



Asset Management – Overcoming the Ten Sins

American Public Power Association
Business & Financial Conference

September 17th, 2018

Agenda

What is Asset Management?

Asset Management Maturity Assessments

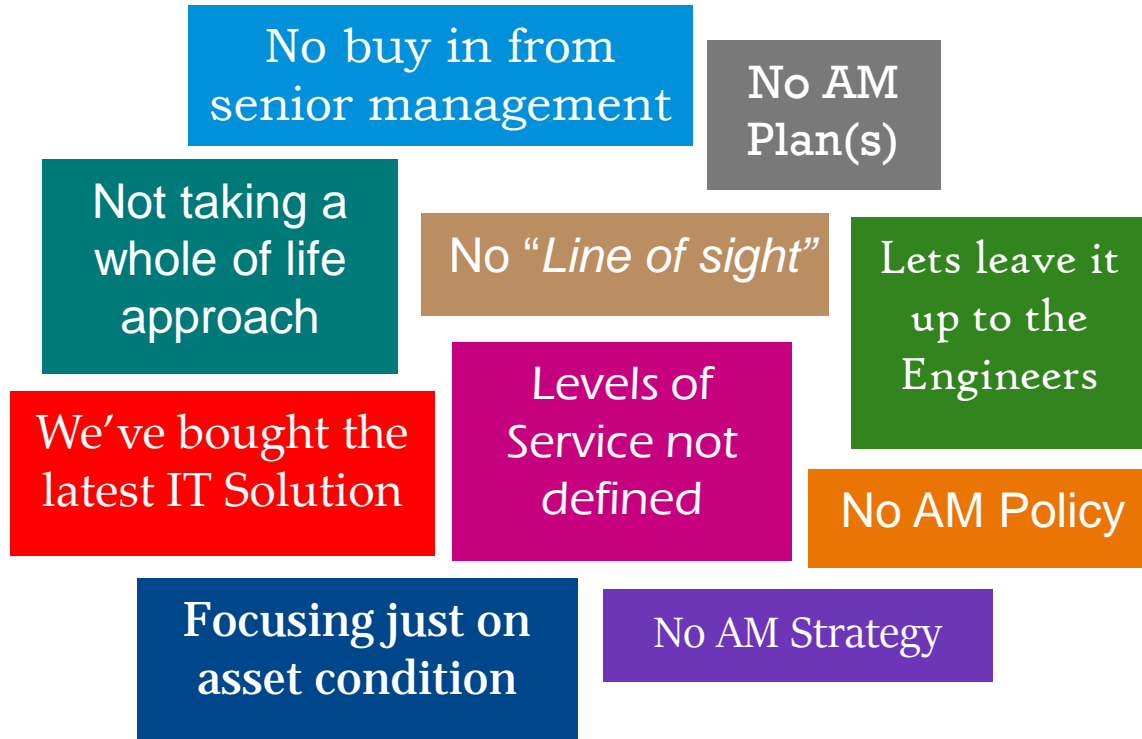
ISO55000 Asset Management Standard

Asset Management Policy

Asset Management Strategy

Asset Management Plans

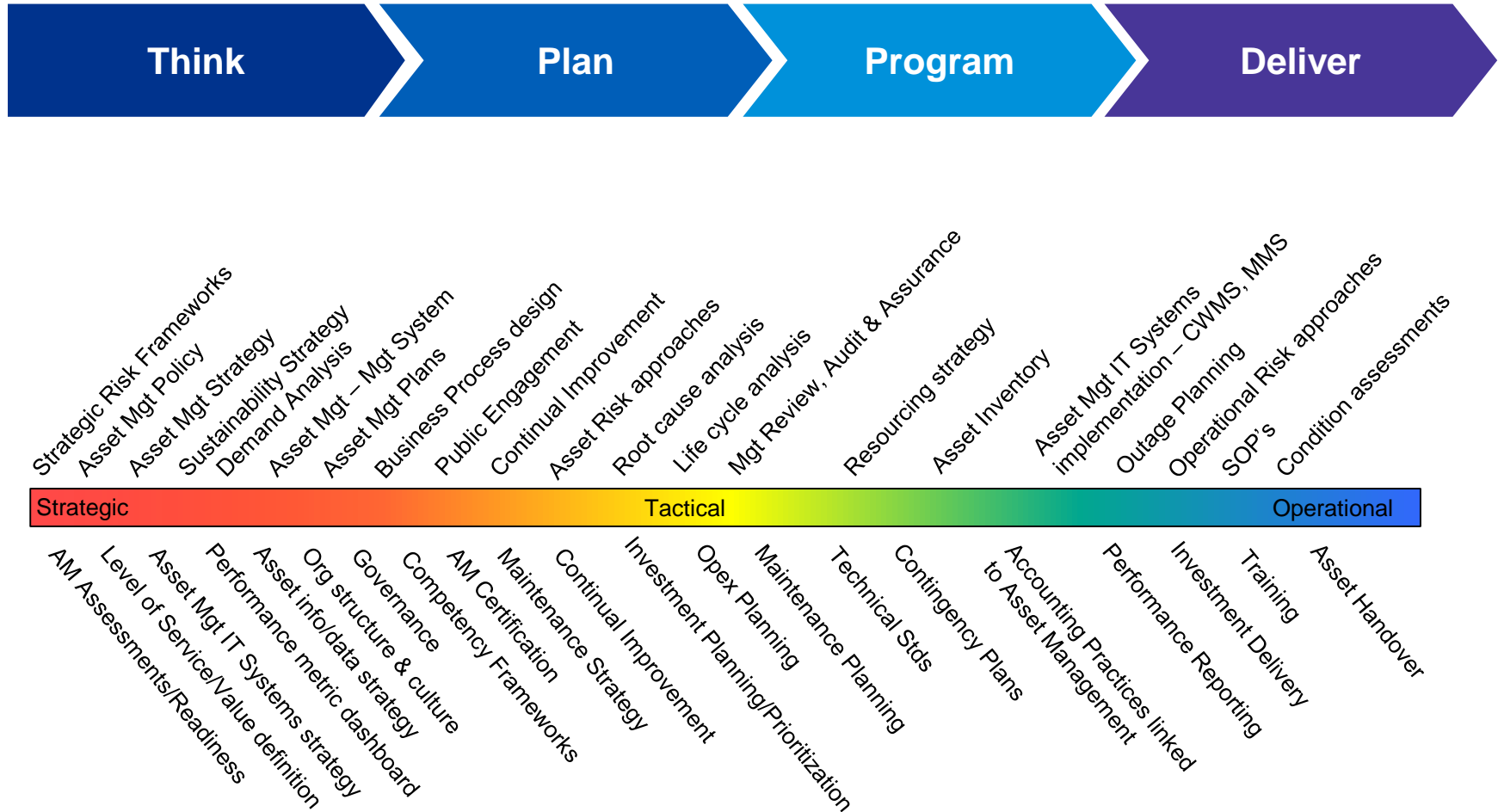
The 10 Sins?



