

**Learning from audit findings
2015 to 2017**

Asset management and long-term planning

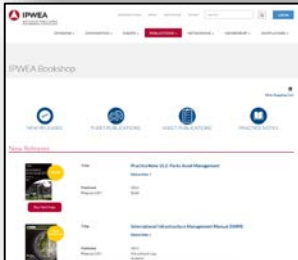
Asset management and long-term planning



Good practice



www.nams.org.nz



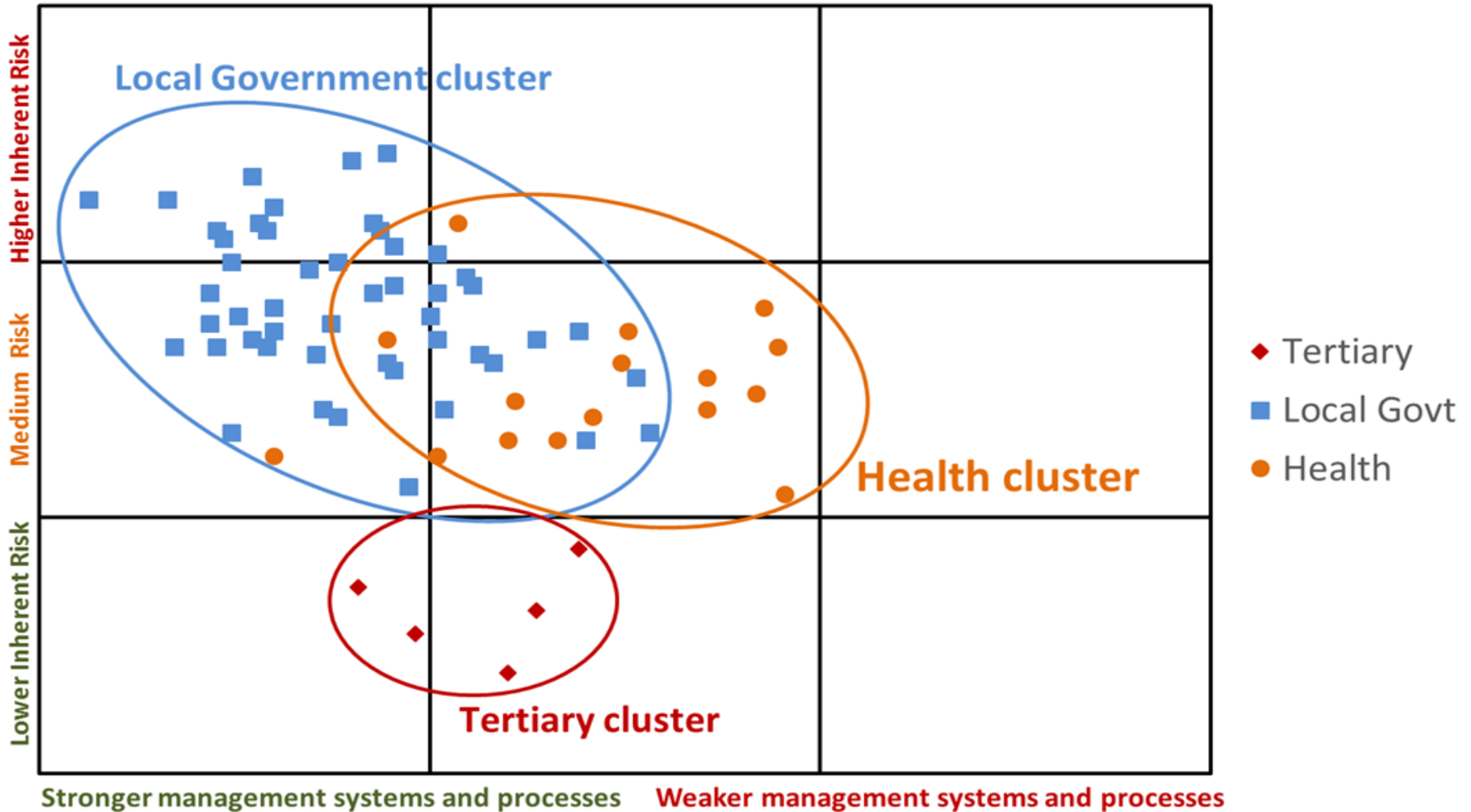
www.ipwea.org



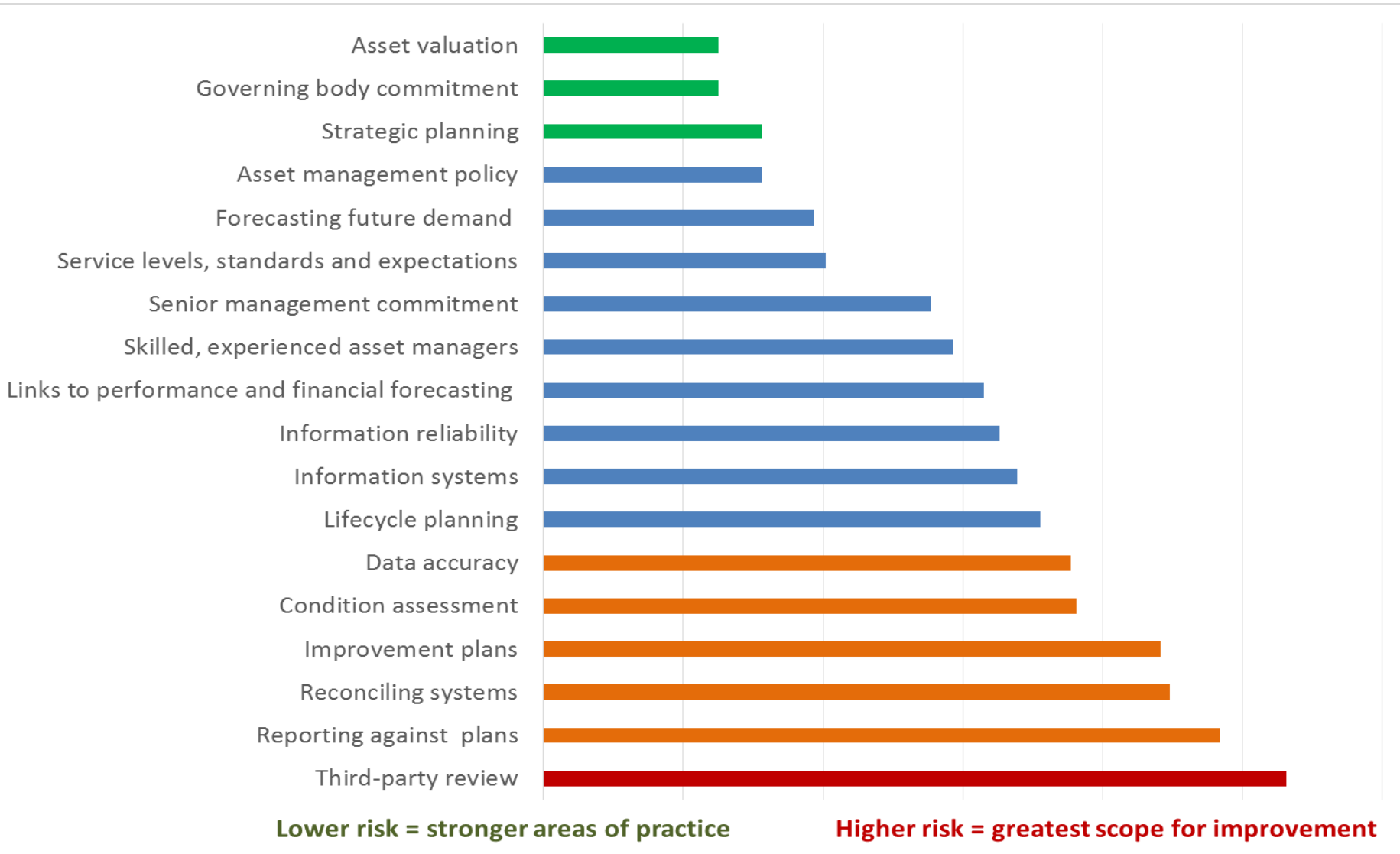
www.iso.org

