



Creating Communities Fit for the Future

MAKING THE CASE FOR CHANGE

Vol. 1



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2nd Edition

Originally published by PBA, now part of Stantec

Creating communities: Fit for the future

More housing more growth

There is an urgent need to build more housing. The 2017 White Housing White Paper explains the scale of the challenge. Government is putting pressure on Local Authorities and the development industry to deliver.

There is also pressure to deliver economic growth, improved productivity and market resilience, particularly in the light of Brexit. The National Infrastructure Plan and Industrial Strategy give clear indications of Government's ambitions.

The National Planning Policy Framework reflects Government's intention to accelerate the delivery of development through the planning process. However, there is increasing recognition that the development planning process is delivering car dependent development, lacking in local facilities for local people – not supportive of active, healthy lifestyles. In short, not delivering the conditions for 'good growth'.

As our industry looks to accelerate the delivery of housing and employment, how can we deliver it in a way that does support the creation of healthy and sociable, prosperous, sustainable communities? Is more better? Is faster better?

Only better is better

This means development in the right place, with the necessary economic and social infrastructure, to a design which supports the creation of communities fit for the future. So whilst we are focussed on quantity and speed, we must also be focussed on the quality and value of what we deliver. To do this, we need to put Places First.

Why is this important now?

Delivering sustainable development has long been central to planning policy. Carbon reduction and other environmental goals have been balanced against other social and economic objectives. Now we have a health crisis, and planning is seen as one possible route way of tackling the rise in obesity, risk of disease, mental health and wellbeing, and air quality; and now there is a technological and behavioural revolution which provides the opportunity to tackle these issues.

"...developments that are well connected are likely to deliver much better economic returns. Therefore, investments that mitigate against the drag on productivity created by highway congestion are likely to be central to delivering value for money from the Housing Infrastructure Fund and other similar investments. This also implies that public transport investments that unlock new housing and improve connectivity for existing housing will also have better economic returns."

Sustainable Development: The key to unlocking the benefits of new housing:

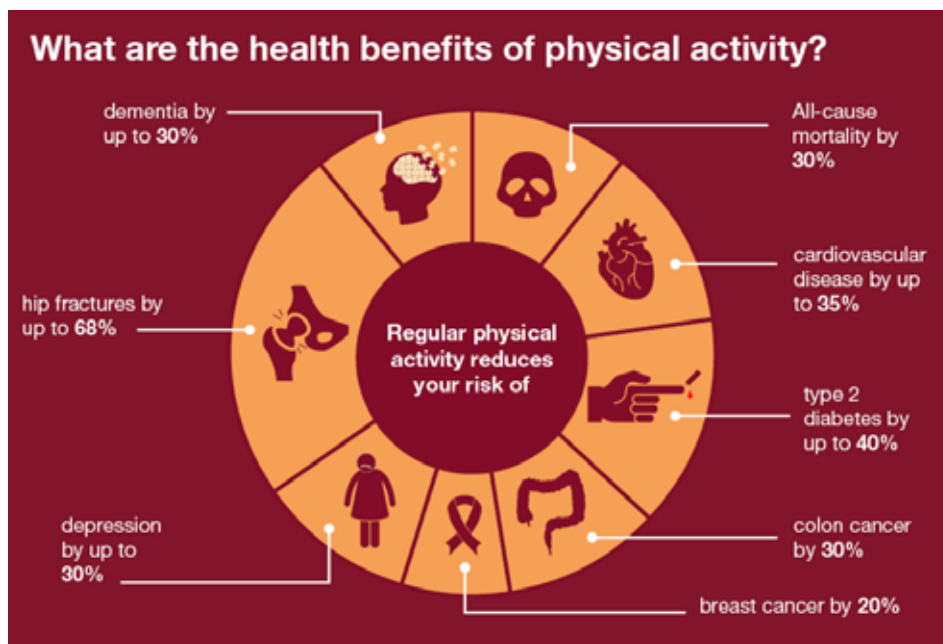
KPMG (funded by Greener Journeys, in partnership with the Department for Transport).

