



The Asset Leadership Network
presents

reStructuring America

October 2020

Online

Rethinking the concept of value in national assets and infrastructure.





ISO 55000/1/2 In Healthcare Facilities

Presenters

Tia Maragos (Host)

Michael Roussos (Keynote)

Arthur Kurland (Personal Property)

Ed Safdie (Infrastructure)

Frank Estala (Internal Audit)

ISO 55000/1/2 In Healthcare Facilities

- What is ISO 55000/1/2, and what are the benefits?
- University Health System San Antonio
- Strategically Supporting ISO 55001 In Hospitals
- ISO 55000/1/2 Training & Certification opportunities
- Q & A



What is ISO 55000/1/2

- An international standard for asset management
- Disseminated by ISO, based on international consensus
- Three sections:
 - ISO 55000: Overview, Principles and Terminology (2014)
 - Provides a common frame of reference and promotes accurate communication
 - ISO 55001: Management Systems – Requirements (2014)
 - “Shall” statements
 - ISO 55002: Guidelines for the Application of ISO 55001 (2018)
 - “Should” statements
 - Best practices and guidance



What is ISO 55000/1/2

- ISO 55000 ***does not*** deal directly with maintenance, reliability, and engineering.
- It is strategic and tactical but *not operational*.
 - Instead, it requires connecting and aligning your asset management practices with your organizational objectives and strategy.
 - A top-down, end to end, holistic approach where strategy drives objectives which drives asset management plans

