

THE TRANSPORT PRIORITIES OF THE NEW ECONOMY



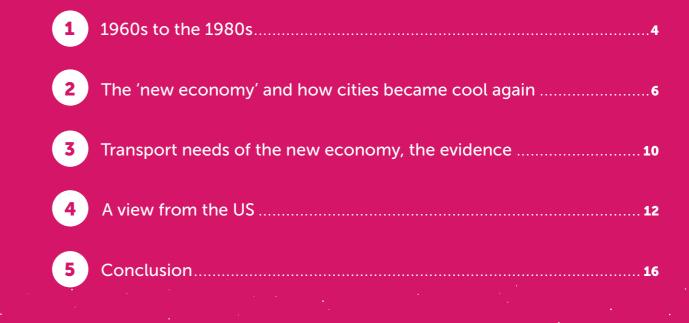


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The traditional view is that the number one transport priority for business is for large infrastructure schemes which enable goods and services to move as rapidly and freely as possible around the country. There is no doubt that for some sectors of the economy this continues to be a key goal. However, our economy is changing. The traditional city centre based financial and legal service sectors are now being joined by a growing, and increasingly important, 'flat white economy' (communications, media, information) which prefers creative urban enclaves with good public transport and active travel access over bland, dispersed car based locations. The new media entrepreneur of 2018 can be as proud of his bicycle as the industrialist of 1988 was of his Rolls.

Indeed it is the epicentre of the UK's financial services sector, the City of London, which is driving forward radical reductions in road space for private vehicles in favour of bikes and buses within the square mile. And this paradigm shift is not only occurring in the UK, it is happening all over the world including in the US. In this paper our former Senior Economist, Pedro Abrantes, and Darnell Grisby, of the American Public Transportation Association, argue that it's time to challenge monolithic views of what business wants on transport in favour of a more nuanced perspective which recognises that there is a new economy with new perspectives on transport priorities. Otherwise we are in danger of pursuing transport policies that favour some sectors of the economy over others on the basis of old thinking and misconceptions.

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### 1960s TO THE 1980s



Transport planning and economics were children of the 1960s. It was a time when car ownership was rampant, and transport networks couldn't keep up. More road infrastructure was seen as the solution under what later became known as 'predict and provide'. As the number of road fatalities rose to epidemic proportions strict separation of traffic and people was also a key priority.

The need to justify and prioritise high levels of public spending led to the development of transport models and rigorous methods of cost-benefit analysis (CBA). In its early days, the application of CBA to transport essentially meant comparing savings in travel time and vehicle operating cost with the cost of providing additional road capacity. CBA has evolved considerably since the 1960s but travel time savings still dominate the economic assessment of most transport schemes.

As Sir Colin Buchanan's seminal 1963 report *Traffic in Towns* was being written, a countercurrent had already started to form. Jane Jacobs' work *The Death and Life of Great American Cities* praised dense, mixed use neighbourhoods, traditional streets and the value of welcoming pedestrian environments. She argued that these ingredients all contribute to the innovation and creativity of cities.

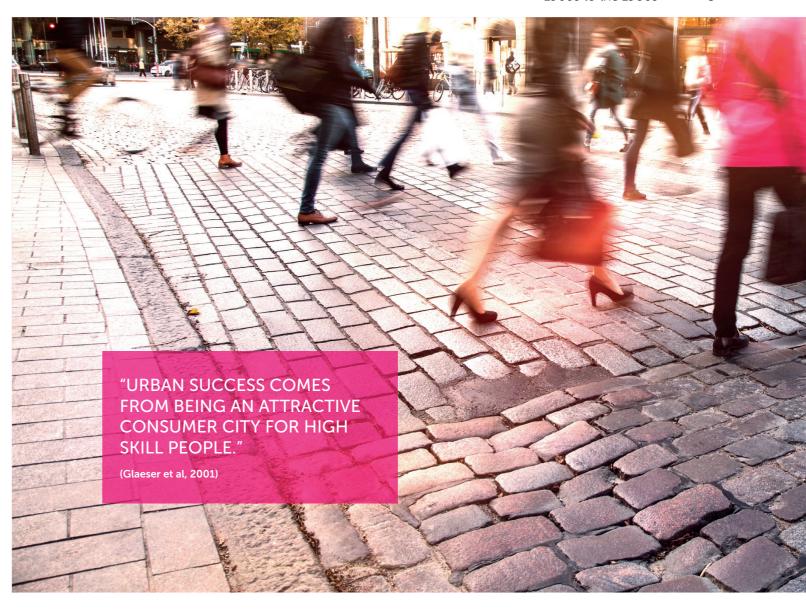
But Jacobs was writing at a time when large urban areas had started to lose population and jobs. This trend continued until the 1990s and it seemed to justify the focus on new road infrastructure: people wanted to move around quickly by car; cities that failed to provide this would get left behind. The emphasis on travel time savings only served to reinforce this view, even as the negative impact of traffic on the street environment became increasingly clear.

