

TAYSIDE AND CENTRAL SCOTLAND TRANSPORT PARTNERSHIP

15 DECEMBER 2020

A NEW REGIONAL TRANSPORT STRATEGY: MAIN ISSUES REPORT UPDATE

REPORT BY SENIOR STRATEGY OFFICER

This report updates the Partnership on the work to produce a new Regional Transport Strategy for the Tactran region and asks the Partnership to consider in a workshop session at the Partnership meeting (i) the strengths and weaknesses of the transport network (ii) the uncertainties of travel demand and supply.

1 RECOMMENDATIONS

1.1 That the Partnership:

- (i) Notes continuing work on a new Regional Transport Strategy, and the proposed next steps, including further discussion of the Main Issues Report in early 2021;
- (ii) Considers the strengths and weaknesses of the transport networks, and uncertainties in terms of travel demands and supply.

2 BACKGROUND

- 2.1 Regional Transport Strategies have statutory status, as provided for in the Transport (Scotland) Act 2005 (The Act). The Act places a duty on constituent Councils, Health Boards and other public bodies to perform their functions which relate to, or which are affected by transport, consistently with their respective Regional Transport Strategy. The Act requires that Regional Transport Partnerships (RTPs) keep their strategies under review.
- 2.2 The Partnership Meeting of 15 September 2020 approved the work of preparing a new Regional Transport Strategy (RTS) (report [RTP/20/32](#) refers).

3 DISCUSSIONProcess

- 3.1 At the Partnership meeting in September, commitment was given to working with Councils to identify the key issues to be consulted on in a Main Issues Report (MIR), and then to discuss these issues at the December meeting of the Partnership. The report also noted that in seeking to align the RTS to other regional and national transport, land use and economic processes, the process may need to retain some degree of flexibility in terms of timescales.

- 3.2 As part of the National Transport Strategy (NTS2) and the Strategic Transport Projects Review (STPR2), Transport Scotland are issuing papers in December 2020 and January 2021 that could reasonably be expected to inform the content of the Main Issues Report (MIR). These items are identified in a separate report to this meeting (report RTP/20/43 refers). It is recommended that the timing of the MIR work allows outputs from these ongoing NTS2 and STPR2 processes to inform the Main Issues Report.
- 3.3 Accordingly, it is proposed that:
- This report updates and provides the Partnership with work to date
 - The December Partnership meeting progresses discussion on discrete elements of the MIR
 - The Partnership consider the full content of a Main Issues Report in early 2021

Content of a Main Issues Report

- 3.4 The proposed content of the Main Issues Report is:

Background

Reason for a new RTS
Scope of review
Process and timescales

Identification of Issues and opportunities

Nature of the region
Environmental, social and economic priorities
Significant new travel demands
Transport network and weaknesses
Scenario Mapping
Strengths and weaknesses of existing infrastructure plans and their delivery

Questions: To be based around the following themes:

- *Has the MIR captured the economic, social and environmental priorities that the RTS should support?*
 - *Has the MIR captured the key aspects (character of the region; transport networks; travel demands etc) that inform the transport interventions to support the economic, social and environmental priorities?*
 - *How can the RTS best support delivery of the identified transport interventions?*
-

- 3.5 For information, please find included as Appendix A the proposed headlines in relation to:
- Nature of the Region
 - Environmental, social and economic priorities
 - Significant new travel demands
- 3.6 This information helps identify what the transport networks need to support and also the nature and demands unique to the region. This will at the draft strategy stage help to inform the vision and objectives.
- 3.7 At the December Partnership meeting, it is proposed that the Partnership discuss:
- Transport network and weaknesses
 - The uncertainties of travel demand and supply (i.e. scenario mapping)
- 3.8 Appendix B highlights potential issues for the Partnership to consider and discuss in relation to these topics.
- 3.9 In early 2021 it is proposed that the partnership consider:
- The strengths and weaknesses of existing infrastructure plans and their delivery
- 3.10 Following these steps, a draft MIR will be presented to the Partnership, and approval sought for consultation.

Scenario Mapping

- 3.11 Even before 2020, planning for the future of transport faced greater uncertainties than at any point over the last 50 years or so. For example, the demands of climate change and advancements in technology mean that our need and ability to change travel behaviours is changing at an unprecedented rate.
- 3.12 The development of a new strategy needs to recognise these uncertainties. It is proposed that this is done through:
- Regular reviews of programmes to ensure that the strategy remains responsive
 - A scenario mapping exercise to highlight and consider the likely impact of uncertainties to inform policies and programmes
- 3.13 A three-step process is proposed for the scenario mapping:
- Identification of uncertainties in travel demand and supply
 - Consideration of the potential impact of the uncertainties
 - Consideration of the likelihood of the uncertainties

3.14 This will then help inform policy and programme development, as well as a risk management process.

4 CONSULTATIONS

4.1 This report has been prepared in consultation with the local authority transport officers, respective Regional Spatial Strategy contacts and Sustran.

5 RESOURCE IMPLICATIONS

5.1 Tactran does not have significant resource to direct towards developing a new RTS. The production of a new Regional Transport Strategy will be met within existing staff resources, and we will draw on parallel exercises, not least the Tay Cities Regional Transport Model and the STPR2 process.

