



Executive Summary

# From Ambition to Reality 2: Measuring change in the race to deliver net zero

worley.com

## Laying the foundation in the critical decade for action

Worley and Princeton University's Andlinger Center for Energy and the Environment are exploring what it will take to move the world to net zero by mid-century. We have studied the required infrastructure and found the speed and scale of development unprecedented. Continuing to develop and build infrastructure the way we currently do will not be sufficient. What is required is a complete reimagining of infrastructure delivery.

As a global community, we must make systemic changes to the way we share value, develop technologies, standardize designs, create partnerships, collaborate, and embrace digital tools and thinking. In short, we must establish a radical but durable new paradigm for infrastructure delivery that will provide the foundation to move confidently towards net zero by mid-century.

In this, our second From Ambition to Reality paper, we dive deeper into the **five key shifts** [described in our first paper](#). We explore examples from a range of sectors where new implementation approaches have had a transformational impact. From reducing vaccine development time from ten years to one through parallel development and partnerships, to being able to assemble a bridge in a week by leveraging modular design.

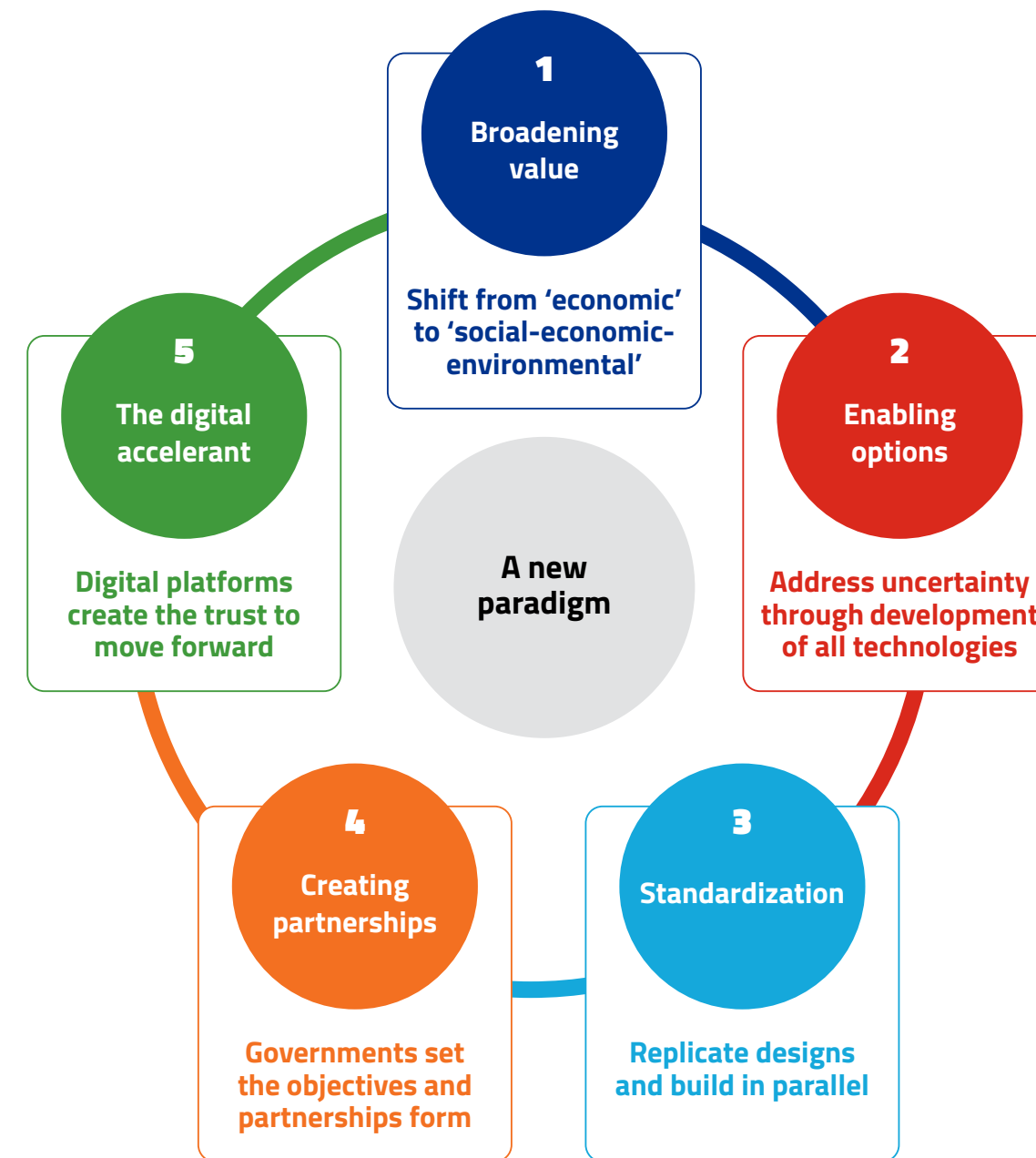


Figure 1 – the five shifts of the net-zero delivery paradigm

We propose **fifteen leading indicators of change**, three per shift, that will allow us to measure, adjust, and correct our infrastructure delivery practices to meet the challenge of scale and speed. We outline how performance against these indicators needs to progress over time, starting from an assessment of where we are now, where we need to be by 2026, and ultimately by 2030 which is a pivotal target year if we're to have any chance of reaching net zero by 2050.

