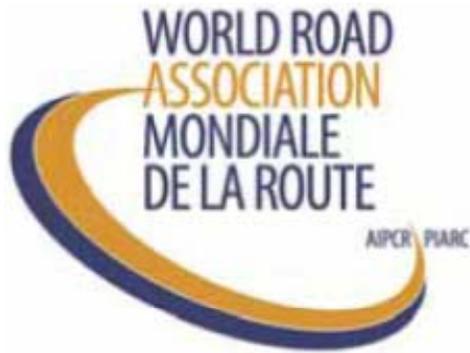


World Road Association (UK) 2012 Congress Maximising growth through transport

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Derek Turner

Protecting the value of our assets

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Derek Turner
Deputy Chief Executive
Director of Network Delivery & Development

Protecting the value of our asset
Highways Agency and Asset Support

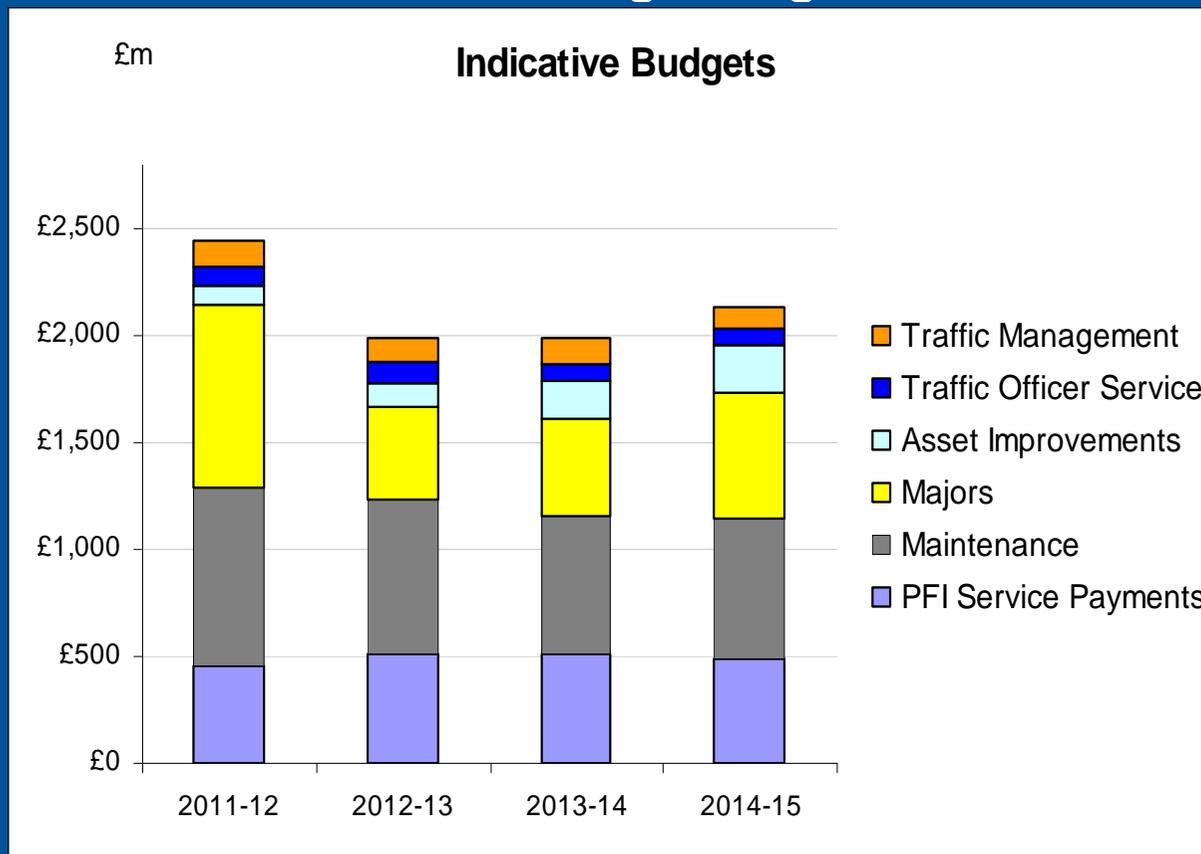
Delivery of responsibilities

- 7 Regions
- 12 Area based contracts covering:
 - operation, maintenance and smaller improvements (up to £10m)
 - a competitive market
 - a critical mass for offering operating efficiencies
- 6 Regional technology contracts
- Design Build Finance Operate:
 - 11 contracts inc. M25
 - approx. £430m (11/12)



The Financial Challenge

- Spending Review settlement 2010 (includes additional Pinch Point allocation)
 - Effective savings target of £400m by 2014-15