Improving health and wellbeing through design

Car use and physical activity

People in the UK are around 20% less active now than in the 1960s. If these trends continue, we will be 35% less active by 2030. We are the first generation to have to make a conscious decision to undertake physical activity in our daily lives.

Increasing car use is a major contributing factor to lower levels of physical activity. For many people, it is difficult to increase physical activity in the workplace and sometimes in leisure time, but for most people being more active in the time they spend travelling to and from work, to school or to the shops is a possibility.



Source: Public Health Guidance on Health Matters: getting every adult active every day.

Public Health England has raised awareness through their published guidance on Health Matters that regular physical activity can be beneficial to both physical and mental health.

"Low physical activity is one of the top 10 causes of disease and disability in England...Regular physical activity can help to prevent and manage over 20 chronic conditions and diseases...It is often said that if physical activity was a drug it would be classed as a wonder drug."

Public Health England

Air pollution, land use and transport planning

Air pollution is the top environmental risk to human health in the UK, and the fourth greatest threat to public health after cancer, heart disease and obesity.

Road transport is the biggest source of NO_x in the UK, and is the main source of exposure at the roadside. It also produces PM, VOCs and SO₂. Good land use and transport planning plays an important role in achieving modal shift to lower emission modes of travel.

Neighbourhood design, health and wellbeing

Approximately 1 in 4 people in the UK will experience a mental health problem each year. In England, 1 in 6 people report experiencing a common mental health problem (such as anxiety and depression) in any given week.

Public Health England assessed evidence from recent systematic reviews on the linkage between the built and natural environment and health to provide an insight into the research that has been conducted in this field. This demonstrated that good neighbourhood design (walkability and mixed land use) has a profound impact on health and wellbeing, by maximising opportunities for social engagement and active travel, as well as helping to shape good health behaviours.

Public Health England calls for greater communication between built environment and health professionals to incorporate health needs into the design and planning of infrastructure projects to trigger the development of sustainable communities.

Healthy Streets Approach

Transport for London has responded to increasing health concerns by adopting the Healthy Streets Approach to improve the design and management of public spaces and transport systems. A set of 10 evidence-based indicators identify the key elements necessary for public spaces to improve people's health, make urban places socially and economically vibrant, accessible and environmentally sustainable.

Transport planning practice

Meeting good growth objectives?



Source: Transport for New Homes and Foundation for Integrated Transport

Integrated land use and transport planning

PPG13 was published in 1994. This heralded an integrated approach to land use and transport planning for new development, through the local planning and development planning process. Local Development Plans and Transport Assessments (TAs), were to consider the needs of sustainable modes before those of cars.

Transport Assessment – common practice

PPG13 also led to a change in transport planning practice towards greater consideration of sustainable modes. However, Transport Assessments have continued to take account of historic trends in traffic growth over the development period, and local planning authorities often adopt a precautionary approach to the delivery of highway mitigation to provide for it, fuelled by concern that sustainable travel alternatives will not be effective. Many practitioners believe that this is little more than a modified version of the out-dated 'predict and provide' approach to assessment which continues to reinforce car dependent behaviour as development is implemented rather than engendering sustainable and active travel behaviour.

Simplifying and accelerating the planning process

The publication of the National Planning Policy Framework (NPPF) in 2012 was aimed at simplifying and accelerating the planning process, and was accompanied by the withdrawal of Transport Assessment guidance. Its reference to development proposals being acceptable unless the transport effects are 'severe' has at best – caused confusion, and at worst, (from our investigations into relevant appeal decisions) resulted in good connectivity being ignored. Certainly it has undermined the attainment of sustainable development, thus exacerbating an already difficult situation. There is no indication of the 2018 review of the plan leading to any change in this situation.

Transport for New Homes: failing to meet good growth objectives

Research being undertaken by the Foundation for Integrated Transport (Transport for New Homes) has considered the relationship between forms of car dependent development in urban extensions and rural development, and the outcomes in terms of the local employment, amenities, and health and wellbeing factors that underpin successful communities. This qualitative study connects car based development broadly with poor community outcomes, suggesting that current practice is failing to meet good growth objectives.



