

# UIC Railway Asset Management Global Conference 2019

17 - 19 APRIL 2019

UIC HEADQUARTERS, PARIS

## Defensible Maintenance Budgets: Supporting the Realisation of Stakeholder Value

Key Note Session



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## Core Themes

- To support the achievement of business needs, asset management must integrate technical and financial decision-making
- Asset management requires auditable and transparent decision making
- Decision-making is fact based, where alternative solutions are evaluated using risk based methodologies
- Asset management requires the development of a supporting leadership style and organisational culture
- Improved business outcomes are achieved by improving asset management maturity

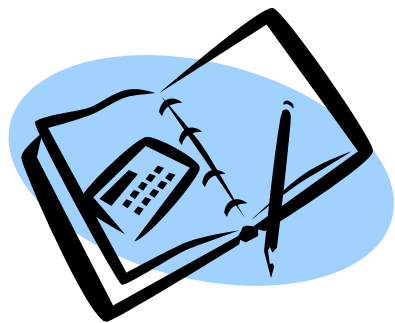
## Useful Technical References

- ISO 55001:2014 Asset management — Management systems — Requirements
- ISO 31000 Risk Management
- ISO 10007 Configuration Management
- IEC 62775 Dependability Management: Application guidelines – Technical and Financial processes for implementing asset management systems.
- IEC 60300-3-15:2009 Dependability Management - Part 3-15: Application guide - Engineering of system dependability.
- IEC 60300-3-4 Dependability Management Part 3-4; Application guide – Specification of dependability
- IEC 60300-3-1 Dependability Management - Part 3-1: Application guide – Reliability
- ISO/IEC 15288 Systems Engineering
- Naval Aviation (Navair) 00 25 403 Reliability Centred Maintenance
- US Military Standard 390D Level Of Repair Analysis (LORA)
- IEC 60300–3–10 Dependability Management - Part 3-10: Application guide – Maintainability
- IEC 60300-3-14 Dependability Management - Part 3-1: Application guide – Supportability.
- IEC 61078 Analysis techniques for dependability - Reliability block diagram
- IEC 60812 Analysis techniques for system reliability - Procedure for failure mode and effects analysis (FMEA)
- IEC 60300-3-12 Dependability management - Part 3-12: Application guide - Integrated logistic support

# Useful Financial References

## ▲ Relevant International Financial Reporting Standards (IFRS):

- IFRS 3 Business Combinations
- IFRS 7 Financial Instruments: Disclosures
- IFRS 8 Operating Segments
- IFRS 9 Financial Instruments
- IFRS 13 Fair Value Measurement



## Relevant International Accounting Standards (IAS):

- IAS 8 Accounting Policies, Changes in Accounting Estimates and Errors
- IAS 16 Property, Plant and Equipment
- IAS 17 Leases
- IAS 21 The Effects of Changes in Foreign Exchange Rates
- IAS 36 Impairment of Assets
- IAS 37 Provisions, Contingent Liabilities and Contingent Assets

Refer to <https://www.ifrs.org/issued-standards/list-of-standards/>

Note: Implemented within each country's national accounting and reporting standards e.g. Australian Accounting Standards Board (AASB)

# What is Asset Management?



## Asset Management Council:

*"The **life cycle management** of **Assets** to achieve the stated **outputs** of the **enterprise**."*



## ISO 55000:

*"The **coordinated activity** of an organisation to realise value from assets."*

# Role of Asset Management

The role of asset management within an organisation is to:

- Identify the 'value' to be realised from the use of assets; and
- Develop, implement and maintain a management system to enable that realisation
- Integrate with other management systems

The worth of asset management is the delivery of "assurance" or associated with "value", within the:

- Agreed levels of service
- Profit and Loss Account, Balance Sheet and Cash Flow Statement
- Return on Equity and/or Economic Value Added (share price, profitability)
- Residual risk profile (safety, asset reliability, reputation etc)

*"Effective control and governance of assets ... to ...achieve the desired balance of cost, risk and performance." ... ISO 55000*

