

## **Connecting Scotland – The Changes Needed to Fund Better Transport**

**Occasional Paper 2014/2**

Written and researched by Derek Halden

Version 1.0 – 5 November 2014

2 Dean Path, Edinburgh, EH4 3BA, [editor@stsg.org](mailto:editor@stsg.org), web [www.stsg.org](http://www.stsg.org)

## Summary

This paper looks at who pays for transport, what they pay for, and why new collaborative investment approaches are needed to enable better transport. It challenges all transport funders to think about how to invest in the system for mutual benefit, and recommends changes in the organisation of investment.

At the heart of transport policy and delivery is a problem. Transport policy seeks economic, social and environmental goals but the main outcomes of transport delivery are measured in terms of travel demand and customer satisfaction, rather than these wider goals. As a result, current investment mainly promotes more transport, not better transport.

Consumers can most easily improve their personal access when they purchase cars, make more use of taxis and buy more flights, but these same consumers recognise that personal gains from this growing transport spending are poorly aligned with broader social goals for better transport.

People are willing to buy more socially optimal solutions when attractive, achievable local opportunities solutions are organised. However, there are currently few opportunities for people, businesses and agencies to purchase better transport options which align social, personal and corporate needs.

The dearth of investment opportunities derives partly from a recent history of delivery failures. This legacy hampers new ways to pay for transport, but, these problems are being overcome. There is currently rapid growth in mechanisms to bundle, package, and retail transport in new ways to overcome acceptance issues.

Investment from businesses and consumers partly depends on being able to link the transport benefits to competitiveness, higher house prices, or other spatially and socially targeted benefits. Willingness to pay is enhanced by perceptions of fairness and reciprocity and these goals must be embedded in delivery partnerships.

Enabling the £15bn being spent each year on Scottish transport to be better used, will require more focused project partnerships than has been common within recent community planning. Access to services action plans have proved to be highly successful in making connections, since the benefits for people and places are explicit. Progressively replacing funding for roads, railways, buses, ferries, and aviation with funding of better transport outcomes will help to rebalance individual transport changes, so that they are more consistent with system level goals.

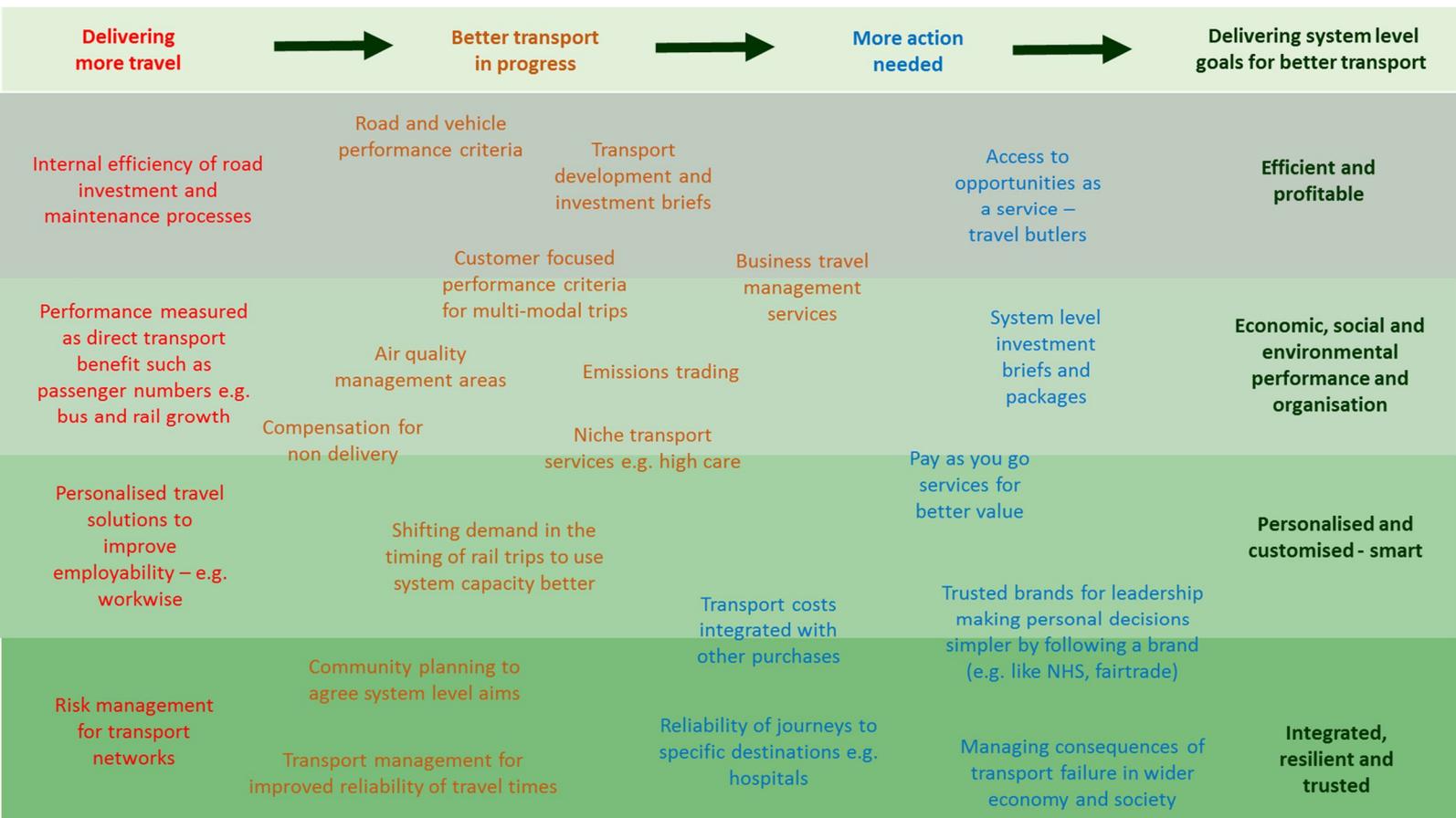
With static or falling Government investment, there is an increasing risk that parts of the transport system will suffer from underinvestment unless

## Connecting Scotland - The Changes Needed to Fund Better Transport

ways are found to secure greater contributions from people and businesses, who may be prepared to pay more to receive the benefits they seek. Achieving this will require investment outcomes to be better linked to impacts, better customised delivery plans, and new partnerships able to build consensus across different levels of government and with people and businesses in the wider economy.

Road equivalent tariff, air discount scheme, rail franchises and some bus investment link investment with use, and are a helpful step towards more user focused investment. More integrated investment approaches through business, health, education, retail and leisure travel schemes could link new funding with sales of wider services and products to secure wider transport benefits as a managed outcome.

