Improving asset management

Mark Worsfold, Head of Asset Strategy
25 November 2010

Agenda

Objective

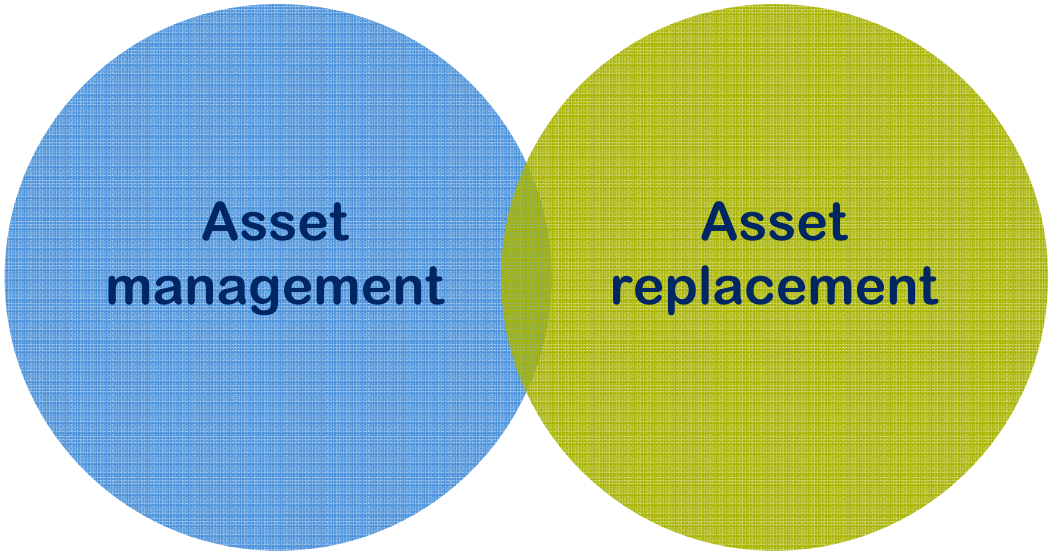
What assets and investment types

Asset management frameworks

Assessing investment need

Measuring outcomes - Serviceability

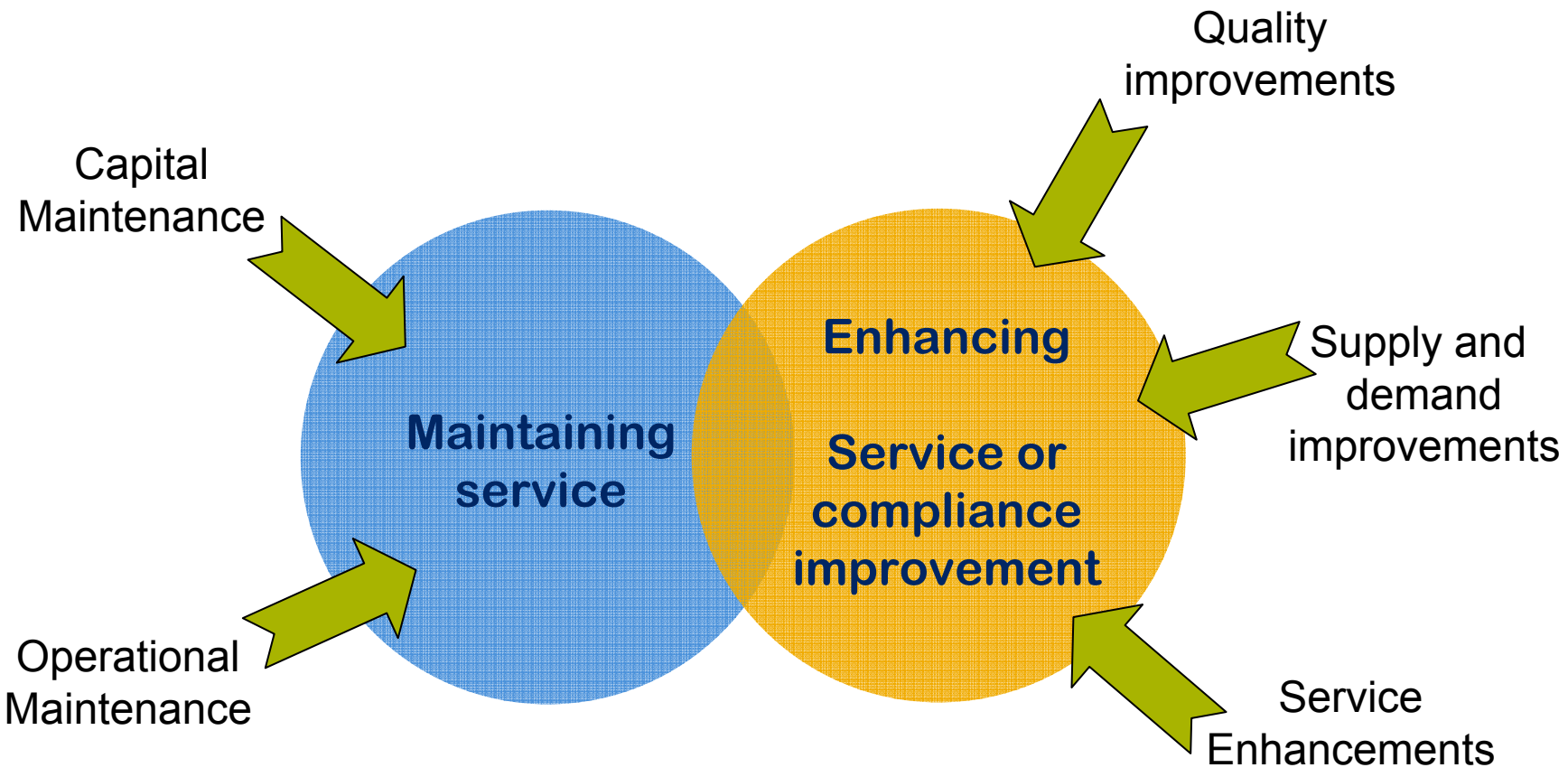
