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Facility Condition Assessments & Capital Planning

Agenda

INTRODUCTIONS

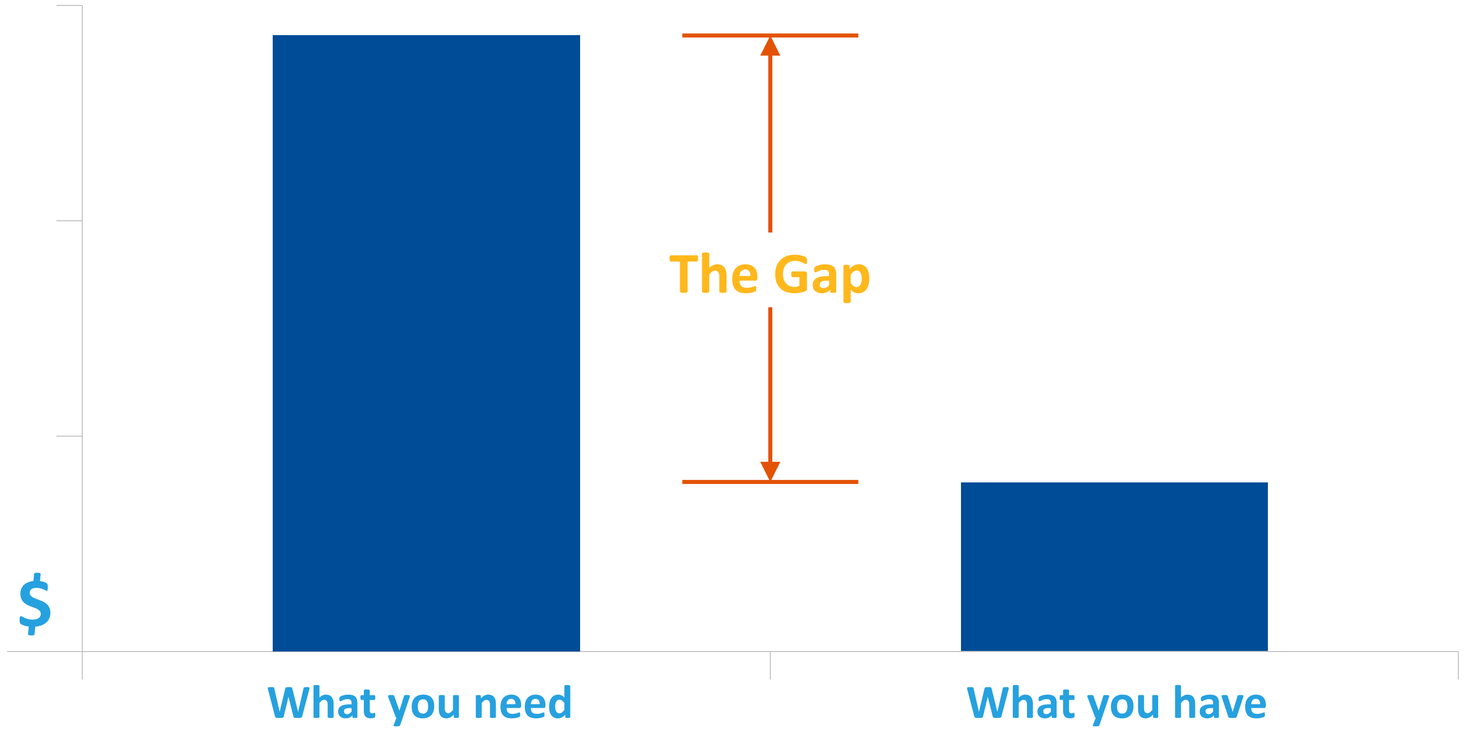
Roger Salema– Sr. Project Manager, Assessments
Kaveh Taheri – Sr. Account Executive