Assessing risk and opportunities for improvement

Recent asset management risk ratings



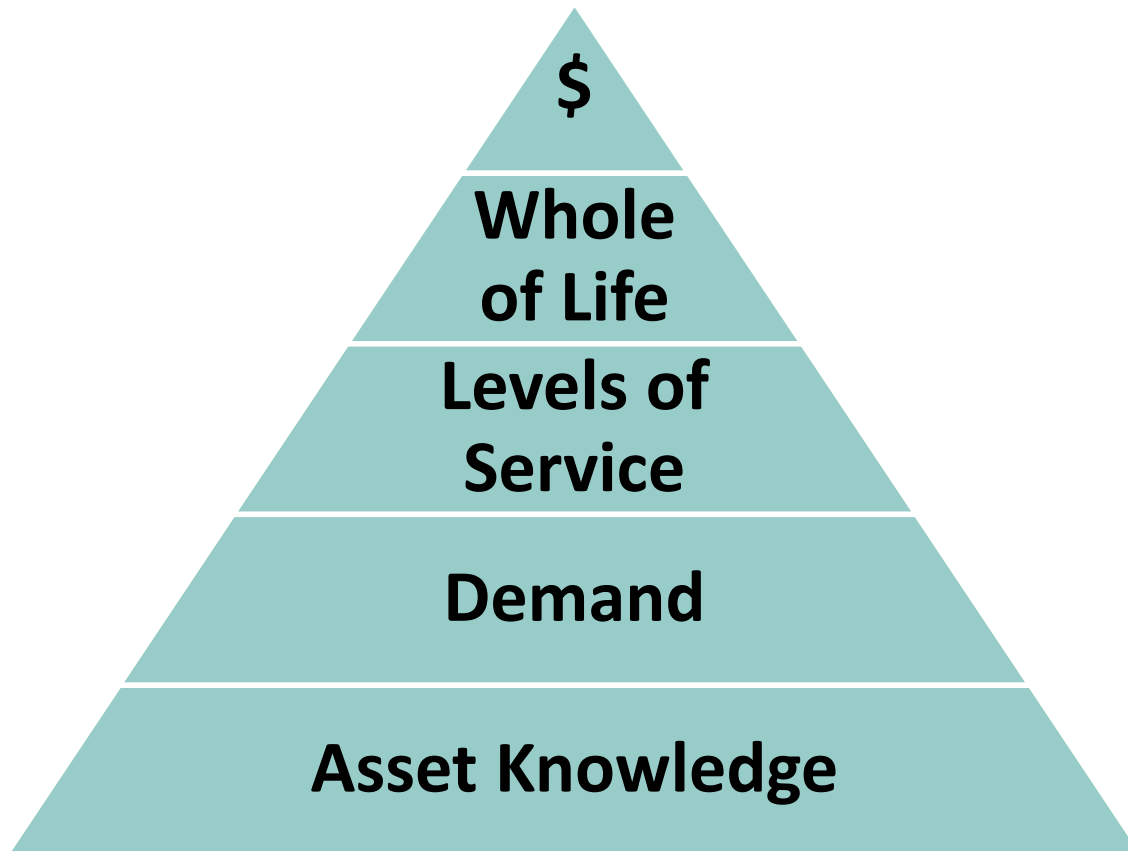
Where are the opportunities for improvement?