Conclusions



Economic and efficient

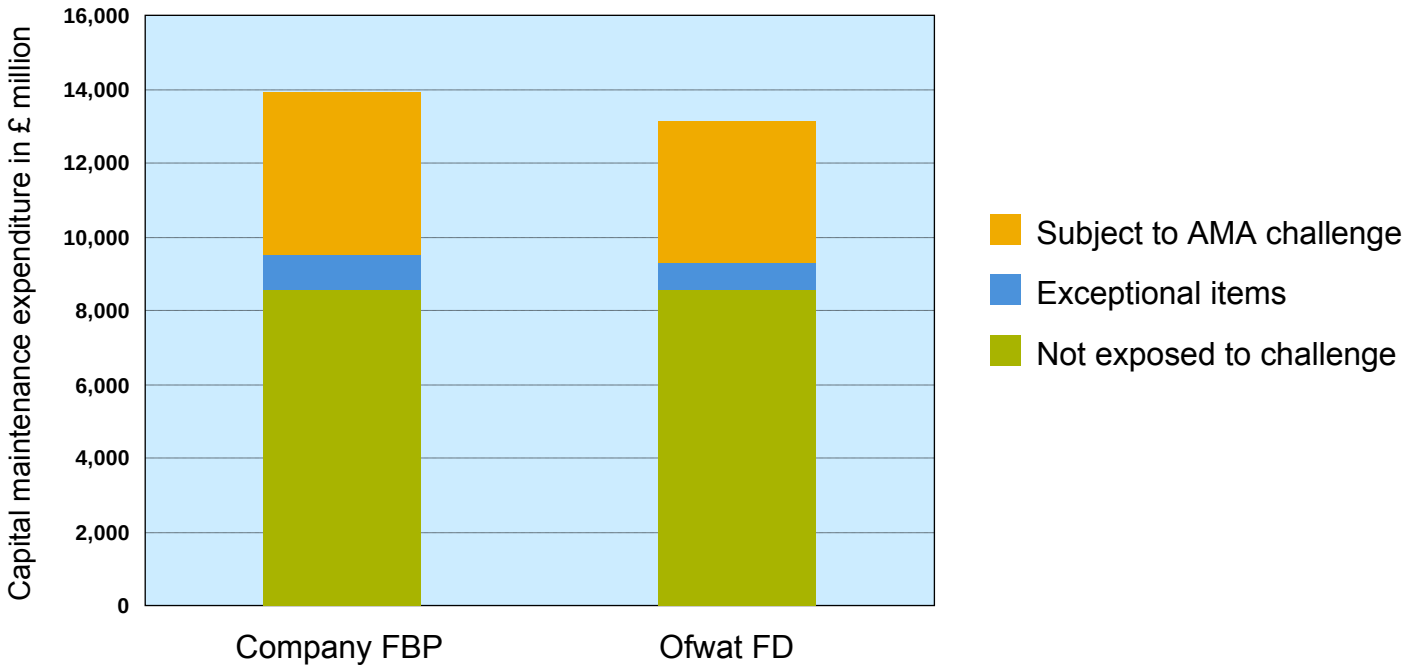
‘Maintain the flow of services to customers’

Investment types ?



AMP5 programme – capital maintenance

Capital maintenance – industry total (gross and pre-efficiency)



Are we already at the sustainable level of Capital Maintenance ?