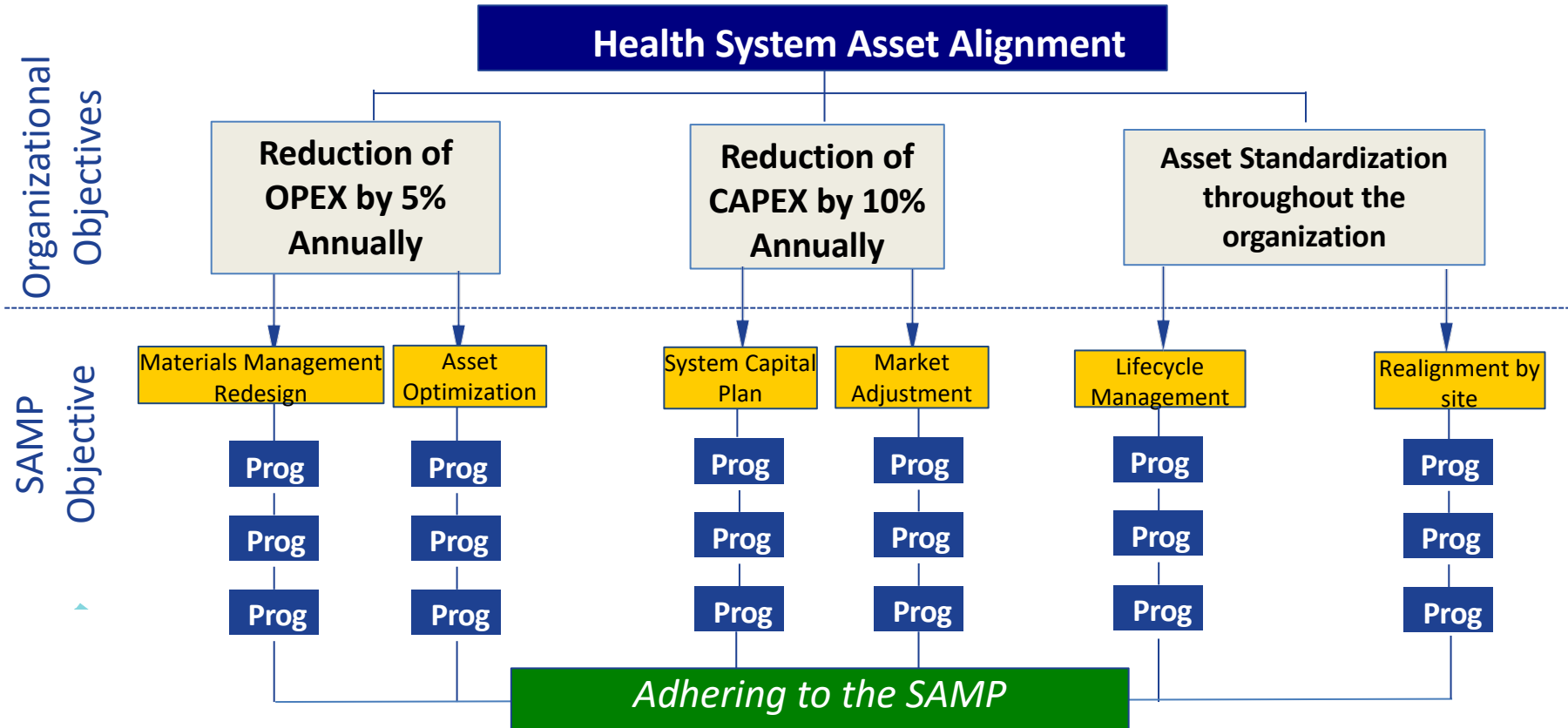


Direct benefits to the Organization

- ISO 55000 is intended for *“those considering how to improve the realization of value for their organization from their asset base”*.† It results in:
 - Improved financial performance
 - Informed asset investment decisions
 - Managed risk
 - Improved services and outputs
 - Demonstrated social responsibility
 - Demonstrated compliance
 - Enhanced reputation
 - Improved organizational sustainability
 - Improved efficiency and effectiveness



BIG Picture ISO 55000/1/2 in practice circa 2010





University
Health System

**THINKING
BEYOND**



**Welcome to University Health
System**

Who we are.

A separate political subdivision of the State of Texas owned by the people of Bexar County

- About 9,000 employees. 1,000 physicians. 700 resident physicians
- Health System budget for 2020: \$1.82 billion

Bexar County Commissioners Court

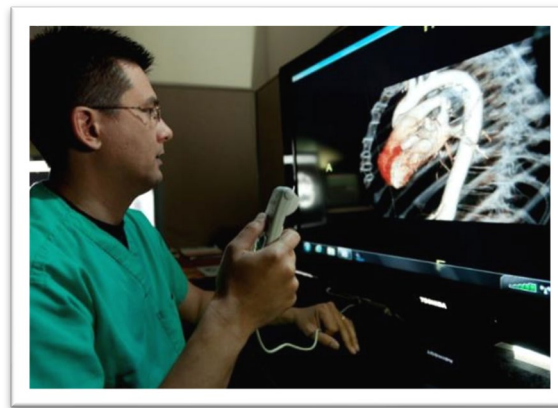
- Appoints Bexar County Hospital District Board of Managers
- Sets the annual Hospital District tax rate
- Approves the annual capital and operations budgets

Less than 22% of revenue comes from local property taxes.



What we do.

The mission of University Health System is to improve the good health of the community through high-quality compassionate patient care, innovation, education and discovery.



Our Vision.

We are leading the way to be one of the nation's most trusted health institutions.

Our Values are patient-centered.

Our patient care will be:

- High quality and compassionate above all,
- Attentive, kind and helpful without exception, and
- Wise in the use of resources.



A tradition of leadership.

Our roots date back to 1917 with the opening of the Robert B. Green Memorial Hospital

The Bexar County Hospital District was established by local voters in 1955

We have been the primary teaching partner of UT Health Science Center School of Medicine since 1968

We are South Texas' first Nurse Magnet health system (2010 & 2015)



Advanced care.