Assessments & Capital Planning Methodology

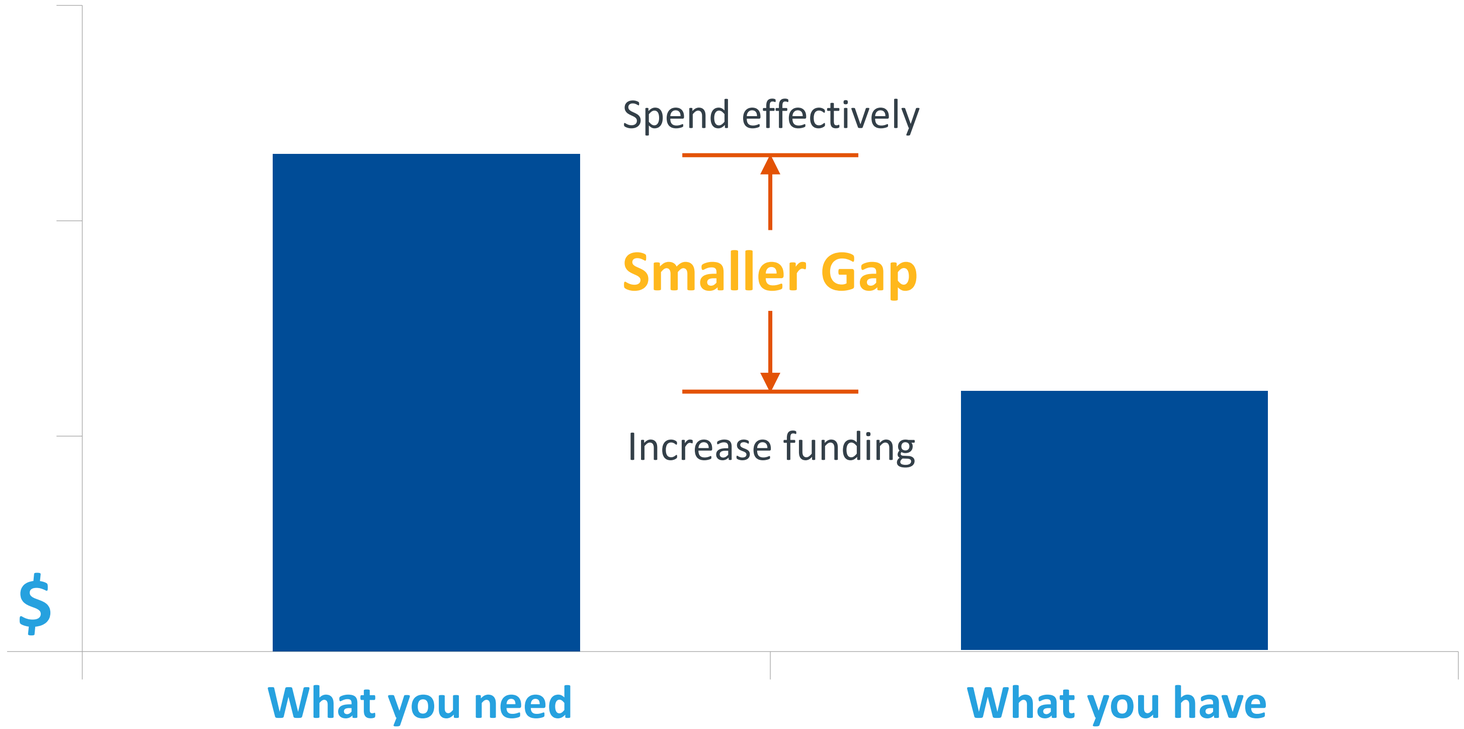
- Capital Planning Goals
- Facility Condition Assessment
- Capital Forecasting & Prioritization
- Data Maintenance & Re-Assessments

Capital Planning Goals

Helping You Manage the Gap



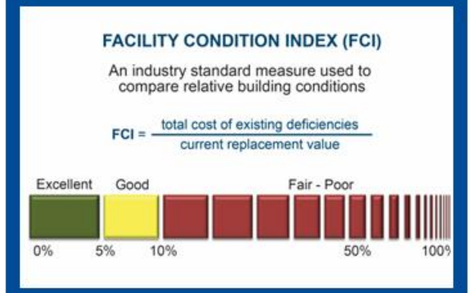
Helping You Manage the Gap



Key Questions Answered

What facilities assets are in the portfolio?

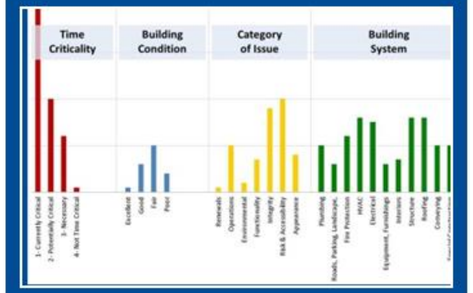
What role do our facilities play in meeting our strategic business objectives?



What condition are our facilities assets in?

Do they support our strategic business objectives?

