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## **ROYAL TOWN PLANNING INSTITUTE:**

### **RESPONSE TO THE NATIONAL INFRASTRUCTURE COMMISSION CALL FOR EVIDENCE**

10 February 2017

## **Introduction**

The Royal Town Planning Institute champions the power of planning in creating prosperous places and vibrant communities. Our 24,000 members are from the private, public, academic and voluntary sectors. Using our expertise and research we bring evidence and thought leadership to shape planning policies and thinking, putting the profession at the heart of society's big debates. We set the standards of planning education and professional behaviour that give our, wherever they work in the world, a unique ability to meet complex economic, social and environmental challenges. We are the only body in the United Kingdom that confers Chartered status to planners, the highest professional qualification sought after by employers in both private and public sectors.

## **Two Overarching Points**

We thank the NIC for the opportunity to respond to this consultation. We provide answers to selected questions in the call for evidence are set out below (at page 3). But we also have two overarching points to make regarding (A) the need for high-level agreed outcomes and (B) the nations of the United Kingdom.

### **A. The need for more detailed high-level outcomes**

We touch on this in further detail under question 1. But addressing the questionnaire to the needs of individual cities and regions can only go so far. We appreciate the NIC call for evidence was issued in October 2016, but now with the UK Government's draft proposals for an Industrial Strategy, the emerging 25 Year Plan for the Environment (and to a rather lesser extent also the Housing White Paper) there is a need for much stronger *coordination* between these strategies, and also. We explored the issue of the lack of coordination between major government strategies in our [Map for England](#) research and pilot project in 2012, and have made the argument for more coordinated spatial decision-making in [previous RTPI papers](#).

In the past, national infrastructure choices have been sub-optimal in part because:

- the consultative processes have been unnecessarily confrontational because of the *ad hoc* nature of the project justification;

- there has been no real basis for taking account of cumulative national or city-regional impacts and benefits, because of the project-based (and trend-based) assessment processes involved (as exemplified by the decisions on an estuarine airport);
- investment has tended to reinforce the problems of “peripheral” regions and areas, which is to say their relative neglect in investment and consequently lower growth and productivity;
- opportunities for growth by creating new markets and new demands **where the return on investment may be higher** have been overlooked.

The solution of these problems is made more difficult by the limitations on the NIC’s formal role, which is limited to making an Assessment, rather than identifying, through helping central government to coordinate its various key strategies (industry, housing, environment etc) so as to reach **more detailed agreed national outcomes**. The NIC could then recommend how these can be achieved through infrastructure investment. Unless this challenge is addressed there is a continued risk of *ad hoc* selection on a project by project basis, which would in all likelihood tend to replicate some of the problems of the past.

We do not consider that the three objectives of the NIC (on economic growth across all regions, competitiveness and quality of life) really provide a sufficiently detailed steer to overcome past weaknesses in decision-making.

One way then that these objectives could form a more useful basis for assessment is to develop them such that they make reference to the *spatial* dimensions of infrastructure investment decisions, in two main respects: how infrastructure could help to achieve the objectives set out in government strategies; and (relatedly) how infrastructure could generate the greatest returns on investment including by being directed to areas and regions that might benefit most (for example in terms of improved productivity and quality of life). This would provide a much stronger rationale for infrastructure decisions which might help to resolve some of the issues noted above.

## **B. Nations of the UK**

The UK NIC consultation refers to the Commission has having a remit for the whole of the UK. However, a recent consultation considered proposals to create a National Infrastructure Commission for Wales (NICfW) to provide independent and expert advice about infrastructure investment in Wales. We have assumed that the National Infrastructure Assessment for Wales will fall within the remit of the NICfW. We are trusting that the way that the two commissions work together will be clarified. We note that the UK NIC Call for Evidence makes no mention of the NICfW where it refers to how projects and submissions will be considered and assessed. If the NICfW and the UK NIC is to have a role appraising the merits of submitted evidence and projects in Wales then its work programme needs to be closely co-ordinated with that of the NDF. (An example of the issues at stake is given in our response to question 10.)

A similar issue arises with Scotland. The Scottish Government is consulting on a [White Paper for Planning](#). This has objectives around 3.31-3.31 national level infrastructure coordination (at 3.31), especially the final bullet under 3.33, ‘encourage better coordination of development plan strategies and infrastructure capital investment plans and programmes.’

However there is no reference in the Scottish White Paper to the UK National Infrastructure Commission.

Therefore we consider the UK National Infrastructure Commission should provide a clear guide to where decision making powers lie for initiating and regulating the different forms of infrastructure at the level of the UK, the devolved bodies and regional/local authorities plus private companies. This will help make it clear where co-operation arrangements are needed.