# The Principles/Fundamentals of Asset Management

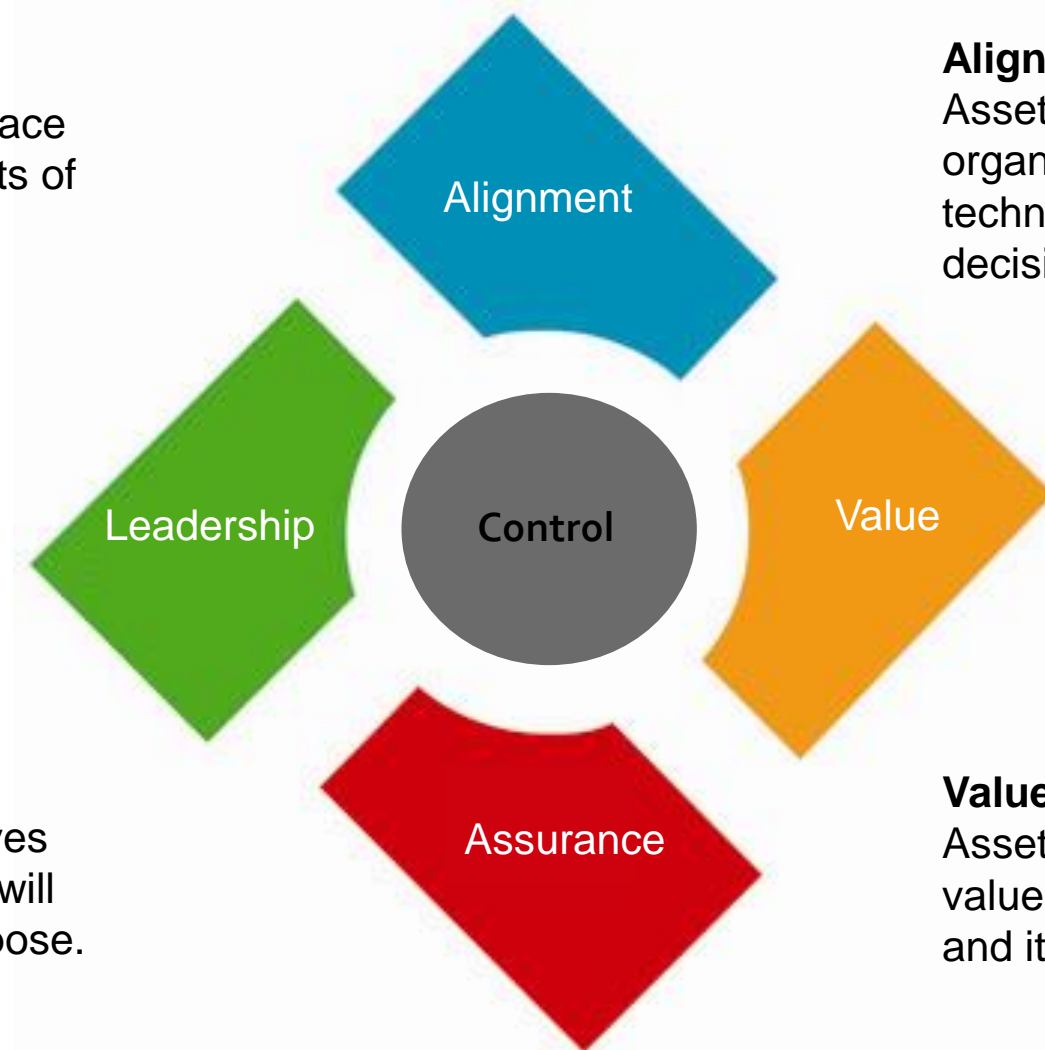
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## **Leadership:**

Leadership and workplace culture are determinants of realization of value.

## **Assurance:**

Asset management gives assurance that assets will fulfil their required purpose.