5.2 Tactran will look to bring in additional resources where possible and it will be important to have assistance from Local Authority officers at critical times throughout the process.

6 EQUALITIES IMPLICATIONS

6.1 This report has been screened for any policy implications in respect of Equality Impact Assessment and no major issues have been identified. The process of developing a RTS will include a number of impact assessments, including:

- Equality Impact Assessment
- Fairer Scotland Duty Assessment
- Children's Rights Impact Assessment

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NOTE

The following background papers, as defined by Section 50D of the Local Government (Scotland) Act 1973 (and not containing confidential or exempt information) were relied on to a material extent in preparing the above Report:

Report to Partnership RTP/15/19, Refresh of Regional Transport Strategy, 16 June 2015

**Nature of the Region / Environmental, Social
and Economic Priorities / Significant new
travel demands**

Nature of the Region

Nature of the Region

Population: Urban/Rural Split



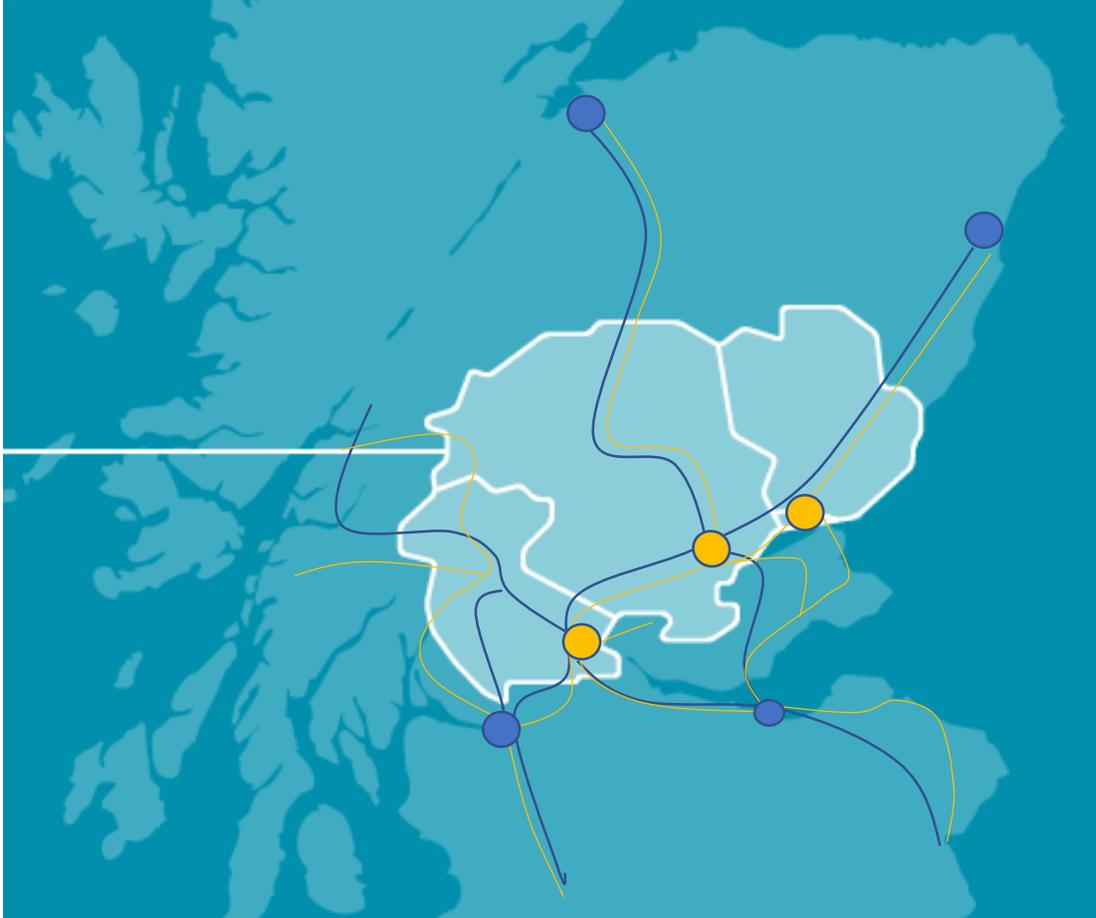
62.7% live in [urban areas](#) (Dundee, Perth, Stirling, Arbroath, Forfar, Montrose, Brechin)

37.3% live in rural areas

13% of Angus, 9% of Perth and Kinross and 7% of Stirling's datazones are in the lowest 5% of SIMD access domain

Nature of the Region

Location in Scotland



National travel demands

- Through traffic
 - M80/M9/A9
 - M90/A90
 - A84/A82
 - Aberdeen/Inverness to Glasgow/Edinburgh rail services
 - Glasgow to Fort William/Oban rail services
- Loch Lomond and the Trossachs and Cairngorms National Parks
- Montrose Port / Blairdrummond Safari Park / Stirling Castle / V&A / Scone Palace / Gleneagles / Carnoustie

Nature of the Region

Regional Travel Demands



Regional travel demands

- Travel to work areas:
 - 79.8% Tay Cities residents work in Tay Cities area (Of all journeys starting in Perth & Kinross, Angus and Dundee City, 81%, 86% and 90% end within the Tay Cities Region respectively TMfS)
 - 65.1% Forth Valley residents work in Forth Valley area
 - NE Angus / Aberdeenshire
 - SW Stirling / Glasgow
 - NW Stirling / Oban
- Hospitals (4 and 1 outside region)
- Colleges and universities

Environmental, social and economic priorities

What are the social, environmental and economic priorities for the region?