To manage this investment, transport authorities need a clearer remit with outcomes for system efficiency, customisation, networking and resilience, complementing current outcomes for transport efficiency and performance. Underpinning this new approach should be a new regime which considers the relationship between funding inputs and the smarter outcomes and impacts which should be deliverable through a more focused approach.



## Contents

1.0	Introduction .....	1
2.0	Who Pays for Transport? .....	2
	<i>Spending patterns</i> .....	2
	<i>Growing problems</i> .....	4
3.0	Who Buys Better Transport?.....	7
	<i>Direct and indirect benefits – more transport or better access?</i> .....	8
	<i>Personal and social value as citizens and consumers</i> .....	9
	<i>Simple solutions for complex policies</i> .....	10
	<i>Free at the point of delivery?</i> .....	10
	<i>The value of integration, packaging and partnership</i> .....	12
4.0	Funding Mechanisms for Better Transport .....	13
	<i>The central role of public authorities</i> .....	13
	<i>Efficiency by aligning consumer and business spending with transport policy</i> .....	14
	<i>Investing in better transport performance</i> .....	15
	<i>Personalised, customised and targeted - smart</i> .....	16
	<i>Integration, organisation and social capital</i> .....	18
5.0	Conclusions .....	19
	<i>Recommendations</i> .....	20
	<i>Acknowledgements</i> .....	21

# 1.0 Introduction

- 1.1 This paper looks at who pays for transport, what they pay for, and how new approaches to transport investment could be used to pay for better transport. It seeks to challenge some current assumptions about how better transport is defined and how it can be funded.
- 1.2 There is a dearth of transport debate about how to charge more for better transport, despite the evidence that people spend an increasing proportion of their disposable income on transport; getting pleasure from buying new bikes, cars, flights and even travel information gadgets. Transport policy has tended to emphasise the desire to minimise transport costs.
- 1.3 Transport connects up the economy and society, so if it is not funded appropriately the consequences affect everyone. If transport funding constraints result in declining transport performance then paying for better transport may be an attractive option to secure better lifestyles and business efficiency.
- 1.4 In the years ahead, static or falling Government investment at a time of rapid change demands a new approach to investment. Delivering new energy sources for transport, new information technology and greater automation will not be cheap.
- 1.5 This paper reflects on what needs to be achieved and how it might be delivered.

## 2.0 Who Pays for Transport?

Households spent £3.7bn on transport in 2013 and Government transport investment is running at its highest ever level of £2.28bn in 2012/13. The total spent on transport per year exceeds £15bn but most spending is hidden within purchasing of businesses, agencies and other organisations.

Tax receipts from transport in 2012/13 were £3.95bn.

Indirect ways to pay for transport are increasingly common. Planning consents are used to lever funding including levies and charges applied through property legislation and taxes.

Transport is one of the most important sectors of the economy and is a growing sector in its own right. However data about how these growing transport markets and services is hampered by the use of outdated expenditure classifications. The accounting conventions are unclear for emerging partnership delivery such as investing in social capital through a publicly promoted and funded privately operated shared car scheme.

### *Spending patterns*

2.1 Figure 2.1 shows the recent changes in household spending, transport taxation and government spending. There are three main groups investing in transport:

- Households – Households have been spending more on transport<sup>1</sup> over the last 20 years and in 2013 spent £3.7bn<sup>2</sup>.
- Government transport investment – Government investment in 2012/13 reached its highest ever level of £2.28bn
- Corporate purchasers – This is the largest source of funding but there are no reliable estimates of its total value. Very approximately this group spend over £10bn per year<sup>3</sup>.

---

<sup>1</sup> With the exception of a recent slight fall in spending between 2008 and 2012.

<sup>2</sup> Figures for rail, bus, purchase of vehicles, operation of vehicles and other transport services from Scottish Transport Statistics No 32 (2013) Chapter 10. Air travel expenditure is estimated from the number of trips made by Scottish residents in the CAA Passenger Survey report 2012 assuming an average return flight cost of £150.

<sup>3</sup> Businesses costs include staff travel and transport of freight but pass on these costs to customers through mainly non transport household budgets such as retail. Large agencies such as the NHS buy transport for not just staff but customers/patients. Not only is the level of the corporate purchases unclear but the distribution of the spending geographically is also not known.

## Funding Better Transport

- 2.2 £3.95bn<sup>4</sup> was raised in transport taxes in Scotland in 2012/13<sup>5</sup>. Based on the above figures it can be concluded that transport funding is between £15 and 20bn per year in Scotland, which is roughly 10-15% of GDP.
- 2.3 During the economic downturn since 2008 household spending fell slightly, mainly as a result of declining car vehicle use and air travel. However government spending rose. In the forward budgets direct comparisons are not possible with the past as the Scottish Budget uses slightly different categories for spending compared with the reporting of past transport. However in the years ahead the budgets for government expenditure are not planned to increase substantially on the current levels and may decrease slightly in real terms.

**Figure 2.1 – Transport Taxation, Government Spending and Household Spending by Year**



- 2.4 Figure 2.2 shows that Scottish Government has chosen rail services and trunk roads as its main spending priorities which reflects its executive responsibilities as the roads authority for trunk roads, and its responsibilities for railways under the 1993 and 2005 Railways Acts. Similarly for local

