

ICE submission to the Transport Committee's inquiry on the Integrated Rail Plan

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Introduction

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.

This response has been informed by experts on ICE's Transport & Mobility Community Advisory Board and regional committees. Individual ICE members may respond in their own right, but this submission is intended to provide the Committee with an independent and evidence-based view.

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Summary

ICE has long argued for improved connectivity and transport capacity in the Midlands and the North.¹ Investing in faster, more reliable public transport is essential for rebalancing the economy and delivering net-zero.

The investment announced in the Integrated Rail Plan (IRP) is therefore much-needed. However, it is unclear whether the plan is sufficient to deliver the additional capacity and connectivity required to meet those long-term goals.

There is also some doubt whether the collaboration that has been a feature of many of the rail proposals considered in the IRP, along with the growth strategies prepared for the stations on the planned HS2 network, has been undermined by the delay in publishing the IRP and some of the future governance proposals suggested. This puts future delivery at risk.

It was hoped that the IRP would provide a clear and ambitious pipeline of rail connectivity improvements to support local, regional and national growth ambitions. The IRP as presented does not seem to achieve this, given that some of the essential components that a justifiable and deliverable infrastructure plan should contain are either missing or not provided as supporting evidence.

Indeed, the lack of information made available in the IRP, including the evidence for key decisions as well as the timeframes and future governance arrangements for delivering the plan, makes it difficult to fully address some of the questions posed by the Committee. However, we have based our submission around the questions where we can, highlighting where we believe improvements can be made or are necessary.

The ICE is ready to support the Committee in addressing these weaknesses and moving towards a more credible and deliverable plan.

¹ ICE et al. (2016) [National Needs Assessment – A Vision for UK Infrastructure](#)

The contribution that the IRP will make to rail capacity and connectivity for (a) passengers and (b) freight in (i) the Midlands and the North and (ii) the UK

The Government states that the IRP will accelerate ‘levelling-up’ by focusing on incremental improvements and bringing forward vital work. It also says it has taken on board the National Infrastructure Commission’s (NIC) advice to take an adaptive approach to investment to respond to future demand and ensure better value for money for the taxpayer.

While ICE has previously called for more attention to be given to making incremental improvements through projects deliverable in the short to medium term², this should not come at the expense of long-term transformational changes. A good transport network needs both fast strategic national rail links and high-quality local ones. However, the IRP appears to have traded these off against one another, and prioritised short-term fixes and cost-savings.

In terms of connectivity, it is not clear that the IRP will adequately address the poor state of East-West rail links. Many of the estimated journey time savings, while positive, would have been faster still under the original HS2 and NPR proposals. These links also need to be considered in terms of capacity as well as speed. For instance, infrastructure constraints around Manchester and into Liverpool currently cause significant performance risks with passenger and freight services competing for capacity on critical sections.

A further concern is the lack of focus on electrification, which has significant implications for freight operators. While the IRP plans would result in over 75% of Britain’s main trunk routes being decarbonised, this falls short of the level of electrification that could be achieved.

Electrification is the most cost-effective way to decarbonise the rail network and the Traction Decarbonisation Network Strategy identifies 85% of non-electrified track across the UK that Network Rail argues should be electrified.³ Electrification is essential for transferring more freight from road to rail, which brings wider benefits including better safety and lower emissions.

While connectivity and capacity are critical metrics, we would underscore the need to consider long-term social, economic and environmental requirements and impacts to ensure optimal whole-life value.

Whether and how the IRP will “level up” communities in the Midlands and the North

The purposes that any planned infrastructure is designed to address must be clear. These purposes must be defined by the outcomes that are to be achieved, and why those outcomes are desirable. If specific groups of people or places are to benefit, they need to be clearly set out.

Any plan must then demonstrate:

- (a) how the proposed infrastructure benefits the specified people and places,
- (b) that the proposed infrastructure is the best way of making these specified benefits happen by comparison with any credible alternative courses of action, and
- (c) that the proposed infrastructure represents value for money.

