

The National Infrastructure Commission: National Infrastructure Assessment Call for Evidence, October 2016

Response from the Common Futures Network

Key Points

- The Common Futures Network (CFN) is an independent network of development professionals. We believe that a new and explicit development framework is needed for England
- Infrastructure investment is a means to an end and not an end in itself: it secures regeneration and facilitates planned development
- The national infrastructure assessment should explicitly reflect and support the national industrial strategy; but we are not sure that this linkage fully exists.
- Agreed national goals and outcomes, and not simply extrapolated trends, should be the basis for infrastructure investment
- For long term infrastructure plans, cost benefit analysis, as typically applied, can be spurious, and a wider approach to evaluation is needed, particularly in areas of market failure
- Intellectual capital is critically important to the 21st century; the knowledge-based economy and research investment should be included in the current assessment.

Context

This response has been prepared by Common Futures Network (CFN). CFN has been established in response to a perceived need for a more explicit understanding of the spatial dimension in setting national priorities, particularly for England, which lacks any form of national development framework.

CFN is independent of political, business or other sectional affiliations and our members include professionals with extensive experience in UK planning practice and consultancy, utility planning, regeneration, transport planning and academia, across the UK and internationally.

Our recommendations arise from a symposium held in December 2016 supported by the US Regional Plan Association and the Lincoln Institute of Land Policy, following which CFN has prepared an Interim Prospectus which sets out eight key propositions for tackling short and longer-term national spatial priorities. A summary containing these Propositions is at Appendix 1, and a copy of our Interim Prospectus is attached as supplementary evidence. Overarching this is our perception of the need to create a new agenda for England and the UK to promote a portfolio of actions based on:

- The global role of England and London within the UK
- A new devolved development programme building on sub-national strengths
- The need to deliver a new urban agenda designed to recognise, support and nurture the inherent growth potential of the networked system of cities outside of London
- A new rural agenda as a basis for connecting the rural hinterland of England
- Securing the natural capital of England
- An integrated infrastructure strategy rebalancing opportunities within England as part of the UK.

Our response focuses on the central purpose of your consultation, namely, to ‘inform the Commission’s understanding of the wider issues surrounding the review (it has been asked to undertake’. It has regard to the three objectives of the NIC, to:

1. support sustainable economic growth across all regions of the UK (our emphasis added),
2. improve competitiveness, and
3. improve quality of life.

Our response reflects two central principles. First, that infrastructure investment is a means to an end, not an end in itself. It takes place to secure regeneration and service planned development as well as catering for established and anticipated needs. It can lead development but more importantly should be used to support wider economic and social goals. Second, that infrastructure investment has a major role to play in rebalancing the nation and reducing the unnecessary disparities in the patterns of development, competitiveness and quality of life, and the increased costs associated with regional imbalance.

This response is also based on the understanding that locally based integrated action will be necessary to deliver the full benefits of any infrastructure investment. This applies particularly to functional socio-economic areas (e.g. city regions) where there is a need for integrated transport action across a whole suite of policies, for example, inter-modality, ticketing, parking, environmental standards and social inclusion.

Consultation Questions

CFN considers that all the questions in your consultation are predicated to different degrees on there being an agreed development framework for England and thus the UK as a whole. Because there is no such vision or framework, there is no agreed context for answering these questions.

Our concern is reflected in the first question which is expressed in terms of what is needed for 'your city or region'. Whilst the needs of any particular city or region are matters that need to be taken into account, they need to recognise the following:

- The competitive future of the nation will be determined by networked systems of cities, and not cities or regions acting in isolation.
- Many issues can only be addressed at a national scale in terms of identifying needs and aspirations, not least the implications of rebalancing our economy and society.
- Sound infrastructure planning cannot be founded on a bottom-up set of proposals alone, evaluated solely on the basis of forecasts and cost benefit metrics, which are often highly inaccurate¹. It needs a clear set of national priorities, and a strategy to address them and a programme to deliver them.
- These issues must be basic considerations in developing strategy. They must be integral to the option formulation and strategy making process. and not confined to the assessment of individual projects.
- To the extent that bottom up needs and aspirations are considered as an input to the National Infrastructure Assessment, these should relate to functional socio-economic areas, and not individual district council areas in order to deliver better urban places in terms of housing, environment, nature, internal connectivity

CFN's response therefore focuses on your 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?'