A closer look at the opportunities for improvement



The asset management pyramid



Policy

Risk

Continuous
Improvement

Strategic asset management

DETAIL

OUTLINE

KEY



TRANSPORT



COMMUNITY



PARKS & GREENS



WASTE WATER

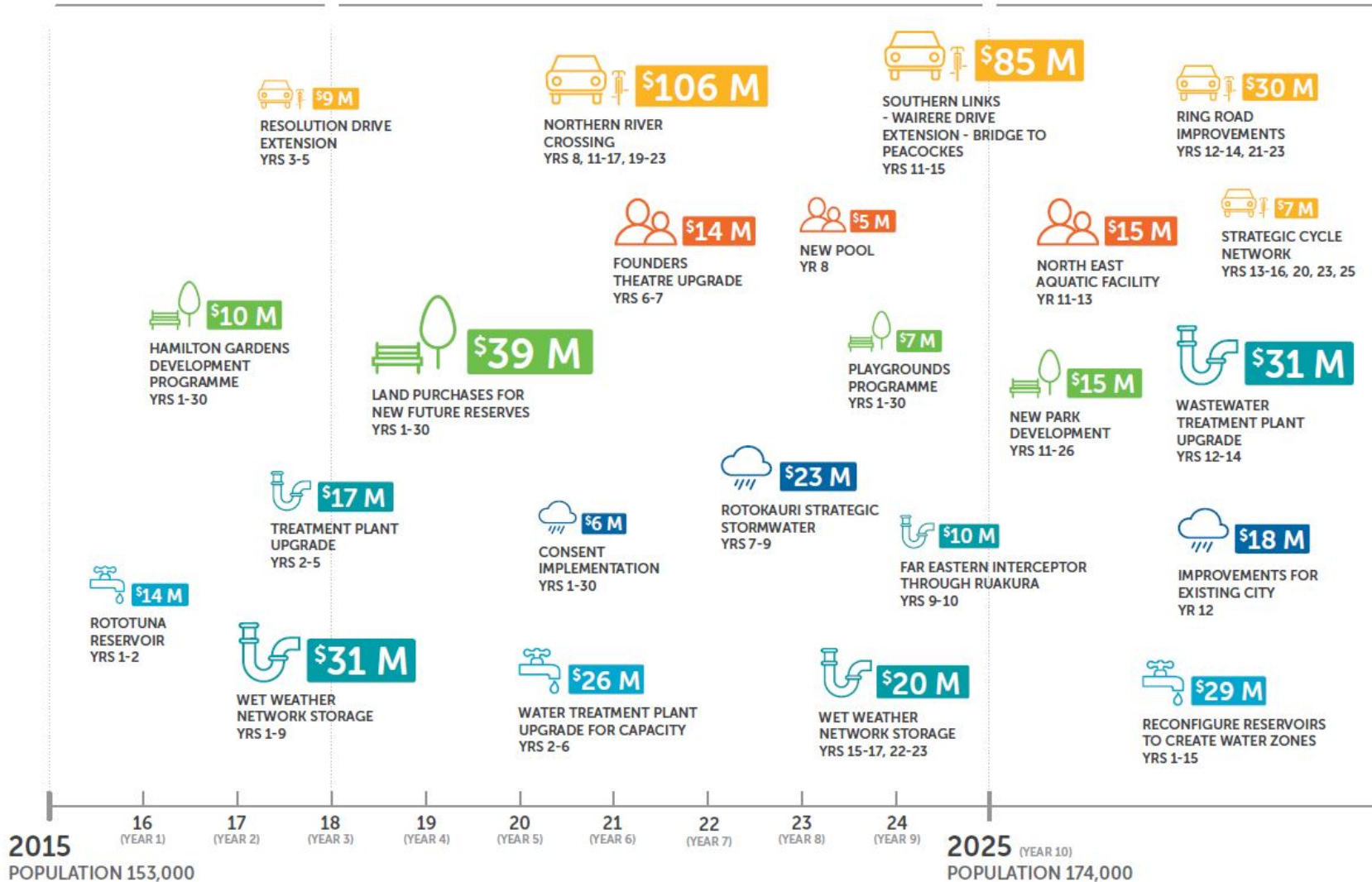


STORMWATER



WATER SUPPLY

*ALL COSTS DO NOT INCLUDE INFLATION

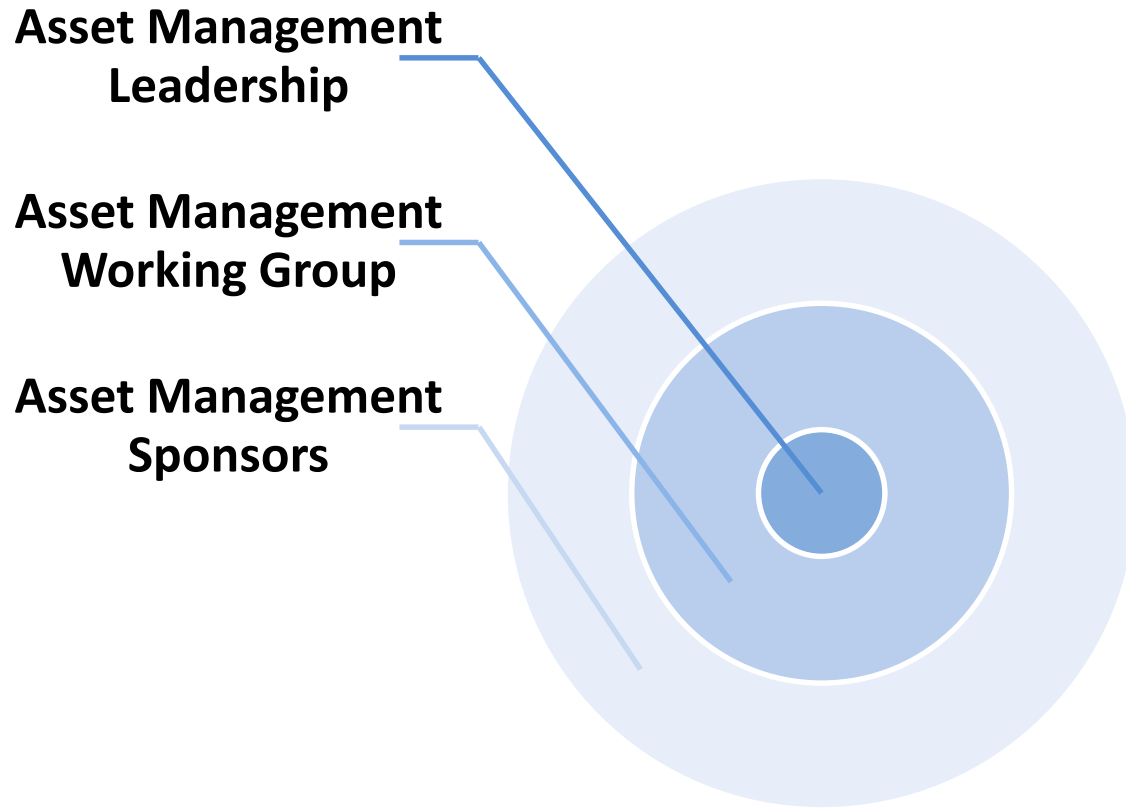


2015
POPULATION 153,000

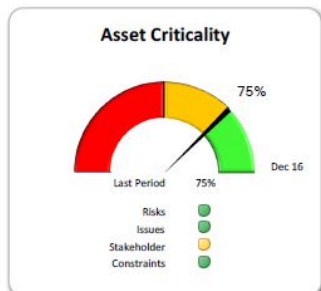
2025 (YEAR 10)
POPULATION 174,000

Planning for success

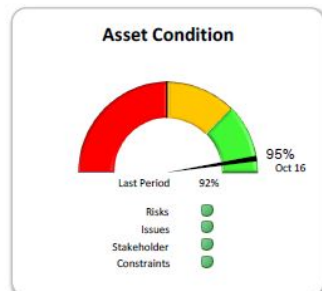
Good asset management takes a team



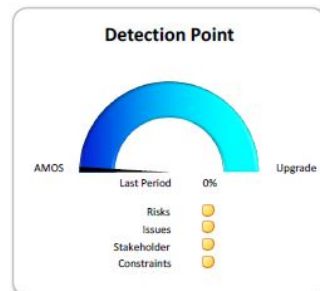
Data basics



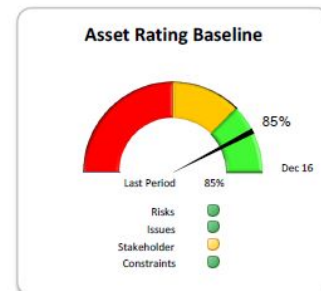