FD 09 Capital Maintenance – 50% real increase since AMP3

2010 price base

Water | Waste water

Above ground

Below ground

Water non-infrastructure		
GMEAV	2010 - 15	uplift over 2000 - 05
£ 32 bn	**£ 3.7 bn**	**43%**

Sewerage non-infrastructure		
GMEAV	2010 - 15	uplift over 2000 - 05
£ 42 bn	**£ 4.8 bn**	**43%**

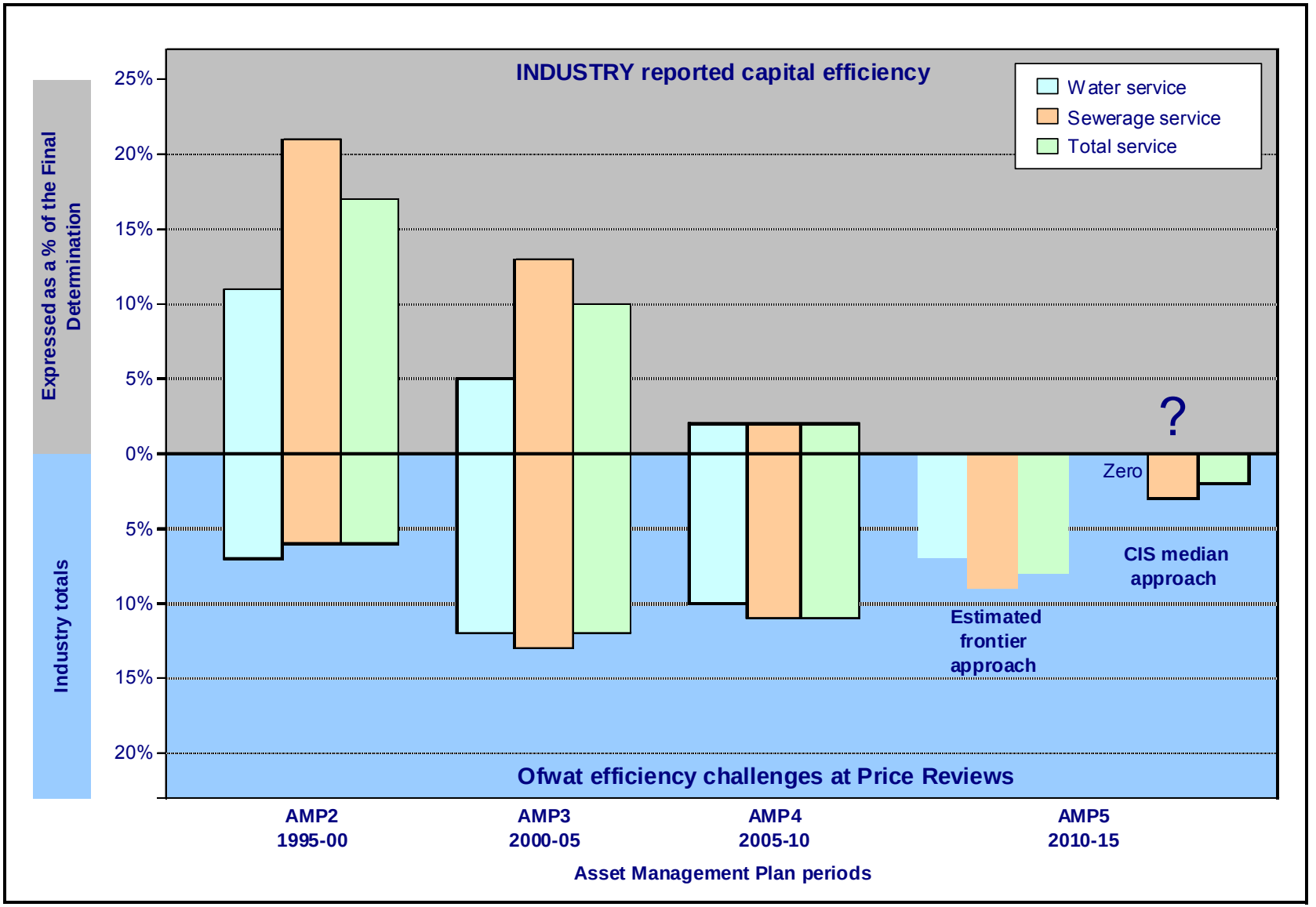
Total Capital Maintenance		
GMEAV	2010 - 15	uplift over 2000 - 05
£ 365 bn	**£ 13.3 bn**	**50%**

