

Recent Recessionary Influences on Asset Management

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Presenter's Title: Plant Asset Systems Manager Fulton Hogan



Case Study: Agenda

- **Fulton Hogan Ltd Overview**
- **Focus On New Zealand PAM operations**
- **Pressure Points During a Recession**
- **Reducing Costs: Making sure this message is not lost in the translation**
- **Benefits of good asset management**
- **Simple Improvements that can reduce the pain**



Fulton Hogan Ltd Overview

- Founded in New Zealand in 1933 Fulton Hogan is now a major resourced based Australasian civil contracting company that provides a range of products and services to customers in the following sectors:
- Highways & Roads
- Quarrying
- Civil construction
- Rail
- Infrastructure
- Maintenance
- land development

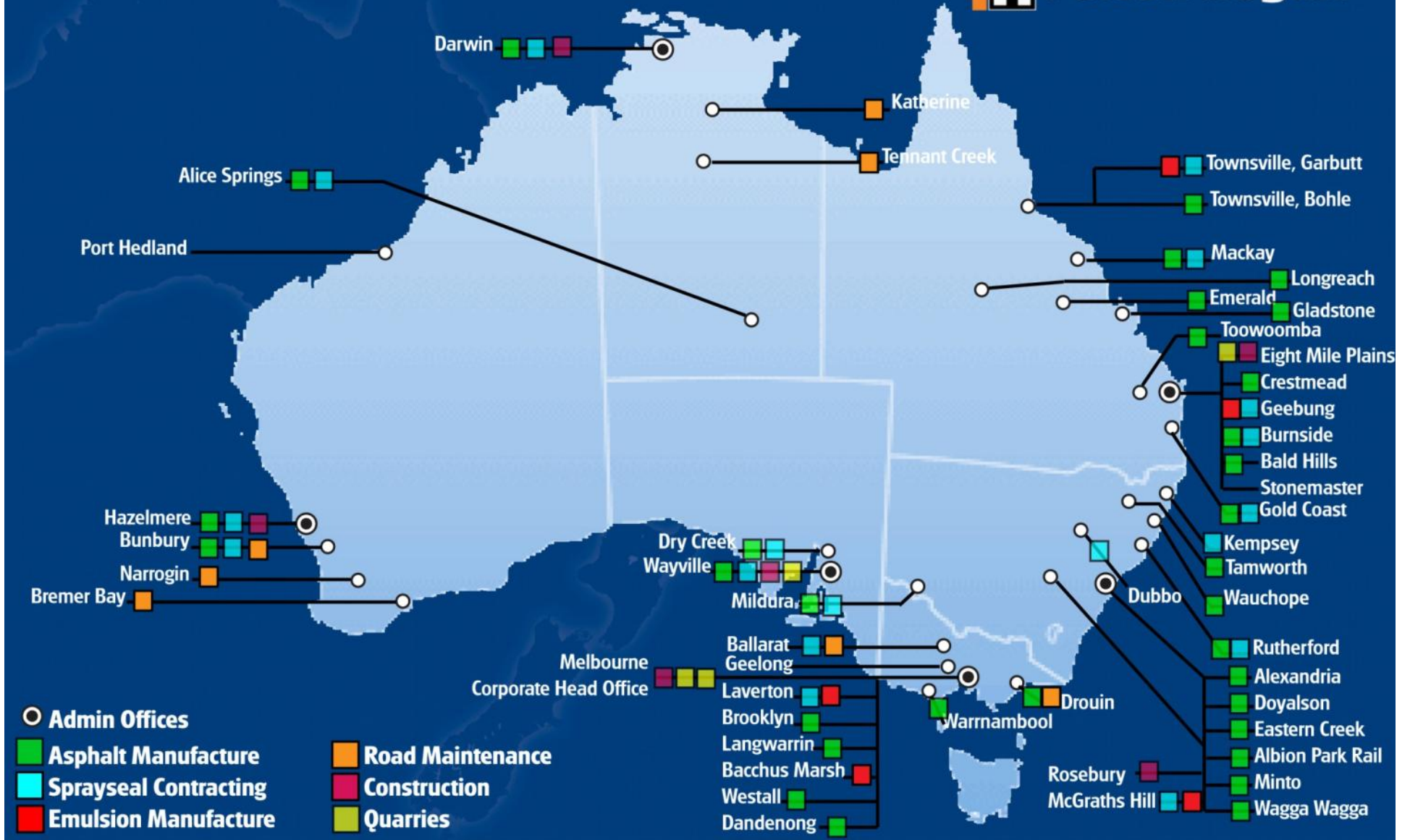
Staff 5500 + in NZ & Australia
TO 3 Billion
Shareholding: Private



Fulton Hogan Ltd Overview

- Over 4000 Major Fleet & Mobile Plant assets through out New Zealand
- 2500 Plus Major Fleet & Mobile plant assets in Australia
- A variety of plant Makes, Models & Types
- Specialist plant such as the UHP water cutter's, bitumen sprayers, bitumen tankers and quarry plant some designed and manufactured in the Canterbury, Hamilton and Dunedin engineering shops

Fulton Hogan in Australia



Fulton Hogan NZ Focus

Operates a Zone and Regional management structure

18 Operating Regions

18 Mechanical Workshops

3 Engineering Workshops

- Regional Autonomy
- Fragmentation
- Department Manager responsible for Plant Management