How much funding do we need to achieve the organization's strategic goals?



How do we rank which projects are most important?

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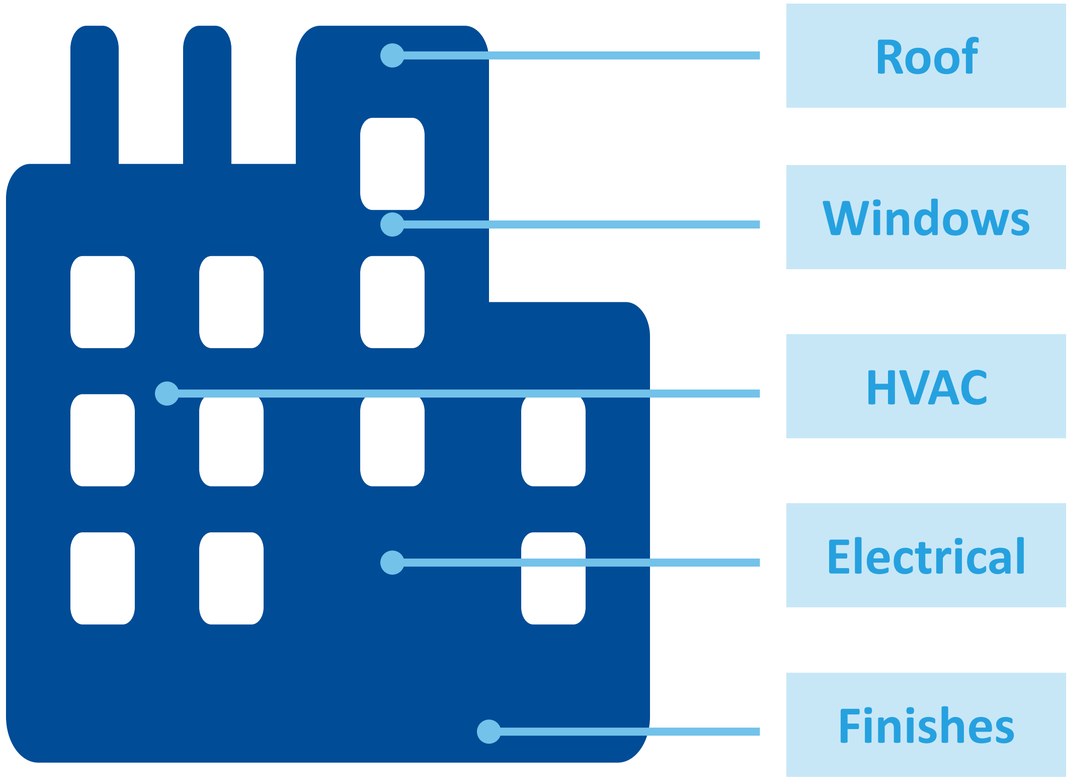
Facility Condition Assessments

How do we get the data we need?



How do we get the data we need?

Roof

Facilities Expertise

Assessments

Estimated End of Life Date

Renewal/Replacement Cost

Current Deficiencies (Timing, Cost)

Other Capital Needs (Timing, Cost)

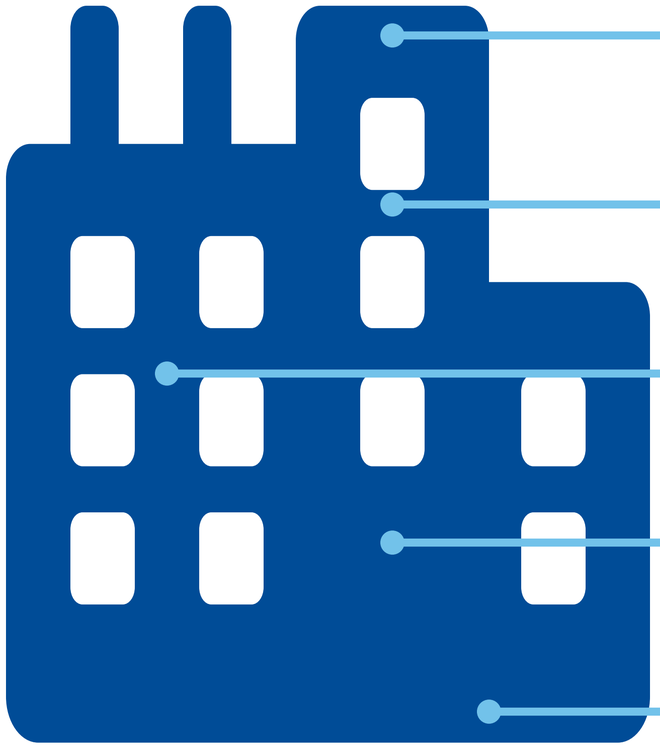
Industry Standards

RSMeans

BOMA

UNIFORMAT

How do we get the data we need?