National Transport Strategy 2020

Reduces inequalities

- Will provide fair access to services we need
- Will be easy to use for all
- Will be affordable for all

Takes climate action

- Will help deliver our net-zero target
- Will adapt to the effects of climate change
- Will promote greener, cleaner choices

Helps deliver inclusive economic growth

- Will get people and goods where they need to get to
- Will be reliable, efficient and high quality
- Will use beneficial innovation

Improves our health and wellbeing

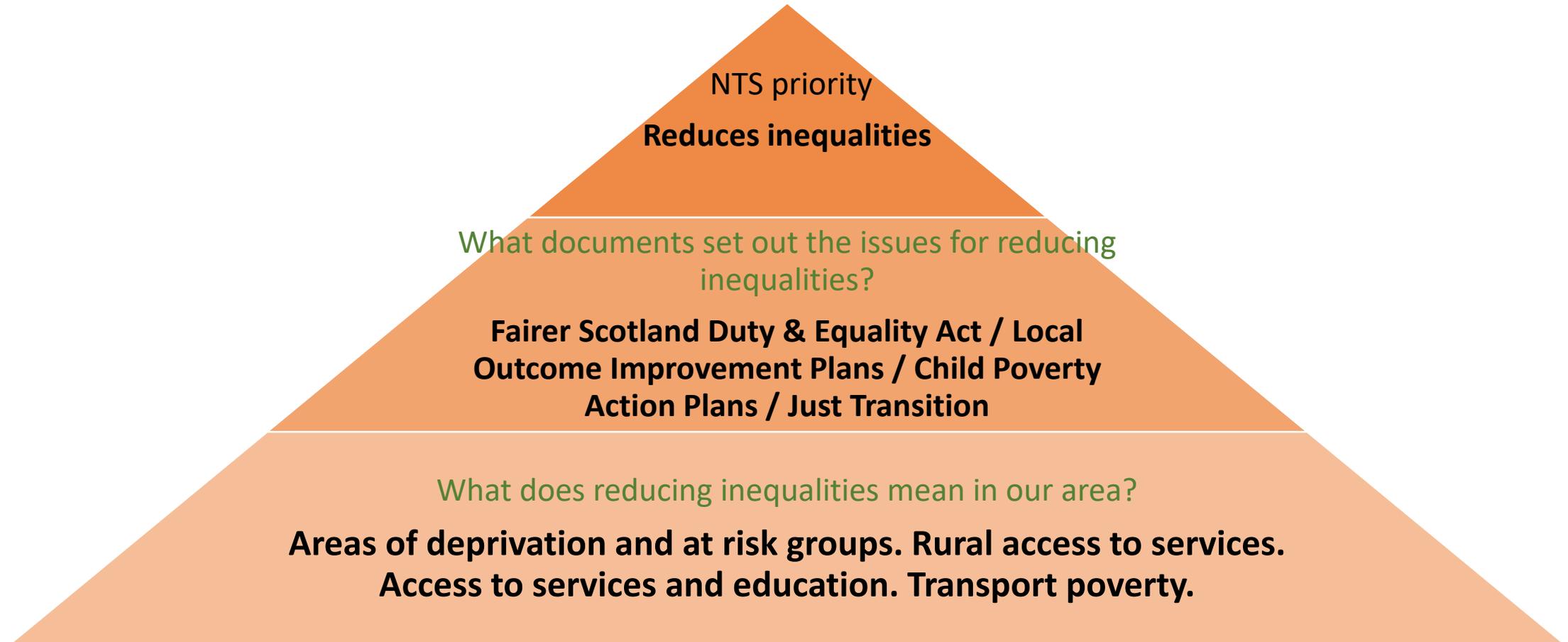
- Will be safe and secure for all
- Will enable us to make healthy travel choices
- Will help make our communities great places to live

What are the significant transport implications for the region of?

- National Transport Strategy 2020 priorities
- The social, environmental, economic strategies that shape partner activity

What are the social, environmental and economic priorities for the region?

Reducing inequalities



What are the social, environmental and economic priorities for the region?

What are the priorities for reducing inequalities?