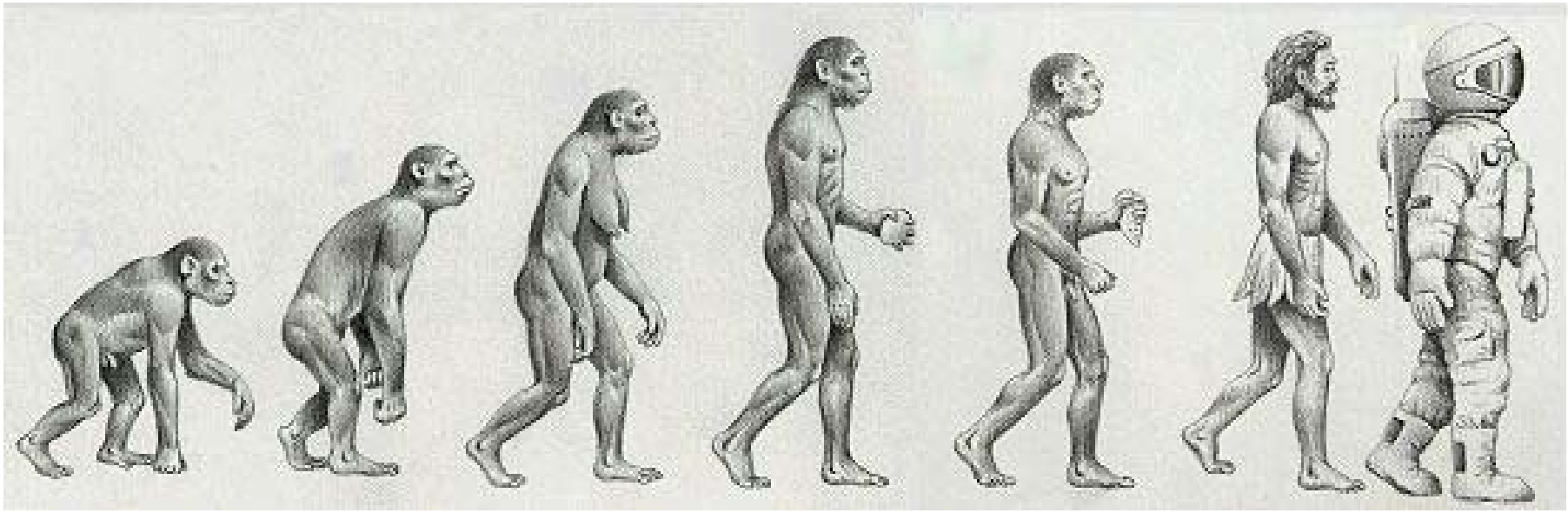
Water infrastructure		
GMEAV	2010 - 15	uplift over 2000 - 05
£ 100 bn	**£ 3.3 bn**	**76%**

Sewerage infrastructure		
GMEAV	2010 - 15	uplift over 2000 - 05
£ 191 bn	**£ 1.5 bn**	**45%**

£15bn spent over last 20 years

Efficiencies delivered v efficiency challenge – industry





AGE | CONDITION | COMMON FRAMEWORK | STABLE SERVICEABILITY | REAL TIME

1980 | 1995 | 2000 | 2010 | 2015?

