

UoH SMU Roundtable Transport and Development

This report documents the fourth in a series of roundtable discussions in 2023/24 commissioned and sponsored by Transport East¹ for the Rural Transport Learning Network and organised by the Smart Mobility Unit at the University of Hertfordshire.

The series builds on earlier roundtables hosted by the University of Hertfordshire between 2020 and 2022 to address the shortage of research and policy on transport outside cities and in rural areas.

The format for this roundtable was a two hour online meeting via Microsoft Teams and consisted of presentations by speakers followed by questions and discussion, both verbally and via the chat function.

1.0 Participants

There were 27 participants. Sectors represented were: national, sub-national and local government, transport consultancy, academic research, non-governmental organisations, property development and statutory bodies. Stephen Joseph chaired the discussion.

The following abbreviations indicate the sector making comments:

GOV	National government or Executive Agency
REGG	Regional transport body
CC	County council or unitary authority
STAT	Statutory body
DEV	Developer
CONS	Consultant
ACAD	Academic
NGO	Non-governmental organisation

[CHAT] denotes written contributions made in real time during the spoken dialogue. Reactions are shown in brackets after the comment e.g. (like 1).

2.0 Theme

The theme for this roundtable was the future of transport and development outside cities in rural areas. Topics to consider were:

- What are the trends in new developments in England outside cities and what are their implications for transport?
- What can be learnt from examples of good practice in creating less car-dependent developments? How scalable and replicable are these?
- What can and should be done by local planning and transport authorities and by Government and its agencies to reduce car dependence in new housing and other developments?
- How can sub-national transport bodies contribute to this via their regional transport strategies and are there regional approaches that would add value to this area of work?

¹ Transport East runs the Rural Mobility Centre of Excellence
<https://www.transporteast.org.uk/rural-mobility-centre-of-excellence/>

3.0 Summary

The meeting heard from six speakers with expertise in transport and development outside cities. Participants responded with questions and comments.

Jenny Raggett painted a picture of typical English greenfield housing developments, as documented by field researchers for Transport for New Homes. Site selection is usually outside planning authority control with car-dependency the inevitable consequence. Out of town shopping in retail parks becomes the norm, undermining the economy of nearby market towns. Existing residents lose walking and cycling access to the countryside and are forced to drive for services, goods and amenities previously available nearby. Even the most dedicated local authority transport officer is powerless to ameliorate the damage caused by poor site location. This pattern of development is confirmed by the TRICS and Census data which shows some of the highest trip rates and car ownership is at edge of town locations.

David Milner demonstrated how housing growth outside cities could be transformed by replacing the 'Predict and Provide' approach to traffic modelling with a vision-led approach. Place-making on the edge of towns can reduce traffic and increase active travel by careful choice of location, street layouts and densities similar to existing market town centres and by pump priming shops and services in the heart of new settlements. To demonstrate the practical impact of this approach Create Streets re-designed an existing masterplan for an edge of town development for Chippenham with £75m allocated for a new road. Dropping the bypass and concentrating the housing in a smaller area nearer to the railway station, building new cycling and walking paths into the town centre and subsidising local businesses in the new neighbourhood would deliver meaningful travel behaviour change with better quality of life and less land take.

Matt Russell declared that there is no time to waste in adopting a 'Vision and Validate' approach to transport and land-use planning if we are serious about avoiding catastrophic consequences of climate change. There is consensus amongst professional planning institutions that 'Predict and Provide' has to be replaced. The assumption that car use will rise inexorably and that it must be met with increasing road capacity is out of date. Younger generations are driving less and living more online. Work patterns have changed. We have tools to allow transport planners and urban designers to select the most effective interventions for a given location from a wide range of options. It is possible to design places where people can live, work and shop locally, travel sustainably and enjoy healthy, vibrant and connected communities. We must not be afraid of innovating.

George Hazel explained the E-Rail approach to Land Value Capture (LVC). At the very outset, a Local Authority negotiates with the landowner where new transit is planned. An agreement is signed to legally bind a proportion of the increase in land value due to the public investment in transit infrastructure. The funds are paid by the landowner to the Local Authority when the planning permissions are granted. This approach works well for all parties: housing near a rail station, guided bus or tram route has more appeal, attracting higher prices; sustainable planning policies are met; applicants are more likely to secure planning permission and at higher densities. This leads to higher profits for the landowner/developer and savings for the public purse. The value released typically funds 25% to 50% of new infrastructure. Sustainable travel patterns are an automatic spin off from the developments. The biggest challenge is faced by two tier local authorities which struggle to coordinate and identify strategic opportunities early enough.

Robin Pointon described a travel planning project for New Lubbethorpe on the edge of Leicester. The landowner/developer is Drummond Estate, a values-led trust determined to create a best practice settlement. Go Travel Solutions has developed LocalGo, a free community travel package for residents offering travel discounts and personal travel planning. Services include new buses, e-

bike hire and a car club. The project has also invested in cycling promotion. There is an on-site travel plan ambassador who is also a resident. The project illustrates the key requirements for embedding sustainable travel behaviour in a new edge of city development. The landowner and developer have to want to do the right thing. It is essential to make strategies and plans flexible to adapt to changing circumstances. Funding is a major challenge, especially for new bus services which require revenue support. A high level of community engagement and diverse channels of communication are essential.

Holly Bunting presented the results of a travel planning trial for people moving into new housing developments in Essex. The pilot is centred around an innovative app to address a common barrier faced by people moving into new settlements. New postcodes are not accepted by journey planning software until some time after moving into a new property, meaning that frustrated residents rapidly revert to the car. The app overcomes this problem by integrating maps held by the local planning authority and supplied by developers. Combined with relevant data from Essex County Council transport and other services, the app has been a major success in changing travel behaviour.

The discussion began with support for and a powerful analysis of vision-led development as seen from within a statutory body responsible for housing. While initial land allocation, site selection and phasing perpetuate car dependency in new developments, the most difficult problem is cultural beliefs about car-use and parking. There was agreement on the need to influence the views of local elected representatives. Persuasive arguments are needed to sell the wider benefits of alternative options, with pressure coming from the top down and the bottom up. These observations were echoed completely by a housing developer.

David from Create Streets suggested there are many interacting vicious circles in existing development, land-use planning and transport systems. A series of carefully selected interventions could start to create virtuous feedback circles in their place. Examples include reforming traffic modelling and appraisal, codifying the transport and amenities for a given development at the outset, removing the statutory duty on Highway Authorities to prioritise free flowing traffic and changing Treasury cost/benefit assumptions.

There was wide agreement that limited local authority resources, both in terms of capacity and ambition, are barriers to vision-led development. Coordination between Local Authorities in areas of two tier local government was widely recognised as difficult. Funding likewise. Phasing of housebuilding is a problem because shops and other businesses aren't economically viable until the majority of a site is filled, hence pump-priming onsite amenities from the outset is a requirement.

Several participants suggested that sub-regional spatial planning frameworks are essential to gain control over the locations for development and allow new settlements to be served by sustainable transport. There was strong interest in LVC to fund new transit infrastructure and thereby increase sustainable travel behaviour. There was an appetite to understand how LVC might be able to create self-sustaining funds for revenue projects.

To conclude, car based development is not an inevitable or essentially English approach to life. Case studies reveal how internalisation, active travel interventions, better public transport, travel planning and site specific approaches can change travel behaviour. This is not the norm because we have perverse incentives. 'Predict and Provide' traffic modelling rules out alternatives to road-based development such as public transport at the outline plan stage and as a consequence Land Value Capture can never be an option.

Encouragingly, there are advocates for vision-led transport planning within government agencies and statutory bodies. To complement this, sub-national transport bodies have a role catalysing culture change within local government to favour the vision-led approach.