- Roof
- Windows
- HVAC
- Electrical
- Finishes

Estimated End of Life Date

Renewal/Replacement Cost

Current Deficiencies (Timing, Cost)

Other Capital Needs (Timing, Cost)

Common Cost Estimate Classifications

Estimate Class	Project Definition	Intended Purpose	Methodology	Level of Precision	Prep Effort
Class A	High (completed working documents)	Compliance with effective project approval (budget)	Measured, priced, full detail quantities	High	High
Class B (Substantive)	Medium (completed design development)	Seeking effective project approval	Mainly measured, priced, detail quantities	Medium	Medium
Class C (Indicative)	Low (project plan)	Seeking preliminary project approval	Measured, priced, parameter quantities, where possible	Low	Low
Class D (Order of Magnitude)	Lowest (described solution)	Screening of various alternative solutions	Various	Lowest	Lowest

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How is condition rated?

Facility Condition Index (**FCI**)

Measures the condition of assets

Industry-standard condition metric

Facility Condition Index (FCI)

An industry-standard measure used to compare relative building conditions

$$\text{FCI} = \frac{\text{total cost of existing deficiencies}}{\text{current replacement value}}$$

Example

Cost of Capital Needs = $100,000

Replacement Value = $1,000,000

$$\text{FCI} = \frac{100{,}000}{1{,}000{,}000} = 10\%$$

Lower is better!

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Capital Forecasting & Prioritization

Funding to

maintain

your assets

Funding to

improve

your assets

Impact of

insufficient funding

on your assets

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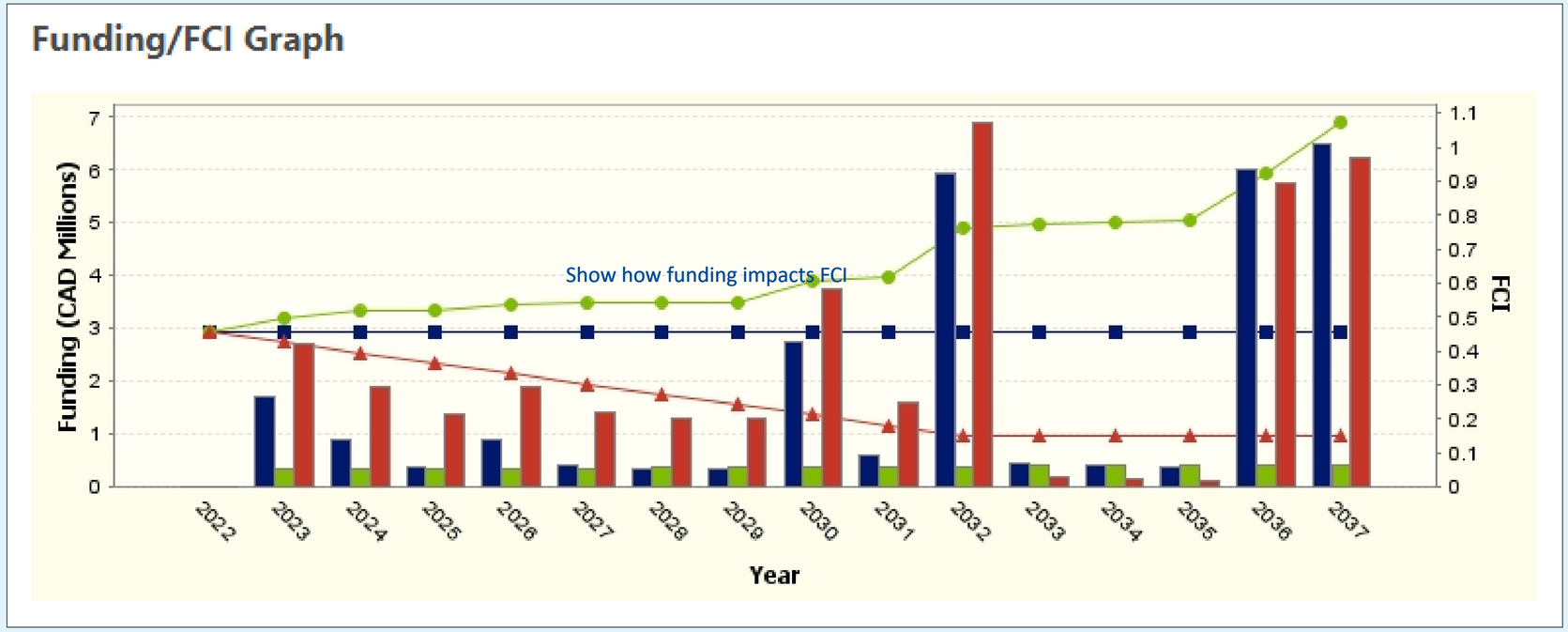
What-If Scenarios

