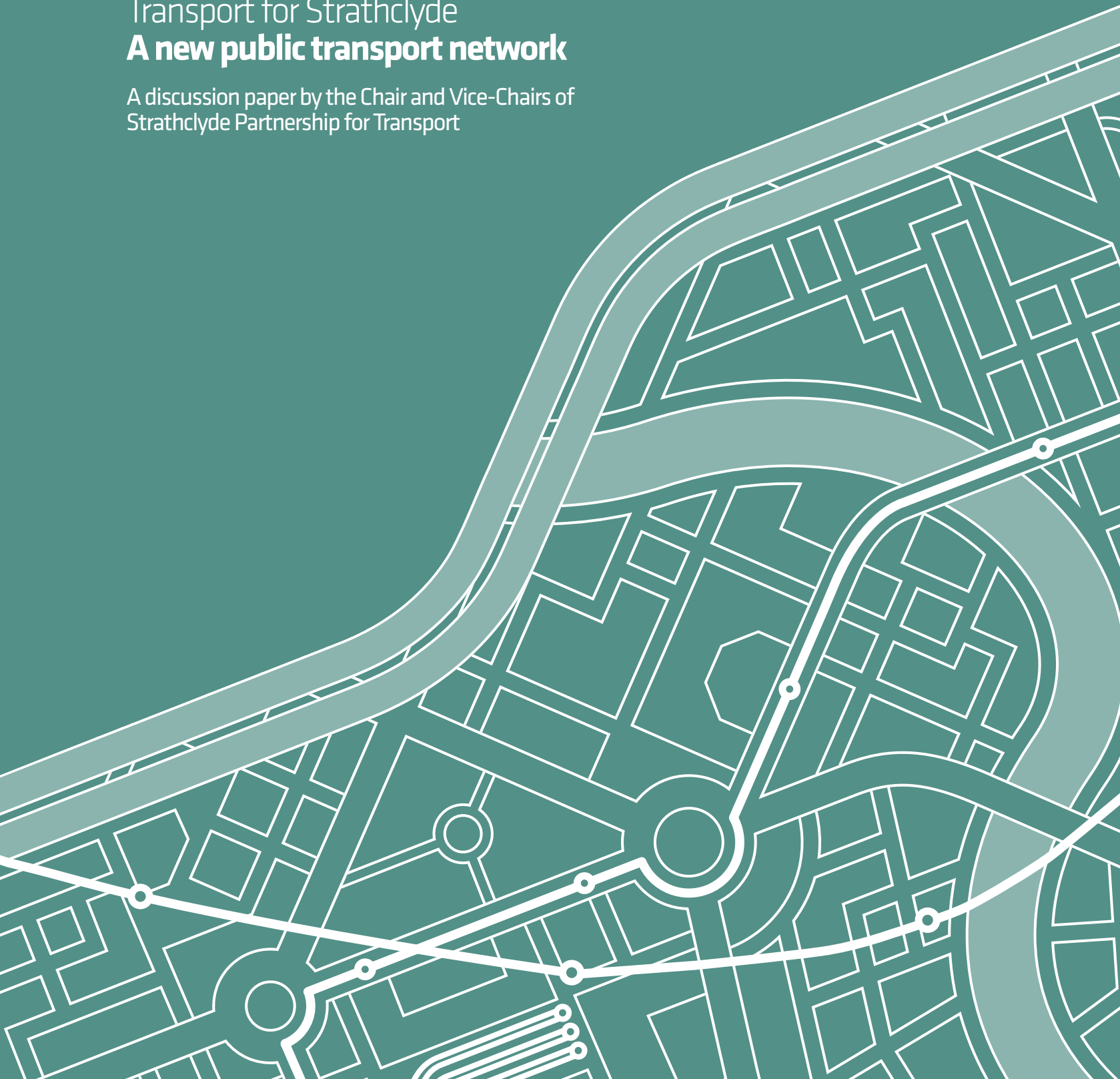




Transport for Strathclyde **A new public transport network**

A discussion paper by the Chair and Vice-Chairs of
Strathclyde Partnership for Transport





Transport for Strathclyde – **A new public transport network**

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Foreword from Chair & Vice-Chairs



Transport is facing a period of challenge and change – addressing the climate emergency, the Covid public health emergency and the current economic picture are just three of many pressing issues facing the sector.

In December 2020¹, my Vice-Chairs and I promised our board that we would issue a public paper to stimulate and lead debate on how to transform our public transport network in Strathclyde. This document delivers on that promise. It aims to describe the features of a healthy public transport network and presents an approach, a fitness plan, to address our own regional transport challenges.

The ten tests and the five strategic visions set out what a transformation should aim for and how we can get there. This paper is not (and does not aim to be) a detailed final prescription, and it may not delight everyone – but transformative change for the better is achievable and must be delivered, not least for the sake of our future on this planet. Progress will require refinement of ideas and above all this paper is about generating the policy discussion needed to get the collective agreement to start to transform our public transport system in Strathclyde for the better.

I hope you'll find this document stimulating, that you'll provide feedback on what you like and dislike, what's missing and what could be improved. Above all I hope you'll join us in driving forward transformative change in public transport for Strathclyde.

A handwritten signature in black ink, appearing to read 'Martin Bartos'.

Councillor Dr Martin Bartos

Chair, Strathclyde Partnership for Transport
chair@spt.co.uk

¹ spt.co.uk/documents/latest/p111220_agenda5.pdf



At the heart of this paper is a desire to create a better, more accessible public transport system. By improving public transport, we can improve quality of life in our towns and cities, and across our island and rural communities. Bus services are a lifeline for many – providing access to work, education and health services. But those most likely to depend on public transport are least well served at present. The Strathclyde public transport network must be transformed so that it truly works for every member of the public.

Councillor Alan Moir

Vice-Chair, Strathclyde Partnership for Transport



Transport is the lifeblood of our economy. It is what enables businesses to grow, generating resources to invest in jobs and ensuring our communities can thrive. More and better public transport stimulates economic activity, which in turn can offset the overall burden on the public purse. Most importantly, it provides the public with the opportunity to get to work, shop, see friends and be more active. But in Strathclyde we know that other regions and other countries do this better than us. We need to explore realistic options for the future of public transport in Strathclyde and find a solution where everyone is a winner.

Councillor David Wilson

Vice-Chair, Strathclyde Partnership for Transport

Executive Summary

Background and Purpose

In December 2020, the Chair and Vice-Chairs of Strathclyde Partnership for Transport (SPT) received agreement from the partnership to issue a public paper to stimulate and lead debate on how to transform our public transport network in Strathclyde. “Transport for Strathclyde: a new public transport network” is the resulting discussion paper. This document proposes a transformed Transport for Strathclyde public transport network, setting out ten tests and five strategic visions to achieve transformative change in the region.





