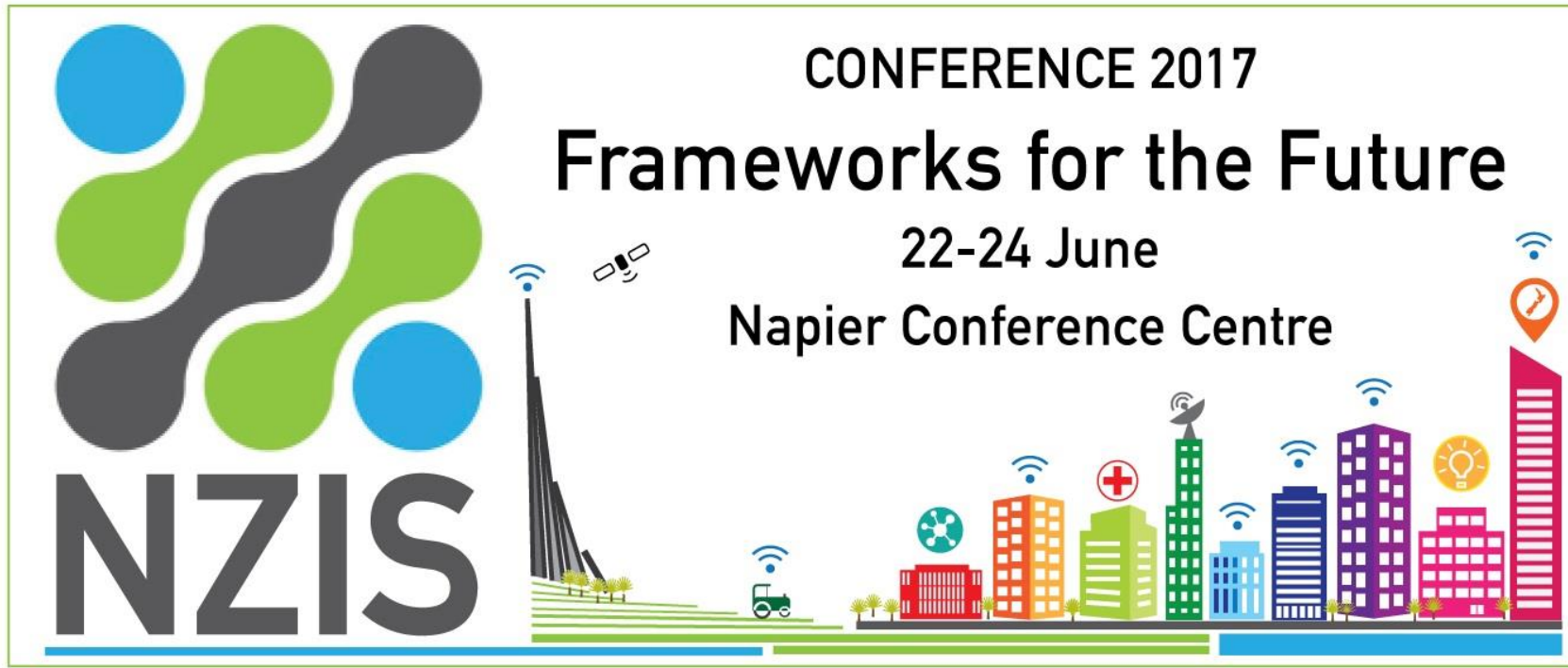


# **NZIS** CONFERENCE 2017

Frameworks for the Future







# BIM & IPD in New Zealand





# Contents

- Me
  - My Mum
  - BIM – its only part of the picture
  - Relevance to the Surveyor
  - Some quickfire take away's
-





# Dennis Burns

CBP NZIOB, Director Archaus

Since 1993 Dennis has been a Co-Director of Archaus, With over 40 years' experience in most facets of the NZ construction industry, this naturally led to an interest in BIM and Integrated Project Delivery (IPD). The Archaus team, is now recognised as both New Zealand and Australasian leaders in this field.

By utilising the inherent power of modelling buildings in 3D and associated (IPD) processes, Archaus has achieved a significant increase in productivity during design and construction. Dennis is looking forward to a future where there is a greater and more consistent uplift in the use of BIM and where consistent standards are more widely implemented.

Chairing, on behalf of the NZIOB, this "Industry training initiative", and becoming a member of the BAC is another step in this journey.