Total / Maintenance

11/12: £2.5b / £833m

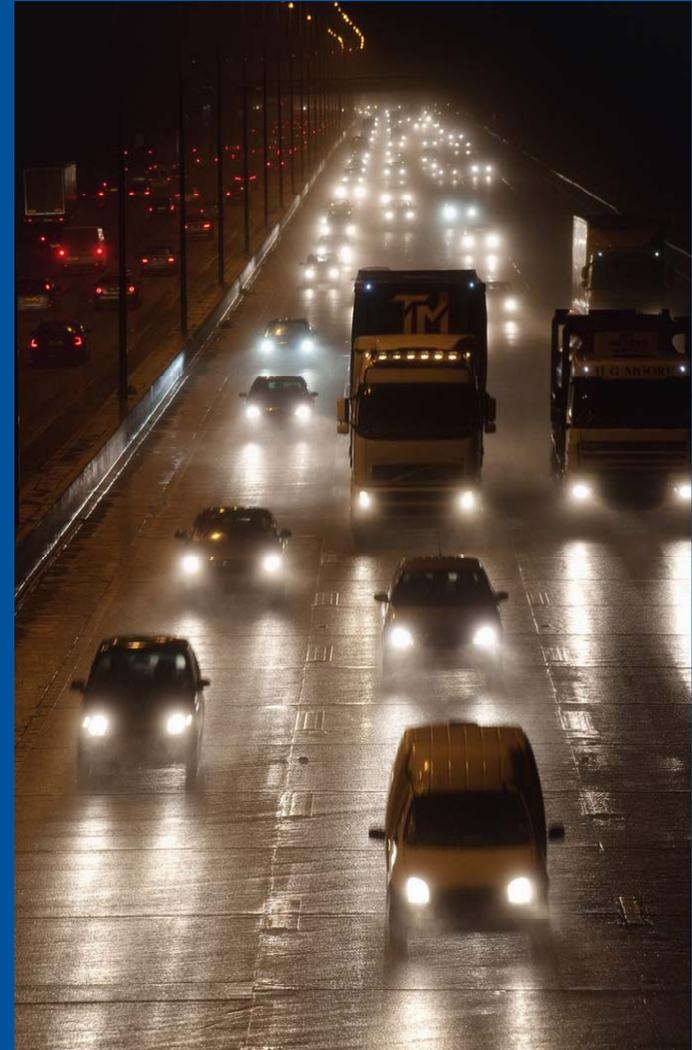
12-13: £2.1b / £721m

13-14: £2.0b / £647m

14-15: £2.1b / £655m

What do the 25% budget reductions mean?

- “Sweating” the asset more
- Moving to a more affordable level of service – ‘value’ not ‘premium’
- Leaving some cosmetic and minor defects until most cost effective time
- Need to be more innovative & efficient with maintenance - BUT not short termism



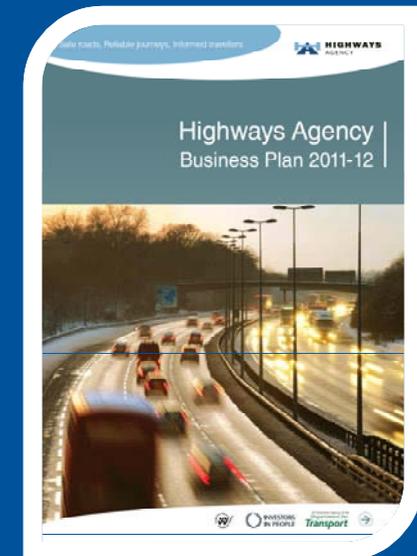
Strategy

- Better Asset Management
- New maintenance contracts



Asset Management

- Effective systems essential for meeting the budgetary challenge
- Implemented through NDD Business Plan *‘World class innovative asset management business’*
- Targeting PAS 55 (BSI) compliance *Publicly available spec for optimised management of physical assets.*



A Fresh Start for the Strategic Road Network



‘Cook Review’ – Nov 2011

- Work towards gaining PAS55 accreditation within 18 months
- Become a “mature asset management organisation” within 4 years
- The Agency should continue *“persisting with investment in its Integrated Asset Management System”*

Extract from Cook Review

“...must develop its ‘knowledge base’ to determine the importance, condition and location of its assets, along with the capability (both systems and people) to make informed decisions on when and how to intervene”.



IAM IS - Integrated Asset Management Information System



Highways Agency Pavement Management System

Highways Agency Drainage Data Management System

Structures Management Information System

Highways Agency Geotechnical Data Management System

Routine Maintenance Management Systems

IAM IS will replace 17 Agency and supplier systems

Strategy

- **Better Asset Management**
- **New maintenance contracts**



New Maintenance Contracts

Why change the existing Contracts?

- Drivers for Change:
 - National Audit Office Review 2009 / Spending Review 2010
- Focus now on best service at lowest cost within smaller budget