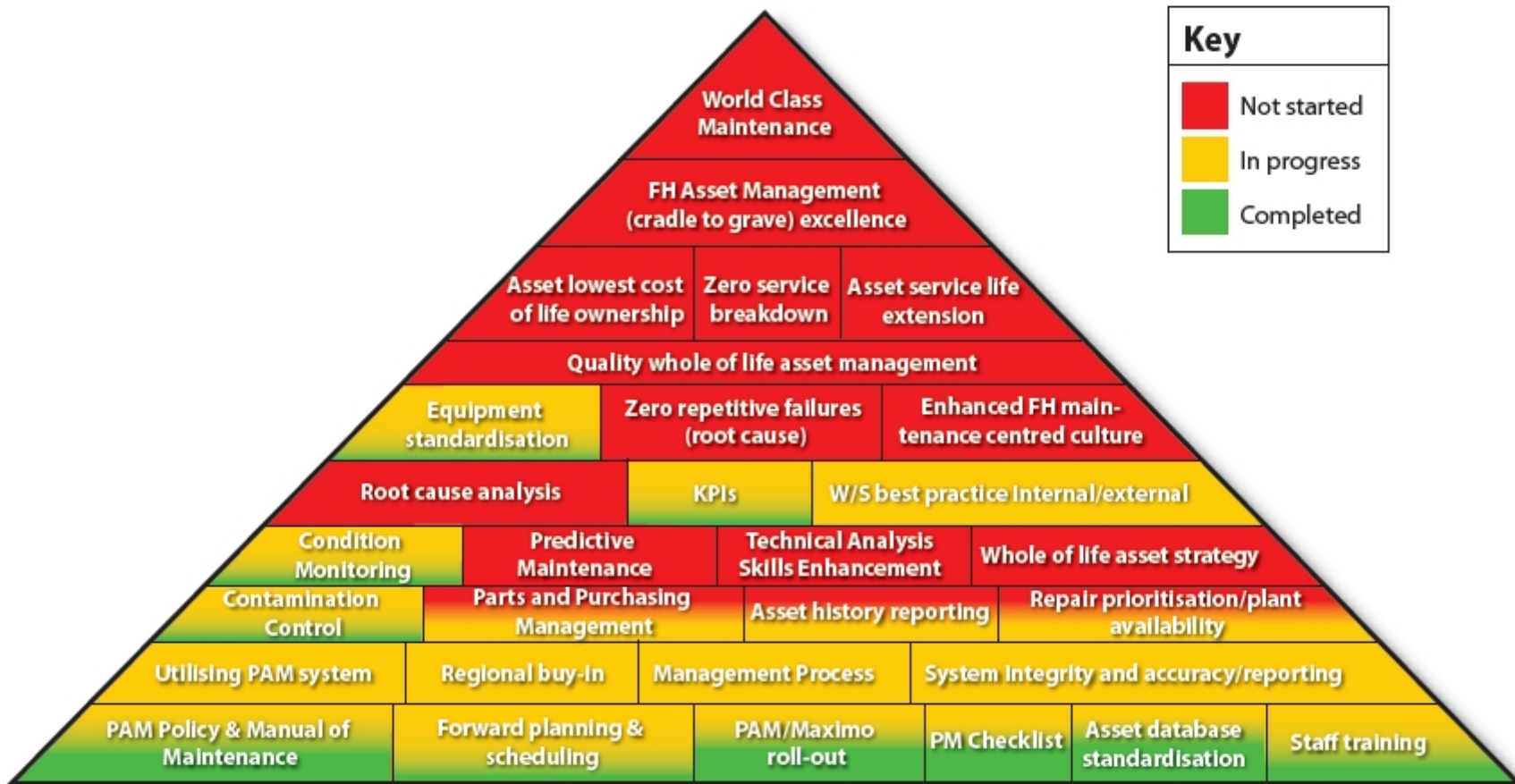


Fulton Hogan NZ Focus

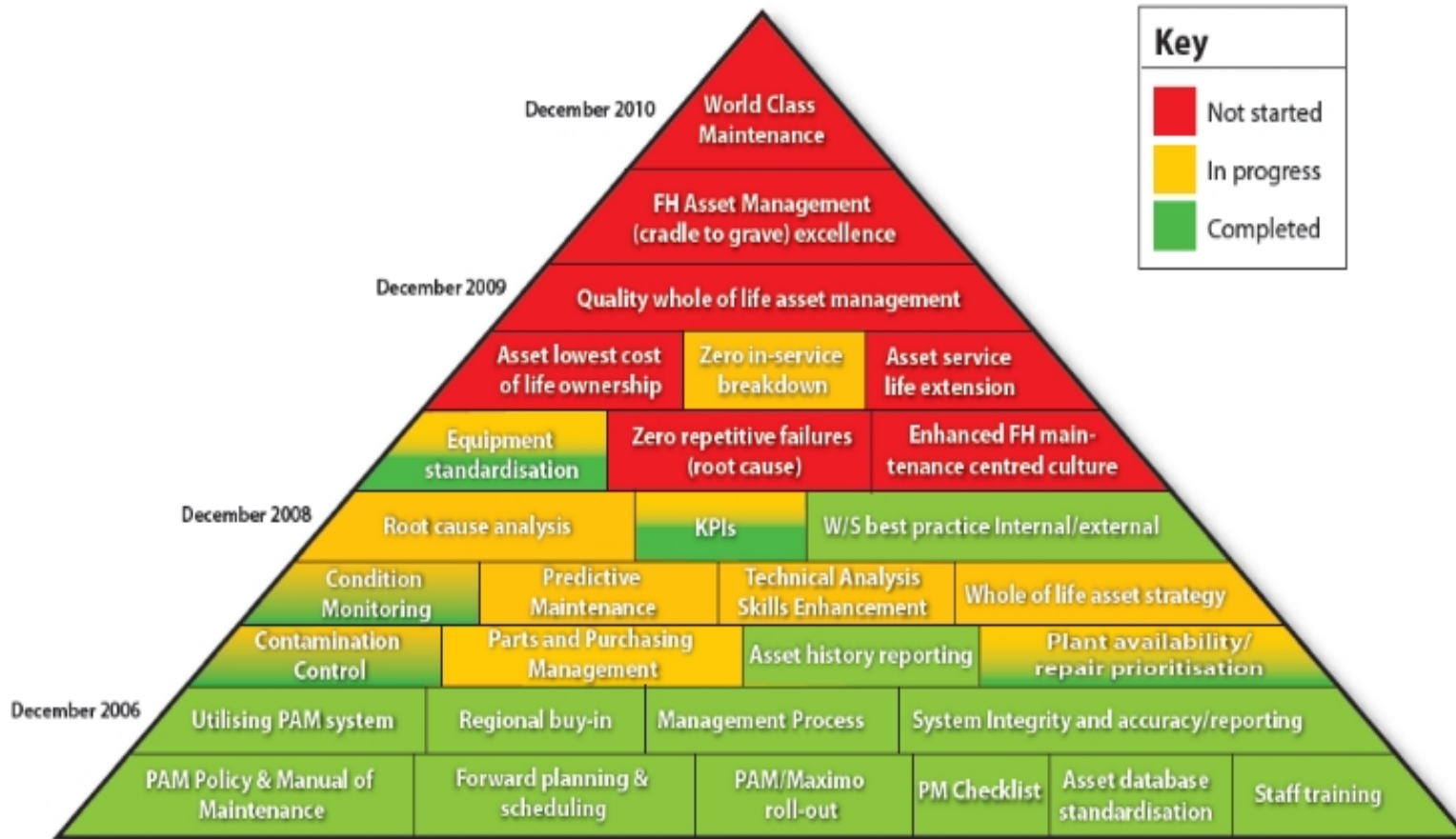
- PAM Project started in 2004 following serious maintenance related incident.
- Objective was to develop and implement a comprehensive Plant Management system.
- 2004 PAM teams Developed processes, procedures and Rules.
- Asset data standardized
- 2004/5 Maximo Transportation 5.2 Selected and implemented Finished Feb 2006
- 2006 to 2008 constant improvement program with continued training and audits

Fulton Hogan NZ Contracting

PAM Progress Indicator



Updated 2007



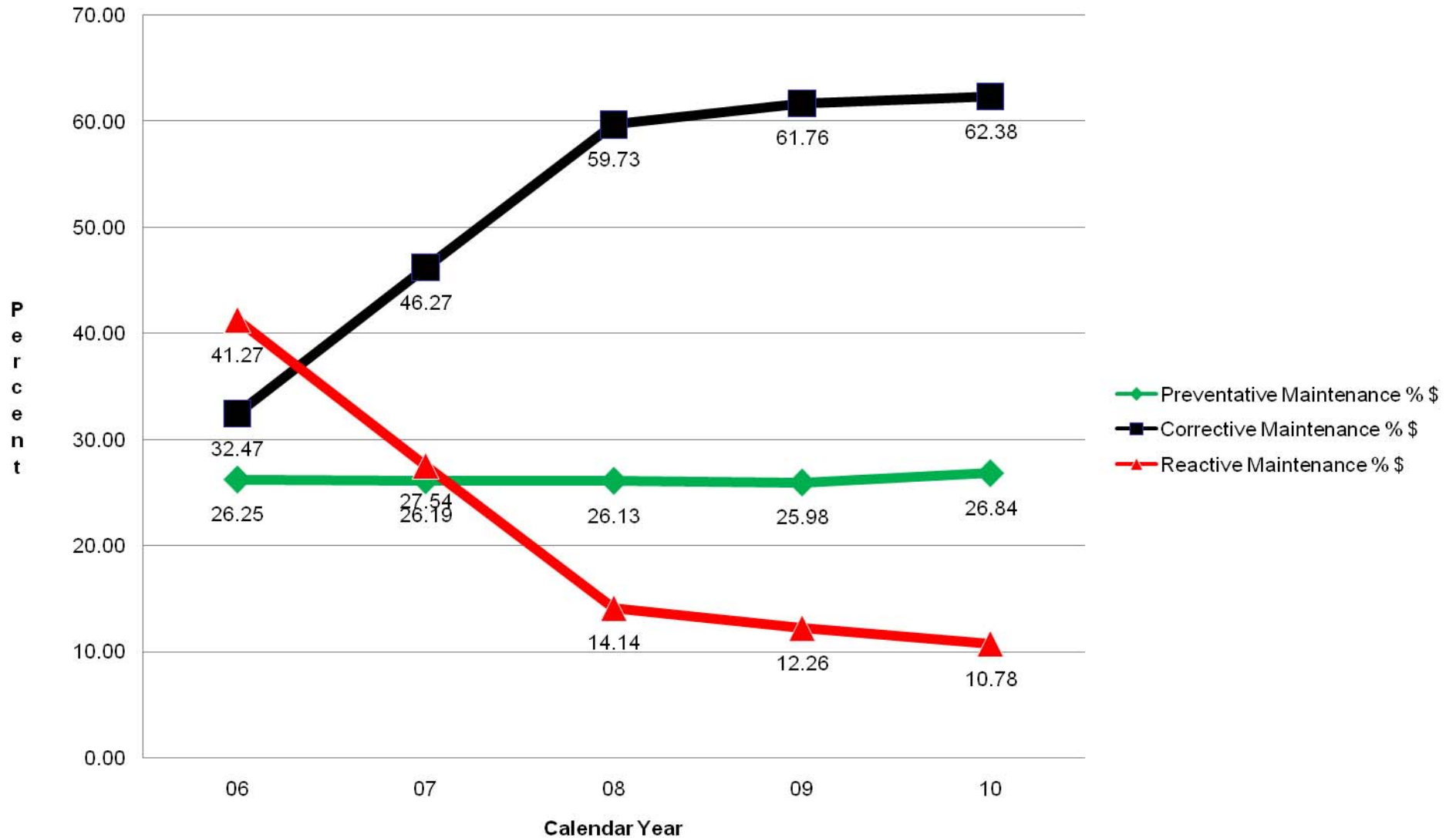
Fulton Hogan NZ Contracting
PAM Progress Indicator - Fixed Plant
Updated: Aug 2008