# My Mum

- And the digital divide

*the gulf between those who have ready access to computers and the Internet, and those who do not.  
"there is a 'digital divide' between rich and poor, black and white, in terms of computer use*

- Digital Divide
  - Access to relevant technology
  - Economic
  - Geographical
- And the one we create

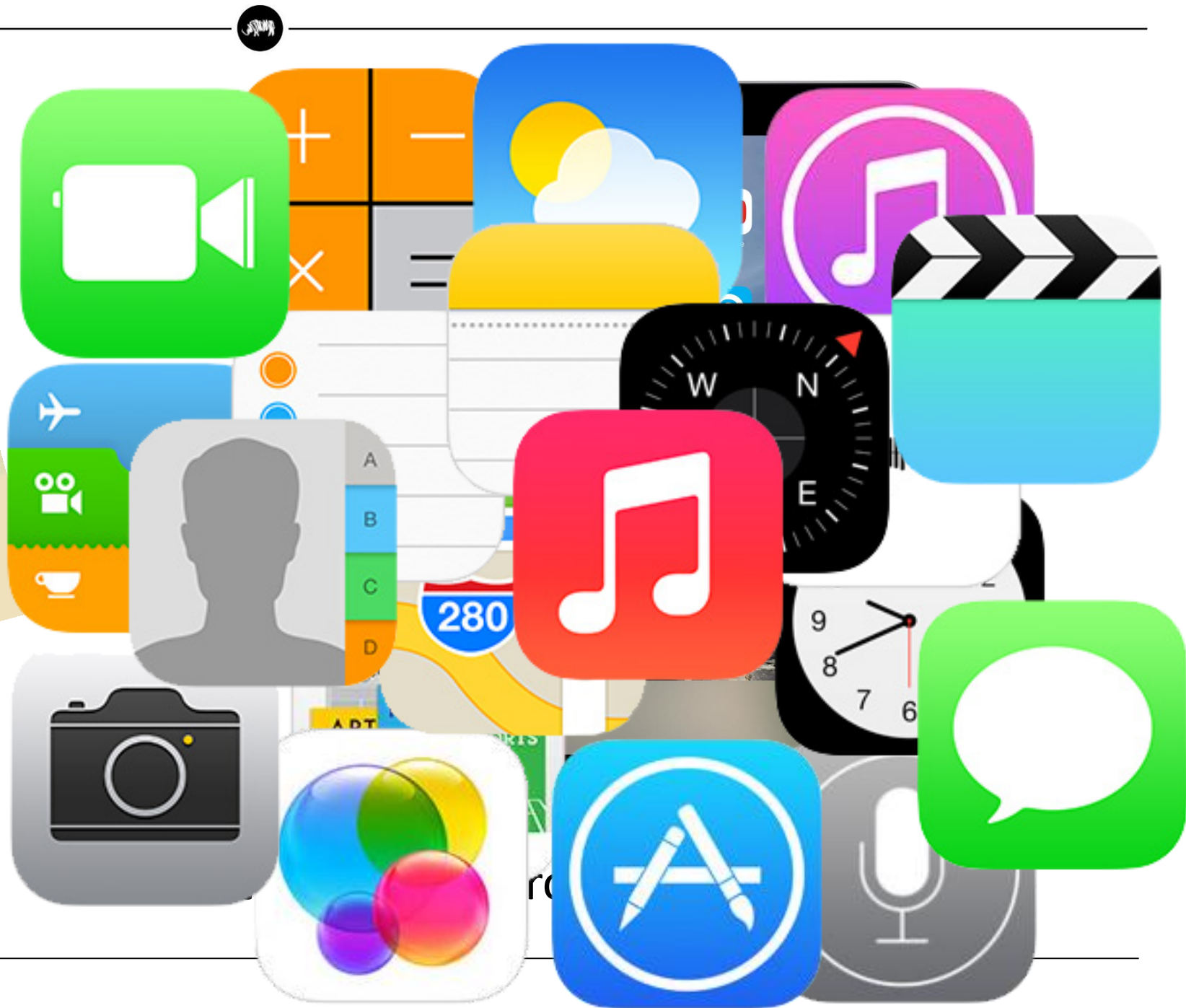


# My Mum

- And the digital divide



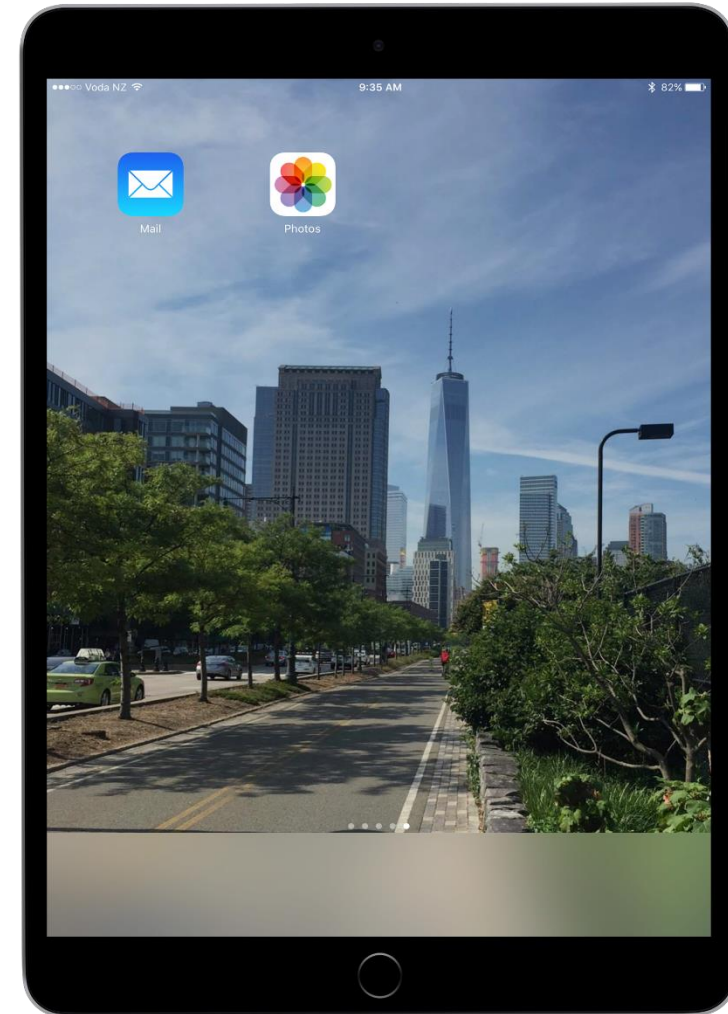
Then







- The digital divide

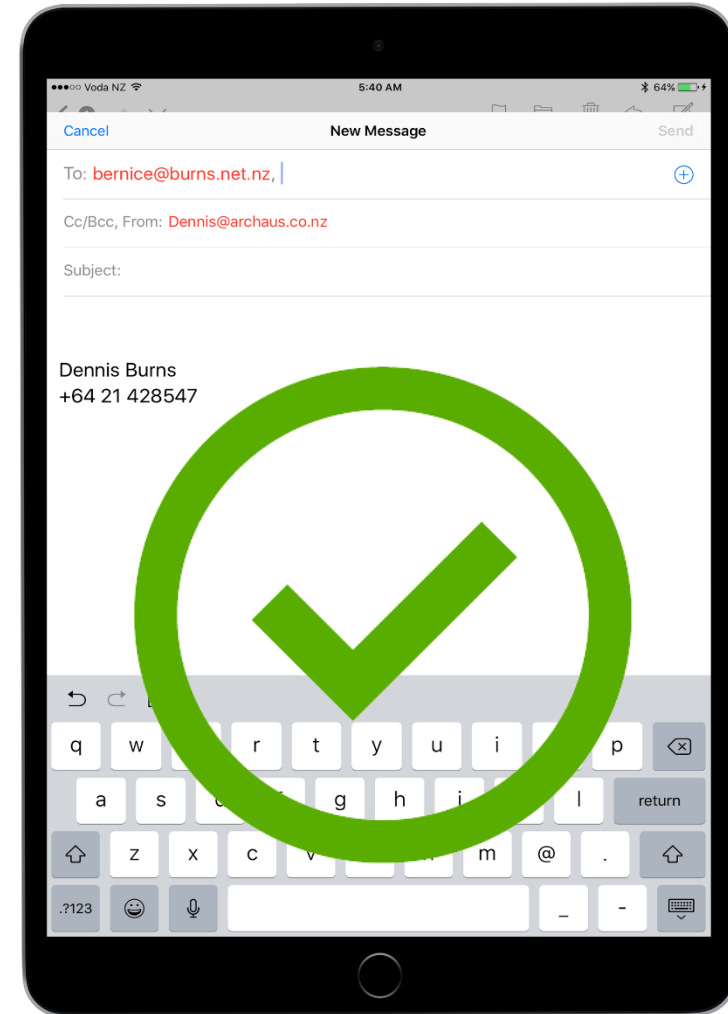


What Mum needed





- digital divide closed!



