

**UK2070 Commission Response to
The Call for Evidence
by
National Infrastructure Commission
on
The Second National Infrastructure Assessment: Baseline Report**

UK2070

Introduction

The UK2070 Commission is an independent inquiry, into the deep-rooted spatial inequalities that exist across the UK. Its purpose is to identify strategies and policy initiatives to transform the economic performance and social conditions of the UK's nations and regions. It is chaired by Lord Kerslake.

The UK2070 Report '[Make No Little Plans](#)', (February 2020) sets out a 10-Point Action Plan in Annex A, The UK2070 Commission has also published a report on the impact of the COVID-19 pandemic – '[Go Big: Go Local](#)'. The work of the UK2070 Commission draws upon evidence submitted to it, or research commissioned by it which are particularly relevant to the Net-zero Inquiry, and are on its [website](#).

The detailed answers to the consultation's questions are attached. There are however three overarching points we would want to make:

1. There is no mention of industrial strategy which must form the context for all the discussion on infrastructure.
2. Levelling up is seen entirely as a location/place-based issue and related to issues of productivity, without any serious consideration of the social dimension of spatial inequality. The key issue of levelling-up is treated in a very narrow way being limited to supply side issues of physical connectivity. In addition it is critical that the NIC translate the metrics on regional connectivity that have been set out in the Levelling Up White Paper issued 3rd February into a programme of action.
3. The NIA consultation is limited in its consideration of the impact of the switch to zero-carbon on public finances (e.g. EVs) even though there is discussion about charging infrastructure.

There are also a number of points in the report which give rise to concern which we would want you to take into account as you go forward with your work. These include:

- The degree to which the analysis still puts undue emphasis on conventional green book thinking for cost benefit analysis, which has now been accepted as limited and at times flawed;
- Fig 4.1 graph claims that regional variation in productivity has not changed over time. However, the turnaround in relative fortunes of London was policy driven and enabled is not considered;
- Similarly Figure 4.1 shows that there is north-south divide in economic performance, contrary to the Executive Summary; and

- It would have been helpful for the report to have explained how it fitted with the transport recommendations of Sir Peter Hendy's connectivity review.

ANSWERS TO SEPCIFIC QUESTIONS

Introduction

Question 1: Do the **nine challenges** identified by the Commission cover the most pressing issues that economic infrastructure will face over the next 30 years? If not, what other challenges should the Commission consider?

Response to Question 1: No. Governance is treated as a subset of Question 5 but is in fact a key challenge – our current system is not fit for purpose. The nine challenges do not address the institutional barriers to change which have frustrated the delivery of infrastructure strategies.

These issues and the necessary response to them are set out in the UK2070 report 'Make No Little Plans', particularly Section 3 'Creating New Institutional Structures and Processes'.

There is also a need to set the infrastructure plans within a wider national strategy for recovery and zero-carbon transition. The current exercise has the risk of being silo-based despite the best intentions. (See answer to Question 5)

This has implications for scenario and assumptions should guide infrastructure planning no in terms of demand (e.g. re the future of manufacturing) but also supply (e.g. in terms of foreign financing and ownership of infrastructure assets).

Question 2: What changes to funding policy help address the Commission's nine challenges and what evidence is there to support this? Your response can cover any number of the Commission's challenges.

Response to Question 2:

Funding policy should change in three key respects

- (i) The overall level of expenditure on infrastructure***
- (ii) The levelling up of the playing field for access to funds;***
- (iii) Fiscal devolution (refer UK2070 report [Go Big: Go Local](#)).***

This requires:

- *Establishing a £300bn 20-year UK investment fund;*
- *Lifting the 'cap' on public sector funding of major infrastructure to 3% of GDP;*
- *Supporting the establishment of regional investment banks; v*
- *Introducing a strategic approach to the sharing of the uplift in Land Values through joint arrangements and powers.*

In addition, current accounting, Green Book and other assessment processes should include:

- *A criterion of 'strategic fit' in relation to approved national or regional spatial plans;*
- *Guidelines that allow decisions to reflect regional variations in return on capital;*

- *New metrics to reflect wellbeing, environmental and other criteria that support the levelling-up of social conditions and the rebalancing of the economy*

There also needs to be a comprehensive transfer of fiscal powers to local and devolved governments, and the decentralisation of government itself.

Alongside the weakness of local government, the lack of strategic regional governance in England is a serious barrier to economic growth and therefore infrastructure planning. New locally based powers are needed to invest in the social and physical infrastructure for city regions and rural county areas. Local and central government should collaborate on strategic thinking for the four mega-regions of London and the South, the Midlands, the North and the Southwest.