To begin with, the arrival of the private car must have felt like liberation to cramped urban dwellers, many of whom were now able to move further away from places of employment, to larger houses in distant green suburbs, smaller towns and the surrounding rural hinterland. Some jobs also began to leave traditional city centre locations for more peripheral business and retail parks, which offered cheaper rents, free parking and were generally easier to access by car. But this new self-reinforcing pattern of development had its downsides, namely congestion, pollution and a decline in the quality of urban areas.

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AND NEEDS".

The Buchanan report: Traffic in Towns (1963)

Some cities and government responded by trying to make cities more accessible by building new roads – 'predict where traffic will grow and provide more road capacity'. But this only seemed to make things worse as congestion and pollution made cities less attractive places to live in. The move towards ever increasing suburbanisation seemed inexorable...



As we entered the 1980s, however, things were starting to change. Aided by economic and technological changes, developed country economies had begun shifting away from heavy manufacturing towards services, initially described as the 'new economy'.

Writing in the mid-90s, urban economist and Harvard Professor Ed Glaeser<sup>2</sup> argued that the development of Information and Communication Technologies would make the largest global cities instrumental in driving future economic growth. The idea was essentially that these cities would act as advanced service hubs, coordinating production in a globalised economy.

Exchange of information and ideas within those hubs, alongside access to a specialised labour force, would be key drivers of innovation and competitive advantage, creating a strong agglomerating force<sup>3</sup>. It turned out Glaeser was largely right, and these structural changes set in motion a slow but steady reversal in many cities' fortunes, as new high income jobs moved in. With jobs came workers, some of whom saw cities not just as places to work but also increasingly to live and play.

The term 'new economy' was initially used to describe the shift from manufacturing to services (Alexander, 1983 http://content.time.com/time/magazine/article/0,9171,926013-1,00.html). It was subsequently used to describe economic activities where a firm's competitiveness depends on its knowledge of technology information and access to networks (Castells, 1996-2000) or, more narrowly, to refer to specific economic sectors such as machinery, telecommunications and software (Nordhaus, 2001; 'productivity growth and the new economy').
 Cities, Information and Economic Growth 1993.

<sup>3.</sup> The idea of agglomeration economies originated in 19th century economist Alfred Marshall, who used it to explain the growth of industrial towns and cities during the Industrial Revolution.

## THE 'NEW ECONOMY' AND HOW CITIES BECAME COOL AGAIN

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Early analyses of this 'new economy' tended to focus on high value/high skill services, such as finance, banking, and information technology. Because these sectors can benefit from sizeable agglomeration economies and because the specialised skills they demand are in short supply, the natural conclusion was that the 'new economy' would eventually concentrate in a few mega-cities - such as London, Tokyo and New York - and specialised regions, such as Silicone Valley. These places would be inhabited by wealthy elites of champagne-sipping service workers in whose hands future economic growth would rest.

Towards the turn of the century, a more inclusive definition of 'new economy' began to emerge, which placed greater emphasis on creativity over knowledge and information. This was made popular by Richard Florida's best-seller "Rise of the Creative Class" in which he argued that (a) creativity has become increasingly important in driving innovation; (b) cities have a natural advantage in attracting creative people; and (c) the success of individual cities depends on their ability to provide the types of attractive environment that creative people seek. Florida emphasised tolerance, diversity and an attractive, dense, urban environment as key sources of comparative advantage. While the jury's out on the robustness of his recipe for success, the economic value of a mixture of creative and digital sectors has certainly become apparent in the UK in recent years.

