

Wellington Underground Asset Map Programme

"The central problem is that everyone impacted by civil works suffers material inefficiencies because we don't know what we will find when we dig."

Absolutely Positively
Wellington City Council
Me Heke Ki Pōneke

To improve our collective
knowledge of what lies
beneath our feet

OUR GOAL

Drivers

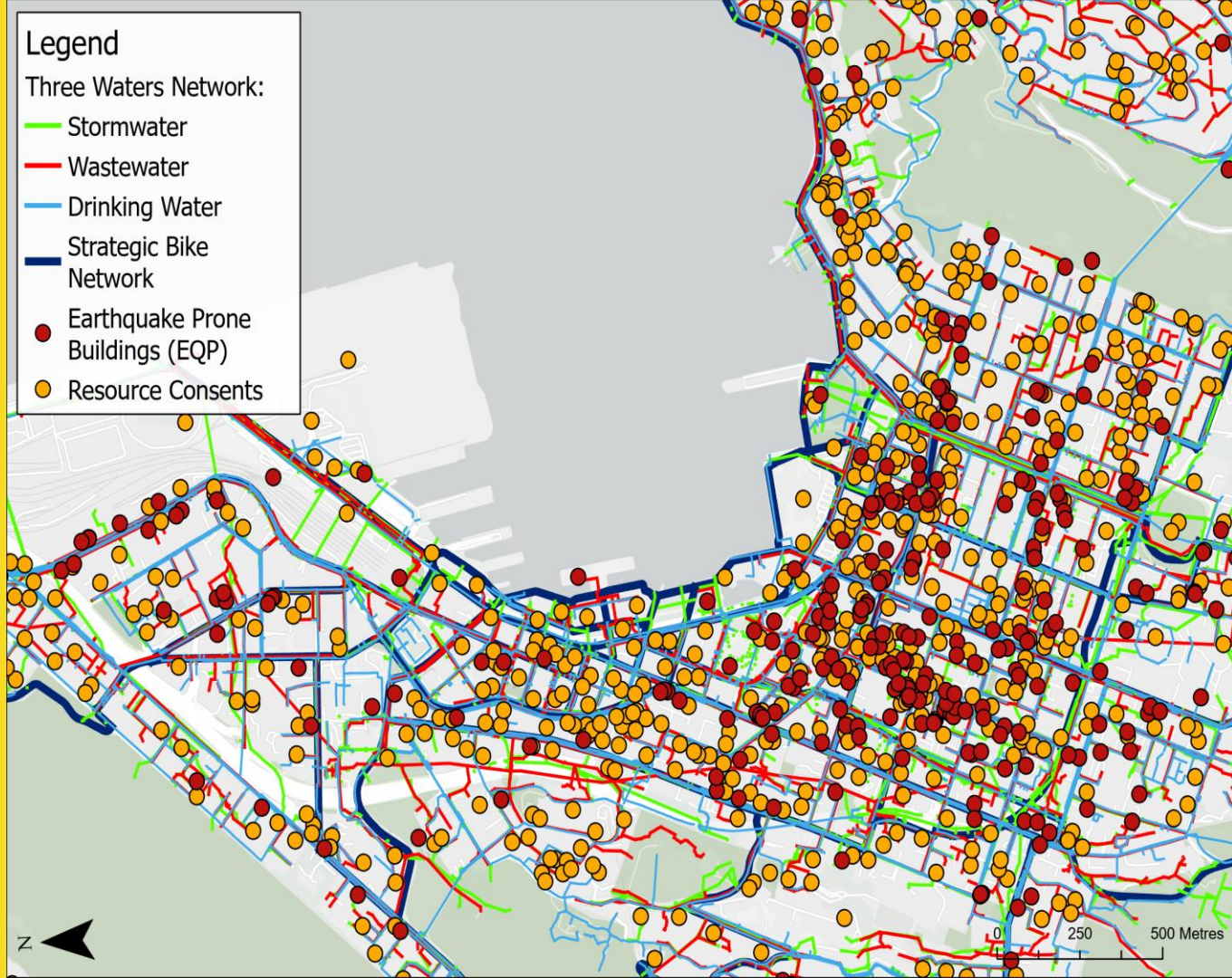
Why we need change:

Safety

Growth & densification

Climate change & resilience

Modal changes



Drivers

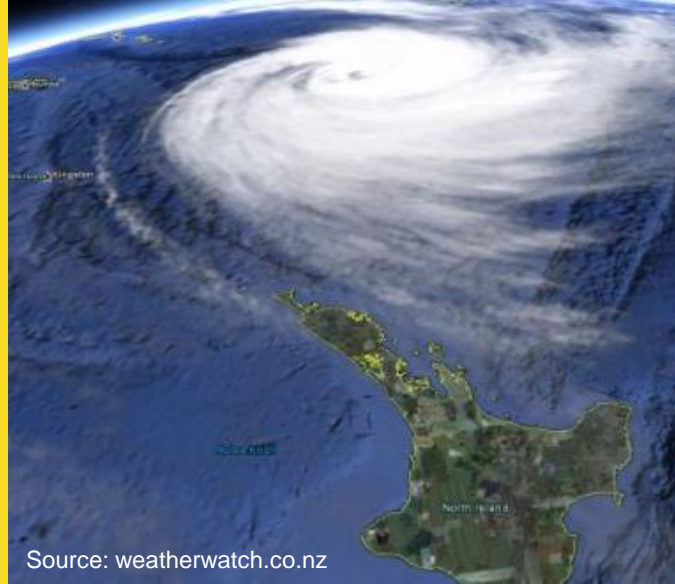
Why we need change:

Safety

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Modal changes



Source: weatherwatch.co.nz

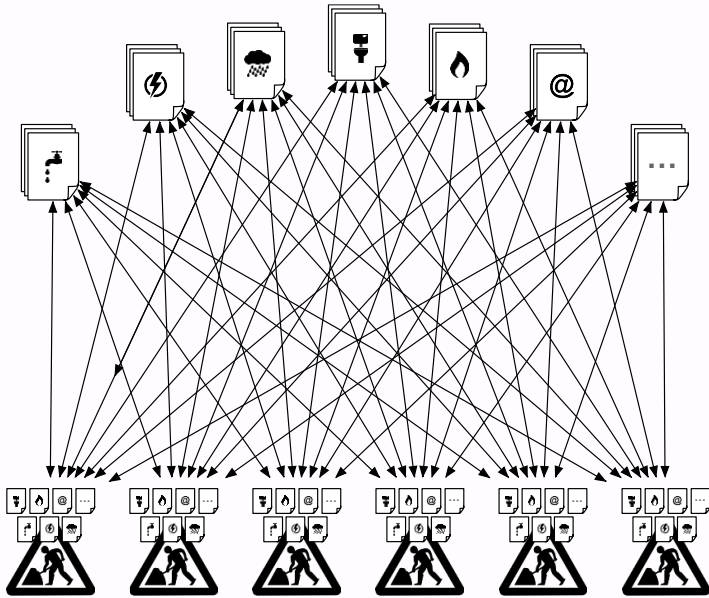


Source: Auckland Transport

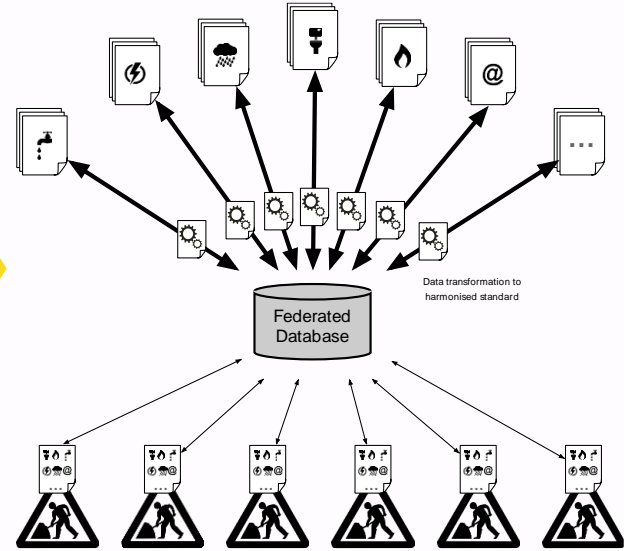


Source: Radio NZ

What we need

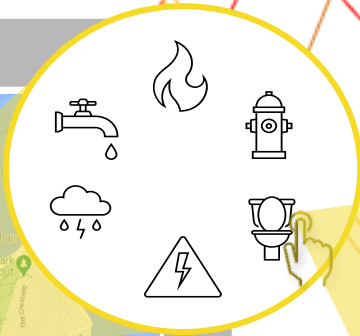


Current State



A Trusted View

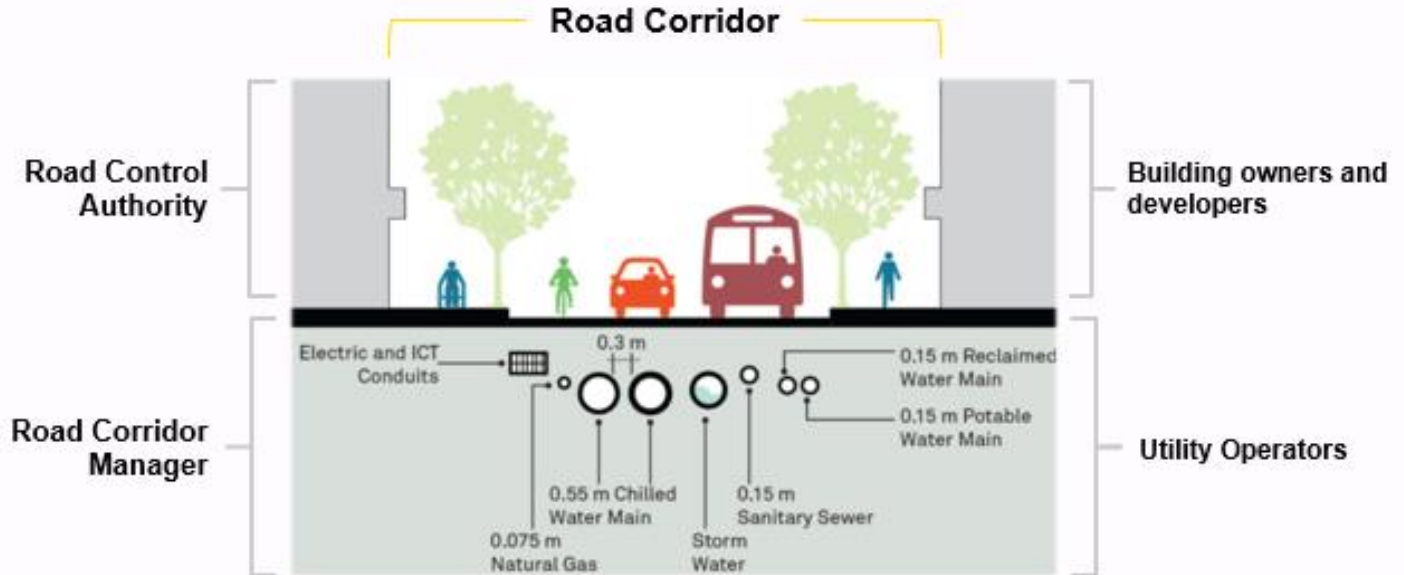
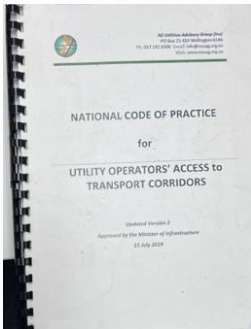
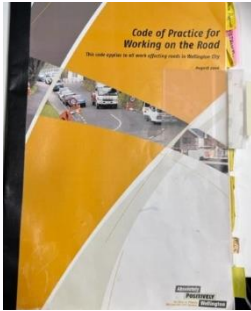
Future State