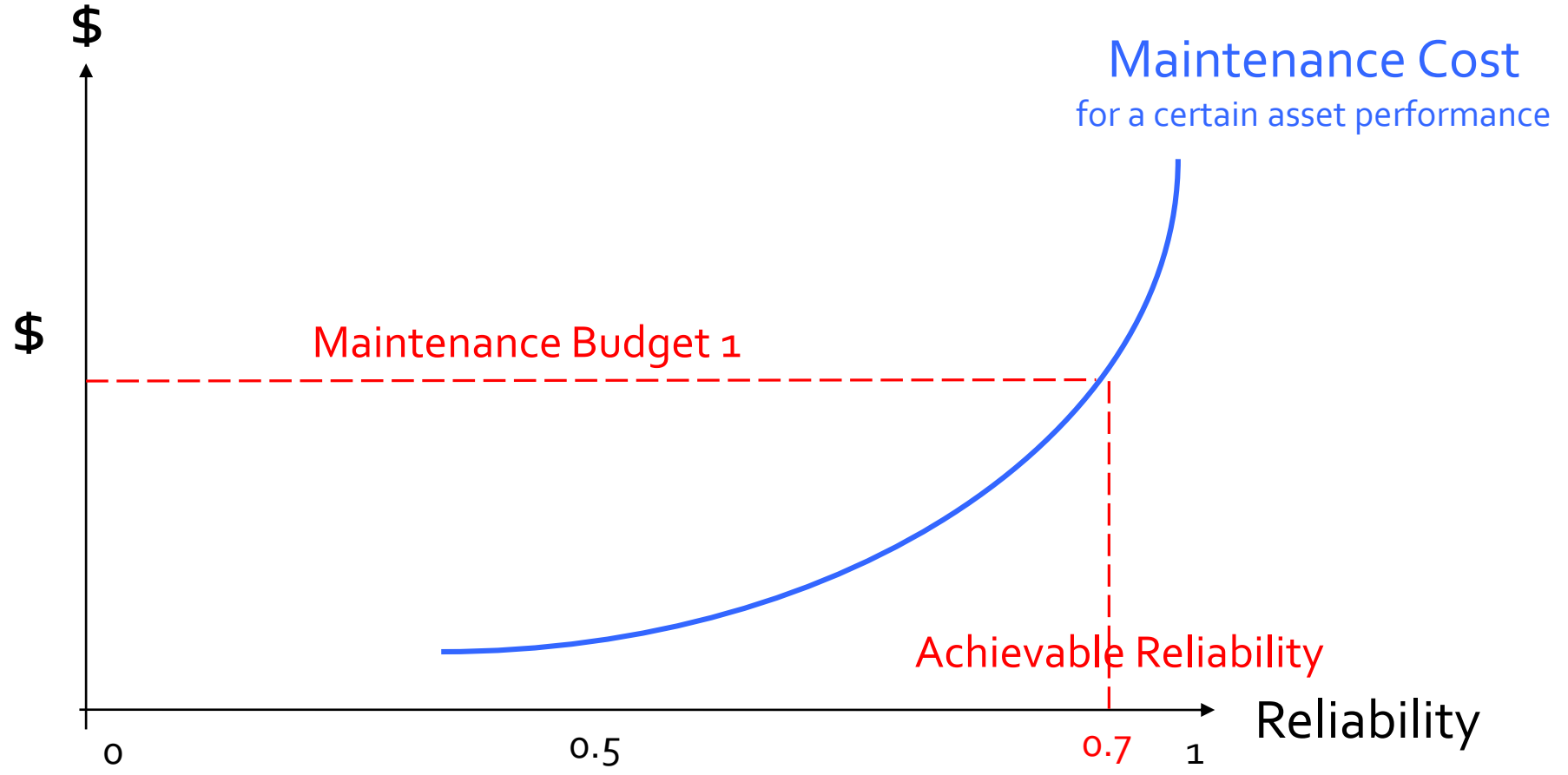
## **Alignment:**

Asset management translates organisational objectives into technical and financial decisions, plans and activities.