¹ Arguably the most accurate forecasts of use of the Channel Tunnel were those produced for Sir Alfred Watkin in 1882 (Watkin predicted 4.5m journeys and the actual figure in 2003 was 6.3m): contemporary forecasts were inaccurate and some wildly so (No. 10 Policy Unit predicted 48m) (See Nicholas Faith, *The Right Line* (2007). For critiques of the rationale and accuracy of forecasters see Philip Tetlock, *Expert Political Judgement* (2006), Bent Flyveberg et al, *Mega Projects and Risk* (2003), and on the case for multi criteria based planning Omega Centre, UCL, *Mega Projects: Lessons for Decision Makers* (2008)

Integrating Infrastructure Planning into a Wider Development Framework

The quality and capacity of the transport, utilities and IT networks and the distribution of government research institutions and funding will be key to the shaping of our towns, cities and regions. The NIC provides a fresh opportunity to take an overview of infrastructure needs and priorities, both in terms of physical components and operating systems. As the Prime Minister has recognised, transformational change is required to rebalance the nation in terms of the distribution of opportunities for social as well as economic development². We cannot continue only to pursue historic patterns of demand nor inherited constraints on capacity, either in new development, in regeneration or in the opening of new markets for business and housing.

While the NIC intends to take a scenario-based approach in its assessment, it runs the risk of being constrained by a lack of spatial context in the absence of a wider national development strategy, and the fact that housing and other aspects of economic infrastructure are outside its remit. Infrastructure planning and investment needs to guide and respond to development needs and open up opportunities in areas of need and opportunity rather than be driven solely by the 'bow wave of past demand'. It needs to recognise that major investments can lead to unforeseen opportunities. For example, pursuing the eastern approach of the Channel Tunnel Rail Link, rather than the southern approach suggested by conventional appraisal, ultimately led to the Olympics³. As is proposed in the Industrial Strategy Green Paper, agreed national outcomes and goals rather than extrapolated trends should be the basis for investment. Otherwise highly undesirable trends will simply become self-fulfilling.

With the notable exception of HS2 and 3, a trend-based approach has resulted in overwhelming bias towards areas of demand rather than to areas which need to be transformed, reinforcing the problems of peripheral areas, and favouring investment in already prosperous and congested areas.

Looking ahead there must be serious doubts about the reliability of economic forecasts as the sole basis for rational decision making, not least the past unreliability of trend-based and other forecasts, coupled with the huge uncertainties created by Brexit and by the new Trump administration policies in the USA⁴. It is therefore necessary to be explicit about the balance between meeting foreseeable demands and capturing overlooked and unforeseeable opportunities.

² The Prime Minister Theresa May, has argued that we need 'vision, determination and a plan to drive growth up and down the country – from rural areas to great cities'

³ See Omega Centre, UCL Project Profile: Channel Tunnel Rail Link (2008)

⁴ See Nicholas Taleb, *The Black Swan* (2007) for a critique of long term economic forecasting. Reviewing academic papers Taleb found that there was no convincing evidence that economists had the ability to predict the future and that, where they showed some ability, their predictions were only slightly better than random ones

New Choices

The shopping list of potential schemes will always be greater than available resources. Without a strategy to rebalance the distribution of people and jobs there is a risk of *ad hoc* selection on a project by project basis. Programmes need to be developed that are integrated with other investment if their outcomes are to meet wider national social and environmental needs and objectives.