This is the Stantec submission to the 2017 Wolfson Economic Prize, prepared by a cross-disciplinary group of young planners, economists and engineers. It does not seek to predict the future, but to paint one view of the future of mobility. It raises many questions about the social, economic, environmental and physical infrastructure implications of the emerging changes in our world of transport, and our role in creating places for people in the future.

Source: Stantec Wolfson Prize Submission 2017

Internet of Movement: Disruptive changes in travel

Future travel demand (and therefore transport planning) is going to be affected by disruptive changes in technology and the emergence of the sharing economy. Whatever your view may be about the extent and pace of change, the Government is investing heavily in research and development of autonomous vehicles and new smart transport models, such as Mobility as a Service (MaaS) and Demand Responsive Transit (DRT).

Connected, shared and/or autonomous vehicles alongside these models bring the potential for historic trends to change significantly over the next 20 years. There is at least the potential for the trends of younger people moving away from car use to be reinforced by changes towards these models, and for this to make forecasting and design even more uncertain than it would otherwise be.

We have not yet adapted our planning and design processes to take these fundamental changes into account. They could be a force for good in the new communities, or they could undermine any progress we are making toward the creation of sustainable communities. Either is possible. We need to rapidly work out how we can use these disruptive changes to enhance, not erode the quality of life for those who will be living, working and playing in the new communities we are building.

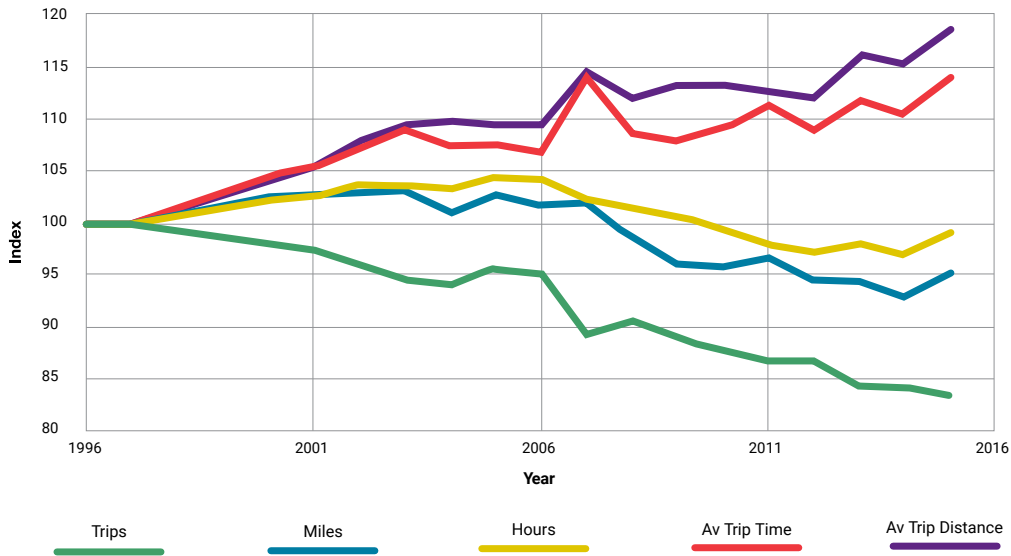
Examples of emerging disruptors are:

- Whim – a MaaS now being trialled in Birmingham
- Slide – an on demand travel shared travel system operating in Bristol
- Click – a revamped DRT system using smartphone services combined with advanced computerised routing algorithms now being tested by Arriva.