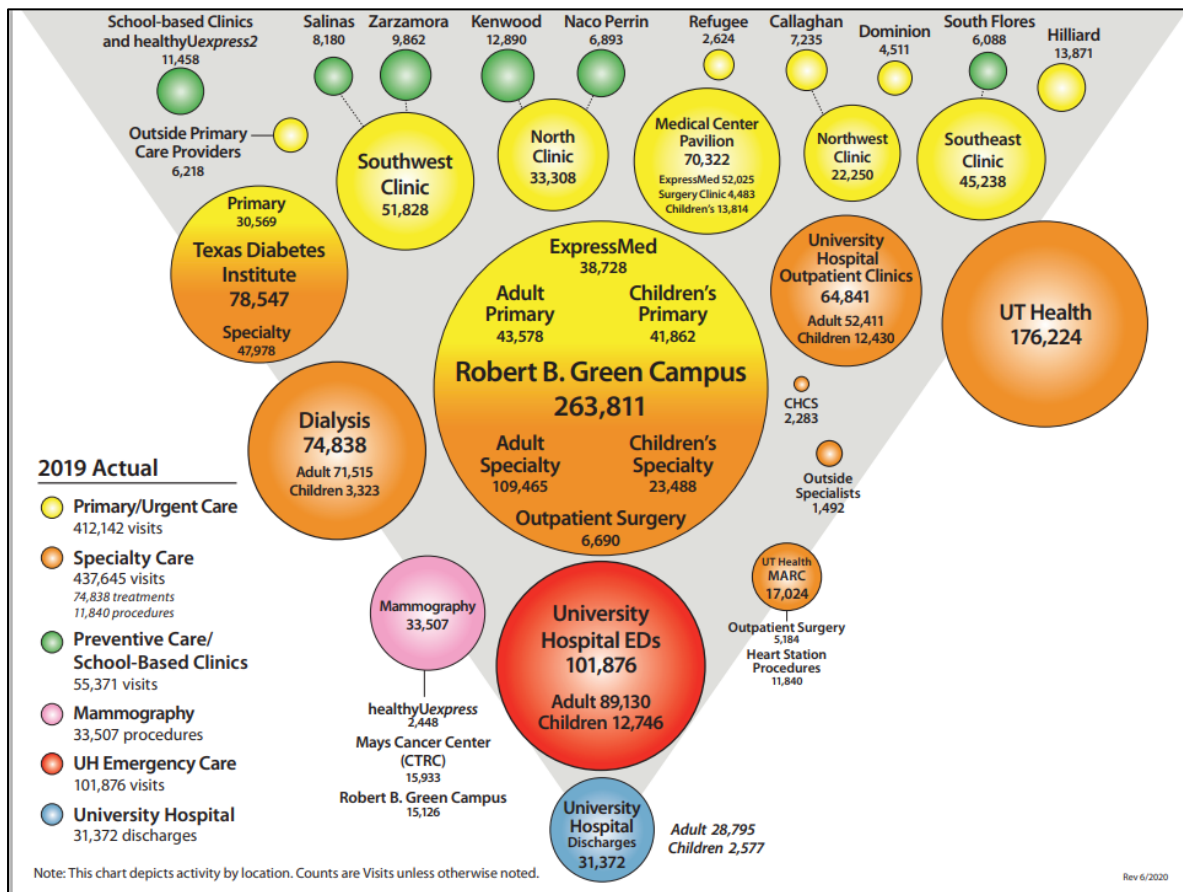
University Hospital, in partnership with UT Health San Antonio, is South Texas' academic medical center.

Signature Services:

- Region's premier Level I Trauma Center in partnership with BAMC
- Region's only Level I Pedi Trauma Center & Burn Center
- University Transplant Center
- Region's only Joint Commission Accredited Comprehensive Stroke Center
- Level IV Neonatal ICU
- South Texas' first Level IV Maternity Center
- Level IV Epilepsy Center
- Pediatric & Congenital Heart Center
- Pediatric Hematology & Oncology Center
- Adolescent and Young Adult (AYA) Cancer Program



The right care in the right place.



Women's and Children's Hospital.



Focused on excellence. Achieving results.

Magnet: The “Gold Standard” in patient care

5% of U.S. hospitals



Specialized care:



**American Heart Association
American Stroke Association
CERTIFICATION**
Meets standards for
Comprehensive Stroke Center



CNOR Strong Certified

Good health, safety & supporting our community:



Technology, employee learning & efficiency:



**University
Health System**

Asset Management's Integration

- First hospital globally to achieve ISO 55001 certification
- Our team recovers >\$200,000 on average by auctioning assets no longer needed
- Saved >50% of the cost to replace lobby and patio furniture by reupholstering, refinishing, or repairing rather than buying new
- Assets no longer needed or re-sellable are responsibly recycled at an average rate of 100,000 pounds annually
- Clinical staff no longer using 'clinical' time for handling of Health System property (moving, searching, disposing)
- Asset Management Advocate appointed in each of 300+ depts. in Health System
- Partnered with Facility Management to pursue their own ISO 55001 certification
- Standardized processes for managing assets throughout the Health System

Strategically Supporting ISO 55001 In Hospitals

Arthur Kurland (Personal Property)
Ed Safdie (Infrastructure)
Frank Estala (Internal Audit)