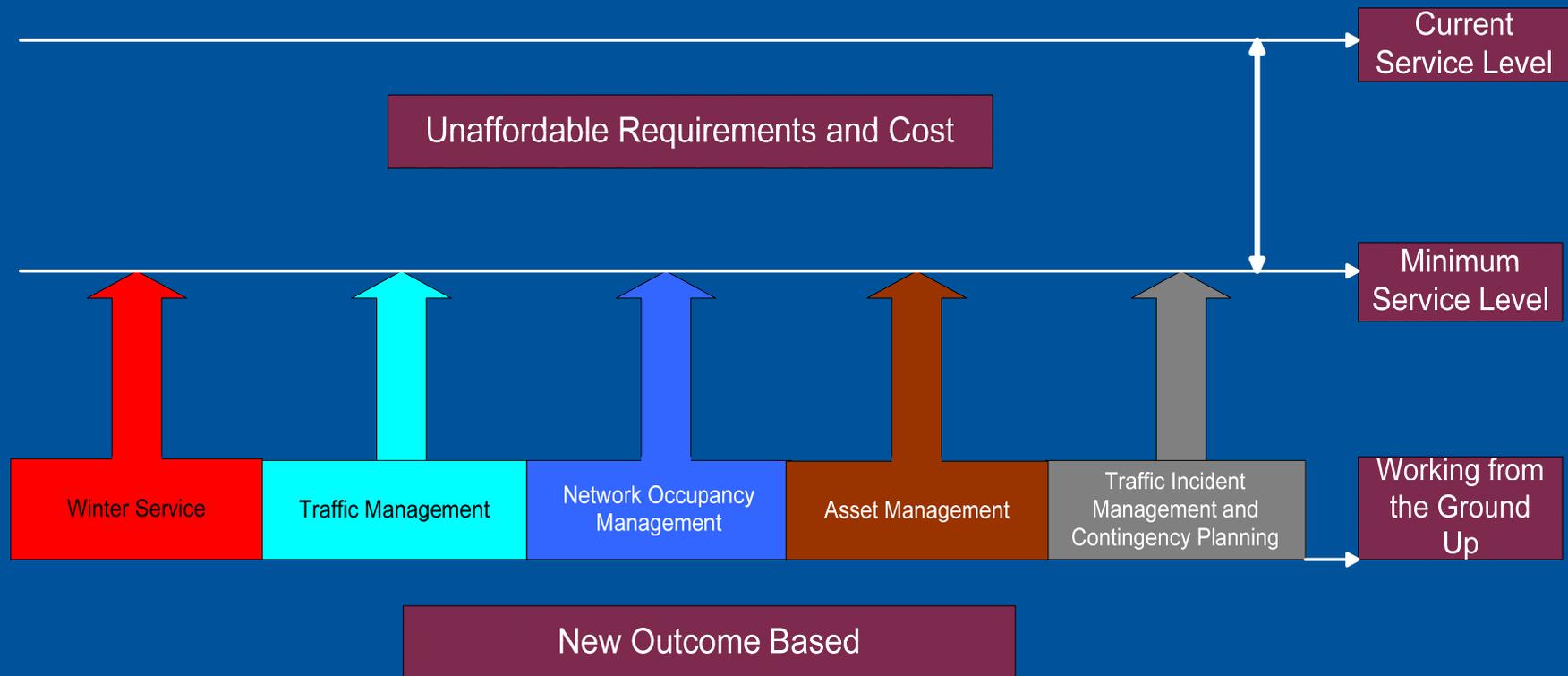


Asset Support Contract (ASC) – key features

- Routine Maintenance outcome based:
 - Less Prescriptive “Affordable Level of Service”
- Economies of scale, higher thresholds for scheme delivery (£5m), includes technology
- Tendered Year on Year Reduction in Rates
 - Lump Sum & Schedule of Rates

ASC – New Maintenance Requirements (1)

Standards revised to the minimum acceptable level to keep the network safe



ASC – New Maintenance Requirements (2)

- Outcome based requirements will result in different ways of working but the **operational safety of the network will not be compromised.**
- Less restrictions placed on work only at night, but network reliability & lane availability remain key issues
- More selective maintenance – target individual lanes & patches
- Focus on essentials - non safety critical or cosmetic defects may be left for longer to repair
- More flexible workforce with fewer Incident Support Units patrolling the network. Contractors task is clear up incidents efficiently rather than attending in specific time

ASC – Delivering the Savings

- 12 new Area ASC contracts between now and 2015/16
- Unfortunately ASC cannot deliver Spending Review savings soon enough
- “Retro-fitted” some aspects of ASC into the current contracts - resulting in 15% cost reductions

ASC – Delivering the Savings

New Contract, but...

- Preserves current best practice while addressing the concerns of NAO
- Responds to Maintenance Community input
- Makes use of frameworks to secure best value for the tax payer
- Provides basis for a healthy, sustainable and competitive supply chain.

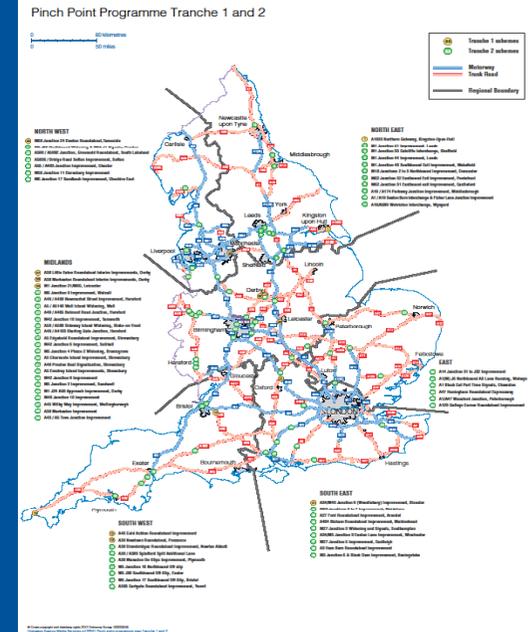
Delivering Growth Now 'Pinch Point' Programme

“Keeping traffic moving is vital to securing prosperity...removing bottlenecks and improving access to local enterprise zones, key international trading ports and communities.

These road schemes will help get people to and from work and power the economy.

They also have the potential to help deliver more than 300,000 new jobs and 150,000 new homes”.

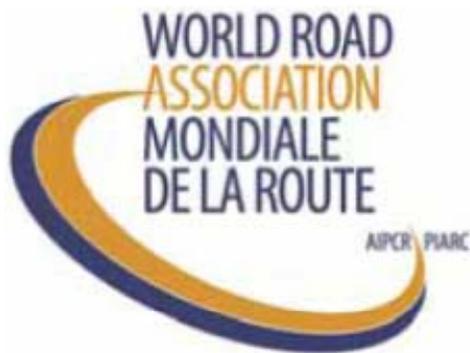
Patrick McLoughlin October 2012





Derek Turner
Deputy Chief Executive
Director of Network Delivery & Development

Protecting the value of our asset
Highways Agency and Asset Support



Mike Notman

Delivering a service

WITH THANKS TO THE CONGRESS SPONSORS:



Highways Term Maintenance Association

Mike Notman
HTMA Executive Board

The Private Sector view of Effective Service Delivery

“Working Together for Better Roads”

What is the Role of the HTMA

- Member companies – Service Providers who want to improve the efficiency and effectiveness of the industry
- 24 Members plus 9 Associate Members
- Contains much of the expertise within the highways sector
- Passionate about making things better, tackling the strategic issues
- Helping the highways industry deliver excellence and value
- Promoting best practice

“Working Together for Better Roads”

What are the challenges and are we making enough progress?

- Collective understanding of budget pressures from clients and service providers
- Infrastructure UK Cost Report 2010 recommended:
 - The need for better / improved behaviours
 - The need for better procurement