Similarly, the time horizon that needs to be used for transport and utility planning and the age of the assets is very long indeed. Britain's trunk railway system is over 150 years old; significant parts of the trunk road system were planned by the Romans. Without a national framework in which to set new infrastructure investment, it is impossible to demonstrate that new transport investment decisions are being made on a consistent basis with other national policy⁵. Nor is it possible to demonstrate that they will result in net economic growth as opposed to displaced investment.

In the past, national choices may have been sub-optimal because:

- National priorities have been set without any explicit wider national development framework (e.g. airport capacity);
- Consultative processes have been unnecessarily confrontational because of the ad hoc nature of the project justification;
- They have been unable to fully exploit synergies at project interfaces, (e.g. between Crossrail and HS2);
- They have not fully anticipated the challenges of making network connections when determining the location of new power stations or airport expansion;
- There has been no basis for taking account of cumulative national impacts and benefits, because of the project-based (and trend-based) assessment processes involved;
- Critical decisions on the location of national investment in government research have been taken in isolation and usually in favour of already prosperous places⁶.

⁵ See Ian Wray, *Great British Plans* (2016) for a discussion of the merits of goal and objective based planning against cost benefit analysis where long time horizons and high levels of uncertainty prevail

⁶ In his first statement as Chancellor in 2010 George Osborne was keen to protect investment in science. Announcing several major commitments to funding in new and expanded scientific projects, the Chancellor said 'I have decided to protect the science budget...at £4.6 billion a year'. Every major project in the Chancellor's list was in London and the south: the UK Centre for Medical Research and Innovation at St. Pancras; the Molecular Biology Lab in Cambridge; the Animal Health Institute at Pirbright, and the Diamond Synchrotron in Oxford.

Recommendations

As argued above, infrastructure investment is a means to an end, not an end in itself. The need for an agreed context for future opportunities and risks is critical to major investment decisions. The NIC has a key role to support the development of clear strategic plans for functional socio-economic areas, through working with local business, community and political leaders to nurture strategic place making. In the short term a key mechanism for doing so, would be for the National Infrastructure Assessment to be explicitly linked to the Industrial Strategy, given that the latter is intended to be place-based.

In the longer term, the National Infrastructure Assessment should:

- Recognise the need to reshape the economic and social geography of England, having regard especially to the Industrial Strategy and Housing White Paper
- Be set within and serve trans-regional development frameworks which provide for the anticipated future rebalancing of development in England, as well as opening up the new development areas required to meet some 10m additional population by 2050
- Reinforce the connectivity of networks of cities, including London, in the speed and capacity of their virtual and transport links
- Reduce delay and conflict, especially in the planning system, through an indicative framework of preferred development areas for renewable and other energy supply and infrastructure
- Be phased in advance of anticipated growth, not retrofitted
- For strategic infrastructure, be assessed within an England-wide evaluative framework for the overall programme of infrastructure and its environmental impact
- Help create new markets for development that better serve areas of need
- Recognise the need to make best possible use of the massive infrastructure assets we have inherited, including their structural maintenance.

Common Futures Network are keen to contribute further to the NIC's thinking leading to its Vision and Priorities document planned for summer 2017. Those network members with the greatest expertise to offer would be pleased to meet with NIC officers and/or board members to elaborate on this response.

Responses to Individual Questions

Question 1: What are the highest value infrastructure investments that would support long-term sustainable growth in your city or region?

Other than inviting the submission of existing LEP and local strategies, there appears to be little consideration of national geography in the NIC's call for evidence. It is therefore difficult to see how the first of the NICs objectives – to support sustainable economic growth across all regions of the UK will be properly addressed, nor how the infrastructure assessment will give necessary support to the Industrial Strategy. Where Office for National Statistics and other trend-based projections underlie the analysis of initial supply-demand balances in each sector, these would serve to reinforce many undesirable long term outcomes. In particular, irrespective of the level of transport and other basic infrastructure investment, London's growth is likely to encounter a development threshold caused by housing constraints⁷, whilst perfectly sound infrastructure in other parts of the country will be underused.