- **Why Personal Property Asset Management Matters**
 - ✓ *Personal Property defined*
 - ✓ *Who manages all that “stuff”?*
- **Planning for a Personal Property Asset Management System**
 - ✓ *Know Fundamentals of an Asset Management System*
 - ✓ *Know the Corporate Policies and Level of Senior Management Support*
- **Initiating a Personal Property Asset Management System**
 - ✓ *Asset Governance Committee/Asset Management Advocates*
 - ✓ *Asset Management System Tools*
- **Healthcare Infrastructure**
 - ✓ *Application of ISO 55000 Principles for Healthcare Infrastructure*
 - ✓ *ISO 55000 Principles for Healthcare Infrastructure*
- **Internal Audit for ISO 55001 in Healthcare**
 - ✓ *Monitoring Waste, Fraud, and Abuse*
 - ✓ *Internal Controls*

Why Personal Property Asset Management Matters

Personal Property Defined

What is Asset Management?

- Financial Market Portfolios (stocks, bonds, etc.)
- Real Estate Portfolios (land & land improvements)
- Protection Services (loss prevention or documentation)
- Preventive Maintenance (scheduled maintenance & repairs)
- Software (business applications & licenses)
- Real Property (structures and everything affixed to them)
- **Personal Property (readily moveable furniture, fixtures, & equipment)**



Why Personal Property Asset Management Matters

Total Capital spending in Healthcare (\$108 billion) is a significant annual expense.

Table 2a. Capital Expenditures and Percent Change for Companies With Employees by Major Industry Sector: 2018, 2017 Revised, and 2016

Source: 2018 Annual Capital Expenditures Survey

See Survey Description for meanings of abbreviations and symbols

See Definition of terms

See Sampling and estimation methodology

[Millions of current dollars.]

| NAICS code | Industry | 2018 capital expenditures | Percent change (2018-2017) | 2017 capital expenditures | Percent change (2017-2016) | 2016 capital expenditures |
|--------------|---------------------------------------------------------------------------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|
| | Total expenditures | 1,697,882 | 7.6 | 1,577,785 | 6.6 | 1,479,439 |
| 113-115 | Forestry, fishing, and agricultural services | 4,653 | 3.5 NS | 4,497 | -1.4 NS | 4,561 |
| 21 | Mining | 153,390 | 14.1 | 134,380 | 45.1 | 92,641 |
| 22 | Utilities | 146,453 | 9.4 | 133,888 | 0.3 NS | 133,455 |
| 23 | Construction | 38,979 | 11.4 NS | 34,989 | -2.8 NS | 35,979 |
| 31-33 | Manufacturing | 259,157 | 4.9 | 247,013 | 1.4 NS | 243,595 |
| 321, 327, 33 | Durable goods industries | 138,398 | 7.2 | 129,121 | 5.1 | 122,898 |
| 31, 322-326 | Nondurable goods industries | 120,759 | 2.4 NS | 117,891 | -2.3 NS | 120,698 |
| 42 | Wholesale trade | 42,460 | -3.4 NS | 43,977 | 0.5 NS | 43,768 |
| 44-45 | Retail trade | 89,279 | -1.3 NS | 90,493 | 4.1 NS | 86,931 |
| 48-49 | Transportation and warehousing | 122,404 | 12.8 | 108,538 | -1.0 NS | 109,650 |
| 51 | Information | 175,692 | 10.6 | 158,888 | 11.2 | 142,911 |
| 52 | Finance and insurance | 181,582 | 11.4 | 163,038 | 0.9 NS | 161,653 |
| 53 | Real estate and rental and leasing | 173,962 | 7.8 NS | 161,396 | 7.1 NS | 150,686 |
| 54 | Professional, scientific, and technical services | 42,486 | 14.2 NS | 37,213 | 17.3 | 31,728 |
| 55 | Management of companies and enterprises | 6,750 | -2.4 NS | 6,918 | 12.3 | 6,161 |
| 56 | Administrative and support and waste management | 29,171 | 10.1 NS | 26,505 | -4.2 NS | 27,672 |
| 61 | Educational services | 36,339 | -1.7 NS | 36,951 | 21.5 | 30,424 |
| 62 | Health care and social assistance | 108,443 | 3.6 NS | 104,628 | 11.8 | 93,588 |
| 71 | Arts, entertainment, and recreation | 24,740 | 10.2 NS | 22,448 | -0.4 NS | 22,544 |
| 72 | Accommodation and food services | 36,013 | 0.5 NS | 35,828 | 20.0 | 29,855 |
| 81 | Other services (except public administration) | 22,245 | 2.7 NS | 21,667 | -20.5 | 27,249 |
| | Structure and equipment expenditures serving multiple industry categories | 3,683 | -18.7 | 4,530 | 3.2 | 4,389 |

Percent change cells marked with an (NS) indicate the change was not statistically different from the prior year at the 90% confidence level.