In his 2015 book, "The Flat White Economy", Douglas McWilliams shows how the expansion of these sectors can help explain London's sustained population and jobs growth after the 2007 recession, even as pay and employment in financial services began to fall.

McWilliams singles out digital marketing as a key source of competitive advantage for the UK but defines the Flat White Economy more broadly as encompassing the media, information and communication sectors. He suggests that by 2013, this group of activities had overtaken retail, financial services and wholesale to become the second largest sector of the UK economy outside the public sector, and only behind construction. By 2015, the sector was growing at 8% per year and was predicted to drive a third of the UK economy by 2025.

McWilliams makes a link between the growth of the 'Flat White Economy', easy access to large pools of skilled young workers and lifestyle changes which have drawn young people back into cities. "The bicycle has replaced the Porsche, skinny jeans have replaced suits and, of course, flat white coffee has replaced champagne"<sup>4</sup>. This is linked to the wider rise of 'hipster' culture, which places great emphasis on originality and unique, authentic experiences. This is in contrast with the pret-a-porter utilitarian culture of the 1950s and 60s; or the conspicuous consumption culture of the 1980s and 90s.



A number of recent surveys provides additional evidence that there has been a shift in the values, aspirations and lifestyles amongst younger generations of workers. Deloitte's Millennial survey (2016) found that, once salary is excluded, worklife balance emerges as the top criterion when evaluating job opportunities. This is backed by the American Planning Association's 2014 National Poll which found that quality of life emerged as a more important factor when choosing where to live than local economic health or job prospects.

PwC's Millenials at Work survey (2011) found that working location was the deciding factor in accepting their current job for 20% of respondents. It also found that twice as many respondents thought they would end up working in a centralised hub in a major city than in a similar type of building outside a major city.

Data from the 1991, 2001 and 2011 UK Census shows that there has been a noticeable recent population increase in the inner cities and city centres of many large urban areas, in contrast with the trend of previous decades. This has gone hand in hand with a swelling of city centre jobs, which was temporarily halted in the immediate aftermath of the 2007 financial crisis, but has now resumed.

This change in preferences and lifestyles is also apparent in the decisions of private companies and in the way they choose to market themselves. Opposite is an extract from Transferwise's website<sup>5</sup>, which emphasises quality of life and the ability to mix work and play. Transferwise<sup>6</sup>, a leading fintech company is, perhaps surprisingly, not located in the City of London but in nearby Shoreditch, the heart of London's 'new economy'.

Asos, a global online fashion retailer whose market value now exceeds that of Marks&Spencer<sup>7</sup>, is another interesting case

"MILLENNIALS EXPECT TO WORK HARD, BUT THEY DON'T WANT TO SIT IN A BLAND CUBICLE ALL DAY. THEY WILL BE DRAWN TO **ORGANISATIONS THAT** OFFER AN ENGAGING. COMFORTABLE, AND STIMULATING ATMOSPHERE THAT CREATIVELY BLENDS **WORK AND LIFE".** 

PwC (2011), Millennials at work survey

study. It emphasises the design quality of its head office building, based in Camden, outside London's traditional business districts. And it is rail access, rather than free parking, that is singled out as the key feature of its suburban customer care centre in Hemel Hempstead.

Interestingly, Asos has chosen to locate its technology development centre, not in London but in Birmingham's arts and media quarter. This reflects a trend identified both in the 'Flat White Economy' and in the Tech Nation report, which both find substantial and growing 'new economy' clusters in city regions outside London.

Using data from Meethub, an online networking platform, the Tech Nation report notes that, perhaps against popular belief, there seems to be a high degree of interaction between digital companies within well defined local and regional clusters. This supports Ed Glaeser's argument that the development of information and communication technologies would strengthen the importance of proximity rather than undermine it and that transport is a vital enabler of agglomeration.



