

Garden Villages and Garden Towns:



VISIONS & REALITY

**which will we
actually build?**

Garden village dream
or tarmac estate?



TRANSPORT FOR NEW HOMES

Foundation for
Integrated Transport



Garden Villages and Garden Towns: VISIONS AND REALITY

The Garden Village Dream Vs.
The Tarmac Estate



TRANSPORT FOR NEW HOMES

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TRANSPORT FOR NEW HOMES

Garden Villages and Garden Towns: VISIONS AND REALITY

Who this booklet is written for?

This document is written for the non-specialist without knowledge of the planning system, but with an interest in new homes and how and where we are building them. It concentrates on the new 'garden communities' that are envisaged by government as offering a solution different from the usual car-based dormitory estates that we are so used to seeing. Our conclusion from our visits and research, is that there is an enormous gap between the garden community visions presented by government, consultants and local councils, and the developments likely to be built in reality. The problem centres we think, on building in the wrong location and around the wrong kind of transport. The two problems are of course, interrelated.

About Transport for New Homes

New housing should be built so that residents can walk, cycle and use public transport to go about their daily lives. Transport for New Homes brings transport and planning together to make this vision a reality. You can read about us and our work on:

www.transportfornewhomes.org.uk

You can also download our report covering our many site visits to new housing estates during 2018.

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List of data sheets to go with this document

- Results of analysis: core twenty garden communities
- Compendium of garden communities looking at transport
- Performance of garden communities against the government Garden Community Prospectus
- Government Housing Infrastructure Fund and garden communities – analysis of transport spend
- Transport Assessments: examples to show how car-based new homes are the default



1: INTRODUCTION

Many people travelling by train or by car have caught the sight of a large new housing estate being built in the countryside. 'Why on earth are they building there?' they ask as they see the mass of new homes crammed together on fields with a new road in construction.

The government is fully aware that large new housing estates on greenfield land are often unpopular. It has therefore put forward a new way of building homes that recasts the concept of the 'garden city' of the early 1900s into modern day England. This idea involves vibrant, healthy and green 'garden villages' and 'garden towns', rather than sprawling dormitory housing estates. These would be self-contained communities with minimal need to travel.

In August 2018 the Ministry for Housing, Communities and Local Government produced their Garden Communities Prospectus. This gave local authorities 'the chance to aspire beyond identikit housing' and 'town centres that look like anywhere and nowhere'. It explained: 'We want to see vibrant, mixed-use, communities where people can live, work, and play for generations to come – communities which view themselves as the conservation areas of the future. Each will be holistically planned, self sustaining, and characterful'.

The text also explained the importance of integrated and forward-looking transport. It explained that this should include: 'the promotion of public transport, walking, and cycling so that settlements are easy to navigate, and facilitate simple and sustainable access to jobs, education, and services'.

All in all things looked promising. The government seemed to be turning away from the kind of car-based housing estates that we at Transport for New Homes had visited and reported on in 2018. They wanted self-contained thriving communities rather than housing estates.

The original garden city concept

The idea of greener more pleasant places to live goes back to Ebenezer Howard's vision for the 'garden city' as an alternative to the Victorian city slums at the beginning of the 20th century. The very first garden city in 1903 involved the purchase of 1600 hectares for development around the villages of Letchworth, Willian and Norton in Hertfordshire. Letchworth Garden City was born in 1903 and today has a population of over 33,000. Other garden cities followed and also 'garden suburbs'. In 1906, Henrietta Barnett set up the Hampstead Garden Suburb Trust Ltd, which purchased 243 acres of land from Eton College in north London. Letchworth Garden City was planned as a whole, with good quality and affordable homes, local employment, services and shops all in a pleasant green environment. The uplift in land value as building commenced, was harnessed for the benefit of the community and used to provide the things it needed. The car was not a feature of the early garden city movement as this was the early 1900s – this was a big difference from today. However the railway station was considered important. Letchworth railway station was opened in 1903 and then replaced by a new station in 1913 on a different site. The station is still in the middle of town, a central feature.



Funding to get modern-day garden communities off the ground

To get the new garden villages and garden towns off the ground, the Ministry of Housing, Communities and Local Government made funds available to local authorities and others on a competitive bidding basis. During 2017-2019 the 'locally-led new communities' were to receive a share of £3.7 million to fast-track specialist survey and planning work necessary for each new town's development.

Funds awarded were in the region of £100,000 to £300,000 for a garden village and £400,000 to £700,000 for a garden town. In the latter case, a town is awarded garden status as a place that is to grow rapidly with a series of mostly greenfield estates around the edges, reaching out into the countryside.

But what will these garden villages and towns really be like? Will the right kind of transport be in place?

Transport for New Homes is interested in transport and new housing development. We wanted to know whether garden villages and garden towns would really be different from the car-based places that we had seen on our tours of recently built estates. We wanted to see if the right investment in transport was ready to bring the right results, in terms of access, life styles and the facilitation of good places to live.

We therefore undertook research looking at master-plans, visions, infrastructure delivery plans, transport assessments and other documentation put forward by developers and local authorities wanting to progress garden villages and towns. Our focus was on twenty garden communities with a further 15 examined more generally. The twenty garden communities were chosen to represent a good spread across regions and type: they included one garden city as well as a number of garden towns and garden villages.

We also visited sites proposed for new homes and the new 'garden towns' to see how they were placed to take up their new role in modern planning. We looked at what was planned and funded in terms of all day bus and rail services to garden communities and whether safe walking and cycling to and from these new places to towns and railway stations was possible on an everyday basis.



2. GARDEN COMMUNITIES INVESTIGATED



This map shows the garden villages and garden towns that we looked at in detail. The garden towns are generally existing towns with a new 'garden' status as they expand.

We also looked at a number of other garden villages but in less detail, including Banwell, Buckover, Chelmsford, East of Biggleswade, Godely Green, North Essex Garden Villages, Otterpool Park, South Godstone, Welborne and West Carclaze garden villages, and Hemel Hempstead and South Exeter Garden Communities. The transport priorities of these and the Core Garden Communities are summarised in our associated Compendium of Garden Communities.

Methodology

We chose twenty of the current programme of more than fifty garden communities to study in detail: our 'core' study garden villages and towns. These are listed in the previous section.

We also looked at more than a dozen other garden villages in less detail to ascertain their transport priorities and funding.

The core twenty garden communities were deliberately chosen to represent every region and a range of scales: they include one garden city, seven garden towns and twelve garden villages. They were also chosen to reflect different forms of governance - unitary authorities, county and district councils, metropolitan authorities, development corporations and so on.

We used seven metrics to determine the likely main mode of transport at each site. Our scoring on these counts was not done on the basis of visions and masterplans: we looked for something more definite. This involved consideration of where the development was in respect to existing public transport, cycling and walking routes, and whether or not there was firm funding and commitment to build bus infrastructure, rapid transit routes, cycling networks and other elements of sustainable transport: aspirations were not considered sufficient.

For those garden villages not yet in construction we were able to draw on the evidence from visits to similar types of housing development that we carried out in

2018 and on Transport Assessments, Infrastructure Delivery Plans, funding streams (both government and developer funding), advice from the bus industry, experience with the rail industry and those involved in promoting cycling and walking.