² ICE (2020) [ICE response to the National Infrastructure Commission Rail Needs Assessment for the Midlands and the North](#)

³ Network Rail (2020) [Traction Decarbonisation Network Strategy – Interim Programme Business Case](#)

The IRP does not make clear these intended purposes and beneficiaries. This creates a risk that funding might be directed towards infrastructure that will not achieve the purposes for which it is being considered.

The 'levelling-up' agenda remains poorly defined (as of the time of writing, the Levelling Up White Paper has not been published), which means associated infrastructure plans struggle to articulate how they will help deliver the expected benefits. ICE concurs with the Transport Committee's recent recommendation that the Government needs to provide more detail about how transport investment will contribute to 'levelling-up', including setting-out detailed outcomes and measures of success for 'levelling-up' against which transport projects can be assessed.⁴

There have been decades of underinvestment in public transport across the North and Midlands, contributing to lower levels of productivity.⁵ As noted above, there is a risk that the approach taken in the IRP will fail to meet future demand and deliver transformational social, environmental and economic outcomes.

At present, inter-city rail in the North and Midlands, especially at peak times, is often unreliable and the network has little resilience left. The IRP scales back many of the NPR proposals in favour of quick wins and upgrading current lines. Disregarding major projects, such as the HS2 Eastern Leg and the new line from Manchester to Leeds via Bradford, will impact connectivity and could slow down the speed at which communities in the North and Midlands can be 'levelled-up'.

How the IRP will affect rail infrastructure and services outside the Midlands and the North

It is important that the IRP is integrated with other major infrastructure projects and policies to ensure clarity of direction, and coherence to meet the broader outcomes being targeted.

For instance, the recently published Union Connectivity Review (UCR) makes a series of recommendations for delivering a network of transport corridors across the UK. While the Government has not yet responded to the UCR, there is a possible disconnect between its vision of holistic corridors and the re-prioritisation of certain NPR schemes in the IRP, such as the extension of a new East-West high-speed link from Warrington only as far as Marsden in Yorkshire.

The challenges to central Government, Great British Railways, regional and local authorities, transport bodies and other stakeholders in delivering the IRP

Any major infrastructure plan needs to clarify the governance arrangements required for its delivery and subsequent operation and provide clear timeframes for delivery.

While there are merits to the incremental, adaptive approach taken by Government in the IRP, not least due to the uncertainties created by the Covid-19 pandemic, the lack of detail about governance arrangements and timeframes creates uncertainty for stakeholders.

Industry needs to be able to plan ahead to manage supply chains and ensure capacity. The focus on upgrading existing lines means disruption to passengers and freight will be much more significant than with the construction of new lines, while any disruption will need to be coordinated with the wider transport network, particularly roads.

The establishment of Great British Railways may deliver long-term benefits, including speeding-up delivery of infrastructure projects, but there is a risk it could initially slow down delivery of the IRP as governance processes are

⁴ House of Commons Transport Committee (2021) [Major transport infrastructure projects](#)

⁵ IPPR North (2021) [Broken transport promises come as new evidence shows widening transport spending gap](#)

revised. For the Government to deliver on its ambition of accelerating elements of the original NPR plan, it will require collaboration and engagement between key departments and other stakeholders.

Any major infrastructure plan must demonstrate clearly at the outset how it will comply with relevant treaty and statutory obligations and show how it will contribute to undertakings agreed by Government, such as the UK's climate change commitments. Statutory undertakings apply to many aspects of infrastructure, including planning, funding, financing, design, contracting, construction, commissioning and operation.

It is also important that the standards to which new infrastructure must comply do not preclude its integration with heritage infrastructure, which may operate under different rules. Any plan also needs to be compliant with overarching policy goals such as net-zero and 'levelling-up'. However, as published, the IRP shows little evidence of how it will ensure compliance with these obligations and objectives.

Any infrastructure plan needs to be clear about what body (or bodies) will have the statutory powers, duties, authorities and accountabilities to accomplish the design, procurement, funding, financing, construction, delivery, commissioning and subsequent operation of new major programmes, and about the geographical and functional boundaries between relevant bodies.