Key References

TRICS Good Practice Guide 2024, TRICS Consortium Limited (October 2023) Ian Coles

Stepping off the Road to Nowhere (2024) Create Streets and Sustrans

Land Value Capture Discussion Paper for Metrolinx (August 2013) George Hazel Consultancy

Land Value Capture as a Source of Funding of Public Transit for Greater Montréal (October 2014) George Hazel Consultancy and National Bank of Canada

Triple Access Planning for Uncertain Futures – A Handbook for Practitioners (March 2024) Lyons et al ISBN 978-1-86043-621-5

4.0 Presentations and Discussion

The following speakers circulated papers in advance

- Jenny Raggett, Transport for New Homes - Visits to greenfield housing developments, our expanding towns
- David Milner, Create Streets – Stepping off the Road to Nowhere
- Matt Russell, SLR Consultants – Vision & Validate and Internalisation in New Settlements
- George Hazel, E-Rail – A New Funding Model for Transport Infrastructure: the Land Value Capture Model
- Robin Pointon, Go Travel Solutions - A Case Study on New Lubbesthorpe through the Travel Plan Coordinator Role
- Holly Bunting, Essex County Council – All Roads Lead From Home: Providing Travel Choice for New Communities

Speakers were asked to summarise their presentations to allow time for discussion. Where the speakers were especially concise due to time constraints, some additional information has been included from the presentations slides to supplement the following accounts.

4.1 Jenny Raggett – Transport for New Homes: Visits to greenfield housing developments, our expanding towns

Transport for New Homes (TfNH) wants to see new developments linked to sustainable transport networks in order to reduce traffic, address climate change and congestion as well as to provide good, healthy living environments. A key part of the work is visiting places and documenting them through photography. A volunteer team has been recruited to survey a wide range of sites across England. Transport for New Homes will shortly publish the latest findings in a State of the Nation² Report.

Documentary photography

Photographs are used in everything TfNH does because they tell you a lot about what's going on. And when it comes to new developments on the fringes of towns there can be no doubt that they

² <https://www.transportfornewhomes.org.uk/the-project/state-of-the-nation/>

are all about the car. Often these developments give a clear impression of separateness and rarely enable car free lifestyles for residents.

Major greenfield developments on the edges of towns are a disappointing monoculture of houses despite claims to the contrary in the planning applications. Some of the houses are nicely designed as homes but generally speaking there is no emphasis on place-making. So we see none of the lively local centres promised at the outset. Someone on a budget who didn't want the expense of a car might be put off. It really limits the choice of places to live.

This approach to new housing developments may be unique to England since very different approaches can be seen in European towns.

Impact on existing residents

When TfNH volunteers visit developments they chat to local people and often find opposition to very large edge of town developments. People value access to the countryside for recreational walking and cycling. This access is often removed when new housing gets built, despite developers' claims to support sustainable transport modes. It's not just that the fields, lanes and footpaths are used up, but developments bring a car-based out-of-town lifestyle. Local people point out that as you build places too far away to walk into town, invariably new road systems have a 'doughnut effect' bringing out of town retail development. Even existing residents previously able to access local shops without a car are forced to use peripheral retail parks as businesses begin to close in town.

Many town centres are degrading. Part of this is due to national trends but a car-based lifestyle is becoming dominant in the centre of market towns. The land-take for parking is significant despite aspirations to make these places more pedestrian friendly and vibrant. The car is being accommodated more and more.

There are also lots of very large brownfield sites left unused in medium and large towns despite the narrative in local planning to bring these into use. These sites can sometimes sit on hold for 15 to 20 years, even near rail stations. For various reasons it is simply easier to build on the edge of towns.

Rail

In terms of rail, there is lots of talk of new stations but implementation is slow and the stations are rarely close to housing sites. Stations aren't made into hubs in their own right. Dorchester South station is an exception, but on the whole many opportunities are missed.

Edge of town car dependency

The scale of typical market towns should naturally enable more sustainable patterns of movement but the culture of driving creeps in. Although it might seem better to build large estates around the larger towns, these towns are more vulnerable because of the longer distances to walk from residential areas to the centre. Outer distributor roads simply spread development too far away from the town centres for new residents not to use a car.

TRICS data³ confirms this, showing that the 'edge of town' category ranks amongst the highest for trip rates. The 2021 census also shows that new edge of town locations near market towns have especially high car ownership.

³ <http://www.pedi.trics.org/img/TRICS%20Good%20Practice%20Guide%202024.pdf> see p7 para 4.4

Conclusion

Some of the highest housing targets are concentrated in Local Authorities classified as mainly or largely rural⁴. These are places where it is very hard to supply good public transport and Local Authority officers can't meet housing targets and avoid car dependency. Moreover the housing targets are on a rising trajectory. The cumulative number of dwellings in a rural area escalates over time to create an incredible footprint. As a result one local authority is even considering a metro system for part of rural West Wiltshire.

There is an increasing possibility that we need to think about investing in integrated transport systems to connect these dispersed new developments. There could be a mixture of services on a European model including metros, light rail, tram plus good integration with buses. We also need massive investment in walking and cycling. The Create Streets and Sustrans work on the Chippenham case study shows how different things could be.

4.2 David Milner - Stepping off the Road to Nowhere

David Milner shared the results of recent work by Create Streets which show that changing to a 'Vision and Validate' approach to masterplanning can create more homes whilst also saving money, protecting the countryside and creating happier, greener places. The full report, which takes Chippenham as a case study, is available online⁵.

Background

This work evolved from a project where Sustrans assisted Create Streets with a masterplan in mid-Devon. Rather than just putting 650 boxes in a field, the aim was to create a place with active travel routes, a co-working hub, nursery and a local shop in phase one.

The transport engineers rejected the masterplan because their model said it would 'break' the entrance roundabout in phase one. Having studied engineering, David asked to see the modelling. He discovered the traffic modelling claimed to predict precisely how many vehicle movements in 2035 would be made at each roundabout, including the one at the entrance to the development. David challenged the basis for predicting trips so accurately this far ahead, especially given the site was close to the town and there would be an e-bike loan scheme from day one, plus several million pounds investment in cycling and walking. In addition the shop, co-working hub and nursery would be in the very centre of the site. Then he learned of 'Predict and Provide' where historic data trends are cast forward regardless of initiatives to reduce car use. This led to a briefing paper⁶ about appraisal and modelling and the very negative impact these have on new masterplans, in particular plans for big urban extensions and greenfield development.

Chippenham Case Study

A real place was needed to explore this impact further. With very few contemporary or relatively recent historical examples of different approaches in the UK, Create Streets sought an example of a poor masterplan with poor supporting infrastructure and selected Chippenham.

⁴ <https://www.gov.uk/government/statistics/about-the-digest-and-rural-definitions/about-the-digest-and-rural-definitions>

⁵ Stepping off the Road to Nowhere, Create Streets and Sustrans (2024)
<https://www.createstreets.com/projects/stepping-off-the-road-to-nowhere/>

⁶Computer Says Road: why outdated transport models ruin new developments and how to fix them, Create Streets Briefing Paper (2022)
<https://www.createstreets.com/wp-content/uploads/2023/04/Computer-says-road-1.pdf>

A particularly bad aspect of the road infrastructure in the Chippenham masterplan, apart from climate change and air pollution impacts, was the expense. In addition to the upfront capital cost there would be high ongoing road maintenance costs, posing a serious challenge for cash strapped local government. Big, wide roads are very expensive because of the land take. They also cause congestion, pollution and community severance, exacerbating inequality and damaging health. The research on this is very well established, dating from work by Donald Appleyard⁷ in the 1970s. Major roads also undermine the viability of public transport and are highly unpopular.

‘Predict and Provide’ is a method which takes existing car travel and combines it with forecasts of population growth to predict future car travel. The model forecasts the increase in road capacity required to meet the future worst case scenario including fire, flood, GDP and population growth and assumed growth in car travel. Unfortunately if these road-based solutions are installed the forecast traffic growth often becomes reality. As a purely forecasting tool, Department for Transport’s own data shows that ‘predict and provide’ has proved to be very poor at traffic predictions.

‘Vision and Validate’ is a completely different design process to ‘Predict and Provide’. This vision-led approach forms part of the government’s decarbonisation plan and is referred to within DfT and Natural England. In a nutshell the process involves many stakeholders at the visioning stage who decide what the place should look like and how it should function. Designers, technical experts, local authorities and representatives from the community including residents develop a collaborative vision for the street. Is this a place where you want to be able to walk to get a pint of milk? Or is this something different? After the proposals have been set out, transport modellers are asked to come up with ways to achieve the place-based vision. So the modelling comes after the vision.