- Approximately 35 essential Assessments are required to be completed for each of the 3 Ships. This is largely resulting from recent changes made to the Asset Hierarchy. The Assessments will be performed during Feb/March 2017.



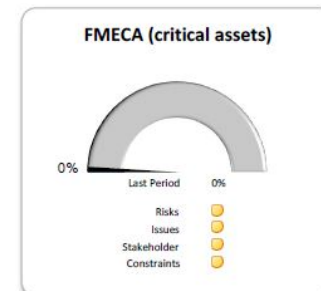
- The work activities from the Condition Assessment Reports (3 Ships), produced on 19 June 2016, and the DNV works list have fed into the FWP.



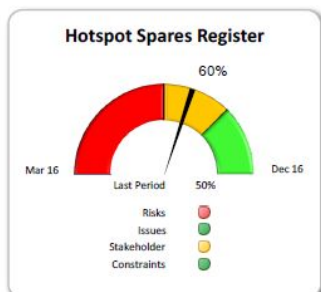
- To be performed in conjunction with the TMP development.
- System Configuration functionality to be created in AMOS (by SpecTec).
- Detection Points to trigger advanced time warning for Refurbishment or Replacement.



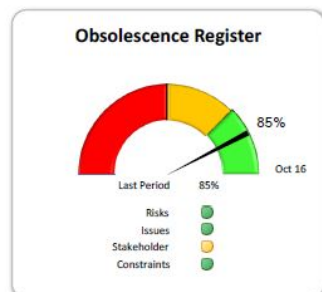
- Completed to the same level as the Criticality and Condition Assessments.
- Results to date have informed the AWP and FWP.



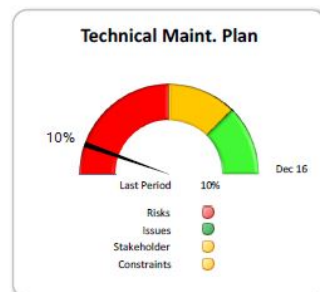
- To be undertaken for equipment assessed as 'High' or 'Extreme' Criticality and where reliability is an issue.



- Informed by Criticality Analysis.
- Completed for Kaitaki by Chief Sjoerd Gorter.
- Completed for Aratere by Chief Sean Bryant.
- Yet to start for Kaiarahi - which is a Risk.



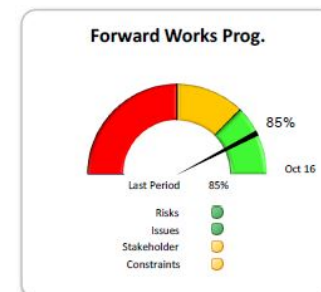
- Obsolescence Register is still being populated by the Engineering Manager.
- Input still required from Ship's Chief, 1st and 2nd Engineers.
- Some of the Change-out strategies have seen works packaged into the FWP



- No change in progress - risk.
- TMP template design in place and partly populated.
- Next tasks - extract data from AMOS, compare with DNV GL suggestions, refer to OEM manuals, Criticality and Condition Assessment results - develop a tailored TTMP.