The Public Transport Network We Want To See

We propose a transformed Transport for Strathclyde public transport network, which is centred around enabling our residents to live fulfilled lives and meets the following ten requirements:

- **Available**
- **Accessible**
- **Affordable**
- **Ecologically Sustainable**
- **Economically Sustainable**
- **Integrated**
- **Efficient**
- **Reliable**
- **Safe**
- **Enjoyable.**

In order to best deliver on each of these requirements we believe it is necessary to progress five strategic visions.

Five Visions to Transform Transport for Strathclyde

One Network – available to all

We propose to transform our public transport network with a '**One Network**' vision. This should be available to all residents and visitors, with one goal for all – namely to get us easily and efficiently where we need to be. Delivering '**One Network**' means the transfer of network planning/management and service standards to a public body and in turn the creation of a multimodal network for you which is attractive and effective in its scope, through:

- **One Strathclyde Network:** an integrated multi-modal public transport network coordinated by a transport authority, Transport for Strathclyde, built on the foundations provided by SPT, with legal powers to direct and provide public transport services.
- **Strathclyde Buses:** the creation of a new single Transport for Strathclyde service brand connecting to ferry, rail, subway and active travel hubs.
- **Public Transport Guarantee:** recognising that access to the public transport network is as vital as any utility, new standards would be developed around access to the network.

Smart Network – dynamically shaped by public need

It's time to build a public transport network which is smart and dynamic: smart because it provides you with transport options and supports your journey; dynamic because the network responds and adjusts how it delivers transport according to people's collective demands and needs. A Smart Network means using digital technology to transform every step of your public transport journey, with:

- **A Smart Travel Pass:** an app or card for every citizen (supplemented by alternatives such as traditional phone call-centres for those not digitally connected) this would use a Smart Public Transport Digital Platform run for or by the transport authority to help your journey planning and travel.
- **Smart Passenger-responsive journeys:** with a personalised 'journey plan' on your Smart Travel Pass app, you'll know when the bus is coming and when you need to leave – and the bus driver will know if you need some help. Knowing your needs in advance, means the network could make sure there is a connection to get you home from your new job or get you and your friends or family back from a trip out together.
- **Smart Real Time Network management:** with better understanding of live travel needs a 'Smart Network' could adjust traffic lights and traffic management, speeding up public transport or shared transport vehicles with the most people on them and better predict when you should get to your destination.

Green Network – moving to Net Zero

We want to tackle the issue of sustainable travel systematically and effectively – by properly understanding and informing the public of carbon costs and by providing and supporting real and attractive Net Zero alternatives. A Green Network would support and provide Net Zero choices for your regular travel along with:

- **A Personal Carbon Emissions Statement** to inform you, help you make personal choices and let you take action to reduce how your transport choices impact the environment.
- **A Transport Emissions Map** producing a strategic overview of where our transport emissions are arising to support project development to move to Net Zero.
- **A Net Zero Transport Delivery Plan**, flowing from the new Regional Transport Strategy, providing accurate information to help design incentives to switch to lower carbon transport choices.

Affordable Network – fair fares for all

We believe we must introduce an affordable public transport network – one which is so readily affordable that it delivers the social, environmental and economic changes we need to meet our targets and aspirations. At the heart of our vision is the goal to make fares affordable for everyone, with:

- **Fairer fares:** a clear fare arrangement which fits the needs of the region, reducing journey costs for the travelling public at a price which is affordable to the public purse and aligns with policy goals.
- **Better concessionary travel:** bringing improved coordination to concessionary travel schemes in the region recognising the needs of different groups and providing reduced or fare-free travel for eligible travellers.
- **Smart payment and pricing:** use of the **Smart Travel Pass** would permit measures such as fare capping or pre-arranged 'travel-to-work' journey tariffs.

Network for the Future – incorporating emerging technology

We can build a network for the future in Strathclyde within our economic and carbon budget – by using technology to optimise what we have, in tandem with embracing where technology is going. Delivering on an agile evolving network means having a transport authority resourced to be able to lead on and catalyse innovative new projects, including:

- **Innovation and pilot schemes:** we want Strathclyde to be the region where passengers get a front seat to experience future transport innovations.
- **Autonomous public transport:** though the human touch will always have its place, the transport network of the future will be more autonomous – we need to harness that for the benefit of passengers.
- **A Future Transport Technology Advisory Board** with a remit to keep a watching brief on transport technology development and stimulate ideas and projects in the region.

Delivering 'Transport for Strathclyde'

To deliver the vision in this paper and serve residents and visitors to Strathclyde, we propose a fresh approach with an empowered, accountable and resourced Transport for Strathclyde transport authority. To do this, we propose the development and promotion of a 'Transport for Strathclyde (Scotland) Act' to allow us to specify and direct changes to the public transport network in the region to deliver on our vision.

To achieve transformative change, we envisage a transition process from the existing transport arrangements and existing public transport network, to a scheme managed by Transport for Strathclyde, a freshly empowered transport authority with new powers defined by the legislation, built on the foundation of SPT. A Transport Authority already exists – it just needs to be given the powers and the resources to deliver effectively. To resource the vision for the public transport network set out in this document, any future body could be funded to different degrees by different sources. As work to deliver the vision of transport we have laid out progresses, detailed financial modelling will be required and the necessary mechanisms and options must be developed.

In conclusion, we propose it's time for a **"New Public Transport Social Contract"** with the public, one where Transport for Strathclyde's regional public transport network guarantees access to work, health, education and recreation – without breaking the bank or planet – and builds the foundation of a dynamic, integrated and efficient 21st century transport system.



Introduction



Transport touches all of our lives from cradle to grave. Despite travel currently being curtailed by the pandemic, transport remains critical to society and yet by its carbon footprint often damaging to our future, so getting it right is all the more important. Much like healthcare, public transport is handled in a variety of ways globally – and in some cases not at all. But those cities, rural communities and regions which handle public transport well make their citizens proud, their lives easier, boost their economic activity and allow them to tread more lightly on the planet.

“Transport for Strathclyde: a new approach to public transport”, is intended to positively stimulate the ongoing debate about what a future public transport network should look like in our region. The forthcoming consultation on the “Case for Change” for the Regional Transport Strategy (RTS) provides everyone an opportunity to comment on whether this or any other vision or approach is the one we should take forward.

This discussion paper comprises the following sections:

First, in **“The Public Transport Network We Want To See”**, we suggest what a fit-for-purpose public transport network should look like. We highlight what we believe are the key factors the public transport network should aim for. Our views align with both the ‘Key Issues’ so far identified by the developing RTS, and the outcomes set by the National Transport Strategy (NTS). Understanding what we need a new public transport network to look like then helps to shape the strategic vision driving the actions needed to deliver transformative change.