Vision and Validate ‘Big Moves’

Chippenham’s development proposal was for 7,500 homes with three road options for a new bypass. This approach always signals big roundabouts, very low density developments, lots of cul-de-sacs and parking. The development was supported by a £75m housing infrastructure fund from Homes England. Create Streets explored how to make better use of this funding. The vision-led process involved Sustrans, Jenny Raggett from TfNH and local people. Following number of workshops and visits to Chippenham a new masterplan emerged with a set of “big moves”.

BIG MOVE 1 – A HIGHER DENSITY MASTERPLAN NEAR THE STATION AND TOWN CENTRE.

Housing was designed at a ‘gentle density’ of 50 to 55 dwellings per hectare rather than the 19 dwellings per hectare in the original masterplan. This allows the development to be more compact without reaching high-rise densities. The goal was for the development to feel much like the existing residential spaces in Chippenham with a slightly higher density than the historic centre.

The land take was reduced from 350 hectares to 120 hectares, leaving plenty of space for car parking and vehicle access. The design used perimeter blocks, terraced blocks and some mansions whilst emphasising the quality rather than the scale of green spaces. There is no need to include as much green space within the development because it is in a rural setting, close to the countryside.

The development was relocated to the side of Chippenham nearest the rail station and close to the town centre with its attractive pedestrianised high street. As a result every home is within 2.5km of the station and half of homes are less than 1.5km away. There are two attractive cycle routes

⁷ <https://www.pps.org/article/dappleyard>

through the site already, with a traffic free bridge. By adding another small cycle bridge this connects the development to a riverside route through a park to the town centre.

The new masterplan doesn't radically change the way people live and the kind of places they know. The development should feel like the existing town with a few new features added. By delivering a compact development, more people in the suburban areas to the West and South of Chippenham can retain access to the countryside. With the original sprawling site the countryside would retreat away from these existing residents.

BIG MOVE 2 – SUPPORT HOUSING ON BROWNFIELD SITES IN CHIPPENHAM

To improve Chippenham's economic vibrancy £2,500 was allocated to increase the existing funds for developing brownfield sites to £10,000.

BIG MOVE 3 – RAIL PASSING LOOP AT MELKSHAM

£15m was allocated to a rail passing loop at Melksham which generated a huge benefit for the scale of investment. Rail services are currently six trains a day to towns to the North and South. The passing loop enables a service with a frequency between two and four trains an hour. Subsequently rail experts have suggested that this upgrade could be delivered for a total of £5m to £10m.

BIG MOVE 4 - HIGHWAYS

£10m was reserved for highways because new residents would still need access to the road network. Chippenham is a fairly small market town and much of the economy depends on people working in Bristol, Bath and to some extent London.

BIG MOVE 5 – BUS PLAN

An ambitious Bus Plan was allocated £1.5m capital and £1m revenue per annum for 5 years. The initial pump priming for revenue support is essential to achieve a major increase in bus ridership.

BIG MOVE 6 – CAR CLUBS AND MOBILITY HUBS

£3M for car clubs and mobility hubs was seen as key to enable a shift to sustainable transport.

BIG MOVE 7 – SUPPORT LOCAL BUSINESS IN THE DEVELOPMENT PHASE

£6.25m was allocated to support local businesses at the outset to ensure they could survive in a central location while the scheme develops. This is a very important feature to prevent shops and cafés clustering at the entrance to the site for initial passing trade. If this happens, residents who move in later end up several miles away and are forced to drive. Businesses and services must be in the centre from the start.

BIG MOVE 8 – REVITALISE AND IMPROVE CHIPPENHAM

£10m was allocated to improvements in Chippenham town centre. Thinking holistically is essential because the development expands the town's population by 50%. This funding can support renovating shop fronts, public realm or otherwise help local businesses.

BIG MOVE 9 – PROTECTED CYCLE LINKS

£15m was allocated to an active travel scheme designed by Sustrans with an ultra-convenient cycle route linking the site to key locations. The design includes many different types of cycle infrastructure with some mixed-use routes. Some cycle paths are created outside the boundary of the development with benefit to existing residents.

Evaluation

Consultants ITP volunteered to model the plan and validate the vision. The results were very positive. Modelling the interventions for mode share resulted in a fall in private car use from 72% to

46%. This is a massive change. The residual car use reflects the fact that the location is a market town in a rural county.

There were 9,300 more walking and cycling trips every day than in the sprawl-led development, 12,000 fewer car trips per year and 3,000 more public transport users. This amounts to annual savings of 2,000 tonnes of carbon emissions which would make a substantial contribution to Wiltshire's target for climate emission reductions.

Finally a key message is that a vision-led approach to new development can start to tackle congestion. ITP's modelling showed an overall fall in background traffic because the interventions benefitted transport as a whole for Chippenham. This case study shows that growing a town organically rather than taking a leapfrog, road-led approach to development has a wide range of benefits.

A set of policy recommendations from the case study is included in the report.

Questions and comments

ACCURACY OF BENEFIT/COST RATIOS

CONS1 [CHAT]: Great to hear about modelling (or not) to support sustainable development from Create Streets. Have you looked back at any BCR calculations to show how out they were (and recalibrating)? I am thinking of noticing that the Borders Railway was given a BCR of 1 based on 300k then 600k passenger trips but when it was built actual passenger numbers were 1.5 million

CONS13 [CHAT]: Indeed CONS1, there was an opportunity to raise funds for that project but was not taken.

CONS1 [CHAT]: Shame - hopefully we can still learn from it though

CONS13 [CHAT]: Hope so!

DM [CHAT]: We've not looked back at testing BCRs. Frankly I think it hardly ever happens, ditto for claims on economic growth for new roads. I believe Transport for Quality of Life did a study on this.

CONS1 [CHAT]: I think that there has been some doubt cast over the BCRs for road by the Treasury (as the BCR declines rapidly when new traffic is attracted) and Prof David Metz. However I've not seen anything about the BCRs for public transport (which are likely to increase over time as more people can use PT without service declining).

LOCAL CENTRE IN WRONG PLACE

NGO14 [CHAT]: Putting the 'local centre' on a roundabout off the distributor road means that many parts of the development live a long way to walk there. Also we have seen the local centre is mainly supermarket and car park. Lack of independent businesses.

4.3 Matt Russell - Vision & Validate and Internalisation in New Settlements

Matt Russell gave a presentation on behalf of Mike Axon, Global Director of Transport.

Background

The time for warm words is over. Living and making decisions in the way we used to is not an option anymore. Small changes, tinkering around the edges is not an option. Waiting for a few years is not an option. We need to be serious about minimising our impacts on the planet.

1,200 people are dying prematurely in Europe each year because of dirty air. Over a million animal and plant species now face extinction. In the UK, the biggest issues are climate, economy and health.

The ten hottest UK summers since records began in 1853 have been since 2003. Last year we had a drought in Europe. In some places, communities are having to relocate as a consequence.

If we are serious about meeting our carbon reduction targets, and our policies and rhetoric suggest that we are, then the step change must come now. We need to design better and put sustainability at the centre of our business models. However, because we are a diverse society and benefit from a wide range of views and opinions, this will inevitably cause upset, annoyance and indignation for some. This is our challenge and meeting it will be a test of our character.

Transport Emissions

Movement, accessibility and transport are a major part of the serious problems we face. Surface level transport in the UK currently accounts for 25% of greenhouse gas emissions. The European Union's plan for a carbon neutral continent by 2050 demands an ambitious 90% reduction in emissions from transport. On a shorter timescale, 'Fit for 55' requires a 55% cut in overall emissions by 2030 to remain within 1.5°C of warming since pre-industrial levels. Most UK Local Authorities have set 2030 emissions targets to limit warming to 1.5°C and many have declared climate emergencies.

However, these targets will only be met through transformational changes to transport and accessibility alongside new approaches to designing and retrofitting strategic sites.

Vision and Validate

The 'Vision and Validate' approach emerged from CREATE⁸ (Congestion Reduction in Europe: Advancing Transport Efficiency), an EU project researching transport in five European cities.

'Vision and Validate' is now making a major contribution to planning and transport policy and is endorsed by many government and industry organisations.