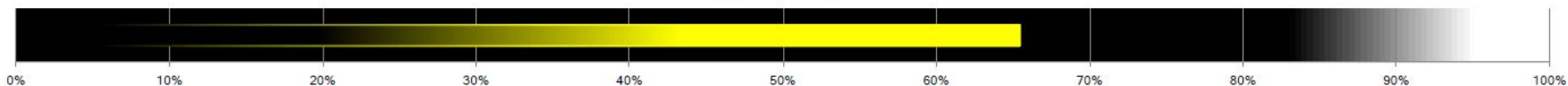


- Works Management Compliance figures still require firm management for better outcomes.
- Need to assign a Priority Code for reactive works to improve ILL compliance - knowledge - i.e. what is important and what is not so.



- FWP template Service Categories are now aligned with Accounting activities.
- Dry-Dock activity costs are now included into the FWP.
- Some cost estimates have been further improved from a historical and forward view of works scope

Overall Progress



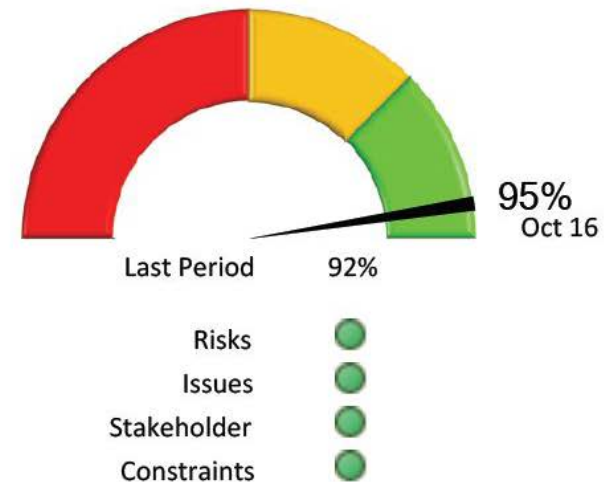
Data basics – a closer look

Asset Criticality



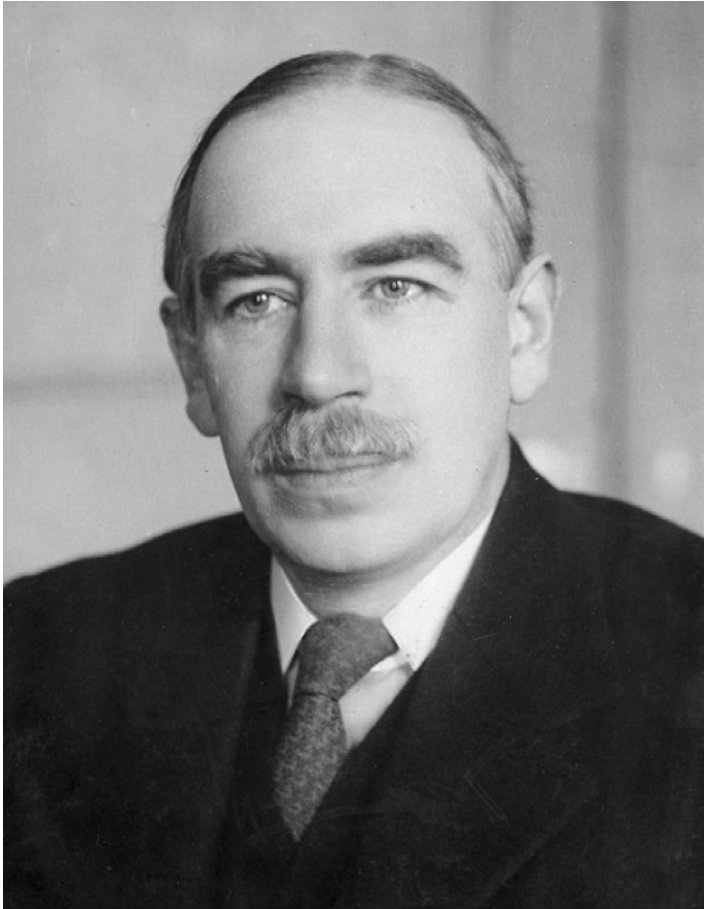
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Asset Condition



- The work activities from the Condition Assessment Reports (3 Ships), produced on 19 June 2016, and the DNV works list have fed into the FWP.

