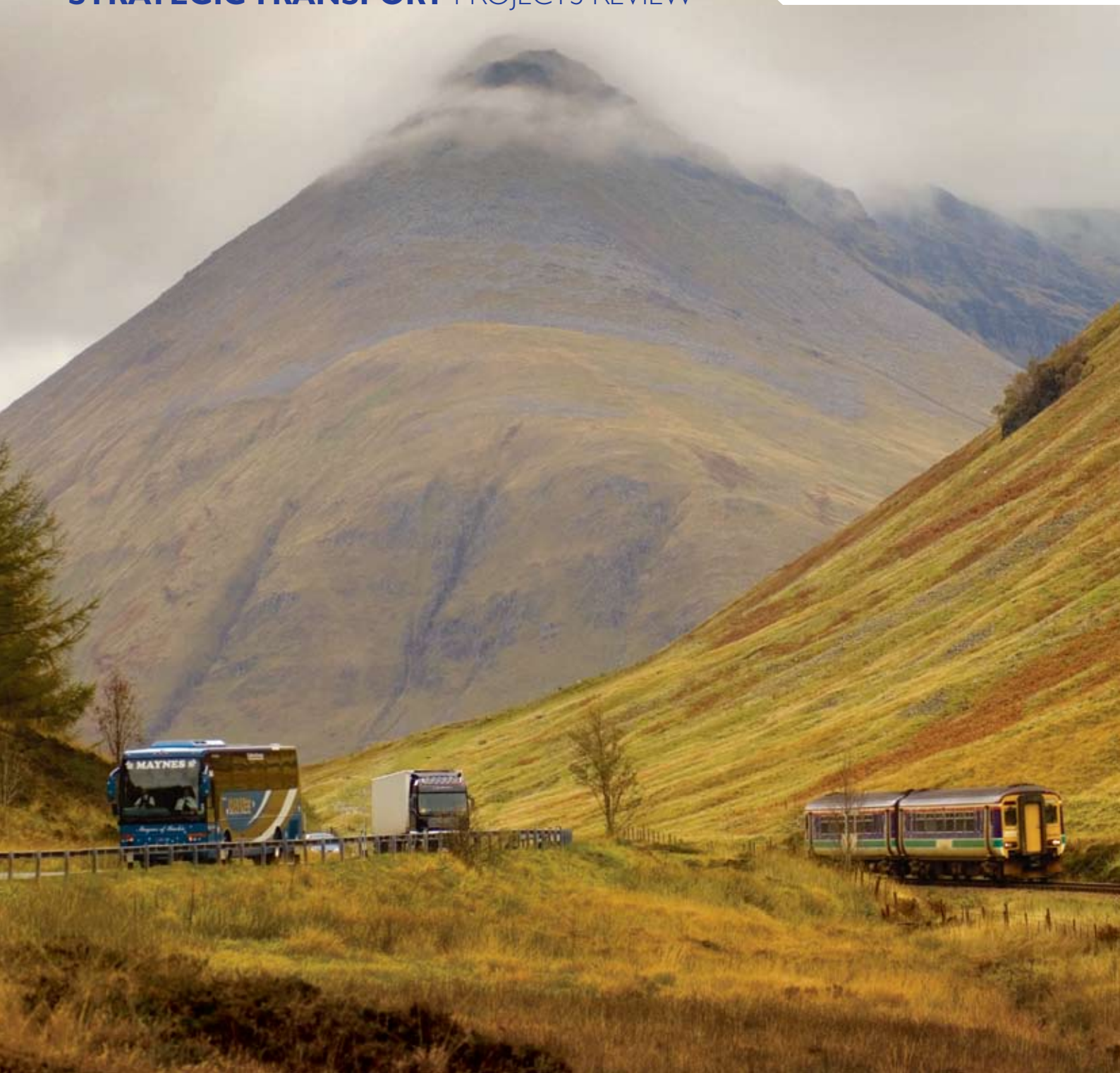


TRANSPORT SCOTLAND

STRATEGIC TRANSPORT PROJECTS REVIEW





ABOUT THE STRATEGIC TRANSPORT PROJECTS REVIEW

A safe, efficient and effective transport system is essential for Scotland and the Scottish economy. By connecting businesses and communities, we provide better access to employment and education opportunities, improving the quality of life and securing our future prosperity. Our economic success depends on good connections between our cities and towns as well as with the rest of the UK and global markets.

Transport Scotland's Strategic Transport Projects Review (STPR) supports the Scottish Government's purpose of promoting sustainable economic growth by planning the next 20 years of transport investment for Scotland's rail and trunk road networks.

Scotland's Existing Transport Network and Future Demand

While the STPR looks to the future, the Scottish Government, through Transport Scotland, is committed to spending £2.5 billion over the next three years on Scotland's strategic transport networks. We are already committing significant levels of investment to improve our transport networks across the country, including an ambitious programme of major enhancements. Projects such as the M74 completion, Aberdeen Western Peripheral Route, Glasgow Airport Rail Link, Borders Railway and support for the delivery of the Edinburgh Trams project are all either under way or in advanced planning stages, while the £120m Clackmannanshire Bridge across the Forth has recently been opened to traffic. These initiatives will bring significant benefits to communities across Scotland in advance of the packages of improvements outlined in the STPR.