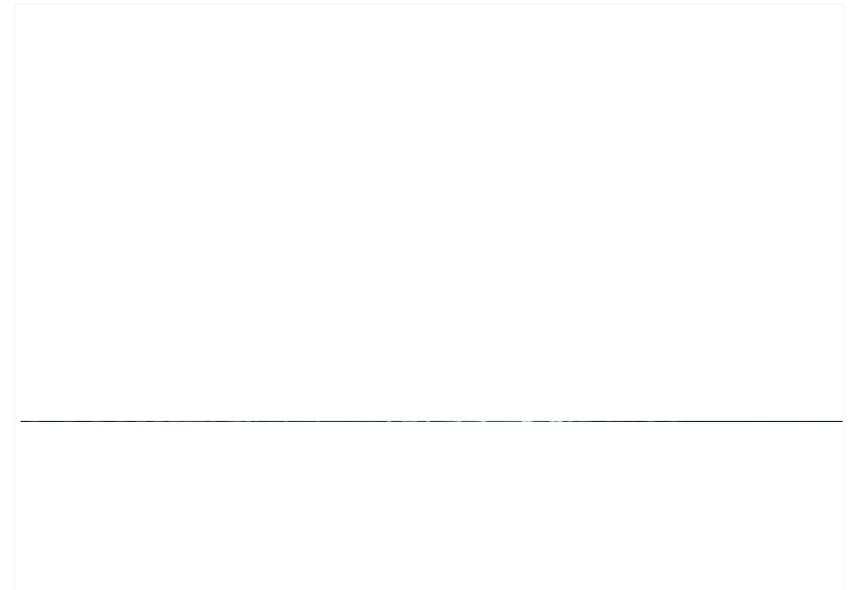
In order to enable savings of 20% to be made

- Quickly need to achieve savings that enable us to sustain local economic growth
- As leaders of the highway maintenance industry:
 - Do we have the vision?
 - Do we have the desire and ability to succeed?
- Or will we fail by doing things in a way they have always been done?
- Risk of starving the asset of investment and leave a legacy of deterioration?

“Working Together for Better Roads”

How can 20% efficiencies be achieved?

- Squeezing costs and margins is only the first step
- Need to turn our attention to innovation and smart thinking
- More engagement between the public and the private sector
- Need to get our procurement strategy right and be open minded
- More competition and outsourcing will drive down costs



In-sourcing or scaling up out-sourcing

- Many different models exist, not all are efficient
- Must find 'best fit' for each situation
- Utilise the available skills from both public and private sector to best effect
- Many small Highway Authorities are missing out on efficiencies as small contracts are unattractive and uneconomical for Service Providers
- Collaboration or partnering with other Local Authorities allows for economies of scale

“Working Together for Better Roads”

Duplication and Overlap

- Highways industry is becoming more mature
- Knowledge, capability and capacity of service providers is expanding
- More interfaces creates more inefficiency
- Clear lines of accountability – allow service providers to take on more responsibility
- Need to reduce excessive auditing and man-marking



Form of Contract / Contract Clauses

- Many contract types are being used in the industry
- Sets constraints and boundaries for all parties
- ‘Spirit of the contract’ is the important factor for success
- Inappropriate contract clauses transfers inappropriate risk
- Onerous clauses leads to higher costs with little added value

Risk Transfer/Outputs or Outcomes

- Risk should be placed with the party best equipped and best able to manage it
- Service Providers do have an appetite for risk but only risk that can be managed
- Many contracts still adopting input requirements while measuring outputs achieved
- Specifying inputs reduces innovation and efficiencies
- Specifying outcomes creates better value while incentivising smarter and more efficient ways of working
- Self certification, self audit and self monitoring of achieved outcomes further removes duplication and waste

“Working Together for Better Roads”

Engagement and Collaboration

- Use of competitive dialogue becoming more common
- Develop solutions in a constructive and practical environment
- LEAN process should be a shared goal
- Sharing risks and opportunities
- Working collaboratively is the key to success

“Working Together for Better Roads”

Skills, Experience and Behaviours

- Skills, experience and behaviours are at the heart of successful contracts
- Personal behaviours and relationships are essential ingredients for success
- Poor relationships quickly become transparent in service delivery
- Some tension between parties is a healthy position
- Need to understand each other's drivers

“Working Together for Better Roads”

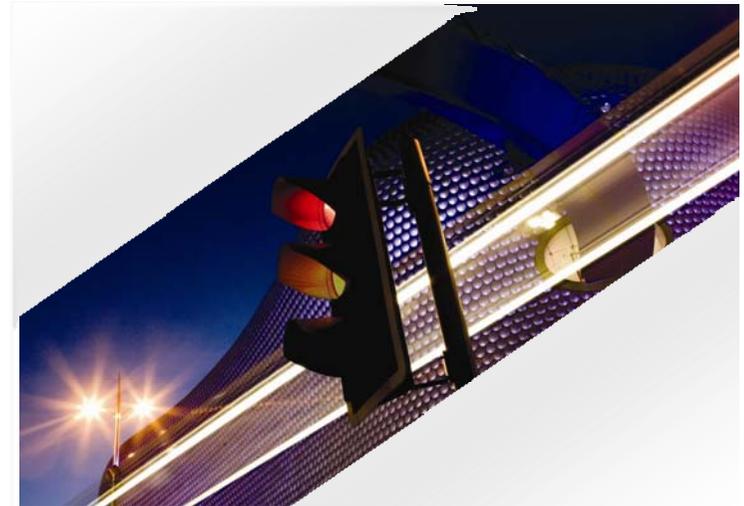
Standardised Contract Specifications

- Standardisation enables consistency and uniformity across contracts
- Consistency allows everyone to know what is expected
- Helps to get a level playing field for bidding new contracts – reduces ambiguity and potential claims
- Lowers unit costs and improves value for money



Contract Indexation

- Many contract inflation mechanisms in use today across the UK
- Indexation formulas being utilised include fixed prices, RPI / RPIX and a mixture of Baxter Indices
- None of these truly reflect actual cost increases within Highway Term Maintenance industry
- HTMA have worked with BCIS and CECA to develop an indexation model to reflect inflation expenditure on Highways Term Maintenance Contracts
- BCIS data published monthly
- A number of clients now adopting this new formula

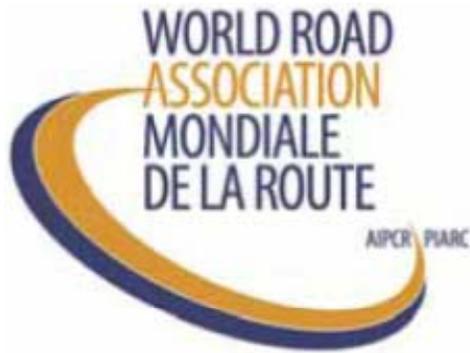


“Working Together for Better Roads”

What does all of this mean

- Choosing the right procurement route is the first step towards success
- Choosing the right partner is equally important
- There is no 'one size fits all' solution
- More effective and efficient services are possible
- The highways industry needs to pull together

“Working Together for Better Roads”



Tony Porter

The benefits of performance based contracts

WITH THANKS TO THE CONGRESS SPONSORS:





The Benefits of Performance Based Maintenance Contracts

**World Road Association Congress
2012**

Tony Porter
Opus International Consultants
New Zealand

Outline

- Why the growing interest in PBC?
- PBC Models.
- Some of the lessons.