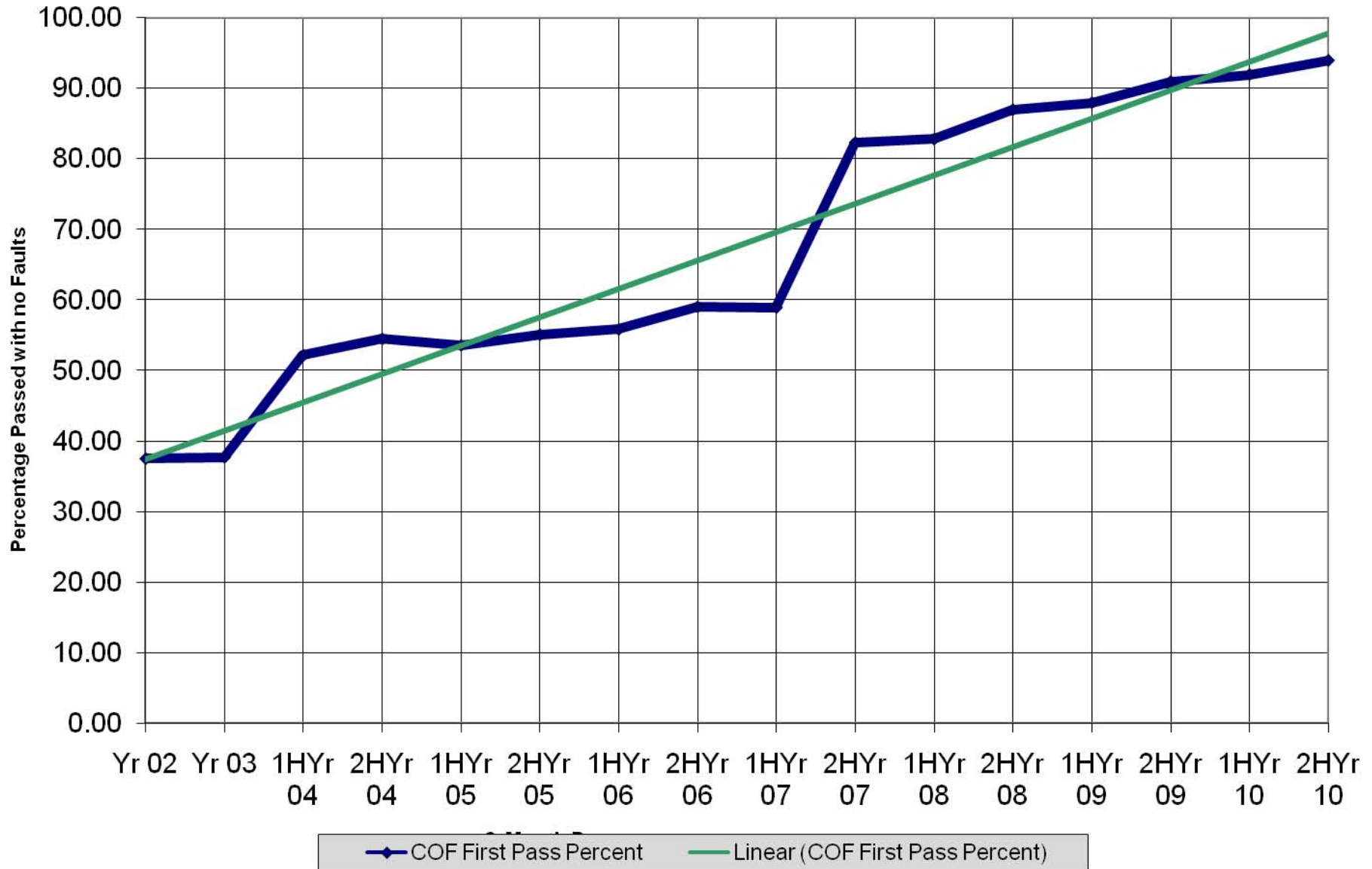
Pressure Points During the Recession

- In 2008 PAM progress started to stall
- Pull Back and review
- Limited Confidence in Systems and processes
- 2009 Funding Limits
- However progress at grassroots level was still being made as per the following graphs

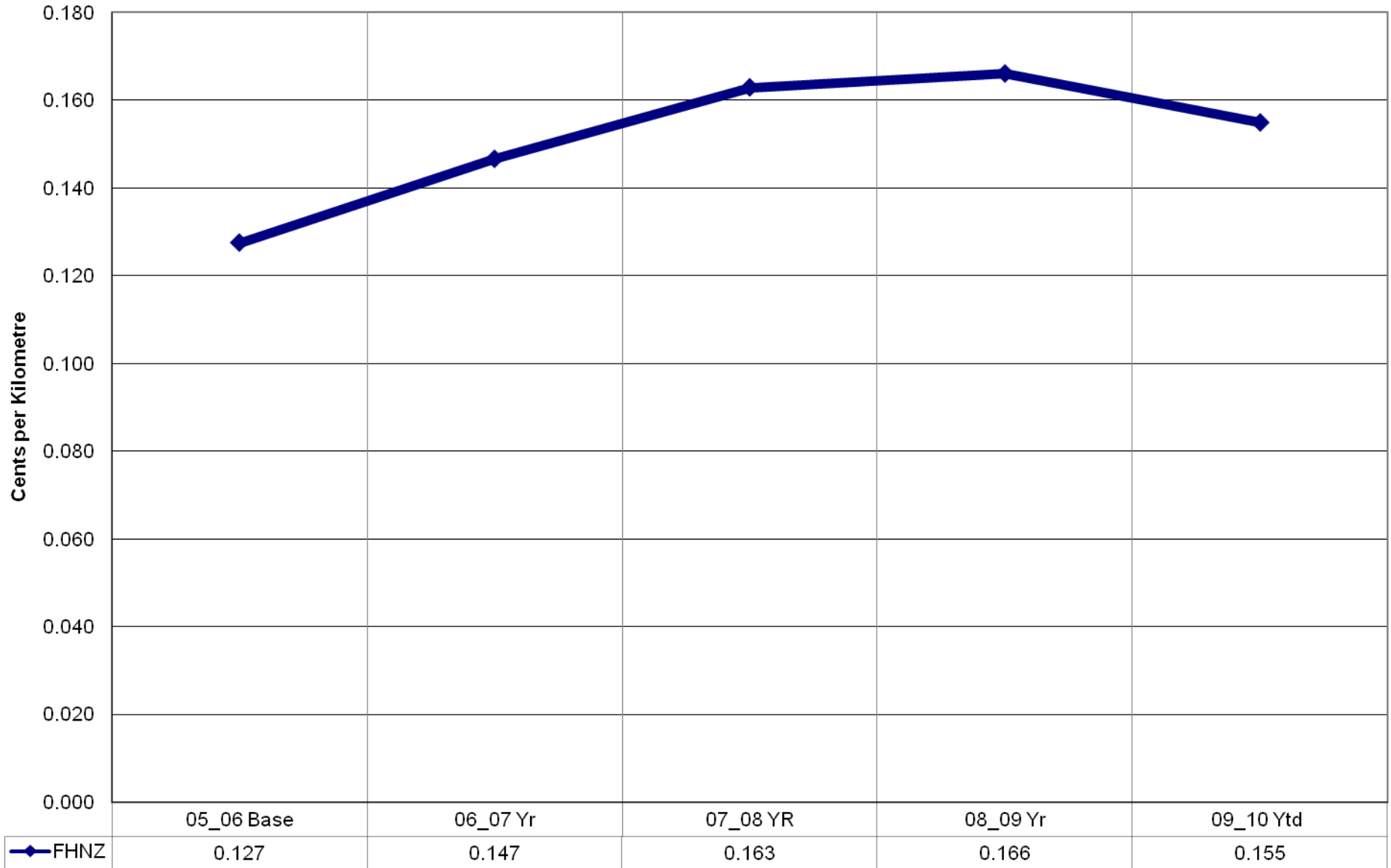
NZ Percentage of R&M cost by Maintenance type Trend By Calendar Year



