



National Infrastructure Commission Studies – Call for ideas response form

Name/Organisation: This response builds on established research by the International Centre for Infrastructure Futures (ICIF) and iBUILD and was prepared by Dr Tom Dolan (based upon work undertaken by Dr Tom Dolan, Dr Neil Carhart, and Dr Claire Walsh and Dr Chris Bouch for Infrastructure UK)

*You have up to 500 words to outline the problem for a NIC study to focus on, and if you wish, to explain why this should be a priority. You must demonstrate how your suggestions fulfil the criteria outlined in this 'Call for Ideas'.*

Suggestion:

A proof of concept study to implement work previously commissioned by Infrastructure UK and undertaken by ICIF and iBUILD<sup>1, 2 3</sup>. The study would apply the 5 step process proposed in<sup>2</sup> to demonstrate the feasibility of defining strategic performance indicators<sup>4</sup> for infrastructure at the system level rather than solely within sectors such that strategic performance can be evaluated in terms of the actual desired outcomes<sup>4</sup> government, citizens and industry expect infrastructure to enable rather than perceived expectations, and strategic decisions can be aligned with system performance.

Rationale:

1. Does the suggestion deal with a nationally significant issue?

Yes – Establishing and applying a process to align performance indicators to the desired outcomes

<sup>1</sup> [A Process for the Formation of Outcome-Oriented Performance Indicators for Infrastructure \(an ICIF and iBUILD Report for Infrastructure UK\)](#) ,

<sup>2</sup> Dolan, T., Walsh, C. L., Bouch, C. and Carhart, N. (In press 2016) **Infrastructure Strategic Performance Indicators – A New Approach?** *ICE Asset Management Journal*

<sup>3</sup> Carhart, N., Bouch, C., Dolan, T. and Walsh, C. L. (In press 2016) **Strategic-Infrastructure Performance Indicators: Case Studies** *ICE Asset Management Journal*

<sup>4</sup> Ref 2 proposes defines

Desired outcome(s) - A forward-looking statement (or set of statements) of what it is the infrastructure is expected to enable. 'Desired outcomes' provide infrastructure with purpose, infrastructure performance cannot be meaningfully measured without them.

Outcome-oriented performance indicator - A strategic performance indicator directly aligned with one or more 'desired outcome(s)' that infrastructure is expected to enable

government, citizens and industry expect infrastructure to enable, and frame strategically at the system rather than sector level. Would complement NIC work to evaluate the needs of the UK infrastructure system, and could provide a foundation from which to engage the general public more closely with infrastructure decision making.

2. Does the suggestion need to be considered now?

Yes – for two reasons

1) At present, following examination, critique and workshop discussion of the performance indicators used in the National Infrastructure Plan. These indicators were not included when the first National Infrastructure Delivery Plan was published, so this study addresses a strategic gap.

2) Indicators of whole system performance could help to provide insight into properties such as system resilience

3. Does the study deal with a challenging issue?

Yes – a challenging issue that we do not believe is currently addressed. Aligning infrastructure performance indicators with actual expectations and framing at the system level is we believe possible and would yield benefits for infrastructure decision making

4. Would any potential recommendations be realistic in terms of cost?

Yes

5. Would the NIC add value by considering this issue?

Yes – It would be raising the profile of the need to think systemically about infrastructure decision making, and could initiate widespread industry debate on how this could be done and if successfully developed have impacts on how we frame and resolve infrastructure challenges in the future.

Please e-mail this form to: [NationalInfrastructureCommissionSpecificStudy@HMTreasury.gsi.gov.uk](mailto:NationalInfrastructureCommissionSpecificStudy@HMTreasury.gsi.gov.uk)

The [International Centre for Infrastructure Futures \(ICIF\)](#) is an interdisciplinary, practice-orientated research centre conducting fundamental research on infrastructure interdependency, policy, innovation, regulation, management and financing. ICIF was created to identify what combinations of actors, regulations and technologies can provide for the effective planning, design, investment, construction, delivery and use of infrastructure services that underpin economic activity and improve citizens' quality of life within modern societies.

ICIF brings together leading academics from six UK universities: University College London, Cranfield University and the universities of Bristol, Brighton, Sussex and Southampton. ICIF is funded by the Engineering and Physical Sciences Research Council and the Economic and Social Research Council (Grant reference: EP/K012347/1)