Question 3: How can better design, in line with the design principles for national infrastructure, help solve any of the Commission's nine challenges for the next Assessment and what evidence is there to support this? Your response can cover any number of the Commission's challenges.

Response to Question 3:

The UK2070 Commission has not dealt with detailed design considerations but recognises the importance of these. In terms of major infrastructure investment, a more strategic landscape approach is needed, that goes beyond merely safeguarding designated landscapes.

Question 4: What interactions exist between addressing the Commission's nine challenges for the next Assessment and the government's target to halt biodiversity loss by 2030 and implement biodiversity net gain? Your response can cover any number of the Commission's challenges.

Response to Question 4:

This should already be an overriding principle of the Commission's work, so it is difficult to understand why the question needs to be asked. If there is a specific difficulty that the NIC has in implementing this goal, it needs to be spelt out more clearly.

Question 5: What are the main opportunities in terms of governance, policy, regulation and market mechanisms that may help solve any of the Commission's nine challenges for the Next Assessment? What are the main barriers? Your response can cover any number of the Commission's challenges.

Response to Question 5:

In addition to the fiscal reforms that are needed and referred to above in answer to Question 2, the delivery of the level and rate of change required the following reforms to national institutions and processes are needed:

- *National Outcomes Frameworks based on the long-term national goal for 'stepping up' wellbeing, opportunities and economic performance;*
- *Establish a powerful cross-government ministerially-led committee, involving the devolved administrations, to oversee the delivery of the programme;*
- *Create a dedicated national team to develop and deliver the programme;*
- *Devolve power and funding away from Whitehall and measure success locally through outcomes supported by flexible 'block grant' funding;*

- *Establish independent institutions and commissions located outside London and the Wider South East for the Just Transition, for National Centres of Excellence and for Wellbeing & Rebalancing the economy respectively.*

In addition, a National Spatial Plan for England is required as a matter of urgency on the following basis:

- Prepared by a reconstituted National Planning and Infrastructure Commission (NPIC);
- Linked to the priorities and funding regimes;
- Endorsed by Parliament and independently audited in an annual State of the Nation Report, including infrastructure priorities and cost;
- Coordinated with the devolved administrations of the UK through a framework for cross-border collaboration;
- Integrated with approved subnational strategies and departmental programmes;
- Reviewed in line with Parliamentary cycles; and
- Be a material consideration in decision-making and development decisions.

Challenge 1: The digital transformation of infrastructure – the Commission will consider how the digital transformation of infrastructure could deliver higher quality, lower cost, infrastructure services.

Question 6: In which of the Commission’s sectors (outside of digital) can digital services and technologies enabled by fixed and wireless communications networks deliver the biggest benefits and how much would this cost?

Response to Question 6:

The UK2070 Commission has not dealt with this issue

Question 7: What barriers exist that are preventing the widescale adoption and application of these new digital services and technologies to deliver better infrastructure services? And how might they be addressed? Your response can cover any number of the Commission’s sectors outside digital (energy, water, flood resilience, waste, transport)?

Response to Question 7:

The answers to the earlier questions also apply to this. The main concern that the UK2070 Commission came across is the digital divide which is well documented. (Refer page 49 of ‘Make No Little Plans’ Report).

Reaching net zero

Challenge 2: Decarbonising electricity generation – the Commission will consider how a decarbonised, secure and flexible electricity system can be achieved by 2035 at low cost.

Question 8: What are the greatest risks to security of supply in a decarbonised power system that meets government ambition for 2035 and what solutions exist to mitigate these risks?

Response to Question 8:

The greatest risk to the delivery of a zero-carbon agenda are the same factors that have been the reason for past failure of policy over the last 50-years. With important exceptions, too little has been done, too late (often only when there is a crisis) and in a fragmented way. Sometimes the policies that have been pursued have been part of the problem. It is important to be honest about why progress has been impeded. These reasons include:

- *Conflicting UK Policies* arising from an over-centralised administrative system where priorities and action are fragmented and where departmental initiatives do not always cohere or reinforce one another;
- *Strained Central–Local Relationships* arising from the central control and detailed scrutiny of local decision-making meaning that devolved powers in practice are very constrained;
- *Flawed Strategy for Growth* that assumed incorrectly that the benefits of growth in London and the Wider South East would spill over to the rest of the UK;
- *Low Levels of Investment* compared with other advanced economies which result in under-resourced programmes of action, creating a competitive project-based culture and holding back ambition. This reinforces the pattern whereby places where economic growth is already demonstrable get the funding to the detriment of the ‘left behind’ places which cannot demonstrate a positive business case;
- *Constant Change in Policies and Delivery Agencies* which does not allow sufficient time for any programme of action to have real impact. Many initiatives change with government cycles;
- *Narrow Short-Term Measures of Success* that do not take account of longer-term generational and wellbeing impacts and are based on cost-benefit ratios, not need.

