



# Global Infrastructure Hub

## InfraTech Use Case Stock Take

27 March 2020

A G20 INITIATIVE



### InfraTech Use Case Stock Take IWG 2 Update



#### InfraTech Stock Take Objectives

- When complete, the reference note will provide 50-60 detailed example applications of technology in infrastructure, including examples from specific country contexts.
- Its objective is to serve as a helpful reference point for the next steps to be taken to implement more InfraTech use cases and bolster the efforts identified in the InfraTech Agenda.



#### Use case library draft

- We have assembled a draft list of use cases for IWG consideration. This is aligned with comments received from members at IWG meeting 1, and includes use cases that are relevant to the QII Principles.
- Detailed use cases will continue to be developed in the next 3 months until IWG meeting 3, based on IWG feedback.



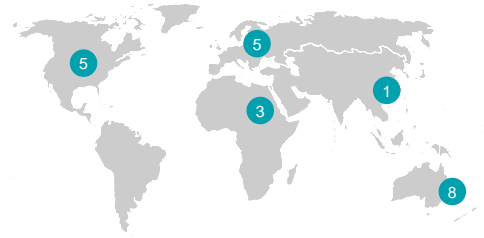
#### Working with World Bank and G20 Presidency to align objectives

- Core teams across Sydney, Riyadh and Washington DC are working together to align objectives and complement efforts across the InfraTech Agenda and the three associated reference notes

# Approach and Methodology

In 2019 the GI Hub conducted interviews with a cross section of the industry to better understand the InfraTech landscape

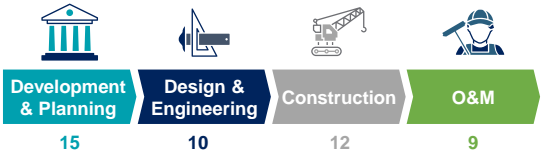
Across the world



Across the lifecycle

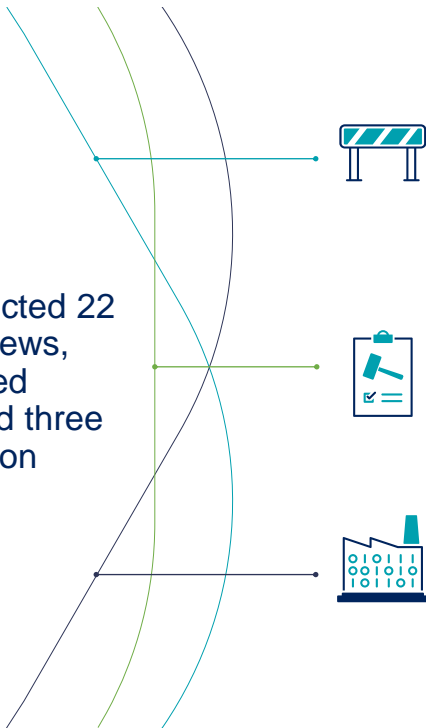


Across the infrastructure lifecycle



Note: Some organisations are active in several stages in the infrastructure lifecycle hence n>22

We conducted 22 interviews, focused around three question areas



### Blockers to adoption

- What are the biggest challenges you see currently inhibiting greater adoption of these digital use cases in infrastructure? Why isn't more done today?

### Enablers to catalyse adoption

- What needs to be done to enable greater adoption of digital technologies in infrastructure?
- Which governments or organisations do you see as leading the way in this space?

### Top digital use cases

- What do you see as the most transformative digital use cases in infrastructure today, and over the next 5 years?
- Which digital use cases are you currently using on projects?
  - Why did you pick this? What is the process to make this standard practice?

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## Key findings and draft use cases list

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## Three core themes emerged:



### Education and Training Barrier

There is an education and training barrier in the infrastructure workforce: both around benefits of digital applications in infrastructure and how to use them



### Clear Commitments

Governments and other industry leaders haven't made clear commitments to adopt digital technologies in infrastructure



### Market Incentives

Market incentives (including regulations and procurement processes) are not adequately aligned for greater adoption of innovative digital technologies in infrastructure, and there is a risk averse culture and resistance to change in infrastructure