Where are the inequalities? People / Places		Priorities for reducing inequalities / transport implications			
		Angus	Dundee LOIP City Plan	Perth and Kinross	Stirling
Where are the areas of greatest deprivation? (SIMD worst 5%)		Pts Arbroath (Centre/Harbour)	Pts Whitfield / Fintry / Douglas / Linlathen & Midcraigie / Kirkton / Ardler & St Mary's / The Glens / Hilltown / Fairmuir / Lochee / Menzieshill / City Centre 37% of the City's datazones in lowest 20%. Twice the national average.	10% Pts Muirton / Tulloch / Rattray	Pt Cornton / Raploch
Which groups are at greatest risk? (Tactran EqIA)		young single parents / people with mobility difficulties / reliant on seasonal employment / cultural or religious barriers / gender inequalities / elderly....but maybe a different balance across communities across the region - outside Dundee City and Stirling City, and older than Scottish average population			
Who struggles to access to services & education? (TRACC accessibility modelling / SIMD)		20% of datazones are within the bottom 10% of datazones for geographic access (SIMD)		21% of datazones are within the bottom 10% of datazones for geographic access (SIMD)	17% of datazones are within the bottom 10% of datazones for geographic access (SIMD)
- Young	16-25yrs No PT access to further education	11.8%	1.6%	15.1%	10.4%
- Rural areas	65+ yrs No car households 30-60mins to retail centre	16.9%	11.3%	41.8%	12.0%

What are the social, environmental and economic priorities for the region?

What are the priorities for reducing inequalities?

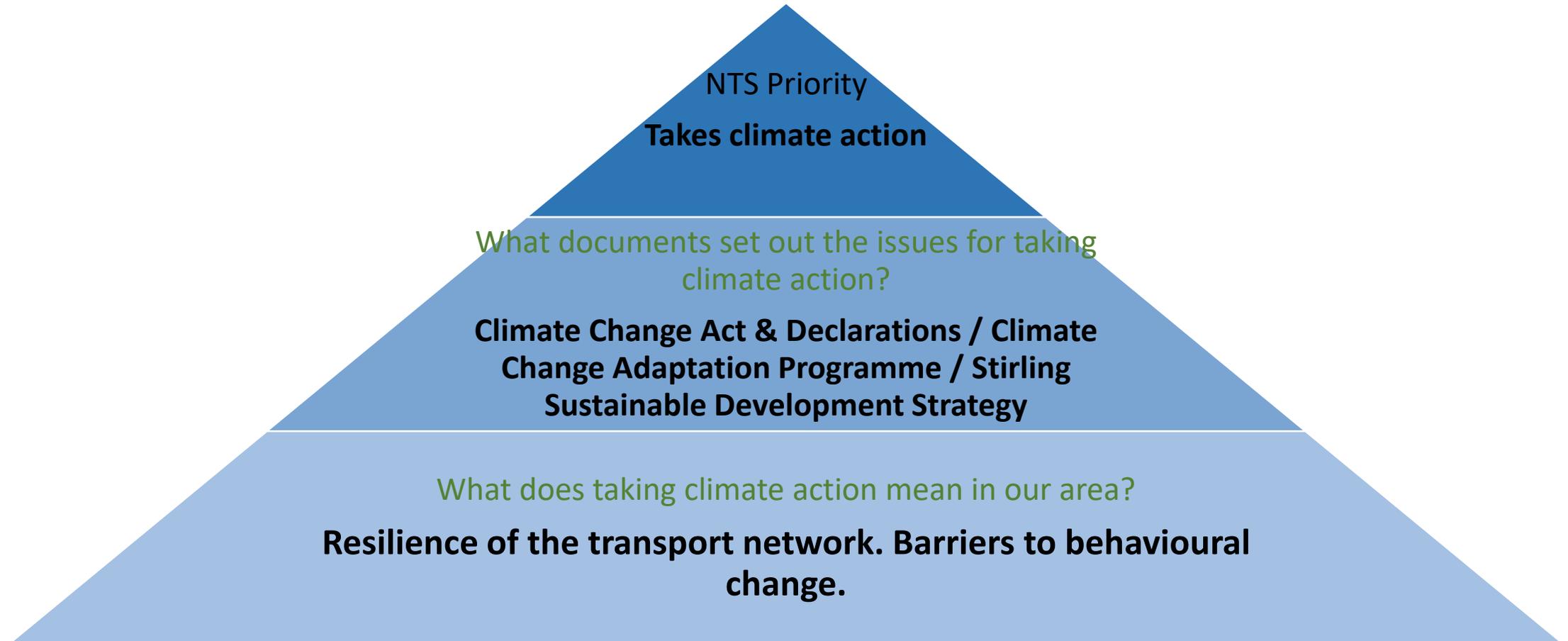
Priorities for reducing inequalities / transport implications				
Where are the inequalities? People / Places	Angus	Dundee	Perth and Kinross	Stirling
Transport poverty: Where, and for who, do travel costs create/compound inequalities? <ul style="list-style-type: none"> Rural areas Areas with limited jobs and services High travel costs vs low incomes 	<i>Average cost of full rail fare</i>			
	<i>2nd highest in Scotland</i>			<i>3rd highest in Scotland</i>
	<i>% weekly income spent on transport</i>			
	<i>tbc</i>	<i>tbc</i>	<i>tbc</i>	<i>Outside Stirling City, much of area spends above national average (14.1% of income) on transport</i>
	<i>% datazones at high risk of transport poverty (car availability/income/public transport access) (Scotland average: high risk 36%)</i>			
54%	11%	35%	35%	

Has covid-19 created / exacerbated inequalities? (see also [scenario mapping](#)) e.g.

- Increased proportion of young out of work?
- women 20-40?

