

UK strategic infrastructure planning – a post-National Infrastructure Strategy review: ICE discussion paper and consultation

April 2021

Background – why we are doing this study

1. The publication of the National Infrastructure Strategy in November 2020 and the recent Annual Monitoring Report¹ marks the end of the first round of infrastructure planning in the UK using the new approach outlined when the National Infrastructure Commission was founded in 2015.
2. The National Infrastructure Commission's Framework Document² commits HM Treasury to conduct a review of 'the NIC's performance and delivery on its core objectives and responsibilities' at least once every five years, as well as reviewing 'the need for its function, its form of delivery, its efficiency, its governance and its relationship with the department'. This review is due in the next 12 months.
3. The second round of national infrastructure planning will begin later this year and ICE believes the time is right to look at what worked, what didn't and what needs to change in order to deliver this strategic infrastructure plan more effectively for the public.
4. Infrastructure professionals were among the most vocal proponents of a new approach to strategic infrastructure planning in the UK³ and we now seek input from civil engineers, infrastructure system experts and those who share our aim of doing things better, faster and greener. The responses to this consultation will help guide the second stage of our review in which we will outline recommendations on how to improve the system of strategic infrastructure planning and prioritisation.
5. We are well versed in the challenges we face in the coming decades to sustainably implement the complex infrastructure changes that we need to meet population growth, demographic shifts, imbalances in economic prosperity across the nation and, of course, decarbonising the economy – all at a time when skills are going to be stretched.
6. Policymakers need to make decisions in a timely and effective way and these decisions must be founded on the best available evidence. The framework that has been in place for the last few years has been a good starting place – but we must learn from the past to make sure the strategic planning framework we use over the next five years is the very best that it can be. This is your chance to contribute to recommendations on how to improve the system. The full set of questions are provided at the end of this document.

¹ National Infrastructure Commission (2021) [Annual Monitoring Report 2021](#)

² HM Treasury (2017) [National Infrastructure Commission Framework Document](#)

³ ICE (2010) [State of the Nation: Infrastructure 2010](#)

Recap – how did we get here?

What problem was a National Infrastructure Commission set up to solve?

7. In October 2015, Chancellor George Osborne announced the National Infrastructure Commission's (NIC) creation as part of the Spending Review.⁴ However, the genesis of the current UK approach to strategic planning goes back further than 2015, notably to the Armitt Review of 2013⁵ and arguably to the Eddington Transport Study of 2006.⁶
8. The problem that gave rise to the need for change was a growing realisation that decision-making on strategic infrastructure system interventions suffered from prevarication and policy reversals. Where decisions were made, these were often short term, siloed and lacked cross-party (and sometimes intra-party) consensus. The impact was an infrastructure system rapidly running out of spare capacity across strategic networks, particularly transport and energy, impeding growth and productivity by dissuading long-term investors in the UK.

Armitt Review – Diagnosis of the issue⁷

The experience of the past decade with High Speed One, and more recently the London 2012 Olympics, suggests that Britain has made significant strides in delivering big infrastructure more effectively. Our failure is in reaching an evidence-based view on what needs to be delivered and then in sustaining the political and public consensus that will provide confidence to investors. This is critical in an environment where 60% of Britain's key economic infrastructure is held in private hands.

9. The principal obstacles inhibiting long-term stable investment were identified as:⁸
 - a lack of long-term strategic planning that factors in future changes in need
 - policy uncertainty due to changes in government, leading to a stop-start approach to investment
 - the policy debate not being transparent on how the public will need to pay
 - a lengthy planning process which has to decide on strategic projects without a blueprint
 - a regulatory framework that focused on short-term efficiency and consumer protection rather than long-term need.
10. Fixing these problems and creating an effective strategic infrastructure planning process would bring many benefits. Our recent study,⁹ which outlined 12 guiding principles for strategic infrastructure planning based on global best practice, reiterated these benefits as:
 - maximising the infrastructure system's contributions to meeting national objectives via a package of investments and other measures that is greater than the sum of its parts
 - improving public confidence in the process via transparent and inclusive decision-making
 - growing investor and supply-chain confidence, unlocking private finance options and supply-chain investment in delivery capability
 - improving project delivery and benefits realisation via better coordination of the national strategy with any sectoral or regional plans
 - improving the affordability of future investments via supporting sustainable economic growth.