Or was it





# Change is a given

- Technology is/has changed the way we do business
  - The pace of change is increasing
  - We therefore delay decision making to our detriment.
  - It is far too easy to do nothing
    - And potentially loose it all
-





# BIM – it's only part of the picture





# We have global digitalisation

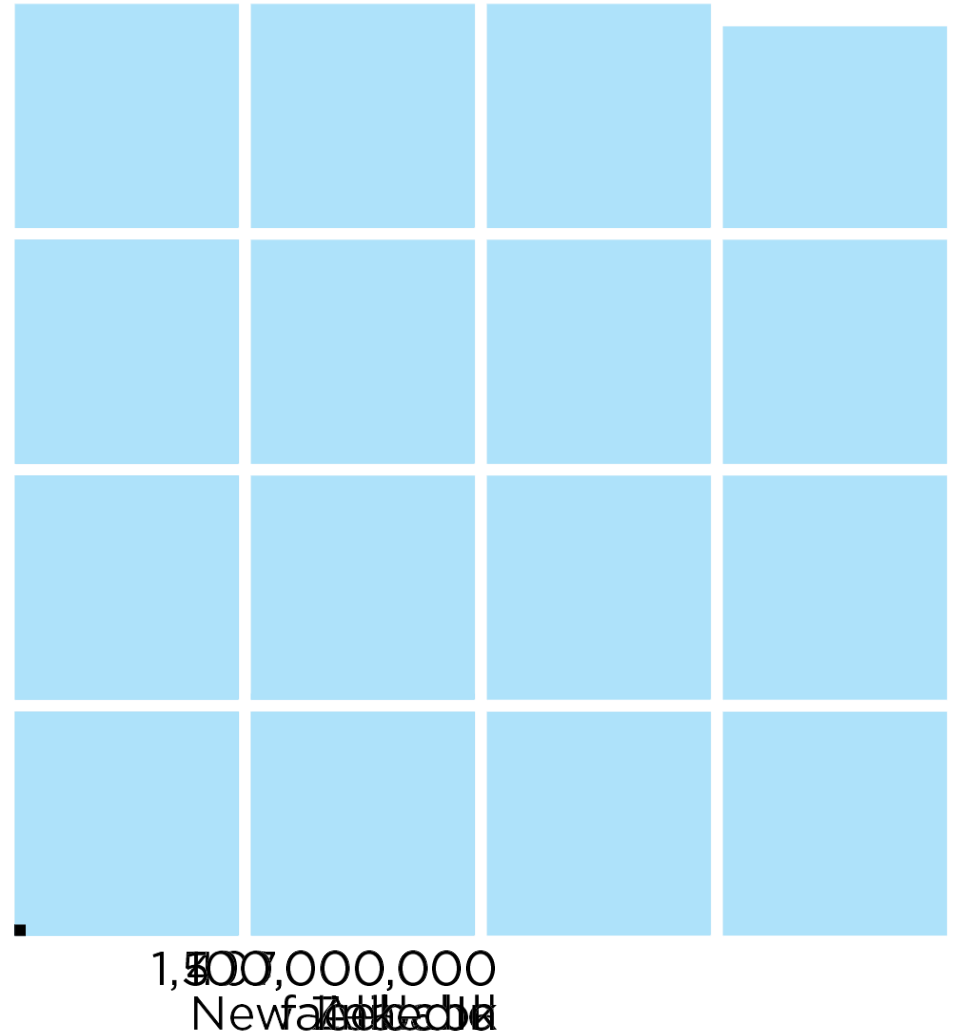


- The Internet of things
- The digital economy
- Advanced data analytics
- ICT
- MOOC (Massive open online courses)
- Facebook
- Twitter
- Etc
- Etc





# We have global digitalisation



1,500,000,000  
New Zealand





# We have digitalisation of our built environment



- Thermal Studies
- Light analysis
- Asset tracking
- Metrics
- Modelling
- Workflows
- Data assignment
- Structural analysis
- GIS
- Design





# We have digitalisation of our built environment



- Automated modelling/prefabrication
- Survey
- Validation
- Management
- Life assessment
- 2D, 3D, 4D
- Cost analysis
- And the list goes on....





