



National Infrastructure Commission: call for evidence

Royal HaskoningDHV Response

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1.0 Introduction: Setting the context for our response

Royal HaskoningDHV is an independent, international engineering and project management consultancy with more than 130 years of experience. Backed by the expertise and experience of 7,000 colleagues all over the world, our professionals combine global expertise with local knowledge to deliver a multidisciplinary range of consultancy services for the entire living environment from over 130 countries. By showing leadership in sustainable development and innovation, together with our clients, we are working to become part of the solution to a more sustainable society now and into the future.

In the UK, Royal HaskoningDHV's experience encompasses projects in several sectors including ports, flood risk, energy generation, transport, aviation and waste. Our collaborative approach means that our staff work outside, as well as within, sectoral silos and across geographic boundaries, ensuring that we identify opportunities or issues of mutual relevance to our clients and share project solutions from other sectors or countries. We firmly believe that working in partnership across sectors and disciplines delivers successful outcomes that cannot be achieved by those working solely within a sector.

We therefore consider that the sectoral and geographic split of the three initial challenges facing the Commission risks limiting the identification of links between these challenges (and others). The National Infrastructure Commission has a 'once in a generation opportunity' to seek to understand the drivers that shape the characteristics of the regions of the UK and how those drivers and characteristics interrelate. Transport and energy should be the facilitators of this grand vision instead of being pushed into the role of drivers of economic growth.

In our view, a National Infrastructure Commission should present the overarching picture of infrastructure assets and needs built from knowledge of connections, synergies, mutual benefits and the need to respect differences. The Commission should avoid starting with the status quo and considering only infrastructure that has already been identified from within the confines of regional, sectoral or administrative boundaries. Existing knowledge and expertise must be used, but a strategic UK Master Plan should be built in partnership from the ground up – not in sectoral isolation and then measures taken to try and join unconnected aspects together.

We call for an Integrated Master Plan delivering a vision for the country; what do we really want the UK to be? It must be more than the sum of the sector silos.

2.0 The Challenge: Large-scale transport infrastructure improvements in London

Royal HaskoningDHV has been involved with the transport planning of many developments in the Greater London Area for more than 40 years. We always take the position that transport should form an integral part of the evolution of a scheme at an early stage and sometimes leads to new standards. The ultimate goal is the delivery of a development that is accessible, sustainable and resilient.

During the last 5 years our involvement with delivering the Cycling Ambitions of the Mayor of London has grown significantly. We are currently part of the Implementation team for London Quietways and Implementing Quietways and involved with sections of the Super Cycle Highway.

We strive to leverage our global experience for the challenges for London. With projects such as North-South Metro in Amsterdam, Netherlands, Decision Support System for the Traffic Management Centre of Beijing, China, the Rail Investment Program for the Amsterdam Metro Area, Netherlands and the Development Plan for the Diraab Corridor in Riyadh, Saudi Arabia.

In responding to this challenge we have identified a number of underpinning themes and principles and also directly answered Questions 1 and 5.

Underpinning themes:

- **Transit Oriented Development** for the entire UK will be key in delivering a sustainable transport system.
- **Focus and prioritise based on a holistic approach to transport**
 - Do we really want to continue and repeat the transport solutions from the Victorian era? While recognizing their contribution, they are in principle almost 150 years old (on average) with the train 185 years, the car 120 years and underground 153 years.
 - The National Infrastructure Commission questions focus to a great extent on the existing solutions. Is that really how we want to plan and develop the UK for the next 30 years? Do we sufficiently understand the questions?
 - We should focus and prioritise investment for the next 10 years on the key capacity bottlenecks in rail, road and ports.
 - Use the first five years for developing a holistic approach to transport for this country including the technology developments in the pipeline, demographic trends and anticipate its wider impact on how we want transport to be.
 - Set minimum restrictions to allow businesses to develop and implement new technology within the framework.
 - Minimum requirements of the transport system in 2030 should be 100% carbon neutral, fast, reliable and at a human scale.
- **Enable innovative solutions**
 - The National Infrastructure Plan is planning for 20 to 30 years going forward (related to lead times and available capital funding). We must plan in an agile way, to ensure easy adaptation of new technologies.
 - Technology tends to have a life cycle of a just a few years on average compared to 50 to 100 years for structures.
 - The original technology should be compatible with the next version and adaptable to future versions.
 - “We should accept that cities are never finished, everything is always in a beta stage” (quote from: Martijn Aslander and Erwin Witteveen in “Nooit Af” (Never finished) 2014)
- **Strive for multi-functional design**
 - Plan a corridor approach to roads, rail, water and power transport thereby combining funding resources (in other words: ‘de-silo’) and reducing redundancy.
 - Integrated solutions provide increased resilience. A good example for this approach is with flood defence. The floods in the North of England in December 2015 caused significant damage and disruption, including impacts on the transport network. It is self-evident that flood risk and climate resilience have to be taken into account in designing improvements to the transport system. However, there is an opportunity to do more: the new infrastructure itself could be designed to help reduce risk to property and people, and for particularly

vulnerable places the investment could even trigger a redesign of the area for a more climate-proof future. We see this type of multifunctional integrated design as an important part of the solution for the UK's flooding crisis, inspired by the Rebuild by Design approach developed in New York after Super Storm Sandy.

Question 1. What are the major economic and social challenges facing London and its commuter hinterland over the next two to three decades?

Delivery model

We anticipate an increasing tension as a result of the devolution of the surrounding county councils around London. Travellers and goods want seamless journeys and don't recognise administrative boundaries. With the goal of delivering an optimized transport experience we advocate for more power and influence of the Greater London Assembly. This will ensure an integrated approach, keeping projects on their anticipated delivery dates, while at the same time adhering to good governance standards. If this is not feasible, the National Infrastructure Commission should, as the next stage, be transformed into a delivery organisation and agency as part of the Treasury, which will coordinate infrastructure investments.

Housing – what and where?

We must anticipate and plan for changes in the type and location of housing over the next 30 years. What is the real preference of how people would like to live? If that is suburbia (house, garden, and car on the driveway) it is not sustainable (given the increasing population) when considering the demands for all the different type of services (e.g. water, sewage, transport, health care and more).

With the average age increasing, it is likely that more and more people will want to have relatively easy access to a wide range of services from leisure (cinema, museums, parks), to healthcare, to mobility. To deliver that efficiently people will want to move into the city or urbanised centres. At a minimum the government should not support or subsidise further suburban sprawl of London.

In our view London and its satellite cities should densify and develop on Transit Oriented Development principles only. For this reason we strongly support the GLA in her efforts to densify specific areas in the Central Area of the City such as Paddington.

Question 5. How have major metropolitan areas in other countries responded to similar challenges and priorities? Are there any lessons to be learned and applied in London?

Example: Hong Kong

Hong Kong is an example of a highly integrated city from a transport and planning perspective.

Its key aspects include:

- The Masterplan & Vision are supported by all stakeholders;
- National and city interests are aligned as a result of the governing structure. Planning, funding and operations are close and taken into account with every decision on investment and operations.
- Image of Public Transport: you have a higher status if you live on top of or within close range of a Metro station



Further information

We would be delighted to engage with the Commission to provide further explanation and to participate in the discussion surrounding the challenges.

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