What are the social, environmental and economic priorities for the region?

Climate Action



What are the social, environmental and economic priorities for the region?

What are the priorities for taking climate action?

Priorities for taking climate action / transport implications				
Barriers to change / Resilience of networks	Angus <u>Climate Change Strategy and Action Plan</u>	Dundee <u>Climate Action Plan LEZ</u>	Perth and Kinross <u>Climate Change Action Plan</u>	Stirling <u>Climate Change Sustainable Development Strategy</u>
Where are the problems of adverse weather felt?	Snow & Flooding: Angus Glens Coastal erosion: Carnoustie	Wind: Tay road and rail bridge Flooding: Broughty Ferry; localised flooding in City (Dychtie Burn)	Snow: A9 / A93 Flooding: Perth City / Aberfeldy / Kinross / Comrie / Almondbank Wind: Friarton Bridge	Flooding: Dundee-Glasgow rail line at Cornton / West Highland Line / Alloa Road
What are the barriers to change?	<i>For personal trips, business and fleet, freight, rail</i>			
Infrastructure for and take up of low emission vehicles Shift to sustainable transport - Lack of facilities for all sustainable modes - Where people live and need/chose to travel	Gap between current and target EV infrastructure (0.7% current registrations, target 60-70% coverage by 2032). Issues: <ul style="list-style-type: none"> public sector fleets; availability of infrastructure at rural and tourist locations (including remote tourist parking areas); tenements & flats can access ULEV charging / Cost of EVs (for individuals and businesses) / new housing Census and Scottish Household Survey show little change in modal share to work since 2001/2006 respectively i.e. approx. 50%-70% drive / get lift (census 2011 (exc homeworking) / SHS 2019 below)			
	62% / 71%	50% / 64%	61% / 71%	58% / 69%
	Rural population with limited public transport	Most trips start and end in Dundee City, but are sustainable transport networks sufficiently attractive to encourage change? Hilly.	Rural population with limited public transport options / Perth and Stirling cities have numerous rural villages/towns in hinterland	

What are the social, environmental and economic priorities for the region?

Inclusive economic growth



What are the social, environmental and economic priorities for the region?

What are the priorities for inclusive economic growth?

What and where are the priorities for inclusive economic growth?	Priorities for economic growth / transport implications			
	Angus	Dundee	Perth and Kinross	Stirling
Existing employment sectors and locations	Arbroath, Brechin, Forfar, Montrose	Universities / Ninewells / business and industrial parks off Kingsway / City Centre	Inveralmond / Broxden & Cherrybank/ Friarton / City Centre	Springkerse / Castle Business Park, Kildean & Prudential / City Centre / Stirling University Innovation Park
Growth sectors and locations	Tay Cities City Region Deal Tay Cities Region Economic Strategy 2019-2039 <ul style="list-style-type: none"> • Tourism & Culture • Food & Drink • Engineering & Manufacturing • Energy (including Renewables, Offshore Wind, Oil & Gas Decommissioning); • Digital & Creative Industries • Biomedical, Life Sciences and MedTech • Construction 			Stirling and Clackmannanshire City Region Deal <ul style="list-style-type: none"> • Innovation • Digital • Developing culture, heritage and tourism assets • Transport, connectivity and low carbon • Infrastructure • Skills and inclusion
	North Angus (Montrose)	Michelin Scotland Innovation Park / Waterfront (inc V&A)	North & West Perth James Hutton Institute	<ul style="list-style-type: none"> • University: Scotland’s National Environment Centre & The National Aquaculture Technology and Innovation Hub • Developing Culture, Heritage & Tourism Assets: National Tartan Centre • Infrastructure (MoD Forthside)

What are the social, environmental and economic priorities for the region?

What are the priorities for inclusive economic growth?

What and where are the priorities for inclusive economic growth?		Priorities for economic growth / transport implications			
		Angus	Dundee	Perth and Kinross	Stirling
Connecting Scotland's cities Scottish Cities Alliance (fastest rail journey shown)	Glasgow	Road (Forfar) 125mins Rail (Montrose) 115mins	Road 103mins Rail 80mins	Road 74mins Rail 56mins	Road 39 mins Rail 27 mins
	Edinburgh	Road (Forfar) 107mins Rail (Montrose) 105mins	Road 87mins Rail 71mins	Road 64 mins Rail 71 mins	Road 62 mins Rail 41 mins
		Rail fares between Glasgow/Edinburgh and Perth/Dundee ramp up north of Dunblane....disproportionate cost and limits hinterlands in favour of Glasgow and Edinburgh		Rail to Edinburgh disproportionately long compared to road	
Ensuring access to jobs and training		Public transport availability to make shifts / costs / interchange / changing work patterns (more part-time, esp for mothers)			
	Rural: Pop without car unable to access 3 emp sites by PT within 60mins	43.4%	3.9%	33.2%	16.6%
	Young: 16-24 year olds no access to Further Education by PT	11.8%	1.6%	15.1%	10.4%
Where are the tourism pressures? Tay Tourism Strategy	<ul style="list-style-type: none"> Angus Glens Carnoustie 	Waterfront (V&A) / City Centre		<ul style="list-style-type: none"> A9/A93/Blairgowrie-Dunkeld – Aberfeldy -Kenmore-Aberfeldy-Pitlochry; Blair Atholl (+House of Bruar) Crieff; City Hall (Stone of Destiny); Scone Palace and racecourse; Gleneagles 	<ul style="list-style-type: none"> LLTNP (Callander A84; East Loch Lomond; Killin) Stirling Castle Blairdrummond Safari Park

What are the social, environmental and economic priorities for the region?