Next, in **“Five Visions to Transform Transport for Strathclyde”**, we set out five strategic aims which, working together, would help deliver our vision of Strathclyde public transport network of the future, namely:

- **One Network** – available to all
- **Smart Network** – dynamically shaped by public need
- **Green Network** – moving to Net Zero
- **Affordable Network** – ‘fair fares’ for all
- **Network of the Future** – integrating emerging technology.

Under each of these aims, we summarise where things stand at the moment, our vision, what each outcome could deliver for the public in reality, and how we can start to overcome the challenges.

Then, in **“Delivering ‘Transport for Strathclyde’**, we examine the way forwards for delivering the future of public transport in Strathclyde, namely:

- Creating and empowering a new region-wide transport authority, Transport for Strathclyde.
- Resourcing Transport for Strathclyde.

In conclusion, we propose it’s time for a **“New Public Transport Social Contract”** with the public, one where Transport for Strathclyde’s regional public transport network guarantees access to work, health, education and recreation – without breaking the bank or planet – and builds the foundation of a dynamic, integrated and efficient 21st century transport system.

² spt.co.uk/vision

Section 1: The Public Transport Network We Want To See



We believe it is important to set out some key principles about the public transport network we want to see. We propose a transformed Transport for Strathclyde public transport network, which is centred around enabling our residents to live fulfilled lives and meets the following requirements:

Available – the public transport network should be available to any resident, whether living on an island or in a rural, urban or suburban area, to enable access to work, health, education and recreation.

Accessible – the public transport network should be accessible to everyone, as far as practical, irrespective of physical or mental ill-health, impairment or disability and seek solutions to any barriers.

Affordable – the individual cost of using the public transport network to go about our daily lives should be at a level which individuals can afford.

Ecologically Sustainable – collectively transport must not cost the planet; in other words the public transport network must tread so lightly on our environment so that it avoids lasting harm.

Economically Sustainable – collectively transport cannot ‘cost the earth’; in other words the collective benefits should clearly outweigh the costs to the general public purse, and wider economy.

Integrated – however anyone travels, trips on our public transport network should join up seamlessly – the journey matters, not the mode.

Efficient – public transport which gets us from A to B minimising fuss, duration, vehicles and cost to passenger and operator.

Reliable – a public transport network that we can plan our lives with – with transport which turns up when we expect it, and gets us where we want to go in time for the purpose of our journey.

Safe – our public transport network should be safe for those who travel and those who work on or live beside it.

Enjoyable – so much time is spent on public transport (alone/ with friends, commuting/for leisure) we need the quality of experience (comfort, cleanliness, digital connectivity etc.) to be planned & positive – not an afterthought.

Our aspirations for Strathclyde’s public transport network must fit within the national and wider transport policy context in which we operate. We have considered the new targets set by the Scottish Government’s Climate Change Plan, and emerging local transport strategies and plans. Two current key strategies in that regard are the National Transport Strategy (NTS), published by the Scottish Government in February 2020, and the Regional Transport Strategy (RTS), currently being developed by SPT in collaboration with all our stakeholders.

The NTS sets four outcomes for Scotland’s transport network:

- Reduces Inequalities
- Takes Climate Action
- Helps Deliver Inclusive Economic Growth
- Improves Our Health and Wellbeing.

The current ‘Key Issues’ identified by the developing RTS are:

- Emissions
- Access for All
- Public Transport Quality & Integration
- Regional Connectivity
- Active Living.

Section 2: Five Visions To Transform Transport for Strathclyde

Including:

- **One network** available to all
- **Smart network** dynamically shaped by public need
- **Green network** moving to net zero
- **Affordable Network** fair fares for all
- **Network of the Future** incorporating emerging technology.

One network available to all

Where things stand:

The best public transport systems globally operate integrated networks with timetables and tickets which work cross-modally and service levels which take account of both population density and social / economic need. At present, across the Strathclyde region, we have confusing structures, poor modal integration, expensive fares, and a comprehensibility barrier for anyone trying to navigate the public transport system.

This is most effectively demonstrated for the travelling public at a bus stop where you find different timetable designs, for multiple operators, on routes numbered by the operators, with overlapping services and different prices (not visible on the timetables), as well as fare structures for multi-journey tickets (which may not even get you to your destination if you have to transfer between operators). There is no simple means to adjust capacity, or to integrate new forms of transport, in order to provide an offering which tempts people out of private transport. It's time to set aside the ad-hoc patchwork system and create one public network that is fit for a modern, 21st century region.



Our Vision:

It's time to transform our public transport network with a 'One Network' vision. One public transport network, available to all residents and visitors, with one goal for all – namely to get us easily and efficiently where we need to be.

Providing 'One Network' requires integration and planning cross-modally, as well ensuring network reach which spans from urban to rural and everything in-between. For example, it's time for a single-brand – Strathclyde Buses – linking into the rail, ferry, Subway and active travel network in every part of the region. The network must have coordination in timetabling and an 'end-to-end journey experience' – reaching people who need to travel and the places they need to get to, recognising that we have rural as well as multiple commercial centres in Strathclyde. It must be backed by a trusted single entity responsible for the network which gives confidence to everyone from communities to planners and policy makers that public transport can be relied upon to deliver what it's there to do. Having a publicly directed 'One Network' public transport system doesn't in itself preclude private transport, but it would aim to provide a quality of service which provides a real and 'first choice' alternative to private transport – rather than a 'second best' safety net.

What it means for passengers:

Delivering **'One Network'** means the transfer of network planning/management and service standards to a public body and in turn the creation of a multimodal network for you which is attractive, delivers value and is effective in its scope, through:

- **One Strathclyde Network:** an integrated multi-modal public transport network coordinated by a transport authority, **Transport for Strathclyde**, built on the foundations provided by SPT, with legal powers to direct and provide public transport services.
- **Strathclyde Buses:** the creation of a new single Transport for Strathclyde service brand connecting to ferry, rail, Subway and active travel hubs.
- **Public Transport Guarantee:** recognising that access to the public transport network is as vital as any utility, new standards would be developed around access to the network.

Overcoming challenges:

Achieving any 'available to all' metropolitan public transport network for Strathclyde currently faces significant barriers in the region – be they structural, financial or governance related. None are insurmountable – if the political will is there. Tools, like the recent Transport (Scotland) Act 2019, may help in delivering our 'One Network' metropolitan transport vision; one which serves all our needs and attracts people and business to our region. But, at present, this public service is left in the loose coordination of private operators with portions of non-directive market regulation. The market elements of operational delivery currently confuse, not enhance, passenger experience and undermine integration. Altering this requires care and fairness, but different delivery models are possible. A market could continue to provide some or all of the vehicles, drivers and infrastructure, but fundamentally the operational shape and design of a network which is relied on by the public should be shaped by a body which is democratically accountable to, and underwritten by, the public.