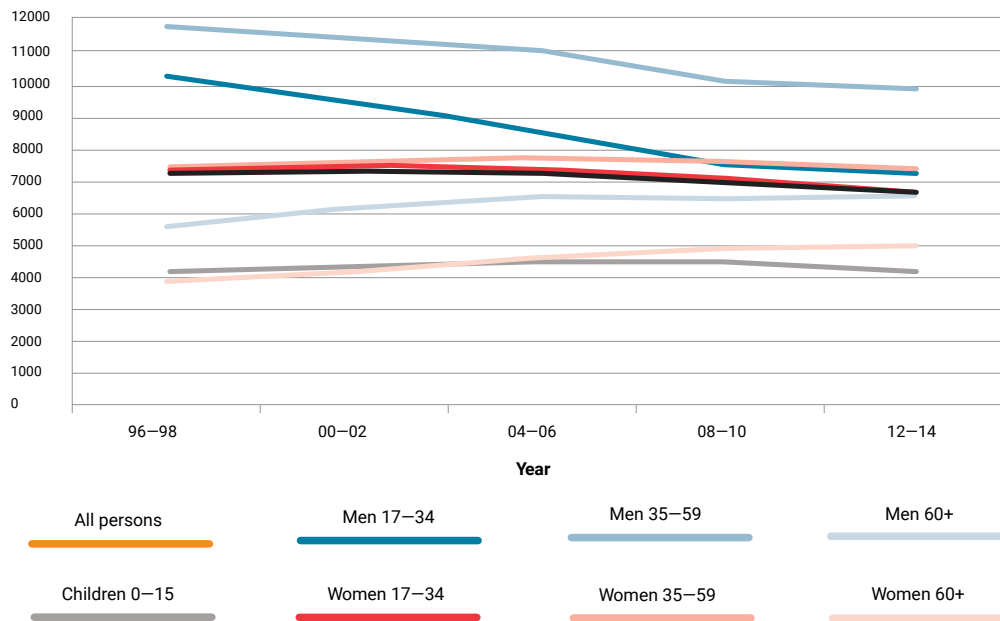
All Change

An opportunity to do things differently

Trips, Distance and Hours travelled per person, indexed 1996–2015



Car driver: Miles per person per year by age and gender 1996–98 to 2012–2014



Source: All Change?, Peter Brett Associates

The way people are travelling is changing

Recent research undertaken by the Independent Transport Commission highlights some important changes in travel trends over the last 20 years. In particular, this research suggests that the link between traffic growth and economic growth has been broken, and that there are significant changes amongst younger people whose propensity to travel by car has fallen, in men by some 47%. Whilst the older generation are generally travelling by car a little more, the trends amongst younger people away from car travel might have very significant implications for future transport provision.

Public perception of transport challenges and solutions

Despite some very significant shifts in travel patterns over the last 20 years, public perception remains focussed on continued road use and congestion (as increases in population, last mile logistics and private hire drive up aggregate travel demand), rather than the underlying changes taking place. Contrary to the intention of national transport planning policy, highway capacity measures are seen as lower risk, more acceptable solutions, than measures in support of sustainable transport.

Shaping our transport and land use future

Changes in travel behaviour are mostly being experienced by the younger generations as they adapt to the reality of technological and economic factors, whilst the older generations who have less experience of this are more likely to regard assertions about change as being illusory. Those responsible for shaping our future communities might therefore fail to appreciate the importance of these factors in planning strategy and decision making.

If we can use ongoing disruptive changes in travel behaviour to move away from costly roads based infrastructure strategies, there should be scope for investment in place based solutions aimed at improving quality of life, and promoting local compact communities and active travel, improved health, environment and prosperity.

Implications

for the transport planning process

Turning transport planning on its head

Professor Peter Jones at UCL has proposed that Transport Planning needs to be 'turned on its head'. Jones points out that we're still in the game of predicting and providing: predicting transport demand using modelling, and then trying to provide the infrastructure the models say is needed. The issue is that we are not very good at predicting: past models have consistently over-estimated demand. Nor are we very good at providing: we often run out of money and political support before we get close. And even where we do manage to "provide", we don't often go back to check if the infrastructure is being used by those it was intended to facilitate, or if it has simply been clogged up by people making unnecessary journeys.

Jones suggests that, rather than to continue with (an albeit slightly more enlightened version of) 'predict and provide', we should employ a 'vision and validate' approach. This would envision what we want 'good growth' to look like, and use forecasting and design skills to test scenarios in order to identify the approach which will provide us with the best opportunity of achieving that vision.