Fulton Hogan COF Data - First Pass No Faults Trend %



FHNZ R&M cents per Km Trend for Car, Ute, Van, RV, Truck, Trailer



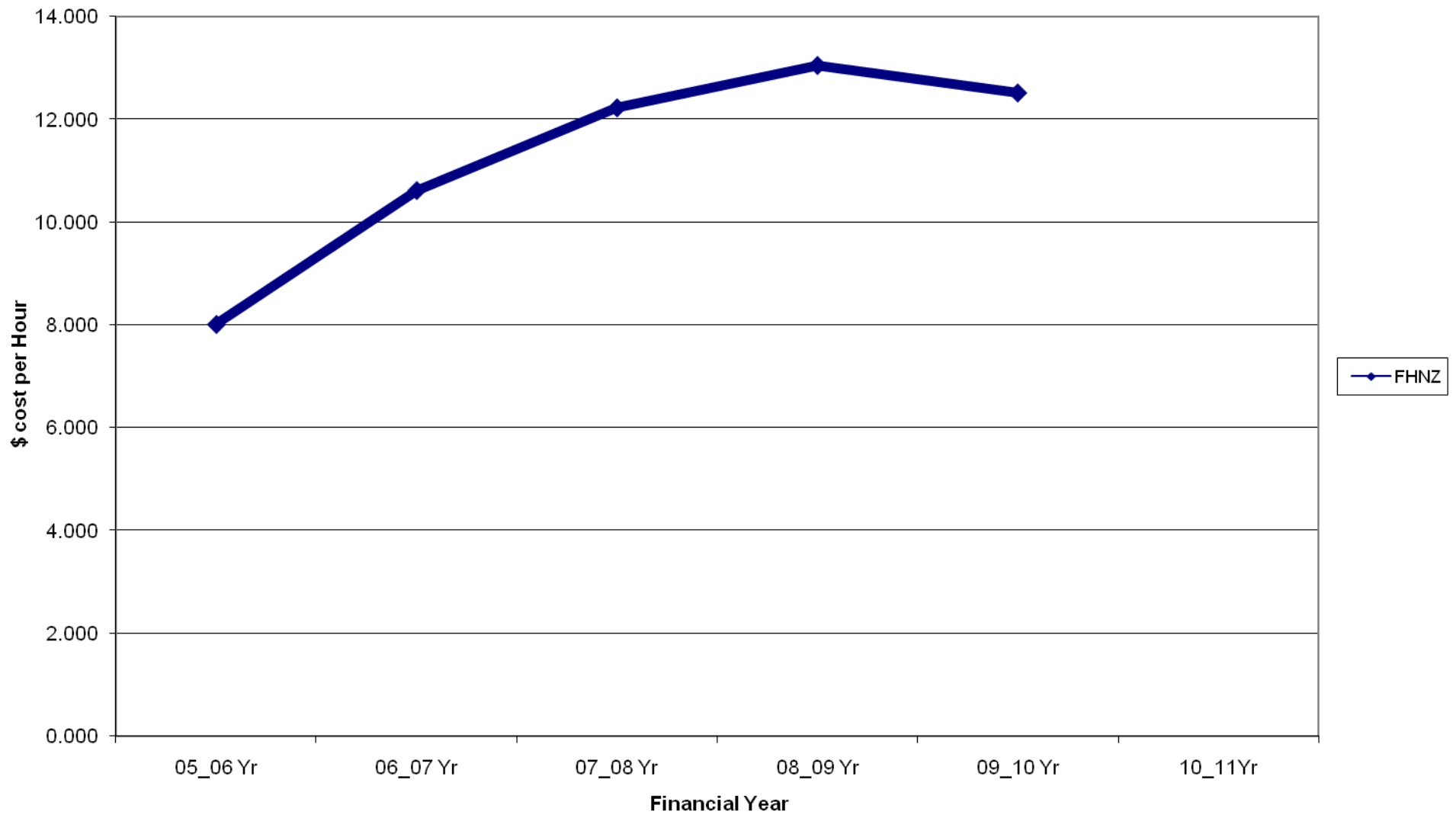
—◆— FHNZ



Pressure Points During a Recession

- Problem Funding software upgrade that would improve user efficiency
- Staff & Field Resources Reduced
- Downward Pressure on plant owners to cut repair and maintenance costs
- Decisions made to Patch repair to reduce cash out flow
- Some Repair and Maintenance work deferred

FHNZ R&M Cost per hour Trend by financial year for: For Grader,Loader,Excavator,Tractor,Grader,Miller,Paver,Stabaliser,Forklift,Crane

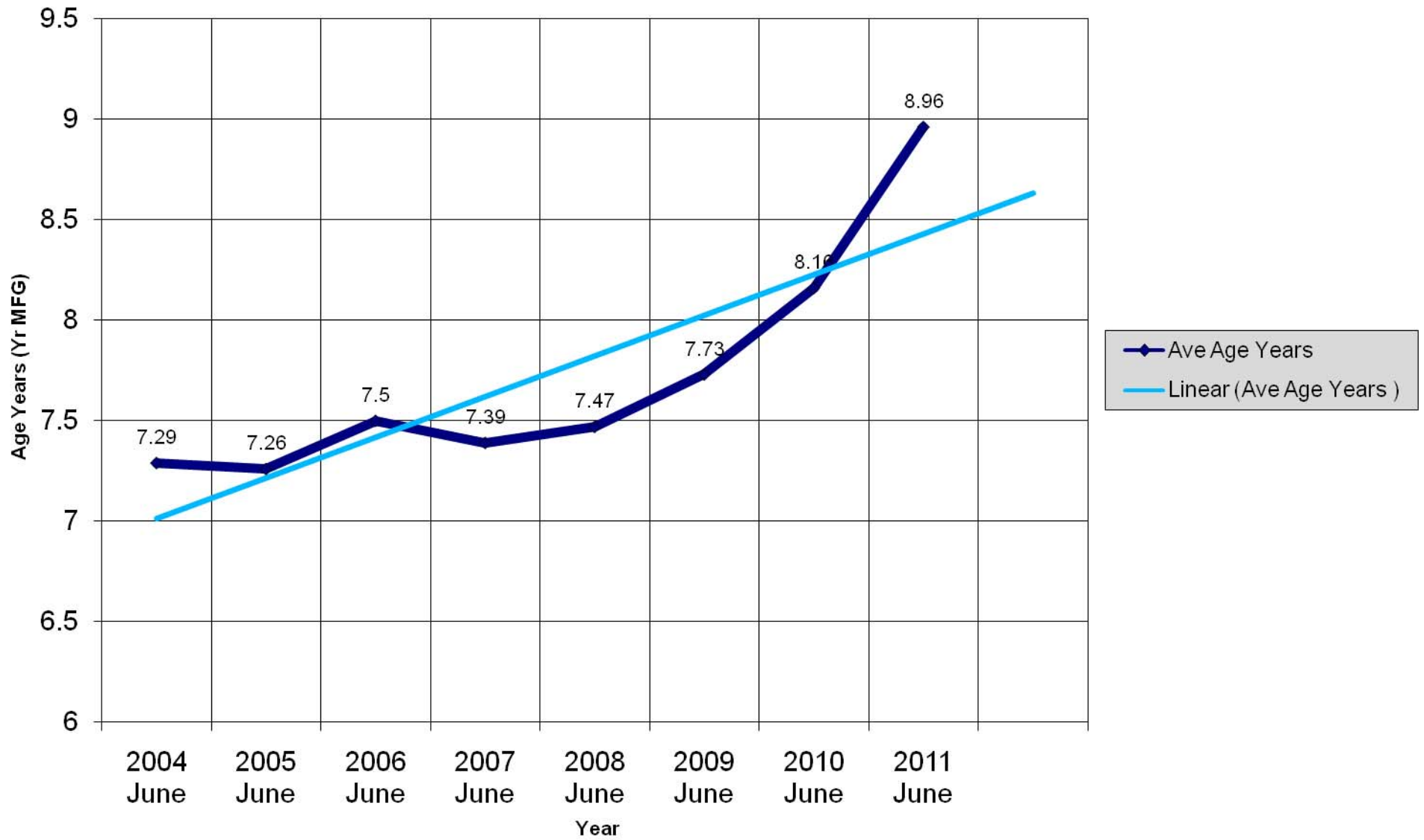




Pressure Points During a Recession

- 2009/10 Reduction in maintenance costs
- Improvement in vehicle assets backed up by graph for mobile Plant
- All against backdrop of aging fleet