---

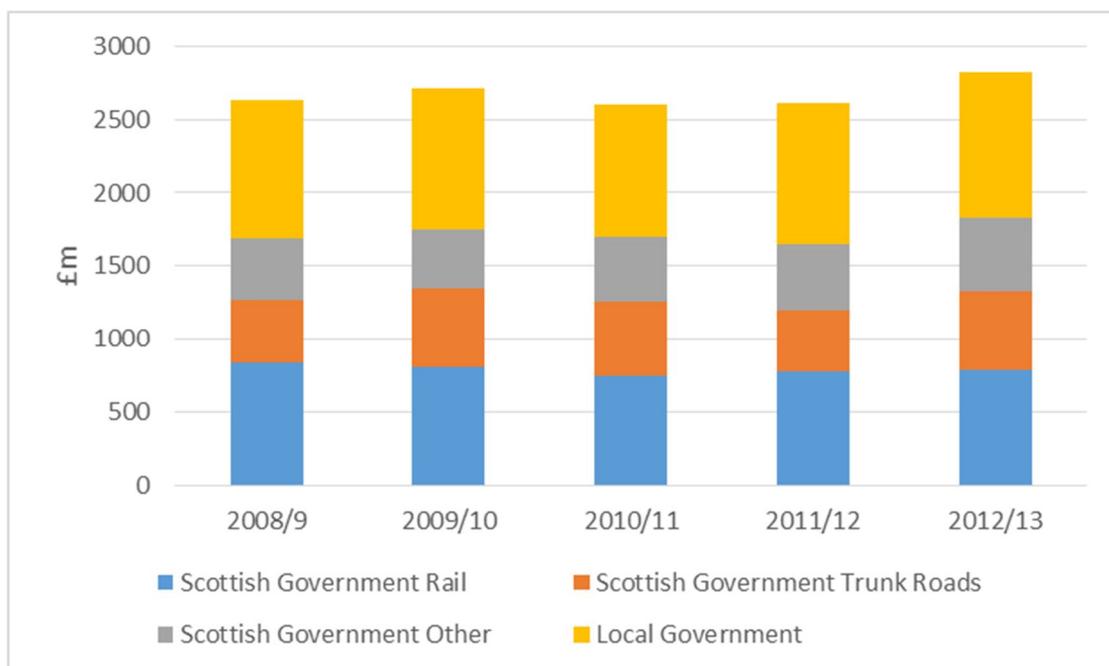
<sup>4</sup> Scottish Transport Statistics No 32. Chapter 10. Including receipts from Scotland for Fuel Duty, VAT, Air Passenger Duty, and Vehicle Excise Duty.

<sup>5</sup> There is no VAT on air, bus or rail fares so the total tax % will be much lower for these modes. Car, van and lorry taxes are much higher. No allowance has been made for VAT reclaimed by businesses for fuel, parking and taxi used on business.

## Funding Better Transport

authorities, over 70% of the local authority spending is on local roads, the network for which they have the most direct accountabilities.

**Figure 2.2 – Top Transport Spending Priorities**



- 2.5 Despite government spending being only a proportion of the total transport spending, transport authorities spend very little enabling or encouraging business and consumer spending consistent with transport policy priorities. The budgets for these enabling and encouragement measures are too small to be identified separately in transport statistics.
- 2.6 No attempt has been made to separate capital and revenue spending as there is no reliable way of achieving this based on the current household and business expenditure figures, which make up the largest proportion of the funding.

### ***Growing problems***

- 2.7 Transport policy states that it wishes to rebalance the transport economy towards public transport and away from car travel. However the largest investors in transport are people and businesses who do not necessarily invest in government priorities. The current inconsistency between government transport policy and the big investment decisions weakens transport policy effectiveness<sup>6</sup>. Car purchase and rail ticket purchases are both at record levels but none of the transport policy documents across Scotland cite more cars as the main solution to transport problems.
- 2.8 Even amongst consumers, cars are no longer seen as the universal future for travel and people are becoming more multi-modal in their behaviour. Air fares attract high levels of consumer spending and spending on taxis,

---

<sup>6</sup> In recent research the total budgets for promotion and enabling activities were estimated to be less than £5m per year although may have risen to about £6m per year during a recent pilot programme [http://www.transportscotland.gov.uk/files/SCSP\\_-\\_Goingsmarter\\_-\\_Final\\_version\\_-\\_Do\\_not\\_edit.pdf](http://www.transportscotland.gov.uk/files/SCSP_-_Goingsmarter_-_Final_version_-_Do_not_edit.pdf)

## Funding Better Transport

parking, bus and rail travel are also substantial. Although multi-modal payment schemes for transport have been widely discussed for more than a decade they have yet to become popular consumer spending choices.

- 2.9 The costs of meeting transport demand far outweighs available funding. Population and mobility growth over recent decades have changed transport requirements to the point where road and rail networks are struggling to cope with demand. Demand management is controversial and transport capacity improvements have lagged behind travel growth. Travellers, particularly road users, pay high taxes and find these difficult to relate to expenditure on the road network. The debate about how much motoring taxation to re-invest in road investment is further clouded by competition between other modes of travel for a higher share of government funding.
- 2.10 The costs of inefficient and ineffective transport are far greater than the costs of the investment needed. Lack of clarity about who should pay for transport has been a greater barrier than lack of funding<sup>7</sup>. Even within government, demonstration projects have shown that significant savings could be made in the expenditure of non-transport departments<sup>8</sup>. Education, health and social care savings could all be delivered through more efficient transport investment if more integrated delivery could be organised<sup>9</sup>.
- 2.11 Transport is one of the most important sectors of the economy and needs a more coherent policy framework enables all stakeholders to contribute efficiently. Achieving more efficient transport delivery depends on better management of transport supply and demand<sup>10</sup>. The funding gap derives from the lack of synergy between the drivers of travel demand and the policy goals for transport supply.
- 2.12 These funding issues have proved to be persistently difficult to resolve. New approaches are needed to better align government policy and consumer spending. There is no consensus on what better transport in Scotland comprises, far less organised payment mechanisms for people and businesses to fund it.
- 2.13 It may be that the majority of Scots will continue to view social goals as solely the role of Governments and private goals the inevitable choice of individuals. However there is no evidence that Scots would actually

---

<sup>7</sup> Audit Commission 2001 – Going Places.

<sup>8</sup> DHC and University of Westminster 2004. Developing and Piloting Accessibility Planning. Final Report. DfT. London.

<sup>9</sup> TAS comparison of education transport and savings achieved in demonstration schemes.  
[http://www.taspartnership.co.uk/content/index.php?option=com\\_content&view=category&id=15&Itemid=80](http://www.taspartnership.co.uk/content/index.php?option=com_content&view=category&id=15&Itemid=80)

<sup>10</sup> In recent work for Audit Scotland, NHS transport budgets could not be established even to the nearest £100m but detailed case study evidence if replicated across Scotland suggests that NHS spending could exceed £500m per year plus infrastructure costs such as car parking provision. Audit Scotland recommended stronger budgetary control and partnership delivery to achieve substantial savings

## **Funding Better Transport**

accept the restrictions on consumer choices and taxation measures which would be needed for Government's to actually succeed in funding better transport with such a segregation of responsibility. Funding better transport depends on developing better shared investment priorities for transport into which more of the available funding can be directed.

## 3.0 Who Buys Better Transport?

There is currently little consensus on what comprises better transport. Better transport is as complex and diverse as society itself.

Consumers are not generally buying better transport. People can most easily improve their personal access when they purchase cars, make more use of taxis and buy more flights but these gains are poorly aligned with social goals.

It is not clear if Government is buying better transport. There is widespread public support for top level policy goals that good transport enables a wealthier, healthier, smarter, more inclusive, greener and stronger society. However, the extent to which such top level goals are actually delivered through Government spending programmes is not explicit.