Places First

Instead of predicting and providing, we need to start in a different place. We need to work out what society we want to live in, and build the connectivity that delivers that vision (think healthy, socially cohesive, compact, local). This could result in a radical connectivity rethink that could cut the cost of transport infrastructure, allowing more investment in the quality of the places we are creating.

"That bypass might no longer be needed. Big junction? No thanks. A sea of parking in front of every building? Not in a world of driverless cars. And could the 11m wide estate road we now think we need be reduced to something more akin to a rural lane, as long as we had a decent cycle route? Quite possibly, yes. (In that environment, the kids might even start to play out again)."

Garden cities: lighter, faster, cheaper by Andrew Clarke.

The transport policy development process

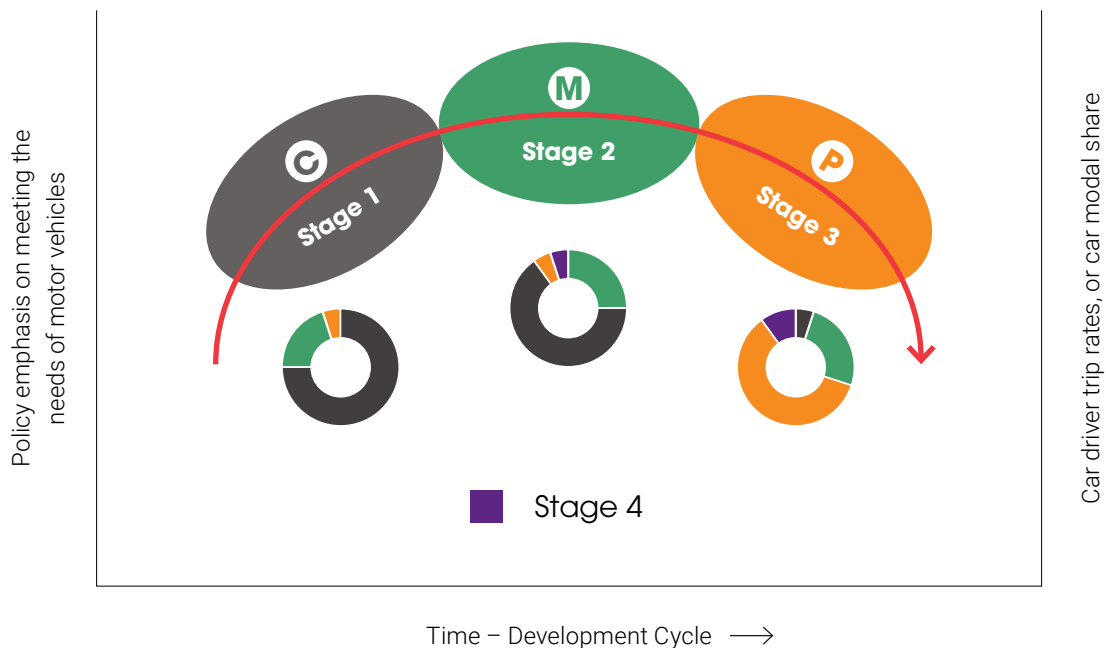
The CREATE project is an EU Horizon 2000 and Civitas project. It's Urban Mobility project seeks to help cities decouple economic growth and high mobility from traffic growth, and to create a sustainable transport system. This project postulates the existence of a 'transport policy development process':

- Stage One: Cities with 'pro-car' policies – characterised by rapid urban economic growth like to the growth of car ownership and use. Road building and car parking is prioritised.
- Stage Two: Cities facing problems associated with increased car use, such as congestion and pollution, introduce policies to provide better public transport alternatives and limit car access to city centres.

- Stage Three: Cities aspire to become 'liveable cities' by encouraging street activities, encouraging mixed use development around transit hubs and creating high quality public spaces.

Stage four is also anticipated as "integrated cities" in which Smart City principles increase the efficiency and effectiveness of the first three policy perspectives.

These are helpful concepts when thinking about the progress being made in terms of delivering sustainable outcomes from development through to the development planning process. Arguably, the Vision and Validate approach is necessary to move into Stage Three.