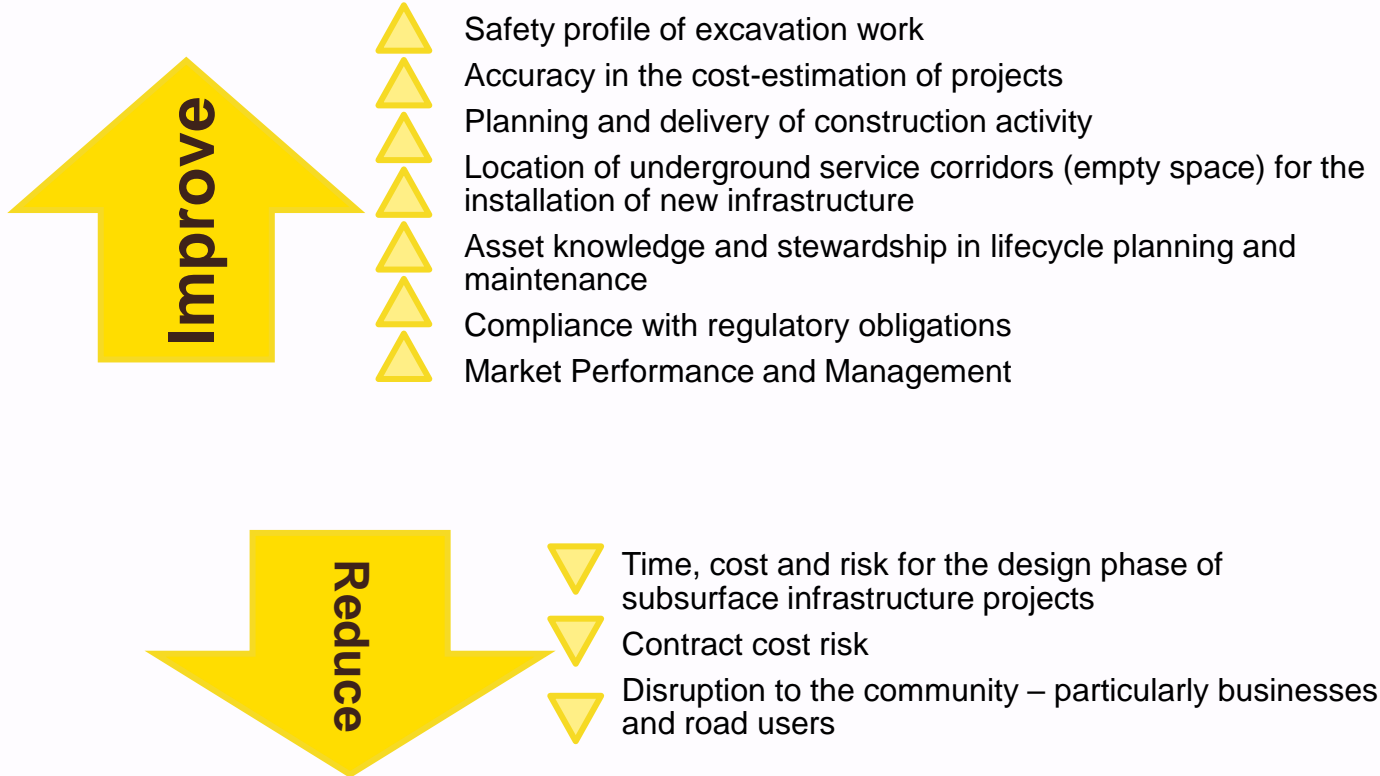
Wastewater Pipe (Local) ▾

Attribute	Value
GIS ID	927034
UNIT ID	2071184
COMP KEY	2531766
SERVICE	Local
STATUS	OP
DIAMETER	150
MATERIAL	PVC-U
INSTALLED	11/07/2001
PROCESS	Gravity
POSITION	Buried
GROUP	Pipe
SUBTYPE	Main Line (L)