German law on spatial planning stipulates that infrastructure should be available to the population over the whole territory in an equitable way. In addition to cost benefit and environmental impact analyses, all strategic projects are subject to a 'spatial effects' analysis. A significant part of the long term budget for transport investment is reserved for projects which would not feature strongly on cost benefit grounds, but have a positive score on spatial effects: 60% of this budget was allocated to former East German states following reunification⁸. A similar policy should be considered in the UK.

We note that the 2014 National Infrastructure Plan⁹ had a specific chapter on science and research infrastructure, acknowledging the importance of research investment, technology investment and intellectual capital. This was absolutely correct, but it is not clear if the current assessment will address this matter, and in particular the distribution of government funded research and government research institutes. Given that research is a basic driver of the knowledge based economy, we consider it crucial that this issue is properly addressed by the assessment¹⁰. There is very little up to date evidence on the issue and thus basic research needs to be commissioned¹¹: historic research indicates that circa 90% of the UK government research institutes are located in or close to the 'golden triangle' (Oxford, Cambridge, London).

⁷ See the discussion of this issue in *Cities Are Crucial: Report of the TCPA Urban Policy working group*, Tomorrows Series Paper 17, July 2016 <https://www.tcpa.org.uk/cities>

⁸ Ecotec/Faber Maunsell, *Surface Infrastructure of National Economic Importance: A Study for England's Regional Development Agencies*, January 2004

⁹ HM Treasury/Infrastructure UK, *National Infrastructure Plan*, December 2014 (chapter 13)

¹⁰ See for example C. Kirk, and K Cotton *The Cambridge Phenomenon: 50 Years of Innovation and Enterprise*, (2012), and Ian Wray *Great British Plans*, Chapter 9, *The Cambridge Paradox* (2016)

¹¹ We welcome and support the commitment to carry out such research given in the *Industrial Strategy Green Paper*

Question 2: How should infrastructure most effectively contribute to the UK's international competitiveness? What is the role of international gateways for passengers, freight and data in ensuring this?

In our view the key concept is knowledge, rather than data or information (this includes tacit knowledge structured and exchanged within social and institutional settings¹²). Knowledge gateways will be critical to the further development of the knowledge economy, machine intelligence and artificial intelligence. They are created by the distribution of high level research in both private and public sectors and this in turn is determined by the location of relevant institutional platforms. We discuss in our response to Question 1 the critical importance of the distribution of government research institutions. Of almost equal import is the distribution of cultural spending, including national cultural institutions and the BBC.

Question 3: 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?

It is important to consider the potential of investment in new nationally significant infrastructure to unlock new major housing (and economic) development. This is implicit in our overarching recommendation above that key infrastructure decisions should be considered within a wider development framework for England.

Question 12: What improvements could be made to current cost-benefit analysis techniques that are credible, tractable and transparent?

A common methodology to develop needs assessments across infrastructure sectors and to compare alternative options for addressing an agreed need is helpful (such as alternative routes for a rail or road link). Even so, there is a need to be more explicit about how competing national interests are traded off, e.g. between national infrastructure needs and protecting key landscapes of national significance.

However, cost benefit analysis as typically applied is unable to capture the potential benefits of transformational effects on economic growth and productivity; whilst its apparent precision can be spurious and misleading. Infrastructure investment operates over extremely long time periods, for which detailed forecasting is difficult and unreliable. This is particularly needed in the current uncertainties surrounding by Brexit and such matters as determining an appropriate rate of return in an ultra-low interest rate borrowing environment.