⁴ HM Government (2015) [National Infrastructure Commission: Terms of Reference](#)

⁵ Sir John Armitt (2013) [The Armitt Review](#)

⁶ Sir Rod Eddington (2006) [The Eddington Transport Study](#)

⁷ The Armitt Review

⁸ Ibid

⁹ ICE (2019) [Enabling Better Infrastructure: 12 Guiding Principles for Prioritising and Planning Infrastructure](#)

11. These are the benefits we'd expect to see over the long term. From a public and political point of view, the value of achieving these benefits is significant, enabling the infrastructure system to deliver more for less while also driving down the cost of operating the system and providing interventions.

How would a National Infrastructure Commission help?

12. Putting in place a framework to remedy the obstacles outlined in the previous section was the priority in the early and mid-2010s. A new framework's core components were an advisory body that is independent of the government, an evidence-based and holistic assessment of the national infrastructure system, taking into account current assets and future demand, and a rigorous process to ensure decisions happened promptly.
13. Many organisations made submissions to the Armitte Review and subsequently welcomed its recommendations. ICE also developed a detailed needs assessment as a blueprint.¹⁰ Business groups, including the CBI and Federation of Small Businesses, welcomed the Review's recommendations, as did the Trades Union Congress, demonstrating cross-economy consensus. The following sections focus on the main recommendations for change from the Armitte Review.

An independent Commission and needs assessment

14. The Armitte Review recommended that an independent National Infrastructure Commission, with statutory underpinning, would be needed to sit at the heart of a new framework. A new independent Commission, it was argued, would:¹¹
- take an independent strategic view of UK infrastructure needs, looking well into the future
 - review all infrastructure sub-systems in parallel and, as a result, capture interdependencies between sectors
 - hold policymakers to account by placing timescales for action on governments and reporting annually on their progress.
15. This work would be delivered primarily through an infrastructure needs assessment which would look at the UK's needs over a 30-year time horizon and make recommendations on:
- investment
 - new measures to support better monitoring of the infrastructure system
 - geographic priorities
 - scale of funding
 - changes to delivery and regulation.
16. The focus would be on strategic infrastructure, as defined by the Planning Act 2008.

The process

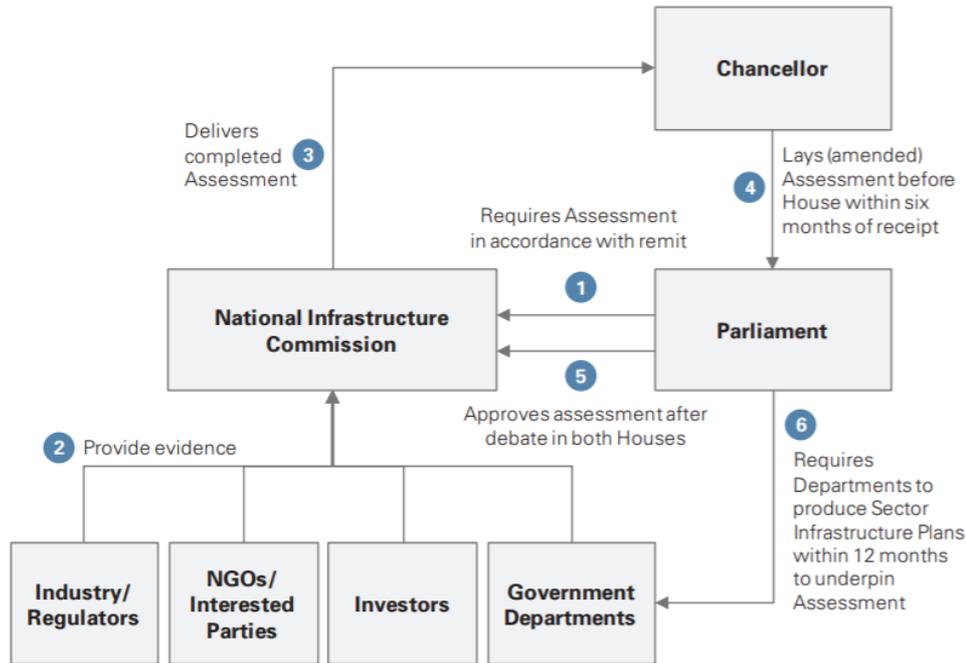
17. The Review set out a rigorous process, grounded in statute, to ensure the pace of decision-making was maintained while also locking in strategic direction. The Commission would be tasked with producing an Assessment and would submit this to the chancellor of the day. The chancellor would then be expected to lay this before Parliament, along with any government amendments, within six months for a debate and vote in both Houses of Parliament. Parliament could also refer the Assessment back to the Commission and request further areas to be considered. Once approved, the Assessment would then guide the creation of Sector Infrastructure Plans (which would replace

¹⁰ ICE (2016) [National Needs Assessment – A Vision for UK Infrastructure](#)

¹¹ Sir John Armitte (2013) [The Armitte Review](#)

National Policy Statements) within each Department. The diagram below, from the Armit Review, summarises the main steps.