Accurately forecast renewals over time

Show how funding impacts FCI

Example



Funding required to maintain assets

Positive impact of additional funding on the condition of assets

Impact of insufficient funding on asset condition

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Define what's

important

Generate

prioritized

spending plans

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Define what's important

Asset Condition

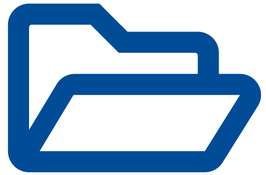
Excellent
Good
Fair
Poor

Reason

Life Safety
Energy
Functionality
End-of-life

Timing

0-6 mo
6-12 mo
1-2 yr



Asset Use

Administration
Operations
Infrastructure
Support

Mission Impact

High
Medium
Low

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Ranking Strategy

Prioritization Strategy

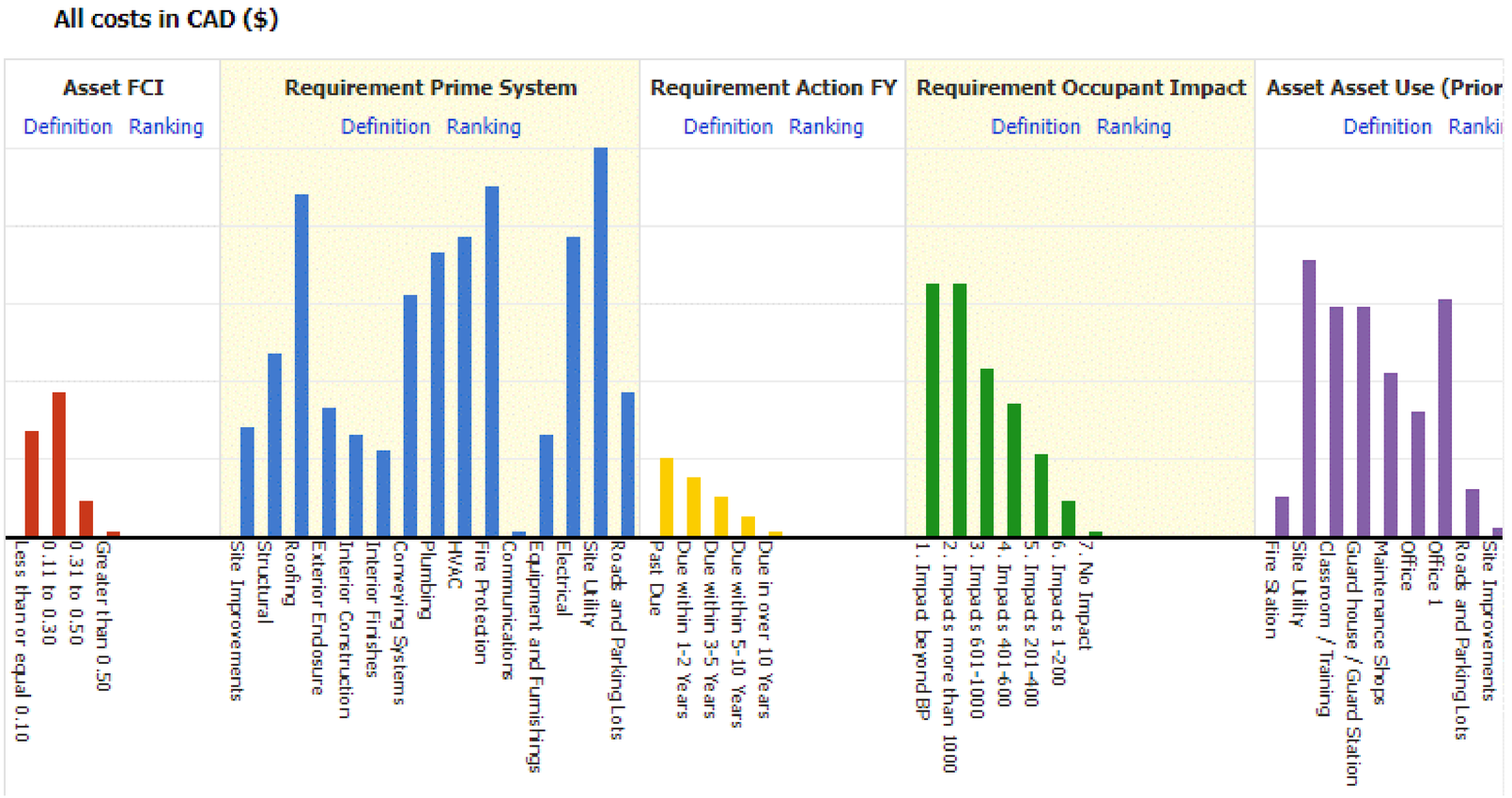
What's the condition of the asset?