The Royal Town Planning Institute (RTPI), Town and Country Planning Association (TCPA) and the Chartered Institute of Highways and Transportation (CIHT) agree on the need for a 'Vision and Validate' approach, abandoning 'Predict and Provide'. Building our way out of traffic congestion is now an option of last resort, not the first resort it once was. We cannot foster lifestyles dependent on the car.

RTPI champions vibrant communities, calling for a reduction in traffic and mode shift away from private car⁹. In their Garden City Standards for the 21st Century¹⁰, the TCPA requires a visionary mindset, with a clear focus on decarbonisation of travel. CIHT adopts the same principles, calling for health, well-being, lifestyle and environment to be placed ahead of accommodating traffic growth.

The Scottish government was aiming to achieve a 20% reduction in traffic by 2030 up until recently. Although they have now scaled back this target they are still continuing to reduce traffic movement. Wales has a target for 10% reduction in traffic by 2030 and has severely curtailed its road building programme on the grounds that building new roads both embeds carbon and generates traffic.

⁸ <https://makiingsustainabilityhappen.co.uk/insights/mobility-and-net-zero-how-accessibility-can-contribute-positively-to-transport-carbon-targets/> and <https://discovery.ucl.ac.uk/id/eprint/10058850/>

⁹ <https://www.rtpi.org.uk/netzerotransport>

¹⁰ <https://www.tcpa.org.uk/collection/garden-city-standards-21st-century/>

Sustainability, Accessibility and Mobility (SAM) Framework

SLR Consulting has helped RTPi develop a place-based model to reduce surface transport emissions 80% by 2030. The SAM framework recommends interventions for new developments and existing settlements, including in rural settings, to achieve the swiftest reductions in emissions whilst creating healthier, happier, more resilient communities.

Travel poverty is a recognised problem so we need to look at access to services for liveability not just travel to work. The main reasons for travel are no longer to get to work.

The SAM framework guides planners and urban designers to prioritise interventions in the most effective way possible. The first step is to substitute trips by replacing the need to travel beyond the local community, including via online services and local deliveries. The next action is to shift transport mode so that where longer trips are required they can be made by active, public and shared forms of transport. Finally, for any trips that must be made by car, ensure that the vehicle is zero emission by switching fuels.

SLR Consulting has a carbon reduction tool to assess the carbon impact of different transport interventions. A new module will look at health impacts both physical and mental.

First Law of Transport

A fundamental law of transport is that the volume of traffic is a function of the available road space. Adding road capacity increases the total number of miles travelled by all vehicles. A 10% increase in capacity causes a 10% increase in vehicle miles on average. While this relationship has been well established by research, it has not been accepted into the design process until recently. This lag has been to the detriment of congestion, value for money and liveability.

Stevenage Case Study

'Predict and Provide' is no longer appropriate. An example is Stevenage, a new town in Hertfordshire which lost 15 years of new housing development because of the 'Predict and Provide' approach. The planning authority's aspirations for growth were being restricted by the Highway Authority which was minded to object to housing growth due to insufficient road capacity on the network. The Planning Authority argued its case successfully and avoided an unnecessary 30% increase in road capacity. The local plan proceeded with the requisite growth and very little new road space was provided. Instead, a shift in travel modes and travel behaviour appeared along with an uptick in active travel modes and public transport use.

'Vision and Validate' allows designers to meet development goals, achieve less traffic in less road space and allocate new space for other sustainable modes.

Digital focus

Social trends also reduce the relevance of the 'Predict and Provide' approach to transport infrastructure. Social attitude surveys show that younger generations are not so keen to own and use cars. They have a more online focus for their desires and prioritise convenience. Time and cost are no longer the sole factors in their choices. Shared mobility appeals to this social-networked generation. Research shows 24% of millennials are likely to carpool and 65% would prefer a new smart phone over a new car.

Work patterns are key to travel demand and SLR Consulting has been studying trends in working from home for many years. On average, nationally at any point in time, about 25% of people in the UK are now working from home compared to about 15% pre-Covid. In some London Boroughs the work from home ratio is as high as 40%. SLR Consulting has developed a tool using ONS demographic data to predict work from home levels for any given location. The model's data is updated regularly

and there has been some stability in these figures since last March. The tool is being used by SLR Consulting on many new developments and strategic sites.

Patterns of shopping and delivery have also changed dramatically. In the UK 27-28% of retail is now via online shopping. Services need to be anchored in new developments with facilities to support home deliveries. Ground drones and community concierges have an important role to play. Mobility hubs increase local accessibility and active travel. Primary hubs also have a role in delivering wide range of travel planning information.

Masterplanning

Active travel initiatives and new mobility services must be the primary movement network in new developments. But this requires a major shift in mindset. SLR Consulting participated in the MORE¹¹ project, a study that included London, Malmö, Lisbon, Constanta and Budapest to examine urban street design and road space reallocation for more efficient movement.

SLR Consulting was involved in a landmark planning appeal at Hartford where the Secretary of State ruled that the purpose of a plan is not to be 'pro-car' first but 'pro-community'.

At Silverstone Park in Nottinghamshire, SLR Consulting produced a masterplan for a business community on a rural site. This included a new social hub with shops, meeting places and gym to encourage staggered commuting journeys and create a sense of community and pedestrian-scale living on the site. There are also pool bikes for use within the site and a lift-sharing scheme. There is a full time community concierge and cycle super-routes to Buckingham and Towcester designed by Sustrans.

Further examples of vision-led masterplanning include the Dunton Hills Garden Village of 4,000 homes in Brentwood where the mobility strategy aims for 70% of movement to be internalised.

The municipality of Leuven¹² in Belgium provides another vision-led example of traffic management. The town is split into districts with restrictions on car use for short trips and low car zones where active travel is the priority mode. The cycling mode share is 41% in the centre. The city of Oxford has plans to replicate this model.

Conclude

To make significant changes we need to have lots of choices. We cannot be afraid of trying out new ideas. The 'Vision and Validate' mindset offers a more flexible approach to delivering accessibility and meeting our goals for climate, social inclusion, social integration and the economy. We must use traffic models iteratively to inform future options rather than as pass/fail arbiters as happened with predict and provide in the past.

¹¹ <https://www.roadspace.eu/reallocating-road-space-through-tactical-urbanism>

¹² <https://www.climate-kic.org/news/citizens-inspire-a-car-free-leuven/> <https://www.climate-kic.org/programmes/place-based-transformations/healthy-clean-cities/publications/> <https://citymonitor.ai/environment/leuven-journey-to-becoming-carbon-neutral>

4.4 George Hazel – A New Funding Model for Transport Infrastructure: the Land Value Capture Model

E-Rail specialises in property and transport planning, enabling clients to finance new transport infrastructure.

The E-Rail LVC approach

There are two key aspects to understand about the E-Rail model of Land Value Capture. Firstly the approach is fundamentally about how to raise funding for transit. The American term transit is helpful here as the transport must be fixed route e.g. trackless trams, bus, rapid transit, heavy rail, light rail, mono-rail. Secondly, sustainable communities are an automatic spin-off from the approach because the increase in value for the funding comes from the increased transport connectivity.

E-Rail has spent ten to fifteen years refining the checks and balances required for a robust LVC system. This has drawn upon extensive work¹³ commissioned by the National Bank of Canada and Metrolinx in Toronto exploring all the various methods of Land Value Capture, from tax-based to development-based.

There are many systems of Land Value Capture but the E-Rail approach is based on ample evidence across the world that a new transit station lifts land and property values considerably so long as the station serves useful destinations. The end value of the houses around the station increases by 20% on average. This is real money and it can be captured. The increase in land value is even higher.

E-Rail operates within 1km to 1.5km walking radius of a station. In the context of a cycling project the radius can extend up to 3km.

Development Opportunities at New Railway Stations

There is a very interesting link between LVC and planning because whatever the zoning, a new railway station will always attract development pressure for land-use change nearby. It is also government and local authority policy to encourage development around stations. So new transit infrastructure always drives re-zoning in the long term.

Worcestershire Parkway Rail Station is a good example in the UK. This sits at the junction of two railways and yet was zoned for zero development except for a park and ride. However, once the station had been built planning applications began to come in around the station. The result is that the area has now been re-zoned for 5,000 houses by 2041 and another 5000 in the next local plan. The station cost £22m to build and it is estimated that LVC, using the E-Rail method, could have paid for the station in full. This was a missed opportunity to capture at least a proportion of the new value created by public sector investment. This example is not to imply any criticism of Worcestershire County Council as LVC wasn't available as an option at the time.