Fulton Hogan Registered Fleet average age in each Financial year

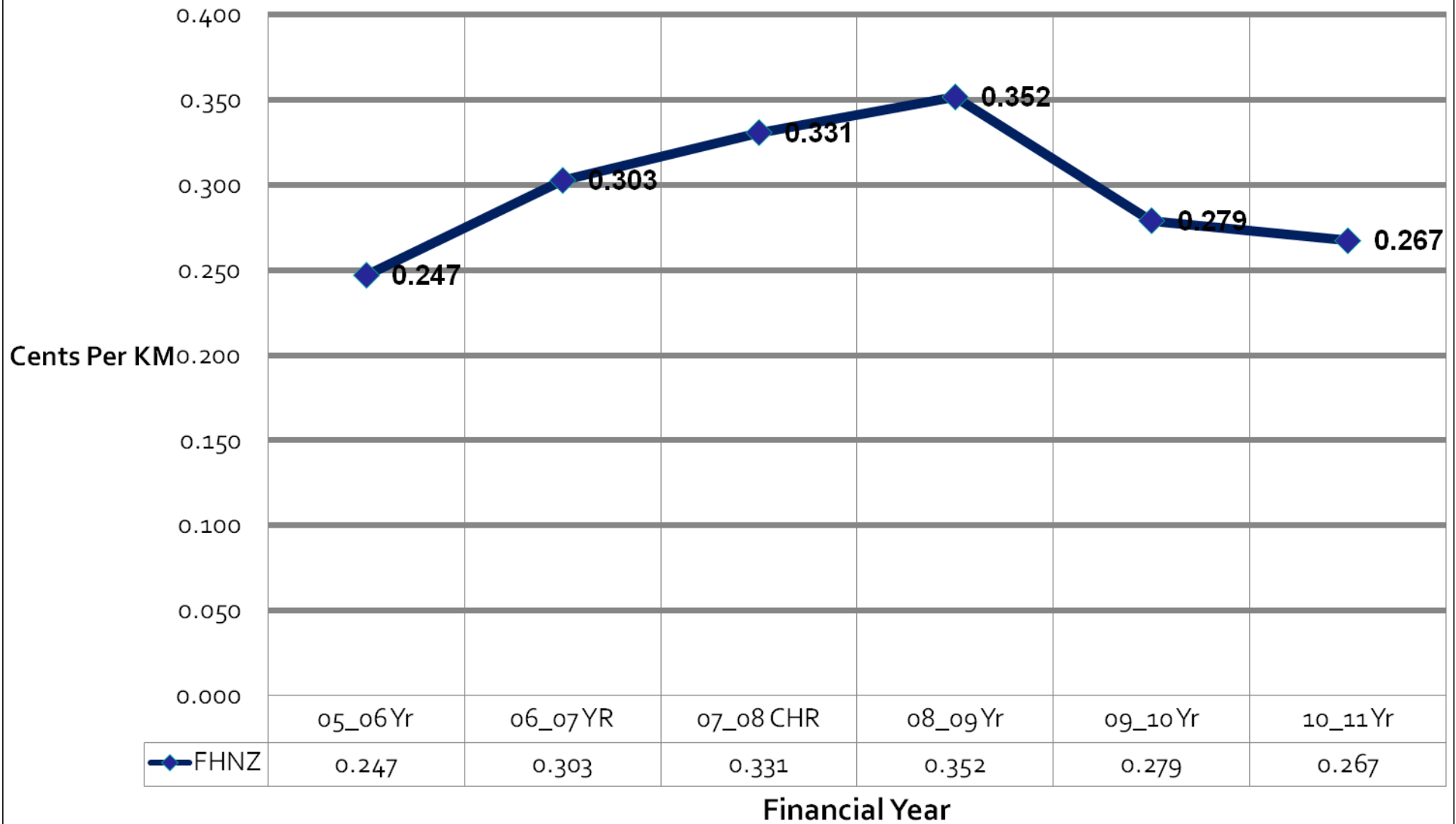




Pressure Points During a Recession

- Behind the scenes, the reduction in repair and maintenance cost was accelerating
- To show this I have concentrated on the Fulton Hogan NZ Heavy Truck Fleet
- 327 Units - a mix of makes, models, age and application. Note the very high cost specialized units have been removed and each Truck's usage is matched to its R&M cost

FHNZ R&M cost per KM Truck Heavy

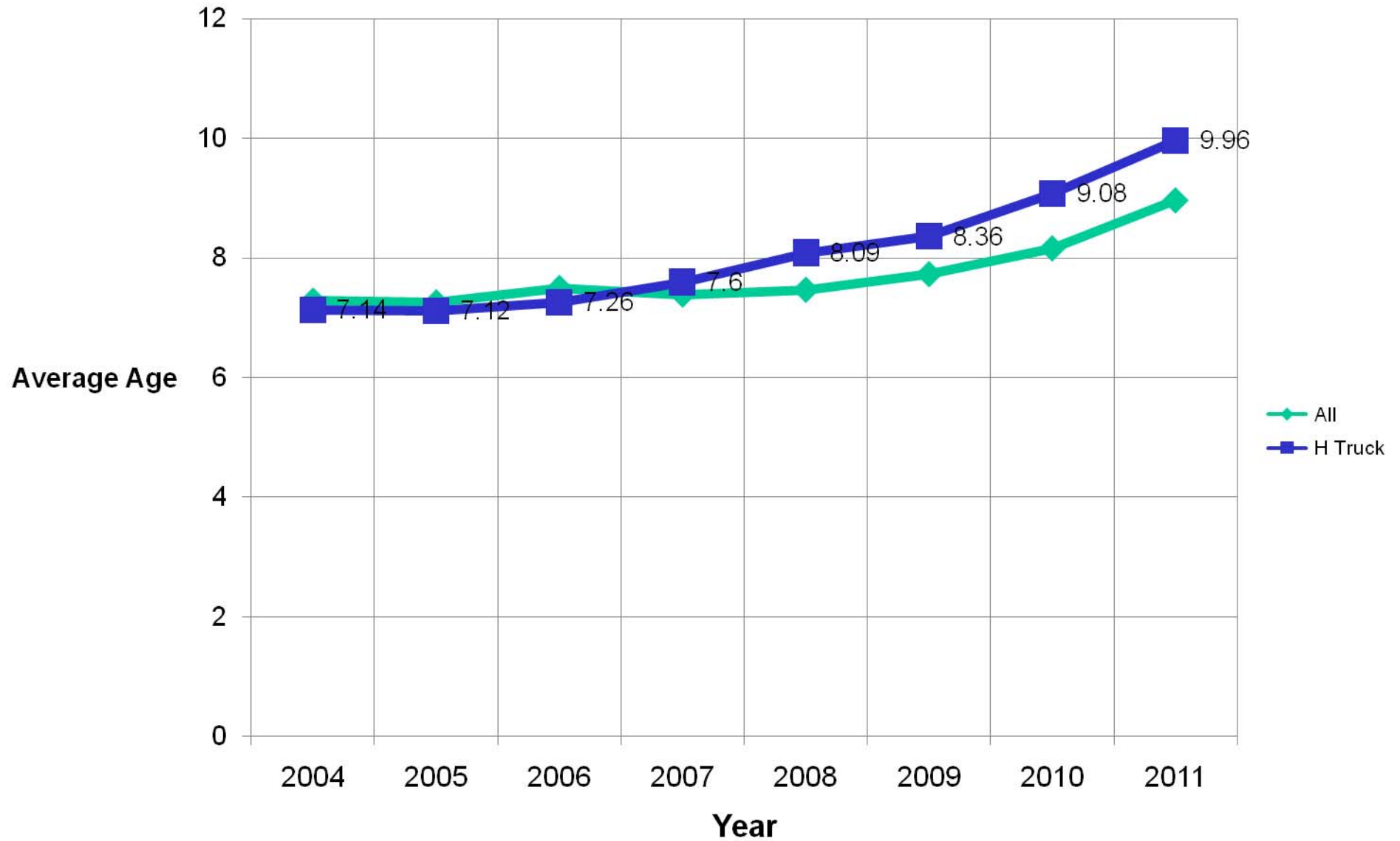




Reducing Costs: Making sure this message is not lost in the translation

- The result is great but:
- Are there some other influences?
- R&M Work Not being done?
- Services extended?
- Is this reflecting Asset replacement policy ?