How important is the system?

What's the time criticality?

What's the impact on Occupants?

How important is the asset?



Generate prioritized spending plans

Example

Projects to fund

VFA

Budget Scenario Ranked Requirements

Specific Annual

Rank	Score	Budget Year	Override	Name	Est Cost (CAD)	Region	Campus	Asset Name
1	68	2022	FALSE	Additional Strobe Alarms Needed	805	2017 Bruce Power Buildings	Bruce 2017 - Bruce A (Assets 100-199)	172 (158) - Lan Shed (T32 Transformer Shed)
2	53	2022	FALSE	Fire Alarm System Renewal	1,869	2017 Bruce Power Buildings	Bruce 2017 - Bruce A (Assets 100-199)	172 (158) - Lan Shed (T32 Transformer Shed)
3	49	2022	FALSE	Wet Sprinkler System - Ordinary Hazard wo/Pump Renewal	267,252	2017 Bruce Power Buildings	Bruce 2017 - Bruce A (Assets 100-199)	176 North Warehouse (B07)
4	49	2022	FALSE	Fire Alarm System - Fire Alarm Renewal	282,060	2017 Bruce Power Buildings	Bruce 2017 - Bruce A (Assets 100-199)	176 North Warehouse (B07)
5	48	2022	FALSE	Exterior Doors - Hardware Noncompliant	11,029	2017 Bruce Power Buildings	Bruce 2017 - Bruce A (Assets 100-199)	176 North Warehouse (B07)
6	48	2022	FALSE	Emergency Battery Pack Lights Renewal	832	2017 Bruce Power Buildings	Bruce 2017 - Bruce A (Assets 100-199)	172 (158) - Lan Shed (T32 Transformer Shed)
7	48	2022	FALSE	Exit Signs Renewal	976	2017 Bruce Power Buildings	Bruce 2017 - Bruce A (Assets 100-199)	171 - T34 Transformer Shed
8	48	2022	FALSE	Exit Signs Renewal	976	2017 Bruce Power Buildings	Bruce 2017 - Bruce A (Assets 100-199)	172 (158) - Lan Shed (T32 Transformer Shed)

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Data Maintenance & re-Assessments

How Do We Keep Data Accurate?