Northumberland County Council engaged E-Rail to explore fund-raising opportunities as part of the reopening of the Ashington-Blyth-Tyne rail route. E-Rail helped establish Contribution Agreements (CAs) with landowners and in one case a landowner/developer which will raise 25% of the capital cost of the new line. The railway is now under construction with twenty one associated development sites. Funding will arrive as the planning permissions go ahead.

¹³ <https://www.georgehazel.com/assets/Land-Value-Capture-Discussion-Paper-Metrolinx-August-2013.pdf> <http://www.georgehazel.com/assets/Land-Value-Capture-National-Bank-October-2014.pdf>

E-Rail is working on twelve other projects in the UK, one in Sweden and one in Queensland Australia. In the UK there is very significant potential for Land Value Capture. In the South and South-East of England and the Midlands alone this could contribute hundreds of millions of pounds to the public purse.

Keys to Success for Land Value Capture

Early engagement with landowners is essential, both before the land is sold and before plans are submitted. Section 106 and CIL payments are still worthwhile but these are based on end value and fail to capture the uplift in value at the outset.

Government must not pay for all of the new infrastructure. There has to be a funding gap so that development can be made conditional on some local funding. LVC works best if there is only partial or no funding from Department for Transport. Currently the government target for new transport infrastructure schemes is to achieve 25% private funding.

LVC is neither a debt nor a tax. It is a share of the uplift in value of the land caused by the transit development. The aim is to achieve a 50/50 split of the extra value between land owner and the transit fund. The Local Authority controls the funding in an escrow account.

The landowners agree to a deal because it brings them extra profit, they are more likely to get planning permission and perhaps agreement to a higher density with less car-parking. The Local Authority gets substantial funding to contribute to the infrastructure costs.

Independence of the planning process is sacrosanct and maintained at all times. As is the procurement of the transport systems and the modelling of the transport systems. E-Rail acts solely as a funding partner not as a transport planning consultant for the Local Authority. It is possible to accommodate Section 106/75, CIL and other levies.

Sustainability Spin-off

A spin-off of LVC is the growth of sustainable development and sustainable communities because this is what creates the value and the interest for the landowner as the developers take options on land around the transit infrastructure. This means increased revenue and a better business case for the transit. The combination of transit and development supports local services, businesses and active travel. It also helps reduce car trips and therefore emissions, accidents and congestion.

Opportunity for Proactive Planning

Land Value Capture also creates a real opportunity at a very early stage for proactive planning. It is possible to produce heat maps of the expected land value uplift at new stations and along new transit corridors. These can help inform transport planning authority decisions on sites for stations, new development and optioneering alignments. It can show how new settlements compare with extending existing communities in terms of raising funds for new transport infrastructure. E-Rail will not advocate any particular solutions, simply assist in negotiating with the landowners once the decisions have been made.

The objective is for the zoning in local plans to remain intact, but some flexibility is very helpful. E-Rail recommends that the Planning Authority reserves the right to revisit zoning around any new stations added in the future, for example along a green growth corridor.

Scope of Application

The disadvantage of LVC is that it can't fund normal buses because there is no guarantee that bus services will last and not be withdrawn. However LVC does work with bus rapid transit, light rail,

tram, train and streetcar. Ferries and bridges are also possibilities. Finally surprisingly there is also interest in using LVC for flood prevention because the principle is exactly the same.

Answers to Roundtable Questions

These were addressed in the presentation slides as follows:

Q1: Trends that we tend to see relate to governance and where there are disconnected transport and planning teams. We see particular challenges in regions with two tier authorities where transport and development teams and strategic policy is not always well integrated. This mis-alignment in strategy can lead to potentially poorer connected developments, where opportunities for third party funding to deliver better transport infrastructure can be missed or eroded due to lack of integrated thinking and working.

Q2: The Northumberland Line case study is a good example, where the County Council is bold, visionary and proactive in promoting a transport scheme that is fully integrated with their long-term spatial development strategy. Local planning policy developed that has flexibility to quickly adapt zoning in the event new infrastructure is delivered. Quebec province, in Canada, had a development policy that favoured development around transit stations. If a proposal did not conform with this directive the developer had to argue why it didn't.

Q3: Government to provide incentives for Local Authorities to make efforts to source meaningful local funding contributions (i.e. 15%-25% of capital cost) for transport infrastructure projects. Local Authorities to explore and utilise methods, like E-Rail's, to capture increase in land and development value due to transport infrastructure in partnership with landowners and developers (not a national land tax!). Local Authorities and their departments to work together building better and effective working relationships across disciplines, thinking proactively across land use planning, economic development, transport and funding. Local Authorities to promote sustainable development within 1 to 1.5 km of rail stations and build in flexibility to allow them to revisit zoning allocations in the light of new transport infrastructure.

Questions and discussion

CC10 [CHAT]: There is often a disconnect, particularly with two-tier authorities between transport planning and planning. These need to be much more closely aligned, as well as development considered at a sub-regional level so that larger, more costly infrastructure can be brought forward in a coordinated way [like 1]

4.5 Robin Pointon, Go Travel Solutions - A Case Study on New Lubbesthorpe through the Travel Plan Coordinator Role

Robin Pointon of GO Travel Solutions summarised key lessons for embedding sustainable travel in new developments using experience from the New Lubbesthorpe development.

New Lubbesthorpe is an edge of city development of 4,000 houses of which 1,000 have been built. The site is 5 miles west of Leicester in the East Midlands, adjacent to the M1 and M69. The Drummond Estate is both the local landowner and the developer and is committed to sustainability. The site includes 325 acres of parkland, with proposals for schools, local amenities, a Community Interest Company and a Parish Council.

Travel Plan Coordinator

In the role of Travel Plan Coordinator for New Lubbesthorpe, GO Travel Solutions has helped to establish new bus services, e-bike hire and a car-club. Information is provided in a range of formats

both online and printed. Residents and local employees can register with LocalGO, a community travel package, at no cost. This provides access to discounts with providers such as Halfords, Rutland Cycling and HurrEcane e-bikes. There are also savings on Novus bus services and national railcards.

In addition to LocalGO, distinctive features of the approach include a travel plan ambassador who is also a New Lubbethorpe resident, intensive community involvement and flexible, diverse initiatives.

The scale of the development meant that bus services were essential. No existing services could serve the site, so Section 106 funding has been used to develop bespoke services. There are now over 450 LocalGO members, bus ridership has risen substantially and single occupancy car use has fallen from 80% to 50% in four years.

Lessons learned

There are several key lessons from New Lubbethorpe for other projects seeking to embed sustainable travel in a new development.

A fundamental challenge for these large schemes is funding the various initiatives to make sustainable travel integral to the new development. There is no easy solution. Land value capture helps for some elements but finding funding for the elements which need revenue support is very hard.

Flexibility is important, adopting new measures to reflect new realities. We know about changing trends in work patterns and other day-to-day activities affecting travel demand. However Local Authorities and other consultants can sometimes be slow in this space. One constraining factor is that at times there is a lack of ambition in Local Authorities. There is also a fundamental capacity issue in local government.

Another big problem is that house-builders have no focus on place. They are only interested in delivering bricks and mortar. Yet we are in a tough sales environment for housing so we spend a lot of time explaining to house-builders that place-making helps sell houses.

The attitude and commitment of the developer/landowner and other parties involved in the scheme is key. The Drummond Estate wants to 'do the right thing'.

Excellent community engagement is central. As well as good online communications, you need to invest time and resources to talk face-to-face with people. Using community groups to connect is a valuable part of this engagement. Collaborate with as many parties as possible.

Take a flexible approach to strategy and transport measures and build an effective working partnership with the local Planning Authority and Transport Authority. At New Lubbethorpe we are on the fourth version of the public transport strategy. It's important to be prepared to keep everything under review in response to our changing world and changing demographic.

4.6 Holly Bunting – All Roads Lead to Home

Holly is part of the sustainable travel planning team at Essex County Council.