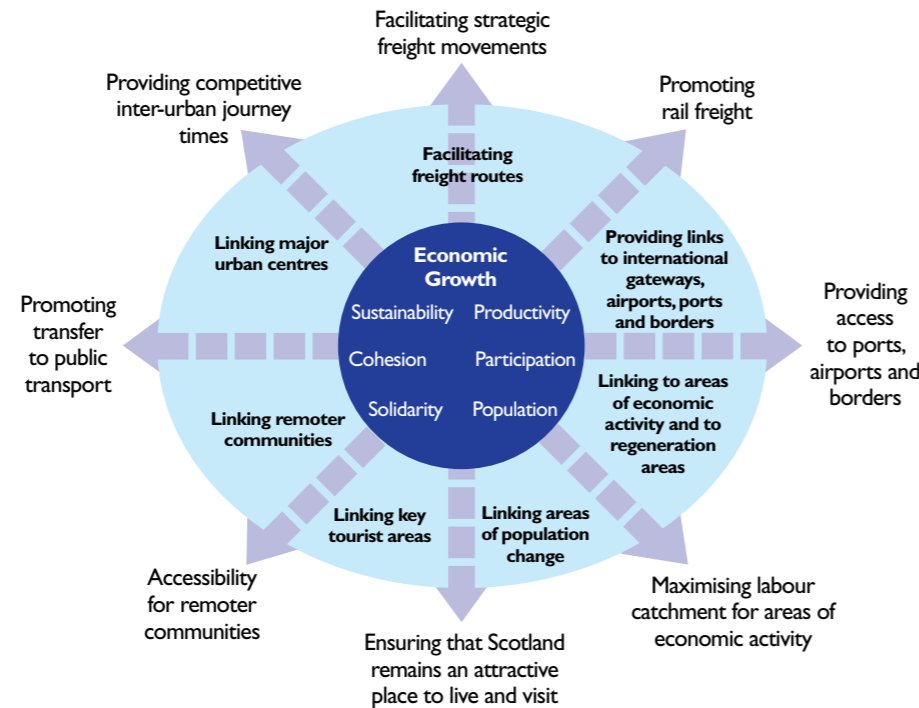
While this programme continues to make vital improvements, we recognise that there are locations where our road and rail networks can be operated more effectively or improved. Further development of rail routes between England and Scotland is also considered essential in light of their strategic importance for freight and to provide a viable alternative to air travel and the use of private cars.

The challenge for the future is to build on what has already been achieved and develop a transport system which meets the varied needs of the Scottish regions and, crucially, provides opportunities for the sustainable growth of the country's economy. The STPR takes account of various trends which will shape Scotland's transport needs in the coming 20 years. The forecast increase in population and future economic development will alter people's travel patterns.

In addressing our transport needs, it is essential that any proposals for Scotland's future transport system consider potential environmental impacts and reflect the Government's target to reduce greenhouse gas emissions by 80 per cent by 2050. Technology, land use and lifestyle changes will all drive the change in travel patterns. While transport alone cannot address the pressures future demand will create, we must ensure that transport plays its part in addressing climate change and protecting our environment.

Role of the STPR

The STPR is about delivering a strategic transport network which will benefit the whole of Scotland and deliver on the priorities set out in the Government Economic Strategy, the National Transport Strategy, the National Planning Framework and the Scottish Climate Change Bill. It identifies improvements on the national rail and road networks in Scotland to meet the challenges we face from 2012 and beyond.



A series of investment priorities were identified and developed for each of Scotland's strategic transport corridors from the cities of Aberdeen, Dundee, Edinburgh and Glasgow and the important transport centres of Perth and Inverness. The priorities were based on the outcomes of the National Transport Strategy which are:

- **Improving journey times and connections**, to tackle congestion and the lack of integration and connections in transport that impact on the potential for continued economic growth
- **Reducing emissions**, to tackle the issues of climate change, air quality and health improvement and
- **Improving quality, accessibility and affordability**, to give people a choice of public transport, where availability means better quality transport services and value for money or an alternative to the car.

A wide range of possible transport solutions were then measured against these priorities to establish whether they met the Scottish Government's purpose of contributing to sustainable economic growth.

The results have been published as a series of reports, which are available on the website www.transportscotland.gov.uk/stpr. These reports reflect the different stages of the assessment process and, together, provide the background to the transport packages of work presented in this summary.

- Report 1 Network Performance
- Report 2 Determine Expectations, Gaps and Shortfalls
- Report 3 Generation, Sifting and Appraisal of Interventions
- Report 4 Summary Report
- STPR Environmental Report

STPR PROPOSALS

Based on the investment priorities, the STPR has developed a wide range of potential transport projects across the whole of Scotland, informed by projects which had already been put forward by Regional Transport Partnerships and Local Authorities as well as new ideas developed through discussions with other stakeholders.

Across Scotland, a total of 29 major packages of work have been identified as best serving the needs of Scotland and its regions. These have been developed within a three-tiered approach as indicated below.

1. To maintain and safely operate existing assets

Investing in existing roads and rail – making sure they continue to operate safely and efficiently.



2. Make better use of existing capacity

Increasing the capacity of existing roads and rail – helping make better use of our network.



3. Targeted infrastructure improvements

New infrastructure projects – to add to the network and increase capacity to meet future needs.

In developing options, the Scottish Government has not brought forward recommendations for infrastructure improvements without first considering whether improvements in the first two categories can achieve similar results. This is a more sustainable approach to investment and will make better use of the available resources.

The STPR recognises that it is neither practical nor possible to deliver all the projects at once. It will be necessary to prioritise projects to reflect the benefits they offer, the contribution they make to the Government objectives and the future funding that is available.

Proposed STPR Projects

The 29 major packages of work outlined below have been recommended by the STPR:

Maintain and safely operate existing assets

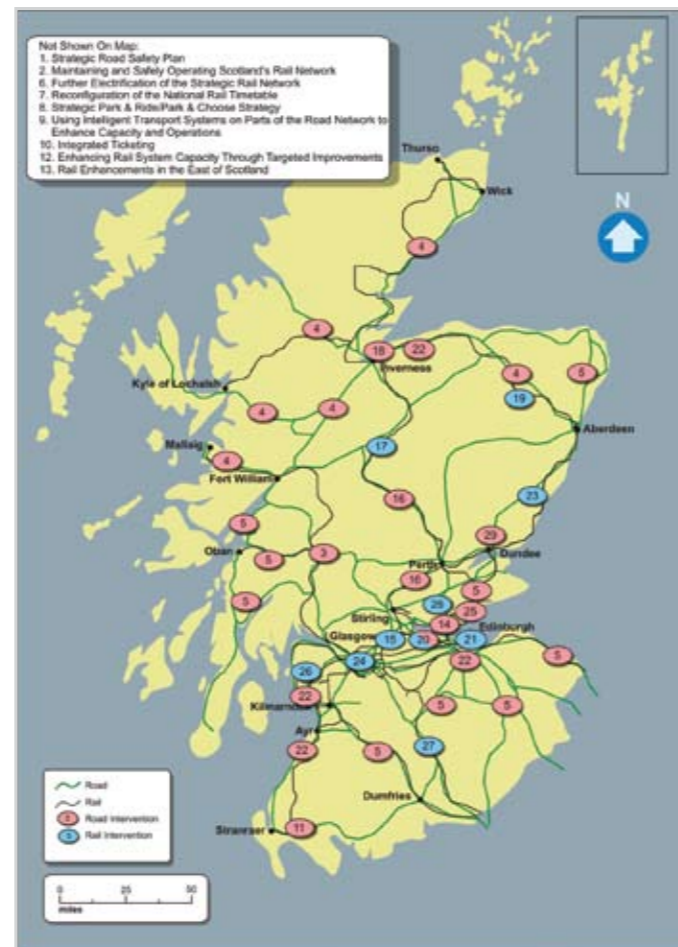
1. Strategic Road Safety Plan
2. Maintenance and safe operation of rail network
3. A82 targeted road improvements
4. Road safety improvements in North and West Scotland
5. Route management.