Short-term → Data Maintenance

Long-term → Re-assessments

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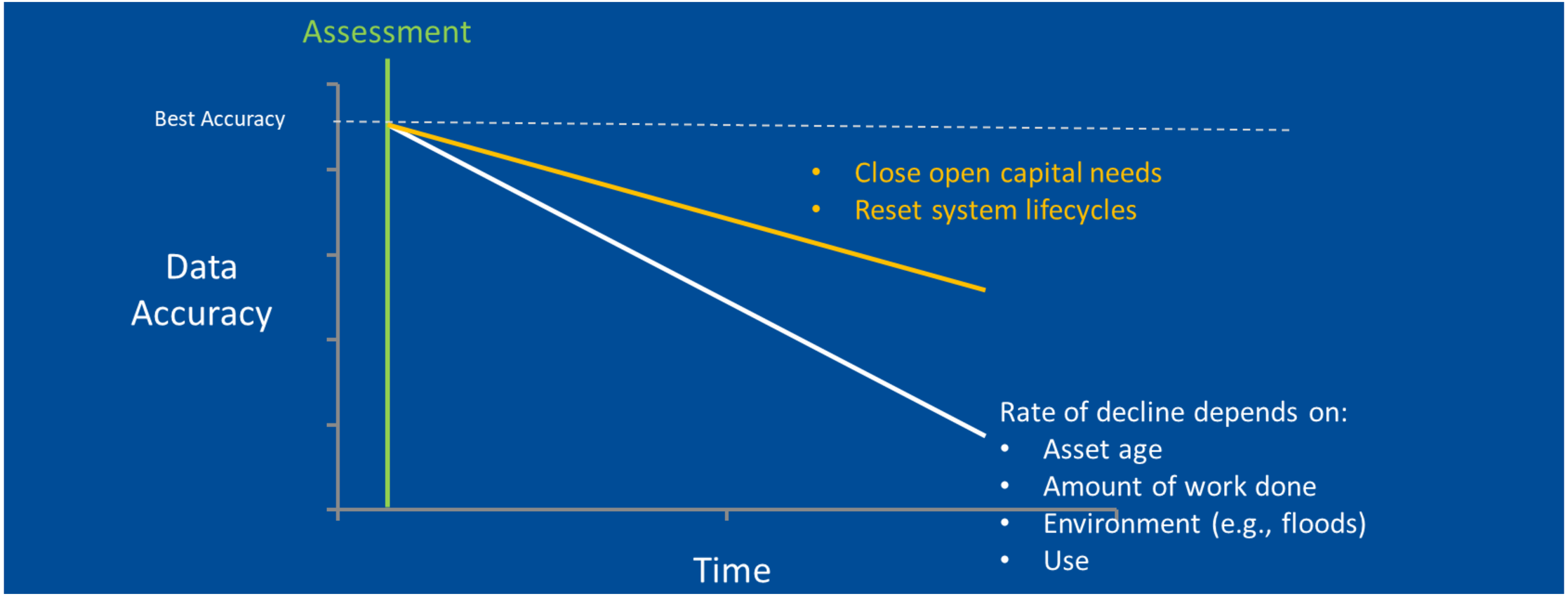
Time Makes Good Data Go Stale