We looked for:

- Whether good bus services were assured all day, all week
- All day, all week railway services from a nearby station
- Walking distance to the railway station (miles)
- Typical trains per hour frequency
- Walking distance to nearest town centre (miles)
- Safe walking routes
- Safe cycling routes

We expected settlements that exhibited most of these criteria to have sustainable transport as the main mode. We looked for places that genuinely would not be orientated around the car.

We also looked at traffic generation, the lists of new or bigger roads and junctions that were required and their funding. We looked to see if these were higher priority in infrastructure funding lists than public transport and active travel. New motorway junctions, larger motorway junctions and other major strategic roads needed to cope with garden communities were noted.



3. PHOTOS FROM SITE VISITS



The amount of land devoted to the car often means that homes are crowded together and with few urban trees or grass verges and pavements the effect is far from village-like. Gardens are small.



Do these people live on a street or a car park? We saw new estates for garden towns which really had hardly any garden.



Street names often pertained to village and country themes but walking connections to the real countryside were it seemed, neglected.



We saw that a number of garden communities would be hard to connect to other places by pedestrian or cycle routes because big roads posed a barrier.



Places like this looked barren from the front with no gardens. Then behind, it would be mainly car parking.



Despite visions that emphasised the self-sufficiency of garden communities many were trumpeted for their proximity to the motorway or other strategic roads as in this example.



We saw a number of new places where pavements were missing or very minimal as in the example above.



Garden Towns such as Taunton, Bicester and Aylesbury are to expand by building new estates along new sections of ring road around the outskirts of the town like this one we saw on our visits. This ring road model of development divides communities as much as connecting them.



This area of new homes in a garden town shows a lack of gardens or even urban trees. This neglect of the green public realm for residential streets is partly we suspect, because local authorities have no money to maintain the places we build, but also because of the excessive amount of parking.



This walking route into a garden town from a new housing area is long and uninviting.



We found houses designed around the car and excessive amounts of land utilised for vehicle storage.



Maintaining the public realm including walking routes is key but with cash-strapped councils, very difficult. We saw much talk about informal green areas which are great for wildlife and outdoor recreation. However everyday walking and cycling routes are better planned along overlooked streets - cycling and walking in the winter months along paths through bushes in the dark is not always safe.



4. SUMMARY OF OUR FINDINGS

- **Car dependent.** Unless action is taken, the twenty garden communities that we looked at in detail risk creating up to 200,000 car dependent households. The other garden villages that we looked at also appear to be following this model of unsustainable transport, even if their visions are often very good.
- **More traffic on our roads.** Our garden communities are likely to contribute to widespread traffic jams on country roads and junctions, and on our motorways and other main roads as residents head for cities for work, and drive to out of town destinations.
- **Unlikely to be self-sufficient.** All garden villages presented fine visions of 'self-sufficient' places, in line with the aims of the government's Garden Communities Prospectus - walking communities where people had everything to hand on site. However with existing village shops, pubs and other amenities being closed or failing to prosper, the fear was that fine visions would end up as just housing estates.
- **Massive investment in road capacity.** We found that nearly every garden village came with large-scale investment in strategic and local road capacity to 'mitigate' thousands of new car journeys onto the road network. This went counter to the notions of 'self-sufficiency' and 'self-containment'.
- **Motorway junctions for garden communities.** About half of garden communities were associated with enlarging or adding a motorway junction or building a new one for a quick getaway.
- **We get a bypass!** A number of garden communities were in locations chosen in part to finance a new bypass or link road that had been wanted for years.
- **Public transport very popular but unfunded.** Nearly every garden town wanted excellent public transport. Equally the vast majority of garden villages put sustainable transport at the heart of their vision. Funding was however, very uncertain and pushed a long way into the future - there was little definite. We could find no garden community where the sustainable transport elements were costed and funded with delivery dates.
- **Rail too far; services too infrequent.** Only one garden village (Aylesham) offers existing amenities and a railway station within 1 mile of every home. However, in common with many small stations in the countryside, trains were very infrequent.
- **Cycling underfunded.** The number of completely funded cycle networks for garden towns was zero. Garden villages were on the whole too far away from towns to cycle or involved dangerous roads.
- **Tarmac or green?** Place-making to give areas character and make them pleasant places to walk around was central to visions but not to funding. So many great ideas and so much enthusiasm to build better places to live, but when it comes to the crunch will it really happen? We were not convinced.
- **Garden village?** Gardens risked being small or absent at the front of houses. Pavements were left out. We put this down to a need for so much parking to support a car-based life style.



5. WONDERFUL VISIONS

Looking through the many hundreds of pages of documentation describing the intentions of developers, their consultants and urban designers was in many ways very encouraging. Modern garden villages and towns presented a vision for a better way of life. It was as though planners and developers acknowledged that we needed to buck the trend when it comes to car-based living in sprawling housing estates where people are isolated and there isn't much to do unless you drive out. It was clear to us, reading the literature, that the garden settlements were to bring us a future that was completely different. They were not supposed to be ordinary new car-based estate with homes crammed together and overlooking, instead of gardens, car parks.

Therefore the images presented in the garden communities documentation show people walking and cycling in places designed for walkability rather than cars. There are wide pavements, urban trees, shops and parks. There are public transport hubs and a mix of development. The boring housing estate dominated by parking is out. Vibrant places and local community are in. Sustainable transport plays a central role and brings people in to use shops, cafés and other local facilities. Commuting by rapid transit and new railway stations are all in the pipeline. It is a brand new era of sociable and green low carbon living.

- The Tewkesbury Ashchurch Garden Town Masterplan says that it will: *'Provide community uses such as schools and local services in neighbourhood centres, with bumping spaces where people can interact and meet'. It will also 'prioritise modal shift at the heart of the development strategy, through the integration of homes, jobs and facilities, and delivery of high quality walking, cycling and public transport infrastructure.'*
- The vision for Aylesbury Garden Town from the Local Plan is encouraging: *'By 2033, Aylesbury will have grown and be an inclusive, innovative and forward-looking Garden Town ...with public transport and interchange offering a diverse choice of travel modes, and a recognised centre for investment and growth providing new jobs and opportunities for all.'*
- The Grazeley Garden Community south of Reading, Berkshire, explains in its Expression of Interest to the government for funds: *'The delivery of high quality and accessible sustainable transport links by rail / Mass Rapid Transit / foot / cycle will be key for ensuring delivery of a successful new community but they will also help draw people into the settlement and help sustain the new shops, pubs and businesses that will be delivered within the settlement'.*