# Digital Information

How do we make sense of the massive amount of information that we can now collect, distribute, store and view.

In the built environment that my company works in.

---



# We have BIM & IPD

We make sense and take advantage of it all, by using established and agreed;

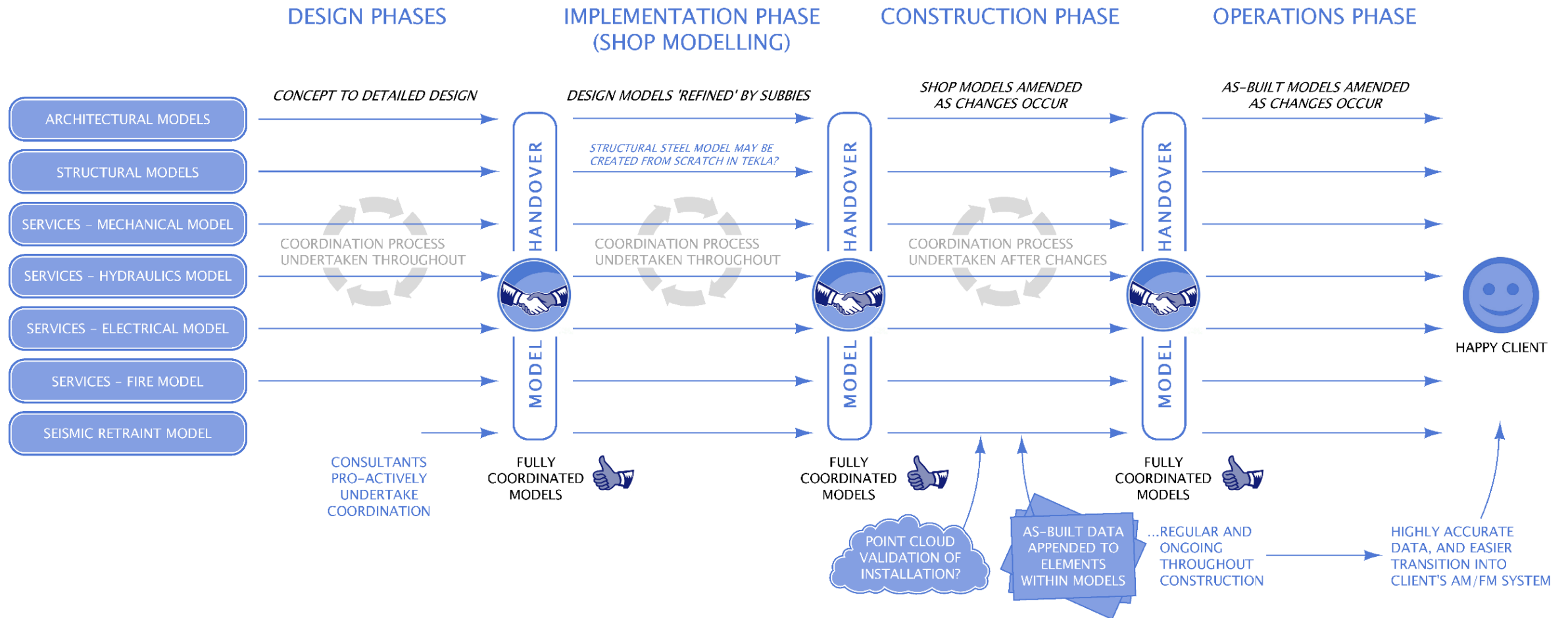
Processes, Protocols and Standards.

However (and it's a big question), who's role is it to establish, monitor and enforce these standards

- The current model of project delivery team establishing standards?
- Government mandating?
- Government leading by example through rigid and standardised procurement?
- Follow overseas trends and hope for the best?
- Just let the market decide?