Health and wellbeing



What are the social, environmental and economic priorities for the region?

What are the health and wellbeing priorities?

What and where are the health issues?		Priorities for health and wellbeing / transport implications			
		Angus	Dundee	Perth and Kinross	Stirling
Where are there road safety problems?		A90 / A92	A90/A92/A972 Growing % of elderly involved, increasing severity.	A9 Perth to Inverness / A9 Auchterarder / A93	A9 Kier / A811 / A84
Where are the areas of poor health?			33% of the population lives in a SIMD area ranked in the bottom 20% for health		
Where are there air quality problems?			LEZ	Perth City AQMA Crieff AQMA	
Who struggles to access to health services? <small>(Tactran Monitoring Report)</small>	Households without a car (More than 60mins to hospital) 65+ yr olds (no public transport to primary health care)	<i>Ability to access healthcare for those without access to a car, particularly those in a rural location</i>			
		80.5%	0%	13.3%	19.2%
		7.9%	0.5%	11.2%	10.1%

Is noise from transport a problem?

[Dundee Draft Noise Action Plan](#): Twelve candidate noise management areas

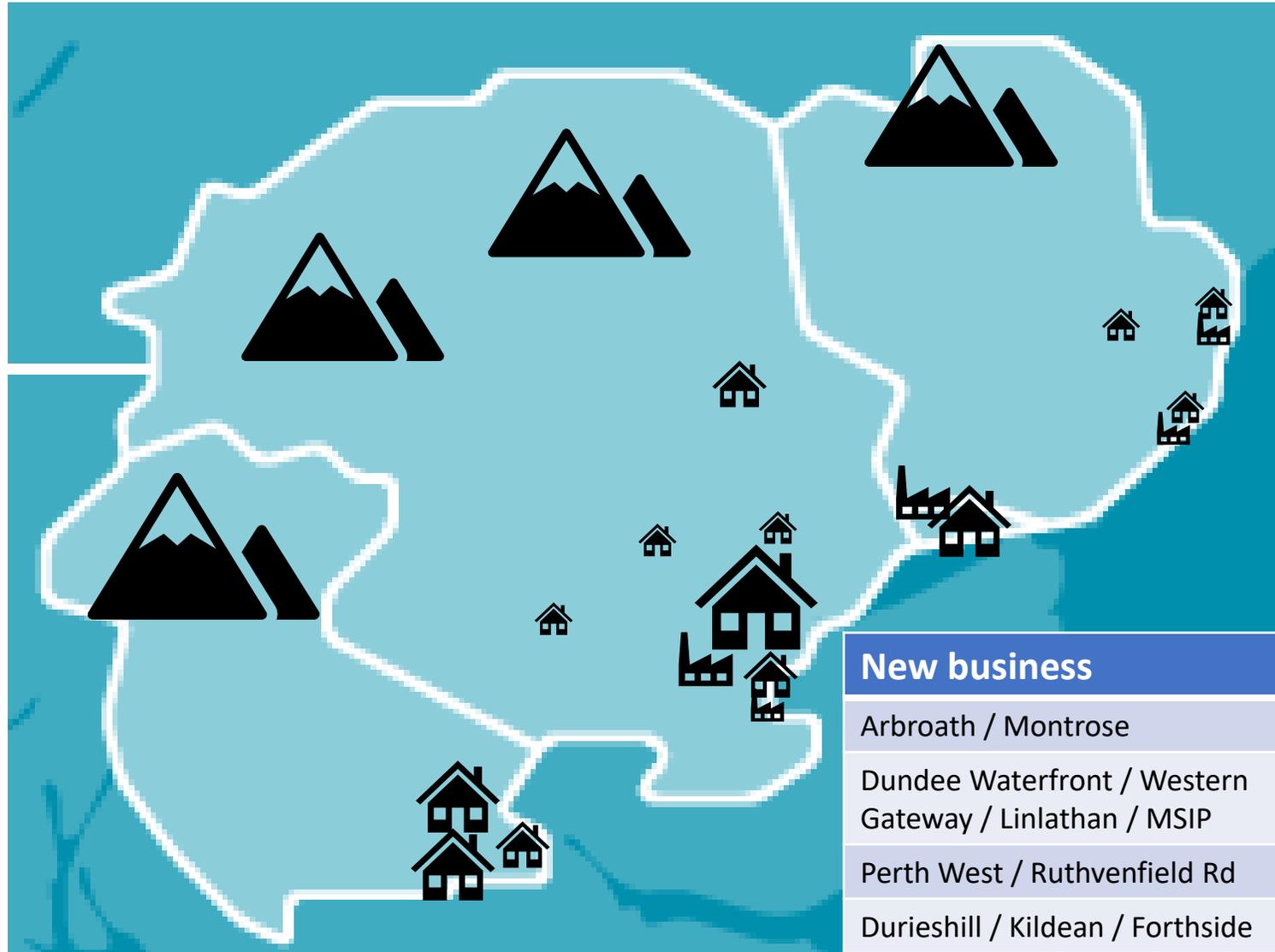
[Transportation Noise Action Plan](#) 19 candidate road traffic noise management areas in the Tactran region (in; Bridge of Allan, Dunblane, Glenfarg, Perth and Stirling; and along the A9 through Stirling) and 1 rail candidate noise management area (in Stirling)

Significant new travel demands in the area

What are the significant new travel demands?