There are currently few opportunities available for people, businesses and agencies to purchase the transport that would be best aligned to personal and corporate needs. However when such opportunities are made available they are popular and attract investment.

Community based transport shows that people are willing and able to pay for better transport at a local level when it is organised.

New ways to attract investment have had limited success since the benefits of more funding have often been less important to people than a lack of fairness in the solutions delivered.

The design and organisation of new ways to pay for better transport have been emerging through better integration of transport with the wider economy.

Current investment from businesses and consumers is highly dependent on being able to link the transport benefits to competitiveness, higher house prices, or other spatially and socially targeted benefits.

3.1 Each stakeholder who funds transport has a reason for doing so. The concept of better transport is as complex and diverse as society itself. The ability to fund transport depends on the perceived benefits for each funder being sufficient to attract the funding. Transport benefits are reviewed from various perspectives:

- Direct or indirect benefits
- Personal and social value
- Simplicity and complexity
- Free at the point of delivery?
- The value of integration, packaging and partnership

## Funding Better Transport

### *Direct and indirect benefits – more transport or better access?*

- 3.2 There is a strong relationship between how much is spent on transport and the volume of travel. This is the direct benefit of transport investment in delivering more travel. It is quite easy to make a business case for investment in transport where new transport supply generates sufficient additional revenue through greater travel demand. Direct benefits of transport in terms of increased travel demand are generally well funded.
- 3.3 If government views its role as an independent player in transport markets with a narrow role to fund certain parts of the transport system then government transport investment has been highly successful. There has been a very clear correlation between Government spending and induced travel.
- 3.4 However few of the politicians accountable for this government spending are comfortable answering a straight question about whether they want more or less car travel. The case for public funding is not made for these direct benefits, but for the indirect benefits to the economy and society where success or otherwise in delivering goals remains unclear.
- 3.5 Governments state that they want to improve transport to make a wealthier, healthier, more inclusive, smarter, greener and stronger society. If better transport is defined as the transport that helps to achieve these goals, the links between transport provision and these goals must be clear. However, this requires Government to align transport delivery with the priorities of society, creating the conditions where the indirect benefits of transport investment are planned, managed and delivered.
- 3.6 Viewed from this perspective transport investment has not been particularly successful. National statistics show that in many places, and in the experience of many people, road congestion has grown, transport emissions have risen, people have become more obese, and people spend an increasing proportion of their income on travel. Transport policy aims are clear but the strategy to deliver these policies is not working<sup>11</sup>. Research has shown that government has been poor at investing in its social aims for better transport with the impact of public spending being less fairly distributed across society than even private investment by consumers and businesses<sup>12</sup>.
- 3.7 Fuelling the direct benefits of transport such as wealthy people travelling more in cars, and by doing so contributing even more tax, was dubbed “the great car economy” in the 1980s, but has been applied more subtly by recent Governments to respect the difficult balance between the democracy of the marketplace and the democracy of political systems.
- 3.8 There is therefore a gap between the promise made to purchasers of transport of indirect benefits such as greener, stronger, smarter, fairer and

---

<sup>11</sup> House of Commons 2013 – Transport and accessibility to Public Services. 2<sup>nd</sup> report of the Environmental Audit Committee.

<http://www.publications.parliament.uk/pa/cm201314/cmselect/cmenvaud/201/20102.htm>

<sup>12</sup> E.g. SEU 2003 Making the Connections. Cabinet Office.

KOTI 2014 Analysis of Social Equity of Transport Expenditure.

## Funding Better Transport

wealthier communities, and the outcomes of investment which are more clearly related to direct benefits from more travel. Longitudinal studies of the indirect benefits of transport investment show that outcomes and impacts are complex and not generally related to the direct benefits. Transport investment decisions do not currently reflect this complexity so funders, taxpayers, are not necessarily getting what they pay for.

### *Personal and social value as citizens and consumers*

- 3.9 Perhaps the most important problem in achieving a consensus on better transport is that people view transport from two perspectives at the same time; citizens and consumers. This conflict pervades every aspect of transport politics, markets, and provision. People to want a car free street outside their house, yet to be able to drive whenever it suits each individual.
- 3.10 The consumer perspective considers the choice that an individual makes in the marketplace. Consumers will only buy the solution if the option fits with their personal preferences. This might involve the consumer paying more for transport to achieve wider benefits such as an improved environment, but the marketplace determines what is funded.
- 3.11 Citizen perspectives weigh overall benefits. Even though a person may personally face higher transport costs or longer journey times for some journeys, the acceptability of the scheme is based on evidence that overall citizens will be winners. In order to fund and deliver acceptable social policies for citizens, community leadership is needed. This can come from public authorities, community groups or private businesses and Community organisation and funding of transport is a developing area<sup>13</sup>.
- 3.12 The views and decisions of citizens and consumers develop in complex ways and are sensitive to context and timing. Funding of transport depends on the willingness of funders to pay and the willingness of citizens to accept the approach.
- 3.13 Currently neither citizens nor consumers are getting what they think they are paying for. Journey times and costs for travel are generally going up not down, so although some specific communities benefit from short term impacts of transport infrastructure changes, the overall effect of growing congestion and other resource shortages are for higher prices in the long term.
- 3.14 Progress improving community planning to deliver better transport has been achieved in some local places but the overall rate of progress has been very slow. Community planning processes have so far failed to integrate mainstream funding for transport into project delivery. There are many good examples of communities resolving complex economic, social and environmental conflicts at the level of their local community. These have raised project funds from a variety of sources such as donations and grants.

---

<sup>13</sup> Scottish Government 2014. Community Empowerment Bill.

## Funding Better Transport

- 3.15 Government policies for citizens remain largely subjugated to the spending programmes which react to consumer demand. Investment in better transport by both citizens and consumers lacks leadership. New technologies and changing energy systems are likely to dominate transport investment by government and consumers in the years ahead. At this time of great change, reacting to speculation in consumer markets would result in very wasteful investment so stronger leadership is needed.

### *Simple solutions for complex policies*

- 3.16 Currently there are few simple ways available for people to pay for better transport. They can buy more travel, better vehicles to travel in, and better portable electronic devices to connect with, but they have few opportunities to invest in the core networks. Cars are only useful if they have suitable roads to travel on, and mobile devices are only useful if electronic networks are available.
- 3.17 There are social benefits from raising funding for transport in other ways<sup>14</sup>. In most situations people lack the opportunity to pay for 'option value'. Recent analysis<sup>15</sup> showed that bus users and non-users have an option value associated with the availability of a bus service, over and above any use value. However there is currently no business model capturing this latent willingness to pay. Option values for some public transport exceed use values so simple ways to purchase these opportunities for better transport would help.
- 3.18 Current investment opportunities in transport enable householders to pay through service agreements for parking or local public transport subsidies. These are currently driven by planning agreements for new housing or by rationing on street parking. Some service agreements include other shared services such as car clubs. There is substantial scope for further development of these agreements to be used to purchase better transport in many new ways.
- 3.19 If better transport is the delivery of the transport policy aims around which there is broad consensus, there is no prospect of better transport until simpler ways of buying better transport are organised.