Note: Detail may not add to total because of rounding.

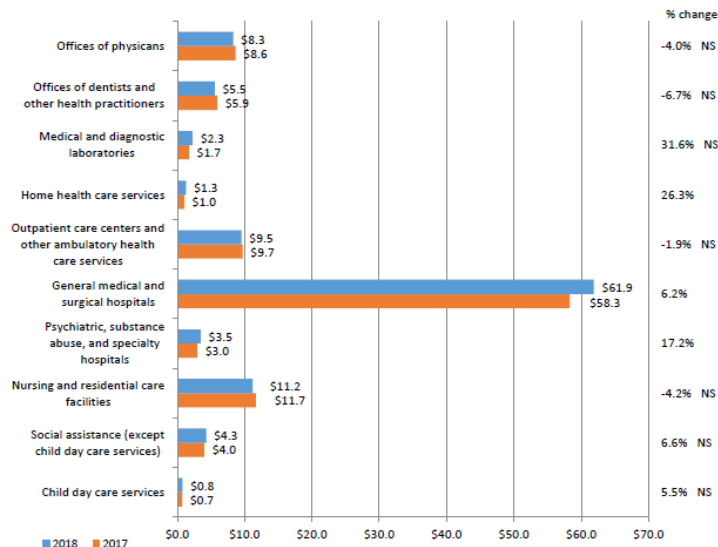
Why Personal Property Asset Management Matters

Almost half of all healthcare capital expense (45%) is attributable to Equipment.

Capital Expenditures for Structures and Equipment for Companies with Employees: 2018 and 2017 Revised
(Billions of current dollars)

| Capital expenditures | 2018 | 2017 | % Change |
|------------------------------------------------|--------------|--------------|----------------|
| Total Health Care and Social Assistance | 108.4 | 104.6 | 3.6% NS |
| Structures | 59.8 | 56.7 | 5.5% NS |
| Equipment | 48.6 | 47.9 | 1.5% NS |

Total Capital Expenditures for Health Care and Social Assistance Industries: 2018 and 2017 Revised
(Billions of current dollars)



Source: U.S. Census Bureau, 2018 Annual Capital Expenditures Survey

Why Personal Property Asset Management Matters

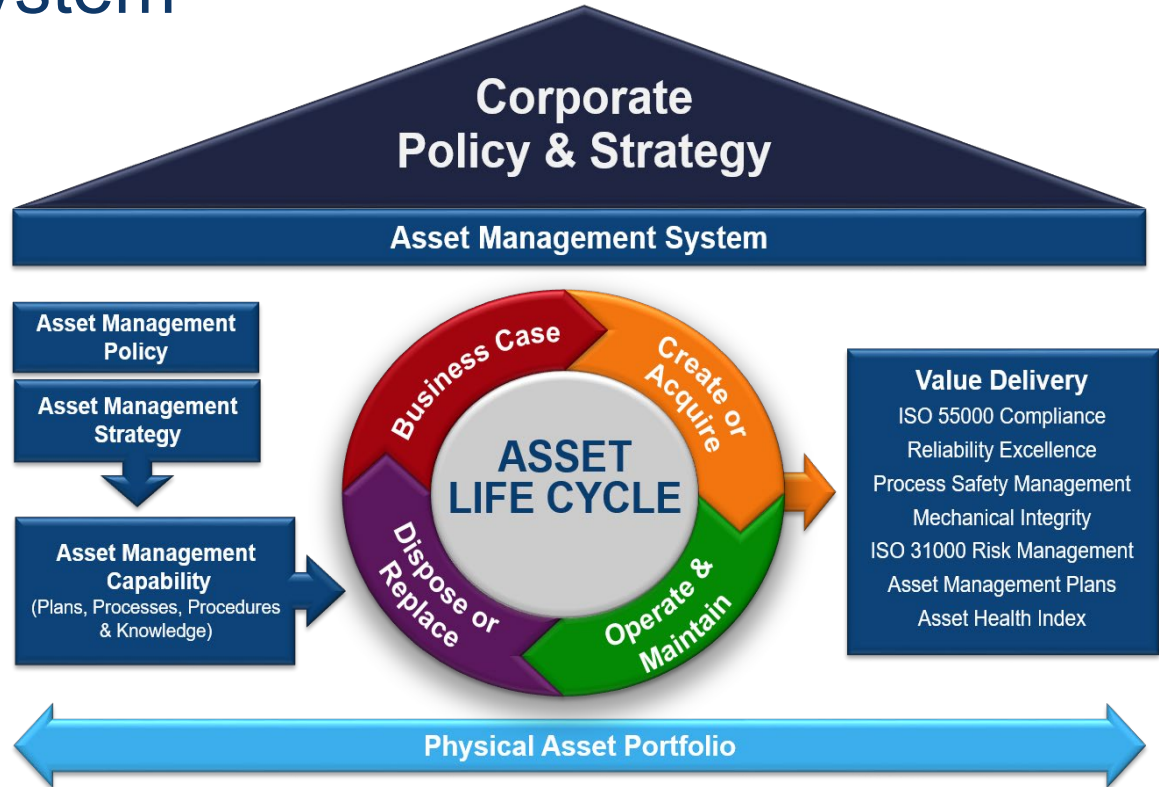
“Who’s managing all that stuff?”