Development Plans	Where are the significant new travel demands?			
	Angus	Dundee	Perth and Kinross	Stirling
Indicative Regional Spatial Strategies TAYPlan	North Angus Growth Opportunity	Dundee Waterfront / Michelin Scotland Innovation Park / Dundee Port / Dundee Western Gateway / Linlathen Employment Site	Perth Eco Innovation Park @ PerthWest / Oudenarde James Hutton Institute Innovation Hub	Themes: <ul style="list-style-type: none"> Innovative Connected Economic Centres (e.g. Town centres / Stirling Uni) Forth Valley Tourism (National Tartan Centre)
<i>Connectivity Themes</i>		A90	Perth Bus and Rail Station A9 – Inverness/Dunblane Cross TayLink Road	Themes: Forth Valley Green/Blue Network / Forth Valley Connectivity
Local Development Plans	Angus LDP 2016-2026 Arbroath: Montrose Rd (280); Crudie (350); Elliot Ind Estate (21ha) Brechin: Dubton (250); Brechin west (27ha) Carnoustie: Pitskelly (250+10ha) Forfar: Turfbeg (300); Westfield (300) Montrose: Montrose Port; Montrose Airport (50ha); Brechin Rd (300); Sunnyside (265+mix) Monifieth: Victoria St (350)	Dundee LDP 2019-2029 Major Housing Allocations: Dykes of Grey (400) Central Waterfront (375) (City Total (2855)) Strategic Development Areas Dundee Western Gateway (750homes + 50ha Emp land) Wider Waterfront (mixed) Linlathen (250hm + 40ha) Principal Economic Development Areas: Goudie / Dryborough / Dunsinane / west Pitkerro / Claypotts / Port of Dundee Specialist Economic Development Areas: Seabraes / MediPark / Technopole / Technology Park	PKC LDP 2019-2029 Blairgowrie: Eastern Expansion (594-928); Western Blairgowrie (179-280) Bridge of Earn: Oudenarde (1600+35ha) Crieff: Broich Rd (409-639) Invergowrie: James Hutton Institute Luncarty: South (589-760) Perth: Bertha Park (3000+25ha); Almond Valley (704-1100); Perth West (2,210-3453+25ha); Auction Mart (189-293); Ruthvenfield Rd (23.6ha) Scone: North (550-748) Stanley: Stanley (248-387)	Stirling LDP 2018-2037 Dureishill (2500-3000 homes) South Stirling Gateway (800) Eastern Villages (1734) City (1779) LLTNPA LDP 2017-2021 Callander: Claish Farm (190 + 48ha tourism)

What are the significant new travel demands?



New business
Arbroath / Montrose
Dundee Waterfront / Western Gateway / Linlathan / MSIP
Perth West / Ruthvenfield Rd
Durieshill / Kildean / Forthside

New Housing	2011 Households	LDP housing	Approx % increase in homes
Arbroath	10934	884	36%
Blairstown	4061	1677	41%
Bridge of Earn	1153	1797	156%
Crieff	3284	920	28%
Dundee	69185	2855	4%
Durieshill	-	2500	-
Stirling Eastern Villages (Cowie, Fallin, Plean, Throsk)	3078	1718	56%
Forfar	6431	978	15%
Luncarty	693	760	110%
Montrose	5740	702	12%
Perth	21704	8581+	40%
Scone	2222	823	37%
Stirling City	15224	2579 ₂₀	17%

