



Building Innovation Partnership [BIP]



THEMES AND OBJECTIVES





What are BIP's objectives?

To improve construction productivity and efficiency
To improve affordability and resilience of built infrastructure and help NZ achieve its infrastructure objectives



How will objectives be achieved?

New data-based tools to improve 3-waters decision-making

New guidance and digital tools to accelerate the uptake of DiPT

New design methods and technologies to improve nonstructural building elements New strategies and guidance to reduce CO_{2e} emissions from infrastructure



THEME 1
Better Investment Decisions



THEME 2
Digital Processes and
Technologies (DiPT)



THEME 3
Fit-for-purpose Building
Components

THEME 4
Low Carbon and Climate
Resilient Infrastructure

DATA AND DIGITAL METHODS

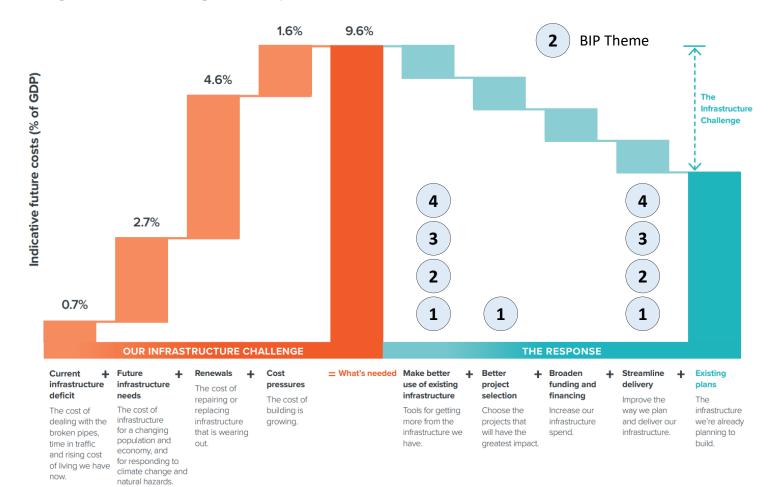
How is programme delivered?

ALIGNMENT WITH NZ INFRASTRUCTURE STRATEGY





Figure 5: The challenge, the response [from NZ Infrastructure Strategy]



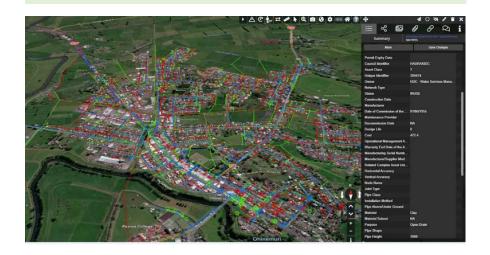
BIP's industry-led projects focus on NZ's infrastructure challenges

3-WATERS PROJECTS (Theme 1)

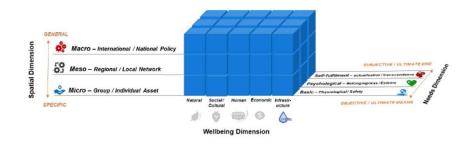




National Pipe Data Portal



Holistic Decision-Making Framework for 3-Waters



Flooding Digital Twin





Understanding
Pipe Integrity
and
Deterioration

DIGITAL PROJECTS (Theme 2)





BIM for Health and Safety in Construction



BIM for Fire Evacuation

Automated Building Code compliance checking









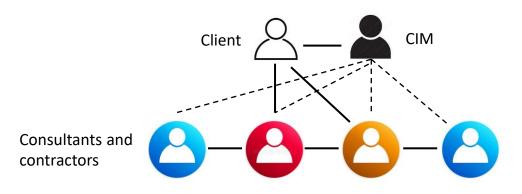








Client-facing information manager (CIM)



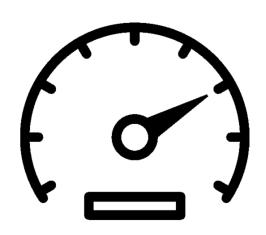
Asset Information Specification Tool

FUTURE DIGITAL PROJECTS (Theme 2)









Digital performance metrics?



BUILDING RESILIENCE PROJECTS (Theme 3)









Techniques for the Seismic Rehabilitation of Existing Buildings

FEMA 547/2006 Edition









Economic Benefits of Code Compliant Non-Structural Elements in New Buildings

Ministry of Business, Innovation & Employment

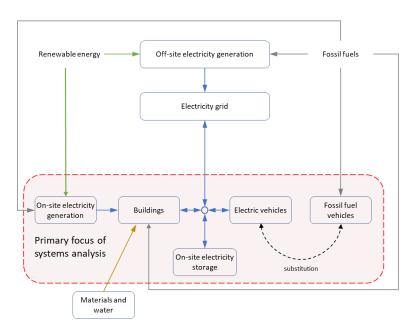


CLIMATE PROJECTS (Theme 4)





Pathways to Net-Zero Carbon Buildings and Communities



- Decarbonisation of the electricity grid (D)
- Electrification of building space and water heating (E)
- 3. Building efficiency improvements to reduce energy demand (E)
- 4. Digitalisation of buildings and electricity grids to improve energy management (D)
- 5. Electrification of vehicles (S)

Energy Retrofits of School Buildings

Roadmap to Net-Zero Carbon Concrete in NZ



www.bipnz.org.nz