The Role of the Corridor Manager



Why are we doing this: Target Outcomes



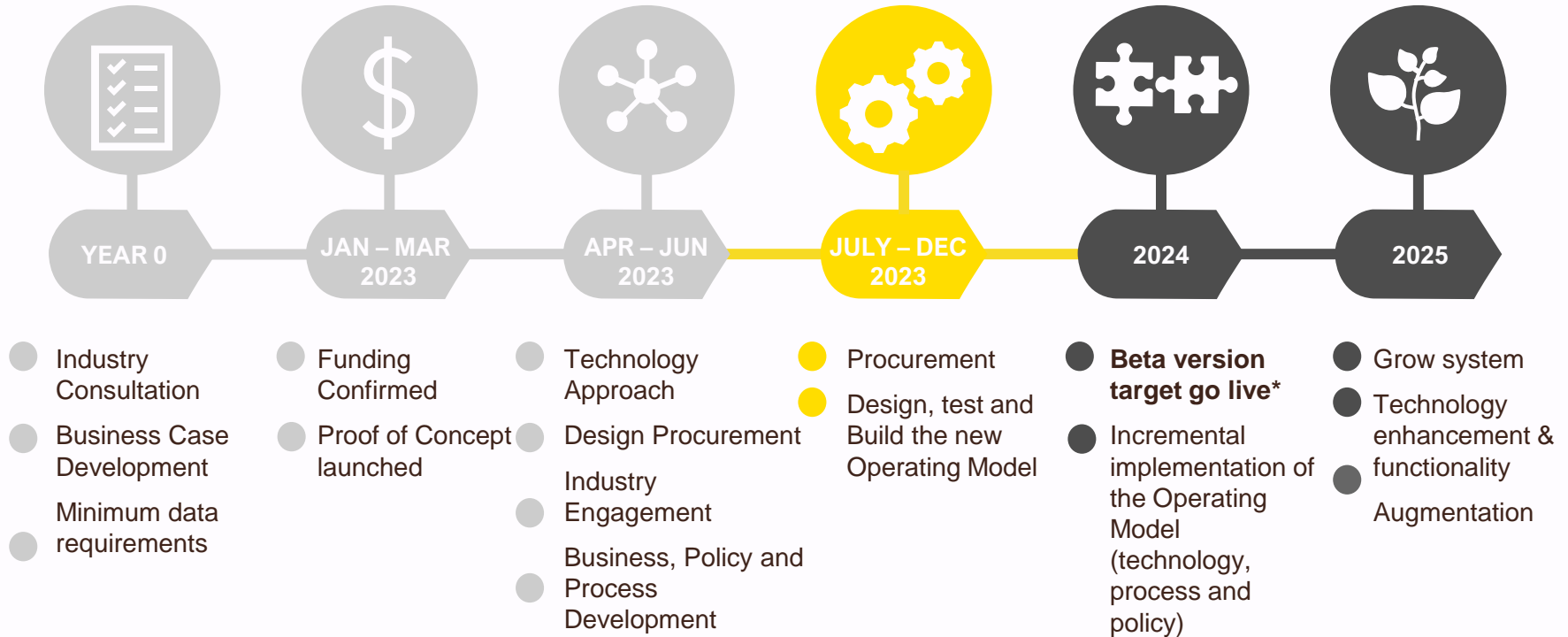
**Estimated
Rate of Return**

~12x

With Potential
National Economic
Benefit Cost Ratio of
up to 30x *

* UK NUAR estimates

Programme roadmap



***MID 2024**

Our Focus

Workstream 1

Policy / Process

- Minimum Data Requirements
- Update Protocol
- Notification Period
- Data Sharing Mandate
- Security & Access

Workstream 2

Asset Data
Sharing Platform
(Technology)

- Federated Asset Database
- Buy / Build / Adapt?