The Many Sins?



What is Asset Management?



What is “Asset Management”?

- Expectations of Asset Management good/best practice from Customers, Stakeholders & Regulators
- In many sectors it is assumed that organizations are practicing “Asset Management” but -
- *How to define Asset Management*
- *How well are we practicing it?*
- *How would we know this?*
- *What is “good practice”?*

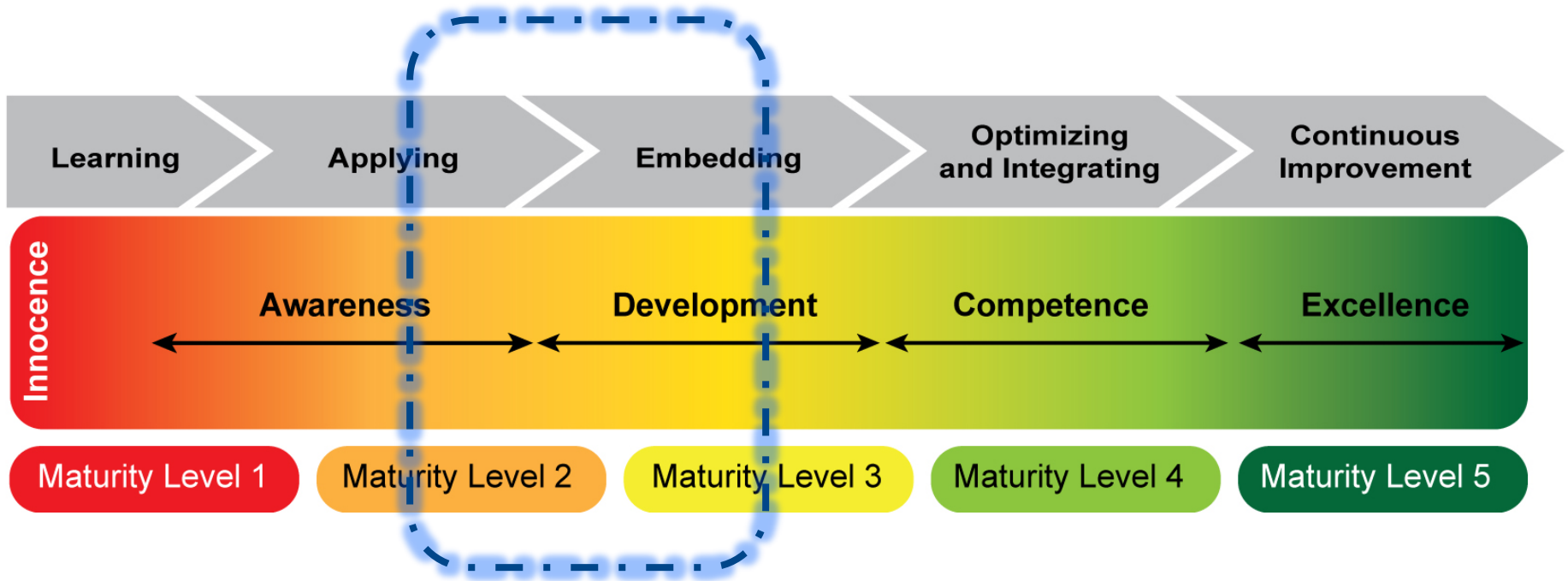
Asset Management Maturity Assessment

- Provides a baseline for an action plan to address key gaps & monitor progress over time.
- Identifies strengths in addition to improvement areas.
- Builds awareness of:
 - Good practice in Asset Mgt
 - The content of the Organization's Asset Mgt program
- Starts the change management process – staff are involved in the workshops, scoring and setting priorities/timing for improvement.
- Assessment can be repeated in the future to monitor progress