Data Maintenance Accounts for Work Completed



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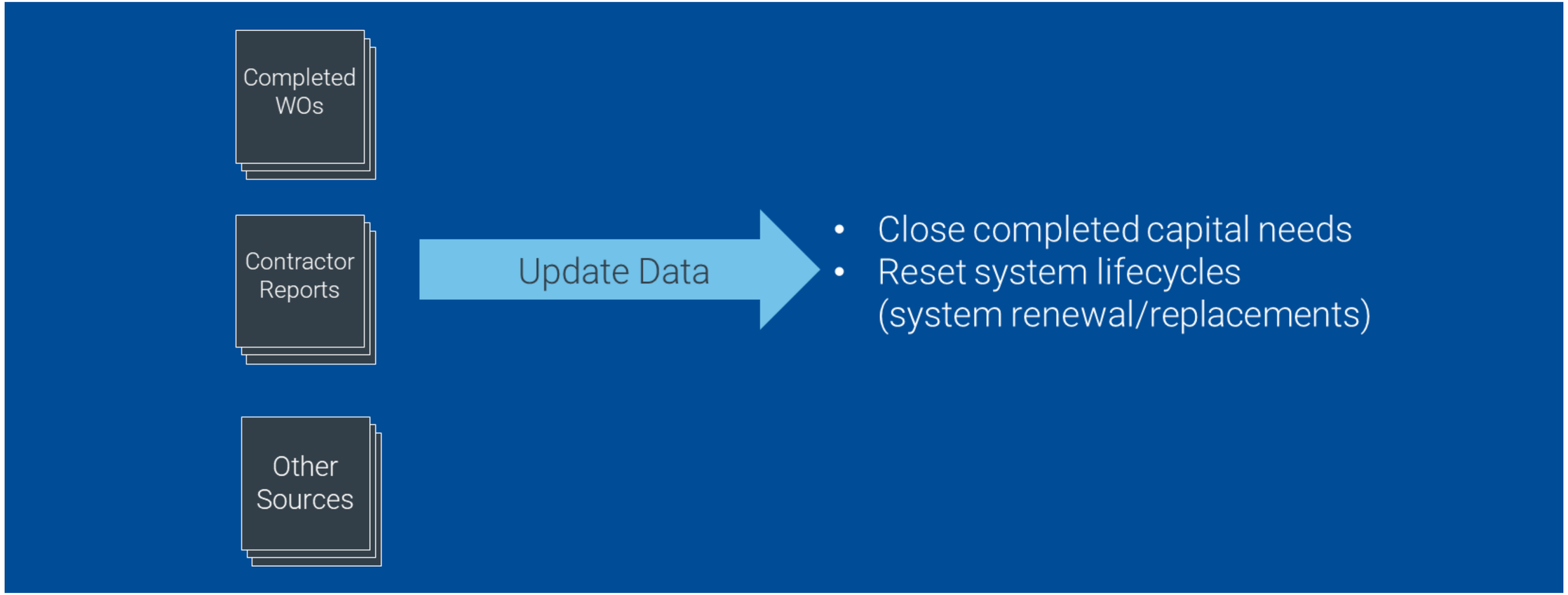
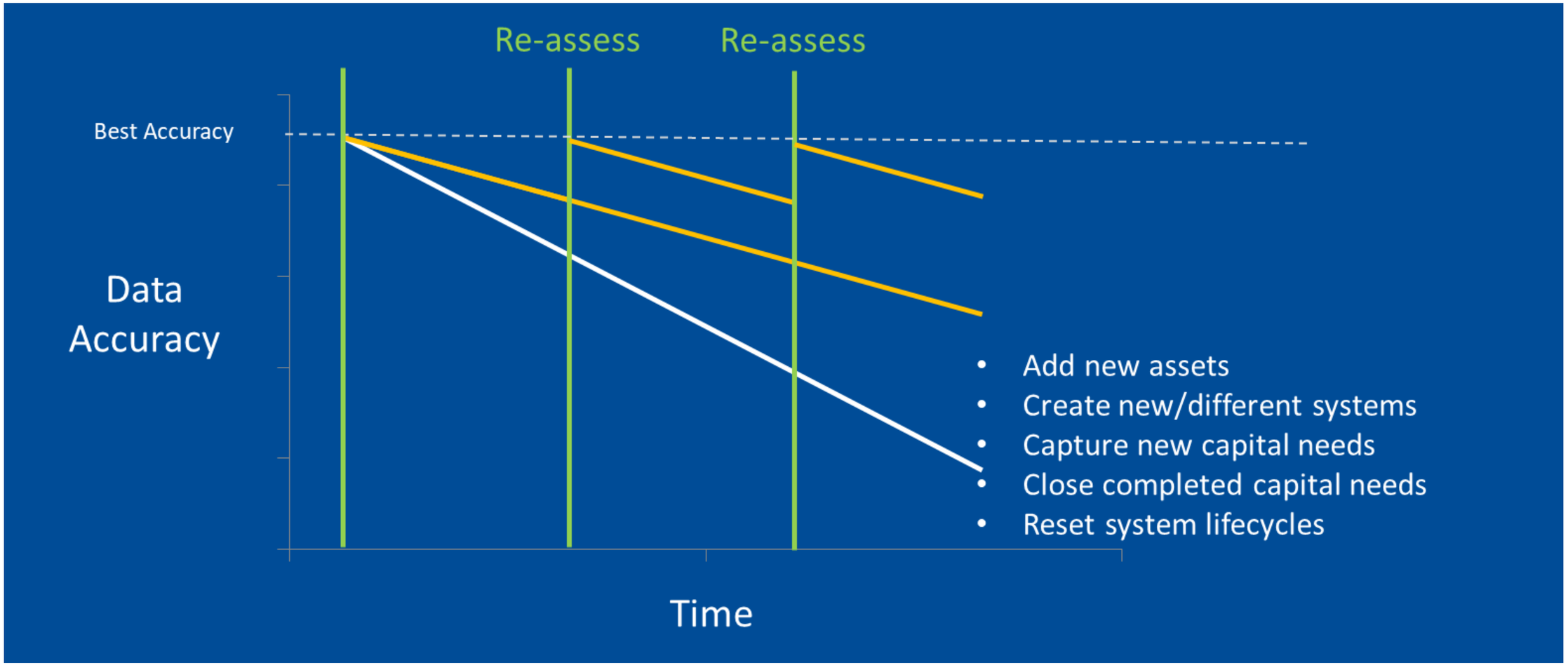
How We Do Maintain Data?

Manually Update Data



Re-assessments Reset Data



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Building knowledge

Questions