined Approach Costs	26780	100	3295	5970	5805	5805	5805
	Net Projected Benefits	20870	0	2310	4430	4930	4730	4470

**SOCIETY OF CHIEF OFFICERS OF TRANSPORTATION IN SCOTLAND
DEVELOPMENT OF TRANSPORT ASSET MANAGEMENT PLANS
COUNCILS CURRENTLY COMMITTED TO EGF BID**

Annex 1

Aberdeen City

Aberdeenshire

Angus

City of Edinburgh

Dumfries and Galloway

Dundee City

East Ayrshire

East Dunbartonshire

East Lothian

East Renfrewshire

Fife Council

Glasgow City

Highland

Midlothian

Moray

North Ayrshire

North Lanarkshire

Perth & Kinross

Renfrewshire

Shetland Islands

Stirling

West Dunbartonshire