Smart network

Dynamically shaped
by public need

Where things stand:

Currently our public transport network is anything but 'smart'. In a 21st Century system we would expect scheduled and unscheduled ('demand responsive') services to be planned using the best possible information about need and demand. Instead, the reality is that rail operators and competing bus operators in estimate demand, implement services where they think there might be potential profitable journeys and then see if ticket sales stack up commercially. If they do, it runs; if they don't the operator withdraws or cuts its service. Decisions are made based on journeys undertaken and profit, not actual public demand or public policy. This system drives more and more people who can drive into private car ownership – expensive in the long-term for them and unsustainable for the planet.

A truly 'smart' public transport network must compete with private personal transport. The new digital world presents an opportunity: the transport sector is now data-rich, and this must be used in a more efficient way to optimise and enable a better planned, reliable network. Real time personalised information is now routine for the smartphone generation whose expectations we need to meet.



Our Vision:

It's time to build a public transport network which is smart and dynamic: smart because it provides you transport options and supports your journey; dynamic because the network responds and adjusts how it delivers transport according to people's collective demands and needs.

To provide a "smart and dynamic" demand responsive network we need a **Public Transport Digital Platform**, or set of connected systems, which can capture and coalesce actual travel patterns and requested journeys. This platform would help us to plan and provide a service capable of responding to what the public and society needs. In effect, the public transport network shifts from simply telling us what's possible, to a smart one which is adjusted to more closely suit what we ask for and need. Turned on its head, the traveller is not so constrained by what's available, rather, the network – with a blend of scheduled and unscheduled services – partners with the person travelling to get them where they need to be. At the same time the network capacity can adjust and learns to cope with planned journeys more efficiently. In some parts of the world, 'demand responsive' public transport is appearing – indeed SPT already provides a pre-booked 'MyBus' service for over 80s and the mobility impaired, and there are some innovative examples emerging which we can learn from. Above all, a smart network will be an efficient network – meaning carbon reduction, cost reduction, and services that get us where we need to go.

What it means for passengers:

A '**Smart Network**' means using digital technology to transform every step of your public transport journey, with:

- **A Smart Travel Pass:** an app or card for every citizen (supplemented by alternatives such as traditional phone call-centres for those not digitally connected) linking to a **Public Transport Digital Platform** run for or by the transport authority to help your journey planning and travel.
- **Smart Passenger-Responsive Journeys:** with a personalised 'journey plan' on your Smart Travel Pass app, you'll know when the bus is coming and when you need to leave and the bus driver will know if you need some help. Knowing your needs in advance, means the network could make sure there's a connection to get you home from your new job or get you and your friends or family back from a trip out together.
- **Smart Real Time Network Management:** with better data on live travel needs a '**Smart Network**' could adjust traffic lights and traffic management, speeding up public transport or shared transport vehicles with the most people on board and better predict when you should get to your destination.

Overcoming challenges:

The current muddled mix of private and public operators in the network prevents the effective gathering and sharing of data and digital resources for market and 'commercial confidentiality' reasons. The focus needs to be completely shifted from this 'profit-led' approach to a 'smart and passenger centred' model. The recent Transport Act could help facilitate some smart data-related measures even before One Network is delivered, but it's time for publicly sponsored work in this area – through a Strathclyde region-wide pilot – to show what is possible. Beyond this, Transport for Strathclyde's **Public Transport Digital Platform** would require a programme of work and partnership with industry and academia to build a system capable of meeting the needs of the citizens, the transport authority and operators. Delivery challenges will include digital exclusion and privacy issues – but these can be addressed with suitable adjustments. The opportunities presented by a **Smart Travel Pass** supporting **Smart Passenger-Responsive Journeys** linked to a dynamic digital public transport network far outweigh any additional cost of addressing these challenges.



Green network

Moving to net zero

Where things stand:

The climate emergency and the wider complex challenge of living within our ecological footprint are the defining issues of our time. Tackling this may be the most pressing issue facing people on our planet. Transportation as a whole has a huge carbon footprint and transforming it is vital to successfully addressing this emergency. In Scotland, this sector now emits more carbon than any other and radical action is required. As part of this we need to collectively change how much we travel, and what we use to travel, and ***we need to do it now.***

But messages simply urging a change of behaviour don't work alone or quickly enough and require awareness and availability of greener choices. We need to enable people to make informed, affordable and convenient choices to travel more sustainably and this requires clear, effective and decisive action by providing a Green Public Transport Network. As things stand, people switching to public transport face confusing and unattractive options. Switching to shared public transport should reduce emissions but even if every car journey was replaced overnight by public transport, our public transport carbon footprint would still be significant given the current reliance on fossil fuels. Many initiatives have been proposed for new public transport infrastructure to attract passengers, or for 'decarbonising' old infrastructure, but all too often no whole life carbon accounting is undertaken to factor in one-off carbon emissions (the carbon 'capital' cost) of building work and only crude information is available about the ongoing emissions (the carbon running cost). This has to change for us to get to Net Zero without cooking the books or planet. We can't hope to get a grip of the problem without tracking the emissions and acting on them.



Our Vision:

It's time we tackled the issue of sustainable travel systematically and effectively – by properly understanding and informing the public of carbon costs and by providing and supporting real and attractive Net Zero alternatives.

To provide a truly Green Network, and to make real any trajectory towards carbon-neutral public transport, all of us, individually and collectively, need to better understand where and how we are 'spending' carbon for transport needs – and how our network is impacting our environment. This is true both for public and private transport, but with a **'One Network'** approach and with an increasingly **'Smart Network'**, we could start to track and model public transport carbon use and let individuals as well as policy makers know where and how emissions arise. Even as local authorities try to build '20 minute neighbourhoods', **'Green Network'** insights will support planners and developers to ensure that economic development is ecologically sustainable. Alongside an information revolution we need to make available more Net Zero choices. A key part of this would be encouraging and facilitating active and ultra low carbon travel (such as cycling and light electric vehicles/bikes). Much of this might best be handled by local authorities at the most local level – but access, funding and interoperability of any shared public transport resources should be integrated.

What it means for passengers:

A **'Green Network'** would support and provide **Net Zero** choices for your regular travel along with:

- **A Personal Carbon Emissions Statement** to inform you, help you make personal choices and let you take action to reduce how your transport choices impact the environment.
- **A Transport Emissions Map** producing a strategic overview of where our transport emissions are arising to support project development to move to Net Zero.
- **A Net Zero Transport Delivery Plan**, flowing from the new Regional Transport Strategy, providing accurate information to help design incentives to switch to lower carbon transport choices.