<sup>5.</sup> Source: https://transferwise.com/iobs/offices

Transferwise is a leading global fin tech company and one of the few dozen UK-based 'unicorns', tech companies with a market valuation in excess of \$1 billion https://www.theguardian.com/business/2017/nov/18/asos-overtakes-m-and-s-marks-spencer-uk-high-street-tesla-moment

# TRANSPORT NEEDS OF THE NEW ECONOMY, THE EVIDENCE

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Clearly, there are both economic and social changes afoot that suggest that the quality of urban areas is becoming more important as a source of competitive advantage. But what systematic research is there that, when push comes to shove, firms and households value urban realm improvements, and would prefer to invest tax-payers' money in public transport, walking and cycling, over road infrastructure and better car access?

"WHEN CONSUMERS CHOOSE A HOME, THEY ALSO CHOOSE A LIFESTYLE. SHORTER COMMUTERS AND MORE WALKABLE NEIGHBORHOODS MATTER TO A GROWING NUMBER OF PEOPLE ESPECIALLY THOSE LIVING IN CONGESTED METRO AREAS".

Lawrence Yun, Chief Economist at National Associaton of Realtors

In a meta-analysis of several UK and European studies, Whitehead and colleagues (2006) find that urban quality improvements were followed by average increases in retail turnover of 17%, average increases in retail rents of 22% and average increases of 24% in office rents<sup>8</sup>. Perhaps not too surprisingly, a review of research from Australia, the US and the UK for charity Living Streets found that what can be thought of as more pedestrian friendly areas (including presence of pavements, street facing shops, vegetation and high aesthetic

quality) have between "25 and 100% greater levels of likelihood of walking"9.

The on-going Crossrail project in London provides an interesting case study. The project will provide not only a 10% increase in public transport capacity serving central London but will also involve turning 190,000 sq metres of space outside stations into high quality urban realm. The project is expected to generate a 10% uplift in nearby property values (amounting to £5.5bn) and a proportion of construction costs will be recouped from a levy on surrounding businesses.

The US has seen growing interest in the value of the urban realm and the 2007 financial crisis provided opportunities to put the theories to the test. A 2012 study of the Washington D.C. metropolitan area (Leinberger et al<sup>10</sup>) found that commercial property in walkable urban neighbourhoods was most resilient to the recession. Commercial property in these types of area was found to have a 23% average price premium over other areas, between 2000 and 2007; the premium increased to 44% over the three years following the financial crisis.

Three earlier studies (Tu and Eppli; Song and Knaap; Cortight<sup>11</sup>) had found positive correlations between measures of walkability and house prices. And a 2013 study of five US metropolitan areas, for the American Public Transportation Association (APTA) and the National Association of Realtors<sup>12</sup>, found that, between 2006 and 2011, property prices in the catchment area of public transport stations increased substantially compared to an overall decline across wider areas.



<sup>8.</sup> http://www.sciencedirect.com/science/article/pii/S0301479705001180

https://www.livingstreets.org.uk/media/1391/pedestrianpound\_fullreport\_web.pdf

<sup>10.</sup> https://www.brookings.edu/research/walk-this-waythe-economic-promise-of-walkable-places-in-metropolitan-washington-d-c/

<sup>11.</sup> Quoted in APTA's 2013 study

<sup>12.</sup> http://www.apta.com/resources/statistics/Documents/NewRealEstateMantra.pdf

### **A VIEW FROM** THE US

America's relative comparative advantage is research and development, technology application and innovation. Companies in these fields have specific location requirements and tend to cluster together because access to skilled workers and bright ideas are particularly important and only a few areas have the right mix of people and investment.

These companies particularly strain infrastructure because of their need for workplace collaboration and social interaction, which shifts travel demand to specific times and locations.

To sustain the growing clusters of research and development activity that is powering the US economy, it is essential that backlogs in infrastructure be addressed. APTA research has delineated that there is practically little space and appetite in the most productive regions for highway expansion. Therefore, addressing the maintenance needs of existing public transportation services and augmenting those services where appropriate would be a market responsive policy from the federal government.