## Consultation Questions

### Cross cutting issues

#### **Q1 What are the highest value infrastructure investments that would support long-term sustainable growth in your city or region?**

Whilst the needs of any *particular* city or region is a matter that needs to be taken into account it does not reflect following:

- the competitive future of the nation needs to relate to the networked system of cities, and not cities acting in isolation;
- there are issues that can only be addressed at a national scale in terms of identifying needs and aspirations e.g. the implications of rebalancing the economy and social opportunities. The NIA cannot be founded on a bottom-up set of proposals alone. It needs a clear set of national spatial priorities;
- Whilst these matters are in part reflected in the post hoc evaluative methodologies, it is in fact an *ex ante* consideration in developing the strategy – i.e. it is integral to the option formulation and strategy making process.

Therefore, there is a higher order and overarching question:

*“What potential ranges in distribution of people and jobs in 2050 needs to be planned for and supported by new infrastructure investment?”*

#### **Q3 How should infrastructure be designed, planned and delivered to create better places to live and work? How should the interaction between infrastructure and housing be incorporated into this?**

Planning for infrastructure should be done at a wider than local-authority level; at city region scale. This is because people and goods cross local boundaries very regularly, and few of our towns and cities are self-contained entities. Our paper on [Strategic Planning](#) sets out general principles on how this should work and specific recommendations for UK nations.

Planning for infrastructure, and in particular its relation with housing, is rendered difficult by the high level of fragmentation in infrastructure provision. While local planning authorities have a pivotal role in housing provision, their attempts to coordinate infrastructure agencies (including even other departments of their own councils) are frequently frustrated by:

- Reluctance or refusal to engage (especially in the face of huge day to day pressures)

- Agencies following single-issue agendas set by far-away Whitehall departments or company boards

We touch on this further in our responses to Question 23 on water but it applies across the board.

The single simplest answer to this problem is for control of local infrastructure to be devolved to cities and counties so that the necessary *local* connections can be made and “heads banged together”. We refer to Hamburg below (Q7). Hamburg is interesting in the citizens voted in 2014 to remunicipalise the energy sector.

Recommendation 8 of our policy paper on [delivering large scale housing](#) suggests using incentives (rather than just sticks) for local areas to deliver large scale housing. Guarantees over transport infrastructure would be a good example of such an incentive. Not only this, but infrastructure can be used to unlock suitable sites by providing certainty to house builders, who can contribute to paying back the infrastructure costs from the gain in uplift in land value.

There is frequently-held view that infrastructure should be provided to *support* housing. This is usually expressed (e.g. by transport planning organisations) as “tell us where the housing is going and we will provide transport for it”. Whilst this approach is undoubtedly appropriate in the case of infrastructure which is not location-specific, to take this view for transport infrastructure is to miss serious opportunities for synergy and to regard the territory of the country in a curiously “flat-earth” fashion. It also places undue reliance on the ability of developer contributions to pay for transport investment.

The almost unique attributes of transport infrastructure are such that it should often be **leading development location choices, not following them**. The outplay of this approach is to say “where are we providing additional infrastructure capacity [anyway, for wider national considerations], and how can the best use of those locations be made for homes and jobs? It is beginning to emerge in some of thinking around Crossrail 2 and the Oxford-Cambridge corridor.

Integrated housing and infrastructure plans need to be long-term and flexible enough to cope with uncertainty – using a managed adaptive approach (see Chapter 5 of the Thames Estuary 2100 plan). The plan should be tested using sustainability appraisal.

#### **Q7 What changes in funding policy could improve the efficiency with which infrastructure services are delivered?**

Linking decisions on infrastructure spending to local commitments on housing delivery (see above) would be one way to improve.

Another way would be assisting public authorities to acquire land or make use of their own land in order to capture the land value uplift that arises from development, to fund infrastructure. Whilst a number of examples of this type of model exist for bespoke projects in the UK (e.g. Stratford and the Olympic Park), we have previously drawn attention to a number of other international examples, not least in our 2015 report [planning as a market enabler](#).

As an example, the financing of HafenCity in Hamburg depended upon the passing of a law by the city state parliament that allowed for the creation of a 'City and Port' special fund for the development of both HafenCity and a new container terminal. Publically-owned land in HafenCity was transferred as an asset into this fund, which was subsequently borrowed against in order to finance the construction of the container terminal. HafenCity is thus directly linked to the construction of new port facilities, a relationship seen as being important in securing political consensus.

While major public investments such as a tube line extension, schools, a new university, a concert hall and museums are financed by various City State government departments, the special fund is used to finance the infrastructure road building, bridges, public spaces, flood defences, marketing and the relocation of businesses where necessary essential as a condition for further private sector investment. Land sales are used both to finance the running of HafenCity GmbH and to pay back loans raised against the City and Port fund. Total public expenditure of approximately €2.4B has been complemented by private investment totalling approximately €8.4B.