Fulton Hogan NZ Heavy Truck Fleet Average Age by Financial Year

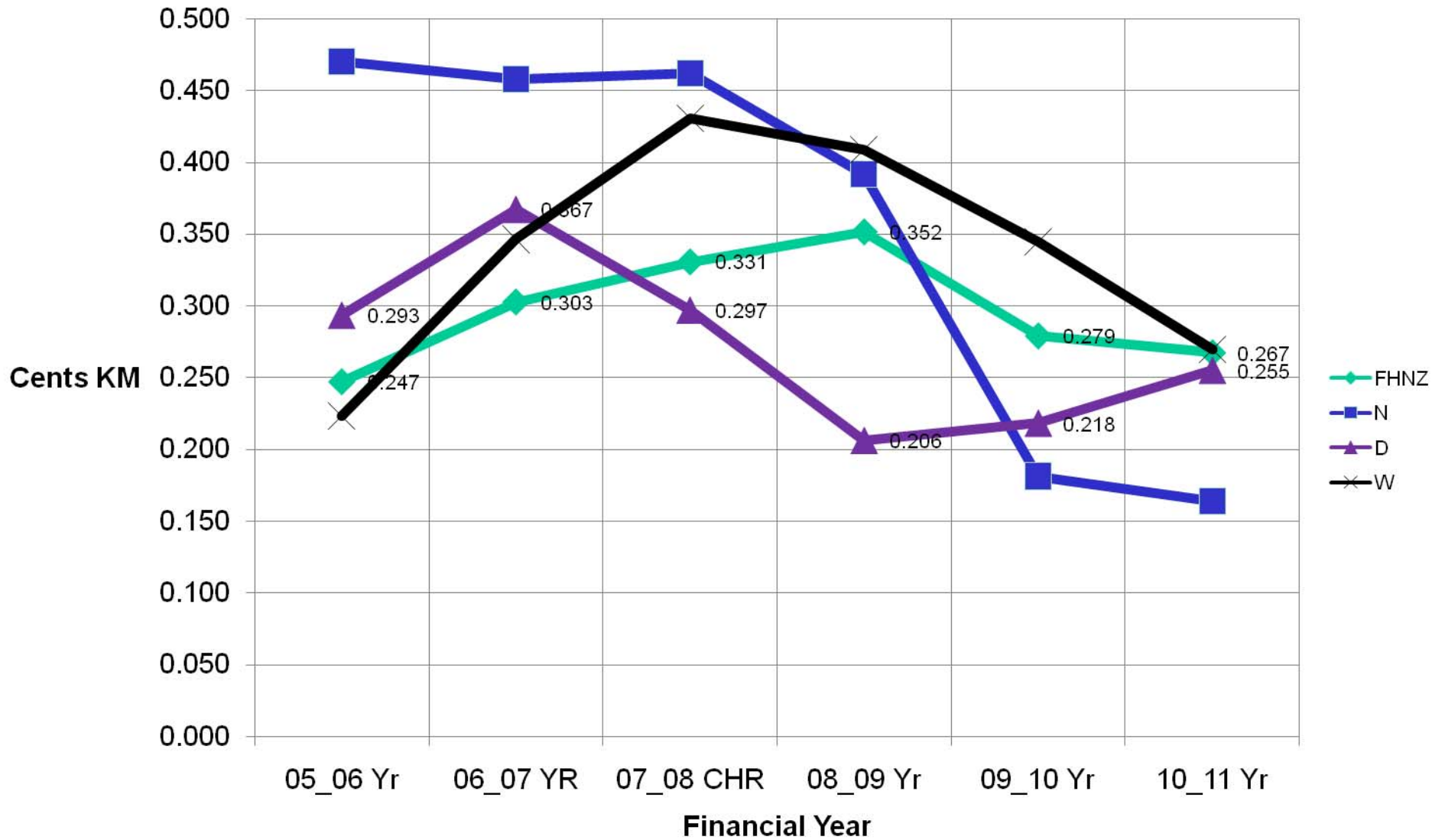




Reducing Costs: Making sure this message is not lost in the translation

OR is it the result of downward pressure to reduce costs especially repairs and maintenance?

Fulton Hogan Region Comparison R&M cents KM By Financial Year with Average





Reducing Costs: Making sure this message is not lost in the translation

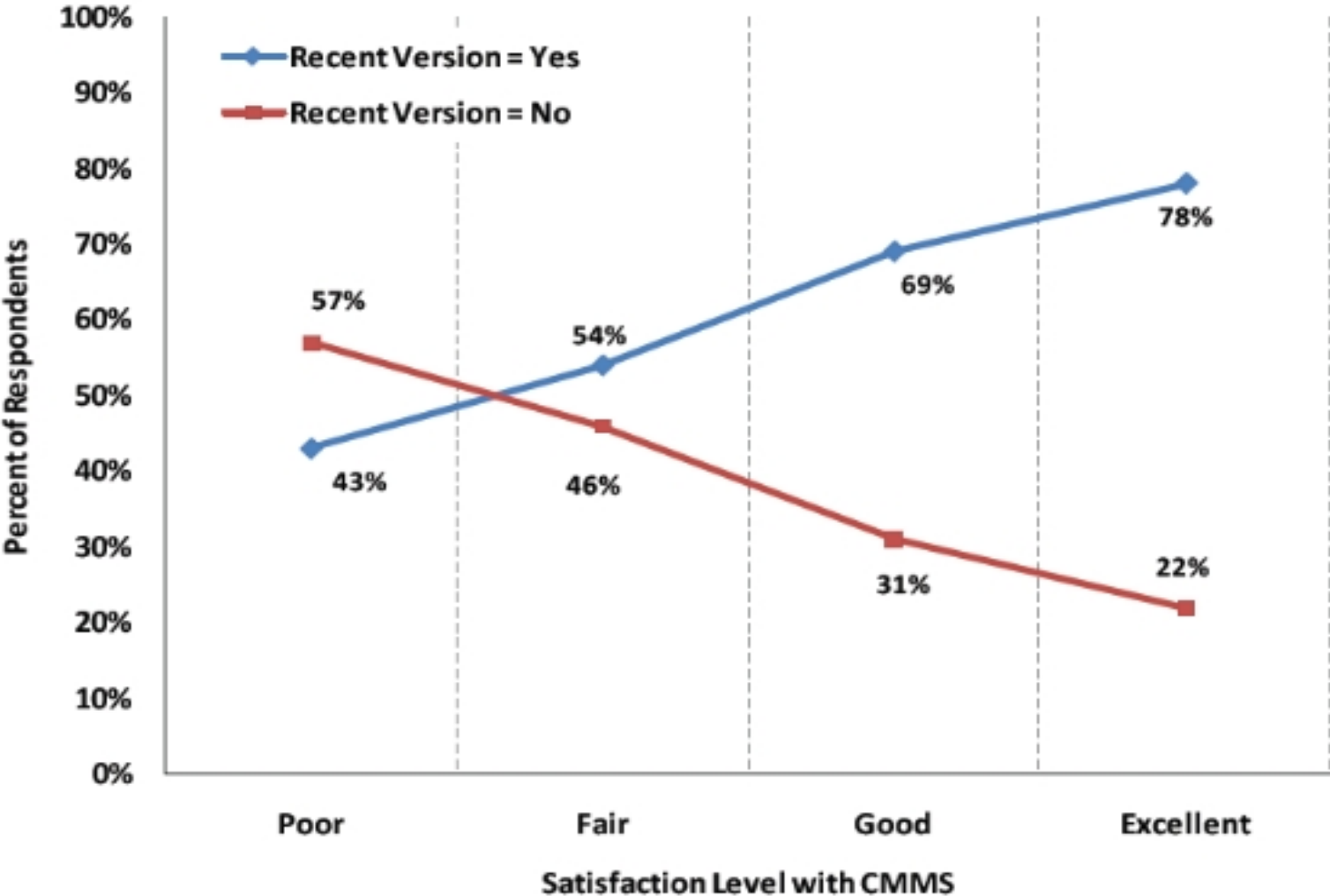
- The Reduce R&M message is lost in the translation in most cases!
- The PAM Project now has increasing support due to:
 - *NZ Transport Agency Provisional 5 Star Operator Rating*
 - *Sell Lease Back, 30% NZ Light Vehicle Fleet, data accuracy and Fleet Quality*
 - *Fulton Hogan NZ retaining the management of its lease fleet*
 - *Lease company vehicle inspections*



Reducing Costs: Making sure this message is not lost in the translation - Software Systems

- Software Upgrade and resulting downstream efficiencies initially rejected 2008/9
- 2011 Upgrading Maximo 5.2 & Transportation Industry Solution to 7.1? with Transportation for our Mobile Plant
- Upgrading to 7.1? for our fixed Plant including Bitumen, Quarry and Asphalt Installations Go Live in October
- Fulton Hogan Facilities Management upgraded to 7.1 in October 2010
- Service Provider implemented for Reticulation Contract June July 2011.