Planning for a Personal Property Asset Management System

*Know the
Fundamentals of an
Asset Management
System*

*Asset Management is
not an Asset
Management System*

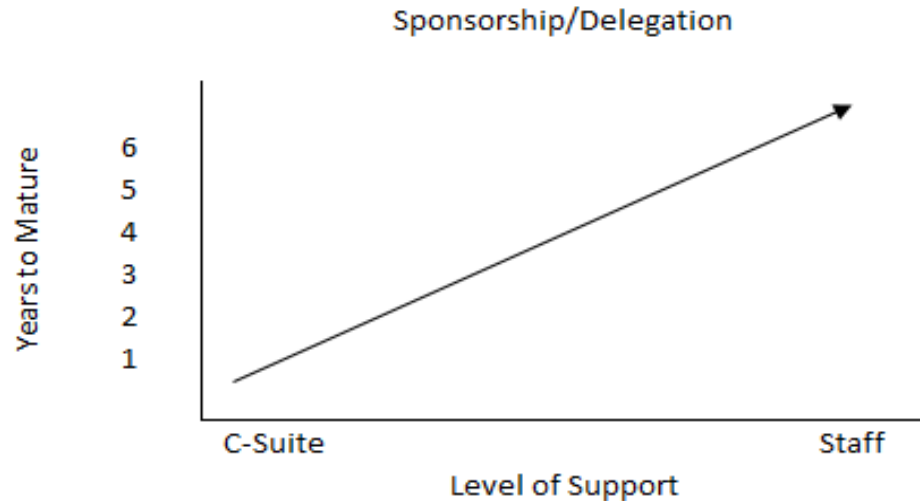
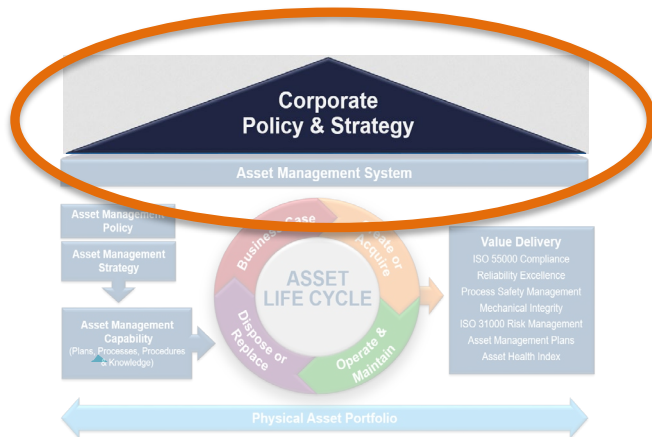


Life Cycle Engineering's Asset Management System Framework: Using Asset Management Capabilities to Create Value
The Keys to an ISO 55000-Compliant System

Planning for a Personal Property Asset Management System

Know the Corporate Policies, Strategy, and Level of Senior Management Support

- Corporate and Department Policy, and Strategic Asset Management Plan (Define objectives and plans to achieve them)