### *Free at the point of delivery?*

- 3.20 Simple solutions fail if they do not recognise that good policy can be complex<sup>16</sup>. A free to use transport system has been viewed as a desirable

---

<sup>14</sup> Veeneman, WW & Koppenjan, JFM (2010). Securing public values in public transport projects: Four Dutch cases in innovation. *Research in Transportation Economics*, 29(1), 224-230. (TUD)

<sup>15</sup> Greener Journeys 2012. *Buses and Economic Growth*. ITS Leeds. Based on very conservative analysis, the Greener Journeys work noted that willingness to pay for bus travel above fares paid extrapolated to the Great Britain level would imply an aggregate 'option value' of over £700 million per annum

<sup>16</sup> New Roads by New Means was a controversial policy in the early 1990s enabling private finance of new roads. The controversy arose because this approach delivered investment to certain types of project and not to others. The largest road scheme completed under this legislation was the M6 northern by pass of Birmingham but in Scotland two schemes were promoted under the policy: the Skye Bridge and the Queensferry Road Bridge.

## Funding Better Transport

policy aim and in recent years the trends in Scottish transport have been towards more travel being free at the point of delivery. Road tolling income is now at its lowest ever level, as a proportion of transport income, as a result of the abolition of most bridge tolls. Free travel schemes and concessions cover more people for travel at more times of day on more of the public transport system.

- 3.21 Public hostility towards road tolling in Scotland grew when an unfair tolling approach was applied at the Skye Bridge and wider debates about the fairness of tolling systems emerged<sup>17</sup>. This was compounded by a failed proposal for an unfair road tolling scheme in Edinburgh<sup>18</sup>.
- 3.22 Since tolling of some roads is almost universal practice worldwide, particularly in more sparsely populated areas, the current low level of funding through pay as you go travel in Scotland seems at odds with a more general trend towards pay as you go travel.
- 3.23 The unfairness of tolled roads has been debated more than the unfairness of current transport provision. There is a need for a substantial programme of investment to address current inequities<sup>19</sup>. Tackling unfairness is currently an important motivator for community investment in better transport. This is one of the reasons why most remote parts of Europe have relied on tolling to generate sufficient income to pay for good transport, because it can be the fairest way to fund spatially differentiated benefits.
- 3.24 In leafy suburbs, road use and clear air may be free at the point of delivery but the value of this is reflected in the house prices. The spatial dimensions of government policy and the social targeting of transport benefits are currently funded in subtle ways that appear to owe more to maximising land value than the social aims that are more commonly the purpose of government investment.
- 3.25 People cannot currently buy clean air without moving house. In the past, people needed to move location to avoid being exposed to cigarette smoke but the change in attitudes towards smoking legislation rebalanced social values so that “the rights of an individual end at the next person’s nose”. The right to drive is often seen as a similar type of issue, but the right to emit exhaust fumes applies to public transport as well as cars. The transport rights and responsibilities are more complex.
- 3.26 Although policy principles such as ‘polluter pays’ are defined and implemented through road fuel taxation, the mechanisms to use the taxes to fund mitigating measures in the affected places are poorly developed. In practice this means that people who benefit from high house prices have little responsibility for the pollution they cause when they pass through less wealthy areas. Air quality management areas

---

<sup>17</sup> DHC 1997. Skye bridge Socio-Economic Impact Assessment showed that in relative terms many who benefited least from the bridge paid most.

<sup>18</sup> DHC 2001. The New Transport initiative in Edinburgh. Equity Impact Assessment. Final Report for Edinburgh City Council.

<sup>19</sup> SEU2003. Making the Connections. Social Exclusion Unit. UK Government

## Funding Better Transport

have potential to address this but no Scottish proposal has yet been implemented.

- 3.27 It is not easy to see how better transport can be funded without more direct charging for road use. Fuel taxation is a poor proxy for spatially and temporally differentiated transport benefits. Technology systems allow progressive pay as you go travel. However public attitudes towards these approaches will take time to develop so in the short term other approaches are needed to enable paying for spatially and temporally differentiated benefits.

### *The value of integration, packaging and partnership*

- 3.28 Some of the most successful ways people and businesses currently invest in the transport system are through community action on car sharing, lift sharing, rail station investment, community rail partnerships and other similar projects. Adopting stations, building new railway lines and running bus services have shown how to take a broader social and economic systems level view of transport. Buying flower baskets for a local station helps to grow rail patronage, build capacity amongst gardeners in the local community and create a more attractive environment.
- 3.29 The way that transport is retailed and marketed has been important in supporting the growth of this community investment. This has wider implications. If people receive common messages from multiple sources then shared goals are more likely to be deliverable. For example, integration of public health policy with active travel promotion achieves substantial efficiency gains when seeking to combat inactive lifestyles and obesity. There are some travel choices that people will only make if the transport supply is bundled into a coherent overall package.
- 3.30 Retailers currently spend money on parking since this integrates transport with shopping to help their competitiveness. If they spend the same money investing in a public system like buses or trains they may find that they help their competitors unless they can use smart payment systems to target their investment. They therefore invest mainly in car travel. Tackling these perverse incentives is needed to secure a more balanced approach to transport investment.

## 4.0 Funding Mechanisms for Better Transport

People are 'willing to pay' more for transport but are not 'willing to accept' the current investment mechanisms they are being offered.

Current spending patterns indicate that there are opportunities to bundle, package, and retail transport in new ways to overcome these acceptance issues capturing more of the latent willingness to pay.

Local authorities and their community planning partners could package their transport plans in new ways to make them more investible.

Parking is licenced, managed and sold by Councils, shops, offices and leisure attractions and there is scope for these managers of land and facilities to expand their roles to add value and income to other transport.

Access to services action plans within broader community plans have proved to be particularly successful in attracting social funding from non-transport agencies and have much greater potential in the future.

Integration of transport with sales of other products and services could open up substantial new transport investment opportunities.