As indicated above we believe that in determining strategic infrastructure investment there is a need for other rational methodologies, including empirical studies, imaginative synthesis, generalised physical, environmental and social impacts (including spatial effects on the German model), and the use of goals, policies and multi criteria assessments¹³. This is the broad approach set out in the Industrial

¹² See Karl Polanyi, *The Tacit Dimension* (1966) and Jane Jacobs, *The Economy of Cities* (1969)

¹³ Peter Self, *Econocrats and the Policy Process: The Politics and Philosophy of Cost Benefit analysis* (1975) is a good introduction to these issues

Strategy Green Paper, which identifies the need for infrastructure decisions to underpin and re-connect weaker local economies (rather than be determined solely on the basis of a cost benefit analysis rate of return)¹⁴. A wider approach to evaluation is needed in areas of market failure¹⁵. Otherwise success breeds success, congestion breeds congestion, and more than half the country is effectively abandoned. We have seen in the Brexit vote (and indeed in the election of Donald Trump) the profound electoral, political and social cohesion consequences of such tacit policies.

It is therefore necessary for policy to be able to respond to a range of possible futures for the nation, and not to be based on assumptions that past trends in development (whether growth or decline) will continue. In addition, account needs to be taken of the importance of achieving a more balanced national geographical pattern of development, even if that does not appear to maximise conventional measures of economic welfare.

Question 13: How will travel patterns change between now and 2050? What will be the impact of the adoption of new technologies?

Any subsequent infrastructure strategy document should better reflect the type of country that the Prime Minister has said that she wants to create, giving more equal opportunities for all. As we argue above, this would have a different distribution of activities across the country than is implied by trend-based sectoral forecasts which are typically embedded in current decision-making. Infrastructure investment would be an important means of unlocking or creating opportunities outside the London mega-region.

In advance of this spatial vision being developed through the work streams that CFN suggests (see appendix), alternative spatial futures could be used.

Question 22: What are the most effective interventions to ensure the difference between supply and demand for water is addressed, particularly in those parts of the country where the difference will become most acute?

As research by Manchester University for the RTPI has shown¹⁶, some of the areas of most acute water shortage are also currently areas of development pressure. Other parts of the UK such as North West England are in water surplus. An effective policy for rebalancing the UK's economy and society would reduce the need for extensive investment in new water supply capacity and distribution.

¹⁴ For example page 114 notes that investment should support the rebalancing of the economy; and page 116 that additional infrastructure spending should unlock growth in areas where connectivity is holding it back

¹⁵ The 30 year history of regeneration investment in Liverpool is pertinent. Both the underground loop link rail system and the inner ring road could not have been justified in terms of cost benefit analysis – all the trends were negative. While once in terminal decline, Liverpool has now restructured its city centre economy in leisure, tourism, retailing and national conferences. The inner ring road (built as an 'act of faith') was crucial in facilitating the £1 billion private investment in Liverpool One. Over the past two years Liverpool has had a higher GVA growth rate than any other northern city.

¹⁶ RTPI/ Manchester University, A Map for England (2012)

http://www.rtpi.org.uk/media/11202/map_for_england_final_report_2012_.pdf

This submission was prepared by Vincent Goodstadt, Corinne Swain and Ian Wray, taking into account the proceedings of the symposium held on 6 and 7 December 2016 and comments received subsequently. This paper has the broad support of Common Futures Network

Contacts for CFN:

Vincent Goodstadt vannegoodstadt@btinternet.com

Corinne Swain corinne.swain@arup.com

Ian Wray wray.i@btinternet.com

SUMMARY PROPOSITIONS OF COMMON FUTURES NETWORK

Towards a Common Future

The Prime Minister has set out the “*need for vision, determination and a plan to drive growth up and down the country - from rural areas to our great cities.*”

The Prime Minister’s ambitions require an integrated framework of action, which gives confidence to those who want to invest in the future of the country. The empowerment of local communities through the devolution and localism agenda needs to be strengthened, by providing a clearer context for local decision-making. Business development needs confidence in the longer-term future for investment.

There exist the foundations of such an integrated approach for Scotland, Wales and Northern Ireland, as set out in their respective national development frameworks - but there is no equivalent for England. The Government’s initiatives for a National Industrial Strategy and a National Infrastructure Assessment are welcome but these are not sufficient to be successful in delivering this agenda in full.