Make better use of existing capacity

6. Electrification of the strategic rail network
7. Reconfiguration of the National Rail Timetable
8. Strategic Park & Ride / Park & Choose sites
9. Intelligent Transport Systems
10. Integrated Ticketing
11. Improved links to Loch Ryan ports
12. Rail system enhancements
13. East of Scotland rail improvements.

Targeted infrastructure improvements

14. Forth Replacement Crossing
15. Edinburgh to Glasgow rail improvements
16. A9 upgrade from Dunblane to Inverness
17. Highland mainline rail improvements
18. A96 Inverness to Nairn upgrade
19. Rail improvements between Aberdeen and Inverness
20. Grangemouth road and rail access upgrades
21. Upgrade Edinburgh Haymarket
22. Targeted road congestion / environmental relief schemes
23. Rail improvements between Aberdeen and the Central Belt
24. West of Scotland strategic rail enhancements
25. Light Rapid Transit between Edinburgh and Fife
26. Rail enhancements between Inverclyde, Ayrshire and Glasgow
27. West Coast mainline rail freight improvements
28. Inverkeithing to Halbeath railway line
29. Dundee Northern Relief Road.



FUTURE TRANSPORT INVESTMENT FOR SCOTLAND

The STPR recommends a total of 29 transport packages which will enhance the transport network in key locations across the country.

National Transport Improvement Projects

The following nine packages of work apply across all or most of our national rail or trunk road networks.

PROJECT 1 – Strategic Road Safety Plan

Aim:

- To reduce accident rates and achieve national targets for casualty reductions by delivering the Strategic Road Safety Plan and proposed safety measures.

Transport Scotland's ten-year Strategic Road Safety Plan was published in 2007. This project is to continue the development and delivery of the plan from 2012, implementing relevant measures on the network in order to reduce the rate and severity of road accidents on Scotland's trunk roads.

Cost estimate: Between £10 and £50 million* over the ten-year period.

PROJECT 2 – Maintenance and Safe Operation of Scotland's Rail Network

Aim:

- To effectively manage and maintain the country's rail infrastructure in partnership with Network Rail.

Scotland's rail network is managed and maintained by Network Rail with funding from the Scottish Government. This project is an ongoing commitment to maintain and manage Scotland's £5 billion-worth of rail infrastructure from 2012 and beyond to ensure it is fit for purpose and used to best advantage.

Cost estimate: £3 billion over ten years.

*COSTS NOTE: Please note all costs quoted, unless otherwise indicated, are total costs for the entire improvement package and are indicative estimates only based on similar projects quoted in 2008 prices. These exclude VAT and projected costs at point of completion. Depending on future investment decisions, further detailed design and development work would provide a more informed cost estimate. The costs quoted here are offered as an indicative guide only.

PROJECT 5 – Route Management

Aim:

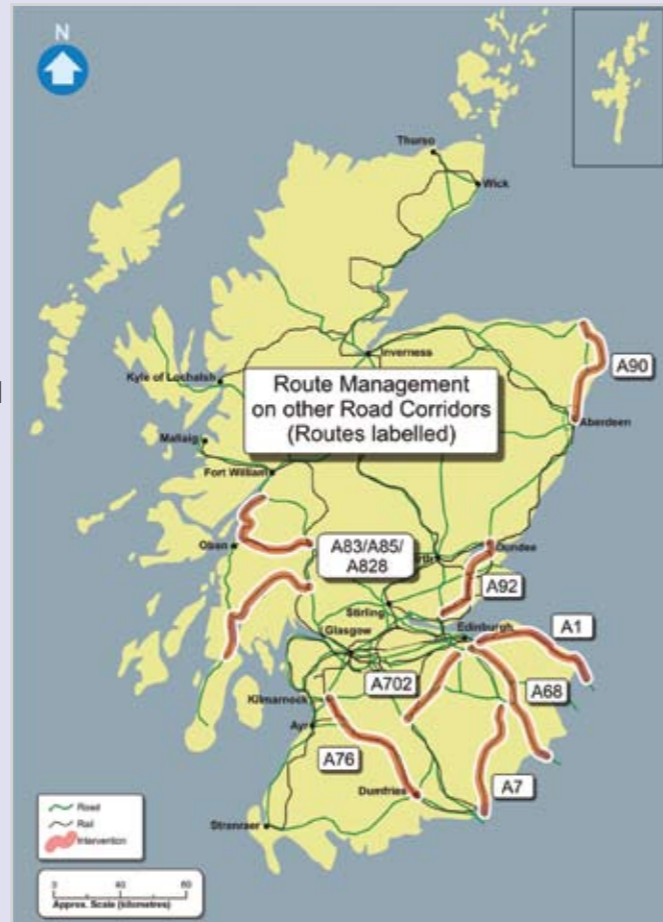
- To optimise the road network along key corridors through active route management and targeted individual investments.

This is a package of works to develop and build on Transport Scotland's programme of route management to cover:

- A90 – Aberdeen to North East Scotland
- A92 – Edinburgh to Dundee
- A76 – Ayrshire to Dumfries
- A68/A7/A702 – Edinburgh to the Scottish Border
- A1 – Edinburgh to the Scottish Border
- A83, A85 and A828.

Specific plans will ensure these roads are safe and suitably maintained for the expected levels of traffic and may, for instance, include realigning sections of road, individual junction improvements, creating 2+1 lanes, or, where appropriate, stretches of dualling.

Cost estimate: £100-£250 million* in total (budget for some works already in place).



PROJECT 6 – Electrification of the Rail Network

Aim:

- To work towards creating an electrified rail network across Scotland to reduce journey times, operating costs and emissions.