Assessment is focused on Asset Management Practices, not assets

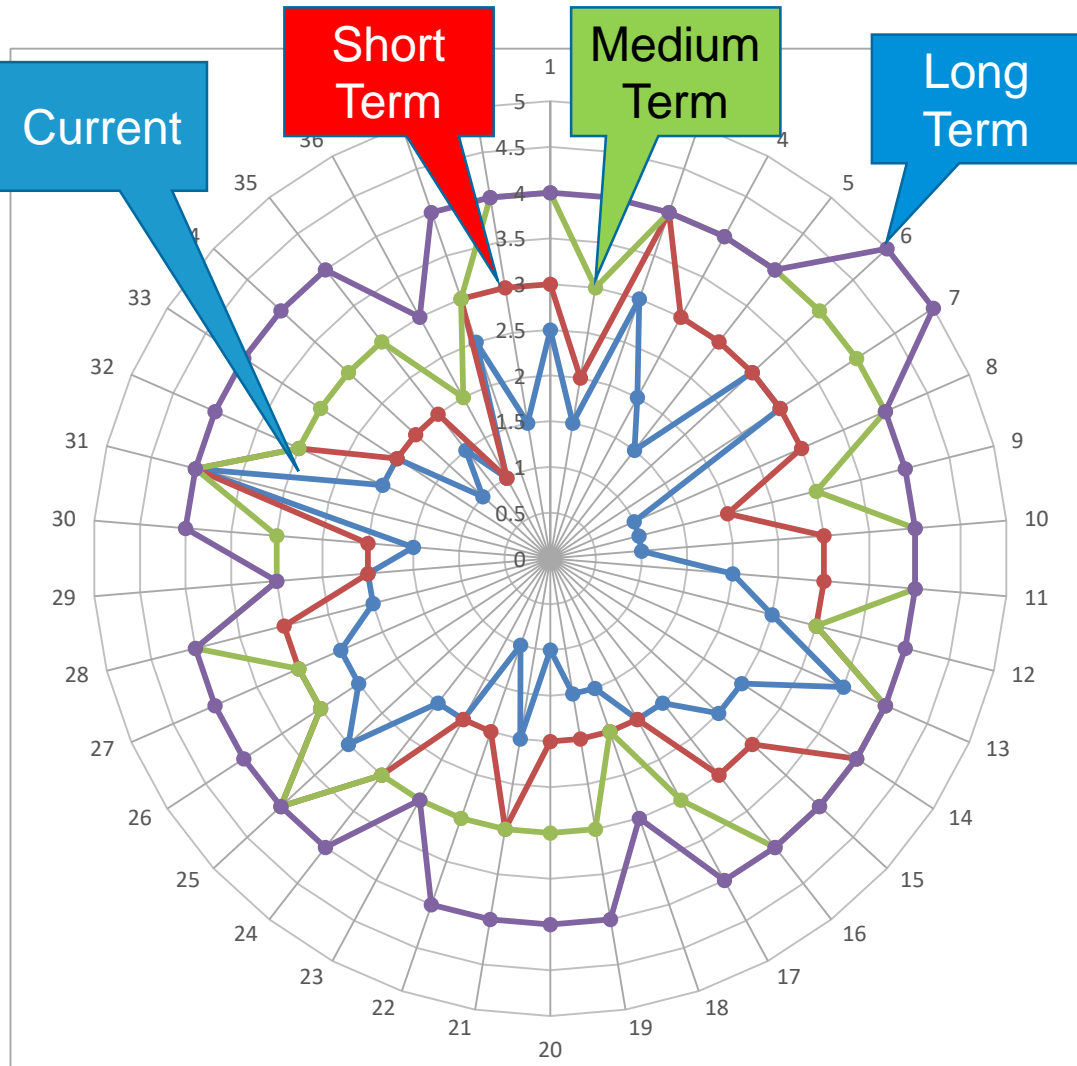
Asset Management Assessment Maturity Scale

Current Situation



Assessment Workshop Output

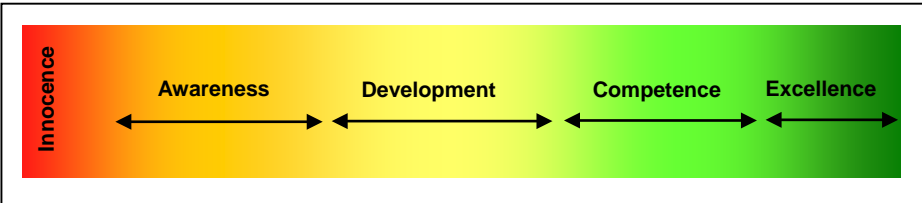
Current + Short + Medium + Long Term



1	Organizational Strat Plan (Business Plan) & Org Objectives
2	Monitoring Perf Against The Org Strat Plan (Business Plan)
3	Understanding the needs of Stakeholders
4	Scope of the Mgt System for Asset Mgt (the Asset Mgt System)
5	Asset Management Policy & Strategic Asset Management Plan
6	Asset Management Leadership & Governance
7	Asset Management Roles & Responsibilities
8	Master Plan For Dev. of Asset Mgt Bus. Processes & Procedures
9	Master Plan for Dev. of Asset Mgt Skills & Competences
10	Master Plan For Dev. of Asset Mgt Information Technology
11	Service Performance Measures/ Levels of Service
12	Future Trends (Impact Of Growth)
13	Legal, Regulatory & Statutory Requirements
14	Asset Inventory
15	Asset Information
16	Information Management
17	Asset Knowledge/Analysis Of Data
18	Business Applications
19	Asset Strategies
20	Risk Framework - Strategic Level & Asset Level
21	Optimized Asset Intervention Planning
22	Asset Management Plans
23	Financial - Budgeting
24	Capital Investment Plan Development & Governance
25	Capital Projects - Planning, Design & Construction
26	Operations Management
27	Maintenance Management
28	Investigation & Rec. of Routine Asset Failures & Reactive Work
29	Contracted Operations & Maintenance
30	Materials Management
31	Emergency Preparedness & Response
32	Investigation of Major Asset Failures & Incidents
33	Control of Documented Information
34	Learning & Development
35	Knowledge Retention & Succession Planning
36	Asset Management Quality Assurance & Management Review
37	Continual Improvement Culture
38	Communication & Change Management