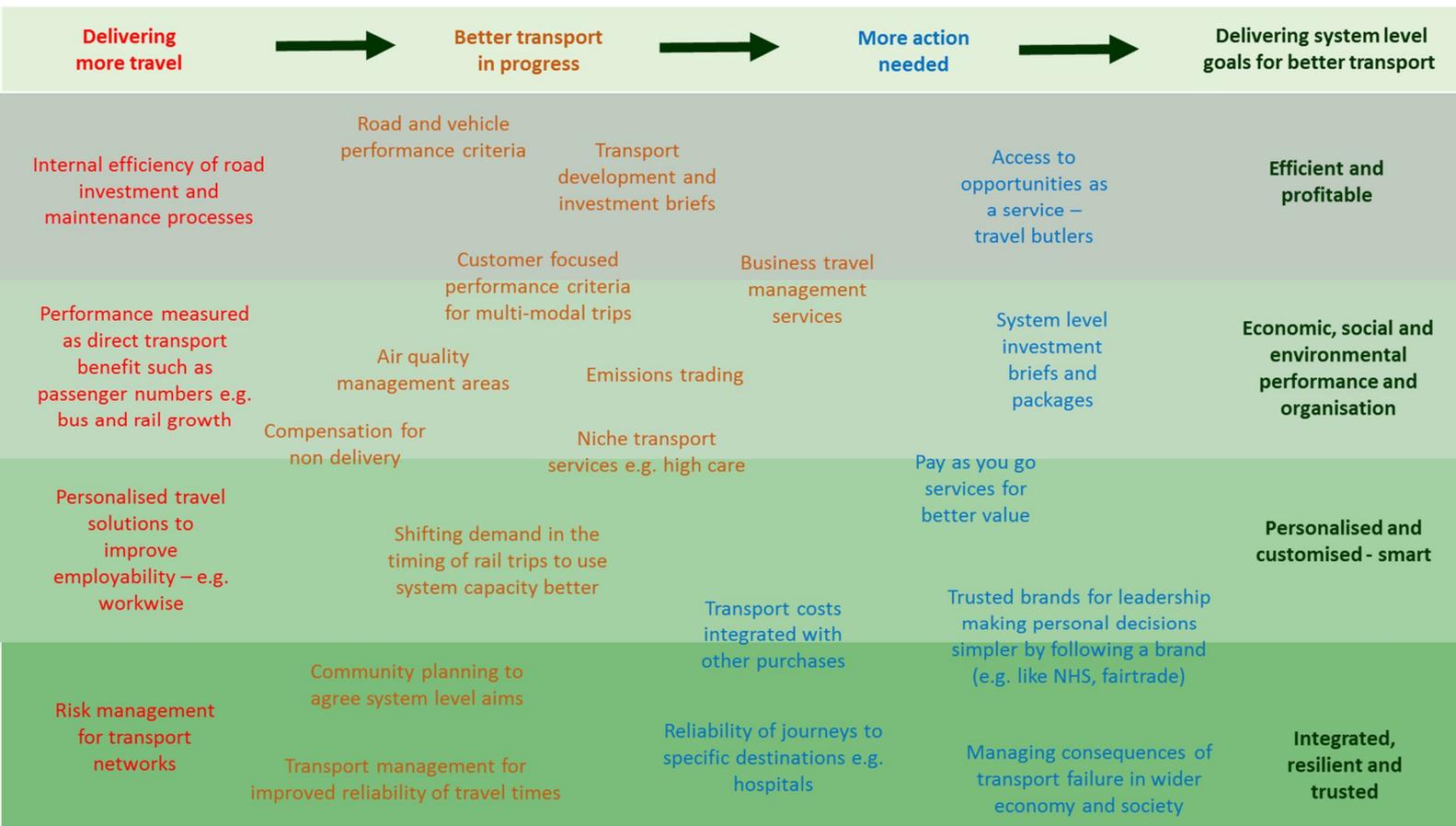
### *The central role of public authorities*

- 4.1 The current framework for funding transport in Scotland could be substantially improved to open up new funding opportunities for people and businesses to pay for better transport. This Chapter identifies some of the opportunities which would merit consideration. These new funding streams should complement existing funding mechanisms to raise the overall level of investment in better transport.
- 4.2 Public authorities are key players in funding transport, particularly infrastructure, but also providing financial support for the operation of ferries, trains, buses and other services. The authorities raise funds through general taxes and charges, profits from delivering transport services, and supplement this funding with loans and grants from banks and funding agencies. There are however limits to the funding which can be raised through these mechanisms which are sometimes below socially optimal levels.
- 4.3 In addition to their role on funding and managing transport, transport authorities also create the framework within which other people, businesses and agencies invest in transport. Transport authorities have tended to focus more on what they deliver than what they enable and much more could be done enable private individuals, businesses and investors to fund those elements of the transport system which transport authorities are unable to afford. Currently these businesses and individuals are investing in transport largely for private benefit, but could be enabled to also invest in better transport with social benefits.

## Funding Better Transport

- 4.4 Substantial progress has already been made to prioritise the transport investment that delivers overall system level benefit for the economy, society and the environment in addition to transport system benefits. The focus is shifting from transport related goals to system level goals as shown in Figure 4.1.

**Figure 4.1 – From Funding More Travel to Funding Better Transport**



### ***Efficiency by aligning consumer and business spending with transport policy***

- 4.5 Few people expect government to buy them their car, but people often expect their rail travel to be subsidised at a cost to the taxpayer that exceeds buying cars for all of the residents in an area. Investment priorities are not just about economic choices but must reflect social attitudes. Investment to nurture more sustainable social attitudes could reap substantial new investment from consumers.
- 4.6 To capture the willingness to pay perhaps the most widely adopted approach is to bundle transport investment with other things. Shops bundle free parking, and company cars are included as a benefit within many employment packages. Government currently uses blunt taxation instruments to seek to skew business and consumer priorities. There is greater opportunity for the use of partnerships to deliver much more than

## Funding Better Transport

can be achieved with blunt instruments such as legislation and taxation<sup>20</sup>.