# BIM process





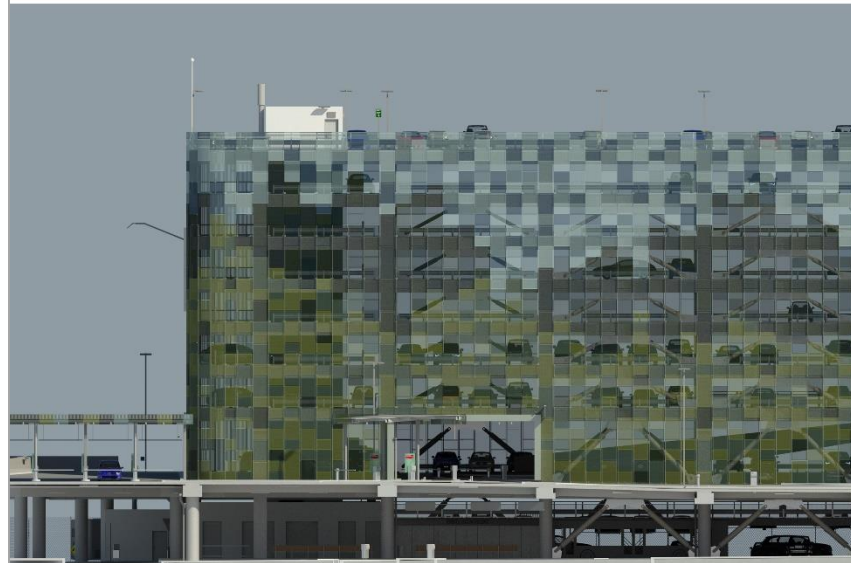


# BIM protocols

WELLINGTON INTERNATIONAL AIRPORT LIMITED  
MULTI LEVEL CARPARK DEVELOPMENT PROJECT

## BIM EXECUTION PLAN

- REV E : 12 JULY 2016



Prepared by

**Archaus Limited**

For and on behalf of:

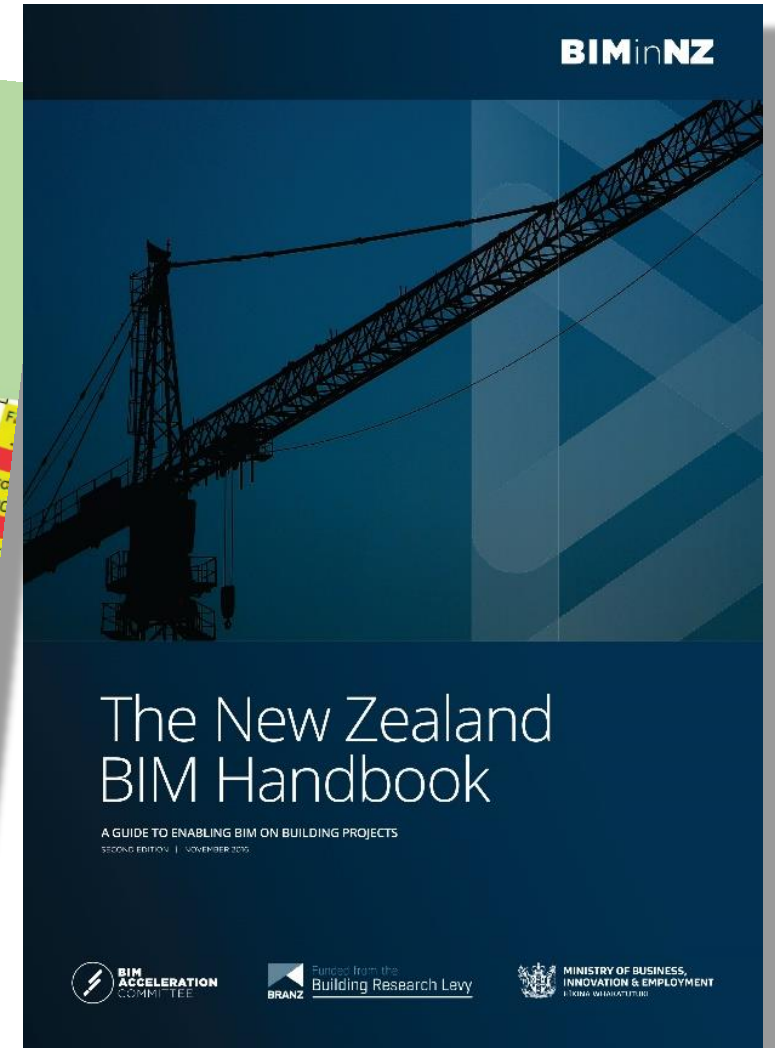
**Wellington International Airport Limited**







# BIM standards







# The Project begins

The client has a vision

We create the digital twin of what the client wants/needs.