### Success by 2030 looks like:

- **Broadening value.** Projects deliver more than financial value with communities at the heart of the transition.
- **Enabling options.** Existing low-carbon technologies are being deployed and there is investment in the future technologies we need. Intellectual property is shared openly.
- **Standardization.** Engineers are working to agreed global standards, with designs based on equipment and modules already available in the supply chain.
- **Creating partnerships.** Partnerships broaden and collaboration becomes the norm. The public has full visibility of projects, operating assets, and performance.
- **The digital accelerant.** Secure digital platforms connect all stakeholders and assets. Project data is openly shared, with teams learning from each other.

Today, we assess the overall gap between our current project delivery practices and where we need to be by 2030 as **high**. There is a lot to do in the next four years to close the gap on all five shifts by 2030.

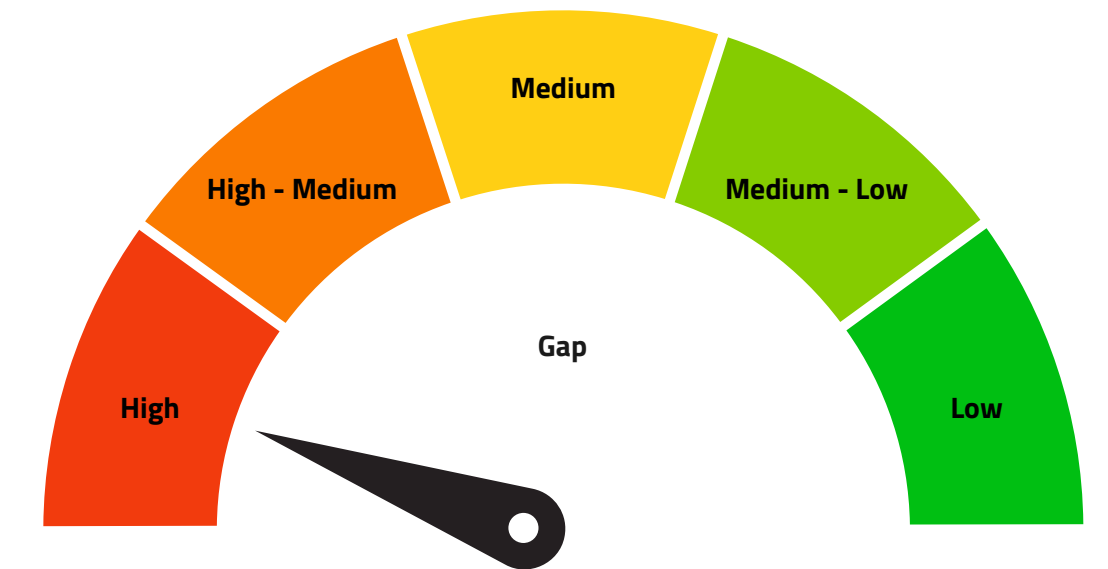


Figure 2 - The net-zero gap in 2022

To help close this gap, our ambition into reality work will be informed by an independent annual global survey that we outline in the paper. Undertaken by Princeton University, the survey will track these indicators of change, year on year from 2023 to 2030, across ten core stakeholder groups (including asset owners, project developers, regulators, communities, service providers, educators, and policy makers) influential in the delivery of infrastructure. The Ambition to Reality Survey is aiming to establish a panel of more than 3,000 individuals across multiple regions. The results will be used to determine if and where the global infrastructure build is on track. And where it is not, how we might course correct.



Finally, reinforcing the extent of the challenge, we provide a new set of net-zero numbers. This time for a very different economy to the US (examined in our first paper), using data from Net Zero Australia. A much smaller energy economy, but with greater energy exports, the Australian numbers are just as daunting. Requiring up to 3,000 GW of new renewables by 2050, essentially replicating the total world renewable current fleet, and up to 1 GT of CO<sub>2</sub> sequestration. Despite the differences between the nations, the scale of the challenge is similar.

To achieve such numbers the message is clear: we must dramatically rethink the way we deliver infrastructure. Authentic ESG-charged partnerships, standardized design, confident supply chains, fully immersed communities, a digital overhaul, honesty, transparency, and a collective imperative: that's how we'll get to net zero by mid-century.



Figure 3 – The changes we need to see by 2026 and 2030 to plug the gaps across the five shifts we see today.

**Thank you for considering how to turn  
our net-zero ambitions into reality.**

For more information on select ideas,  
follow these links:

[Our first paper](#)

[Net Zero Australia](#)

[Net-Zero America](#)

[worley.com](http://worley.com)

[acee.princeton.edu](http://acee.princeton.edu)