Overview

As part of the planning process all residential developments in Essex over 80 dwellings are required to have a travel plan. In addition, travel information packs are sent to all new homes. These packs include information, tailored by district council, on walking, cycling, public transport, car share, electric vehicles, travel to school, journey planning tools and supplementary leaflets and maps.

The Problem

New postcodes are not recognised in mapping tools from the moment residents move into a new development. Therefore new residents can't use travel planning tools, which causes frustration. Faced with a challenge people always turn to what is familiar and easy. So new residents have been turning back to using the car.

Moving home is a big opportunity for behaviour change. Interventions during this important time window can successfully shift well-established travel habits in a more positive direction.

The Opportunity

Essex County Council partnered with travel demand management software company You.Smart.Thing (YST) to create a unique travel planning tool for residents in new communities to plan door-to-door sustainable journeys. Site maps were obtained through the planning process and directly via the developers and mapped onto the journey planning tool in order to offer effective journey planning options from the moment residents moved in. The tool was not reliant on postcodes.

A pilot study trialled the app on 30 new housing sites across Essex. The sites were chosen to be a diverse mix of large and small settlements, rural and urban and with different levels of transport infrastructure nearby.

The system has been configured with a mode hierarchy to ensure that sustainable options are always presented first. The app is designed to make all of the information in Essex relevant to given a journey available in one place as conveniently as possible. There are tailored message tags for each mode relevant to the journey being made. For example all of the walking options on the tool link automatically to the Essex Safer Greener Healthier webpages relevant to walking. The intermediate cycling option links to the weather forecast and the beginner option also links to Essex cycle training options. So the right messages are being targeted to each user. The tool also includes Demand Responsive Transport where it is available in the area.

The app includes a full range of accessibility data so people know exactly what to expect on a journey. The app also provides real time updates with the option for residents to receive an SMS or email with information affecting their trip, for example bus and rail timetable changes, planned roadworks, diversions or other problems with routes.

E-Scooter trials are currently ongoing in parts of Essex. There is capability in the app to include availability and location of E-scooters when they are available in the pilot locations.

These features makes the app far more useful than Google Maps.

Marketing

To ensure the information reaches the right people at each new development specific QR codes were created. The QR codes bring up the resident's home as a starting point in the app making it very easy to plan door-to-door journeys. The QR codes are incorporated into stickers and flyers in travel information packs for new developments.

For larger sites the journey planning tool was embedded in the development's webpage in a prominent position for ongoing promotion. Targeted messaging options are also being explored to promote the tool to people who sign up by email for appropriate events such as cycle to work week or walk to school month.

Data Insights

There have been 698 travel plan enquiries from residents so far. This number is expected to grow steadily because many of the sites in the trial will occupy in phases. So far, of these journey enquiries 88% have been by sustainable modes (bus 60%, cycle 12%, DRT 13%, walk 2%).

The data dashboard functionality allows for a wide variety of reports. Some of the most useful reports include carbon saved from the journey plans generated and distance travelled by mode. These are important data to inform future transport strategies, local policies and any projects where we need to know how and why people are travelling.

Successes

The travel planning app has been a very important tool to enable new residents to change their travel behaviour. It has delivered excellent modal shift, far better than typically seen in traditional travel plans. Feedback from both developers and new residents has been very positive which is quite rare for a travel planning tool. Residents have found the app very easy to use and allowed them to discover new modes (DRT services). This app bridges a very important gap because previously there was no means to provide journey planning to people until their postcodes became available.

Challenges

Timing was a challenge because the scheme is not county-wide and the correct sites need to be captured at the correct time. Some sites couldn't be used because of when they came through the planning system. Some travel plans were announced too early at outline permission stage, before the build started and years before occupation. Other travel plans came too late through s106 agreements (sometimes only a couple of weeks before occupation) leaving insufficient time to configure the journey planning tool.

Another challenge was knowing if the promotional materials had reached the intended participants. Materials were sent directly to the developer for them to distribute on site. The council had no capacity to ensure residents were receiving the materials, except by monitoring the uptake of the app.

Very good relationships with developers are key. This involves ongoing communication, resources and buy-in from everyone involved. It was very important to make sure people were motivated to take part in the trial.

The Future

We will continue with the project for our residential sites. We want to build on success by learning which sites are working best and use that to guide further expansion across the County. We want to explore opportunities for travel to work projects with our business network (Smarter Travel for Essex Network, STEN). In future we would like to extend the project into health care settings.

4.7 Additional Discussion

The following additional points were made after the presentations in discussion and using the chat function in zoom.

CONS14 [CHAT]: Very interesting presentations, thank you. Glad there is such progress on many aspects. Getting these approaches more widely used will be critical. How?

ACAD1 [CHAT]: Glenn Lyons from University of West of England can't attend but wanted mention of work he and others have done on 'Triple Access Planning for Uncertain Futures – A Handbook for Practitioners'¹⁴.

The chair invited views on the questions posed by the roundtable after giving the following overview. Jenny Raggett has presented the reality on the ground, alongside with positive examples from case studies like Essex and New Lubbesthorpe. David at Create Streets says the incentives are all wrong and Matt at SLR Consulting says that too often Predict and Provide is being used as the wrong background for new developments. So at some times George Hazel and E-Rail's approach never gets considered because public transport is ruled out by modelling at the outline plan stage. What we've heard so far tells us that car based development isn't essential, or a uniquely English approach to life. There are ways to avoid this through internalisation, active travel, better public transport if the funding is available and through the travel planning and site specific approaches described by Robin and Holly.

It would be good to hear views from the people on this call from government agencies on Vision and Validate and whether these new approaches work for them.

Vision-led approach

STAT1: Homes England is the arms length government agency for housing and regeneration. Over a number of months we have tried to understand what the vision-led approach to transport means and have been trying to advocate for this approach on several of our projects on an ongoing basis. It has to be said though that the approach is fairly complex. We see it as an approach which is multifaceted but in principle has three areas of intervention associated with it:

- 1) Transport interventions with a sustainable and active travel emphasis
- 2) Spatial planning interventions to consider densification and put better and more amenities on site.
- 3) Digital connectivity/smart places so people can live and work locally using new and evolving technology.

This is encompassed in Glen Lyons' framework, the triple access planning model from the University of the West of England which provides an academic rationale.

So grouping interventions around those three cornerstones could constitute a transport solution for any particular site under the vision-led approach.

Responding to Jenny Raggett's presentation it also has to be said that the reasons why dependence on the car is sometimes baked in on English housing sites happens for a number of several complex reasons:

- Initial land allocations
- Landowners bring land forward in the wrong places
- Viability and commerciality in that sometimes developers won't be able to afford to deliver the amenities and infrastructure onsite early enough in the development programme so car-based dependency and behaviour is baked in from the start.

¹⁴ <https://www.tapforuncertainty.eu/triple-access-planning-for-uncertain-futures-a-handbook-for-practitioners/> and a blog post from Jonas Bylund on Triple Access Planning for Uncertain Futures provided by: <https://www.tapforuncertainty.eu/triple-access-planning-perspectives-blog/>

- Traditional demand for parking spaces onsite associated with housing.

Homes England is saying that a vision-led approach is the way to go because it aligns with policy threads in Homes England strategy. So we are trying to help to move in the best direction that we can. But in a sense this is a culture change problem. It is a bigger problem than just one party doing something in isolation. It really does need a culture change approach, both from the bottom up with practitioners on the ground advocating and agitating for change, but also from the top down with policy makers saying this is what we want to see. And culture change isn't something which is easy to deliver overnight. But this sort of event and these sort of conversations are all part of that process.

CONS14 [CHAT]: Agree with STAT1 - culture change across all the relevant professional sectors, politicians, plus the public, is critical. (like 3)

Barriers to the vision-led approach

QUESTION from Chair: STAT1 that is really helpful and some of the barriers you cited to a vision-led approach are potentially really interesting. I wondered whether George and David might like to respond, especially on the point about phasing. Is it right that Land Value Capture means that the developers aren't involved in the phasing.

Answer from George: Yes that's right. In Northumberland one of the developers had taken out an option so we had to cope with that. But yes in general usually we deal directly with landowner which is where the major uplift in value is.