What is a PBC?

Performance-based contracting (PBC) is defined as:

“a type of contract in which payment for the deliverable is explicitly linked to the contractor’s successfully meeting or exceeding certain clearly defined performance indicators”

Stankevic, Qureshi and Queiroz, 2005

A wide Range of our Clients are seeking advice on performance based maintenance

- **Why?**
 - The GFC has encouraged us to question whether our current approach is delivering *Value for Money*.
 - Flat line budgets typically require 20% savings over 3 years!
 - Reported savings of up to 25% in other jurisdictions by moving to PBC's attracts attention!
 - Robust asset management is seen a key enabler.

World Bank Research Project

- Our belief is that Robust Asset Management is what delivers the value and that PBC's are a great vehicle for embedding the processes in an organisation.

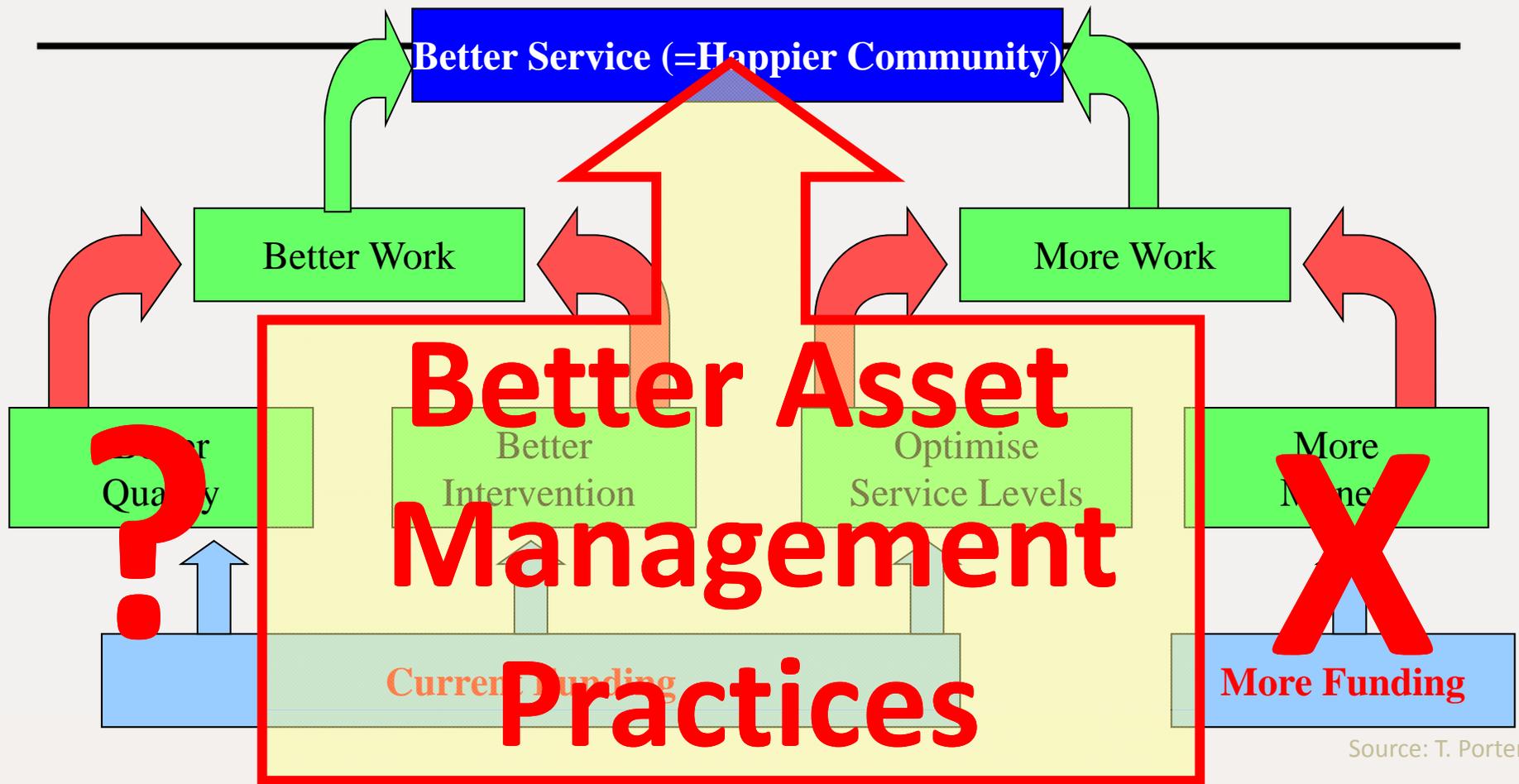
A paradigm shift is required in many organisations

- **Most agencies operate as Facility Managers not Asset Managers!**

FM = Find the faults and fix as many as we can with the budget available.