Cycling, walking and public transit at the heart of the community

- From the Hemel Garden Communities Charter: *'The Garden Communities will be planned around a step change in integrated and sustainable transport system in the town, which will use new technologies to put walking, cycling and public transit systems at the heart of Hemel Garden Communities.'*
- From the description of Welborne Garden Village, Hampshire: *'A Public Transport Plan demonstrating how Welborne will be served by a package of excellent public transport links to Fareham Town Centre based on bus rapid transit.'*
- Tresham Garden Village proposals explain that what is envisaged is an integrated and accessible transport system with walking, cycling and public transport the most attractive choice.
- The Culm Garden Village vision explains the need to prioritise walking and cycling, green routes, connecting north and south of Honiton Road and across the M5 motorway. There is also an ambition to re-open Cullompton Railway station and improve bus transport.
- The Didcot Garden Town Delivery Plan October 2017 explains that master-plan principles include *'reducing reliance on motorised vehicles and promoting a step-change towards active and public transport, creating accessible and vibrant neighbourhoods, a strong town centre and promoting community ownership and stewardship.'*
- Taunton Garden Town vision (July 2019) explains that: *'New residential areas will be designed as sociable neighbourhoods, where local facilities and public transport will be within easy walking distance of homes. For the town: Prioritise access for only those vehicles that must enter the town centre for essential needs, aiming for a less-noisy, safer environment with improved air quality.'* and: *'Enlightened highway design will prioritise pedestrians and cyclists, and raise quality by... making streets into places and integrating parking elegantly.'*
- Harlow and Gillston Garden Town describes: *'a well-planned development that enhances the natural environment, provides opportunities for sustainable travel and helps to tackle climate change. Harlow and Gilston will be a joyful place to live with sociable streets and green spaces; local centres accessible by walking and cycling and innovative, affordable public transport.'*

Garden village and town visions rely on integrated transport. The new homes are no longer built around a life style of jumping into a car. In fact, in the mock-ups of garden villages, cars seem to have almost disappeared with even parking invisible. In these visions, people do not drive to car-based destinations because these too are accessed by sustainable means.



Transport for Garden Communities: aspirations for more road capacity.

About half of garden communities studied were associated with new or bigger motorway junctions

90% of garden community plans appeared to be associated with road capacity increases, such as dualling roads, enlarging numerous road junctions, new bypasses, fast link roads, and so on.

A popular model for garden towns was new estates on a new ring road. This was chosen rather than extending the town along joined up streets for easy walking or cycling into the town centre.

A number of garden community locations appear to be actually selected to finance a new bypass or other new 'strategic' link. This seems to put the cart before the horse!



MOTORWAY: Here we go!

M5 – new J21a
for Churchill and
Banwell Garden
Villages



M5 J9 Ashchurch
and Tewkesbury
Garden Villages
up to 10,000
homes

M5 J28 enabling
Culm Garden
Village – up to
5,000 new homes



M6 J42 St
Cuthberts
Garden Village

Larger junction
for Bailrigg
Garden Village
M6 J33



M25 improved
J6 for S.
Godstone
Garden Village



M40 new
junction for
Bicester Garden
Town south of
junction 9



Larger junction
for M4 J11 for
Grazely Garden
Village up to
15,000 homes



M11 J7A new
junction for
Harlow Gilston
Garden Town

Larger junction
M20 J11 for
Otterpool Park
Garden Village –
10,000 homes

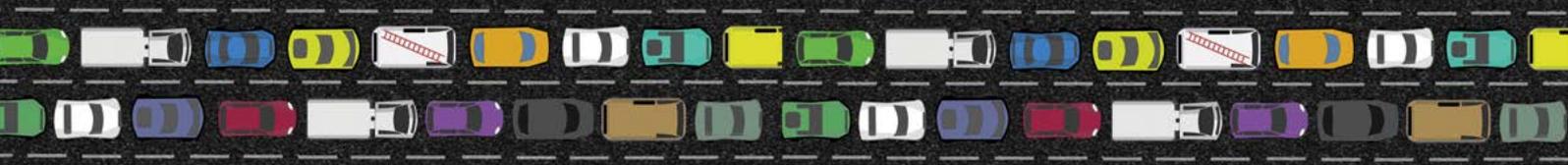


Improved junction for
M27 J10 Welborne
Garden Village –
6000 homes



More traffic capacity
for M25 J29 and J27
as 'mitigation' for
Dunton Hills Garden
Village 4000 homes

These are just some of the garden communities asking for new junctions or larger motorway junctions to cope with the massive amount of extra traffic predicted from garden communities and associated development.



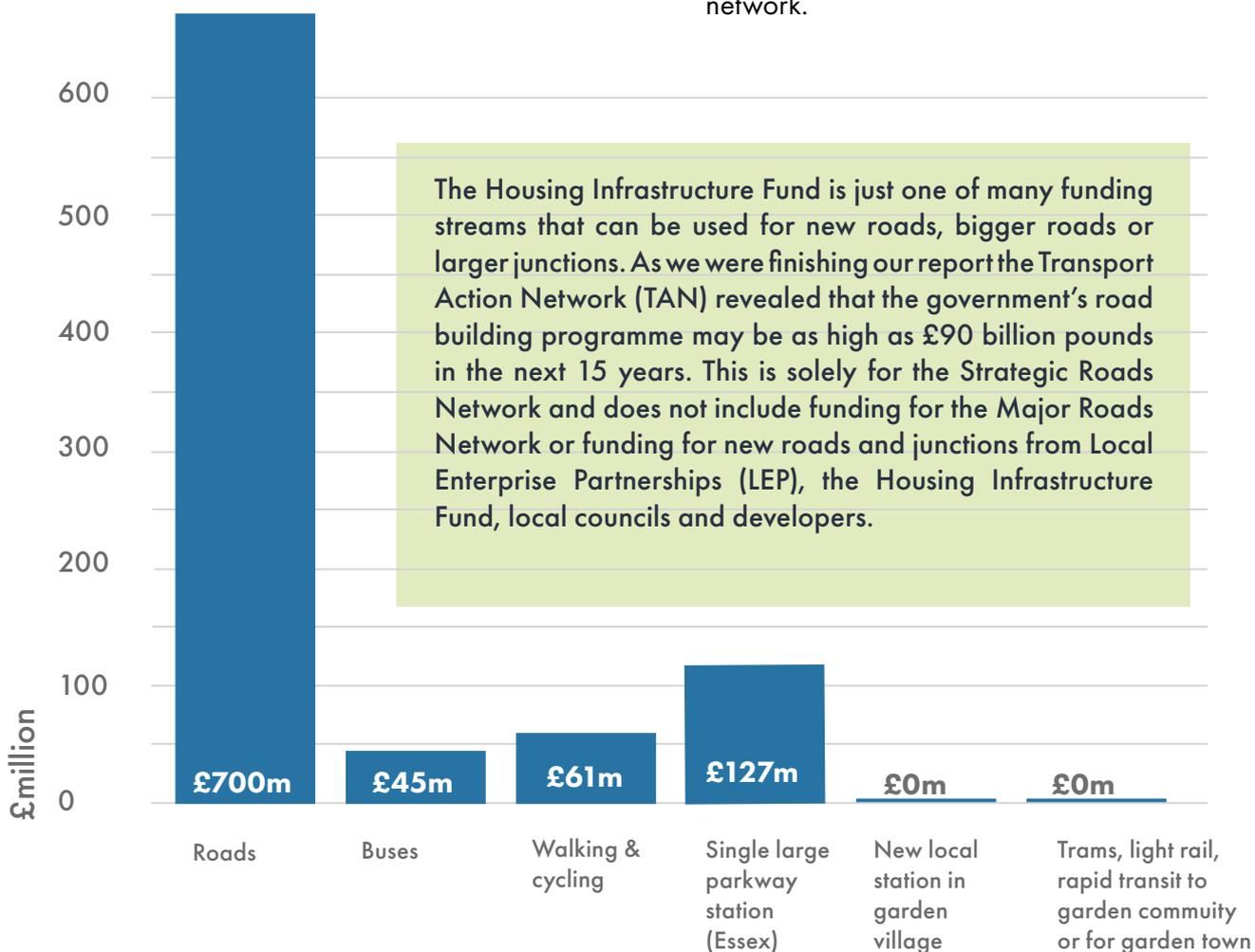
Opening up the countryside for large new areas of housing ... and more commuting by road

In July 2017 the government announced the Housing Infrastructure Fund. The Secretary of State for Communities and Local Government explained in the document introducing the fund that: *'We hear time and again that putting infrastructure in early could make all the difference in making new land available and getting homes built.'* Our interest was in transport infrastructure specifically.