These issues constrain policy and action and are reinforced by the ability of a local authority or agency to put in project bids and deliver them. This further disadvantages places that are already disadvantaged. We must not repeat the mistakes of the past. If we learn from them, the current increasing levels of inequality can be overcome. However, it requires action on a scale that fits the task in hand, on a level with Germany post- unification.

Challenge 3: Heat transition and energy efficiency – the Commission will identify a viable pathway for heat decarbonisation and set out recommendations for policies and funding to deliver net zero heat to all homes and businesses.

Question 9: What evidence do you have on the barriers to converting the existing gas grid to hydrogen, installing heat pumps in different types of properties, or rolling out low carbon heat networks? What are the potential solutions to these barriers?

Response to Question 9:

See answer to Question 8 – there will of course be additional specific technical barriers which lie outside the UK2070 Commission considerations.

Question 10: What evidence do you have of the barriers and potential solutions to deploying energy efficiency in the English building stock?

Response to Question 10:

See answer to Question 8 – there will of course be additional specific technical barriers which lie outside the UK2070 Commission considerations. However, the retrofitting of stock is seen a major and deliverable (short-term) opportunity. The risk is that, otherwise, those who are already disadvantaged and are living in the poorest stock (and in fuel poverty) will lose out further. Energy prices will be horrific for low-income households and existential for high energy consuming businesses. Who are reportedly already increases already baking in rises of c 150%?

Challenge 4: Networks for hydrogen and carbon capture and storage - the Commission will assess the hydrogen and carbon capture and storage required across the economy, and the policy and funding frameworks needed to deliver it over the next 10-30 years.

Question 11: What barriers exist to the long-term growth of the hydrogen sector beyond 2030 and how can they be overcome? Are any parts of the value chain (production, storage, transportation) more challenging than others and if so, why?}

Question 12: What are the main barriers to delivering the carbon capture and storage networks required to support the transition to a net zero economy? What are the solutions to overcoming these barriers?

Response to Questions 11 & 12:

The UK2070 have considered these issues in the context of its Teesside Task Force. We therefore refer you to its [Report of Findings](#) and its [Background Technical Report](#). The key message is to set these policies within a wider spatial framework of action.

Climate resilience and the environment

Challenge 5: Asset management and resilience – the Commission will consider how asset management can support resilience, barriers to investment, and the use of data and technology to improve the way assets are maintained.

Question 13: In what ways will current asset management practice need to improve to support better infrastructure resilience? Your response can cover any number of the Commission's sectors.

Response to Question 13:

The UK2070 Commission has not dealt with this issue

Challenge 6: Surface water management – the Commission will consider actions to maximise short-term opportunities and improve long term planning, funding and governance arrangements for surface water management, while protecting water from pollution from drainage. The Commission will carry out a separate call for evidence on this challenge, as the Commission will deliver this as a separate study and report to government by November 2022, in advance of its other recommendations.

Challenge 7: Waste and the circular economy – the Commission will examine the role of the waste sector in enabling the move towards a more circular economy.

Question 14: What are the barriers to and solutions for expanding recycling capacity, both now and in the future to deliver environmental and net zero targets?

Response to Question 14:

See answer to Question 8 – there will of course be additional specific technical barriers which lie outside the UK2070 Commission considerations.

Question 15: What is the likely environmental impact of waste streams from construction across economic infrastructure sectors, over the next 30 years, and what are the appropriate measures for addressing it?

Response to Question 15:

See answer to Question 8 – there will of course be additional specific technical barriers which lie outside the UK2070 Commission considerations.

Levelling up

Challenge 8: Urban mobility and congestion – the Commission will examine how the development of at scale mass transit systems can support productivity in cities and city regions and consider the role of congestion charging and other demand management measures.

Question 16: What evidence is there of the effectiveness in reducing congestion of different approaches to demand management used in cities around the world, including, but not limited to, congestion charging, and what are the different approaches used to build public consensus for such measures?