Improvement Planning Overview Example

Theme	Current								Short Term (end of 2019)								Medium Term (end of 2021)								Long Term (end of 2023)							
	Department 1	Department 2	Department 3	Department 4	Department 5	Department 6	Department 7	Department 8	Department 1	Department 2	Department 3	Department 4	Department 5	Department 6	Department 7	Department 8	Department 1	Department 2	Department 3	Department 4	Department 5	Department 6	Department 7	Department 8	Department 1	Department 2	Department 3	Department 4	Department 5	Department 6	Department 7	Department 8
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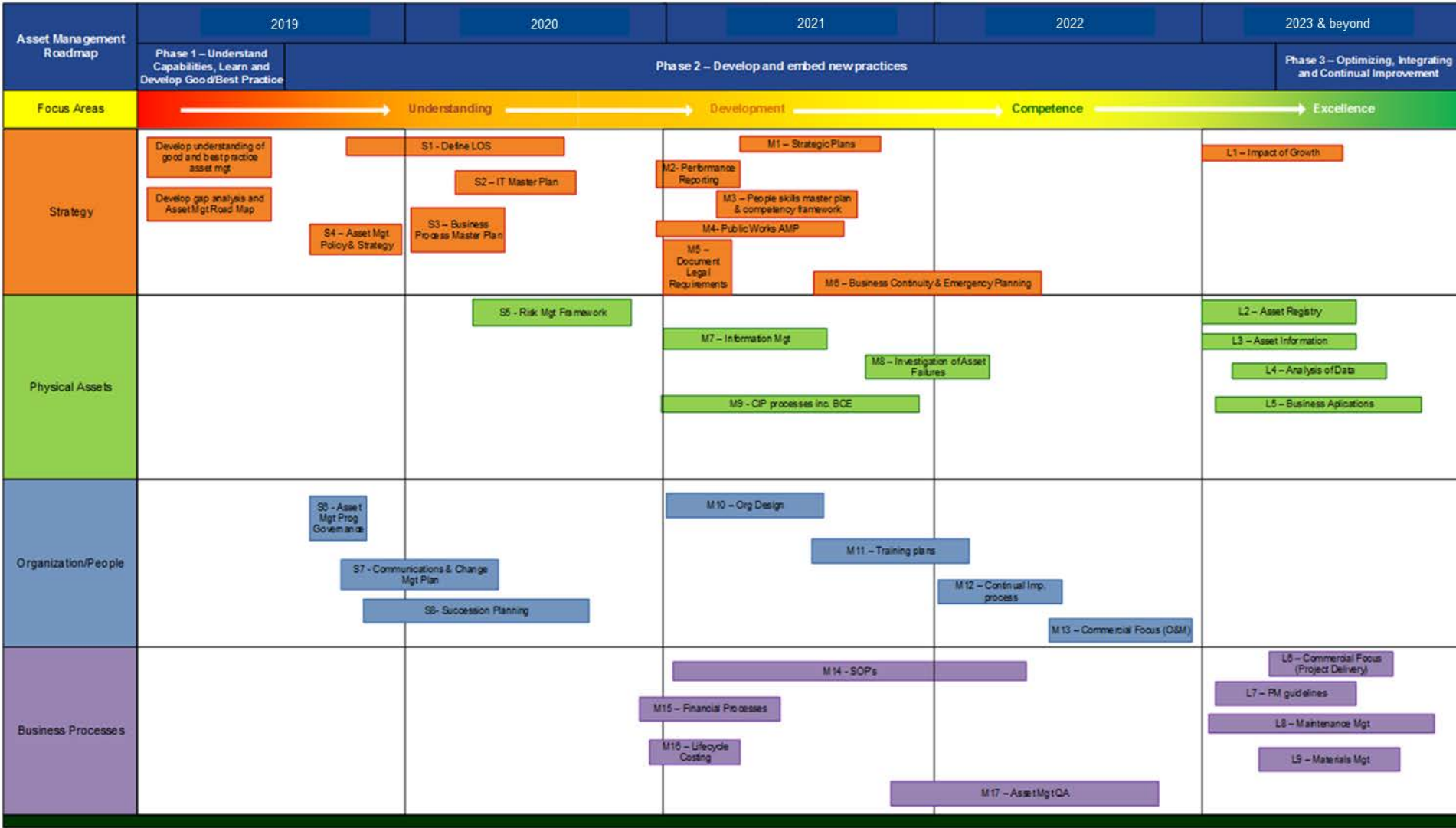


Assessment Scores:

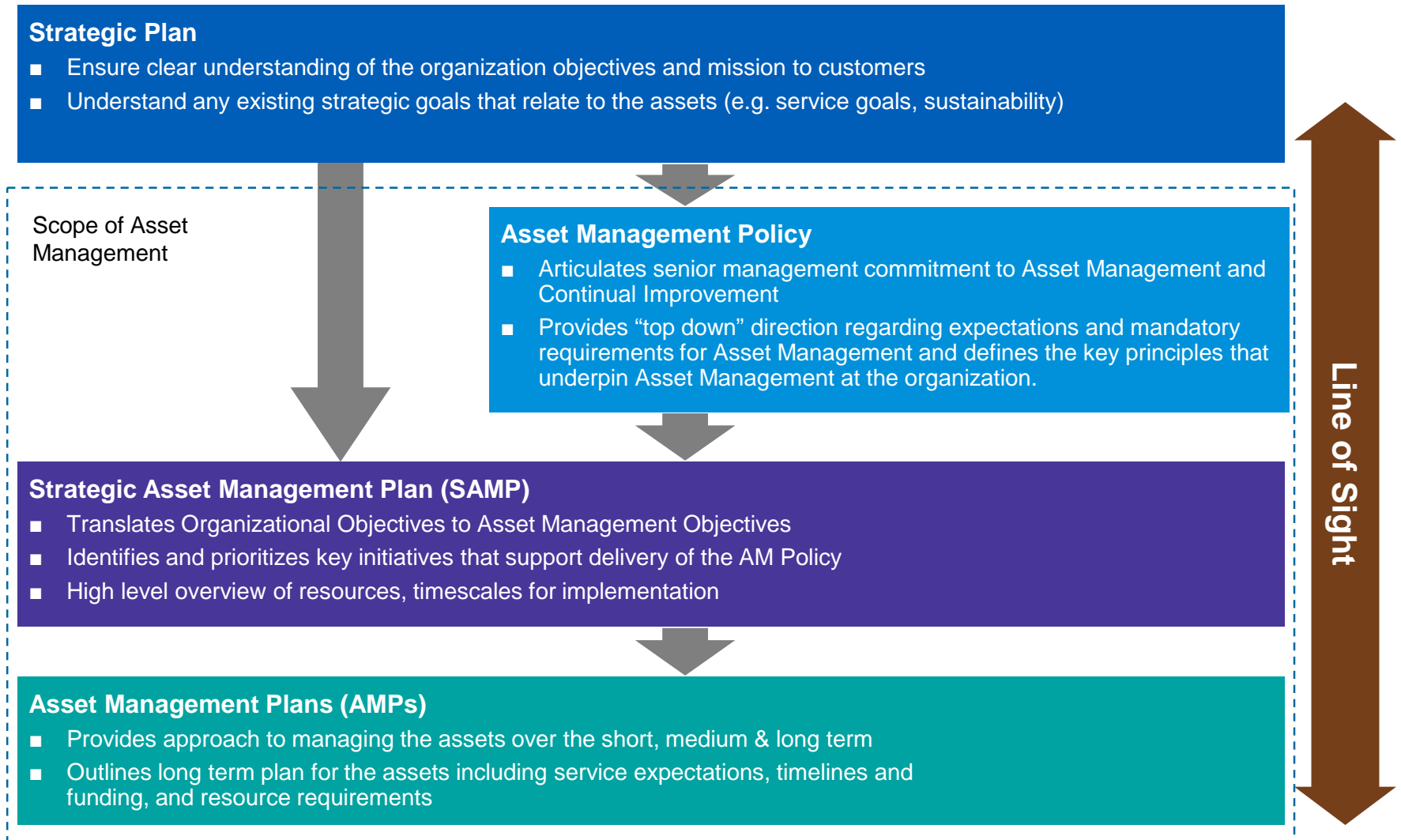
Red	1
Orange	2
Yellow	3
Light Green	4
Dark Green	5

Diagonal Red/White	1.5
Diagonal Orange/White	2.5
Diagonal Yellow/White	3.5
Diagonal Light Green/White	4.5

Roadmap Example



Asset Management - Key Building Blocks



Example Asset Management Policy

Source: Highways England, UK

Aims

- Policy articulates senior management commitment and intentions with regard to Asset Management.

Provides:

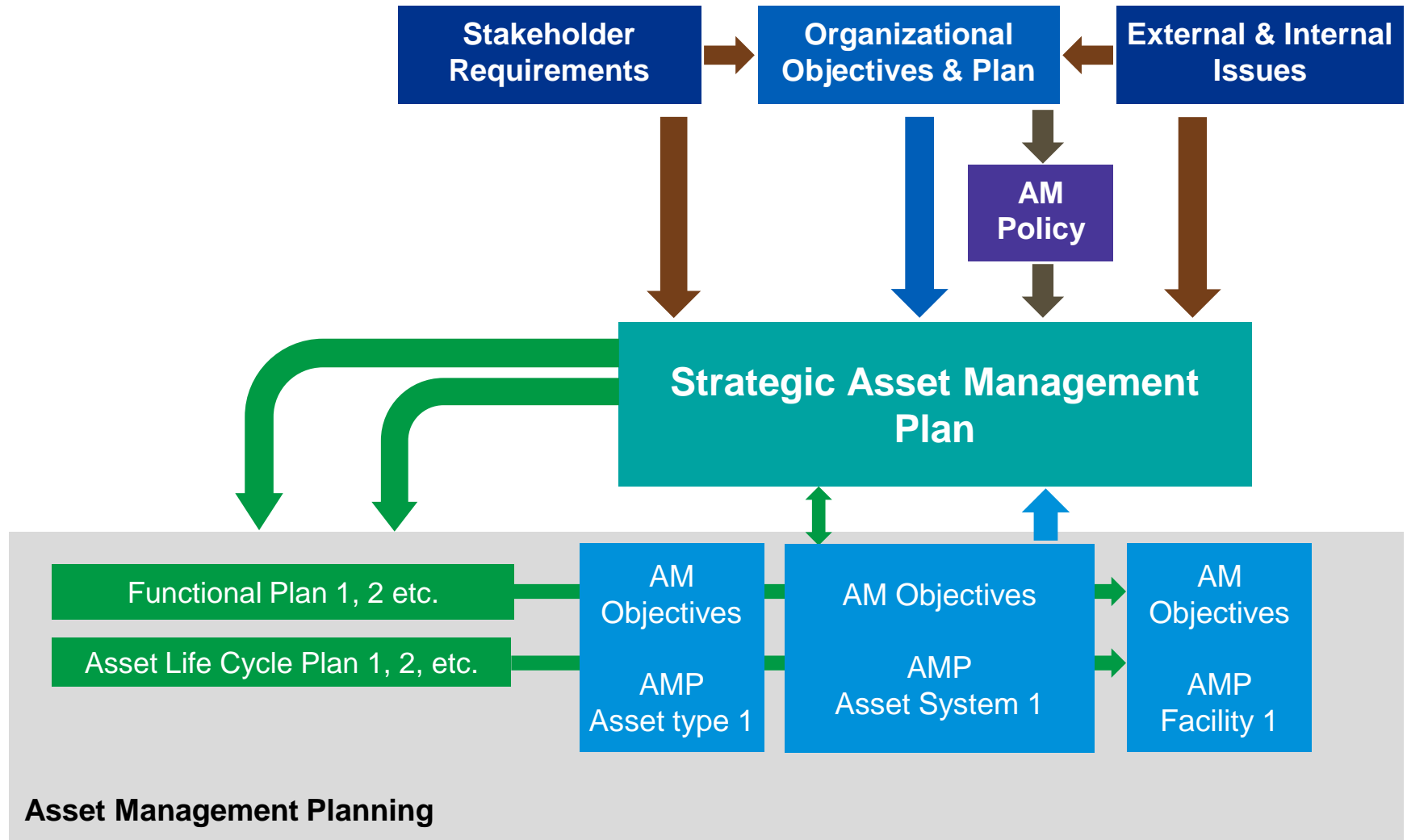
- Guidance to staff in carrying out the organization's business strategies, plans, and activities.
- Clear direction for Asset Management and defines the key principles that underpin Asset Management.