The Common Futures Network (CFN) has therefore come together to respond to the interlinked challenges of inequality, low productivity, economic imbalance, and social and political cohesion. It seeks to transform rhetoric into action through a consensual, forward-looking and independent *Agenda* for shaping the future of England over the next 50 years.

Opportunities for Change

The following opportunities to rebuild the nation need a national framework of action:

- A better national balance of investment, research, culture, people and jobs, both urban and rural
- An economic strategy that harnesses the UK’s full potential as a global mega-region
- An urban policy which sets out the roles of the major cities and their regions
- Securing the global role and functioning of the Capital Region of London
- Enhanced relationships between devolved administrations
- An infrastructure framework that underpins these, including movement and energy.

These challenges are overlain by the impacts of climate change and the potential implications of BREXIT. They are also hampered by fragmented administrative areas, and short-term outlooks. We need to change the way we do things!

A New Agenda for England

We need to build on the existing initiatives by harnessing fully the potential opportunities created by England’s position as a *global economic region*. A fresh national agenda will help unite the nations of the UK by expressing their separate but interlinked identities, needs and ambitions. A new agenda is needed to translate government objectives into their spatial implications throughout England. Conversely, we need to consider geographical implications much more explicitly than at present when national policy decisions are taken, including those related to mainstream funding.

The immediate actions to tackle the short-term and longer-term national development priorities are therefore set out in the following eight Propositions. These could be informed by an independent body (comparable to the Office of Budget Responsibility).

The Propositions

Proposition 1: Creating a New Agenda for England to promote a portfolio of actions recognising geography based on:

- The global role of the London mega-region within the UK
- A new devolved development programme building on sub-national strengths
- An urban agenda to support the networked systems of cities
- A new rural agenda as a basis for connecting the rural hinterland of England
- Securing the natural capital of England
- An integrated infrastructure strategy rebalancing opportunities within England as part of the UK.

Proposition 2: Introducing a place-based Industrial Strategy to harness the agglomerative capacity of the UK, and England in particular, as a global mega-region, and a refreshed regional development programme reducing peripherality, identifying areas of industrial specialisation, linking research and development, and setting priorities and goals for underperforming parts of the country.

Proposition 3: Integrating Infrastructure to move the agenda beyond re-engineering the nation to rebalancing opportunities within England; also, opening up new development areas required to meet the additional 9m population by 2040.

Proposition 4: Building Networked Systems of Cities: Understanding and maximising functional linkages between cities, building upon, but not confined to, the three existing trans-regional priorities (Northern Powerhouse, Midlands Engine, and the Cambridge-Milton Keynes-Oxford Corridor), and other nationally significant opportunities (e.g. Heathrow-Swindon-Bristol), as well as the HS2 corridors.

Proposition 5: Securing the Global Role of London: Ensuring action throughout the London Capital Region supports the commercial, labour and housing markets upon which the future of London as a global city depends, through a high level non-statutory public – private forum, and also strengthening London’s relationships with other major UK cities.

Proposition 6: Facilitating Devolution: Reinforcing the potential created by the emerging framework of Combined Authorities through a more structured and incentivised basis for collaborative action, whilst retaining a safety net for vulnerable towns.

Proposition 7: Identifying the Components of a Framework: Based on these propositions identifying the key issues that must be decided at a national level for England in terms of the *National Economic Hubs, Corridors and Networks* in support of the *National Flagship Projects* and the *National Priorities for Collaborative Action*.

Proposition 8: Linking Devolved National Frameworks through the British Irish Council’s Working Group to provide a common context for cross-border cooperation, creating synergies and identifying cross-boundary and external relationships and nation-wide approaches to increasing self-sufficiency in food, raw materials and energy.

The Next Steps

These Propositions will be taken forward (and amplified) in a prospectus for a *Framework for England*. This will include seeking cross-party support. The form of follow-up will be responsive to the outcome of liaison with sponsors and partners.