Workstream 3

Internal Change
& Alignment for
WCC

- Legal
- Process
- Resource
- Training
- Systems
- Data

Workstream 4

Sector support &
national
engagement

- Engagement with government departments
- Engagement and communication with sector
- Technical support to sector

Workstream 5

Corridor
management
integration
(technology)

- Workflow development
- System integration with corridor consents
- Seamless interaction between sector & council

Workstream 6

Value Add
(technology
augmentation by
private sector)

- Wider market opportunity
- Standardised input / output protocols
- Permissions and authentication
- Integration with private sector applications

Operating Model

Our Vision – something we collectively develop

To provide a single, authoritative, and trusted view of relevant asset and contextual data so that work in the subsurface environment can be undertaken safely and efficiently

We are going to start simple, add features and functionality

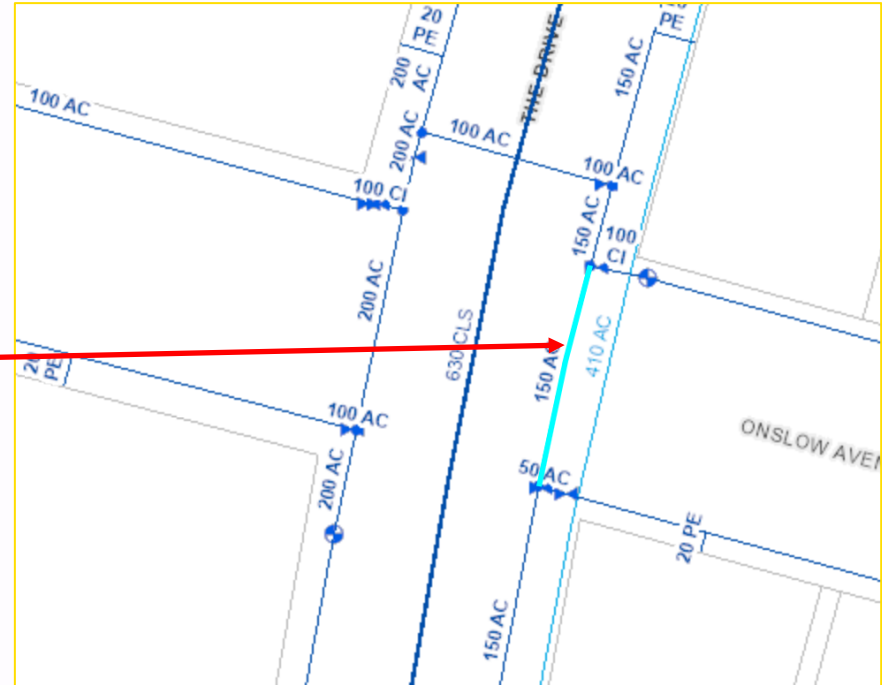
It's not about the platform, it's about what the platform enables us to do



How we expect the platform to operate

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Asset data structure:

Concept (MUDDI)

OWNER INFORMATION

- The owner and business contacts of the data
- The sensitivity and criticality of the asset

UTILITY INFORMATION

- Asset type (based on utility)
- Specific asset details (e.g. Operating voltage)
- Geospatial data
- The quality and the accuracy of the data

OBJECT INFORMATION

- Dimensions and thickness of the asset
- Asset material
- The age, condition of the asset
- Status and permanence

Detail

Mandatory

- Required minimum data to understand what and where the asset is located, as well as any critical safety risks associated with the asset.

Conditional

- Mandatory data specific to the asset type.