## **Value:**

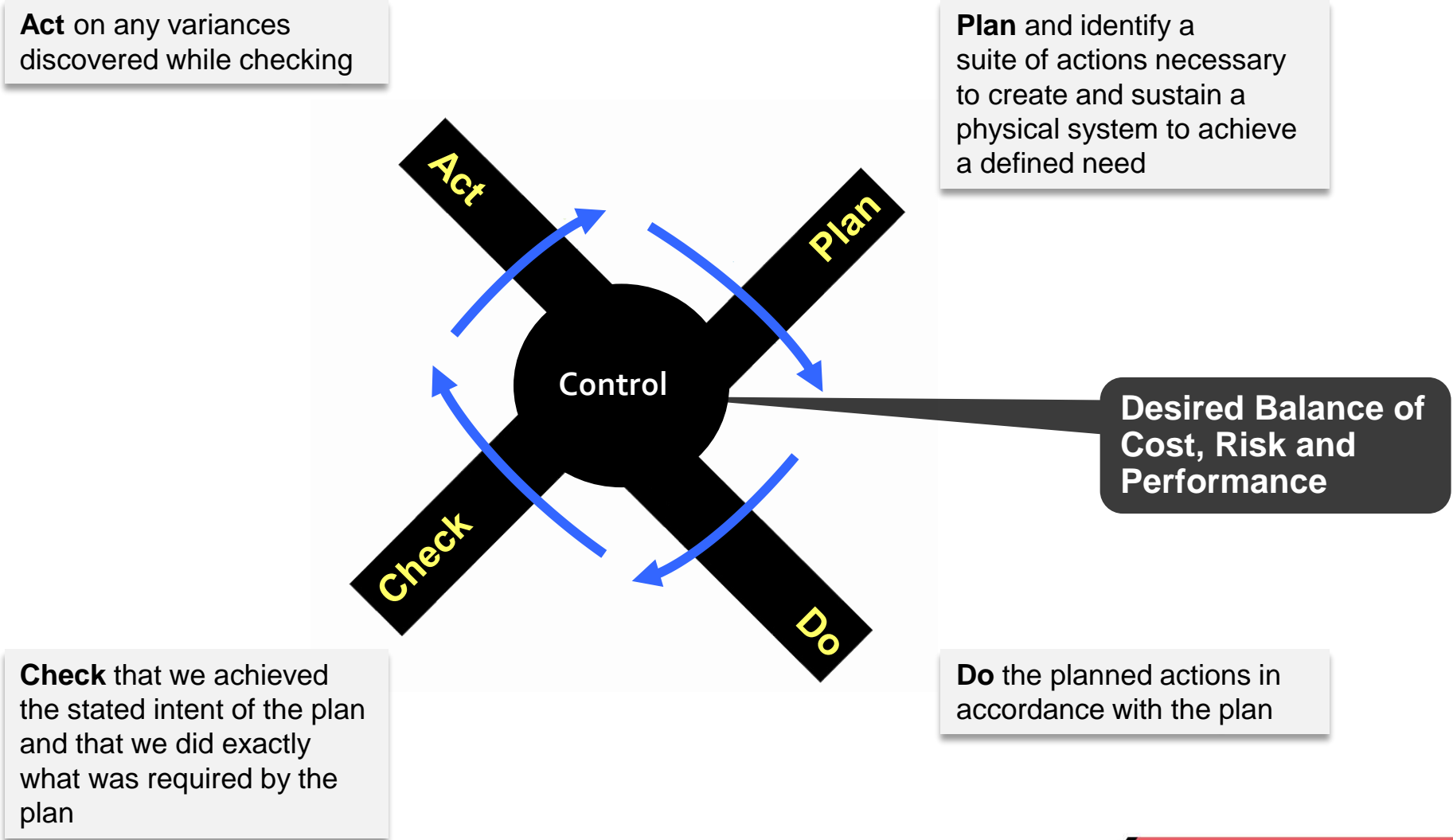
Assets exist to provide value to the organization and its stakeholders.