Overcoming challenges:

The convenience, familiarity and sunk-cost of privately owned carbon-intensive transport (such as the petrol or diesel-engined car) continues to hold back the environmental need and economic value of shifting to public transport. Further, as outlined elsewhere in our paper, our current public transport system and active travel network are simply not attractive enough to entice people in sufficient numbers to generate the carbon reductions required. As a society, we need a fundamental reset in terms of carbon and how we use transport. That will mean some tough decisions, and a challenging transition period, but with the right vision, powers, tools, funding, organisations, structures, partnership-working, and of course, the will, ***it can – and must – happen.***



Affordable Network

Fair fares for all

Where things stand:

For many in the west of Scotland, the cost of travel is a barrier to accessing key opportunities – from work or education, to health and recreation – which many others take for granted. Whether it's a journey to find a job or go to work, to shop or visit friends or family, the cost has an impact which can hold people back. Currently in Strathclyde there are a confusing range of fares and tickets available across many different modes, operators and areas. Critically, ticket prices can vary significantly by route, meaning travel for essential purposes such as getting to work can be prohibitively expensive, particularly for those who do not live in a city centre.

Across the world, inexpensive daily or weekly fare-capping schemes exist for city or regional networks to help deal with worry over getting the best deal. For some groups Scotland has a national concessionary bus travel scheme – the over-60s, people with a disability, and soon the under-22s will have 'free' bus journeys, but other transport modes and other groups aren't integrated seamlessly³. Other cities and regions have gone further with 'flat-fare' or 'fare-free' at the point of travel being tried in places like Luxembourg, Dunkirk and Tallinn. The reality, however, is that nothing is ever truly 'free' – generally there is very substantial public subsidy coming from somewhere and making the network affordable and fair for all, will require prioritising collective funding for transport.

³ Strathclyde benefits from a Concessionary Travel Scheme reducing costs for rail, Subway and ferries, a scheme absent in other parts of Scotland.



Our Vision:

It's time we had an affordable public transport network – one which is so readily affordable that it delivers the social, environmental and economic changes we need to meet our targets and aspirations.

What is in no doubt is that a more progressive approach to fares is needed in the west of Scotland. Moving to '**One Network**', as detailed earlier, would allow an alternative framework for applying the current array of national public subsidies – moving to support service delivery rather than through commercial operator incentives. Whatever fare structure or charging model will prove possible depends entirely on how the money available stacks up, and what proves acceptable or preferable to the public. There are practical financial issues to address, but we cannot continue with the status quo which sees west of Scotland residents struggling to afford essential journeys and paying far more for public transport than their London or Lothian counterparts.

What it means for passengers:

At the heart of our '**Affordable Network**' vision is the goal to make the cost of travel affordable for everyone, with:

- **Fairer fares:** a clear fare arrangement which fits the needs of the region, reducing journey costs for the travelling public at a price which is affordable to the public purse and aligns with policy goals.
- **Better concessionary travel:** bringing improved coordination to concessionary travel schemes in the region recognising the needs of different groups and providing reduced or fare-free travel for eligible travellers.
- **Smart payment and pricing:** use of the **Smart Travel Pass** would permit measures such as fare capping or pre-arranged 'travel-to-work' journey tariffs.

Overcoming challenges:

The challenges of the current point-of-use commercial competition-based fare setting system and the issues around different concession support schemes and state aid, while tricky, are not insurmountable if the political will is there. We believe it will be necessary to look at ways to bring current funding streams for public transport together and find ways to balance any fares system so that it works for the region economically, socially and environmentally. However this is delivered, we envisage building on '**One Network**' and '**Smart Network**' to make sure every resident is issued a Transport for Strathclyde pass which links to their online 'smart' travel account. That approach, building on SPT's existing experience, would support travel on any public network journey – the card or linked smartphone app could hold free entitlement to use the public transport network or else transport credits, depending on the system being used.



Network of the Future

Incorporating emerging technology

Where things stand:

New technology is disrupting the traditional ways that services are delivered. Transport is no different and, as the world changes, public transport must too. We can do more than just 'catch up' or 'keep up' with what other regions are doing on transport – embracing the right technology always provides a way to overtake. Our region was third in the world to build a subway and before that Glasgow built 52 miles of aqueducts and 13 miles of tunnels to bring clean, gravity fed water to its citizens in the aftermath of London's cholera epidemic. We have the engineers and institutions to match any region globally.

A decade ago, smartphone apps which put trip planning at your fingertips and show your transport on its way would be a dream; self-driving electric vehicles capable of recognising objects around them a fantasy. Both are happening in our region. Reusable rockets, electric ferries, autonomous public transport vehicles, novel high speed intercity transport (such as 'hyperloop'), the first electric planes and many other innovations directly in transport, or indirectly in software (with AI and blockchain technology to name but two) are all in various stages of development. We believe there needs to be a clear intention in our region, to engage the cross discipline creativity of start-ups, students and academics at our world leading academic institutions as well as attracting global interest to become the place to drive transport forwards.



Visualisation of future Subway rolling stock

Our Vision:

It's time we built a network for the future in Strathclyde within our economic and carbon budget – by using technology to optimise what we have, in tandem with embracing where technology is going.

Whether it's a future network delivered with automation and the potential for semi or fully autonomous bus and taxi networks, whether it's ride-sharing pods or electric bike schemes, whether it's new intra-city or inter-city schemes and modes of transport, we need to drag ourselves away from outdated 20th century concepts and invest in embracing the future to deliver a world-class public transport network.



What it means for passengers:

Delivering on an agile evolving network means having a transport authority resourced to be able to lead on and catalyse innovative new projects for you.

- **Open for Innovation and Pilot schemes:** we want Strathclyde to be the region where passengers get a front seat to experience future transport innovations.
- **Autonomous public transport:** though the human touch will always have its place, the transport network of the future will be more autonomous – we need to harness that for the benefit of passengers.
- **A Future Transport Technology Advisory Board** should be established with a remit to keep a watching brief on transport technology development and stimulate ideas and projects in the region.

Overcoming challenges:

In our region, whenever we have had the collective will to build something visionary, we have created opportunities which serve our people in ways not available to many other conurbations. Building on SPT's experience of partnership working, including the nearly £300m Subway modernisation programme, a new transport authority with the powers, responsibilities and the necessary resources to allow it to be ambitious, could take forward new schemes and projects. Looking into the future is difficult, but when infrastructure projects cost hundreds of millions of pounds, take a decade to deliver and should last a century, it's not good enough for any proposals to ignore trends in technology which could change our options and our expectations in less than a decade. Many stakeholders, often transport-mode specific manufacturers, operators and enthusiasts, all passionately believe their way of travelling must take precedence. The reality is many modes may be destined to be supplanted, some perhaps by things still to be invented. Traditional ways to assess how we approach transport investment don't factor in what is round the corner, or in the near future – despite aiming to deliver for decades, with payback periods just as long. A truly empowered and resourced regional transport authority would provide a basis for making the west of Scotland a driver for Scotland's aspirations to be at the forefront of transport development in the 21st century.