Currently, only 23 per cent of the Scottish rail network is electrified. Electrification of the network would be a long-term package of works, rolling out over sections in phases. There is already a commitment to electrification as part of the Edinburgh to Glasgow rail improvement programme. Other Central Belt routes and routes north to Aberdeen and Inverness would follow.

This large-scale project will bring significant environmental benefits, reducing energy consumption and emissions and enabling new routes and services to be introduced.

Cost estimate: £250-£500 million* for each of the five phases.

PROJECT 7 – Reconfiguration of National Rail Timetable

Aim:

- To reduce public transport journey times, particularly between Aberdeen / Inverness and the Central Belt.

This work involves re-casting the national rail timetable to provide fast, limited-stop trains for longer-distance journeys along with an adequate number of semi-fast services serving intermediate stations. This will have the effect of reducing train journey times between Aberdeen / Inverness and the Central Belt by up to 20 minutes, helping to attract passengers from cars onto rail.

Cost estimate: Less than £10 million*.

PROJECT 8 – Park & Ride and Park & Choose

Aim:

- To make public transport more competitive with the car by providing highly visible and accessible Park & Ride or Park & Choose sites on key commuter routes.

Providing new strategic Park & Ride / Park & Choose sites will encourage the use of public transport and help make city centres and employment areas more easily accessible. Potential locations have been identified, serving Inverness, Aberdeen and Dundee and sites at strategic access points to Edinburgh and Glasgow.

Cost estimate: £50-£100 million*.



PROJECT 12 – Rail System Enhancements

Aim:

- To improve the current rail system's overall operational performance by making improvements at points in the network which are operating close to capacity.

The project involves rolling out operational and relatively small-scale individual infrastructure measures which will improve efficiency, reduce journey times and allow more trains to use the network. Activities would include replacing and upgrading signalling, improving track layout at junctions and adding new loops of track and double track.

Cost estimate: £100 – £250 million*.

PROJECT 22 – Targeted Road Congestion / Environmental Relief schemes

Aim:

- To reduce conflicts between strategic and local traffic to contribute to road safety, improve journey times and reliability, reduce emissions and reduce the impact of traffic on local communities.

The project targets specific locations on the road network where improvements could help resolve conflicts between strategic and local traffic. These include:

- Upgrade of the A77 from single to dual carriageway around Ayr
- Enhancements on the A77 south of Ayr
- Enhancements on the A737 such as a bypass around Dalry
- Junction improvements for the A720 Edinburgh City Bypass
- Enhancements to the A96 such as a bypass at Nairn and a new Inveramsay Bridge.

Cost estimate: £100-£250 million*.

PROJECT 10 – Integrated Ticketing

Aim:

- To introduce a national, integrated ticketing system which will allow people to travel seamlessly on all modes of transport using one ticket.

Measures to incorporate integrated ticketing would include introducing smartcard technology, similar to schemes operating in London and other European cities, and investing in equipment at sales facilities, terminals, on buses and trams and for back-office systems. A 'one ticket' system would make public transport more accessible, easier to use and more attractive.

Cost estimate: £50 – £100 million*.

STRATEGIC TRANSPORT CORRIDOR INVESTMENTS

Each of Scotland's regions has its own unique geography and spread of population which affects the use of transport in that area. The STPR considered the needs and priorities of transport across Scotland and identified solutions. These proposed solutions are presented below under the four following key areas:

THE WEST & HIGHLANDS

Inverness – Fort William – Oban – Glasgow

Road and public transport projects being proposed in the Highlands and North West of Scotland are designed to significantly improve connections between local communities and the rest of Scotland and reduce the number of severe road accidents and fatalities, as well as improve road reliability and reduce journey times.

Improved links between the West and the Highlands and Inverness and Central Scotland will make the region a more attractive destination for business, while improvements to public transport will contribute to reducing carbon emissions. Improved connections to Inverness Airport could also be developed.

Significant improvements to major roads – including bringing a more consistent standard to the A82 between Inverness and Glasgow, and the A9 from Dunblane to Inverness – will contribute to improved safety, reliability and efficiency.

Some of the key objectives the STPR has sought to achieve in this region include:

- To continue to reduce accident rates and accident severity in the region
- To achieve journey time reductions and improve connectivity between Inverness and Central Scotland
- To improve connectivity, particularly by public transport between Inverness, areas to the west of Inverness including the airport, and Aberdeen
- To improve the operational effectiveness of the A9 and the A82 and reduce driver frustration.



PROJECT 3 – A82 Targeted Road Improvements

Aim:

- To significantly improve the standard of the A82, reducing accident rates, accident severity and cutting journey times.

In addition to a general upgrade of the route, this project would include measures such as road widening at selected locations between Tarbet and Inverarnan and between Corran Ferry and Fort William. Climbing lanes and overtaking lay-bys accompanied by road realignments, junction improvements, hard strips and safety cameras will create safer overtaking opportunities and more reliable and safer routes.

Cost estimate: £100-£250 million*.

PROJECT 4 – Road Safety improvements in North and West Scotland

Aim:

- To improve safety on key routes in North and West Scotland to reduce severe and fatal accident rates.

This project comprises a range of measures including road widening and improvement alignments, climbing and overtaking lanes, junction improvements and other safety measures at the following proposed locations:

- A9 north of Inverness – such as improvements at Tore Roundabout A835 between Inverness and Ullapool
- Safer overtaking on A835, realignments and widening in some areas
- A82 / A87 / A830 / A887 between Inverness, Fort William, Mallaig and Skye – safer overtaking opportunities, hard strips for farm traffic, realignments and junction improvements
- A96 between Aberdeen and Inverness – safer overtaking via 2+1 lanes, climbing lanes and overtaking lay-bys, hard strips for farm traffic, realignments and junction improvements.

Cost estimate: £100-£250 million*.

PROJECT 5 – Route Management

Aim:

- To optimise the road network along key corridors through active route management and targeted individual investments.

This is a package of works to develop and build on the Transport Scotland programme of route management on the A83, A85 and A828. For details of other initiatives in this project, see page 8.

PROJECT 16 – A9 Upgrade from Dunblane to Inverness

Aim:

- To reduce the number and severity of accidents and driver frustration between Inverness and Central Scotland by reducing journey times.

The proposed upgrade to the A9 would take place over two major phases. Phase one would include providing grade separated junctions on the A9 between Keir Roundabout and south of Broxden Roundabout, dual carriageway from Perth to Blair Atholl, grade separation at the Broxden and Inveralmond roundabouts and climbing lanes, overtaking sections and junction improvements between Blair Atholl and Inverness.