The image shows the cover and several pages of the Highways England Asset Management Policy. The cover features the Highways England logo and the title 'Highways England Asset Management Policy'. Below the title, it states: 'Highways England's asset management approach is to align our asset related activities to deliver the vision defined in the Department for Transport's Road Investment Strategy. This Asset Management Policy supports this new governance structure and associated ways of working within Highways England. It will be reviewed and updated to remain aligned with the strategic business objectives.' The document is divided into sections: 'Delivering the Road Investment Strategy', 'Asset Information', 'Lifecycle Delivery', and 'Organisation and People'. Each section contains specific goals and commitments, such as 'We will align our asset related decision making to ensure the effective delivery of the Road Investment Strategy and any future investment requirements' and 'We will recruit, train and retain the right staff to deliver a capable organisation.'

The image shows the cover and several pages of the US Gas Distribution Asset Management Policy. The cover features the title 'US Gas Distribution Asset Management Policy' and the National Grid logo. Below the title, it states: 'National Grid is committed to managing and investing in our system to protect the future of our business. This is done through proactively managing existing and future risks as well as contributing to the economic growth of the region in which we operate through the provision of safe, high quality, dependable services.' The document is divided into sections: 'Safety', 'Growth', 'Customer Satisfaction', 'Blue Agenda', 'Quality', 'Make a Great Place to Work', and 'Financial'. Each section contains specific goals and commitments, such as 'Continuing to drive toward zero injuries to employees and the public' and 'Reducing the impact of our activities on the environment'. The document is signed by Jim Howe, SVP, Network Strategy, and dated 11/08 Rev 2.

Source: National Grid

Strategic Asset Management Plan



What is an Asset Management Plan?

“Documented information that specifies the activities, resources and timescales required for an individual asset, or a grouping of assets, to achieve the organization’s asset management objectives”

ISO55000: 2014

- AMPs are important :
 - They tell “the story” of the assets and set out the rationale for funding requests - linking funding to customer and stakeholder related outputs
 - They demonstrate:
 - that Levels of Service are being met in the most effective and efficient manner.
 - that due regard is being given to the long-term stewardship of the asset base.
 - the responsible management of the asset portfolio.
 - how regulatory compliance will be achieved and growth accommodated while maintaining the asset stock
 - Plus:
 - Communicate and justify funding requirements.
 - Enable Public communication

Example AMP Framework

1. Executive Summary

- Overview of the plan

2. Introduction

- AM Goals
- High-level AM Context
- Timeframe
- Development Methodology

3. State of the Infrastructure

- Inventory
- Condition
- Valuation

4. Levels of Service

- Target LOS
- Trends
- Current Performance

5. Demand

- Demand projections

6. Asset Management Strategy

- AM activities,
- Approach for Options Analysis
- Future Demand
- Lifecycle Management
- Operation and Maintenance

7. Financing Strategy

- Expenditure Forecast
- Expenditure History
- Revenue Forecast
- Funding Strategies

8. Plan Improvement & Monitoring

- Monitoring & Review
- Performance Measures

ISO55000 - Asset Management

There are various guidance documents available:

- Institute of Asset Management (IAM) SSG's
- International Infrastructure Management Manual (IIMM)
- Etc.



Source: IPWEA



Source: Institute of Asset Management

ISO55000 defines a standard for a good practice Asset Management System

- The Standard sets out the “*what*”
- Guidance gives information on the “*how*”



Source: British Standards Institute

ISO55000 Key Points

- ISO 55001 defines requirements for a **management system** for asset management
- Equivalent in nature to the management systems required for Quality Management (ISO 9001) and Environmental Management (ISO 14001)
- Focused on broad suite of interconnected and integrated processes and methodologies
- Covering all stages of asset life cycle

What is a Management System?

- In smaller organizations, there may not be an official **Management System**, just "*our way of doing things*" - mostly kept in the heads of staff.
- But the larger the organization, the more likely that things need to be written down, to ensure everyone is clear on how and when things are done, who does them and that they are carried out consistently.
- This process of systemizing how things are done is known as a **Management System**.
 - The set of procedures an organization needs to follow in order to meet its objectives