From the Armit Review - Preparation and approval of the National Infrastructure Assessment



- 18. Sector Infrastructure Plans would need to be completed in one year and would set out detailed specific schemes and projects to meet the needs outlined in the Assessment. They would also need to outline the funding sources, timescales for procurement and other measures related to delivery. The Commission would give their views on the plans, and Parliament would then vote to approve them. The duties of regulators would be amended so that they had to act to further both the Assessment and the approved Sector Infrastructure Plans.
- 19. The Review did not outline in detail what would happen if Parliament failed to approve either the Assessment or Sector Infrastructure Plans. However, it can be reasonably assumed that the government’s draft would still be used for planning purposes, in the same way draft National Policy Statements can be used until Parliament approves an alternative.

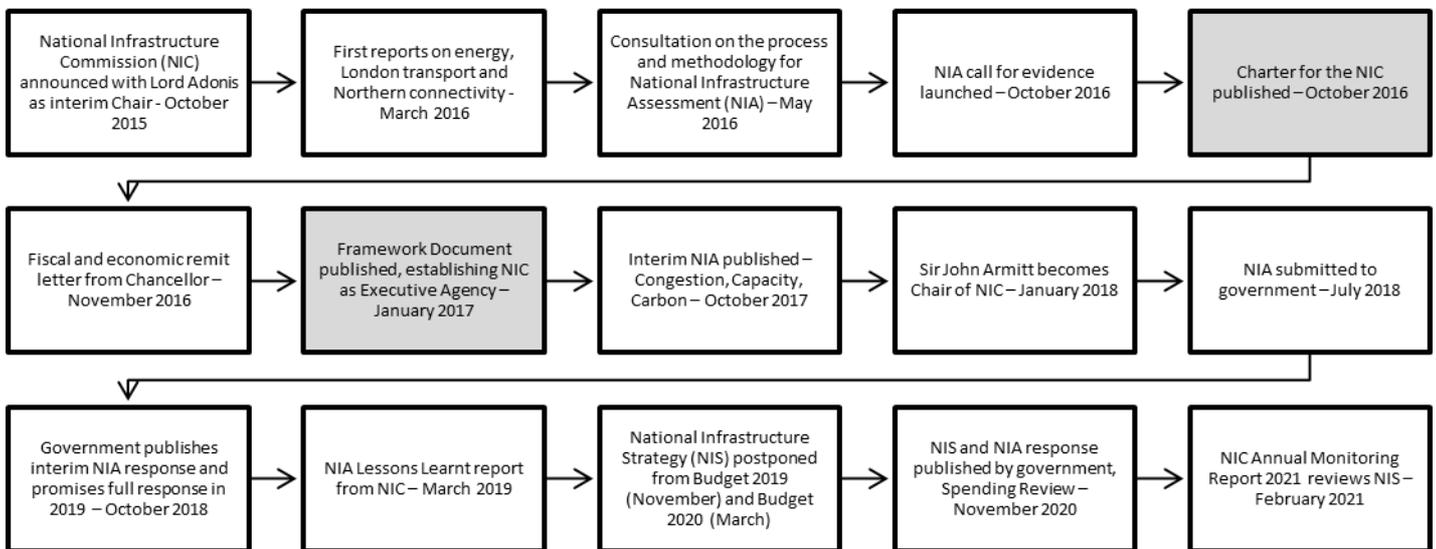
How the new framework was put in place

- 20. While the Labour Party commissioned the Armit Review, it was a Conservative government after the 2015 election which took forward the idea of an independent National Infrastructure Commission, demonstrating early cross-party buy-in of the need for change. The first Chair of the Commission was former Labour Transport Secretary Lord Adonis, highlighting that the incoming government wanted the Commission to be seen as independent. Following a change in government, a Charter¹² was published to establish the National Infrastructure Commission.