In fact, by 2040, 38% of America's job growth and 50% of its GDP growth will be from the six broad industry groups often associated with clustering in the United States. Even more striking, 80% of that growth will be in the 25% of counties with the highest concentrations of employment in these sectors today. The sense that two Americas exist, has caused fissures in the US political system. However, without the right support for these highly productive regions, and their associated transportation needs, the nation is likely to be a lot less affluent as a whole. Though these regions are often expensive in which to operate—with high labour, land costs and taxation combined with particularly vigorous regulation—the fact that companies still cluster in these areas point to the greatly enhanced productivity provided by these regions.

The ingredients that make such a small subset of places attractive to these high-powered business sectors are both delicate and hard to replicate. What is known as "knowledge-sharing infrastructure", such as business incubators, accelerators, anchor institutions, and start-ups provide the critical glue for an entire ecosystem that attracts talent, business and investment into an area. Incubators provide critical support functions such as financial and technical service to newly formed businesses. Accelerators provide intense mentorship to companies leading up the creation of a demo. Anchor institutions provide critical intellectual firepower in knowledge creation that both produces and attracts talent. These elements combine to support a robust start-up community that provide robust opportunities for collective learning and iterative processes, which are key to developing new products.

Anchor institutions are important to cluster development, but are major trip generators in their own right and are part of the "eds and meds" strategy of redevelopment. Even areas that have not reaped the full benefits of the research and development economy see major benefits from anchor institutions which drives economic activity. For transit systems serving smaller communities, 27% of trips are to and from a university, compared to just 6% in the largest cities.

LOS ANGELES, CALIFORNIA'S SILICON BEACH REPRESENTS A PERFECT EXAMPLE OF A RECENTLY CREATED CLUSTER'S PLACEMENT IN AN **AMENITY RICH AREA WITH DIVERSE AND IMPROVING** TRANSPORTATION OPTIONS.



This shows the outsized impact that anchor institutions such as colleges can have, even in the smallest communities. When these institutions are mixed with the larger knowledge-sharing infrastructure, a community becomes unique in its ability to attract talent and economic activity.

That uniqueness also attracts the workers that firms thrive on. In this economy driven by innovation, there appears to be a new job creation paradigm—employers want to be where potential workers want to live. What knowledge workers seek has become increasingly clear in recent years, and many of those workers are millennials. In a study of Millennial attitudes by APTA, it was found that Millennial hotspots—neighborhoods with a disproportional representation of millennials, tend to be walkable communities close to high quality public transportation. In this context, working millennials that have a choice, have opted into urban living where owning a car is either not required or would indeed be burdensome. These same neighborhoods and those adjacent, therefore also become attractive places for employers to place businesses. Therefore, a strong symbiotic relationship between transit-rich, walkable neighborhoods and technology-focused employers appears to be developing.

Therefore, clusters are strengthened from this phenomenon. As a result, clusters that have developed since the increased interest in transit-rich, walkable communities have clearly taken on those traits. Those developed prior to the development of the phenomenon have had to retrofit their communities or come up with relatively inventive transportation schemes to maintain the attractiveness of their companies to their targeted employee demographic.

Los Angeles, California's Silicon Beach represents a perfect example of a recently created cluster's placement in an amenity rich area with diverse and improving transportation options. The community offers an array of amenities directly associated with clusters—a lowered barrier to entry and costs for new companies because of the services and skills sets available in Silicon Beach. In the Los Angeles area, employee housing preferences have shifted from the more suburban Pasadena and San Fernando Valley to the more urban and trendy beach communities. As a result, venture capital firms and incubators have relocated as well. A few well-known local companies happen to include Snap Inc. (Snapchat) and Hulu.

<sup>8.</sup> http://www.sciencedirect.com/science/article/pii/S0301479705001180 9. https://www.livingstreets.org.uk/media/1391/pedestrianpound\_fullreport\_web.pdf

<sup>10.</sup> https://www.brookings.edu/research/walk-this-waythe-economic-promise-of-walkable-places-in-metropolitan-washington-d-c/

<sup>11.</sup> Quoted in APTA's 2013 study

The Silicon Beach scene includes many informal interactions, as well as formal gatherings that provide opportunities for networking, pitching, and broader skills development.