Planning for a Personal Property Asset Management System

Create a Project Charter (To defining scope, asset types, and locations)

| | |
|-------------------------|--------------------------------------------------------------------------------------|
| <div>Company Logo</div> | <div>Project Charter</div> <div>Project Title</div> <div>Rev. 1.0 - dd/mm/yyyy</div> |
|-------------------------|--------------------------------------------------------------------------------------|

Project Charter

| 1. General Project Information | | | |
|---------------------------------------------------------|------------|-----------|-------------------------|
| * Project Name: | | | |
| * Project Sponsor(s): | | | |
| Document History | | | |
| Version | Date | Author | Reason for Change |
| 1.0 | dd/mm/yyyy | Name | Initial project charter |
| | | | |
| 2. Project / Service Description | | | |
| * Project Purpose / Business Justification | | | |
| * Business Objectives | | | |
| * Project Deliverables: | | | |
| * Clear Statement of What This Project Will Include | | | |
| * Clear Statement of What This Project Will Not Include | | | |
| * Project Success | | | |
| * Constraints | | | |
| 3. Financial / Resources Information | | | |
| Funding Source | | | |
| Estimated time required of staff | | | |
| 4. Sign-off | | | |
| Role | Name | Signature | Date |
| | | | |

| 5. List of Addenda | |
|--------------------------------------------------------------------------------------|----------|
| List all files supplemental to this charter or use filename (hyperlink) as an option | |
| Document Name | Filename |
| | |
| 6. Notes | |
| | |
| 7. Stakeholders | |

| Key Stakeholders | | | | |
|--------------------------|------|------------|--------|--------|
| Role | Name | Department | Phone | E-mail |
| | | | | |
| Vendor Contacts | | | | |
| Company/Role | Name | Phone | E-mail | |
| | | | | |
| Other Interested Parties | | | | |
| Company/Role | Name | Phone | E-mail | |
| | | | | |
| 8. Logs & Milestones | | | | |

| Meetings Log (see details tab*) | | | |
|---------------------------------|----------------|------------------|--------------|
| Meeting Name | Meeting Agenda | Meeting Location | Meeting Date |
| | | | |

| Milestones | |
|-------------|------|
| Description | Date |
| | |

Initiating a Personal Property Asset Management System

Asset Management System Tools

- ✓ Inventory Database/Data Collection Equipment
- ✓ Work Order System
- ✓ Intranet Website



| Maturity Assessment | Level 0 | Level 1 | Level 2 | Level 3 | Level 4 |
|------------------------|-----------------------------------------------------------------------------|---------|--------------------------------------------------|-----------|-------------------------------------------|
| People | Senior Level Support and Fundamentals of Personal Property Asset management | | Formal Training and Certification | | Continuous training and development plans |
| Technologies | Personal Property Asset Database and Barcode Scanner | | Purchase Order and Logistics Systems Integration | | Enterprise wide collaboration |
| Standardized Processes | Acquisition, Delivery, and Disposal | | Storage, Transfers, Return/Exchange | Inventory | Continuously reviewed and updated |
| Asset Information | Defined Location ID's and Tagging Guidelines | | Consistent and Predictable Stakeholder Input | | Managed and reportable |