- 4.7 Current transport management is organised to suit delivery by transport authorities. This is not always the best way to package improvements to attract investment. Transport investment opportunities could be packaged differently to attract funding from new sources. Current discussions about transport investment mainly focus on new roads, buses, railways, trains, trams, and shared cars, taxis and bikes. These projects offer direct transport benefits but sometimes indirect outcomes from investments can be sold more easily than the direct transport outcomes.
- 4.8 In recent years planning has changed to focus delivery on access to opportunities, rather than just transport investment. These more integrated approaches to investment have been able to secure new funding opportunities<sup>21</sup>. Every community in Scotland has defined its goals and set out how to deliver these in the community plan. Consumers and businesses could be offered new ways to invest in these plans. A new car park in a town or a pedestrianised street could be enabled using crowd funding so that the local businesses and people who invest can help more types of projects to succeed. Business Improvement Districts and Development Trusts already use such mechanisms to fund small transport projects, and there is substantial potential for growth in these approaches.
- 4.9 The lack of willingness to accept user charging approaches may have been mistaken by successive Governments as a lack of willingness of users to pay more for better transport. There are many situations where 'willingness to accept' constraints are more stringent than 'willingness to pay' constraints. In these situations there are opportunities to bundle, package, and retail transport in new ways to capture the latent 'willingness to pay'.
- 4.10 Transport authorities could do much more to prepare transport project briefs to set out what prospective funders could get for their money and who might want to buy into these investment opportunities.

### *Investing in better transport performance*

- 4.11 Investment levels driven by meeting statutory responsibilities are often too low for wider economic efficiency since legislation reflects the minimum standards acceptable, and is always catching up with social attitudes.

---

<sup>20</sup> An independent study commissioned by Transport for London showed that the government could have built the extension of the Jubilee line between 1992 and 2002 at no cost to the taxpayer if it had chosen to capture barely a third of the land value increase which resulted. Transport authorities in Scotland work increasingly hard to capture more of this value but current taxation approaches are too blunt. Companies that buy property speculatively in order to benefit from transport investment destabilise markets and contribute little to the funding of transport. Special taxes may be needed to supplement capital gains tax where there has been public investment, raising additional income for the transport investment. Land value taxation would deliver similar benefits but has proved to be very difficult to achieve in practice. Nevertheless a proposal for land value taxation appeared in the Scottish Green Party manifesto at the 2011 Scottish Parliament election.

<sup>21</sup> DfT 2012. Process and Impact review of Accessibility Planning.

## Funding Better Transport

Using transport performance criteria to define new investment opportunities is a promising new way to enable investment as the performance standards can be used to create incentives for better transport<sup>22</sup>.

- 4.12 By defining performance standards in terms of travel time, road accidents, network coverage, air quality and other measurable outcomes transport projects can be funded more easily. Recent examples of performance commitments are Equivalent Road Tariff for the Ferries and Rail Fare promises managed through franchises. In the future such thinking could be extended to offer new investment approaches. Business might pay for guaranteed 30 minute journey times between Glasgow and Edinburgh (or compensation if not delivered) and residents might pay for guaranteed maximum pollution in their street (or compensation if this was not delivered).
- 4.13 Public authorities have already specified standards that citizens can expect and have compensated people when these have not been achieved – e.g. rail delays. Using the same mechanisms the relationship can be inverted to offer greater opportunities for travellers to invest in the service delivery standards they would like to achieve. Rather than just compensation for failure investors could share rewards in success through new types of partnership agreement.
- 4.14 Some authorities have been able to extend public transport network coverage using these methods. A schools transport service may restrict participation by some pupils in after school activities and extending the coverage of a bus service might be substantially cheaper than a bespoke community transport or private solution. The successful access to education projects across the UK have shown that by designing partnership projects to deliver enhanced service delivery goals, transport authorities have been able to fund more delivery through partnership agreements with schools, transport operators and users.

### ***Personalised, customised and targeted - smart***

- 4.15 Public spending will continue to be constrained for some time and increasingly public budgets will need to be used to fund those parts of the transport system which others cannot fund. New ways of raising user funding will be needed to ensure that economic growth is not constrained by public spending limits.
- 4.16 Large rail or trunk road schemes with complex benefits require smart ways for paying for the investment to ensure that those that pay receive the benefits they pay for. Smart payment can be low cost and simple to operate ensuring that each users pays an acceptable price for the benefits they receive<sup>23</sup>.

---

<sup>22</sup> For example there are current standards for physical access to buses and for air quality

<sup>23</sup> SMART –highly targeted or personalised payments schemes with specific measurable benefits for the user being related to benefits offered.

## Funding Better Transport

- 4.17 For example research<sup>24</sup> showed that if an annual ticket to use the Skye bridge had cost £10 (or even less) then the bridge would still have been able to be financed and operated at no cost to the taxpayer, since much of the income would have been from travellers who use the bridge only once a year – i.e. the tourists who were happy to pay for the benefits. This smart payment approach would have meant that the greatest benefits would have been for local people and businesses who use the bridge most.
- 4.18 Government chose not to test the benefits of such smart payment mechanisms during a time of relative public funding affluence and achieved substantial political capital by buying out the unfair private contracts. However, an unintended consequence of this purchase has been to damage public acceptability of user funded transport investment more generally. The subsequent removal of tolls from other bridges may have been overdue at the tolls were also not smart. However key income streams for transport have been lost.
- 4.19 As the funding gap grows between the opportunities for future integrated transport and the affordability of traditional funding approaches<sup>25</sup> Scotland will have opportunities to follow the path taken in most European Countries and seek a user contribution in certain circumstances. More transport investment is fundable by enabling projects to proceed through targeted user charges commensurate with the private benefits achieved. Enabling the greatest beneficiaries to pay more in order to achieve social benefits for all would help to fund more necessary transport investment.
- 4.20 Extending the principle of smart payment to all roads has many advantages, Pay as you go insurance has become mainstream with insurance companies fitting cars with pay as you go technology funded purely from the social benefits of accident reduction. By linking user payments to restrictions on when and when cars are used the insurance payments can be kept to a minimum helping to improve access to motoring for more people. The size of these pay as you go markets could be grown substantially by offering new social tariffs with a range of temporal and geographical restrictions as an alternative to conventional car taxation<sup>26</sup>.
- 4.21 Similar smart approaches are needed for public transport. Sometimes greater benefits can be achieved by people not using buses and trains than from their use – e.g. when they walk instead. The Melbourne early bird rail travel scheme showed how offering some free rail trips to shift journey times for peak hour travelers could deliver better overall rail industry profitability. Similar approaches have been used for parking at rail stations<sup>27</sup>.

---

<sup>24</sup> DHC and ITS Leeds 1997. Skye Bridge Socio-Economic Impact Study – Short Term Impacts

<sup>25</sup> Halden 2007. Citizens Consumers and the Acceptability of Road Pricing. ICE Proceedings. Transport.

<sup>26</sup> Following pilot delivery of this approach in Orgeon USA 10 years ago opportunities for such pay as you go taxation are being rolled out in a number of locations.

<sup>27</sup> DHC 2003. Barriers to Modal Shift. Final report for Scottish Government.