Just on John's point before I address the barriers, some of you might know North Berwick, a pleasant little town to the East of Edinburgh. It has just been voted one of the best places in the UK to live. House prices here are at Edinburgh levels because the railway station allows people to get into Edinburgh city centre within twenty minutes. So people understand the value of not having to fight the traffic on the city bypass to get into Edinburgh.

Strangely enough. from our point of view, there are fewer barriers talking to landowners and developers because they understand that like a sea view or being in a good school catchment area, if you are close to a railway station, busway or tram serving places people want to go that is worth money. So we are talking their language and its worth investing because they know they can sell the houses for more and they might get permission for more houses.

On the public sector side, the Northumberland scheme was easier because it is a single authority to deal with. However, on bigger projects in England where multiple authorities and multiple departments are involved, it is very difficult to join all the elements together. We can't do this ourselves because we are external. I was director of city development at Edinburgh Council so I had responsibility for economic development, property planning and transport. Even within one authority it is quite difficult because sometimes the policies conflict. You need an internal champion within the local authority or the combined authority to pull it all together and try to deliver. It is not at all easy for officers to do this. This is one of the major barriers.

Funding is obviously another barrier.

Question from GOV4: I am from the Cities and Local Growth Unit which is a joint venture between the Department of levelling up and the Department of Business and Trade. This has been a fascinating series of discussions. I have got a general point about vision and place-making and a specific question for George.

In Department for Levelling Up we have a lot of programmes such as the town deals, levelling up funds, and those kind of programmes where we look at a specific places and try and build the place based on a vision. And a lot of these programmes have travel related projects such as railway station improvements or active travel modes. So in our work we are very interested in a place-based focus. And if you create a vision for how a place should look and how transport is connected then this can help the growth of an area.

The challenge we are finding with a lot of these funding programs is that are fixed term and the question is how to transition them into sustained, long term growth.

Therefore my question to George is whether Land Value Capture is a one-time opportunity when new infrastructure is built or is there a way to make it a rolling benefit or revolving fund you can keep taking value from and reinvesting? Can LVC keep the capital to buy more land?

Answer from George: It's kind of both. The funds that come into the protected escrow fund that comes in is just money. It can be used for capital or revenue over a period. How it is used is entirely up to the local authority, they can split the fund if they want.

Secondly some of the bigger projects will take time to build out. So there is a phased introduction when the value is created and then the owner has to pay. The Contribution Agreements are part of the legal title, so they can't build until they pay.

There is an interesting link to Section 106 (or Section 75 in Scotland), CIL and other funds in that you can draw on the evidence base we have used for land values in LVC.

Bear in mind that the local authority does not buy the land. The land stays with the landowner who signs a Contribution Agreement with the local authority and E-Rail committing them to pay as the development unfolds. Unless the local authority owns the land already in which case we would be talking to them about a contribution from the public sector land value.

But other methods can come in on the back of the LVC from the money which is generated through developments. For example business supplementary rates would come in last, as per Cross Rail.

CONS13 [CHAT]: In answer to GOV4, I should have said in principle you could potentially use the LVC fund to raise funds for the specific project but generate other funds for future projects. So long as the project that generated the LVC is delivered then should be ok.

GOV4 [CHAT]: Thank you! Generating revenue streams would be the ideal!

Question from Chair: Does anyone have answers to the barriers STAT1 raised to vision-led development, phasing and the culture change challenge.

Answer from Matt: Yes, on STAT1 point it's great that HE sees the value in vision and validate and they are taking this approach on new development. We are working with HE on a number of sites where Vision and Validate is a driver. The multifaceted approach STAT1 mentioned is important because a transport solution is not just one infrastructure element it's a suite of measures which can change and influence travel behaviours. A rail station with a regular frequent service to a destination is great but it might not work for everyone so there's a suite of measures to be considered in terms of local movement, leisure movement and a commute.

In relation to the barriers, in our experience the policy is there to encourage change and look at the way we do things. The difficulty is that quite often historically we have been led by what capacity the transport network has and when we take that capacity up, we just try to build more. This is about educating those decision makers in respect of transport. But we must also recognise that people are

putting less emphasis on travel for day to day needs especially for commuting to work. Let's create these new settlements where people can live, work, meet friends and go shopping locally so they don't necessarily have to travel long distances on a regular basis and think that the only option they have is the car. So we need to both educate those decision makers and also provide the evidence of what can be achieved with successful input and measured outcomes.

Answer from DM: I'll take the final point first. I probably won't give the perfect answer on this but viability opens up a whole new set of issues. My heart sinks a bit when you get into the 'this isn't viable so we aren't going to take this on' because everything we are talking about here is where you have multiple variables that can be moved and dialled down. So we could do all the work to lock in really good public transport but if you have affordable housing as a variable that then becomes the variable that's taken out. We need to get to a situation where we have constants instead of variables. So we fix these things as early as possible such that it doesn't by its nature get eroded later down the line.

Taking a big picture view of viability we need to have more codification of requirements. The Department for Levelling Up, Housing and Communities and the Office for Place have been pushing for design coding in terms of what places look like. This aims to set land values from the outset (especially in southern England) so that when an option agreement is signed, or someone wants to buy that land, there isn't an overpayment bidding war which erodes any kind of land value that we can play with. We need the same approach to be applied to transport, shops and amenities. If the developer knows that when they buy a field they have to provide a list of things (e.g. local amenities, commercial use and some public transit) they will pay less for the land. But as soon as they think they can turn one of those things into a variable they calculate on appealing later. So this will be really tricky. We need to adopt this codification approach.

Now onto the points about barriers. One barrier is that if you don't do vision-led development early on it's really hard to retrofit. You can probably still do some things later but it's really hard to do everything.

Policy is a barrier. Legislation is a barrier and I think we need to rethink some of these Acts. For example we need changes to the 2004 Traffic Management Act which prioritises free flowing traffic. Some of the leading work on vision-led design is being done by the more visionary Highways departments. But Highways departments can be both drivers and barriers. Yes you can make some supplementary arguments, but Highways engineers have a statutory duty to keep traffic moving freely but no statutory duty to deliver some of these other things.

Cost benefit analysis in Treasury is also another real barrier. I don't want to be doom and gloom on this but there's a reason why we haven't done this for twenty years. And I think Lynda Addison has been making the case far, far ahead of any of us for years. And we are only seeing slight gradual improvement because there is a vicious circle of maybe ten or so things which we need to keep pushing at one by one. That's why I picked traffic modelling because it's a discrete formula.

You can take traffic modelling and cost benefit analysis and be very specific about where a change is needed – sheet 54 of TAG – which tells you a commuting minute is worth £9.52 whereas a non-commuting minute is worth £4.50. And this has dramatic impacts on the kind of infrastructure that gets developed because it really prioritises peak hour commuting for workers and we've just heard that actually the prominent reason for movement is shopping and leisure. So we double fund commuting. So let's change some of these numbers because otherwise whatever we do we will end up at the same place.

Sales agents and the developers are always nervous that they can't sell their product with two parking spaces or they can't sell a terrace because it locks in a lot of value. And going back to phasing, their ideal cashflow scenario is to have a 1-bed, a 2 bed, a 3 bed and a 4 bed available per site at a time, no more and no less. Apartment blocks are a challenge because you lock in lots of value for the long term. Berkeley Homes are really good at this and can build big towers but plc housebuilders in greenfield have a very different business model.

Public transport is a barrier. Trying to do a vision-led development in an area with an hourly bus service, is hard because this level of service really limits economic opportunity. So there is a chicken and egg, in that until George is building 15 rail lines a year we won't have the opportunity to do vision-led development.

It's a problem that we don't have town builders in UK anymore. And by vision-led development we are talking about extending towns rather than building many new Milton Keynes. But every new 100 hectares that we are going to bolt onto Swindon or Oxford or Cambridge needs to be a town. It can't just be a spine road with nice trees. A town requires centres and offices to be mixed with workspaces. This is not a model that many of the plc housebuilders can offer.

So these are all really big challenges but I also think it doesn't have to be all or nothing. We can make incremental improvements and take each one of these vicious cycles individually. Let's invest in a new railway line or a metro or whatever, or do what Poundbury did and subsidise shops and services for the first five years. Let's do what we can and try and transform systems from vicious to virtuous circles.