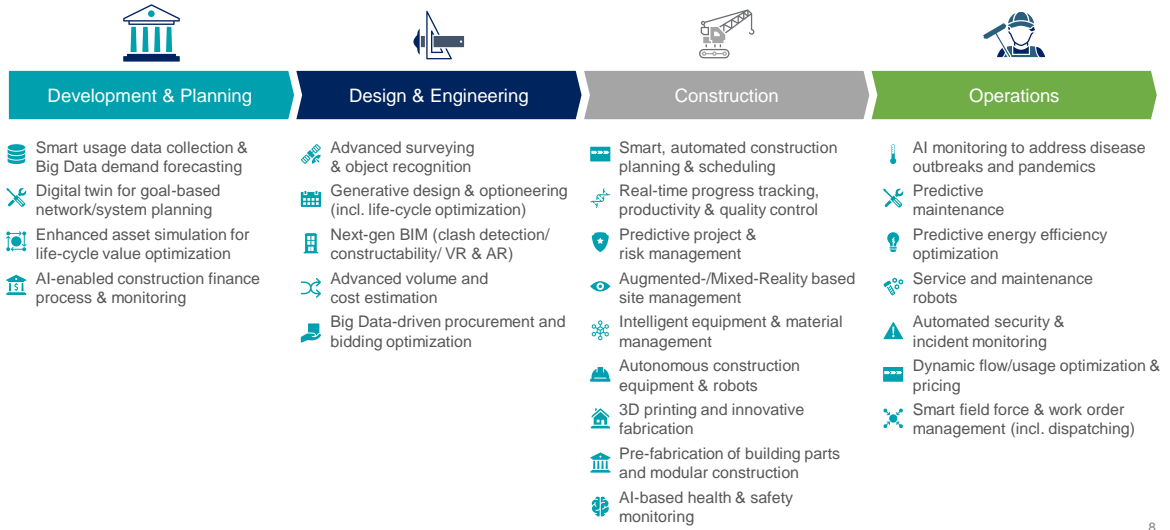
#### Education and Training Barrier

- One of the core cross-cutting themes inhibiting InfraTech uptake is the education and training barrier, which is affecting InfraTech utilisation in terms of understanding the relevance and benefits of use cases and in having the skills to implement them at scale.
- Knowledge gaps are apparent across both public and private sectors. The infrastructure workforce across all stages of the lifecycle are highly capable and have the underlying potential to understand and implement InfraTech use cases. However, coupled with a frequent lack of training, capability to adopt novel InfraTech solutions is low.
- To support the InfraTech Agenda and the international community, the Global Infrastructure Hub has built an InfraTech Use Case Library which details InfraTech Use Cases, their benefits, relevance, and how to implement them.

#### Clear commitments and market incentives

- The Use Case Stock Take complements the InfraTech Agenda, which provides guidance for countries to consider in advancing InfraTech adoption, and the World Bank's policy toolkit and value case reference notes.

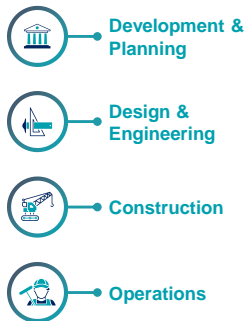
## Many digital use cases exist at all stages of the infrastructure lifecycle



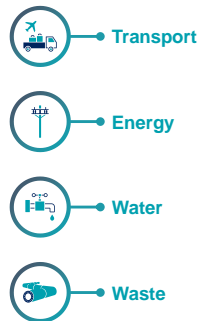
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These same use cases can also be framed by which sector they're used in or what the core technologies are, noting there would be some overlap

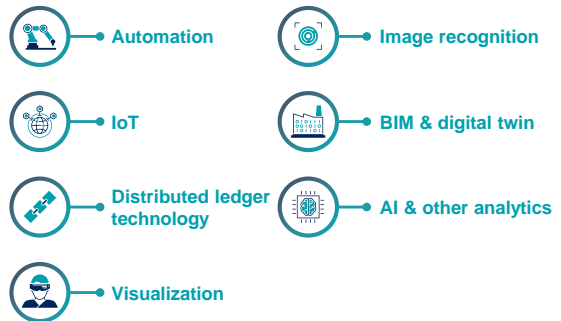
### By stage of lifecycle



### By sector



### By core technology used



These filters can be applied to help users find the most relevant use cases

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## SAMPLE USE CASE: AI to address disease outbreaks and pandemics



### The use case

- AI-enabled CCTV and thermal cameras can be used to look for signs of illness in public spaces
- This can allow health authorities to take appropriate action to isolate individuals at high risk of infecting others
- This reduces transmission risk at high-risk transmission points like transit nodes - and other major public spaces and thoroughfares.
- This sort of technology has already been rolled out in Singapore in response to COVID-19.



### Benefits

- Economic and Financial: Targeted health issues identification and tailored response to restrict movements ensure less economic disruption and less lost productivity.
- Social: These devices offer a quicker and safer alternative to manual forehead thermometers.



### Key Takeaways

Since the outbreak of COVID-19, Governments have been seeking effective and efficient ways to reduce risk of transmission in highly-populated and frequented areas – such as transport nodes.

Using AI and thermal imaging has a broad spectrum of benefits, including enabling citizens to continue moving around their regions so that they can continue to live and work as ‘normally’ as possible.

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## Questions and Next Steps

- We welcome all comments on the InfraTech Stock Take!
- To increase the value of the InfraTech Stock Take further, we also welcome submissions of particularly compelling use cases and case studies from the public and private sector.
- Our target is to have a comprehensive library of use cases that highlights best practices from G20 countries and beyond.
- **For any questions or comments, please contact [Jack.Handford@gihub.org](mailto:Jack.Handford@gihub.org) copying [Katharina.Surikow@gihub.org](mailto:Katharina.Surikow@gihub.org).**

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