Figure 27: CMMS Version vs. CMMS Satisfaction Level



Source: Reliabilityweb.com CMMS Best Practices Report 2011

Benefits of good asset management

- Recession proof assets
- Already Lowest cost of operation
- Already Lowest cost of ownership
- Raising Funds
- Extending asset life
- Safety assurance
- Client Confidence

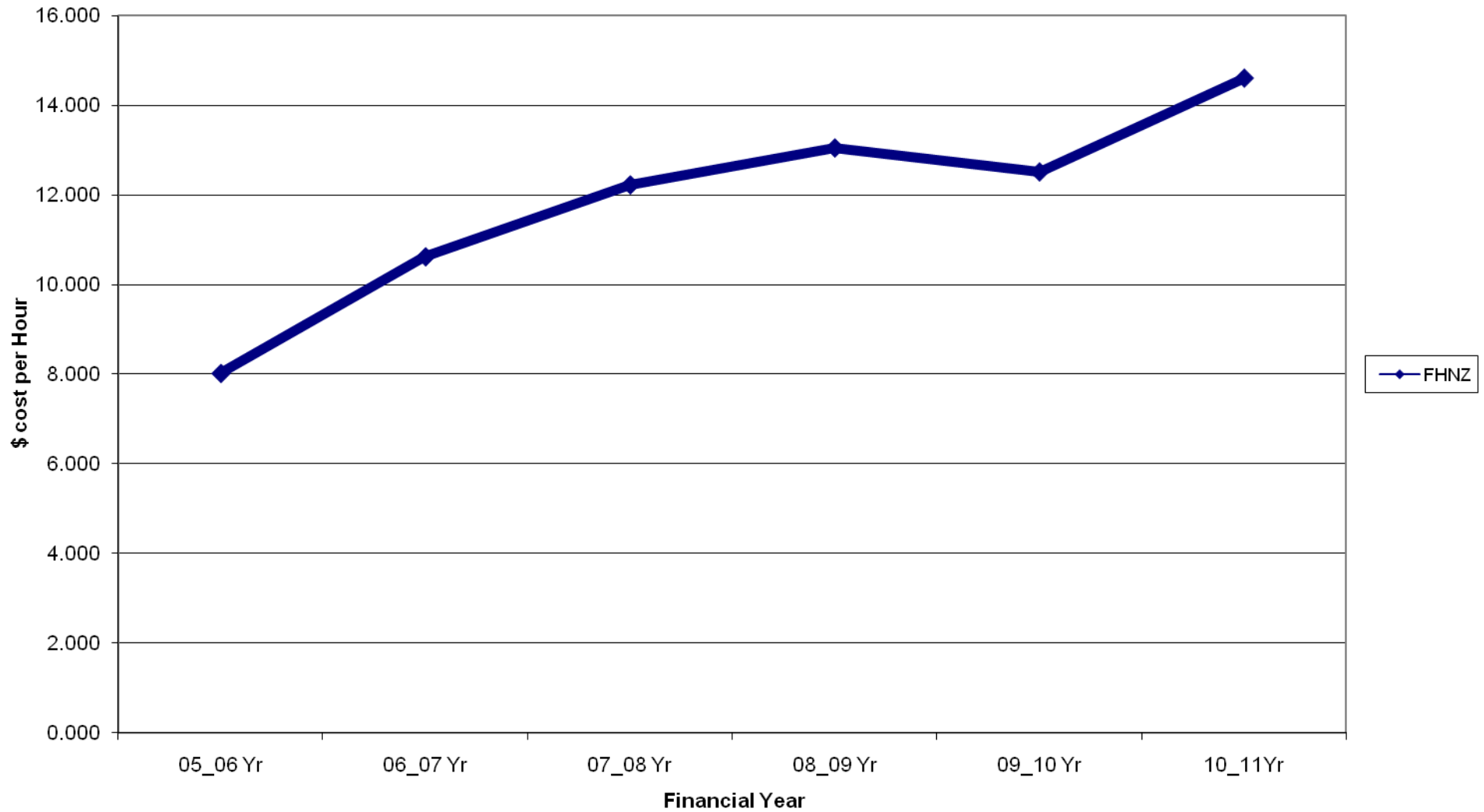




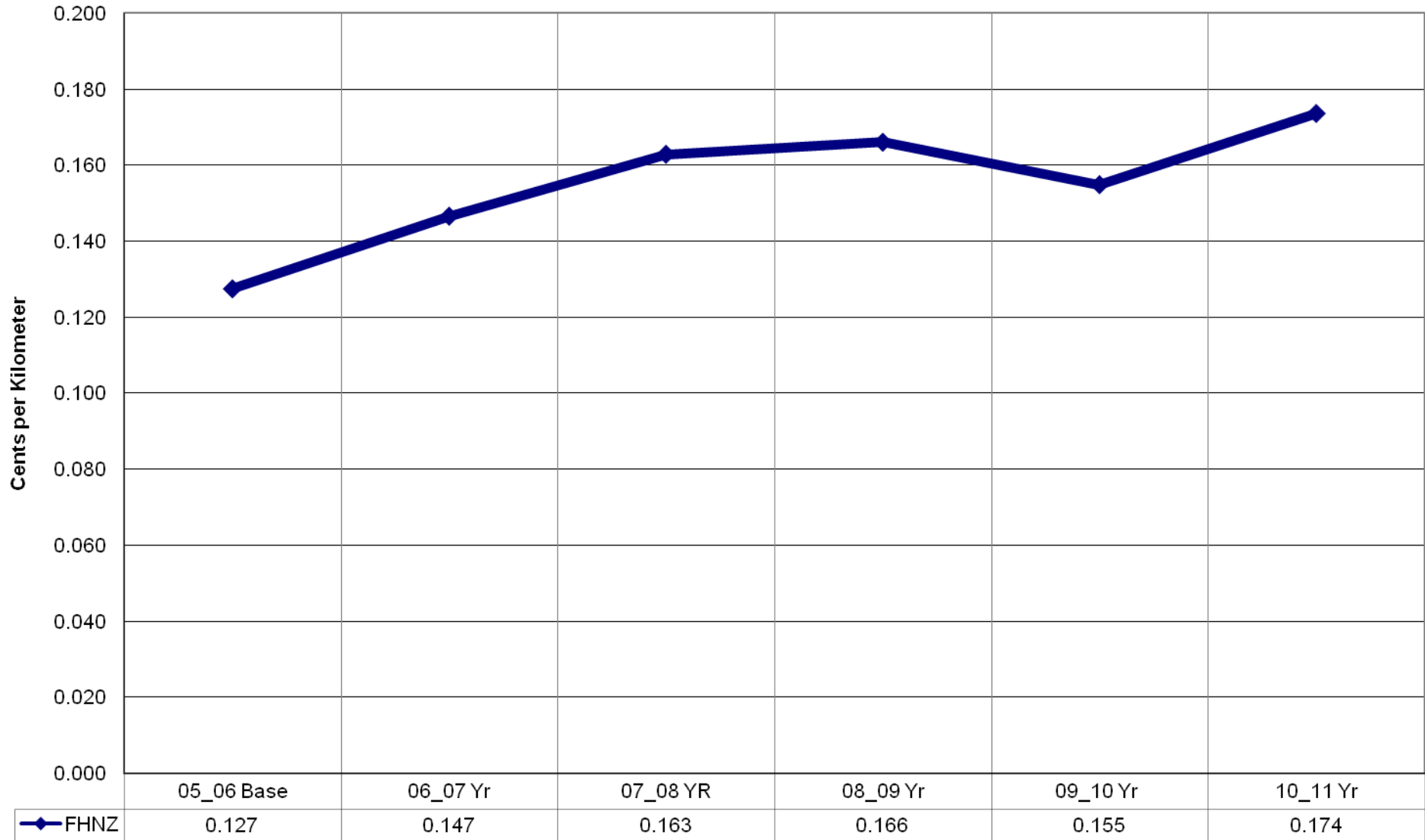
Simple Improvements that can reduce the pain

- Do the ground work during the good times
- Work tirelessly with the people who do the work they will give you the results
- Retain Staff - the organisations intellectual and emotional capital
- Reinvigorate or introduce a constant improvement program
- Fight to retain the ground you have made during the good times the cost of going backwards is significantly more than what you will save by cutting programs and costs

FHNZ R&M Cost per hour Trend by financial year for: For Grader,Loader,Excavator,Tractor,Grader,Miller,Paver,Stabaliser,Forklift,Crane