Finally to end on a positive point. The beauty of public transport is that it has a revenue stream attached to it unlike roads (apart from the M6 Toll road). This revenue is something we need to talk about much more. Some of these public transport schemes can pay back investment. For example the Nottingham Tram was a 25 year private finance initiative.

Instead of doing Section 106 as a cash lump sums for large developments, Surrey County Council is now looking at a 'hand over' of housing numbers. So for example a Section 106 could ring fence 40 homes and hand them to a community trust with a service level agreement to deliver 15 minute bus services. It doesn't take many homes to do this. The housebuilder quite likes this because when they give over Section 106 funds they are often rightly nervous that the money never gets spent and there will be no benefit. Instead with the community trust, they know that they will get an outcome for the development. You can start to get some land value uplift, especially if the transport is a bus rapid transit because of the confidence it will be there forever. So this is a really interesting opportunity to hand over homes which gives you a revenue stream in perpetuity as opposed to Section 106 which might get used (or disappear) in five years time.

ACAD10 [CHAT]: Good point about sales agents and developers and the assumed and ingrained 'need' for car parking. It's also convincing and persuading the home-buyers and end-users they don't need it. An equivalent EPC-rating for sustainable transport in each new dwelling would be a start!

CONS13 [CHAT]: DM, the LVC is only paid when and if two things happen - planning permission is granted and the railway/station is delivered. That gives them certainty that the railway will happen, increasing their values and possibly offering the potential for higher density?

DM [CHAT]: 100% agree CONS13

Role of Sub-regional Spatial Planning

ACAD1: Some of the upfront development identified by Create Streets in the list of Big Moves for Chippenham very much like the kind of things which town centre fund or levelling up funds have already been funding. But it seems very important they are put into a coherent vision.

NGO14: Does anyone have thoughts about local plans and the planning system where, if you live outside a city, at no stage is there any control over location. Developers come forward with where they would like to build. If a local authority has a target to build 30,000 new homes the sites are proposed by developers. The local authority selects between sites but sustainable transport is not an important part of the decision making. This is something I have noticed again and again. It's as if the local authority says the site "maybe it looks OK" or "it's not that good, but we'll give it a go". And as the outline planning applications come in again sustainable transport is not factored in.

Surely we need to think about location sub-regionally and widen the area that we decide to build on? Then we can imagine a really good public transport network to pull together all the sites in a logical way. Without control over location it is extremely difficult to build any of the modern mass transit systems that would be ideal. I just wonder, you know, what can we do?

NGO14 [CHAT]: Location, location, location. Many locations that are selected by developers and then taken to the planning system are simply the wrong places to build in the first places for sustainable transport.

DEV1: Gascoyne Estates is a landowner developer working on schemes in Hertfordshire, Dorset and London. Today has been really interesting. I think there is a role for sub-regional spatial planning and I think that's something that we're severely lacking because as you say Jenny, it's all completely disconnected. The desire for landowners to bring land forward is mostly economic. So if someone thinks they can build on a piece of land, then they will sell it. As long as there's someone willing to take the risk and I think to a certain extent that's fair enough. So it is incumbent on the authorities and on us to establish a spatial planning framework for development in the most connected way that does not rely on landowner/developers with the longer term view of, say a Drummond Estates or Gascoyne Estates.

And as a result, we spend a lot more time and effort on these sorts of things than other businesses who are slightly more speculative and slightly more short term in their thinking.

Culture change

STAT1: I want to just come back on further thoughts on the culture change issue. In this particular round table it's a bit like an echo chamber because in a way we're all kind of probably on the same page. The challenge is convincing local elected members out there in the rural counties that this is a good thing to do. And very often there's an ingrained mindset. The bottom line is we've still got to be able to drive our car around with the same degree of amenity as we always have done. Or we've had a relief road in our sights for the last 20 years and this development is an opportunity to deliver it.

So the real challenge is overcoming those cultural assumptions and asking how do you influence and persuade change. Fundamentally what is in it for people to change and what are the risks for them for to not change?

We have to address those issues. On that score, it seems to me we need things like portraying options in a different way. Show the carbon and social health impacts of options and scenarios, not just travel time saving impacts. And find out what the local population is saying about this as an

initiative to try and influence members to take a different view. Unless you get those things right it is difficult.

ACAD1: In Hertfordshire, thanks to work carried out by the Gascoyne Estates, even the most pro-car councillor now accepts and understands that if 20,000 or 50,000 more houses are built across Hertfordshire in a car-based way, residents won't be able to use cars because of the congestion caused. The Hertfordshire to Essex Rapid Transit (HERT) proposal emerged from councillors seeing the light on this issue.

<https://www.hertfordshiregrowthboard.com/2021/11/18/introducing-the-hertfordshire-to-essex-rapid-transit-hert/>

DEV1: I was going to make a similar point that was made just a second ago about elected members, policy and politics. I think that the critical issue appears to me to be Members who are quite frequently living in large detached homes with three Jags on the drive.

Critically, Gascoyne Estates have had schemes come forward where we've challenged parking standards, proposed alternatives, integrated car clubs and bike share. And the officers are very much on board but then it gets challenged by the members who say, "Well, hang on, we can't possibly justify this without having 4 spaces per dwelling". So, you know, there is that cultural challenge and it's baked into the way that we operate our places at the moment.

Apologies for going on a bit of a rant. The other part of this is on gentle densification. If we propose a greenfield site on the edge of a town it is shot down for a whole variety of different reasons, including Greenbelt. If we propose a densification of the urban centre, it gets shot down because people don't like tall buildings. So there's this sort of inherent tension between the need for housing, the need for connected places and the inability to accept that any of it is a good thing. That for me is a political challenge more than it is a practical challenge. We know what we need to do. We just need to convince about thirty key people in each local authority that they can retain their seats if they approve it.

Sharon Payne I lead the regional Rural Mobility Centre of Excellence for Transport East. This has been an immensely useful discussion for sub-regional transport bodies. We all have transport strategies in place now, which was a statutory requirement. Now that STBs are developing infrastructure, connectivity and investment plans the type of factors raised in today's discussion are potentially something we can take into consideration as we work with our Local Authorities. It's a long term vision, not something that we're going to achieve overnight, but it's getting the right people in the right place and having a coordinated approach to some of these things, both from a Transport East perspective as well as on behalf of the other STBs.

ACAD1: It feels to me that some of that culture change that John Sandford was talking about could be delivered, or at least supported by the STBs in terms of the 'Vision and Validate' approach and some of SLR's self-containment approach. STBs are not strong in all areas so there may be opportunities to share skills to get culture change.

NETWORKING & THANKS

The following thanks were noted and in some cases contact details shared.

CC3 [CHAT]: Very interesting session. I need to leave in a few minutes, thank you for the session. If anyone wants to get in touch with the Bus Centre of Excellence please reach out to **email** or to myself directly (**email**)

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CONS13 [CHAT]: Hi all, I'm also going to have to leave for another call shortly. Thank you for a really interesting session and meaningful discussions. If there are any questions on my presentation at all, my contact details are on the last slide, please do feel free to get in touch.

CONS15 [CHAT]: I hope the SLR presentation on V&V and Internalisation was helpful. Any questions then please get in touch.

DM [CHAT]: Lovely to hear all the other speakers and thanks all for listening. Feel free to get in touch **email**

NGO3 [CHAT]: Thanks all, really interesting contributions from everyone

STAT1 [CHAT]: A great discussion, thanks all.

ACAD10 [CHAT]: Thanks to all the speakers, lots of food for thought

Unknown User [CHAT]: This was fantastic, thank you!

Technical Note: In Microsoft Teams five comments were identified in the chat as Unknown User. However the Teams transcript captured all contributors names. Fortunately the unidentified CHAT contributions were solely related to sharing links and saying goodbye. However, it would be helpful if in future participants were all fully identifiable as more significant written content might be affected in future. This seems to be a known issue in Teams but one with multiple aspects.

<https://answers.microsoft.com/en-us/msteams/forum/all/teams-chat-unknown-users/44fce217-1864-4a9e-a5b8-4868b6df5315>

<https://answers.microsoft.com/en-us/msteams/forum/all/user-appearing-as-unknown-user-in-teams/22cc34fc-6387-4698-97d2-48281eae594a>

SD/may 2024