Section 3: Delivering Transport for Strathclyde

Including:

- Creating and empowering Transport for Strathclyde
- Resourcing Transport for Strathclyde
- A new Public Transport Social Contract

It's time to reform public transport in the region by delivering Transport for Strathclyde. As we look ahead to the recovery from the pandemic and face other urgent issues, we realise tinkering around the edges is not enough. It's time to transform transport and deliver radically better public transport.

This paper outlines our vision of how we could deliver a regional public transport network which guarantees access to a range of opportunities for Strathclyde's citizens – an integrated and efficient 21st century transport network, smarter, greener, more affordable and forward looking. This more inclusive system would promote opportunity and economic prosperity whilst also tackling transport inequalities and the climate emergency.

Creating and Empowering 'Transport for Strathclyde'

In order to deliver the vision in this paper and serve the 2.2 million residents of Strathclyde, and the hundreds of thousands of visitors we hope to welcome back in the future, we propose a fresh approach with an empowered, accountable and resourced **Transport for Strathclyde** transport authority.

Currently, SPT is established as a Regional Transport Partnership under the Transport (Scotland) Act 2005. SPT brings together local authorities and has powers and a duty to develop a Regional Transport Strategy, as well as retaining some powers inherited from previous versions of the transport authority. SPT owns and operates the Subway and major bus stations as well as subsidising various services and capital projects. SPT is democratically accountable with representation from every major party elected in the region sitting on our board alongside appointed members. We have skilled and dedicated staff with transport planning and operational expertise and extensive collaborative engagement with stakeholders across the region. We believe SPT doesn't currently have all the necessary powers to deliver on the vision we have set out and therefore propose further empowering the partnership.

The Transport (Scotland) Act 2019 contains new powers which may help SPT and local authorities tackle some of the issues facing public transport issues across Scotland. Much of the Scottish Government guidance on this is still awaited having been delayed by the pandemic. Powers, such as to form municipally owned bus companies and franchises, could help if resources and legal issues can be resolved but we believe, for the Strathclyde region, there needs to be a radically simpler new model, one which allows us to deliver the transformative change set out in this paper. The powers needed would, for example, allow a transport authority to:

- **efficiently integrate travel and ticketing across modes (bus, rail and ferry)**
- **have the power to direct services to better deliver local democratic accountability**
- **improve both the affordability and the local financial sustainability of transport**

Bringing together public transport in Strathclyde means much more than managing the bus network, but of all the modes, this is the one which presents the greatest challenge. The bus market in Strathclyde is governed by a mixture of competition law and transport regulations. Much of the law actively prevents coordination between companies, yet this set-up fails to ensure that there is a network which adequately serves the public. The new Transport (Scotland) Act 2019 provides options which could help but does not resolve on its own the problems we see with the current arrangements in our region.

We propose the development and promotion of a **Transport for Strathclyde (Scotland) Act** – specific legislation to deal with the region's challenges, allowing us to specify changes to the public transport arrangements in the Strathclyde region in order to deliver on our vision. To achieve transformative change, we envisage an evolution from the existing public transport network arrangements to a scheme managed by **Transport for Strathclyde**, a more empowered Regional Transport Partnership (RTP) with new powers defined by the legislation.

For the bus sector we anticipate that operators (private, public or third sector) would bid to provide operator mileage in a portion of the region and to a transport standard defined by the authority. For the rail sector we expect that the principal changes would simply relate to increased regional accountability for service provision. For other modes we expect cooperation and coordination with the existing stakeholders – something which we are confident is possible.

Legislation is a big ask to make of any government – legislative resources being tightly scheduled to deliver on government priorities. SPT, however, unlike most RTPs, has powers to promote legislation and there is a long history of transport project enabling laws – including those which helped build rail and subway infrastructure we enjoy today in Strathclyde. We believe SPT, working in cooperation with central and local government, should find some way to take forward the proposals within this document, to ensure the region has the necessary powers to deliver on this vision. It will take collaborative work and goodwill at every level to deliver the change required.



Resourcing 'Transport for Strathclyde'

No public service – be it the NHS, the police, the road network or even the water from our taps – is truly cost free. There are many different ways of financing public services and it is a complex issue. In order to resource the vision for the public transport network set out in this document, any future Transport for Strathclyde body could be funded to different degrees by different sources. Different levels of operational responsibility would require different levels of resourcing. A variety of case studies and ways of thinking about transport authority organisations are covered in the appendices. Currently what the public pays and how it pays for it doesn't get us the service we need in Strathclyde and that means many people waste money on private vehicles because they feel they have no adequate alternative. What proportion of the public's future contribution to Transport for Strathclyde will be through ticket sales or through money which central or local government collects in taxes and business contributions is a matter for discussion. At the heart of this must be a commitment to provide value to the public. Whatever the most practical, fair and efficient options turn out to be, we believe that:

- we must transform our transport network and this will require the public, collectively, to fund it.
- sharing the collective burden across a range of revenue sources is likely to be the best and fairest way of piecing together a sustainable financial model.
- any solution must be locally democratically accountable and shaped to suit the people of Strathclyde.

As work to deliver the vision of transport we have laid out progresses, detailed financial modelling will be required and the necessary mechanisms and options must be developed.

A New Public Transport Social Contract

The time is right to strike a new deal between the public, government and transport operators in Strathclyde. A new 'contract' is needed between the people of Strathclyde (its citizens, communities and businesses), the transport authority (representing local Councils and working with Scottish and UK government) in a way which delivers on our vision and works practically with the operators that deliver the transport.

In short we need a new **Public Transport Social Contract**.

A Draft Public Transport Social Contract

In exchange for a transformed Strathclyde Public Transport Network to be proud of, **Citizens** will:

- Respect other passengers and transport staff – making it a welcoming public service
- Engage with, use and feedback on initiatives to improve the network wherever possible
- Make a fair contribution, either directly or indirectly, to the running of the system.

In exchange for the necessary legal powers and resourcing, the **Transport Authority** will:

- Develop and deliver an integrated, smart, green, affordable public transport network for the benefit of the citizens of Strathclyde, it's community, economy and visitors
- Use new technology to improve the experience of passengers and ensure the network provides inclusive access across both urban and rural areas to work, education, family, recreation and key goods and services

- Deliver on National Transport priorities by tackling Strathclyde's public transport carbon footprint to help achieve Scotland's Net Zero commitments
- Be open, democratically accountable and transparent in our management of the public transport network.

In exchange for fair recompense, flexible arrangements and management of risk, **Transport Operators** will:

- Deliver the network with the timing, capacity and route plans the transport authority defines for passengers
- Work with the transport authority and roads authorities to provide safe, reliable attractive services to quality standards with the transport authority defines on behalf of passengers
- Work with government and the transport authority bodies to ensure the necessary investment and adaptation of fleets and operations in order to deliver on Regional and National transport priorities including climate commitments and pollution reduction.

Next Steps...

This paper is intended to present a strong vision and act as a starting point for discussion on how to transform the public transport system in Strathclyde. The next steps are a shared responsibility between us all – together we need to make it happen.