# How to present the Desired Balance of Cost, Risk & Performance?





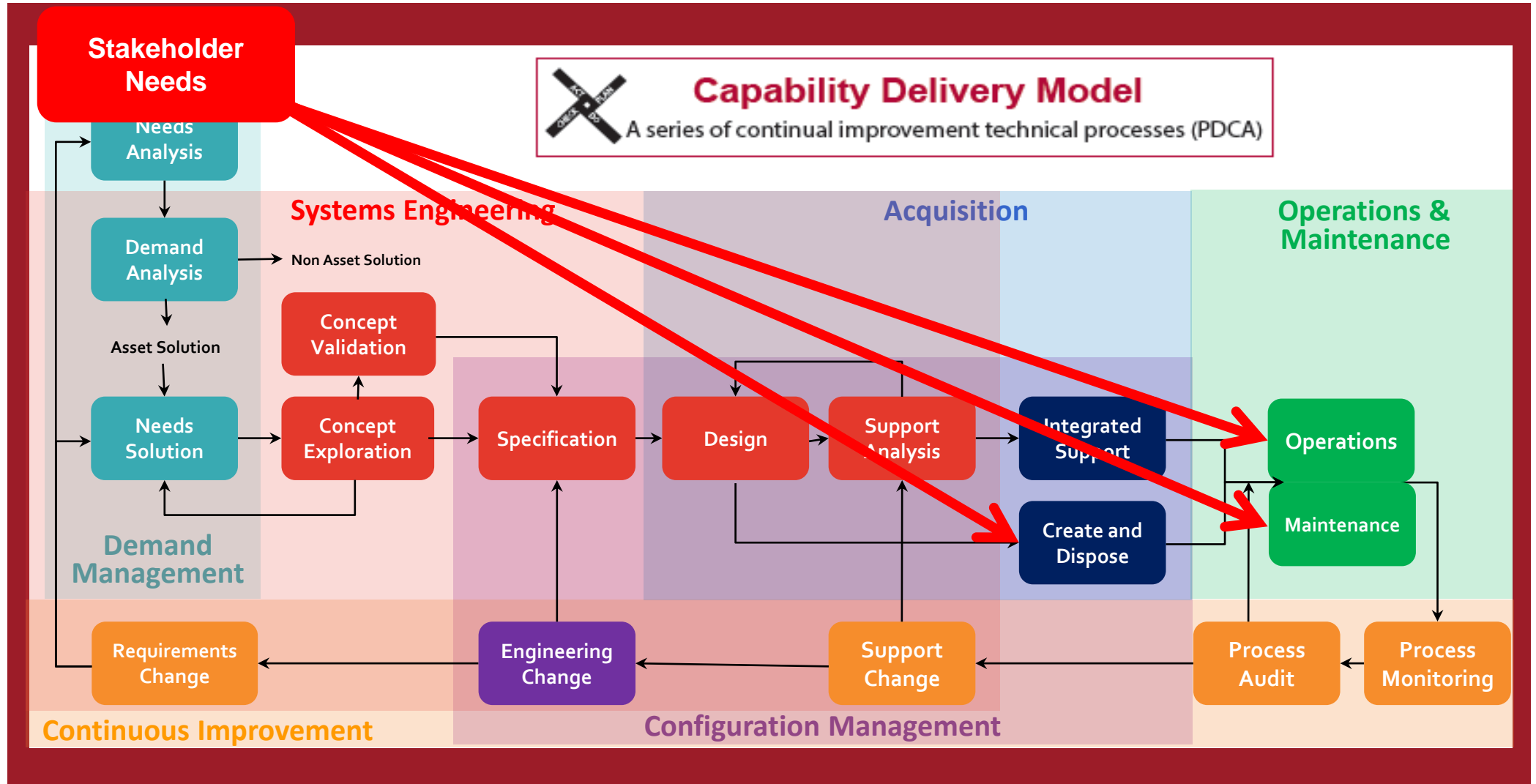
# What are the Principles of AM?