## Funding Better Transport

### *Integration, organisation and social capital*

- 4.22 Consumers, businesses and agencies are being offered new opportunities to invest in better transport through indirect payments. Planning consents being used to lever funding from new development for bus services, car clubs, cycle ways, footpaths, roads and other infrastructure investment. Levies have also been added to property taxes to support investment in transport based on similar principles<sup>28</sup>. The payers often have little understanding that the service charge they pay for their house or flat is being used to build and support transport investment.
- 4.23 Bundling entrance fees for leisure attractions with transport tickets is not complex to deliver, and adds value to the overall offer. Schemes are low cost to set up for the transport industry which can manage customized packages suitable for all situations. Bundling the transport with the costs of entrance at the destination also makes the overall offer more attractive for each customer helping to grow demand.
- 4.24 The companies providing social networking technologies do not view society as a market failure but a market opportunity. Social capital in transport can be measured, valued and sold to provide additional income. Transport is the glue that holds together the economy and society but has barely started to attract income social capital growth. The Office for National Statistics describes social capital as 'the pattern and intensity of networks among people, and the shared values which arise from those networks'. They have not yet identified national ways to measure this but within transport there are many potential networks amongst people from which value can be derived.
- 4.25 Specifically, transport projects like safe routes to school where residents offer 'safe houses', parents monitor safe routes, and schools invest school travel clubs have been identified as the type of project currently attracting low levels of government investment but with exceptionally high social returns on investment.
- 4.26 Community participation can generate investment in many other ways. If measurable wider social goals can be identified which could attract wider investment (e.g. reduced crime saving businesses insurance and repair costs) then investment packages could be identified for potential funding through social bonds or crowd funding. Neighbourhoods with less crime have higher house prices so demonstration projects are needed of privately funded programmes building on the successes of the publicly funded pilots<sup>29</sup>.

---

<sup>28</sup> This includes Scotland's Business Improvement Districts (BIDS) who levy funding through business rates and have found that transport investment including local streetscape improvements are amongst the top priorities of local businesses to improve local competitiveness.

<sup>29</sup> The results of the Scottish Smarter Choices Smarter Places programme showed that future investment would deliver commercial rates of return but only if enabled through government managed programmes.

### 5.0 Conclusions

- 5.1 With static or falling Government investment, there is an increasing risk that parts of the transport system will suffer from underinvestment unless ways are found to secure greater contributions from people and businesses who may be prepared to pay more to receive the benefits they seek. In times of budget restraint, investment in statutory requirements is given priority, but legal requirements are the lowest standards acceptable in any narrow area of service delivery.
- 5.2 There is no consensus that current transport investment by consumers, business and government is delivering better transport. Sometimes better transport involves more travel and sometimes less. System level goals for a wealthier, healthier, smarter, more inclusive, greener and stronger society defines when more transport is needed. Smarter investment approaches are needed to develop and invest in delivering these system level goals by designing projects able to achieve these system level goals.
- 5.3 Indirect ways of paying for transport are increasingly common as they link transport investment directly with wider economic growth. However current statistics do not easily allow the size of the transport economy to be determined as these indirect funding mechanisms are hidden within other budgets.
- 5.4 People are 'willing to pay' more for transport but are not 'willing to accept' the current investment mechanisms they are being offered. In order to fund better transport there is a need to clarify investment goals, customise delivery plans, build new partnerships, and integrate better transport into the wider economy. Specifically:
- Current transport investment is viewed mainly in terms of changes in travel demand, despite the evidence that these direct impacts are often smaller than indirect benefits. Transport investment opportunities where the financial returns come more from indirect effects could attract greater investment.
  - The outcomes of current social transport investment are often not clear, and this reduces the funding available. Public authorities should enable better evidence to ensure private and social benefits are more transparent within investment.
  - More partnership delivery models are needed to enable businesses and communities to invest in transport improvements.
  - Investment in achieving measurable social goals through transport investment could attract funding through crowd funding and social bonds. New types of project designed specifically to achieve these performance improvements could be designed to reduce accidents, deliver better travel times, improved air quality, and other measurable outcomes.
  - Smarter payment for transport is needed to ensure that all transport users pay an acceptable price for the benefits they receive. Social

## Funding Better Transport

tariffs recognising temporal and geographical issues would enable better transport to be more affordable for more people.

- Integrating smart payments with wider costs for housing, leisure facilities, offices, schools and hospitals could help to make transport cost more acceptable.

5.5 The unexploited social, economic and environmental value delivered through these new ways of packaging transport investment could substantially grow the funding opportunities enabling a better future transport system, managed through partnership delivery models, and enabling more customised offers for users.

### Recommendations

5.6 Current administration of transport is managed largely separately by mode of travel, to reflect statutory accountabilities rather than the needs of better transport. Clearer accountability for better transport delivery managed through new action plans, audit regimes and backed up with new investment priorities should secure the goals identified in this paper.

5.7 Current developments in community planning and smart cities include many of the ingredients for future success but delivery has been weak. A stronger solution focus is needed. **Transport authorities need a clearer remit in system efficiency, customisation, networking and resilience.**

5.8 Local community planning is not sufficiently delivery focused and national programmes for trunk roads and rail are not sufficiently system orientated. Stronger partnerships are needed to deliver new types of cross sector programme. The partnership projects should be designed and managed through **action plans agreed between all of the relevant authorities with a stage in connecting each part of Scotland.** Project design should explicitly demonstrate how people and businesses will achieve better access to good and services as these key outcomes are unclear within current national, regional and local investment plans.

5.9 **A better performance audit regime** is needed to back up delivery which considers the extent to which system level goals are secured through delivery processes and which includes outcome and impact measures beyond the transport sector.

5.10 Currently data is limited about the performance of the transport in supporting better wealth, health, a clean environment, and a stronger society. The limited available data suggests that higher levels of performance are needed. Overall journey times and costs for essential travel may be rising, negative health impacts of transport investment are increasingly widespread, adverse environmental impacts are evident, and society is becoming more divided as a result of transport changes. There needs to be **a shift in Government investment priorities towards smarter delivery** co-ordinating investment to secure local and national goals.

## Funding Better Transport

### *Acknowledgements*

- 5.11 STSG seeks to ensure that knowledge on transport issues is made accessible to encourage evidence-based decisions across the industry. The author is grateful to STSG for publishing this paper.
- 5.12 Many people have contributed their time to the preparation of this paper attending a seminar in December 2013 and commenting on drafts. The author is grateful to everyone who gave their time in this way.
- 5.13 The aims of the Scottish Transport Studies Group (STSG) are to “promote the transport function and its importance for the Scottish economy and society”. It relies on all those who network within it or who rely on its publications to acknowledge the source to help deliver these aims.