

Getting on Track

Scotland's rail network has the potential to help address some of the medium to longterm challenges facing the nation, such as achieving Net Zero, reducing depopulation and growing the economy. But that potential can only be realised through ambitious thinking, something which is lacking at present.

Consider the following: the distance between Edinburgh and London is roughly 395 miles and would take more than seven hours to drive. By train it takes about 4 hours 20 minutes.

Edinburgh to Inverness is 156 miles, less than half the distance, and takes just over three hours to drive. However, by train it takes more than three-and-a-half hours. Despite the endless arguments around the failure to dual parts of the A9, it is still quicker to drive than to take the train - a reality that is sadly common in many parts of the country.

From an economic, environmental and social perspective this situation is damaging.

While fast and regular links between Scotland and London are essential, what opportunities are we missing within Scotland because of poor internal connectivity?

The Scottish Government's rail improvement programme is welcome, but there is no real discussion about potential long-term, transformational projects.

Reform Scotland believes that the Scottish Government needs to establish a Scottish Rail Infrastructure Commission which would examine the state of our railways and consider projects which could bring the generational benefits the nation desperately needs.

The case for a Scottish rail Infrastructure Commission

In 1990, total Scottish emissions were 81.9 MtCO2e, with domestic transport accounting for 13.6 MtCO2e.

By 2021, although overall emissions had fallen to 41.6, domestic transport had only declined slightly to 10.6. Since 2015 it has overtaken energy supply as the biggest contributor to Scotland's emissions.¹ If Scotland is to reach Net Zero by 2045, reducing domestic transport use, and private car use in particular, has to be a priority.

¹ <u>Scottish Energy Statistics Hub (shinyapps.io)</u>



While policies such as low emission zones may help, public transport and active transport alternatives must also be available, affordable and convenient in order to convince people to change their habits.

ScotRail has estimated that travellers can reduce roughly 70% of the CO2 output from their journey by switching from road to rail. This increases to 90% if it is an electric train.² While there is a busy and well-used rail network around the central belt of Scotland, rail links outside of this are less attractive and can in fact take longer than driving, as the following tables illustrate.

	Glasgow	Aberdeen	Dundee	Stirling	Perth	Dunfermline	Dumfries	Inverness	Stranraer		
Edinburgh	46	126	56	37	43	18	72	156	132		
Glasgow		144	81	26	59	40	76	168	87		
Aberdeen			67	120	86	112	209	103	230		
Dundee				55	22	47	145	136	165		
Stirling					34	24	91	143	112		
Perth						28	123	112	144		
Dunfermline							104	141	125		
Dumfries								233	72		
Inverness									254		

Table 1: Approx distance in miles (according to google maps between train stations)

Table 2: Approx Travel time by car (according to google maps between train stations)

	Glasgow	Aberdeen	Dundee	Stirling	Perth	Dunfermline	Dumfries	Inverness	Stranraer
Edinburgh	1hr 20min	2hr 35min	1hr 24min	1hr 13min	1hr 8min	47min	2hr 10min	3hr 9min	3hr 3min
Glasgow		2hr 42min	1hr 29min	41min	1hr 10min	54min	1hr 28min	3hr 9min	2hr 5min
Aberdeen			1hr 18min	2hr 17min	1hr 45min	2hr 9min	3hr 49min	2hr 48min	4hr 36min
Dundee				1hr 1min	31min	54min	2hr 43min	2hr 40min	3hr 23min
Stirling					43min	38min	2hr 6min	2hr 44min	2hr 31min
Perth						37min	2hr 18min	2hr 16min	3hr 4min
Dunfermline							2hr	2hr 43min	2hr 47min
Dumfries								4hr 14min	1hr 35min
Inverness									5hr 12min

² <u>https://www.scotrail.co.uk/about-scotrail/news/scotland%E2%80%99s-railway-track-be-net-zero-2035</u>

	Table 3: Fastest travel time by train according to ScotRail website											
Key		More than 15mins		More than 5mins		No real difference		More than 5 mins		More than 15mins		
		faster by train		faster by train		(+ or – 5 mins either way)		slower by train		slower by train		

	Glasgow	Aberdeen	Dundee	Stirling	Perth	Dunfermline	Dumfries	Inverness	Stranraer
Edinburgh	50m	2hr 20min	1hr 10min	v	1hr	31min	2hr	3hr 34min	4hr 30min
					18min		(1 change)		(2 changes)
Glasgow*		2hr 32min	1hr 21min	26min	56min	1hr 34min	1hr 44min	3hr 18min	2hr 36 min
						(1 change)			(2 changes)
Aberdeen			1hr 4min	2hr	1hr	2hr 30min	4hr 32min	2hr 12min	5hr 42min
					28min	(1 change)	(2 changes)		(3 changes)
Dundee				51min	19min	1hr 12min	3hr 27min	2hr 33min	5hr 23min
						(1 change)	(2 changes)	(1 change)	(3 changes)
Stirling					29min	1hr 19min	2hr 58	2hr 29min	4hr 9min
						(1 change)	(2 changes)		(3 changes)
Perth						1hr 2min	3hr 43min	2hr 9min	4hr 15min
							(2 changes)		(3 changes)
Dunfermline							3hr 9min	4hr	5hr 1min
							(2 changes)	(2 changes)	(3 changes)
Dumfries								5hr 57min	3hr 43min
									(1 change)
Inverness									7hr 7min
*=1 6									(4 changes)

*The fire at Ayr station will have had an impact on estimated travel times due to the need to use replacement bus services. On the ticket search we used 'any' Glasgow and Dunfermline stations

Edinburgh to Aberdeen is roughly the same distance as London to Birmingham, and both journeys would take roughly the same time to drive. However, while Edinburgh to Aberdeen by train is at best 15 minutes quicker than by car, or about 10% less travel time, the fastest train journey between London and Birmingham is one hour 37 minutes – a saving of about an hour, or nearly 40% faster.