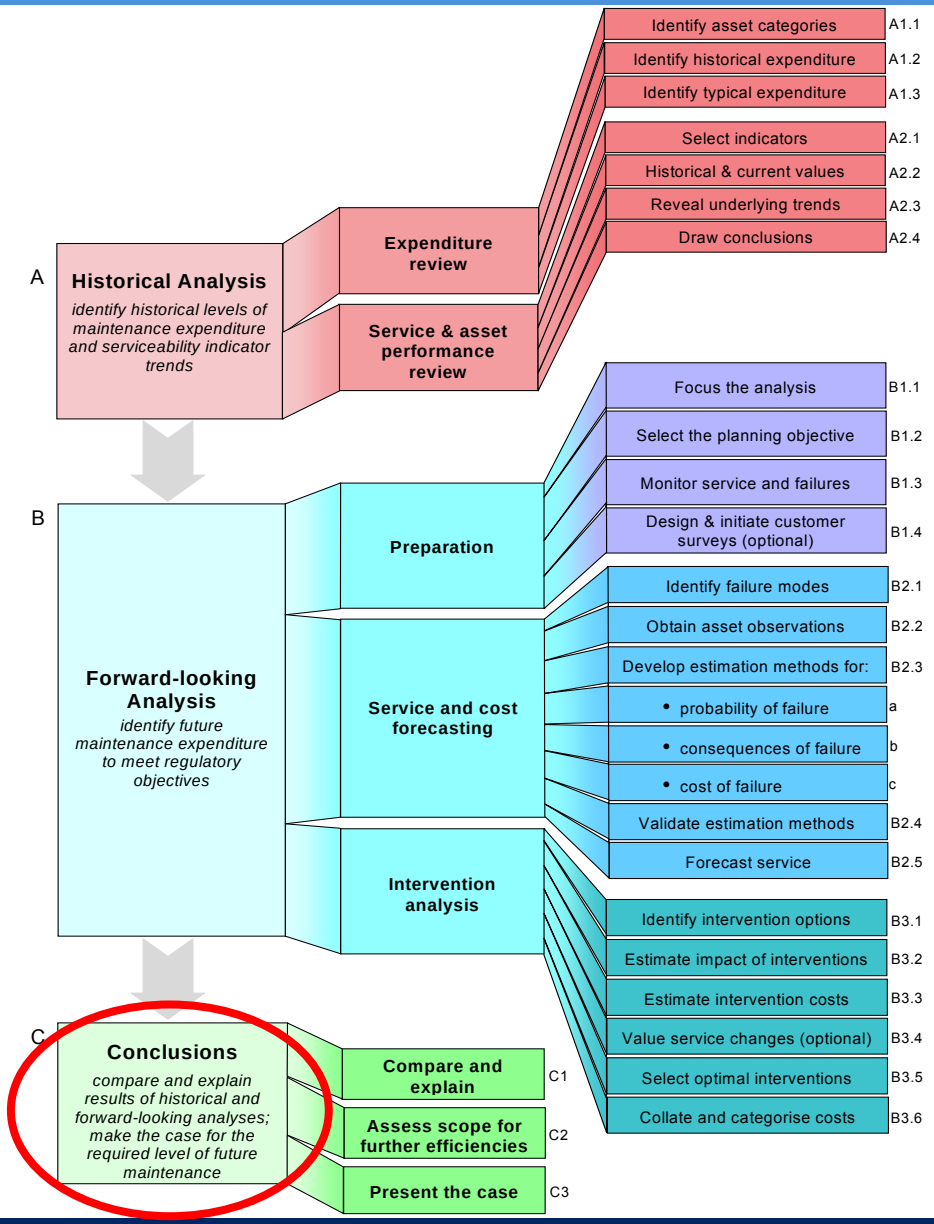
The evolution of Asset Management

UKWIR's Capital Maintenance Planning Common Framework

A. Historical look

B. Forward look – risk based

C. Conclusions



www.ukwir.org
Capital maintenance planning: a common framework
Ref: 02/RG/05/3
ISBN 1-84057 265 5

FD 09 Capital Maintenance – 50% real increase since AMP3

Need to maintain:
Water quality improvements
Leakage improvements

Water non-infrastructure		
GMEAV	2010 - 15	uplift over 2000 - 05
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Need to maintain:
Water quality improvements
WFD, UWWTD

Sewerage non-infrastructure		
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Need to maintain:
Water quality improvements
Metering increases

Sewerage infrastructure		
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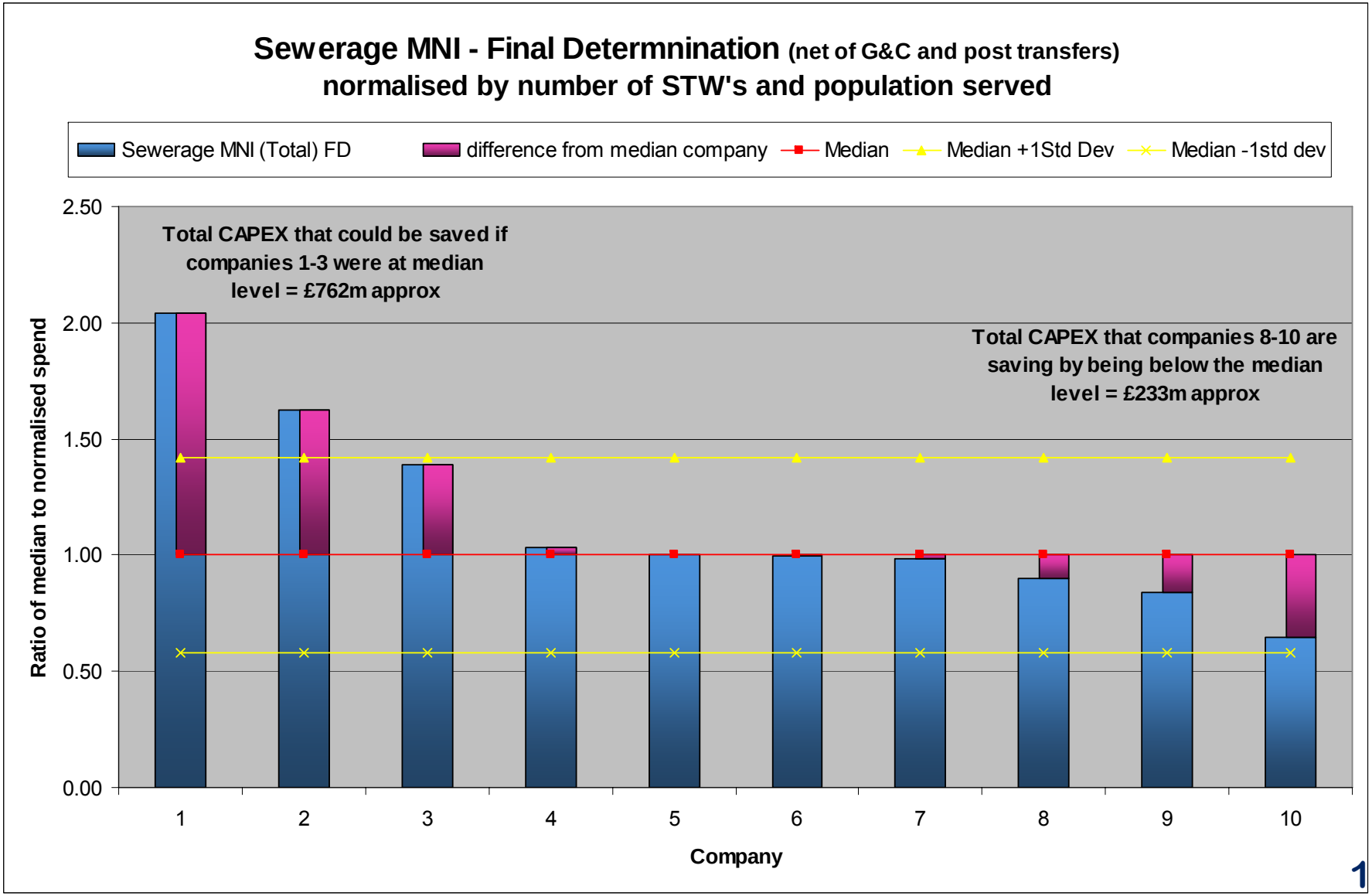
Need to maintain:
Sewer flooding improvements

Historic - Economic and efficient ?