Below: Housing Infrastructure Fund spend on garden communities. The chart gives an estimation of the Housing Infrastructure Fund spend on transport for garden communities, up to April 2020. Detailed information is not easy to find hence the caveat that the figures for each mode are therefore approximate.

£2.3 billion of government funding was then allocated for the purpose of which at the time of printing, roughly a billion appears to have been so far given to garden communities for transport.

For garden villages and garden towns we expected to see money for new stations, public transport interchanges, rapid transit, and cycle networks in line with what the government had said in its Garden Communities Prospectus. However we were to be disappointed. When we examined what was actually being funded in the way of transport for garden villages and garden towns, major road construction and junction improvements were the order of the day. The idea was to open up areas of the countryside for building, and also to accommodate all the cars coming out of those developments onto the road network.





New stations?

The only HIF fund we could find allocated for rail in association with a garden community was £212M for Beaulieu new 'parkway' station and a new bypass for an area to the north and east of Chelmsford.

Even then however, the new station is not to be a 'hub' in the middle of a big new housing area, but is some way away from it. £127M is to be used for the new station and £85M for the bypass. The station is not a small local 'metro' station in a garden village, but for wider commuter use within the area with commuters able to use a new road to get there and park.

Rapid transit - it can done

We were pleased to see that one place had succeeded in getting money for a bus-based rapid transit system, although not for a garden settlement. In general it seems that getting money for rapid transit systems is more or less impossible even though nearly every masterplan says how much it is needed.

One place managed it and this was Dover. Although not for a garden community, the council had been awarded £15.8m from the Housing Infrastructure Fund to service more than 6,000 new homes on the edge of town with a rapid transit system.

We found many transport studies centred on 'road corridors'. But what about new homes along new metros or other modern public transport routes?



Above: The London suburbs were built along the railway. This idea of building along really good public transport routes is one which appears no longer to be part of the way we develop new places. We saw that the language of growth and development was much more fixated on 'road corridors' and their enlargement.

Outdated transport modelling concentrates on new traffic and how to cope with it. New methods are needed to get the results we want.

Predicting a future of traffic growth

An interesting angle on the use of both public and developers funds for the road network is how the future is modelled in terms of transportation, especially in light of the climate emergency. The transport modelling we have seen associated with garden communities concentrates - as it does for other large housing developments - on rising traffic and alleviating future jams rather than turning the attention on how we can do things differently to get the outcomes we want.

When we looked at planning applications for garden communities, we could see the problem clearly. The main transport focus of the Transport Assessment is on the road network. Databases and software combine to populate a model of the road network as more and more traffic is imagined onto it as housing is built. Roads and junctions that will get to full capacity are flagged up.

Unblocking the road network and outdated methods for proving 'value for money'

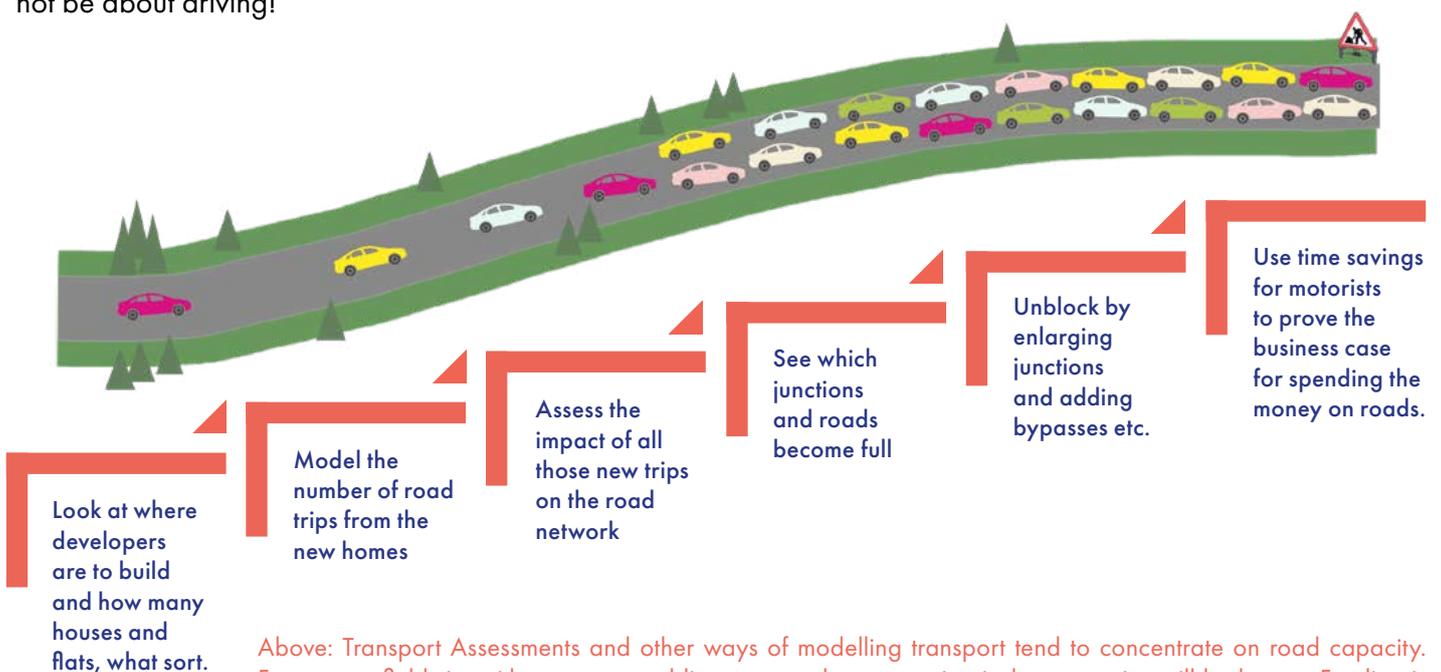
Once junctions and roads projected into the future are seen to be 'at capacity', the idea is then to seek funds to 'unblock the network' and 'mitigate' the effects of the development'. There is no idea that the future might not be about driving!

Larger roads

But what about all these new motorway junctions, bypasses and link roads? How are they justified in this day and age? For major road building ventures, a methodology called TAG - Transport Analysis Guidance is able to put a price on the time saved by all the millions of motorists getting from A to B over the next 60 years, and even seconds saved on their journey may give it a very positive cost to benefits ratio. Other factors such as the disadvantages of adding more traffic onto the roads, and social and environmental impact, are hardly costed in.