Dumfries to Aberdeen is just over 200 miles and would take roughly three hours 49 minutes to drive, but the fastest train would take longer at just over four-and-a-half hours and with a change. Dumfries to London is roughly 339 miles and would take about six hours 20 minutes to drive. By train the fastest journey is roughly four hours eight minutes, again with a change of train. Despite the huge difference in distance, it is quicker to reach London by train than Aberdeen from Dumfries.

Stranraer train station is the nearest railway station to Cairnryan ferry port, connecting Scotland with Northern Ireland. There are six ferries daily to Belfast and six to Larne.³ This is an important connection point. However, travelling by train from Stranraer is far from easy, as illustrated.

³ Cairnryan Ferries: Port Info & Travel Guide | Ferryhopper

The Scottish Government's work on rail infrastructure

Despite these challenges, the Scottish Government continues to invest heavily in our rail network. Since 2007, over £11bn has been spent on rail infrastructure, including £1bn in the last 10 years to electrify 441 kilometres of track. Projects have included⁴:

- The Edinburgh Glasgow Improvement Programme
- Stirling, Dunblane and Alloa electrification
- Shotts Line electrification
- Reston station
- Motherwell Station
- Aberdeen to Inverness
- Highland Main Line Improvements

Additional projects are underway, including:

- East Kilbride Enhancements
- Levenmouth Rail Link
- Barrhead to Glasgow Electrification
- 25kV Feeder Stations to support the Rolling Programme of Electrification and Decarbonised Rolling Stock Deployment
- Decarbonisation Action Plan Refresh
- East Linton New Station
- Markle Level Crossing bridge replacement

The Scottish Government deserves credit for having in place this rolling programme of much-needed investment. Upgrading railway lines is far from straightforward, it is expensive and takes a great deal of time and planning - it will always be difficult to try and fix or improve something when you want to use it at the same time.

But are these incremental changes enough? Are we thinking big enough and taking a longer-term view? Should we asking whether it is enough for our railways to simply do what they are doing now, or can we aspire to something greater?

We know Scotland is facing a number of major changes, in addition to our environmental commitments. Action now can avert future problems. Could our railways help provide part of a solution?

For example, could improved train links help some of the areas of Scotland facing demographic challenges?

Population projections

The National Records of Scotland has projected that Scotland's population growth will slow between 2018 and 2028. Migration is the driver of population growth as deaths have been outnumbering births for each of the last seven years.⁵ We are also aging - over the past two decades there has been 6% decrease in the number of people under

⁴ Prioritisation of rail projects | Transport Scotland

⁵ Mid 2021 Population Estimates, Scotland, Report (nrscotland.gov.uk)

15; a 6% increase in those between 16 and 64 and a 33% increase in those over the age of 65. We now have more people over 65 than under 15 in Scotland.

It is of course to be welcomed that we are living longer, but a growing dependency rate has consequences for public services and finances.

However, the impacts of population change will not be the same across Scotland. Eighteen council areas, including Midlothian (+13.8%), East Lothian (+7.2%), Edinburgh (+6.6%) and East Renfrewshire (+6.4%) will all see an increase in population, while 14 council areas will see decreases in their population, including Invercive (-6.1%), Argyll & Bute (-5.9%), North Ayrshire (-3.1%) and Dumfries & Galloway (-2.8%).⁶

The age profile of local authorities is also expected to differ. While Scotland is expected to see a 25% increase in those aged over 75 between 2018 and 2028, this will range from a 42% increase in Clackmannanshire to a 4% increase in Glasgow.

Even within council areas there are stark contrasts – for example, Highland council recently highlighted that although there had been a population increase in Inverness, there were "significant regional disparities" with a warning of severe population declines in and around Caithness and Sutherland by 2040.⁷

Migration is what is driving our population growth, and with growing numbers of over-75s in certain areas, this will have knock-on impacts in terms of access to health and social care services. Could improved transport links help encourage people, especially working-age people, to move to some of those areas facing decline?

These are the sorts of questions that a Scottish Rail Infrastructure Commission could investigate.

Scottish Rail Infrastructure Commission

The debate around HS2 has shown that big rail projects, even when starting a new line from scratch, can take huge amounts of time, money and planning.

However, just because something is difficult and doesn't fit neatly into an electoral cycle is not a reason to avoid action. Rather, it highlights the need to start thinking earlier. Rail links bring communities closer together, generate economic benefits, reduce emissions and help attract people to live, work and visit. While regular and rolling improvements to the existing network are welcome, Scotland should be more ambitious for its future.

We should at least consider which ambitious transformational projects are worth prioritising and what they could mean for the Scottish economy.

Do we want to be in a situation where it could eventually take less time to reach London by rail from Edinburgh than it does to reach Inverness? Is there a case for a new

⁶ <u>Report (nrscotland.gov.uk)</u>

⁷ Highland populations at risk of being 'drained' of people - report - BBC News

electrified dual-track line to the Highlands? Or a direct link between Dumfries and Edinburgh? What about Glasgow Crossrail, Edinburgh and Glasgow airport rail links, a proper integrated transport system which could better connect the ferry links in Stranraer?

A long-term rail commission could examine the cost-benefit of these and other projects as part of a report looking at links to city regions, local networks, and rural and scenic areas.

The commission could also set out a land register of who owns the land on either side of our railway lines – this information is crucial if expansion and upgrading of our existing network is to be carried out efficiently.

Obviously, there are limits on expenditure - and rail infrastructure is no silver bullet. But an ambitious nation should be thinking harder about its future prosperity and security.