(See combined answer below)

Challenge 9: Interurban transport across modes – the Commission will consider relative priorities and long-term investment needs, including the role of new technologies, as part of a strategic multimodal transport plan.

Question 17: What are the barriers to a decision-making framework on interurban transport that reflects a balanced approach across different transport modes?

Response to Questions 16 & 17:

The UK's economy is vulnerable Questions 16 & 17 are so interconnected that a single answer is given below to these two issues and questions

The UK needs a Connected Multi-Hub Economy.

- The UK needs to fill the £4bn gap in R&D investment in new R&D institutions outside the Golden Triangle as global centres of science and technology.
- The UK needs to fill the £20bn gap caused by poor local connectivity by reallocating road space; a nationwide scheduling and a major infrastructure investment programme with Transit Systems in all major towns and around 1000 miles of new, upgraded and electrified main railway lines

The need to 'level up' the UK economy must be integrated whilst achieving net zero carbon by 2050. This means improving connections generally from high inequality areas to major opportunity areas; building stronger city regions through broadening catchments and reinforcing corridors linking access to jobs and education; improving connections with international gateways and with London; and enhanced connections for towns on the coast.

In the UK some 60% of the connectivity weakness is inter-city. This contrasts with the situation, for example, in the Netherlands and many parts of Germany, which have integrated ticketing systems. As a result, the same passenger card

and/or electronic ticket can be used across multiple modes of transport – like a nationwide Oyster card type of system – providing seamless public transport.

Levels of connectivity are also affected by the digital disparities persist across areas of the UK. London has 7.0% internet nonusers, compared with 12.1% in the North East of England¹⁴. The changing patterns of work and travel are increasingly driven by the quality of the digital infrastructure of the UK. The implications have been exposed by the pandemic in terms of access to services, ability to work from home and the quality of home schooling, all of which have benefited the better off. WFH will impact on the fare-box funding of public transport – WFH is good if your home environment is conducive - not if otherwise and rely on public transport - and of course many lower income families have never had the luxury of working from home or the space or technological capacity to do so, even if their job is suitable for WFH.

It is now accepted that to meet the Government's objectives the UK must put in hand measures to:

- Join up our scheduled public transport system;
- Bridge the digital divide;
- Reduce unreliability of the public transport network caused by road and rail congestion;
- Eliminate diesel generated carbon emissions, and improve air quality;
- Tackle serious gaps in the transport network;
- Reduce highway capacity to support more active travel;
- Reverse the continued increase in dependency on car-based travel;
- Give increased funding priority to peripheral and 'left behind' areas; and
- Give greater significance measures of deprivation used in transport policy.

This connectivity revolution must have five elements.

1. The re-allocation of road space to support a planned expansion of walking and cycling for short-distance travel in local neighbourhoods.
2. A nationwide scheduled public transport network which is user-friendly, electrically-powered, reliable and accessible by walking and cycling.
3. Equal connectivity to well-off/high accessibility places and less well-off/peripheral places by a national public transport system which ties together various public transport services.
4. The construction of a sustainable national and local logistics network which reduces dependency on HGVs, with electrified multi-modal trains linking nations and economic regions of the UK; the urban and metropolitan connecting people and jobs locally; and across the urban-rural continuum, connecting the most disadvantaged places to services and opportunities. This will take time to implement fully but much can be done straight away as the economic recovery builds.
5. Bridging the Digital Divide by an accelerated roll out of full digital coverage across the UK, specifically targeted at less economically prosperous parts of the country.

Creating the network to meet these challenges requires ambition. It must secure seamless integration of movement at three levels: intercity, intra-urban and reaching beyond to marginalised and remote communities.

This is essential if the UK is to reduce carbon emissions, level up our economy, secure new international investment in the economy and help tackle the obesity crisis.

Securing the connectivity revolution will require fundamental policy shifts, including

- new services and upgrades along the east and west coast main line corridors;
- a seamless interurban express bus network;
- a rail decarbonisation strategy and a programme of rail electrification; a strategic rail freight network with multiple distribution centres;
- and an integrated zonal fares system across scheduled public transport.

These are ambitious investment proposals, but they are realistic, being similar in scale to the motorway and road building programmes which were the centrepiece of UK transport strategy in the 1960s, 1970s and early 1980s. It aims to give the UK the same quality of public transport and active travel networks which are commonplace in many other European countries.