We welcome your views on our discussion paper and encourage you to contact us about the future of transport in Strathclyde via the web page at:

www.spt.co.uk/transportforstrathclyde

or email us at: **chair@spt.co.uk**

Appendix 1: Key Principles

This appendix illustrates where we anticipate our five strategic visions support our ten network requirements for the Public Transport Network we wish to see..

	One Network – available to all	Smart Network – dynamically shaped by public need	Green Network – moving to Net Zero	Affordable Network – ‘fair fares’ for all	Network for the Future – incorporating emerging technology
Available	○	○		○	○ *
Accessible	○	○			○ *
Affordable		○		○	○ *
Ecologically Sustainable	○	○	○	○	○ *
Economically Sustainable	○	○		○	○ *
Integrated	○	○	○		○ *
Efficient		○	○	○	○ *
Reliable		○			○ *
Safe	○	○			○ *
Enjoyable	○	○	○	○	○ *

* Future technology may have the capacity to influence and support all our public transport network requirements.

Appendix 2: City Region Funding Case Studies

Vienna

Public transport in Vienna and the surrounding area is operated by a variety of public companies. The City of Vienna owns and directly controls Wiener Stadtwerke, a public company that runs many of the cities' public services including transport and energy supply. They operate transport through Wiener Linien, which is wholly owned by Wiener Stadtwerke and runs the subway, tramway and buses. Suburban railways are operated by the Austrian Federal Railway (ÖBB) and one suburban line is operated by Wiener Lokalbahn (WLB). This complicated patchwork of public companies all, ultimately, means that transport is owned by the city of Vienna.

The City is integrated into VOR (Verkehrsverbund Ost-Region) which is another public company jointly owned by the City of Vienna, the Federal State of Lower Austria and Burgenland. Fare payment and collection is regulated by VOR and ensures that there is consistent fare policy across the entire VOR region, with the City of Vienna a single zone within the wider regional system.

In 2012, Vienna significantly reduced the price of an annual travel season ticket, meaning that unlimited annual travel cost around €1 a day. This change was implemented by Wiener Linien, meaning that unlimited travel extended as far as the suburban rail services operated by ÖBB.

Vienna is also at the cutting edge of big data use with its "Smart City" initiative opening up data held by the city to developers and the public. This has led to a proliferation of projects including apps for public transport and "smart traffic lights".

How is Public Transport in Vienna funded?

Around 60% of Wiener Linien's funding comes from income they generate themselves (for example, through fares), with the remainder provided by the City of Vienna. In 2015, Wiener Linien entered into a fifteen year financing agreement with the City that began in 2017. Investment in significant new infrastructure (such as recent extensions to rail services) are jointly funded by the national, federal and city Governments.

Tallin

Since 2013, Tallin has provided free transport to all registered residents of the city. Estonia's taxation system sees municipalities receive a portion of all income tax of registered residents. As part of a campaign to encourage residents of Tallin to register in the city, authorities promoted free travel for every registered resident. This simple administrative move, plus the purchase of a card for €2 per year, guarantees free travel for residents within the Tallin city limits.

The initial scheme only extended to the buses, trams and trolley buses that are under the direct control of the City authorities. However, an extension to the scheme saw Elron (the state run rail company) agree to provide free travel within the city boundaries. This, in effect, made all travel within Tallin free at the point of use to every resident.

Public transport in Tallin is provided by two companies – Aktsiaselts Tallinna Linnatransport (known as TLT), provide buses, trams and trolley buses and are wholly owned by the City of Tallin, and AS Eesti Liinirongid (operating as Elron) provide train services including suburban trains in and around the city. Elron is also government owned.

The decision to offer free transport to every registered resident was decided in a referendum and received 75% support.

How is Public Transport in Tallin funded?

Registering citizens is a key source of income for the city, with a portion of income tax for each citizen provided to the municipality. The incentive of fare free travel led to a 25,000 increase in the number of people registering their residency in Tallin and a transformation of a subsidy for public transport to a €2 million surplus.

London

In the UK, public transport in London is often held up as the model to aspire to. The capital's transport body, Transport for London (TfL) has responsibility for rail networks including London Underground, buses, taxis, principal road routes, trams and river services.

TfL is under the control of the Mayor of London and is guided by the Mayor's Transport Strategy, which sets out the long term vision for public transport in the city. While TfL does not have control over National Rail services in the city, integrated ticketing systems mean that common ticketing and a common fare scheme exists across the TfL network, which includes central London and the suburbs.

TfL's operation of the city's buses runs as a franchise model, with each route put out to tender every five to seven years. The franchise model allows for common ticketing to operate on all bus routes across the network and this has recently been extended to allow people to move between bus routes within an hour time limit. For the passenger, the TfL model means ease of travel and an easy-to-understand fares scheme no matter which mode of transport is being used.

How is public transport in London funded?

TfL is primarily funded through a mixture of income from fares, the congestion charge, grants (including business rates) and borrowing. New infrastructure (such as Crossrail) has been directly funded by the UK Government, Network Rail and TfL as well as initiatives such as business rate supplements.

Berlin

Verkehrsverbund Berlin-Brandenburg is a transport association which co-ordinates public transport in the German states of Berlin and Brandenburg. The area served by VBB covers 30,000 km² and over 6 million people, making Berlin's public transport system one of the largest and busiest in Europe. The association is jointly owned by the states of Berlin and Brandenburg and the 18 cities and counties of Brandenburg.

VBB is the planning authority for all public transport in the area they serve and award contracts to private and public companies to operate in the area. Co-operation between different local authorities is built into the way VBB works. If a route operates in only one locality (for example, in the city of Berlin) then that locality has sole responsibility for that route. However, routes that cross local boundaries are under joint responsibility. Berlin City, therefore, has exclusive control over the city's public transport and sets the terms for local transport under a local transport plan under a five-year local transport plan (Nahverkehrsplan).

Within the network a number of private and public companies operate. The U-Bahn (underground), buses, ferries and trams in Berlin are operated by Berliner Verkehrsbetriebe (BVG) which is a city owned transport operator. The S-Bahn (suburban rail) is operated by a subsidiary of Deutsche Bahn, a private company entirely owned by the German Federal Government. Regional trains are operated by Deutsche Bahn but are part of the common public transport tariff when they are operating inside the VBB area.

A common tariff exists across the VBB area allowing passengers to travel on any mode of public transport for a flat fare within each zone. VB also provides real time travel information for passengers online and through their app.

How is public transport in Berlin funded?

Public transport in Berlin is funded through a mix of fare incomes, public subsidy and commercial income. Reflecting the nature of Germany as a federal state, significant autonomy is given to cities and states to determine their own funding regimes. The way that public transport in Berlin is funded is likely to change as the city has been investigating new ways of paying for public transport, including a flat annual fee for every resident (similar to the Vienna model).