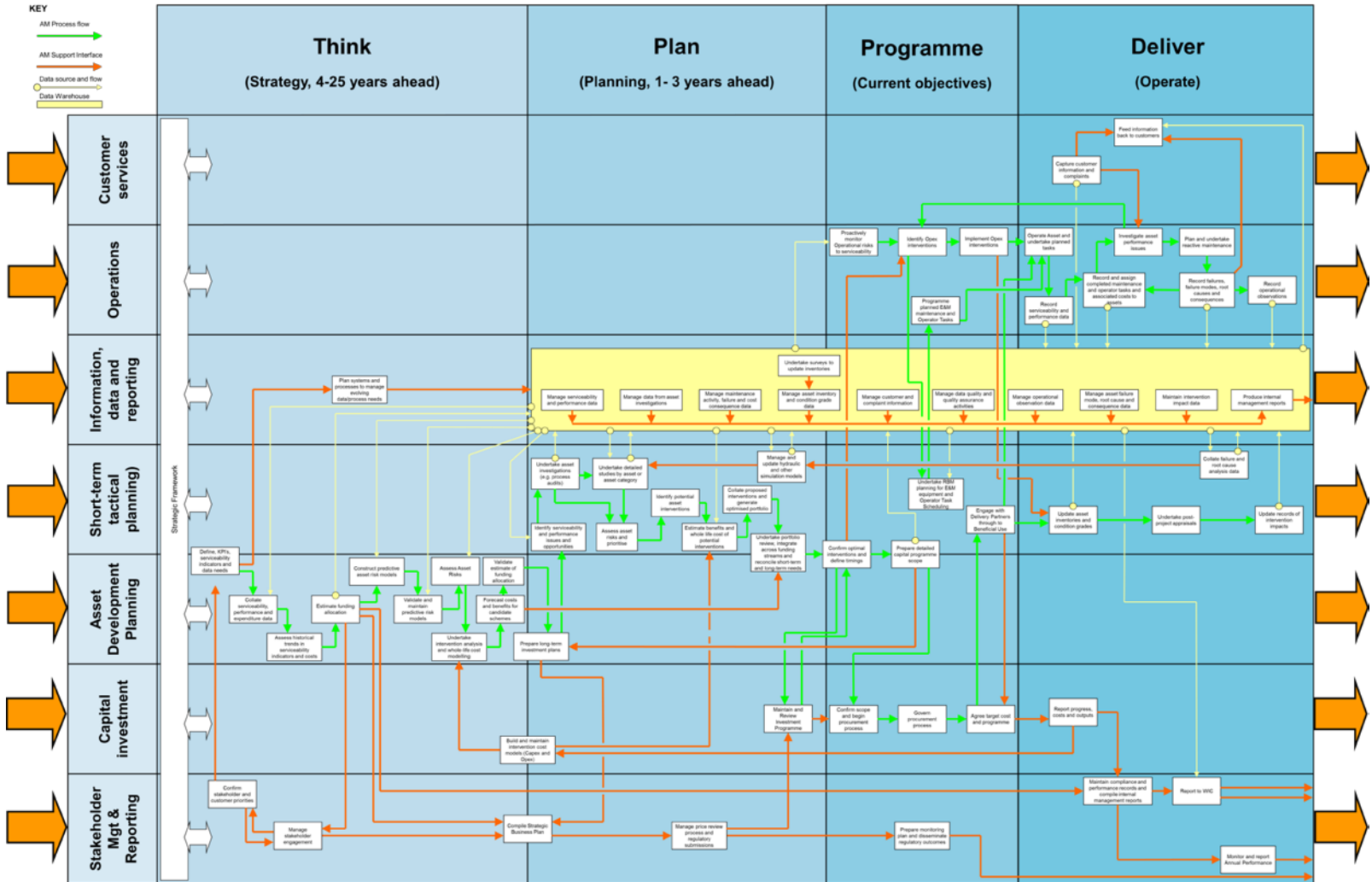
**“If you can't describe what you are doing as a process,
you don't know what you're doing”.**