And public transport and cycling?

Unfortunately neither public transport nor cycling and walking do well with this current way of modelling and assessing the value to society of transport. The tools for appraising new bus routes, mass transit networks, trams and light rail, new stations, cycling networks and so on miss the outcomes that a modern society sees as important. The modelling misses out life-styles, town centre regeneration and vitality, access to amenities, and accessibility for everyone even if they are not drivers. It fails to appraise and consider the exact features and benefits of garden communities that the government envisages as important.



Above: Transport Assessments and other ways of modelling transport tend to concentrate on road capacity. For a greenfield site without proper public transport the assumption is that most trips will be by car. Funding is then aimed at unblocking jams ('mitigation'). Questions such as 'suppose we linked all the developments with the existing area with bus rapid transit or even trams?' are not asked. Indeed our research indicates that public transport networks are not on the whole amenable to analysis by tools that are generally about predicting and providing for traffic. A different approach based on social, environmental and economic outcomes is needed.

7. SUSTAINABLE TRANSPORT DRAWS THE SHORT STRAW

Public transport recognised in every vision but
delivery is another matter...



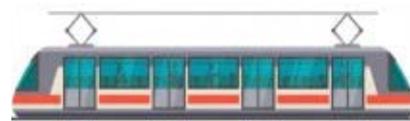
RAIL: too far to walk to the station and trains too infrequent

- Only one garden community was in easy walking distance of a station.
- Some were a short drive from a country station but these stations lacked frequent services.
- Larger stations involved driving many miles. Car parks are already expanding fast to cope with the demand at 'parkway stations'.
- Some garden communities wanted a new railway station eg. Culm, Grazeley, Thornbury (for Buckover Garden Village), Marsh Barton to support the Exeter Garden Villages and so on. However funds were very hard to find and delivery precarious. Beaulieu station in Essex received funds from the Housing Infrastructure Fund, but this is very unusual.



BUS: popular in theory, but funds lacking

- The bus was put forward though infrastructure and services were rarely costed or funded.
- Many garden villages were however, in locations that would struggle to support a commercial bus service.
- Rapid transit buses were an idea for Taunton Garden Town, Harlow and Gillston, Hemel Garden communities, Didcot Garden Town, and Grazeley. However funds for the substantial infrastructure were precarious and new roads and junctions seen as more important.



MASS TRANSIT/ LIGHT RAIL: If only!

- Mass transit was mentioned in conjunction with Grazeley Garden Village (nr. Reading) to support Oxfordshire and Hertfordshire and Greater Bristol. Although increasingly popular in a number of European countries, for reasons unclear, trams or light rail are seen as very difficult here.



Cycling

Many garden villages were simply in the wrong place to cycle to and from the development. Even cycling to a station looked difficult in the vast majority of cases, because the stations are generally not actually in the garden village itself, but some way away and involved unsafe roads and junctions.

Garden towns were better placed but our research showed that some fine visions for cyclists were not accompanied by adequate funding. Severance by major roads or even railways posed a problem for cyclists and money is needed for bridges across as a consequence. There also needs to be a way to avoid large junctions or provide safe ways for cyclists to navigate these. Expectations for cycling seem far too low given its growing popularity.

Cycle networks need funding in their entirety so that cyclists can travel all the way safely to destinations, including in the dark.

Walking

A fundamental problem for the pedestrian was the isolated location of many garden village and even garden town development sites. The idea of a mixed community to make places 'self sufficient' and 'walkable' was in so many visions, as for example we had seen in Poundbury in Dorset. We felt that the promised mixed development might not happen until a large number of homes had been built, and that an emphasis on the car would compromise pavements and place-making.

Active travel was an aim for nearly every garden village and all garden towns.

In the case of garden towns such as Taunton, Didcot, and even previously 'eco-town' Bicester, a dedicated integrated network of safe cycle routes was all part of the concept. Aylesbury has a number of cycling routes but even there the cycle paths are along main roads going out of towns to the new estate and seem to be add-ons to the dominant road system rather than designed as part of a cycling and walking network from the start.

Dedicated investment is needed in the form of substantial public funds, with the expertise and determination to deliver.



8. LIVING UP TO THE GOVERNMENT'S GARDEN COMMUNITY PROSPECTUS?

From the government's Garden Communities Prospectus (2018) we looked at the assessment criteria for government funding. The prospectus says *'to be considered for government assistance, proposals for a new garden community must meet the criteria.'*

Based on our site visits and desk research we assessed what is committed and funded at each of the twenty garden communities we looked at in detail, against the transport-related assessment criteria. We used our collected evidence to assess each of the twenty garden communities by these criteria. We looked for committed and funded projects rather than visions and aspirations.



The Prospectus asks for a Sustainable Scale. *'Proposals can be for a discrete new settlement, or take the form of transformational development of an existing settlement, both in nature and in scale. All proposals must be of sufficient scale to be largely self-sustaining and genuinely mixed use... built at a scale which supports the necessary infrastructure to allow the community to function self-sufficiently on a day to day basis, with the capacity for future growth to meet the evolving housing and economic needs of the local area.'*

Our observations: The garden city at Ebbsfleet and garden towns such as Aylesbury and Bicester were planned on a scale that could have been transformational. However we found that the lack of sufficient and timely investment in place-making, town centre uplift and regeneration, public transport and active travel, may well mean any transformational potential is lost. What we found was car based sprawl developing around the edges of garden towns, with funding for new ring roads or motorway junctions. The garden villages were typically small discrete settlements, and we thought that their size and location close to major road junctions, would mean these places would be unlikely to function self-sufficiently.

The Prospectus expects a Functioning Centre: *'attractive and functioning centre and public realm'*

It was unclear whether the garden villages would meet this criteria. We had seen on our 2018 visits to large scale greenfield housing, that local centres do not establish easily especially in a context of 'out of town' retail and business parks. The garden towns had established centres of their own, but new estates lacked suburban centres, except perhaps for a primary school.

We wondered whether the public realm in new garden communities would be designed around streets, public spaces with character, urban trees, gardens, interesting views and a variety of architecture.

Ebbsfleet Garden City is largely residential with the 'town centre' district committed to be built much later. The garden city has therefore built in car dependency for early residents who must drive for basic amenities.



The Prospectus expects Mixed Use, including employment: 'vibrant mixed use communities that support a range of local employment types and premises, retail opportunities, recreational and community facilities.'

There was little evidence of any of the garden settlements providing employment integrated with the new homes as for example, can be seen in Poundbury (Dorset), which has several offices and two factories within the fabric of the greenfield development and therefore a daytime population using the many shops, cafés, pubs etc. Where new employment was proposed in conjunction with a garden village, it was generally on a separate parcel of land, often cut off from the new homes by a large new road system. In garden towns new employment was on parcels of land orientated around a ring road - another car-based model.

The Prospectus also asks for integrated transport: 'integrated, forward looking and accessible transport options that support economic prosperity and wellbeing for residents. This should include promotion of public transport, walking, and cycling so that settlements are easy to navigate, and facilitate simple and sustainable access to jobs, education, and services.'

None of the garden communities met this criteria as we have explained in the previous sections. The word 'promotion' we take to imply 'funding and delivery' of, and it is here that many barriers lie.