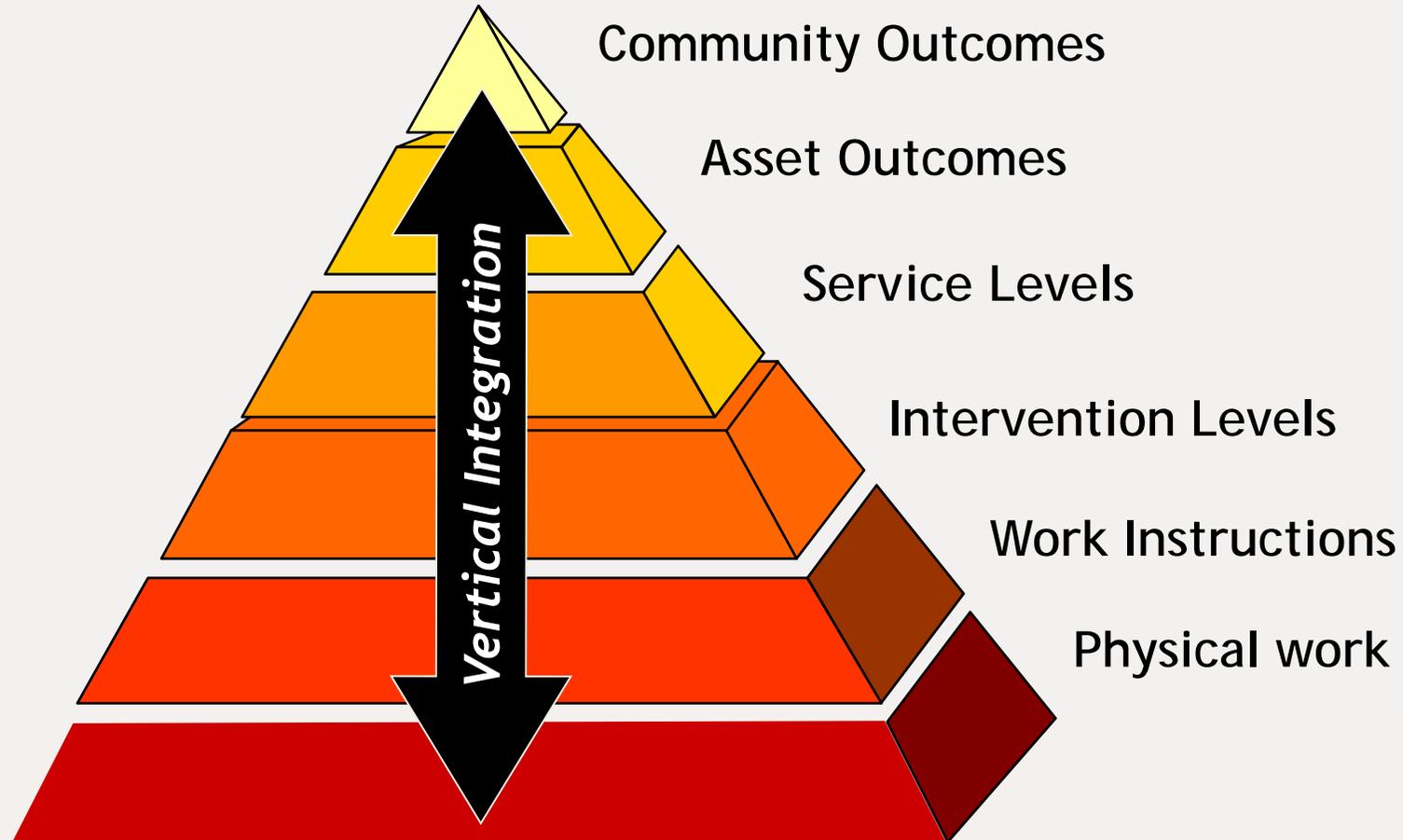
AM = debate and agree the service level and then deliver it for the least possible whole of life costs.