Source: CREATE, Urban Mobility: Preparing for the Future, Learning from the Past - Peter Jones, UCL

Understanding

how far we have to travel



- Road Building
- Car parking
- Lower density
- Decentralisation



- Public transport
- Cycle networks
- Roadspace reallocation



- Public realm
- Street activities
- Traffic restraint
- ToD/mixed use developments

Source: CREATE, Urban Mobility: Preparing for the Future, Learning from the Past - Peter Jones, UCL

Moving in the right direction in our major cities

The focus of recent academic debate about this concept appears to be on strategic planning at the city region scale, in which the spatial plan – and the infrastructure required to deliver ‘good growth’ – is set out.

Some UK cities, notably London and Manchester are now focussing on the outcomes they are keen to achieve. Factors such as air quality, health and wellbeing, safety, transport choice and resilience are considered as priorities, and are resulting in strategies such as healthy streets being set out in strategic land use and transport plans. This suggests that they are now embracing a transition to stage three in terms of their strategic planning, and embracing a Places First approach.

For many of our city regions, the arrangements for devolution will make a Places First approach easier to deliver, with the prospect of greater controls over local funding and delivery mechanisms. The prospects of such thinking could also be applied to some of the main development corridors (for example Oxford - Milton Keynes - Cambridge), and this offers the potential of further progress being made.

However, much of the housing and growth being sought by Government will need to be delivered outside devolved areas, through the normal planning process – through Local Development Plans and supporting Local Infrastructure Plans. We need to think about how a Places First approach might be made to work in these circumstances.

Slow progress outside our major conurbations

Outside of the major city regions and devolved areas, the Development Plan is the logical place for the vision for 'good growth' to be established and enshrined, reflecting national and local priorities, and the views of locally elected people creating the framework for the future of its community. But, at present, there are significant obstacles to overcome.

- Overcoming the barriers to good growth: Development Plans and development planning are influenced by local politicians and stakeholders, who inevitably reflect public perceptions about the need to provide for car use in future development schemes. This is compounding the problems of car dependency, inherent in the current planning system, with consequent impacts on community cohesion, economic performance and health.
- Unlocking development more quickly: It is not uncommon for developers to present an enlightened approach to development. Those that do see value in creating sustainable communities, and the benefits to be gained from avoiding the social, environmental and economic disbenefits of car based development solutions. However, it is common for this to lead to costly and time consuming assessment and negotiation, culminating in a precautionary approach to planning conditions and obligations for highway mitigation being adopted.
- A more strategic approach to infrastructure funding: In addition, pressure on Local Authority budgets has adversely affected the ability to plan for transport infrastructure over the long term. Funding is fragmented, and a range of funding sources are often needed to bring forward new projects. The business case appraisal methodology required to secure funding favours road based solutions, making it relatively more difficult to promote sustainable transport options as part of the Development Plan, with consequential effects for development proposals working to fit into the wider plan.

This suggests that, whilst some major cities are moving to stage three place based planning, outside the main conurbations, the planning process remains caught between stages one and two – places that are seeking economic growth and regeneration through housing and employment development, quite likely to be suffering from the effects of road congestion, wanting to support public transport, walking and cycling, but finding this hard to do. Instead they are continuing with the predict and provide, roads based thinking they are used to, and in response to public / Member concern.