To avoid further unnecessary delays a detailed delivery plan for the IRP should be prepared as a matter of urgency, setting out how these challenges will be managed. In some cases, much of the detailed background work for schemes mentioned in the IRP has already been done, allowing for an immediate shift to planning.

How the rail schemes in the IRP will integrate and interact with HS2

Integration and interaction of the IRP schemes with HS2 will need to be further examined in light of the scaling back of some plans and could particularly be affected by the rolling stock strategy for HS2. There may be greater need of hybrid trains to be able to run on both standard and high-speed lines, which could further affect the business case for HS2.

The decision to make Manchester Piccadilly a terminus station for HS2 rather than a through-station will also limit the level of connectivity that can be achieved.

How the rail improvement schemes in the IRP were selected, and whether those selections represent equity between and within regions

In principle, major infrastructure projects should be developed on the broad agreement of all those stakeholders whose interests will be affected by either the construction of or the commissioning and operation of the infrastructure itself. The process of consultation for any major infrastructure plan is crucial to its credibility in the eyes of the people, places and organisations whose interests will be or are perceived to be affected by it.

Where substantial sums of public investment are involved and the delivery period is lengthy, the absence of such consensus and credibility raises the risk of future delays and potential abortive expenditure as plans are challenged and/or revised. The IRP does not demonstrate evidence of such consultations, and these factors should be incorporated as the process of delivering the IRP moves forward and future schemes are considered.

It appears that ease of delivery and an indicative funding envelope were key factors in deciding which schemes to take forward in the IRP and the scaling-back or abandonment of many of the major NPR and HS2 proposals raises questions about missed opportunities.

Along with the decision not to develop Manchester Piccadilly into a through-station, the decisions to upgrade the West Coast Main Line into Liverpool rather than build a new line and not to address capacity issues at Lime Street Station may impact capacity and connectivity. It is surprising that the IRP does not contain proposals to deal with other well-known problems on the network in the North and the Midlands that require intervention with or without HS2 and NPR, including:

- The alleviation of congestion in the Castlefield Corridor in Manchester
- The alleviation of congestion at Leeds station
- The alleviation of congestion on the East Coast Main Line north of York (and the potential use of the Leamside Line)

The IRP also leaves some obvious 'gaps' in the electrified network that could accelerate the decarbonisation of the railway, such as between:

- South Milford and Hull Paragon/Hull Docks
- Doncaster and Immingham Docks/Cleethorpes
- Sheffield and South Kirkby/Doncaster

This list is not exhaustive, merely some examples of how the IRP does not meet the long-term goals mentioned at the outset.

Whether the IRP represents value for money for UK taxpayers

The incremental, adaptive approach to rail investment advocated by the NIC, keeping open options for major future investment until core schemes are developed, could ensure better value for money for the taxpayer. However, without the evidence for the decisions taken in the IRP it cannot be adequately assessed if it offers value for money.

Rail projects are expensive but generally provide good value for money. In practice this means securing the most economical build programme consistent with current engineering standards. This involves defining the exact scope of the works involved and the tendering and contracting processes that must underpin the design, build and commission stages, which can only be undertaken by a body with the powers, duties authorities and accountabilities sufficient to the tasks.

It is also unclear in which financial years funds will be committed to allow the construction of the proposals in the IRP.

Value for money is further enhanced when taking into consideration the decarbonisation achieved through electrification. For this reason, delivering fully on the potential for rail electrification will enhance the value for money of future schemes.

There is also evidence that the UK planning processes for rail increase costs significantly in comparison to other countries, and this should be examined while maintaining the high standards of Health and Safety.⁶

Any such assessment should also consider the long-term social, economic and environmental impacts. Indeed, research commissioned by ICE shows that the public does not view a low cost of construction as the main measure of success for major infrastructure projects, but instead wants to hear more about the wider benefits of projects.⁷ The research found the public was more concerned about whether projects regenerate communities, are reliable and strengthen economic growth than about the overall cost of construction.

⁶ PwC (2016) [High speed rail international benchmarking study](#)

⁷ ICE (2019) [Reducing the gap between cost estimates and outturns for major infrastructure projects and programmes](#)