¹² HM Government (2016) [Charter for the National Infrastructure Commission](#)

21. The Charter and subsequent Framework Document¹³ established the NIC as an Executive Agency of HM Treasury and tasked it with producing a National Infrastructure Assessment once in every Parliament, alongside specific studies as requested by the government. It also committed the government to respond to all NIC reports accepting or rejecting recommendations within six months and ‘never more than a year’. In responding to the NIC’s work, the government also committed to give reasons why it disagreed with the NIC’s recommendations and to set out alternative proposals to meet the identified need, and to lay the reports and government response before Parliament.
22. Since being established, the NIC has been called upon to deliver several studies. It has also produced a National Infrastructure Assessment¹⁴ that fed through into creating a National Infrastructure Strategy.¹⁵ The diagram below provides an overview of the main milestones and outputs.

National Infrastructure Commission – milestones and key outputs



23. The creation of the NIC marked a turning point for how strategic infrastructure planning is conducted in the UK. As the NIC covers England and non-devolved infrastructure policy, since being established, similar Commissions have also been developed in Wales (permanently) and Scotland (one-off). Northern Ireland is also looking at creating an independent infrastructure advisory body to advise on strategic infrastructure interventions.¹⁶
24. In the remainder of this paper, we review the areas of remit and scope, benefits realisation, structure and the wider infrastructure planning ecosystem, and process.

¹³ HM Treasury (2017) [National Infrastructure Commission Framework Document](#)

¹⁴ National Infrastructure Commission (2018) [National Infrastructure Assessment](#)

¹⁵ HM Treasury (2020) [National Infrastructure Strategy](#)

¹⁶ ICE (2020) [A Step Closer to an Infrastructure Advisory Body for Northern Ireland](#)

Reviewing the first round of UK strategic infrastructure planning

Remit and scope

25. The National Infrastructure Commission's remit and scope is outlined in the Framework Document¹⁷ as:

The Commission will advise the government on all sectors of economic infrastructure, defined as follows: energy, transport, water and wastewater (drainage and sewerage), waste, flood risk management and digital communications. The Commission will also consider the potential interactions between its infrastructure recommendations and housing supply.

26. This remit is clearly defined and gives the NIC certainty on what is in and out of scope. In other countries, a broader definition of infrastructure has been adopted. In Scotland, housing and 'green' infrastructure were also considered part of the Infrastructure Commission for Scotland's remit.
27. The Framework Document and Charter also make clear that the NIA should not look to reopen decisions already made on infrastructure, such as High Speed 2 and a third runway at Heathrow. Following changes in government and court cases, decisions on both have subsequently been reopened after the completion of the NIA, with the NIC being called on to provide evidence on Phase 2 of High Speed 2.¹⁸
28. The NIC's role as the sole advisor to the government on economic infrastructure has also been challenged with the growing use of reviews of economic infrastructure outside the auspices of the NIC. Two notable examples include a review of High Speed 2¹⁹ and the Union Connectivity Review.²⁰ Both reviews were set up to advise the government on vital elements of transport infrastructure. It is not clear why the NIC did not conduct these studies.
29. A fiscal and economic remit for the NIC is also defined separately.²¹ The fiscal remit requires the NIA and other studies to fit within total public investment in economic infrastructure of between 1 and 1.2% of GDP between 2020 and 2050. The economic remit requires the NIC to set out how its recommendations would impact costs for businesses, consumers, public bodies and other end users.
30. Principle 8 of the Enabling Better Infrastructure Programme²² highlights that a measure of affordability can help to focus the minds of experts, like the NIC, when conducting needs assessments. However, the fiscal remit was not subject to consultation and may be seen by some as a political decision that limits the NIC in providing impartial advice on future need. Another approach could have been to request recommendations based on illustrative budget options, which was the approach subsequently taken for the NIC's Rail Needs Assessment for the Midlands and the North,²³ a report commissioned by the government to help develop an integrated rail plan.

¹⁷ HM Treasury (2017) [National Infrastructure Commission Framework Document](#)

¹⁸ National Infrastructure Commission (2020) [Rail Needs Assessment for the Midlands and the North](#)

¹⁹ Department for Transport (2019) [HS2 Independent Review: Terms of Reference](#)

²⁰ Department for Transport (2020) [Union Connectivity Review: Terms of Reference](#)

²¹ HM Treasury (2016) [Remit Letter to the National Infrastructure Commission](#)

²² ICE (2019) [Enabling Better Infrastructure: 12 Guiding Principles for Prioritising and Planning Infrastructure](#)

²³ Rail Needs Assessment for the Midlands and the North

Question 1: The NIC's scope is defined as economic infrastructure. Would broadening this scope help it deliver better strategic infrastructure planning outcomes?