The Greengauge21 study for the UK2070 Commission of these new levels of connectivity require the completion of HS2/Northern Powerhouse Rail, with HS2 services extended to the South West, Scotland and Wales to connect all major city regions. This needs to be complemented by the east-west northern and midland axes as set out in the UK2070 February report. There would be nearly 1000 miles of new, upgraded and electrified main railway lines, alongside a programme of line re-openings for areas 'left behind' by the Beeching cuts. Intra-region networks would be enhanced for metropolitan regions and international ports.

Light Rapid Transit (or similar technology) should be constructed across all cities with populations over 175,000. All this would require a network of 44 hub stations and mini-hubs, and new estuarial and river rail crossings. New distribution centres would also be created.

The key components are summarised as follows:

Key Outcomes of a Pan-UK Network

Strategic Outcome 1: Intercity Rail Excellence to become the mode of choice for longer distance journeys with:

- *HS2 'Y' shaped network completed and extended to 'X' configuration to allow HS2 to perform a cross country (inter- regional) function and link other major cities with London.*
- *The implementation of the Midlands Rail Hub proposal, and High-Speed North placing cities at the heart of the high-speed network.*
- *Upgrading the East Coast Main Line (ECML) as a high priority alongside HS2.*

Strategic Outcome 2: Metropolitan and City Regional Connectivity to meet the need for enhanced metropolitan networks and to spread the benefits of intercity connectivity by:

- *New metropolitan SBahn style rail services and networks for Birmingham, Bradford, Manchester and Leeds.*
- *New metro systems for Bristol, Cardiff, and Southampton and expanding*

the Nottingham Light Rapid Transit (LRT) System.

- *LRT (or equivalent) systems for all cities over 175,000 population, accompanied by major improvements to the public realm in urban centres, with pedestrianisation measures to prioritise active travel alongside an appropriate zero carbon transit system.*

Strategic Outcome 3: Service integration across the urban-rural continuum to connect with the worst social mobility areas in remote former single-industry areas (for example coal and steel-making) and coastal areas, especially on the eastern side of the country (in both England and Scotland) through infrastructure and operational improvements including:

- *Rail line re-openings connecting with interurban express bus services through a set of mobility hubs.*
- *New rail estuarial and river crossings, to expand the catchments and economic strength of disadvantaged coastal communities.*
- *An integrated national fares and public transport information system for ease of use, and to support concessionary fares systems for those*

ANNEX A: The UK2070 10-Point Plan

- **A Spatially Just Transition to Zero-carbon** to seize the opportunity to tackle climate change and re-balance the economy, ensuring there is an explicit spatial dimension to the UK's plan to become zero carbon by 2050.
- **Delivering a Connectivity Revolution** investing in a new connectivity revolution, transforming the connections between cities, within cities and beyond cities to poorly connected towns through increasing infrastructure investment to at least 3% of GDP per annum.
- **Creating New Global Centres of Excellence** harnessing increased investment in research and development to create 'hub and spoke' networks of excellence and growth across the country comparable to the economic impact of the 'golden triangle' of London, Oxford and Cambridge.
- **Strengthening the Foundations of Local Economies** by strengthening economies in disadvantaged towns and empowering local leadership to develop economic capacity and promote resilience and wellbeing.
- **Rethinking the Housing Crisis**, recognising housing as part of national infrastructure and ensuring that the supply of new housing is aligned with the needs of the economy.
- **Harnessing Cultural & Environmental Assets** increasing the focus of policy and funding on assets outside of London.
- **Implementing a Comprehensive Devolution**, shifting power and funding away from Westminster and Whitehall through a radical programme of devolution and allowing different places to progress through different levels of devolution according to local ambition, need and capacity.
- **Future Skilling the UK** tackling the historic under-performance of the UK on skills through national plans to raise attainment levels, especially in those skills needed to achieve the levels of the best performing places.
- **Levelling UP Access to Funds** tripling the size of the Shared Prosperity Fund for 20 years, with clear spatial priorities, delivering an extra expenditure of £200bn over that already planned.
- **Shaping the UK2070 Future. A National Spatial Plan for England** tasking the National Infrastructure Commission with creating a national spatial plan for England and linking to those in Scotland, Wales and Northern Ireland, to guide investment and to support local and regional spatial plans.

Changing the Way Decisions are Made

In order to deliver the above actions a powerful ministerially-led cross- government committee needs to be established with a dedicated team, to oversee delivery and embed levelling up, supported by spatial analysis, flexible funding and new measures of success, including a review of the Green Book appraisal methodology on the way major projects and local priorities are funded and assessed.