What needs to be done

Putting Places First

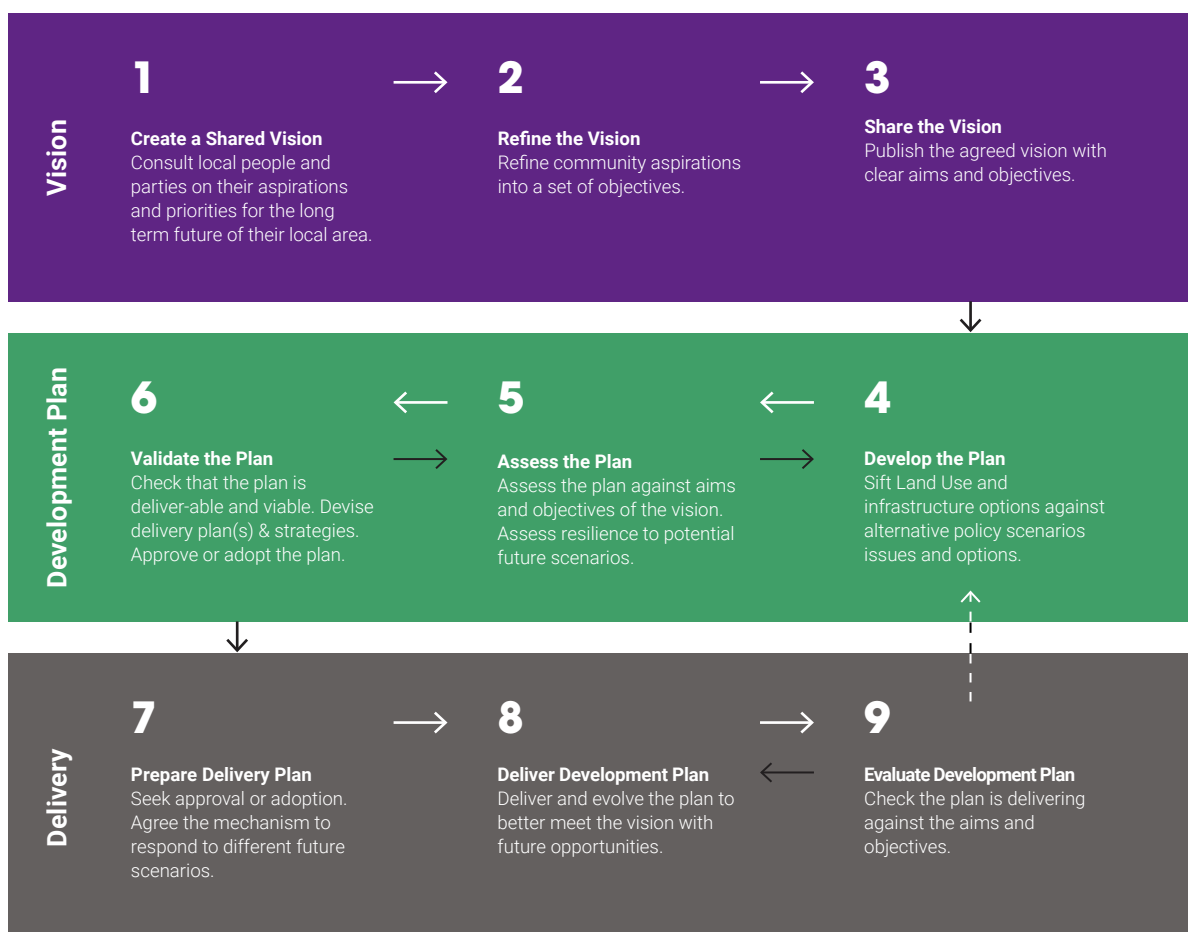
We started from the premise that there is significant pressure on Local Planning Authorities and the development professions to deliver more housing and jobs, and that there are justifiable concerns about our ability to deliver this quickly and efficiently whilst meeting our ambitions for 'good growth'. There is an increasing recognition that we need to take a new approach, and this has a bearing on the techniques that we use to assess the land use and transport effects of development.

A new approach to Transport Assessment

We need to move firmly away from the 'modified version of predict and provide' towards a 'vision and validate' approach (also known as 'decide and provide'). This doesn't need large tracts of technical guidance to

be rewritten, but it does mean that we need to use our existing tools and techniques in a different way.

This means starting with a shared understanding about the nature of the place we are aiming to create, devising a strategy to deliver the agreed vision, and then using our transport assessment skills to demonstrate the most appropriate way of delivering this. This process needs to test alternative policy scenarios to identify the most resilient strategy, taking into account the uncertainties associated with forecasting in a fast changing world. An adaptive approach to implementation will be an essential part of the process, making the monitoring and management of outcomes central to the process.