The Prospectus emphasises Healthy Places 'designed to provide the choices and chances for all to live a healthy life, through taking a whole systems approach to key local health & wellbeing priorities and strategies.'

Our previous visits to housing developments similar in location and scale to the envisaged garden villages, and our research into priorities for transport investment - new roads and larger junctions - was not encouraging. Overall, we were concerned that each community would lock in car dependency for residents and that a car would be essential for living a full life. Active travel was a popular buzzword but rarely an early and detailed consideration in layout and design. Even where it was considered within the boundary of the developments it was lacking in terms of connectivity with existing development and amenities. The garden villages risk being too remote and not connected to existing development by good quality walking and cycling infrastructure. Garden towns often have these amenities but lack active travel options, with ring roads the preferred transport intervention. Walking and cycling are not natural choices for trips in these environments.





9. THE CONSEQUENCES

Garden villages are largely still on paper. Some are built (Aylesham is such an example), others such as Otterpool Park in Kent have applied for outline planning permission, and some like Welbourne in Hampshire have got a stage further with outline permission granted. The road systems on which many will be pinned are funded and some are being designed ready for construction. Garden towns are already expanding with new estates and ring roads, and it is possible to see the result on the ground. But if we continue to go ahead with the current garden town and garden village proposals, does it really matter? The consequences are more than you might think.

Expensive for those on low incomes

For those who are on low incomes the costs of running one or more cars may be too great. People who want a new home can't afford to live in car-reliant places.

Layout for cars not pedestrians

With car parking and car access dominating the estate, the layout becomes 'identikit' and orientated around link roads, roundabouts and junctions. Not attractive for walking!

Lack of green environment

With so much land devoted to parking, no room for urban trees, gardens, grass verges etc. Pavements may not be included everywhere.

Local shops and businesses don't open

Without the footfall of a walking community, people don't use local shops and cafés. They drive out.

Higher carbon emissions

More and more people realise that we need to live differently in the future, within environmental limits. Garden communities need to look to the future not the past. Sustainable transport is important!

Inactive life styles; more stress

Car dependence means an inactive lifestyle, sitting in jams, worries about parking, and parking wars with neighbours. This kind of travel is not healthy.

Isolation

No bus, train or rapid transit to jump onto to travel into town or further afield. Lack of places to walk to adds also to feeling of being cut off from the rest of society.

You have to be able to drive

Non-drivers or people who don't want to drive are not able to move into new homes. Teenagers have little independence.

Parking city not garden city?

New homes risk being islands of housing in a sea of tarmac as parking takes the place of garden and public space. We have seen this on many visits to new housing. Parked cars also block buses.

Money wasted

Road building associated with new homes costs money. The billions could be used to fund the sustainable transport networks to match the garden village and garden town visions, including rapid transit, stations and so on.

10. WHAT'S GOING WRONG?

The planning system in England directs new housing to many places outside our metropolitan areas. Targets for housing numbers for each local authority are given by central government and these are often very high for rural and semi rural local authorities, especially in the southern half of the country. These targets are the cornerstone of national planning policy (the NPPF and PPG) and have to be met by local planners. Housing targets are calculated by first taking overall population growth. Then it is a matter of seeing where in past years, people have moved to, producing figures for 'in migration' to different local authority areas. The assumption is that these areas will continue to attract lots of incomers and so new homes need to be concentrated in such places to continue the cycle. The numbers are also supplemented to take into account a high earnings to house price ratio (in which case more homes are needed) and other factors such as more 'market' homes to enable 'affordable homes' to be financed, new jobs and so on.

What is unexpected is that the targets are produced without consideration of many geographical implications, including proximity and direct access to large urban areas, employment hot-spots, services, as well as transport.

Once targets are decided, the pressure is then on for planners working for the councils to find places to build the homes. At this point the developers and promoters of sites come forward with sites that they have in waiting. Relieved that they can fulfil their housing obligations, local authority planners then put the relevant areas of the countryside into a long term plan for their area

High targets without coordination with jobs

The number of new homes required for each local authority is specified by the Ministry of Housing, Communities and Local Government with developers often increasing numbers. These numbers - the 'housing need' - go into the Local Plan for an area, covering approximately 15 years. A Local Plan for a semi-rural or rural area may have as many as 30,000-40,000 houses allocated over the plan period.

called the Local Plan. If the council fails to find sites to accommodate the targets for new homes, they are in trouble with the her Majesty's Planning Inspectorate for not having a 'five year land supply' in place on a rolling basis. Although brownfield sites may exist, these may be too small for a 'strategic' housing site or perceived as too unreliable to add to the 'official' land supply. Large greenfield sites are seen as a better bet by local councils who must get targets built.

At a time when local authorities have few resources, the developers offer 'plug and play' sites which mean that they provide the consultants to overcome obstacles such flooding, biodiversity impacts, objections by the existing population, and 'traffic impacts'. For the greenfield sites there is an unsaid assumption that naturally most new residents are expected to drive for most journeys, despite the idea of 'sustainable' development.

Garden villages and the new estates around garden towns are being progressed in this context of housing targets and finding land to build homes. **The trouble is that these sites for new homes are rarely in the right place for modern sustainable modes of transport. The very location chosen to build puts the visions that our professional planners have, in jeopardy.**



Why are we building garden communities in the wrong places for sustainable transport? Why aren't we building along public transport routes in a more organised manner? A simplified explanation is shown below.



There is another way

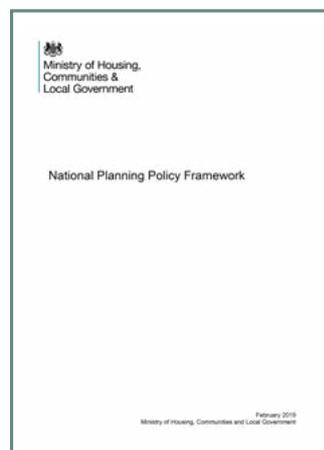
As we have explained many garden villages are far from urban areas. Also, because of their overall low density, slow rate of build and comparatively small size, garden villages will struggle to find enough passengers for commercial public transport services. If for example, rapid transit is to be provided, it must beat the traffic to offer a better alternative to the car, and this means the allocation of road space to public transport along much of the route. This requires reliable funding, determination and cross- council cooperation and planning.

If society is serious about new places to live which are accessible by high quality public transport and possible to walk and cycle to, then we need to think before we choose a place to build. Sustainable transport to places pepper-potted here and there doesn't work. What we need is a series of developments along a new or existing public transport route with cycling and walking integrated too. Whether a metro, a tram system or a sequence of bus rapid transit stops, the new public transport corridor needs to serve a series of homes, offices, shops and other destinations to get the passenger numbers. People will then see that they can use the new route and the public transport network to which it connects.

