What do governments need from civil engineers and infrastructure professionals to deliver the SDGs?
ICE Presidential Roundtable summary

October 2023

Background

Governments are integral in creating opportunities for civil engineers and infrastructure professionals to help them deliver on the Sustainable Development Goals (SDGs).

While the central role of infrastructure toward achieving the SDGs is now well established, what is less clear is how governments can act as enablers for integrating civil engineering expertise into their plans for delivering on their sustainability targets.

At an ICE-hosted presidential roundtable, participants discussed what civil engineers and infrastructure professionals require from governments to play a more active role in delivering the SDGs.

The discussion examined how governments can provide supporting policy, identify synergies and trade-offs, and build a positive narrative around the climate change agenda. It was also noted that taking advantage of government-led initiatives was only one way to deliver on the SDGs, where the onus also rests on civil engineers and infrastructure professionals to effect transformative change from the bottom up.

Recap: The latest report on the Sustainable Development Goals, published in September 2023, outlines the dire state of climate action globally, where it is necessary to take steps to achieve transformative change.

The ICE has been tracking key developments in the 2030 Agenda over the last decade, but a recent blog on how to get the SDGs back on track outlines that transformative change is possible despite slow progress toward meeting the SDGs.

With a vast 72% of all SDG targets linked to networked infrastructure, civil engineers and infrastructure professionals are influential in achieving transformative change.

Gaining clarity on the 'what' and 'how'

Governments can help civil engineers and infrastructure professionals deliver on the SDGs by setting a clear vision and direction of travel for integrating the SDGs into national policy. This involves establishing a strategy which matches country needs with infrastructure interventions. Identifying these links enables civil engineers and infrastructure professionals to identify where they can contribute to achieving sustainability targets.

Governments can also put in place regulations to draw on the skills and expertise of civil engineers and infrastructure professionals to help achieve sustainability targets. For example, government regulations on workforce considerations, working conditions, worker safety, and construction all identify sectoral inputs that draw on the skills of civil engineers and infrastructure professionals. These regulations can be set up as important supporting mechanisms to achieve pre-defined sustainability targets identified by national policy.

Identify synergies between infrastructure and the SDGs

Infrastructure offers wide-ranging benefits across multiple areas. To make the most out of opportunities to achieve the SDGs, it is necessary to have a solid understanding of the synergies between infrastructure and the SDGs. This takes the development of a strategy one step further, providing more granular information on how infrastructure intervention can also help deliver on the SDGs.

It was identified at the roundtable that infrastructure is directly linked to the SDGs on sustainable cities (SDG 11), consumption and production (SDG 12), industry and innovation (SDG 9), and partnerships (SDG 17). Noteworthy sectors include transport.

Understanding synergies in greater detail provides grounding insight for ensuring all needs (e.g. infrastructure, social, economic, and environmental) are understood, including setting up a basis for comparison or benchmarking. Therefore, the outcome not only provides a guiding framework that can be used to develop a strategy, but it also provides a basis for identifying the specific ways civil engineers and infrastructure professionals can become more involved in actioning transformative change within their sector.

Creating a positive narrative

Developing a narrative on the lack of progress demoralises civil engineers and infrastructure professionals, detracting from proactive efforts and positive gains. In addition, growing anxiety around the negative impacts of climate change is affecting younger professionals, leading to a 'doomsday' outlook.

Governments must take steps to adequately grasp the key challenges and create more positive narratives that people rally behind. For example, governments can demonstrate how systems can become more sustainable where all professionals can work toward a shared version of system change. Cultivating a positive narrative can create a more profound impact.

Engaging from the bottom up

While the opportunities created by governments are critical for delivering the SDGs, civil engineers and infrastructure professionals must also be bold to act on SDGs independently. It was suggested during the discussion that engineers should think more critically about the following questions: *How do we build the cities we want? What do we need to think about now for the future?*

Building on this, attendees discussed two avenues where civil engineers and infrastructure professionals could take a bottom-up approach to actioning the SDGs.

First, infrastructure costs money. Therefore, how do civil engineers and infrastructure professionals persuade the governments to give them the money they need? For example, Safeswim in New Zealand is a community-based initiative that provides information on water quality and the conditions of swimming locations across New Zealand. Information shared with Safeswim by the public is used to lobby against the government to make the case for better water quality across the country. It can ultimately lead to governments spending more money on addressing these concerns.

Second, civil engineers and infrastructure professionals must also do 'choice editing'. Choice editing is a process whereby engineers take options off the table that are considered irresponsible for society and the planet. In other words, civil engineers and infrastructure professionals need to take greater autonomy over what they consider responsible and take active steps to remove or stop projects that are not regarded as sustainable.

Locking in promises

Building the 'right' future is more important than delivering on the SDGs at pace. To build the right kind of future, we must carefully consider the choices made by governments and civil engineering professionals. This is because the choices made now will lock in decisions and options for the future.

In reality, actioning the SDGs often comes at the expense of achieving other sustainability targets. These trade-offs need to be understood. Grasping both the synergies and trade-offs will lead to more informed decision-making overall, where

there is a better sense of how SDGs can be actioned at the ‘right’ place at the ‘right’ time at the required pace. This is key to unlocking a sustainable future.

Questions to take away

- What further steps are required to achieve the granularity needed to achieve the SDGs?
- How do we adequately assess social and environmental outcomes when setting up infrastructure projects?
- How do we adequately grasp the synergies and trade-offs between infrastructure and the SDG to inform better decisions?

Further reading:

Have we made any progress on the Sustainable Development Goals? (2023)

How can we get the SDGs back on track for 2030? (2023)

Collaboration is key to climate action – where do civil engineers come in? (2023)