The key ingredient?

Probability and consequence of failure

“Maintain the flow of service to customers”

Capital Maintenance - evidence base

Demonstrate the need

Understand the problem

Quantified impact, risk, probability and consequence

Solution engineering and options appraisal

Cost-benefit assessment

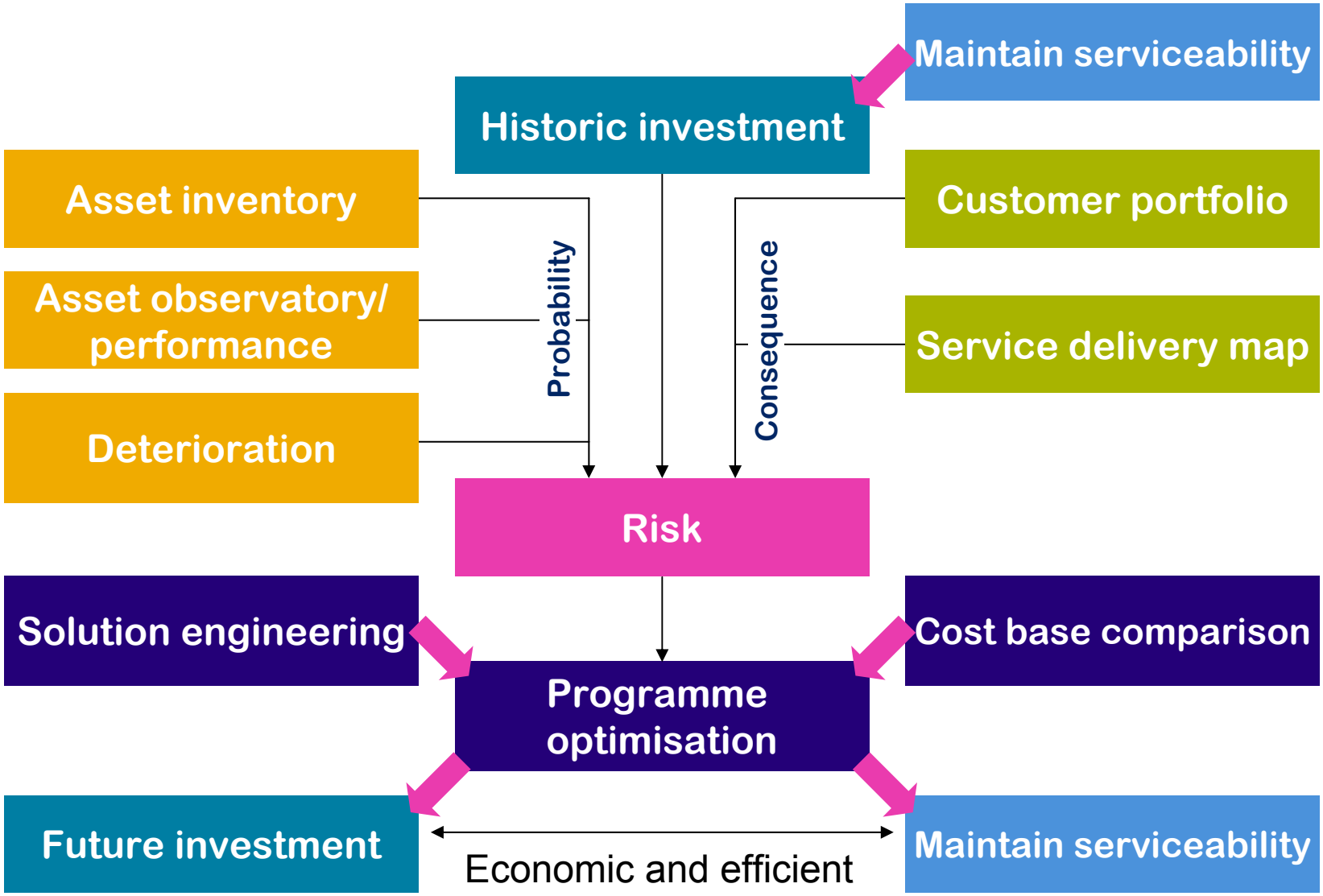
Programme assessment – most cost-beneficial scheme?

Long term perspective – why different from the past ?