Economic development officials believe that enhanced public transportation is critical to the cluster's future success. Congestion, which is already considerable is expected to worsen. Knowledge-based companies are significantly more dependent upon access to a broad labor market, making congestion and inadequate housing supply as significant barriers to maximum productivity for area companies. In fact, data clearly point to a large upside should Los Angeles build its transit programme to specifications. The County is expected to gain an additional \$144.9 billion in business sales by 2035 should the county build out its system. Silicon Beach will be a big recipient from the investment returns.

Austin, Texas presents yet another case of the evolving role of walkable, transit accessible communities, as well as the necessity of future investment in transit infrastructure. Austin has two tech-focused clusters—an older, more established one, characterised by auto-oriented office parks and offices for IBM, Texas Instruments and Dell; and a new downtown tech community that has the excitement and buzz created by startups and young workers that live nearby.

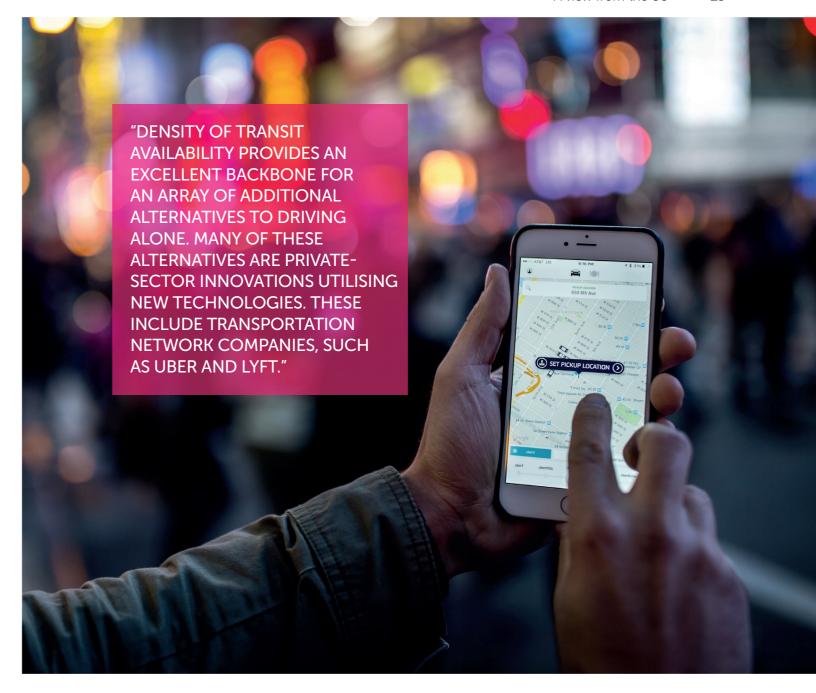
Downtown Austin benefits from its proximity to the University of Texas, an important anchor institution, as well as proximity to incubators and accelerators. As a result of the knowledge sharing infrastructure, and the popularity with young workers, the area has become a hotbed of startup activity. Startups located in the older auto-oriented tech cluster have difficulty with recruitment of workers. Thus, the downtown continues to draw in even more activity.

While the older auto-oriented cluster that is focused tech campus style office, still has high name-ID firms that can recruit regardless of their location, the district has a growing competitive disadvantage in attracting earlier

stage firms. That along with increasing congestion in accessing the cluster is encouraging a diversification of its urbanform that will offer a more urban-style office culture with adjacent housing. This along with eventual passenger rail enhancement will lead to a stronger cluster that will be relevant for many decades more. This convergence of factors pushing for more transit options—land-use, business environment, and congestion will eventually lead to enhanced transportation. Prior plans for transit investment would have yielded an additional \$20.3 billion in business sales by 2035. Though the region has had difficulty arraying the political pieces to finalise a comprehensive plan, the economic necessity only increases with each passing year. The high-growth of the region, and the requirements of its most important industries require a focus on a modern, comprehensive transportation system.

Another high-growth area with a burgeoning tech community and challenging politics is the Research Triangle of North Carolina. Like Austin, this region between Durham, Chapel Hill and Raleigh, is facing a gradual shift in land use, business base, and demand for public transportation enhancements. The Research Triangle is an auto-dependent suburban office complex. Over the past decade, preferences have impacted the ability of the district to continue to grow. Due to changes in the tech industry, firms increasingly wish to rent as opposed to purchase buildings and land. Millennial tech workers increasingly desire an area with walkability and a multitude of mobility options. There is also demand for housing and entertainment in the area.