Well informed assumptions



**“When the facts
change, I change
my mind.
What do you do?”**

John Maynard Keynes, 1883-1946

AUDIT NEW ZEALAND

Mana Arotake Aotearoa

Well informed assumptions

	Assumption	Level of uncertainty
Population trends	<p>That the regional population will continue to grow at the medium growth rate as projected by Statistics New Zealand and will reach approximately 538,700 by 2026 and 559,900 by 2046.¹</p> <p>Natural increase is the primary driver for growth. More than three quarters of the region's projected growth will be at 65+ years. Population decline is expected at the 0-4 and 15-29 year age groups. The ratio of elderly (65+ years) to children (0-14 years) will increase rapidly from the current 0.64 (six elderly for every ten children), to 1.16 (12 elderly for every ten children) by 2031.</p> <p>Only modest changes to the overall ethnic composition of the region. The 'European / Other' ethnic group is expected to decrease slightly to 67.7% by 2021. Maori, Pacific Island, and Asian groups will increase slightly.²</p>	Medium
Indicative areas of urban growth / intensification	<p>Our assumptions on where urban growth and intensification will take place are based on the best publically available information from territorial authorities various urban growth / development strategies including:</p> <ul style="list-style-type: none"> • Kāpiti Coast: Choosing Futures - Development Management Strategy 2007 (Kāpiti Coast District Council) • Proposed Kāpiti Coast District Plan 2012 (Kāpiti Coast District Council) • 2007 Urban Growth Strategy (Upper Hutt City Council) – <i>under review</i> • 2012-2032 Urban Growth Strategy (Hutt City Council) • Wellington Urban Growth Plan 2014-2043 (Wellington City Council) • Porirua Development Framework 2009 (Porirua City Council) • Operative Wairarapa Combined District Plan (Masterton, Carterton and South Wairarapa District Councils) – Subdivision, Land Development & Urban Growth chapter. 	Medium
Economic growth³	<p>Employment in the region is projected to grow from 226,600 full-time equivalents (FTEs) in 2013 to 285,300 FTEs in 2041. This equates to an annual growth rate of 0.82% (which is 0.33% below the national average).</p> <p>GDP in the region is projected to grow from \$23,020 million in 2013, to \$44,180 million in 2041. This equates to an annual growth rate of 2.36% (which is 0.15% below the national average).</p>	Medium

Helping your auditor can be helping yourself

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Top ten questions for governors and senior managers

- 1. Have you got a strategy for the long term sustainability of your assets?**

Top ten questions for governors and senior managers

**2. Have you set an asset
management policy?**

Top ten questions for governors and senior managers

3. **Do you have good quality up-to-date asset management plans for achieving your strategy?**

Top ten questions for governors and senior managers

4. **Does your organisation have appropriate asset management skills and experience?**

Top ten questions for governors and senior managers

5. Do you know the reliability of your asset information?

Top ten questions for governors and senior managers

6. **Do you have a structured approach to assessing the condition and performance of your assets?**

Top ten questions for governors and senior managers

7. **Have you defined a clear and comprehensive set of service levels to be delivered or supported by the assets?**

Top ten questions for governors and senior managers

8. **How well do you forecast future demand for the services that are delivered or supported by your assets?**

Top ten questions for governors and senior managers

9. **Do you report, and get reports on, achievement of your asset management plan(s)?**

Top ten questions for governors and senior managers

10. Do you have a backlog of repairs, maintenance, and asset renewals? and what are you doing about it?

Asset management and long-term planning