How will it be measured?
Service or environmental improvements

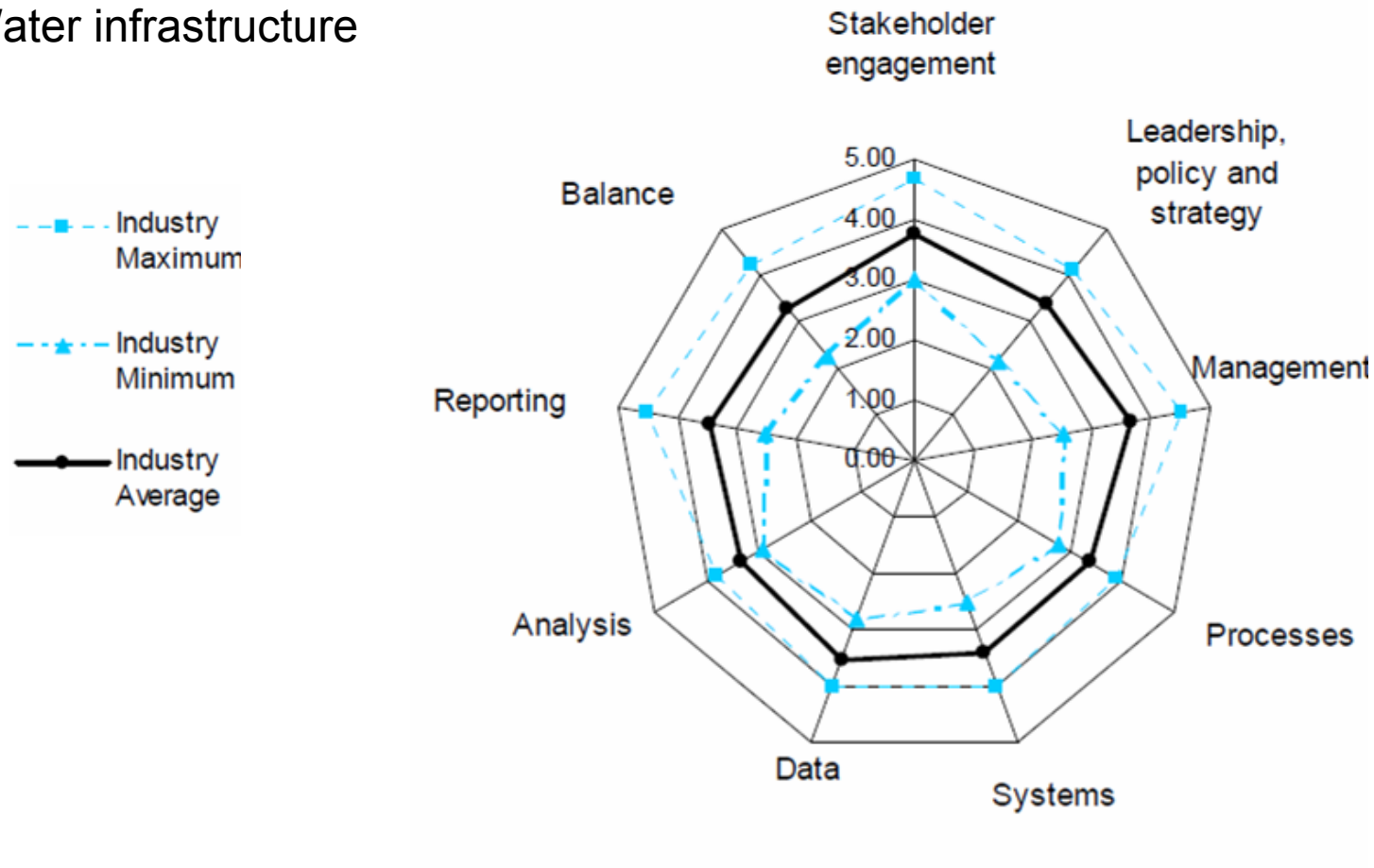
Overall impact and contribution to serviceability and enhanced service targets

Model of business planning processes



Asset management assessment

Water infrastructure



PR09/37 contains a full description and data

Outcomes: Assessing serviceability

MD212:
“Achieving stable serviceability is a required regulatory output for all companies…”

“We have established financial mechanisms at periodic reviews to take account of any failure to deliver regulatory outputs…”

“The shortfall process ensures that customers are not required to pay for outputs that have not been delivered by companies…”

RD15/06:
Process for assessing serviceability
Defined a basket of indicator measures
Our process when serviceability is less than stable

What are serviceability measures ?