We build the real twin

We operate the building and maintain the digital twin

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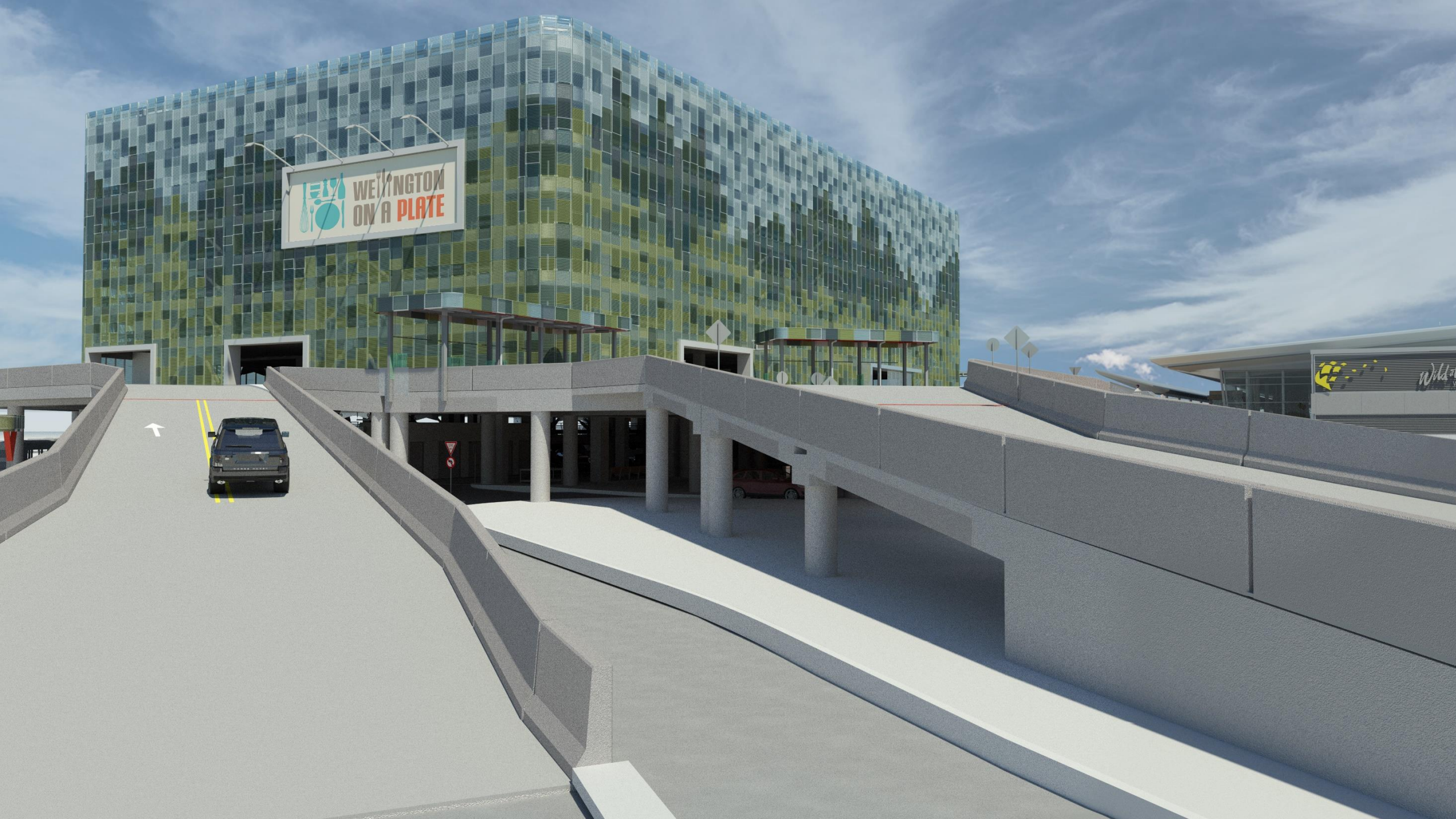
















Innovating and evolving  
It's what we do







# Relevance to the Surveyor

It's what we do

Is it what you do .... or want to do

---





# Trust, Detail & Accuracy

- Trust in information requires,
    - knowledge of and reliance on the level of detail & accuracy.
  - Level of detail and accuracy
    - is determined by;
      - Use
      - Relevancy
      - Cost
-