These desires mimic many of those found in Austin. A similar process of diversification of urban form and mobility options is underway and undergirding calls for higher quality public transportation. Enhancing public transportation will yield at least \$12.7 billion in additional business sales in the region, diversifying land-use in the area will increase those dividends.



In addition to economic benefits, research shows that communities utilising public transportation at the rate of 50 annual trips or more per person, accrue roadway safety benefits. These communities have invested at a level necessary to offer reasonable alternatives to high-risk drivers, such as those that young, older, impaired and distracted, and unlicensed drivers.

Furthermore, the density of transit availability provides an excellent backbone for an array of additional alternatives to driving alone. Many of these alternatives are private-sector innovations utilising new technologies. These include

transportation network companies, such as Uber and Lyft; bikeshare programs allowing on-demand access to bicycles; and carshare programs, allowing users to access a fleet of vehicles for blocks of time. These new interventions only make sense because the consumer has already begun to utilise alternatives to driving alone, such as public transportation. These new programmes make transit use stickier because users close gaps in transit coverage and frequency, making carfree or car-lite households more practical. In fact, consumers save money by utilising this approach, providing consumers with more flexible use of their disposable income—good for the consumer and the overall economy.

### **CONCLUSION**

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This report has shown how the mix in the UK economy is changing as the tech, communications and media sectors grows. It shows how what's happening in the UK economy is not unique (although perhaps some of these trends are more pronounced in the UK). It also shows how these changes in the economy are combining with wider social change, leading to new attitudes to working life which give more priority to quality of life, flexibility, authenticity, work-life balance, creativity and interaction. More people in more key sectors of the economy do not wish to be 'buried alive' in a business park on the outskirts (however good the car parking) and their skills are in sufficient demand that they can choose the employers that provide them with a more interesting and rewarding working environment and lifestyle. At the same time, more companies want to tap into the buzz, energy and dynamism that being part of wider urban life can bring.

The report also shows that whilst sixty years ago, urban motorways were seen as the epitome of dynamic forward looking cities, pedestrians were to be kept within dedicated precincts, and physically separated from traffic. Now in order to support the new economy transport, planning and other professionals involved in shaping our cities need to recognise

these social-economic changes and design infrastructure that best meets the needs of the new economy. In doing so such policies can also support wider objectives around public health, better air quality and the need to reduce carbon emissions.

This also has significant implications for the kinds of macro transport policies and investment priorities that will best support these growing business sectors (alongside other key commercial sectors such as finance and legal services which have long located in urban centres).

The challenges from this report therefore are:

- Is the right balance currently being struck in supporting the transport needs of the new economy compared with other sectors of the economy, including, for example, on appraisal of schemes which traditionally favour projects which reduce journey times between places rather than those schemes which contribute to improving the places themselves?
- Do these new sectors of the economy need to find their voice to ensure that a more accurate and nuanced view of business priorities is reflected in wider transport policy making?

"TO SUPPORT THE NEW ECONOMY TRANSPORT, PLANNING AND OTHER PROFESSIONALS INVOLVED IN SHAPING OUR CITIES NEED TO RECOGNISE THESE SOCIAL-ECONOMIC CHANGES AND DESIGN INFRASTRUCTURE THAT BEST MEETS THE NEEDS OF THE NEW ECONOMY. IN DOING SO SUCH POLICIES CAN ALSO SUPPORT WIDER OBJECTIVES AROUND PUBLIC HEALTH, BETTER AIR QUALITY AND THE NEED TO REDUCE CARBON EMISSIONS."



#### **The Urban Transport Group**

represents the seven strategic transport bodies which between them serve more than twenty million people in Greater Manchester (Transport for Greater Manchester), Liverpool City Region (Merseytravel), London (Transport for London), Sheffield City Region (South Yorkshire Passenger Transport Executive), Nexus (Tyne and Wear), West Midlands (Transport for West Midlands) and West Yorkshire (West Yorkshire Combined Authority). The Urban Transport Group is also a wider professional network with associate members in Strathclyde, Bristol and the West of England, Tees Valley and Nottingham.

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