Extracting the Value



Source: T. Porter

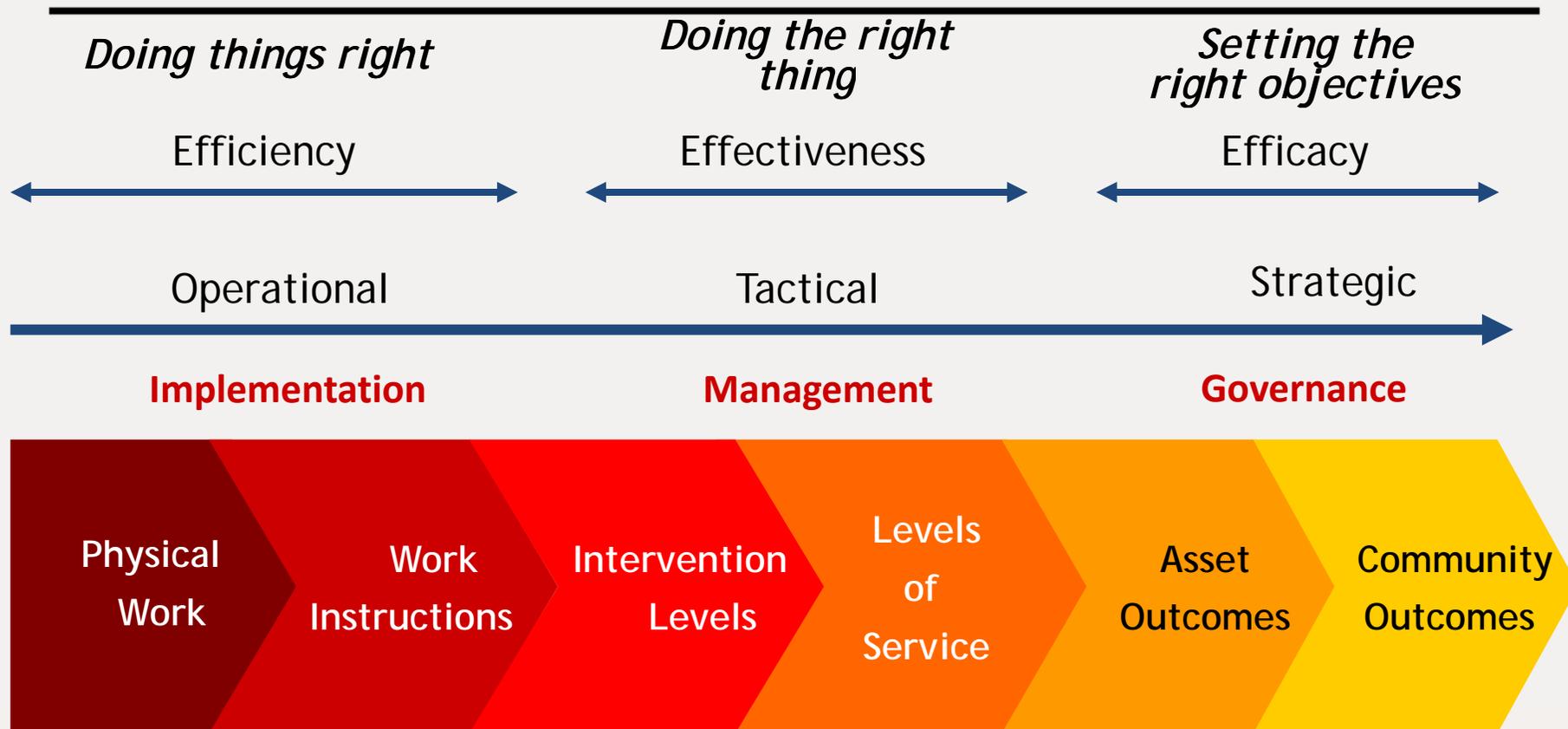
Asset Management Pyramid



It all starts with understanding the level of service and maintaining it.



Then assigning responsibilities – Success comes through focus.



Source: T. Porter

PBCs are seen as a great way to embed asset management and drive the paradigm shift

- A PBC takes the highway asset management plan and embeds it within a contractual framework.

They require:

- A detailed understanding of all the assets to be managed -particularly their life cycles.
 - Defined service levels for the term of the contract.
 - Delivery of the agreed level of service for the term of the contract.
- Which together is the essence of good asset management.

Lessons



#1 PBCs Require a cultural shift in all organisations

- 1.** Need to overcome the desire of many RCA staff to be “hands on managers”.
 - Feel they are giving away “their” network.
- 2.** Contractor’s staff typically struggle with the concept of minimising the amount of work to make more money.

Solution

- Time, persistence and in the end the greying of the staff!

#2 Long term lump sum contracts create problems when income is constrained.

Can be difficult to modify lump sum budgets to meet changing economic circumstances.

- e.g. NZTA's revenue now linked to fuel consumption and RUCs.

Solutions:

- Adjust contract to allow review of FWP at regular intervals.
 - e.g. NZ Hybrid
- Celebrate that your maintenance budgets are locked in!!

#3 Equitable Risk Sharing gives best outcomes

Storm events and resulting damage are best addressed outside the lump sum.

Solution:

Ensure risk boundaries are clearly defined in contract.

#4 Seek to minimise the cost of Monitoring

Response times are expensive to monitor.

Solution:

Move to defects per km wherever possible.

#5 Ensuring Conformance

“Three strikes and you are out” has proved to be too coarse an instrument.

Solution:

The “Opus NCR Bucket”.

The Bucket



- A portion of the lump sum is put at risk each month to ensure all the specified service levels are being delivered .
- The system:
 - Recognises the network is never perfect, but non-compliances must be managed.
 - Encourages the Contractor to identify non compliance and implement improvement.
 - Recognises some non-compliances are more significant than others.

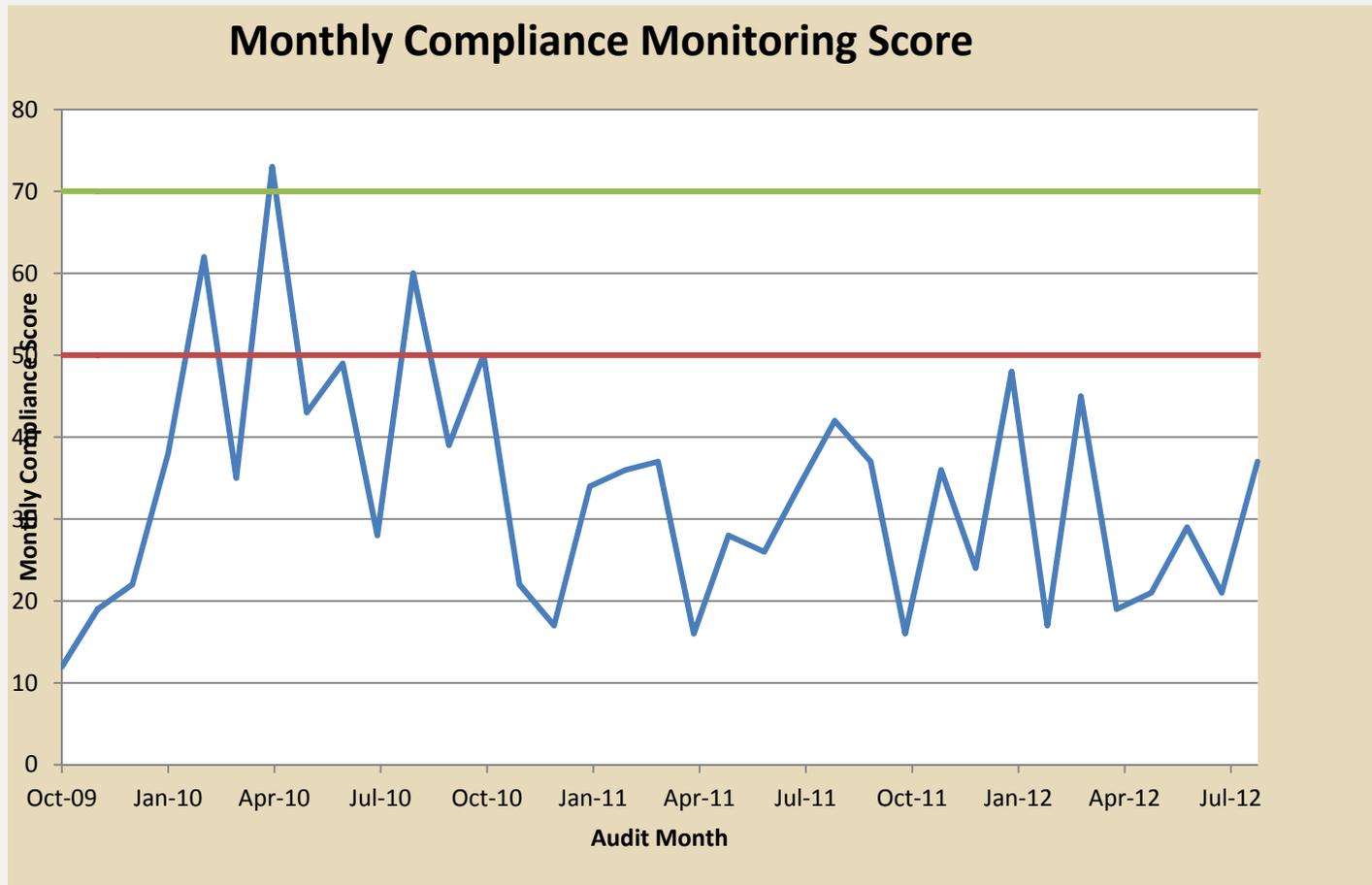
How Does It Work?