Phase two would see dual carriageway introduced between Aviemore and Inverness and Blair Atholl and Aviemore.

Cost estimate: Phase one – £500m to £1bn*, Phase two – £1.5bn to £3bn*.

PROJECT 17 – Highland Mainline Rail Improvements

Aim:

- To improve rail network capacity for passengers and freight between Inverness and Perth.

This package of works would comprise additional loops, double-track sections, line gauge enhancements and new and improved signals, as well as the use of more powerful traction. Together with the removal of freight train speed limits below 75 mph, this is expected to help reduce journey times by around 35 minutes making rail an attractive alternative for passengers and freight.

Cost estimate: Phase 1 – £50-£100 million*, Phase 2 – £100-£250 million*, Phase 3 – £50-£100 million*.

PROJECT 19 – Rail Improvements Between Aberdeen and Inverness

Aim:

- To reduce journey time and increase frequency of service on the train between Aberdeen and Inverness.

Improvements to the rail line between Aberdeen and Inverness as part of this proposal would include new loops and line speed improvements, dual track sections and a new station at Dalcross with Park & Ride and an interchange to Inverness Airport. This would allow the introduction of more trains per day between Inverness and Aberdeen (at least one per hour) and additional rail services between Nairn and Inverness (two per hour).

Cost estimate: £250-£500 million*.



THE NORTH & NORTH EAST Inverness – Aberdeen – Dundee

Reducing journey times by road, but particularly by rail, between Aberdeen, Dundee and Edinburgh and Glasgow is of paramount importance to allow the region to achieve sustainable economic growth. Reconfiguring the rail timetable to provide express services will greatly enhance the attractiveness of the train for this journey and allow businesses to achieve an effective working day when travelling between these centres.

Within the region and on key routes, improving road safety and reducing the number and severity of accidents is also a critical issue, as is creating and promoting the use of an integrated, accessible public transport system.

Some of the key objectives the STPR has sought to achieve in this region include:

- To continue to reduce accident rates and accident severity across the transport network
- To achieve journey time reductions by public transport and by road between the North East and the central belt
- To improve connections, particularly by public transport, between Aberdeen and Inverness
- To reduce conflicts between local and strategic traffic in Dundee
- To improve access between Aberdeen city centre, Dyce, the airport and South East Aberdeen
- To make rail freight an attractive, competitive alternative to the roads.

PROJECT 4 – Road Safety Improvements in North and West Scotland

Aim:

- To improve safety on key routes in North and West Scotland to reduce severe and fatal accident rates.

This project comprises a range of measures as previously detailed (see page 12). Measures on the A96 between Aberdeen and Inverness would include safer overtaking via 2+1 lanes, climbing lanes and overtaking lay-bys, hard strips for farm traffic, realignments and junction improvements.

PROJECT 5 – Route Management

Aim:

- To optimise the road network along key corridors through active route management and targeted individual investments.

This is a package of works to develop and build on the Transport Scotland programme of route management on the A90 between Aberdeen and North East Scotland. For details of other initiatives in this project, see page 8.

PROJECT 18 – A96 Inverness – Nairn Upgrade

Aim:

- To improve connectivity between Inverness and communities to the east, while reducing the number and severity of accidents.

This proposal would see the A96 between Inverness and Nairn upgraded to dual carriageway with a new link connecting the A96 and the A9 south of Inverness. This would bring a number of benefits to local journeys – improving access to Inverness Airport and new development at Tornagrain and reducing congestion at Raigmore junction – while also cutting long-distance journey times between Aberdeen and Inverness.

Cost estimate: £250-£500 million*.

PROJECT 19 – Rail Improvements Between Aberdeen and Inverness

Aim:

- To reduce journey time and increase frequency of service on the train between Aberdeen and Inverness.

Improvements to the rail line between Aberdeen and Inverness as part of this proposal would include new loops and line speed improvements, dual track sections and a new station at Dalcross with Park & Ride and an interchange to Inverness Airport. This would allow the introduction of more trains per day between Inverness and Aberdeen (at least one per hour) and additional rail services between Nairn and Inverness (two per hour).

Cost estimate: £250-£500 million*.

PROJECT 22 – Targeted Road Congestion / Environmental Relief schemes

Aim:

- To reduce conflicts between strategic and local traffic to improve road safety, improve journey times and reliability, reduce emissions and reduce the impact of traffic on local communities.

The project targets specific locations on the road network where improvements could help resolve conflicts between strategic and local traffic. For this region, this includes enhancements to the A96 such as a bypass at Nairn and a new Inveramsay Bridge. For details of other initiatives in this project, see page 10.

PROJECT 23 – Rail Improvements Between Aberdeen and Central Belt

Aim:

- To make travelling by rail between Aberdeen and the Central Belt more competitive than road journeys for passengers and freight.

This project will entail a number of initiatives being introduced in phases:

Phase I would include re-working the passenger train timetable on the Aberdeen – Dundee – Edinburgh – Glasgow route to provide:

- One express train an hour to Glasgow (2¼-hour journey)
- One express train an hour to Edinburgh (2-hour journey)
- Separate stopping services for intermediate stations.

Line speed improvements, additional loops, upgraded signalling along the entire length of track and more powerful rolling stock would also be introduced. An immediate improvement in journey time between Aberdeen and the Central Belt of 20 minutes would be experienced.

Phase 2 would see the doubletracking of the line at Usan near Montrose, including a new bridge over Montrose Basin.

Freight improvements would also be included in the works.

Cost estimate: Estimated £100-£250 million* for Phase 1, £100-£250 million* for Phase 2, £50-£100 million* for freight improvements.



PROJECT 29 – Dundee Northern Relief Road

Aim:

- To separate strategic and local traffic in Dundee and improve connections between Aberdeen and the Central Belt.

This project would see the provision of either a new Northern Peripheral Bypass around Dundee from the A90 west of Invergowrie to the A90 north of Dundee or upgrades to the existing A90 Kingsway such as improved roundabouts and junctions. Both options could incorporate a package of bus priority lanes, cycle lanes and pedestrian measures. The bypass option would remove around 50 per cent of traffic from the Kingsway, bringing environmental benefits to adjacent properties while reducing the journey time between Aberdeen and the Central Belt.