**Q10 What changes could be made to the planning system and infrastructure governance arrangements to ensure infrastructure is delivered as efficiently as possible and on time?**

We have stated in our work on [delivering the value of planning](#), that constant changes to the planning system are hampering planners' ability to carry out their work effectively. They can also tend to benefit the groups in society able to afford to understand them. So any change should be fully justified and proportionate to the disbenefits.

A dedicated system for national infrastructure was established in the 2008 Planning Act. Its performance since has been a mixed one. On the one hand a lot of projects have gone through the time-bound process and have been expertly reported on by the Planning Inspectorate. On the other hand (until some recent changes were made) the threshold for some projects seemed to be very low, forcing short lengths of railway through the process; whilst HS2 (and South East airport capacity to date) have not used this process. Further weakness in the current system is the division of infrastructure into very small segments (e.g. rail divided from road; air divided from both). The creation of national policy statements – originally intended to follow the 2008 Act closely – has been long drawn out.

Further consideration should be given to whether housing is defined as national infrastructure.

Arrangements for infrastructure planning across the borders of the UK Nations have not worked in all situations. For example a bypass of Pant-Llanymynech on the A483 south of Oswestry has been repeatedly identified as a key priority for the Welsh Government but not by the DfT. The issue of such cross border links was addressed in detail a few years ago by the Select Committee on Welsh Affairs and their report with recommendations (and subsequent follow up work) should be of interest to those preparing the new UK wide strategy.

**Q11 How should infrastructure most effectively contribute to protecting and enhancing the natural environment?**

A Natural Capital / ecosystems services approach could be explored to ensure that benefits to the natural environment are assessed properly. The work of the Natural Capital Committee should be integrated or more closely linked with the National Infrastructure Commission.

National infrastructure should contribute positively to the Government's 25 Year Plan for the Environment and provide net gains in biodiversity. For flooding, the Government should accelerate its whole catchment approach.

Green and blue infrastructure can deliver some of the benefits traditionally achieved by 'hard' infrastructure (such as flood defence and air quality management), while providing additional benefits and fewer risks.

**Q12 What improvements could be made to current cost-benefit analysis techniques that are credible, tractable and transparent?**

There should be a level playing field in funding assessment methodologies, so that one type of infrastructure (e.g. roads, railways) isn't given more weight or have a lower public funding threshold than another (e.g. climate resilience). The Commission should also take account of the embodied carbon of infrastructure, including decommissioning, in order to fully consider the costs and benefits of proposed projects.

We have said in our response to DfT consultation on the [Wider Economic Guidance Impact update](#) that methodologies should enable a better connection to be made between the economic and strategic case for transport investment setting out exactly what local, regional and national objectives the scheme is trying to solve.

In considering various demand management options (e.g. road pricing, restrictive parking, and smaller projects to encourage sustainable travel and modal shift) there should be consideration of how these should be valued when compared to investment in major new infrastructure including the opportunity costs not investing. Similarly, public health impacts should be factored into the appraisal process, e.g. the benefits of investment in walking and cycling infrastructure versus and the costs of motorised travel.

Transport

**Q13 How will travel patterns change between now and 2050? What will be the impact of the adoption of new technologies?**

The role of autonomous vehicles (AVs) needs evaluation in a range of different contexts, and is probably an under-researched area as far as its relationship to urban planning is concerned. Much of the research has seemed to be influenced by developers of AV, rather than by cities themselves.

Where the problem is city congestion, will simply changing the driving method reduce congestion? Careful analysis is needed to understand the role of "tidal" flows at peak times. AVs would need to travel back to suburbs empty where there are strong tidal flows, but where multiple orbital movements are in play, AVs might be used in both directions. Nevertheless in this scenario there would be a greater impact on land needed for car parking than on congestion.

In a motorway context AVs could mean greater throughput of vehicles.

In a rural context AVs could assist with the problems of public transport access – but only if ownership and control is strongly constructed in the community interest.

**Q14 What are the highest value transport investments to allow people and freight to get into, out of and around major urban areas?**

Investing in intra-urban walking, cycling and clean public transport (electric / hydrogen powered buses or light rail), and investing in inter-urban rail.

Consolidated freight / logistics hubs. We could see a useful return to the Victorian principle of break of bulk at key locations in the city. Large inter-city movements of freight by either rail, road or AV, could be broken up into small loads suitable for penetration into dense urban environments by electric vehicle or cargo bike.

Congestion in major urban areas is a serious constraint on economic productivity and leads to air pollution and poor quality living spaces. Policies that reduce car use in urban areas so that freight can move around more effectively. Congestion charging, low and ultra-low emissions zones, walking and cycle infrastructure, public transport that can shift large volumes of people.