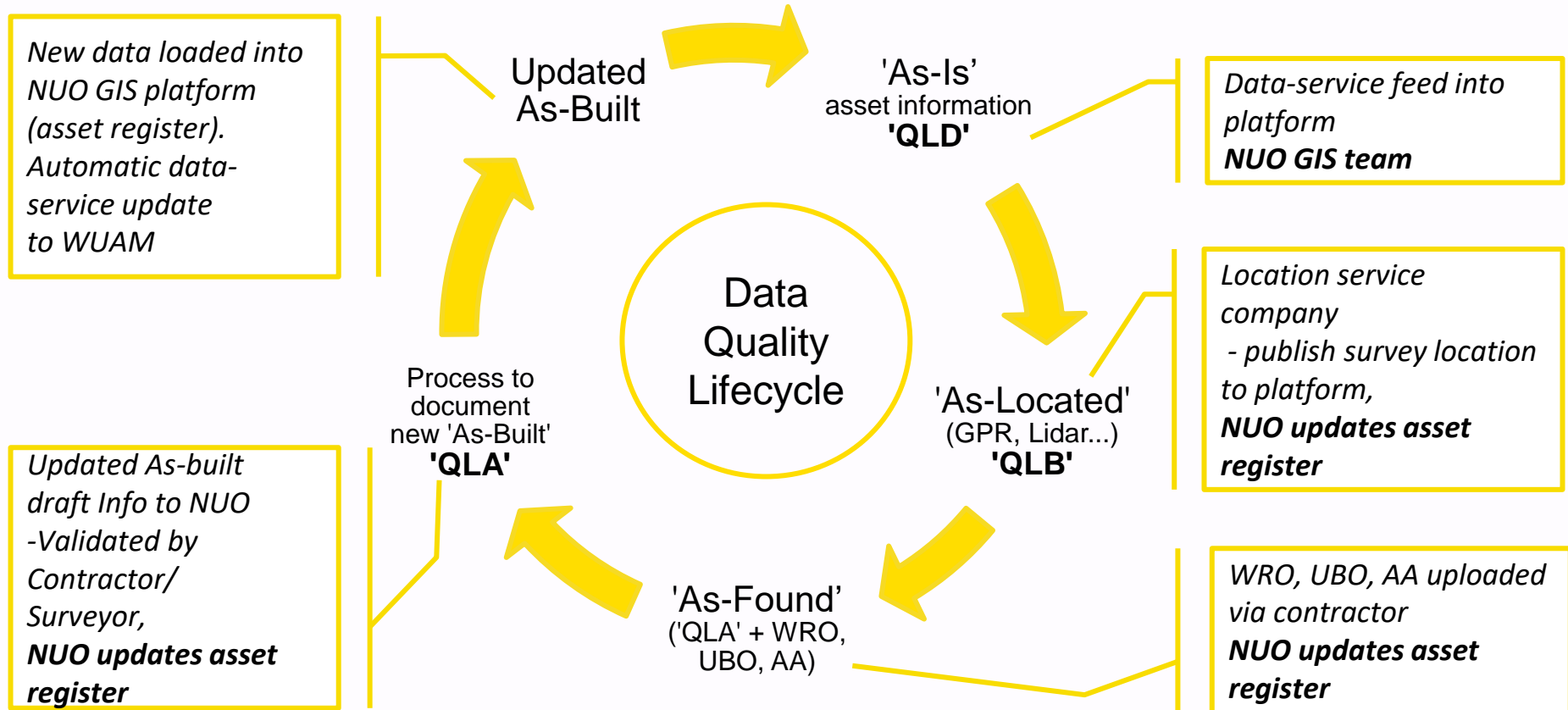
Optional

- Data the Asset owner may have available and would be useful / important to know.