Cost estimate: £100-£250 million*.



CENTRAL SCOTLAND Edinburgh – Glasgow – Perth – Dundee

Edinburgh and Glasgow play a vital role in the economic success of Scotland and making the most of connections between the two cities is essential for economic growth. But their rail and road links can be congested during peak periods and this creates economic and environmental problems which together can undermine the role these centres play in supporting the nation's economy.

Without action, average journeys in and around Central Scotland are set to get slower and longer, effectively reducing the realistic employment and business catchment areas for Edinburgh and Glasgow with serious economic consequences.

Some of the key objectives the STPR has sought to achieve in this region include:

- Improving access to public transport across the region, creating more and easier options for interchange between rail, tram and bus
- Maintaining the 60-minute commutable catchment area for major employment zones in Edinburgh
- Increasing public transport capacity and frequency between Fife and Edinburgh and to and from central Glasgow
- Maintaining and enhancing the trunk road and motorway network to improve efficiency, particularly on the M8 and the Edinburgh City Bypass
- Reducing accidents and their severity across the road network serving all four cities
- Reducing train journey times between the Central Belt and cities such as Aberdeen and Inverness.

PROJECT 5 – Route Management

Aim:

- To optimise the road network along key corridors through active route management and targeted individual investments.

This is a package of works to develop and build on the Transport Scotland programme of route management on the A92 between Edinburgh and Dundee. For details of other initiatives in this project, see page 8.

PROJECT 9 – Intelligent Transport Systems on Motorway and Trunk Road Network

Aim:

- To improve journeys between and around Glasgow and Edinburgh, particularly on the urban motorway network, and support Park & Ride and Park & Choose strategies.

Initiatives will be phased in across the M8, the M90 and A90 approaching Edinburgh; the A720 around Edinburgh and the M74, M77 and M80 approaching Glasgow.

Phase 1 would bring in variable speed limits, delay information displays, ramp metering at key junctions and average speed enforcement.

Phase 2 would see the use of the existing hard shoulder as an additional lane and more extensive ramp metering.

Phase 3 would entail the use of the hard shoulder or introduction of road widening to create a lane for priority vehicles.

Cost estimate: £450 million – £1 billion* for all three phases.

PROJECT 13 – East of Scotland Rail Improvements

Aim:

- To provide more capacity and more rail services in the East of Scotland on some of Scotland's busiest rail lines.

This project will consist of a wide range of works and new initiatives, including new, more frequent or faster train services between West Calder and Haymarket, Edinburgh and Newcraighall, Edinburgh and Dunbar, Edinburgh and Cowdenbeath and Haymarket and Kirkcaldy. Additional rolling stock and new facilities to support these services would be introduced and parts of the network remodelled to include new signals and new loops of track. This project would help protect the 60-minute commutable area to Edinburgh, opening up employment opportunities, and would be expected to reduce the number of cars on the road.

Cost estimate: £250-£500 million*.

PROJECT 14 – The Forth Replacement Crossing

Aim:

- To maintain this vital East Coast transport link across the Forth in the face of uncertainty surrounding the longevity of the Forth Road Bridge.

The proposed Forth Replacement Crossing is a cable-stayed bridge across the estuary to the west of the existing Forth Road Bridge including new approach roads to connect the bridge to the trunk road network. This project also includes the provision of a dedicated multi-modal corridor giving priority to public transport and the opportunity to introduce light rapid transit between Edinburgh and Fife in the future (see Project 25). The project is vital to the protection of cross-Forth travel and the economies of Fife, Edinburgh and the East Coast of Scotland.

Cost estimate: £1.72-£2.34 billion at 2016 prices.

PROJECT 15 – Edinburgh to Glasgow Rail Improvements

Aim:

- To enhance rail services between Edinburgh and Glasgow to improve access to jobs, increase public transport capacity, reduce car journeys and encourage travel by public transport.

The Edinburgh to Glasgow rail improvements project will involve a number of elements including electrified railway between Edinburgh and Glasgow, a new station at Gogar to serve Edinburgh Airport and a new curve at Dalmeny to enable access to the new station. This would allow six trains per hour to run between Edinburgh and Glasgow Queen Street and three trains per hour between Edinburgh and Glasgow Central. It would also give access to Edinburgh Park for Edinburgh to Glasgow services.

Cost estimate: £500 million-£1 billion*.



PROJECT 20 – Grangemouth Road and Rail Access Upgrades

Aim:

- To improve rail access to Grangemouth port and the freight hub and road access to and from the motorway network.

On the roads, the Grangemouth project will involve an upgrade to Junction 6 on the M9 and the A801 between Grangemouth and the M8. On the rail, it would see electrification of the railway between Coatbridge and Grangemouth, track modifications to improve access from the west and east and an increased loading gauge to allow larger containers to be carried by train. This project will help serve existing and developing industrial and distribution facilities along the M8.

Cost estimate: £100 million – £250 million*.

PROJECT 21 – Upgrade Edinburgh Haymarket

Aim:

- To significantly improve the public transport interchange in Edinburgh, improving links to the airport and enhancing rail capacity.

The Haymarket upgrade project is about improving platform level access at Edinburgh Haymarket and developing a new concourse on platform level. This will help ensure the interchange is able to cope with the anticipated 50 per cent increase in rail demand forecast for between 2005 and 2022 and create opportunities for passengers to transfer between rail, tram and bus, making it easier to get around the city and to key locations such as the airport.

Cost estimate: £50-£100 million*.

PROJECT 22 – Targeted Road Congestion / Environmental Relief Schemes

Aim:

- To reduce conflicts between strategic and local traffic to contribute to road safety, improve journey times and reliability, reduce emissions and reduce the impact of traffic on local communities.

This is a national project targeting specific locations on the road network where improvements could help resolve conflicts between strategic and local traffic. In this region, this includes junction improvements for the A720 Edinburgh City Bypass. For details of other initiatives in this project, see page 10.

PROJECT 24 – West of Scotland Strategic Rail Enhancements

Aim:

- To increase rail capacity in central Glasgow and increase public transport access to areas of economic activity and to key public services.

This project includes a wide range of measures to improve capacity and cross-city travel in Glasgow. The development of this project will build on improvements to be delivered through the Edinburgh to Glasgow Improvements Programme. Significant works could include developing a Metro/Light Rapid Transit network across Glasgow and/or a new city centre station.