Question 2: Are there any implications for strategic infrastructure planning when government-commissioned reviews on economic infrastructure are conducted outside the NIC?

Question 3: Should there be a fiscal remit to guide the NIC? If yes, how should this remit be determined?

Question 4: Should additional remits be outlined in addition to the fiscal and economic remit, for example, carbon?

Benefits realisation

31. The ultimate test of the NIC is whether it has changed the policy dynamic to allow long-term stable investment in the parts of the infrastructure system that need it. On this test, it is too early to tell. The investment package announced in the National Infrastructure Strategy is sizeable; however, the critical test will be how stable that investment is over the next few years or if policy reversals come into play. However, we can look at input and proxy indicators to judge likely success against the high-level macro benefits outlined in paragraph 10 of this document.
32. The NIC has improved transparency on the key issues that are affecting the UK's infrastructure system; this goes wider than a shallow assessment and outlines the state of the nation's assets and how long-term trends would change their use. Through the National Infrastructure Assessment, there has also been transparency on the do-nothing cost of not making a decision.
33. The NIC has also provided independent scrutiny of infrastructure decision-making through its annual monitoring report. Putting together the NIA has also brought together the previously siloed, departmental approach for strategic infrastructure planning and brought greater rigour to the process.
34. There has been little disagreement with the NIA or the National Infrastructure Strategy from opposition parties. The main criticism is the lack of investment by the government to deliver against the net-zero carbon target. Cross-party consensus, as a proxy indicator, is, therefore, an early sign of positive change.

Question 5: What evidence is there that the new approach to strategic infrastructure planning has brought benefits to the processes, behaviours and practices for infrastructure decision-making?

Question 6: What early or proxy signs would make the benefits outlined in paragraph 10 of this document more tangible, and so easier to track?

Question 7: Are there any benefits that haven't been realised from the new strategic infrastructure planning process? If so, why might this be?

Structure and the wider infrastructure planning ecosystem

35. The National Infrastructure Commission is established through a Charter and Framework Document as an Executive Agency of HM Treasury. The Armitage Review called for the National Infrastructure Commission to be set up by an Act of Parliament along similar lines to the Committee on Climate Change. Some similar bodies internationally are also established by statute, including Infrastructure Australia and the New Zealand Infrastructure Commission.

36. Giving the NIC statutory underpinning has been a long-standing recommendation of ICE.²⁴ This would provide the NIC and the wider infrastructure community with greater certainty on the UK's independent approach to strategic infrastructure planning.
37. Shortly after the NIC was established, the Infrastructure and Projects Authority was created as a merger between the Major Projects Authority and Infrastructure UK. IUK had been responsible for establishing many of the early principles around strategic planning, including transparency around investment and construction pipelines and the steps that will be taken to support the delivery of major programmes.
38. At Spring Budget 2021, the government also announced the creation of a UK Infrastructure Bank²⁵ to help boost investment in infrastructure; the bank will be established through statute. Taken together, the NIC, UKIB and IPA provide a robust underpinning to the system of infrastructure planning in the UK.
39. The Committee on Climate Change (CCC) has also grown in prominence since the NIC was set up. Given the significant role infrastructure decarbonisation will play in meeting the net-zero carbon by 2050 target, the CCC has supported the NIC by focusing minds on long term infrastructure system changes.
40. The Planning Inspectorate continues to decide on planning applications for Nationally Significant Infrastructure Projects in England and Wales, using designated National Policy Statements as its blueprint for decision-making.

Question 8: What are the implications of the NIC not having statutory independence?

Question 9: How have changes to the infrastructure planning ecosystem, including new institutions, altered the system for strategic infrastructure planning? Has this been for the better?

Question 10: Is there a need for more formal joint working between the organisations involved in the infrastructure planning ecosystem? If yes, how could this be achieved?