Luxembourg

In 2020, Luxembourg adopted fare-free public transport on trains, trams and buses across the whole country. The shortfall created by a lack of fares is now picked up by the Luxembourg government and the taxpayer. Luxembourg – with just over 600,000 residents – has one of the highest per capita car usage rates in the world. With the increasing focus on climate change, and a desire to reduce congestion in the country, free public transport is seen as a way to change people's behaviour.

Since 2004, the Verkeiersverbond coordinates activity across all modes of public transport. Road Public Transport in Luxembourg has very recently come under the control of a new central government body, the Administration des Transport Public. The government owned Société Nationale des Chemins de Fer Luxembourgeois (CFL) provides all rail services in the country, and across the border to both France and Belgium. Bus services in Luxembourg, both in the city and in outlying areas, are provided by private companies under contract from the national or city government.

How is public transport in Luxembourg funded?

The dawn of fare-free travel means that funding for public transport in Luxembourg is now largely provided from Government subsidy and by the taxpayer. The Government has made clear that the move to fund public transport from taxation means a larger proportion of the burden being carried by the wealthiest in Luxembourg and shifting the balance away from lower paid workers.

A small amount of fare income is still collected on lines that extend into France and Belgium, though even this income has fallen significantly. As part of the effort to move people away from private cars, the Government are investing €4bn on trains between 2018 and 2027, with a goal of increasing the number of rail users by 20%.

Appendix 3: Typologies of Public Transport Organisation

The question of the reorganisation of public transport in the SPT area is fundamentally a question of organisation as well as funding. Shibayama (2011)⁴ provides us with a typology for public transport organisation that identifies three distinct types:

- **Type 1: “All in one”** – in this model, all function levels are coordinated under a municipality or a statutory body for all transport types in the city-region. The integration means that from both the public and management’s view, public transport largely operates as one system with a unified brand name and ticketing. An example of this type of organisation can be found in Vienna.
- **Type 2: “Vertically-separated, horizontally-integrated”** – In this model, which can be found in London and Seoul, a municipality or statutory body takes responsibility for the strategic and tactical level while the operational level is (largely) dominated by private companies (although publicly owned companies may also operate within this model). For the passenger, a single brand name and unified ticketing may be present.

- **Type 3: “Vertically-integrated, horizontally-separated”** – This model involves the least amount of state involvement and can be seen in Tokyo. Different modes of transport are provided by different private companies working with very little coordination. Different parts of the public transport system are operated by different private companies and there is no (or limited) unified charging or fares. Customers have to think about which operator they are using.

The model currently in place in the Strathclyde region most closely resembles Type 3, but with elements of Type 2. There are elements of central strategic planning and co-operation that resemble type 2, but the lack of a unified brand, no consistent ticketing and competition between operators in some modes (such as bus) more closely resembles type 2.

At its most radical, the vision outlined in this document would be best delivered under a full integrated, fully public system using the Type 1 model.

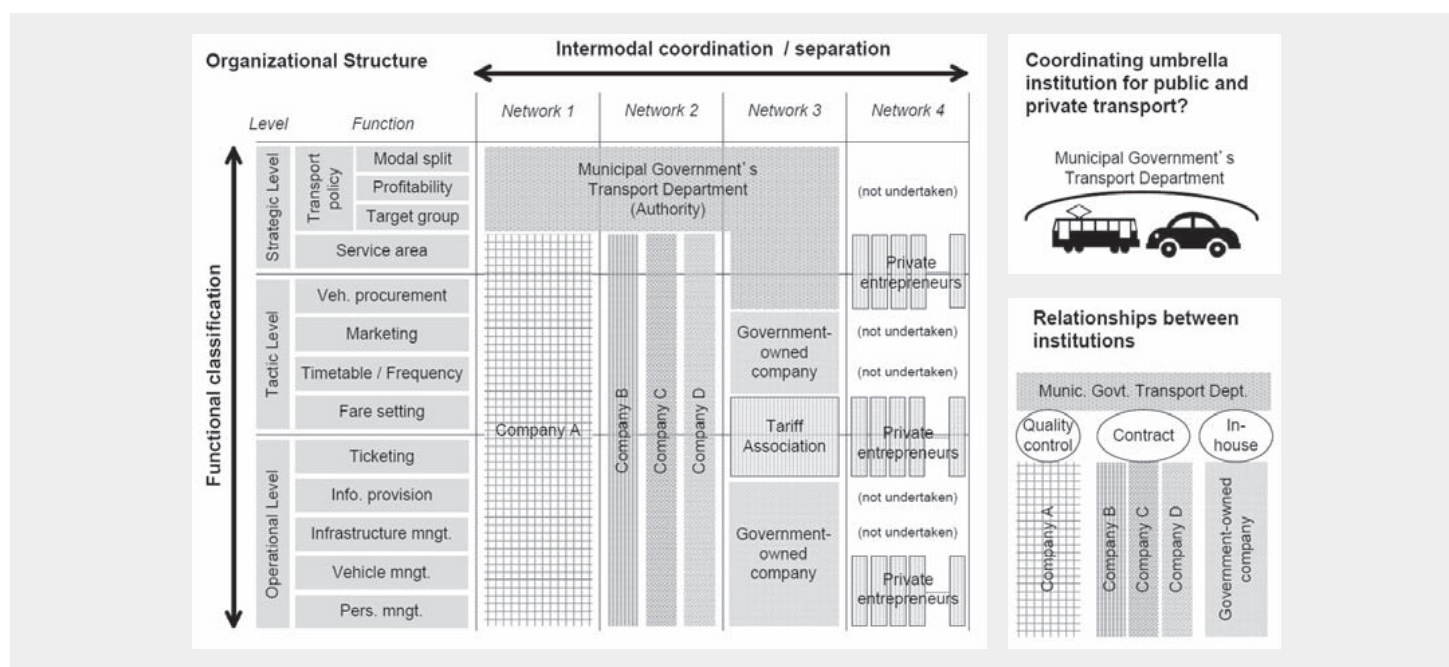


Figure 1: Model for analysis of public transport organisation from Shibayama (2011)

⁴ www.jstage.jst.go.jp/article/easts/9/0/9_0_126/_pdf

		Features of organisational type					
		Municipality or Statutory body responsible for strategic and tactical action.	Operational function largely by private companies working under contract	Provision by public companies or directly by state organisations	High co-operation between operators	Operational level operating independently with strategic external oversight	Unified ticketing and fares for whole transport area
Organisational type	All in one (Example: Vienna)	Yes	No	Yes	Yes	No	Yes
	Vertically separated horizontally integrated (Example: London or Seoul)	Yes	Yes	Public companies can sometimes work under contract	Yes	Yes	Yes
	Vertically-integrated, horizontally-separated (Example: Tokyo)	Limited	Yes	No	No	Limited	No

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