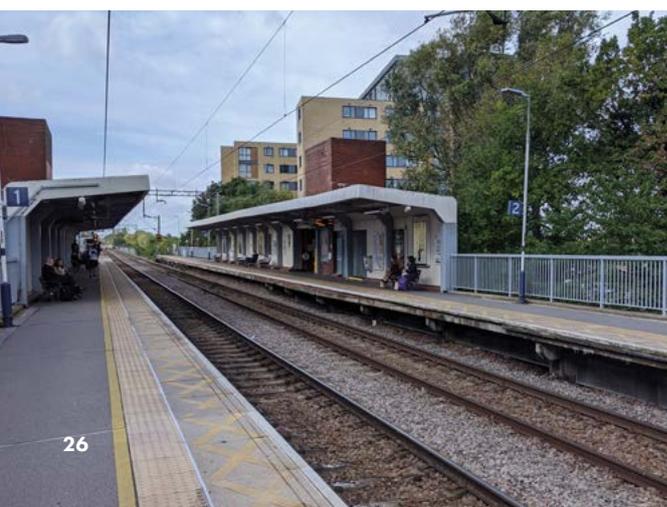
Our planning system makes this model very difficult to accomplish because we have so little control over where we build. Planning policy relegates transport accessibility low down. The location of garden villages demonstrates the result of ad-hoc planning.



Above: Coordinating new homes along public transport corridors makes sense but our planning system makes this nearly impossible – transport and spatial planning are separate all the way. They are kept apart at government level (two different departments), at local level (spatial planners tend not to 'do' transport) and even when developers build a site, the road layout is usually designed for cars.



Our national planning policy in the form of the National Planning Policy Framework and Planning Practice Guidance have some fine words about sustainable transport but these are 'where appropriate' or 'if possible'. Car-based sprawl continues to be built.



Making garden communities truly 'walkable' and 'self-contained'

Places that are perfect for walking and cycling are the very essence of the garden vision. However as explained, because of the ultimate emphasis on the car, we fear that garden villages and the new suburbs of garden towns will be instead designed around roads, driveways and parking in traditional manner. Not only does this make the place less attractive, but it has another important repercussion.

This is that the skeleton of new roads to support the garden community also opens up opportunities for out-of-town destinations. Nearly every garden community vision comes with shops, cafés, even a high street *within the development*. However from our previous visits to large scale new housing, these can only thrive if great play is made to avoid a large supermarket and other large scale retail within easy drive. Just as experienced in many towns, the centre suffers as people drive out instead of coming in to shop.

This is also an argument for having offices and leisure centres in town rather than off a roundabout on the fringe. If care is taken to build adaptable and reasonably priced office and workshop accommodation, independent traders and start-ups will establish themselves and the new area of housing soon has a walkable community of its own.

Poundbury - a new development with many of the garden village attributes in position

One place where this effect can be seen is in the greenfield 'urban extension' to Dorchester in Dorset. Poundbury as a greenfield site seems almost unique in achieving something along the lines of the visions we have seen for new 'garden settlements'. Its walkability has been achieved by not only very careful design specially for pedestrians rather than cars, but also by making sure that the supermarket, garden centre, shops, cafés, pubs, community centres, offices and other services were in town, not on the edge in drive-to locations. It is of course not in an isolated spot, but adjacent to Dorchester which is a short walk away along connected 'conventional' streets, and not a ring road. The place was carefully shaped from the start around urban trees and small green areas and parks.



During the course of our research we have spoken to urban designers who explained that the layout and design of streets is important and that place making is all part of this. We have heard that the local authority highways team often use the traditional Design Bulletin 32 which concentrates on road design instead for car access. The result tends towards the domination of tarmac and a less interesting walking environment. In the modern day this surely has to change. Urban designers have many resources and the knowledge to design great places. However if the layout is designed around cars, visions for pleasant places and are quickly compromised.



Above: Poundbury has managed to combine new homes with shops, offices, and all other amenities as a mixed development.

11. ACTION

In his ministerial forward to the 2020 consultation Decarbonising Transport - Setting The Challenge, Grant Shapps, Secretary for State for Transport explains:

‘Public transport and active travel will be the natural first choice for our daily activities. We will use our cars less and be able to rely on a convenient, cost-effective and coherent public transport network’.

From the Government’s Prospectus for Garden Communities on transport:

‘..integrated, forward looking and accessible transport options that support economic prosperity and wellbeing for residents. This should include promotion of public transport, walking, and cycling so that settlements are easy to navigate, and facilitate simple and sustainable access to jobs, education, and services’.

The government wants a different kind of housing development with public transport and active travel the first choice. The importance of local, walkable, and mixed use neighbourhoods has been made clear in the Garden Communities Prospectus. The garden communities themselves have come up with visions and master-plans that echo what the government has said. To achieve the aspirations of government and those of our local authorities, developers and consultants, we need to be able to do things differently. As we have explained, continuing with the same planning machinery and transport funding as now will not deliver what is required for the future. Things really need to change.

**What action can we take?
How can we enable the government’s idea of garden communities to really materialise?**



We believe that there needs to be fundamental changes in the planning system to build homes in the right places, around the right transport so people really don't have to rely on a car.

- **The right location.** This is essential. Development in the wrong location is very hard indeed to serve with public transport or enable people to walk or cycle in and out of the development. It is no use giving high housing targets to places which will struggle to find any sites that match this simple requirement. We need a coordinated approach across local authority areas to find the right places with the right investment in public transport and active travel that will make the new homes a success.
- **Project management to deliver what is intended.** We have seen fine visions and good work by planners and consultants alike. But words on paper need to materialise as real places. Local Plan policies, which includes garden communities, are often 'diluted' at the planning application stage. A publicly accountable and transparent body involving the Local Authority is needed to oversee, manage and deliver new development to specification, with public funds and kick-start money as needed. There is also the option of acquiring funds through capturing the uplift in land value when outline planning permission is given, to finance the infrastructure.
- **Early specification of sustainable transport in detail at planning stage.** Equally planning applications for outline permission for proposed garden communities need to show the public transport infrastructure with streets, pavements and cycleways all explicitly indicated including how these will enable people to get to existing towns, villages, railway stations, local amenities and employment areas. The transport aspects cannot be left to 'reserved matters' but need to be firmed up at an early stage because they are so fundamental. If left up to 'reserved matters' they may just 'evaporate'. Life-styles depend on how local transport works: things cannot be left to vague concepts in the future as they may then never happen!
- **Self-containment and establishing local amenities early on.** There need to be financial incentives in place to encourage and establish local facilities actually within the development - the shops, cafés, pubs, shared workspace, schools, health centres, and so on that

make a place walkable and 'self-sufficient'. Large new supermarkets or other out-of-town provision need to be avoided because of the competition with smaller local provision and their location off major roads which makes them difficult to walk to.

Community shops and community cafés can be useful as a way of involving local people and producers. Independent shops and businesses give character and individuality to a place and help a community to establish.

- **Beyond the site boundary.** There needs to be a mechanism to enable sustainable transport infrastructure to be constructed beyond the development boundary of the garden village or new part of the garden town. This may mean the purchase of land for future cycleways, walking routes, fixed path public transport corridors (for buses, rapid transit, trams) and so on. This will also help to locate future housing or employment allocations along public transport corridors, a departure from the current emphasis on 'road corridors'.
- **Transport Assessments need modernising - they shouldn't be mostly about road capacity and traffic jams.** A Transport Assessment which is 95% about which junctions will have a tail-back after the garden community is built takes us up the wrong alley to start with. Transport Assessments need to seek the right solution to achieving public transport and active travel as the first choice for residents. This means looking at the interplay between parking, road space and the use of sustainable transport modes. It is then possible to cost and fund what is needed with private and public sources, in coordination with other developments in the area.