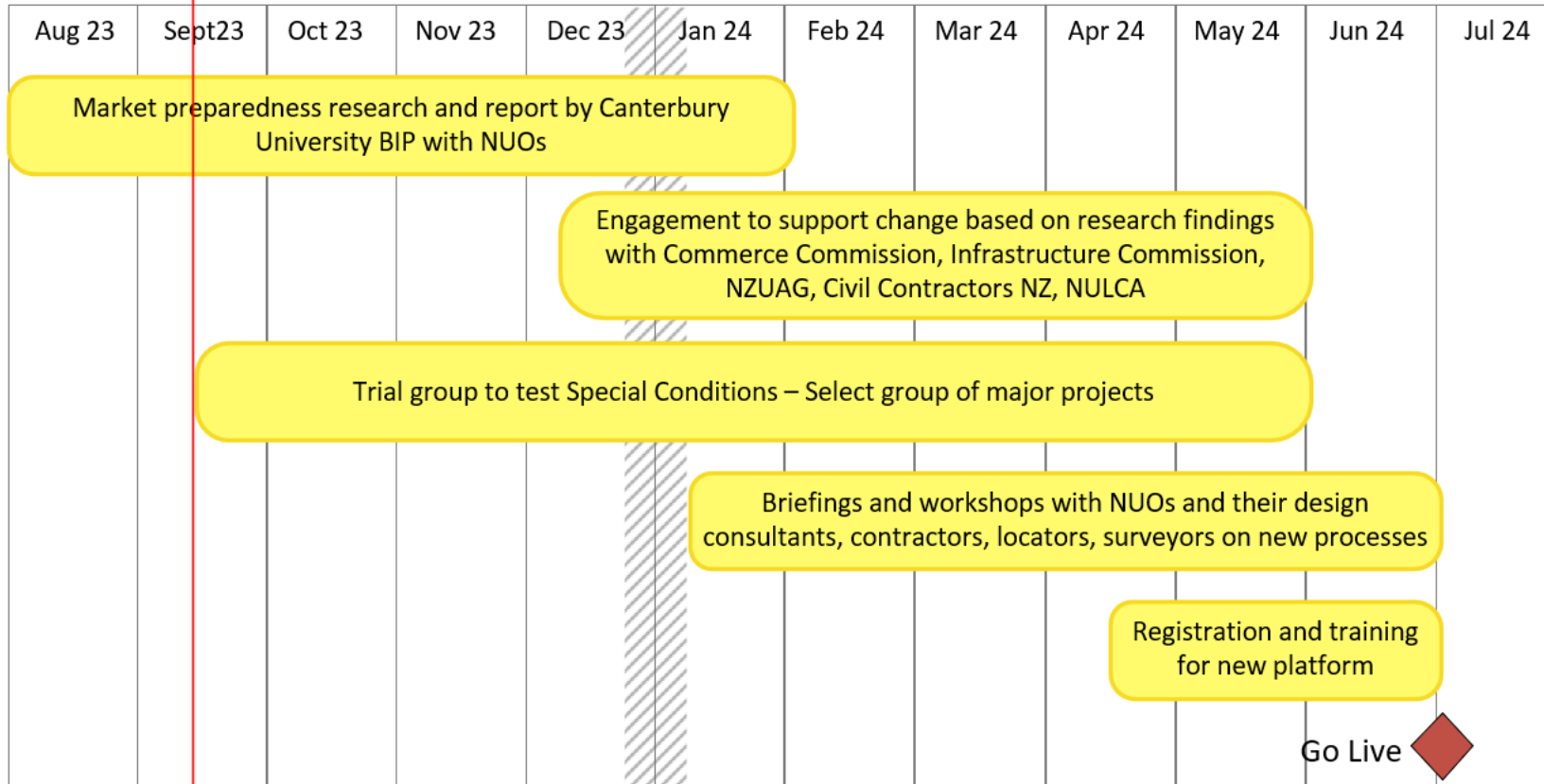
Future

- Other asset attributes described by MUDDI that could be used within future system.

Process to capture and improve asset information



What will it mean for you and the sector?



Each drop creates a Roto





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Denise Beazley or Viv Winch



[Wellington City Council Web Page](#)