Treatment works coliforms
Service reservoir coliforms
Turbidity
Enforcements
Unplanned maintenance jobs

Treatment works compliance %
Population equivalent compliance %
Unplanned maintenance jobs

Water non-infrastructure		
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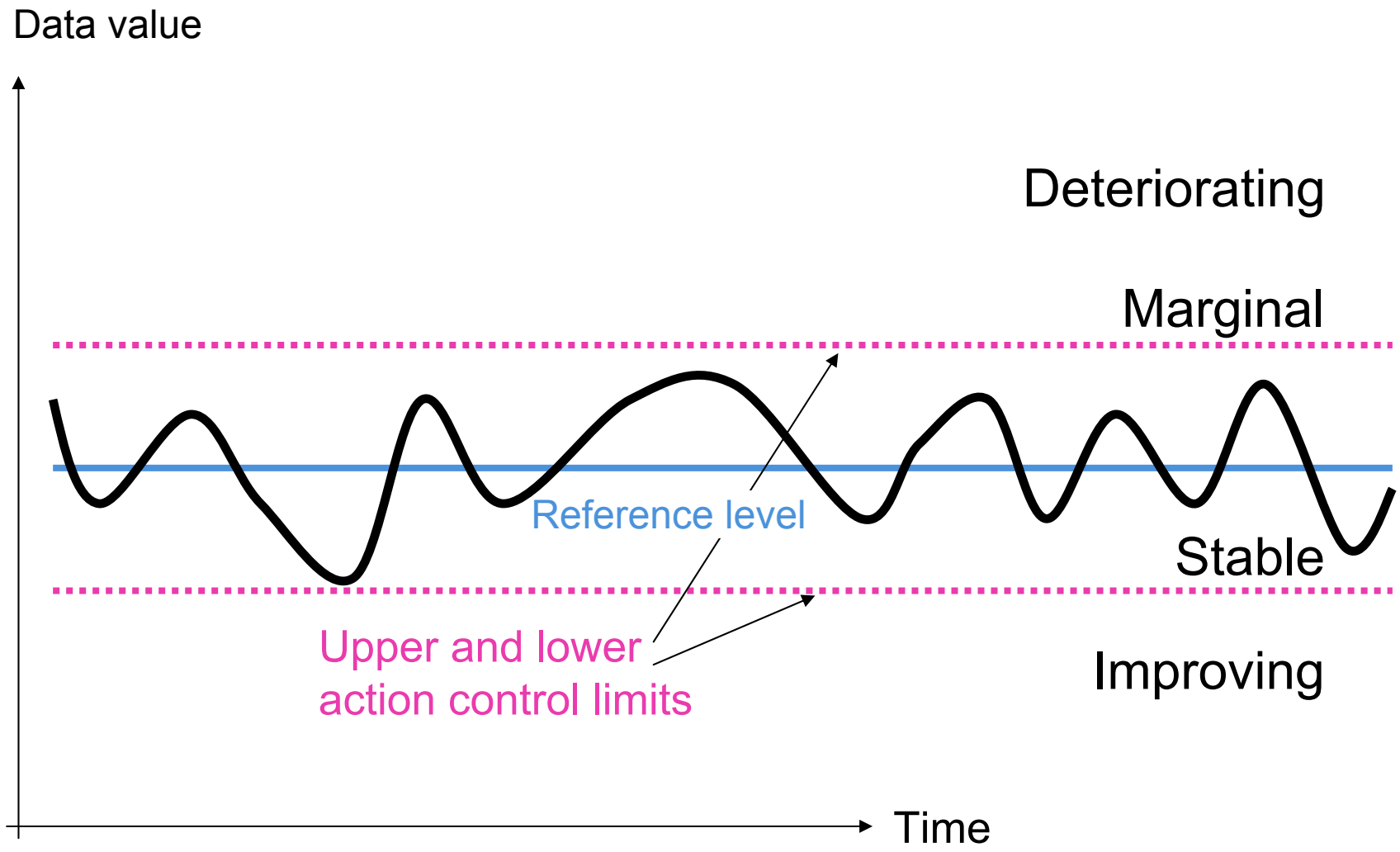
Burst mains
Interruptions to supply
Turbidity, Iron and Manganese compliance
Pressure
Discolouration contacts

Sewer collapses
Pollution incidents
Properties flooded
Sewer blockages
Equipment failures

Measuring serviceability



Serviceability in action

	JR04				JR07			
	Water		Sewerage		Water		Sewerage	
	Infra	Non-Infra	Infra	Non-Infra	Infra	Non-Infra	Infra	Non-Infra
Improving	3	4			3	1		
Stable	14	17	6	5	12	21	4	5
Marginal	4	1	3	3	6		6	1
Deteriorating	1		1	2	1			4

	JR08				JR09			
	Water		Sewerage		Water		Sewerage	
	Infra	Non-Infra	Infra	Non-Infra	Infra	Non-Infra	Infra	Non-Infra
Improving	2	1				2		
Stable	19	21	8	8	20	16	9	9
Marginal	1		2	2	1	3	1	1
Deteriorating								

Shortfall adjustments for two companies with ‘marginal’ serviceability assessments (Veolia Central for water infrastructure and Dŵr Cymru for water non-infrastructure)

PR09/38 contains a full description and data

Conclusions

Development of asset management over 20 years

Clear objectives:

"Maintain the flow of services to customers"

"Economic and efficient delivery"

Many tools in place;

Comparative assessments – historic and cost base
Asset Management Framework – risk based
Asset deterioration modelling
Asset Management Assessments
Measuring outcomes – serviceability
Incentives and cost recovery mechanisms

Allow the companies to out-perform and deliver.

Questions and answers