- **The right funding.** The total government budget for future road building is tens of billions of pounds. In terms of garden villages and associated development we have seen different government and funding streams combined with developer money, to enable more commuters to access motorways and other fast roads, and to 'open up land' for garden communities. People will want to use cars if there is no alternative. We need to instead coordinate and assure funding for new metro routes, trams, light rail, bus rapid transit and so on to give people the alternative they want. We need to help local authorities build the cycleways and pedestrian routes that are needed.
- **Speeding up delivery of stations and local rail services.** New stations are popular in visions. However delivery takes many years and is very complicated, even for a small local stop. This situation needs to be urgently addressed. Consideration of light rail to serve new communities may be another way forward worth looking at.
- **Active travel in the future.** The government has explained that active travel - walking and cycling - is affordable, delivers significant health benefits, has been shown to improve well-being, reduces congestion on the roads, improves air quality and has no carbon emissions at the point of use. They have explained that: *'towns and cities based around active travel will have happier and healthier citizens as well as lasting local economic benefits'*.

In view of this, it seems essential that garden communities are designed around walking and cycling from the start. We have explained that a disadvantage of many garden villages is their isolation and this particularly affects future residents who want to walk or cycle out. For these places it becomes even more important to open new stations to which you can cycle or walk safely.



We have the vision, and so do our planners. Let's make it happen!

Complete overhaul of planning so that sustainable transport and new homes come together.



Make real changes to our planning system – the National Planning Policy Framework and the Planning Practice Guidance. We can't assume the future is more and more about car travel. Current planning policy is out of date in the context of the climate emergency, life styles and town centre regeneration.

Build in the right places for sustainable transport.



We need control over which sites to build, choosing places that you can walk or cycle from, and places right for public transport. A mostly developer-led system coupled with high housing targets from the government for rural and semi-rural areas often means housing in the wrong place.

Make the funding of sustainable transport a priority.



Whether for new metros or busways to the places we are building, or for cycleways Dutch-style serving and connecting new developments, money is needed to make progress. Local sustainable transport outside our largest urban areas is often very under-funded. A new approach is needed.

Transfer funds for roads to funds for sustainable transport – be modern!



Transfer the money for roads to sustainable transport. We need to finance rapid transit for our garden developments, or bring trams or light rail into the equation. Buses need segregated lanes into town. New development needs to be specifically designed around sustainable transport from the start. We need a new and modern way of doing things.

Change the way we assess the benefits of transport infrastructure.



Change transport modelling and 'value for money' calculations so that sustainable transport solutions do well on the basis that we achieve government aims for active lifestyles and a shift away from car use. This differs from the current machinery left over from previous decades, which emphasises faster travel by car and 'unblocking the road network'.

Streets and pavements; cycle networks.



Design new places with layouts for pedestrians and cyclists, and public transport routes, stops and stations. Build new garden suburbs close into existing urban areas and make sure they are connected by overlooked streets not just paths through green areas that are unsuitable in the dark or walking alone.

Quality low rise flats, mix of houses. More green, less tarmac, less space lost to parking.



Build apartments, town houses and other combinations that make for a compact but green place with less parking, but more facilities close to hand. This less sprawling model means people live close to public transport, with more customers for shops and cafes and more of a community feel. Less parking is needed as you don't have to have a car.

Conclusions

The government Garden Community Prospectus explained that we should no longer build characterless housing estates – something better was required. The new concept was the ‘garden community’ which promised something completely different. These new places were to be ‘largely self-sustaining and genuinely mixed-use’ with ‘public transport, walking and cycling’ enabling ‘simple and sustainable access to jobs, education and services’. Our research has shown that despite fine visions, the developments proposed are moving in a different direction from the Garden Communities Prospectus.

Rather than being centred on sustainable transport, it looks like garden communities are to become car-based commuter estates just like any other - exactly what the government wanted to avoid. Transport assessments submitted with planning applications for garden communities tell the story. They model the thousands of car journeys expected to pour into and out of garden communities in the future, with new roads and large junctions put forward as ‘mitigation’ to cater for all that traffic.

Although the theme of the ‘local’ and ‘self-sufficient’ is the official line, the language adopted in the promotion of garden villages makes great play of their strategic location for long distance commuting, near such and such motorway junction or within easy reach of such and such fast road. The developments are generally in the wrong location for sustainable modes of transport. Land to build might be cheap in the middle of the countryside, with public money to ‘open up land’ by funding major roads. But we end up building in the wrong place and in the wrong way.

Gardens and ‘village’

With the domination of the car come, as we have explained, a number of consequences. These include very small gardens on account of the sheer amount of parking and road layout designed primarily for driving. As for the absolute core part of the garden vision – that all you need should be within an easy 15 minute stroll of your home as in a ‘village’ - this may never materialise. Previous Transport for New Homes research has shown that people in developments close to fast roads simply drive out. Local shops and cafes do not establish. Instead, out-of-town retail and business parks begin to gravitate around the expanding road system - more car-based sprawl.

Box-ticking

The difficulties in getting delivery of garden community visions do not lie with our planners or consultants, for they are generally fully on board with many of the concepts.

But they have their hands tied by a system that is failing them. The planning system is too weak to get the right results, and the machinery seems ultimately in the favour of large-scale house-builders, developers and promoters, for whom the price of land and the financial rewards of building are naturally the most important consideration. We have heard that our well-trained planners are often relegated to box-ticking and under resourced. The lack of funds for local public transport, cycling and walking, and the ease of funding for road capacity, further exacerbates the situation.

It can be done!

The good news is that we have seen the equivalent of a ‘garden community’ in Dorset. Poundbury is now home to about 3,800 people with ‘on site’ employment for over 2,300 people in its 207 businesses. People can debate the architectural style of the buildings but this is not our point. In Poundbury there really are parks, trees, shops, offices, schools and a wealth of community facilities integrated with homes with a street layout designed for walking. There are buses and you can cycle to two stations.

Success was possible only because of the combination of a strong long term vision on behalf of the land-owner - the Duchy of Cornwall - and financial control and resourcing that came with this. It should be added that Poundbury was not built ‘in the middle of nowhere’ but as a new part of Dorchester to which it is connected by conventional streets.

We need housing but we need to build in the right place and in the right way. Housing numbers and targets are not everything. In view of this report we suggest that the government should commission an urgent re-assessment of every one of the garden villages and towns in terms of funded sustainable transport to underpin the visions portrayed, and the assured delivery of the visions that each has presented to the public.

This is all the more important with the government’s legal duty to lead us to net zero carbon and to build around active and less isolated life-styles for the future.

Transport for New Homes, June 2020

VISIONS & REALITY

The Garden Village Dream Vs. The Tarmac Estate

Transport for New Homes is interested in transport and new housing development. We wanted to know whether garden villages and garden towns would really be different from the car-based places that we had seen on our tours of recently built estates. We wanted to see if the right investment in transport was ready to bring the right results, in terms of access, life styles and the facilitation of good places to live.

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TRANSPORT FOR NEW HOMES

Foundation for
Integrated Transport