15th December Workshop

Strengths and weaknesses of the transport
network / Scenario mapping

Strengths and weakness of the transport network

Strengths / weaknesses of transport network

Strength / Opportunity	Weakness	Dundee	Angus	Perth & Kinross	Stirling
Reducing inequalities <ul style="list-style-type: none"> Access to facilities Inclusive network 	Networks not inclusive for people with mobility difficulties	Limited public transport in rural areas (& then barriers to access eg crossing trunk roads) Cost of travel Networks not inclusive for people with mobility difficulties			
	Good public transport network (day time), but decreasing....		Good community transport sector in some areas	Good demand responsive transport (DRT) network	
	Maas platforms exist	Maas platform exists			
Taking climate action <ul style="list-style-type: none"> Resilience Barriers to change 	Extent and quality of pedestrian and cycle environments (and poorer perception) EV infrastructure				
	Opportunity: Compact City presents active travel opportunities	Compact /walkable towns & cities Plenty of settlements with cycling distance of each other / NCN			
Delivering inclusive economic growth <ul style="list-style-type: none"> Network pinch points Ability to access jobs Connecting the cities Tourism pressures 	Pinch points / unreliable journey times: <ul style="list-style-type: none"> A90 (Kingsway) Swallow Roundabout / Claypotts A92 (Arbroath Road) 	Poor links to Port of Montrose / North Angus	Pinch points / unreliable journey times: <ul style="list-style-type: none"> A9 Broxden / Inveralmond Perth City Centre Perth to Edinburgh rail times/cost	Pinch points / unreliable journey times: <ul style="list-style-type: none"> Strategic: Craigforth / Kier / A91 City Centre (Craigs & Customs Rndbts) 	
	<ul style="list-style-type: none"> Connected on strategic networks road and rail networks (n/s) Airport Opportunity: Limited corridors into City enable park& choose	<ul style="list-style-type: none"> Connected on strategic networks road and rail networks (n/s) Port of Montrose Opportunity: City Region Deal support for North Angus	Well connected on strategic road and rail networks (n/s/e/w) Limited corridors in Cities present p&c opportunities		
			Opportunity: City Region Deal support for Broxden Low Carbon Hub		
Health and wellbeing <ul style="list-style-type: none"> Road safety Air quality Access to health 	Traffic creating air quality issues Road safety problems?(what /where) perception	Poor active travel connectivity between settlements	City Centre pinch points creating congestion and air quality issues		
	Opportunity: Compact City presents active travel opportunities	Opportunity: Many settlements within cycling distance of each other		Opportunity: Many settlements (in south west) within cycling distance of each other	

Scenario mapping

Considering uncertainties

The problem of uncertain futures

- There are many uncertainties about the future which will shape why, where, how much and how we travel? Not least:
 - Technology is rapidly evolving, changing what we can do and how we do it
 - Worldwide events, like climate change, are challenging how we lead our lives
- The Regional Transport Strategy considers how best to meet travel demands over a 20year period to align with the land use planning processes. What are the uncertainties of travel demand and supply that we need to take into account when writing the strategy?
- Over time, these uncertainties will evolve and change, and new ones emerge

How do we ensure that the RTS considers uncertain futures and is responsive?

- Regular reviews of programmes to ensure that the strategy remains relevant and responsive
- ‘Scenario mapping’ helps us highlight the likely impact of uncertainties to inform policies and programmes

Scenario Mapping: key steps

To be discussed at 15th Dec Partnership Meeting

1. Identification of uncertainties in travel demand and supply

- *What uncertainties have we missed in the following slide?*
- *Don't spend time on disaster scenarios such as war and meteors...if those disasters occur, the world recalibrates and gets on with it*

To be considered by officers and reported back in future discussions on the Main Issues Report

2. Consideration of the potential impact of the uncertainties

- *Positive / negative impacts (on who? Where?)*
- *Identify relationships between uncertainties and the impact on demand and supply*
- *Short/medium/long term impact?*

3. Consideration of the likelihood of the uncertainties

- *Positive impacts: Do we want to encourage the impact?*
- *Negative impacts: Do we want to discourage impact? Or mitigate against?*
- *What do Tactran and partners have influence over?*

Uncertainties of travel demand and supply? Any gaps?

Political or Global events	Technology
<ul style="list-style-type: none">• <u>Brexit</u> could affect<ul style="list-style-type: none">• Pop growth as a consequence of immigration• Economic activity (volume and type)• <u>Climate change</u> & adverse weather could affect<ul style="list-style-type: none">• Attitudes to sustainable behaviour• Network resilience• Policy• <u>Economic booms and bust</u> & economic policy responses affect<ul style="list-style-type: none">• Trip generation from house building and general activity• <u>Technology</u> can affect<ul style="list-style-type: none">• the types of jobs we have, affecting where we travel and when	<ul style="list-style-type: none">• <u>Tech helps us achieve objectives</u>: enabling:<ul style="list-style-type: none">• Electric / hydrogen vehicles (reduces emissions)• Demand management tools (e.g. road pricing tech)• Solution such as MaaS• <u>Tech affecting travel behaviour</u>:<ul style="list-style-type: none">• Digital connectivity to drive what we do and how• Driverless cars (road capacity requirements increase then decrease) <p>Existing transport networks</p> <ul style="list-style-type: none">• Future of buses• Cost of energy & travel (as we transfer from 'carbon' to 'green')
Attitudes to	Policy
<ul style="list-style-type: none">• <u>Pandemics</u> / covid-19 (& terrorism) can affect<ul style="list-style-type: none">• willingness to use mass transit• Public response to <u>climate change</u> can affect<ul style="list-style-type: none">• attitude to sustainable travel• Car ownership and <u>shared mobility</u> can affect how we travel• The <u>opportunities tech</u> provides for working at home / shopping / where people live (i.e. town/city)	<p><u>Transport policy</u></p> <ul style="list-style-type: none">• Prioritisation of modes & where will funding be directed (e.g. parking policy / road & congestion charging) <p><u>Land use policy</u></p> <ul style="list-style-type: none">• Urban/rural balance informed by migration/demand for housing <p><u>Fiscal Policy</u></p> <ul style="list-style-type: none">• Road and congestion pricing to compensate for loss of fuel duties?