**Q15 What are the highest value transport investments that can be used to connect people and places, as well as transport goods, outside of a single urban area?**

Light rail / rapid transport bus. Investments that reduce car use again. We would advise against thinking simply in terms of “connecting people” if this is viewed as connecting existing people. Infrastructure investment is a way influencing where *future communities live*. **In general we would say infrastructure needs to lead, not follow.**

Energy

**Q20 What does the most effective zero carbon power sector look like in 2050? How would this be achieved?**

This has been set out in the [Zero Carbon Britain report](#) from the Centre for Alternative Technology (CAT).

It is critical to note that - whatever the generation mix – a zero carbon energy sector will only be feasible if coupled with strong demand reduction policies in the buildings and transport sectors. This will need to include robust policies and financial mechanisms to drive the energy efficiency retrofit of existing buildings, and energy efficiency and low-carbon standards for new buildings, which enable an increase in housing supply while meeting the emissions reductions objectives of the 2008 Climate Change Act.

Renewable energy is playing an increasing role in meeting UK energy demand. However, changes to renewable energy policy and subsidy have created uncertainty for developers. Delay and conflict can be reduced by creating an indicative framework of preferred development areas for renewable and other energy supply and infrastructure.

We need a mix of renewable energy technologies including tidal lagoons, offshore and onshore wind and solar. These should be connected via a smart grid which incentivises domestic energy use during off-peak hours with preferential rates, and includes storage in electric vehicles.

R&D in storage technologies a key component.

**Q21 What are the implications of low carbon vehicles for energy production, transmission, distribution, storage and new infrastructure requirements?**

Vehicle electrification would be likely to place additional pressures on the energy sector and increase the need for demand reduction in other sectors of the economy. The electrification of vehicles will need to be coupled with land use policies that continue to resist sprawl and promote compact settlement patterns which reduce the need to travel, and support public and active travel. Compact settlement patterns also permit new electric vehicle charging infrastructure to be provided more efficiently.

Water and wastewater

**Q23 What are the most effective interventions to ensure that drainage and sewerage capacity is sufficient to meet future demand?**

Wastewater re-use should be clearly prioritised before new reservoirs, groundwater abstractions or desalination is considered. Sustainable Drainage Systems (SuDS) reduce strain on drainage and sewerage systems, while delivering a range of additional benefits.

Better arrangements are needed to align planning for water and waste water capacity and housing growth. At present the regulation arrangements of OFWAT militate against forward provision of infrastructure ahead of housing delivery because the regulator insists on very high levels of certainty before being prepared to sanction investment by water companies. Since funding arrangements are only set once every 5 years, unless schemes already have full planning permission in the short window available, all the costs of providing capacity fall on developers. It is not possible for local authorities to run their local plan processes to coincide with a national time table dictated by the regulator. This at best causes delay in getting housing permitted, while developers seek to reduce such costs. OFWAT should have an obligation to

- a) Be involved in the local plan process
- b) Fund any sites allocated in local plans

The current risk averse behaviour contributes to delay.

*This issue is equally applicable to providing gas and electricity distribution capacity for new housing growth.*

**Q24 How can we most effectively manage our water supply, wastewater and flood risk management systems using a whole catchment approach?**

Integrating the various plans that water companies and the Environment Agency make, perhaps on a statutory basis at the scale of catchment areas. Consider combining with devolved flood risk management spending.

Reference should be made in the section on water and sewerage to the new arrangements set out in the Wales Bill, currently awaiting consent. These arrangements include a new protocol to be agreed by the UK and Wales Governments.

### Flood risk management

#### **Q25 What level of flood resilience should the UK aim to achieve, balancing costs, development pressure and the long-term risks posed by climate change?**

The UK should consider flood risk over a 80-100 year time period, which aligns more closely to the life-span of major flood defence infrastructure and the impacts of climate change. With our long coastline, dispersed development pattern and multiple sources of flooding, it is inappropriate to have one standard of protection. However, we should adopt a more formal targets of protection for different types of land use and development e.g. 1 in 100 years (annual probability) for essential infrastructure, 1 in 200 (sea flooding) and 1 in 100 years (river flooding) for housing, based on current definitions in the NPPF and guidance. An appropriate target for surface water and groundwater flooding should be agreed, perhaps 1 in 30. These targets should take climate change into account using the latest projections.

In addressing flood risk management, options around changes to upland management of land to reduce the speed and volume of run-off need to be able to be evaluated against the building of new flood defences. This issue is of particular significance as a cross-boundary issue between Wales and adjoining regions of England.

Provisions to help relocation and adaptation of existing communities and infrastructure in vulnerable places.

Transparency on how the sequential and exception tests are being applied by local planning authorities, and monitoring/enforcement of development to make sure that stated flood mitigation measures are in place.