The process

41. The NIC Framework Document outlines a basic process which would see the National Infrastructure Commission produce a National Infrastructure Assessment 'once in every Parliament' and other studies as requested. The government has committed to responding 'within six months and not longer than a year'. That response will set out whether a recommendation from the NIC has been endorsed or whether the government does not agree; where the government does not agree, it may put forward alternatives.
42. The NIC would monitor the implementation of its recommendations through the Annual Monitoring Report. As the NIC is an Executive Agency of HM Treasury, the House of Commons Treasury Select Committee scrutinises its work. Other committees also call on the NIC as a witness for relevant inquiries.
43. The process for creating a National Infrastructure Assessment has been reviewed separately,²⁶ with lessons learnt for the second National Infrastructure Assessment.

²⁴ ICE (2019) [What Should be in the National Infrastructure Strategy?](#)

²⁵ HM Treasury (2021) [Policy Design of the UK Infrastructure Bank](#)

²⁶ National Infrastructure Commission (2019) [Lessons Learnt](#)

44. The first round of strategic infrastructure planning was affected by political uncertainty brought by the result of the referendum on the UK's membership of the European Union. The impact of the Covid-19 pandemic also saw refocused priorities across government. Since the NIC has been created, there have been four chancellors, three prime ministers and two general elections. As a result, it took well over two years before a formal response was made to the NIA and other NIC studies were not responded to within the time promised.
45. This delay carried implications for the evidence base and recommendations, with the NIA produced to provide policy action that needed to be taken in a five-year period; by the time a response was made, some of the recommended dates for action were out of date. When it was finally published, there were also notable gaps in the National Infrastructure Strategy where the NIA's recommendations were not taken forward, particularly on city-region transport,²⁷ but no detailed alternative was provided.
46. In theory, the NIC should be producing its third Assessment, as these are linked to Parliamentary cycles. However, in practice, it is working to a cycle of an Assessment every five years. While waiting for a government response to the NIA, the NIC did take the opportunity to review the NIA following the net-zero carbon by 2050 target becoming law.²⁸ This review found that many of the NIA recommendations were now more urgent. Infrastructure Australia conducts similar reviews annually to ensure its Infrastructure Priority List, a list of strategically important projects, evolves to meet emerging challenges and opportunities each year.
47. There are notable differences between the Armitte Review recommendations and the process that was established. Parliament has limited involvement in the process and the outputs of the Commission are not given Parliamentary approval. Departments and regulators are not bound to take into account the Assessment (or Strategy) in their planning. Timescales for approval are not defined in legislation and amount to no more than a promise.
48. One of the most noticeable recommendations from the Armitte Review not taken forward was the evolution of National Policy Statements to become Sector Infrastructure Plans. This part of the process would have taken the NIA and turned it into action at the Departmental level. In the absence of Sector Infrastructure Plans, it is not clear how the NIS will inform decision-making, including how National Policy Statements or regulators will be expected to give action to the NIS.

Question 11: What impact did a delay in responding to the NIA have on strategic infrastructure planning? How could this be avoided in the future?

Question 12: Would Parliamentary involvement help to improve the process of strategic infrastructure planning? How could this be achieved?

Question 13: What process is needed to ensure the NIS is used to underpin relevant decisions on infrastructure going forward, such as amendments to National Policy Statements or the duties of regulators?

Question 14: Should the NIC indicate on an annual basis any changes to the evidence base that underpins its recommendations?

Question 15: Are any other changes needed to the process of strategic infrastructure planning in the UK to support the delivery of stable long-term decisions on infrastructure priorities?

²⁷ ICE (2021) [Submission to the Transport Committee on Major Transport Infrastructure Projects: Appraisal and Delivery](#)

²⁸ National Infrastructure Commission (2020) [Net Zero: Commission Recommendations and the Net Zero Target](#)

Consultation questions

49. This consultation runs until 3rd May 2021. This consultation should be completed online at http://bit.ly/ICE_SIPcons with answers to the questions below; you do not have to respond to every question. Alternatively, responses may be submitted by emailing policy@ice.org.uk.
50. When responding, please give your name and state whether you are responding individually or on behalf of an organisation or group. Please provide evidence or case studies to support your response. All responses will be treated confidentially, and respondents will not be published.

Questions

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Question 2: Are there any implications for strategic infrastructure planning when government-commissioned reviews on economic infrastructure are conducted outside the NIC?

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About ICE

Established in 1818 and with over 95,000 members worldwide, the Institution of Civil Engineers exists to deliver insights on infrastructure for societal benefit, using the professional engineering knowledge of our global membership.

For more information contact policy@ice.org.uk