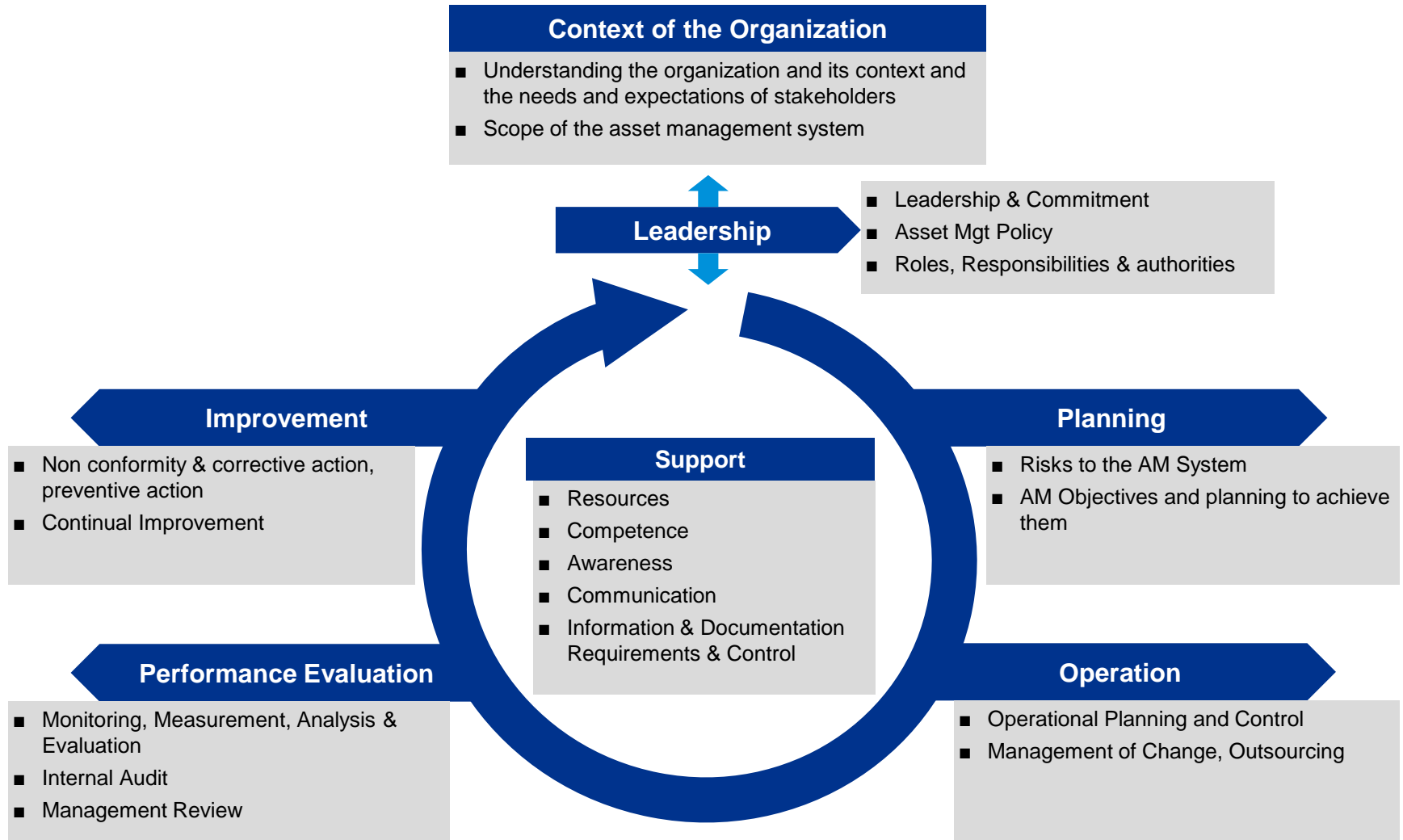
— *W. Edwards Deming*

What is a Management System?

Asset Management Planning – Example Business Processes



The 7 Elements of ISO55001



The Benefits of Asset Management (and ISO 55000)

- Improved Service Performance
- Better asset risk / opportunity management
- Informed asset investment decisions
- Improved capital and operational expenditure efficiency

Asset Management Benefits



- Structured documentation
- A focus on continual improvement
- Alignment of strategy, policies and plans
- A common organizational approach to risks / opportunities
- More transparent and defensible investment prioritization
- Improved business efficiency

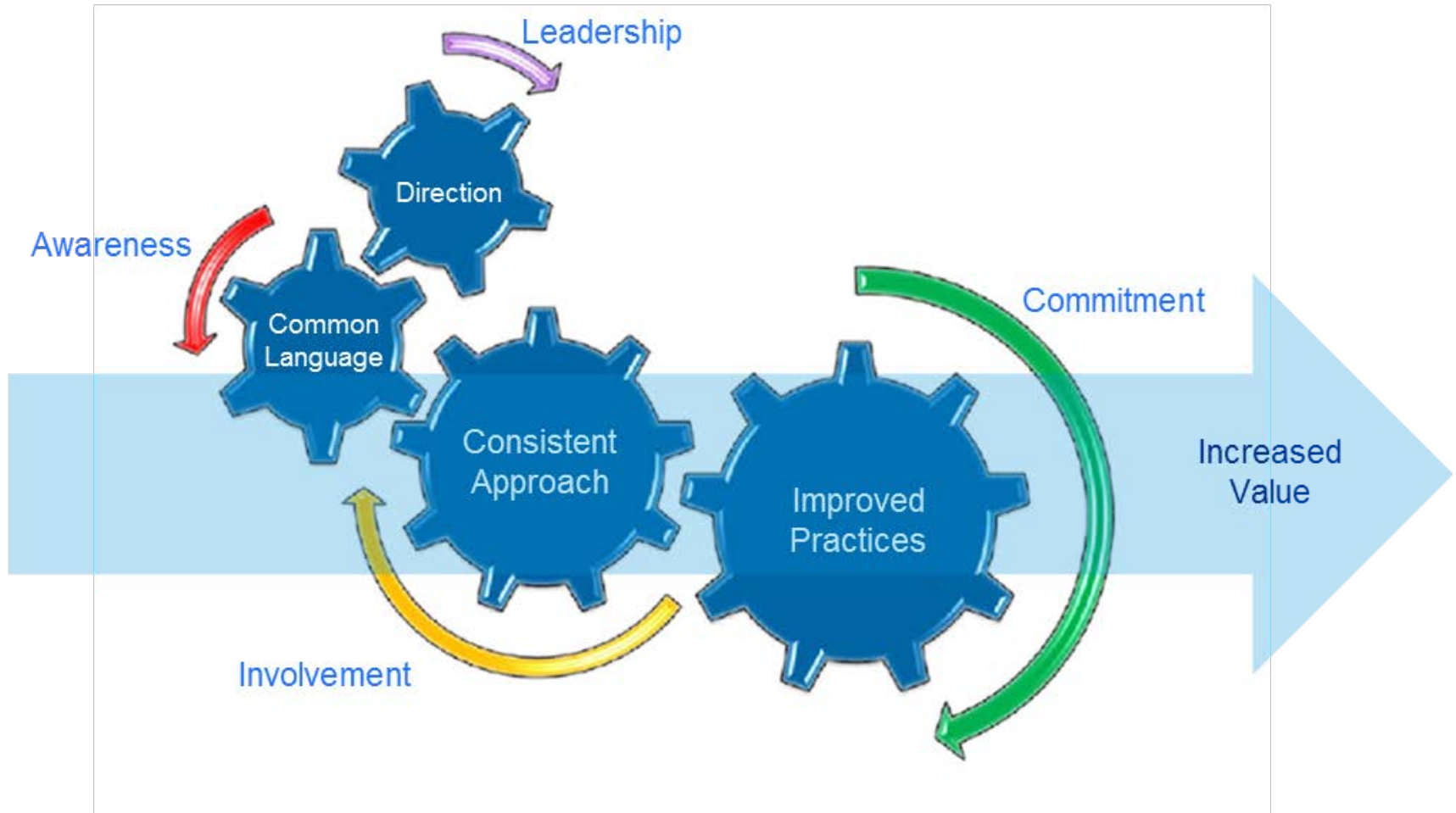
ISO 55000 Alignment Benefits



- Validated capability
- Improved governance / transparency
- Improved external regulatory & stakeholder confidence
- A higher level of process compliance – locking in good practice
- Organizational stability
- Defendable good practice

ISO 55000 Certification Benefits

ISO 55000 is the not the end goal



Asset Management Good Practice



Aligned objectives



Robust, transparent & repeatable decision making



Risk based decision making from a position of knowledge



Sound, reliable data



Thank you

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