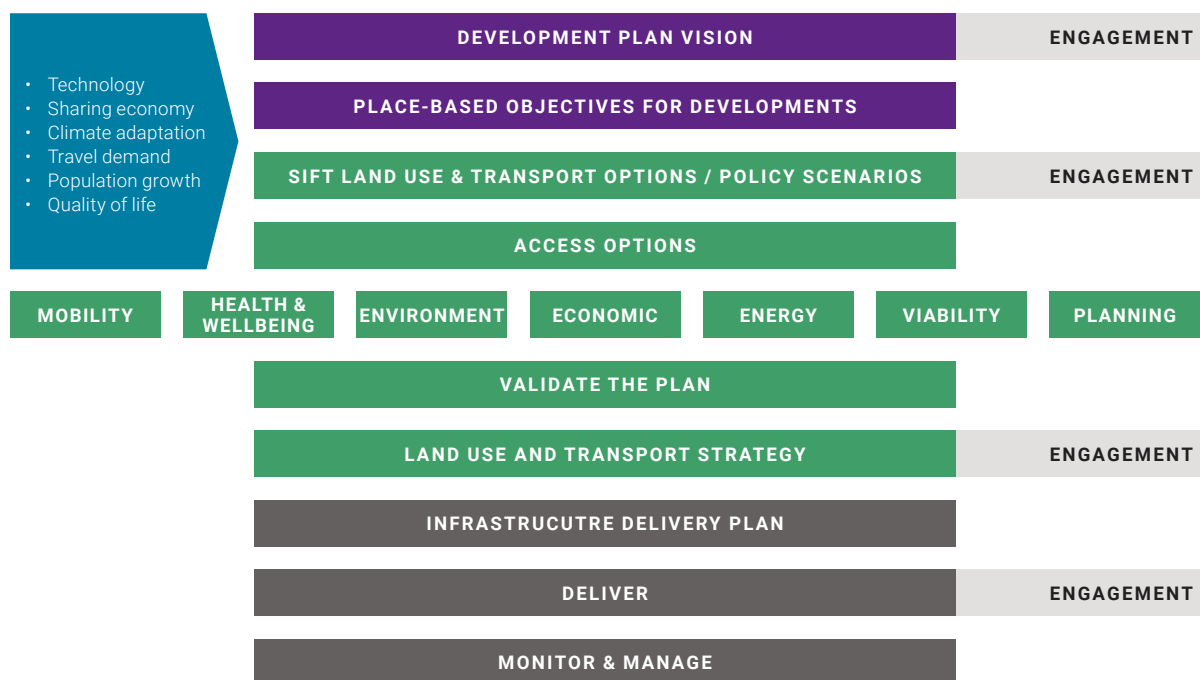
This is not just about transport planning – it has wider implications

Transport is a big part of the underlying issue, but this thinking leads to the conclusion that we need to reinvent the way we promote development through the planning process, starting with the need for the Development Plan to set out a 'place based' vision for its local communities, and for an Infrastructure Delivery Plan to take a more strategic approach to planning and delivering the infrastructure needed to support this vision.

Stantec's 2013 research report 'Building Infrastructure: Achieving Growth' identified the need for a more strategic approach to the planning, funding and delivery of supporting infrastructure, through the preparation of an Infrastructure Roadmap. Whilst KPMG's report 'Sustainable Development: The key to unlocking the benefits of new housing' recommended that the

business case appraisal methodology used to assess the value for money of government infrastructure funding should be amended to take account of the wider benefits arising from 'place based' programmes, such as to improve connectivity.

This more strategic approach will only be effective if it is based on a Vision for spatial development, set out in the Development Plan. It would then provide a consistent basis for the preparation, assessment and implementation of healthy, prosperous and sustainable development and infrastructure proposals within the Development Plan area. This might be an ambitious goal, but is one worth aiming for. It will need a broad based conversation between academic, professional, community and political stakeholders, supported by the evidence needed to underpin the case for change. We hope that 'Places First' provides a helpful contribution to this debate.



A vision and validate approach to development planning.

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Design with community in mind