FHNZ R&M Cost KM actual cents per Km Trend for Car, Ute, Van, RV, Truck, Trailer



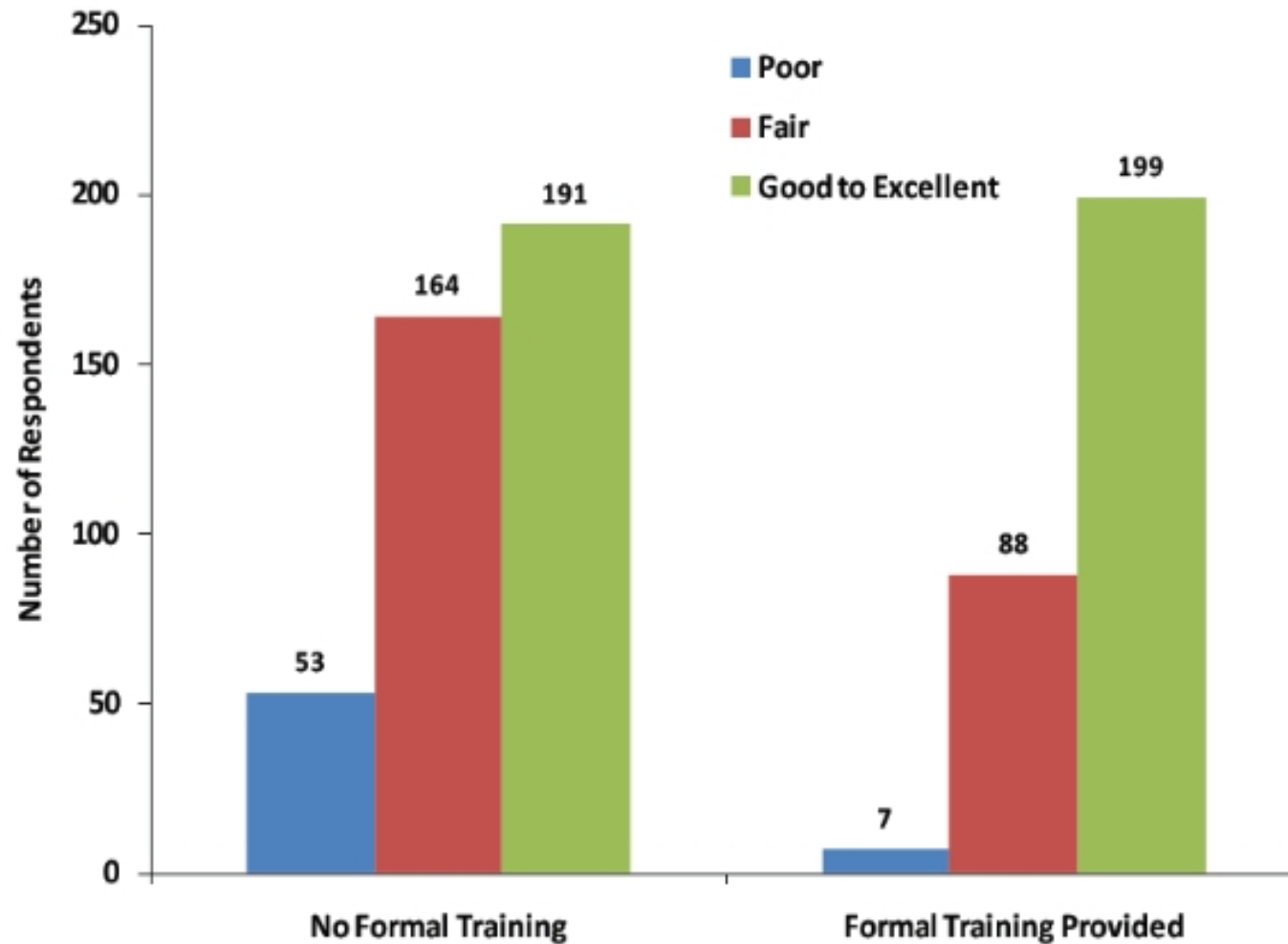
FHNZ



Simple Improvements that can reduce the pain

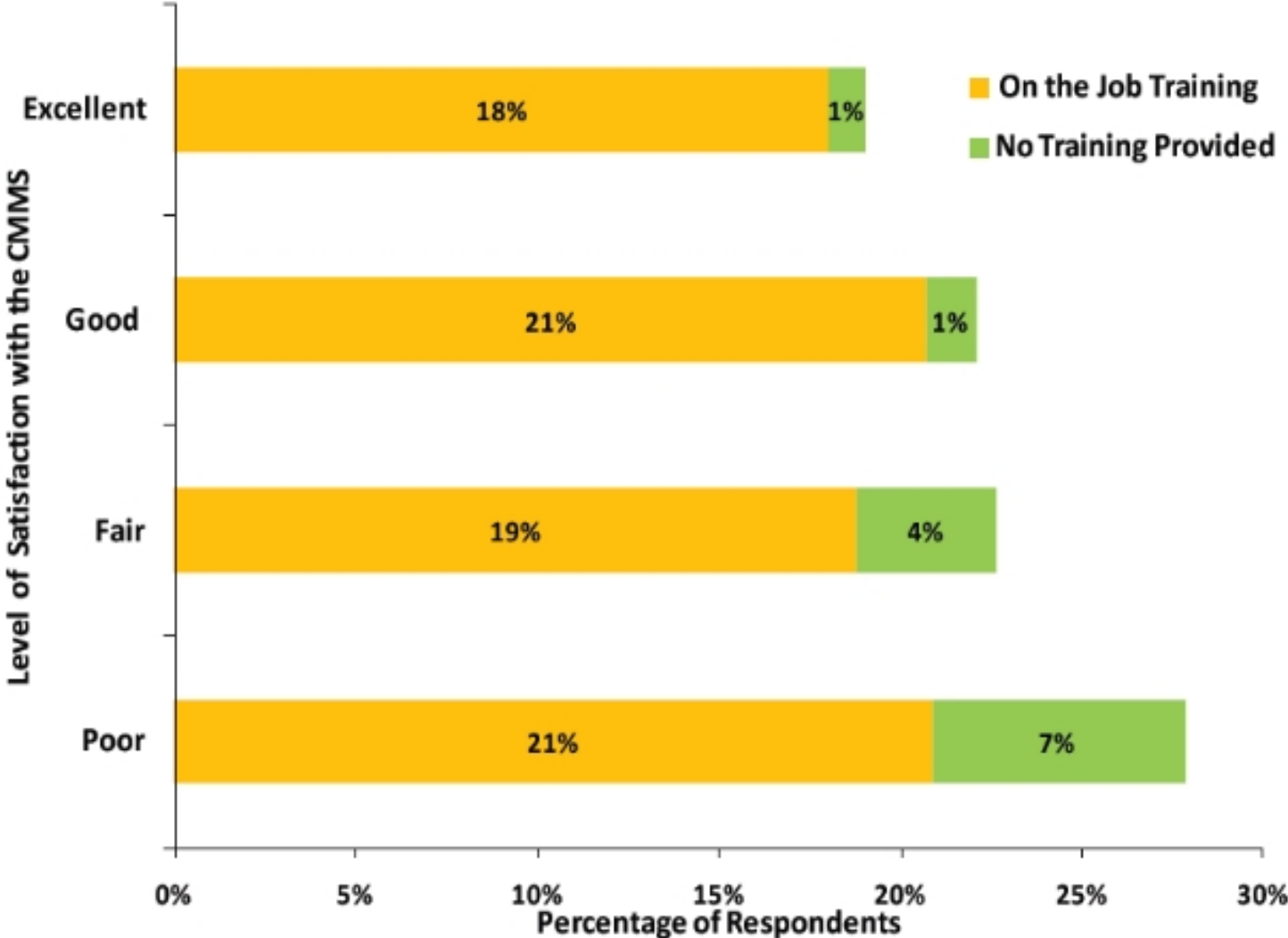
- **Continue to Manage! Don't CUT costs**
- **Constantly Identify and eliminate all WASTE**
- **Make sure cost management does not negatively impact other divisions**
- **Increase effective Staff training**

Figure 30: New Employee Training – Formal/No Training vs. Level of Satisfaction



Source: *Reliabilityweb.com CMMS Best Practices Report 2011*

Figure 32: Post Implementation Training – None and On-the-Job



Source: Reliabilityweb.com CMMS Best Practices Report 2011





Fulton Hogan



A PowerPoint Presentation
Compiled By Rory Bell MIAM @ IRTENZ
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Fulton Hogan Ltd Christchurch N.Z.
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