How Does it Work?

- Random self audit by contractor each month.
 - Typically 10%.
- Analogy
 - At risk \$\$ are “placed” in bottom of “The Bucket” each month.
 - All Non Compliances are represented by balls that are placed in “The Bucket”:
 - Different performance measures have different “volumes”
 - Continual non-compliance = increasing “volume”
 - Encourages non compliances to be rectified
 - The client has “bigger balls” if they identify Non Compliances that are missed by the contractor
 - Encourages diligence.
 - Any \$\$ displaced by non-conformances are deducted from monthly payments.

A live example



Challenges when implementing the bucket system

- Size of the bucket.
- Value of the “at risk payment”.
- Non-compliances identified by the client outside the audit lengths.

Does it Work?

- Contractors more focussed on delivering contractual commitments.
 - Timely delivery
 - More focus on reporting
 - Vegetation is under control!!
- Now have real incentives to deliver and non compliance hurts!
- Non compliances are being addressed.
- More honest reporting of non compliance.
- Buy in from all levels within Contractor.
- Client feels they have some control.
- Tighter tendering.

#6 Pavement's Residual Life

- Predicting residual life from deflections is subject to much more error than we thought.
 - NZ Transport Agency research report 381
 - Accuracy of predicted life is + or – 500% at best!
 - “...use of FWD for compliance testing is questionable”

Solutions

- Don't rely of deflections by themselves.
- Design review + QC testing.
- Underpin with min lengths of rehab.

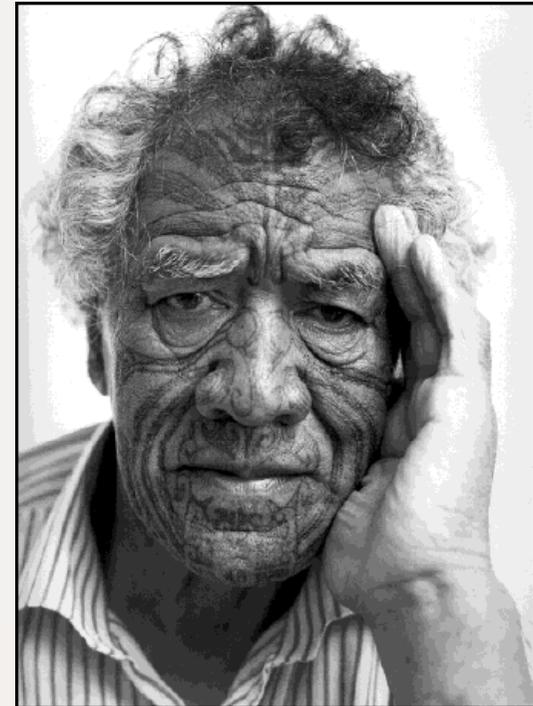
7 Selection of preferred tenderer

- Low prices lead to plenty of problems and poor outcomes.
 - Quality, Risk, and Price all need to be considered in selection process.
- Solutions:
 - Quality based short listing.
 - Quality Price Trade-off procurement methodology.
 - Consequences for non conformance.
 - Clear definition of risk boundaries.

A final thought

I believe success is principally about the people

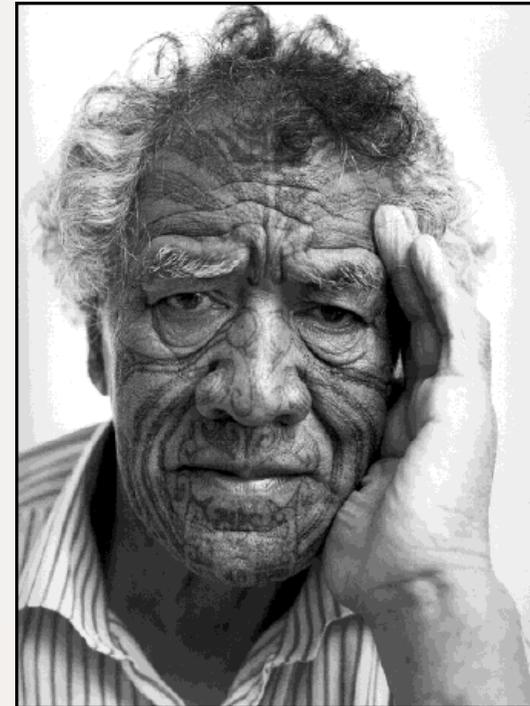
- **Maori Proverb**
 - He aha te mea nui
 - **He tangata**
 - **He tangata**
 - **He tangata**



I believe success is principally about the people

■ Maori Proverb

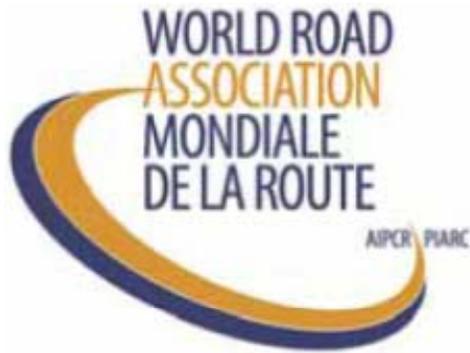
- If you ask me what is the most important thing, I will tell you:
 - **It is people**
 - **It is people**
 - **It is people**





Thank you

Tony.porter@opus.co.nz



Conclusion and recommendations

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