Cost estimate: £1.5 billion-£3 billion*, with some extending beyond 2022.

PROJECT 25 – Light Rapid Transit between Edinburgh and Fife

Aim:

- To increase public transport capacity between Fife and Edinburgh and support proposed national transport developments at Rosyth, the Forth Replacement Crossing and Edinburgh Airport.

This project is dependent on the Forth Replacement Crossing and, although it is still in the early stages of development, it could include provision of a bus-based rapid transit service as part of the Forth Replacement Crossing, development of a new public transport interchange at Gogar and provision of priority bus lanes and Park & Ride facilities.

Cost estimate: £10-£50 million*.

PROJECT 28 – Inverkeithing to Halbeath Railway Line

Aim:

- To reduce train journey times from Edinburgh to Perth, Aberdeen and Inverness and local Fife services and improve access to the port of Rosyth.

This project would involve the construction of a direct, dual-track rail link between Inverkeithing and Halbeath with new rail junctions at each location. A Park & Ride facility would be provided at Halbeath. These works would assist commuters to Edinburgh, long-distance train passengers and provide more efficient freight access to the port of Rosyth.

Cost estimate: £100-£250 million*.



CENTRAL SCOTLAND TO SCOTTISH BORDER Glasgow & Edinburgh – Loch Ryan – Scottish Border

Scotland's economic success depends on good connections between our cities, with the rest of the UK and with global markets, meaning that connections to the main ports, airports and border crossings, both by road and rail, are of particular significance.

The A75, which links Loch Ryan, Stranraer and Dumfries, together with the A77 heading north to Central Scotland, and also the rail link to Stranraer, all experience difficulties in terms of capacity and speed and require improvements.

Enhancing the rail and road networks linking Glasgow with the Scottish Borders will help to increase rail capacity, reduce journey times and promote efficient and effective transport links. Improvements to the road networks will also help reduce emissions and, more importantly, accident rates.

Some of the key objectives the STPR has sought to achieve in this region include:

- Increasing the proportion of freight travelling by rail
- Making better use of the available road space and managing peak demand
- Contributing to reducing emissions
- Reducing accident rates and accident severity on the strategic road network.

PROJECT 5 – Route Management

Aim:

- To optimise the road network along key corridors through active route management and targeted individual investments.

This is a package of works to develop and build on the Transport Scotland programme of route management on the A76, A68, A7, A702 and A1. For details of other initiatives in this project, see page 8.

PROJECT 11 – Improving Links to Loch Ryan Ports

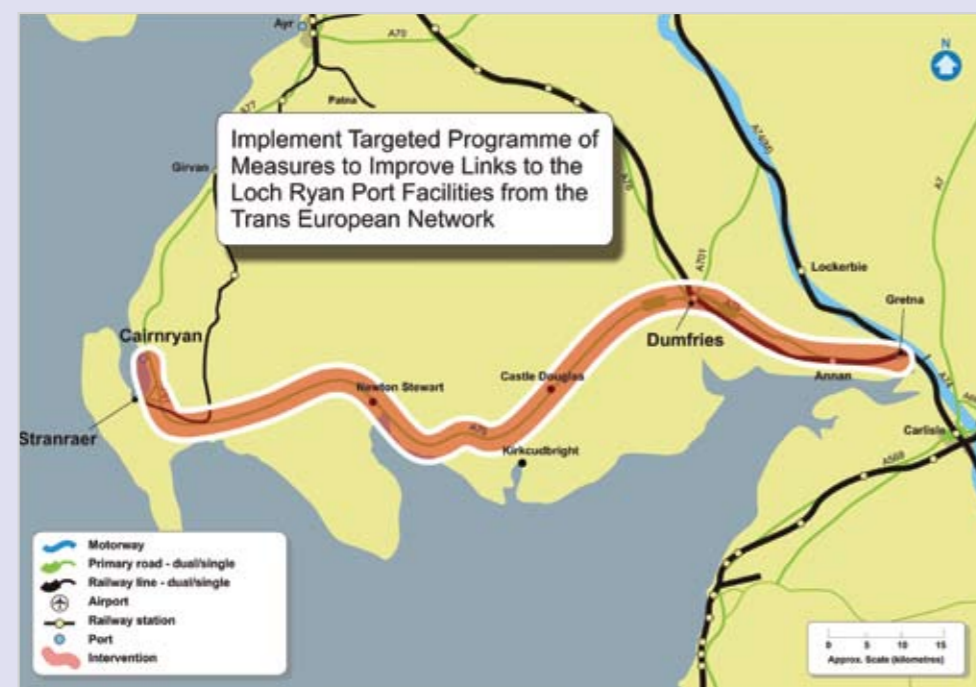
Aim:

- To ensure that there are efficient and effective transport links to port facilities at Loch Ryan and a safer, more efficient route along the A75.

In addition to widening three sections of the A75, which is already committed, this project will involve the introduction of 2+1 sections and climbing lanes, overtaking lay-bys, improvements to the junctions in and around Dumfries, improvements to the A751 at Stranraer and the introduction of intelligent transport systems to provide driver information on the A75.

These measures would be expected to significantly reduce accidents and improve journey times and reliability for drivers and for freight.

Cost estimate: £10-£50 million*.



PROJECT 22 – Targeted Road Congestion / Environmental Relief Schemes

Aim:

- To reduce conflicts between strategic and local traffic to contribute to road safety, improve journey times and reliability, reduce emissions and reduce the impact of traffic on local communities.

This is a national project targeting specific locations on the road network where improvements could help resolve conflicts between strategic and local traffic. In this region, these include upgrading the A77 from single to dual carriageway around Ayr, enhancing the A77 south of Ayr and improving the A737, possibly by way of a bypass around Dalry. For details of other initiatives in this project, see page 10.

PROJECT 26 – Rail Enhancements Between Inverclyde, Ayrshire and Glasgow

Aim:

- To increase rail capacity and reduce journey times between Inverclyde, Ayrshire and Glasgow.

This project is likely to require the following infrastructure enhancements:

- Signalling upgrades between Kilwinning and Paisley
- Reopening the line from Elderslie to Paisley Canal
- Electrifying existing Paisley Canal branch
- Increasing track capacity between Glasgow and Paisley
- Turnback facilities, extended loops and new loops at various points on the lines
- Additional platform capacity at Glasgow Central and general improvements to stations along the route.