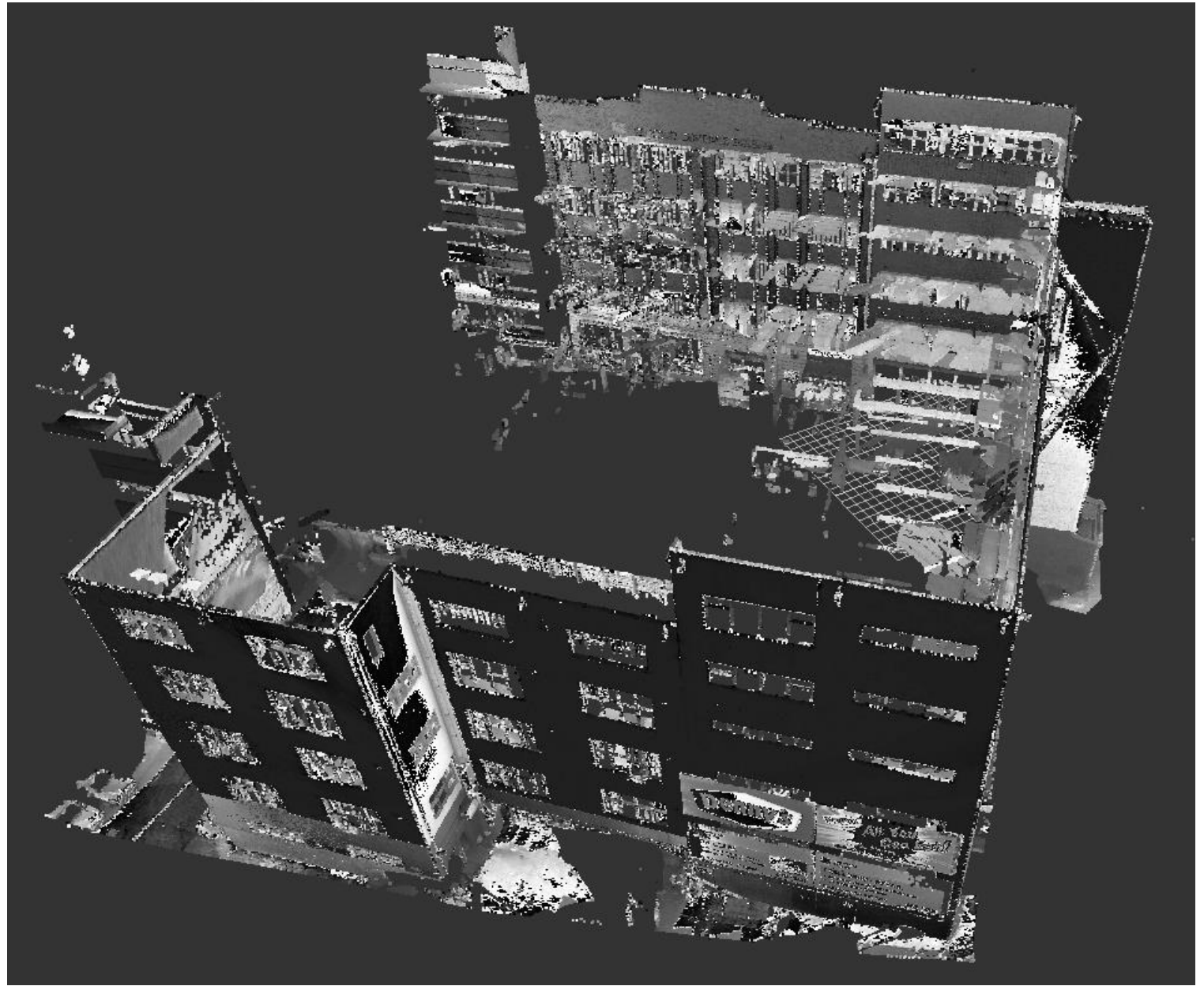
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222 Willis Street

Use

Relevancy

Cost







# Quickfire takeaways

1. What is the key thing that needs to change?
  2. Should Government Mandate BIM?
  3. Should Government Mandate BIM output Standards?
  4. Is the government awake to construction sector productivity gains?
  5. Why not just jump in the deep end?
  6. Make mistakes
  7. How big an issue are intellectual property rights and liability in a federated digital model.
-