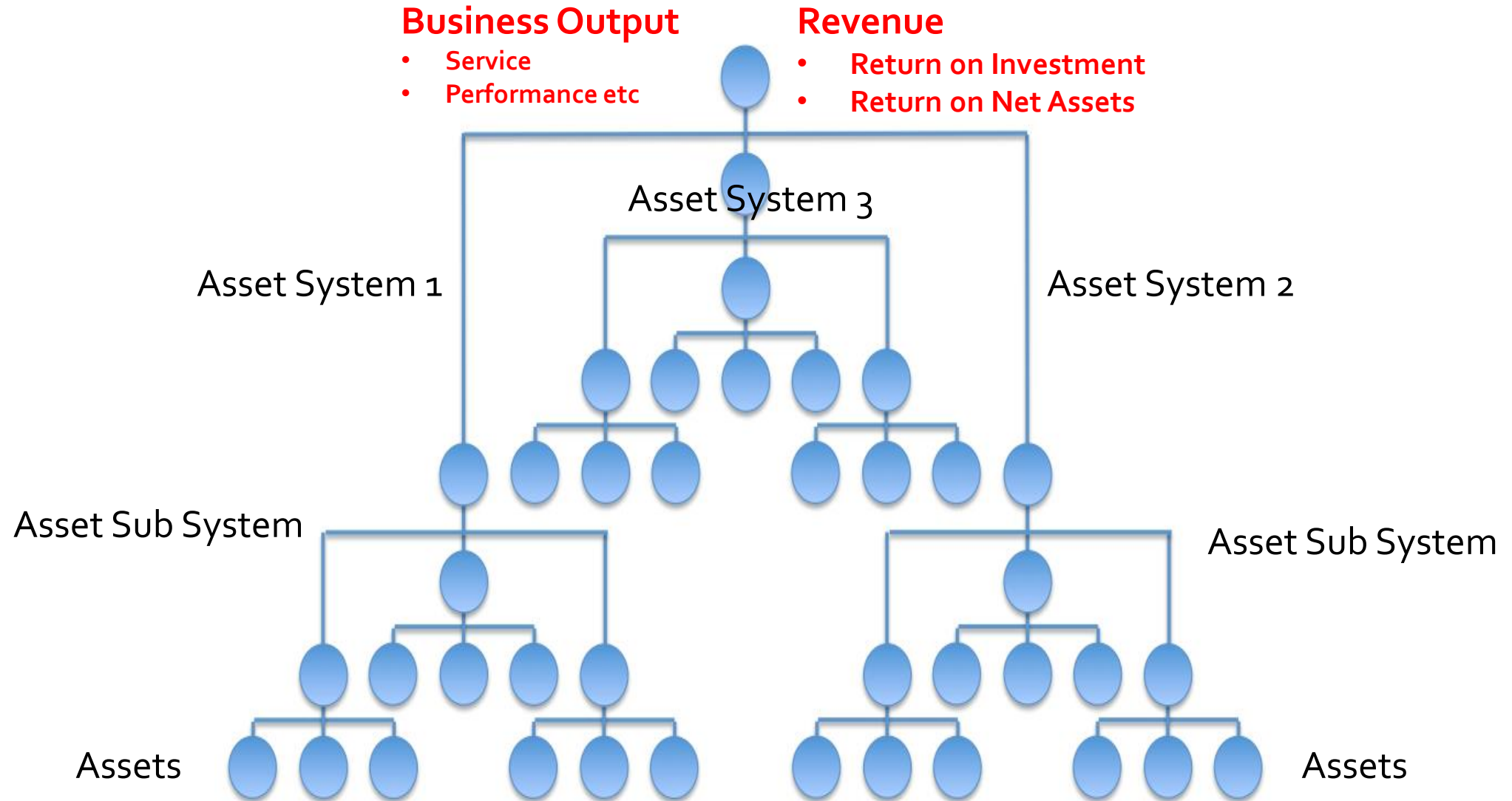
# Capability Delivery Model

## Asset Management - Decision Making Processes

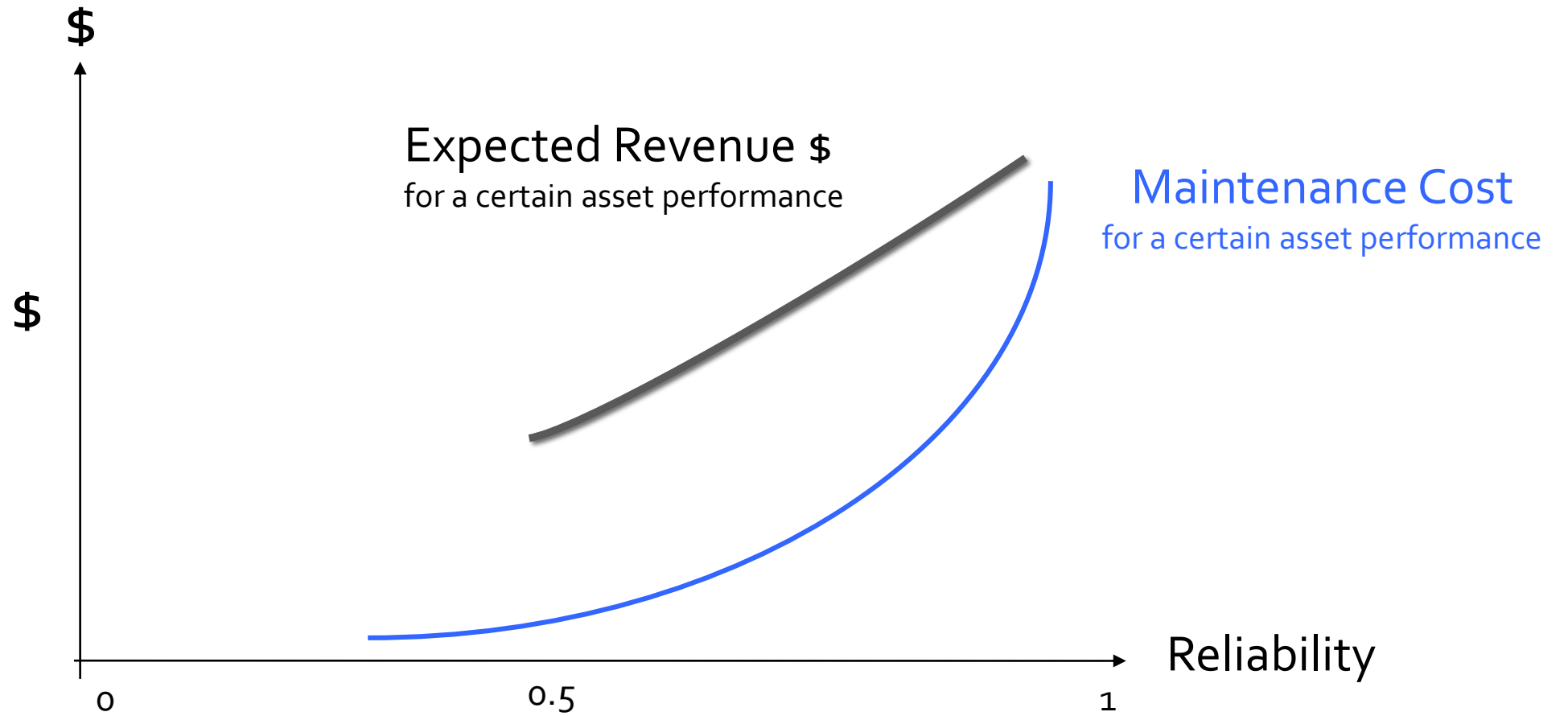
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# Linking Asset Systems and Assets to Revenue



# A Defensible Maintenance Budget



# A Defensible Maintenance Budget

**Defensible** means a budget solution that is:

- Fact and risk based
- Fully traceable to business needs
- Demonstrably good practice (international and national standards)
- Compliant with statutory and regulatory imperatives
- Implemented by competent (certified) staff
- Supported by verified technology (information and decision systems)
- Transparently and verifiably costed
- Deliverable in the agreed time frame
- **Effect of change (e.g. a maintenance budget cut) can be identified**

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