This would allow the introduction of four trains per hour between Glasgow and Ayr, Glasgow and Kilmarnock, and Glasgow and Gourock, based on a two semi-fast, two stopping timetable. Four trains per hour could be provided between Glasgow and Johnstone with two trains per hour between Glasgow and Wemyss Bay.

Cost estimate: £250-£500 million*.

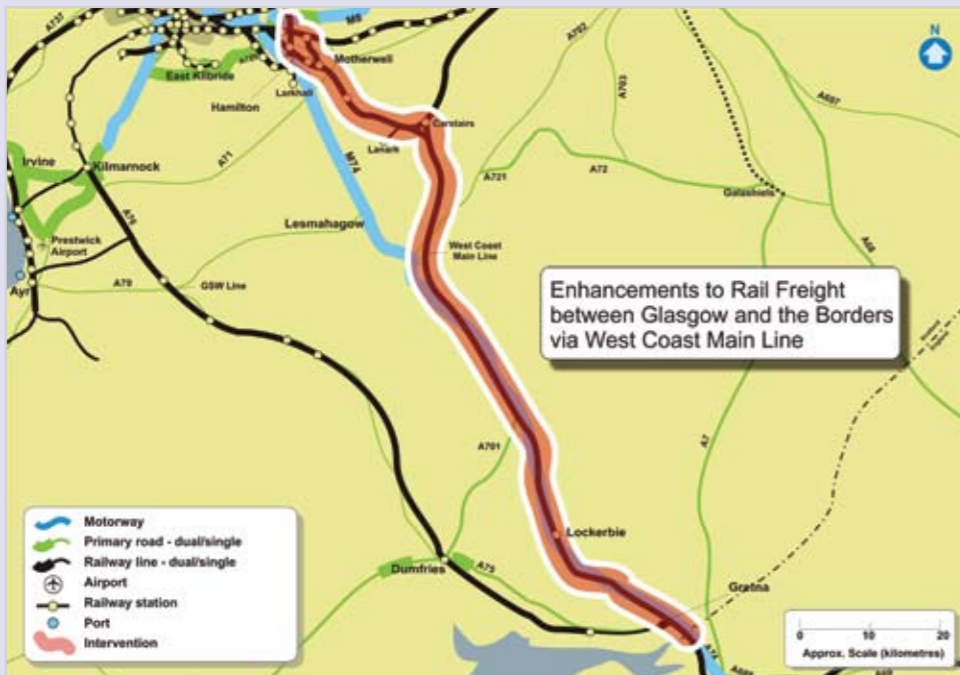
PROJECT 27 – West Coast Mainline Rail Freight Improvements

Aim:

- To provide greater opportunity to move freight by rail rather than road between Scotland and England.

This project could interact with any similar proposals developed by the Department for Transport on the West Coast mainline south of Carlisle. Examples of work between the Border and Glasgow would be lengthening of loops of track, removing speed limits below 75mph for freight trains and increasing the loading gauge and freight terminal capacity. A new line would be provided between Mossend and Coatbridge which would involve the construction of an overbridge across the A8 and M8.

Cost estimate: £250-£500 million*.



NEXT STEPS

The STPR has recommended packages of proposed investments for the period 2012 and beyond. This is the start of a process that will help inform Ministers' future decisions on transport spending for Scotland.

The projects within the scope of the STPR provide only a part of the overall investment in transport in Scotland. There are also many other projects which are outside the scope of the review and are the responsibility of Regional Transport Partnerships and Local Authorities, but which will still help significantly improve transport provision in Scotland. The works proposed here are additional to those schemes which have already been committed.

Some of the packages of work recommended in the STPR are already under way or are in preparation. Decisions on further transport projects will be based on the funding that is available. As the next stage in the process, Transport Scotland will be working to establish how to progress and ultimately deliver this next round of improvements.

Feedback and Further Information

For more detailed information about the projects proposed in the STPR or about the STPR commission, visit www.transportscotland.gov.uk/stpr or email stpr@transportscotland.gsi.gov.uk

Further copies of this document are available, on request, in audio and large-print formats and in community languages, please contact:

اس دستاویز کی مزید کاپیاں آڈیو کیسٹ پر اور بڑے حروف کی چھپائی میں اور کیوئی کی زبانوں میں طلب کیے جانے پر دستیاب ہیں، برائے مہربانی اس پتے پر رابطہ کریں:

এই ডকুমেন্ট-এর (দলিল) অতিরিক্ত কপি, অডিও এবং বড়ো ছাপার অক্ষর আকারে এবং সম্প্রদায়িক ভাষায় অনুরোধের মাধ্যমে পাওয়া যাবে, অনুগ্রহ করে যোগাযোগ করুন:

Gheibhear lethbhreacan a bharrachd ann an cruth ris an èistear, ann an clò mòr agus ann an cànan coimhearsnachd. Cuir fios gu:

इस दस्तावेज़/कागज़ात की और प्रतियाँ, माँगे जाने पर, ऑडियो टैप पर और बड़े अक्षरों में तथा कम्युनिटी भाषाओं में मिल सकती हैं, कृपया संपर्क करें:

ਇਸ ਦਸਤਾਵੇਜ਼/ਕਾਗਜ਼ਾਤ ਦੀਆਂ ਹੋਰ ਕਾਪੀਆਂ, ਮੰਗੇ ਜਾਣ 'ਤੇ, ਆਡਿਓ ਟੇਪ ਉੱਪਰ ਅਤੇ ਵੱਡੇ ਅੱਖਰਾਂ ਵਿਚ ਅਤੇ ਕੰਮਿਊਨਿਟੀ ਭਾਸ਼ਾਵਾਂ ਦੇ ਵਿਚ ਮਿਲ ਸਕਦੀਆਂ ਹਨ, ਕ੍ਰਿਪਾ ਕਰਕੇ ਸੰਪਰਕ ਕਰੋ:

此文件有更多備份，如果需要，語音版本和大字體版本及少數種族語言版本也可提供，請聯絡：

يمكن أن تطلب النسخ الأخرى من هذا المستند كالتسجيل الصوتي والخط الكبير ونسخ بلغات أخرى، يرجى الإتصال على:

Aby otrzymać niniejszy dokument w innej wersji językowej, na kasecie lub w wersji z powiększonym drukiem, prosimy o kontakt:

info@transportscotland.gsi.gov.uk or phone **0141 272 7100**

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