Initial

Execution

Adapting

Developing

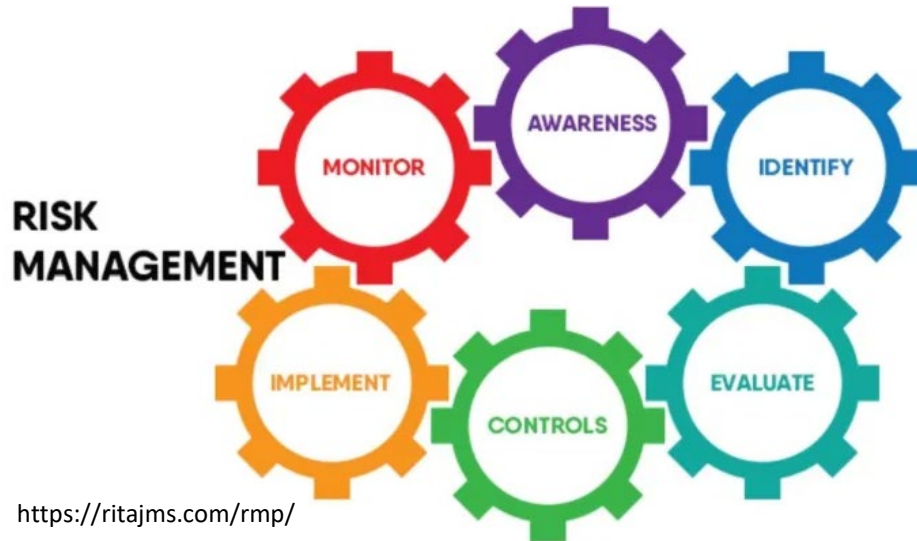
Implemented

Maturity Model of the Personal Property Asset Management System

Initiating a Personal Property Asset Management System

Asset Governance Committee/Asset Management Advocates

- Discuss Changes in Risk and Opportunities with Stakeholders
- Enterprise-wide Engagement



Example of an Asset Management Advocate Survey:

1. Please tell us your full name.

2. Please list the Department number(s) you are advocating for.

Question Title

3. Have any new assets been delivered directly to your department(s) within the last month without a property asset tag?

☐ Yes

☐ No

Question Title

4. Have any tagged assets (artwork, equipment, furniture, etc.) gone unaccounted for in any area within your department(s) within the past month?

☐ Yes

☐ No

Question Title

5. Have there been any assets returned or exchanged (replaced) directly by a vendor within your department(s) without a Return Merchandise Authorization (RMA) number obtained through Procurement Department in the past month?

☐ Yes

☐ No

Question Title

6. Have any personnel within your department(s) moved office locations on their own (without the involvement of a support department such as IT or Asset Management) in the past month?

☐ Yes

☐ No

Question Title

7. Are there any unnecessary assets in your department that are congregating and require a disposal pick-up?

☐ Yes

☐ No

Application of ISO 55000 Principles for Healthcare Infrastructure

Assessment > Diagnosis > Implementation > Optimization

Governance



- **Governance.** Strategic objectives, clear roles, responsibilities and commensurate authorities are established for the supporting offices involved in the lifecycle of infrastructure asset management.
- **Requirements.** Customer requirements are sufficiently developed and vetted to advance the request for a new asset to the next stage of the lifecycle.
- **Planning & Budgeting.** Project plans and budgets are adequately developed to deliver a useful asset within risk-informed cost and schedule.
- **Acquisition.** The acquisition method is determined with appropriate consultation and a project delivery team is appointed to execute.
- **Delivery.** The project delivery team's performance is monitored consonant with earned value management principles.
- **Activation.** A properly equipped, staffed, functional and safe asset is occupied and fully utilized within prescribed timeframes upon delivery.
- **Operation & Maintenance.** A safe and functional asset is successfully operated and maintained throughout its useful life.
- **Reuse/Disposal.** There are plans, budgets, methods and means established to timely reuse or dispose of infrastructure assets.

ISO 55000 Principles for Healthcare Infrastructure

A structured discipline that identifies vulnerabilities

Maximizing the Use and Value of a Healthcare Organization's Infrastructure



- National call to action: Sector Asset Leadership Success Strategy (SALSS)
 - An organizing framework to improve U.S. asset management
- In the healthcare setting patient, staff and visitor safety is paramount
- While optimizing asset value detected safety vulnerabilities can be mitigated
- Operations and Maintenance presents a protracted formidable challenge
- Its inclusion in ISO 55000 assessment is inescapable (Note: ISO 41001)
- A holistic, data driven, evidence-based analysis can reduce risk while optimizing value

Internal Audit for ISO 55001 in Healthcare

Monitoring Waste, Fraud, and Abuse

Seven elements of an effective compliance program:

- Written Policies and Procedures
- Designated Compliance Officer
- Effective Training and Education
- Open lines of communication – call, fax, mail, email
- Internal monitoring and auditing
- Enforce System standards
- Prompt response to detected problems and provide corrective actions



Internal Audit for ISO 55001 in Healthcare

Internal Controls

- One way an organization can protect itself from costly errors and fraudulent activity is by implementing and enforcing good internal controls.
- Internal controls comprise the plan of an organization and all of the coordinate methods and measures adopted within a business to safeguard its assets, check the accuracy and reliability of its data, promote operational efficiency, and encourage adherence to prescribed managerial policies.

In other words, internal controls are implemented to do the following:

- ☞ safeguard assets
- ☞ ensure reliable data
- ☞ promote operational efficiency
- ☞ encourage adherence to policies

Internal controls should be incorporated into all departmental policies and procedures.

Risk Table

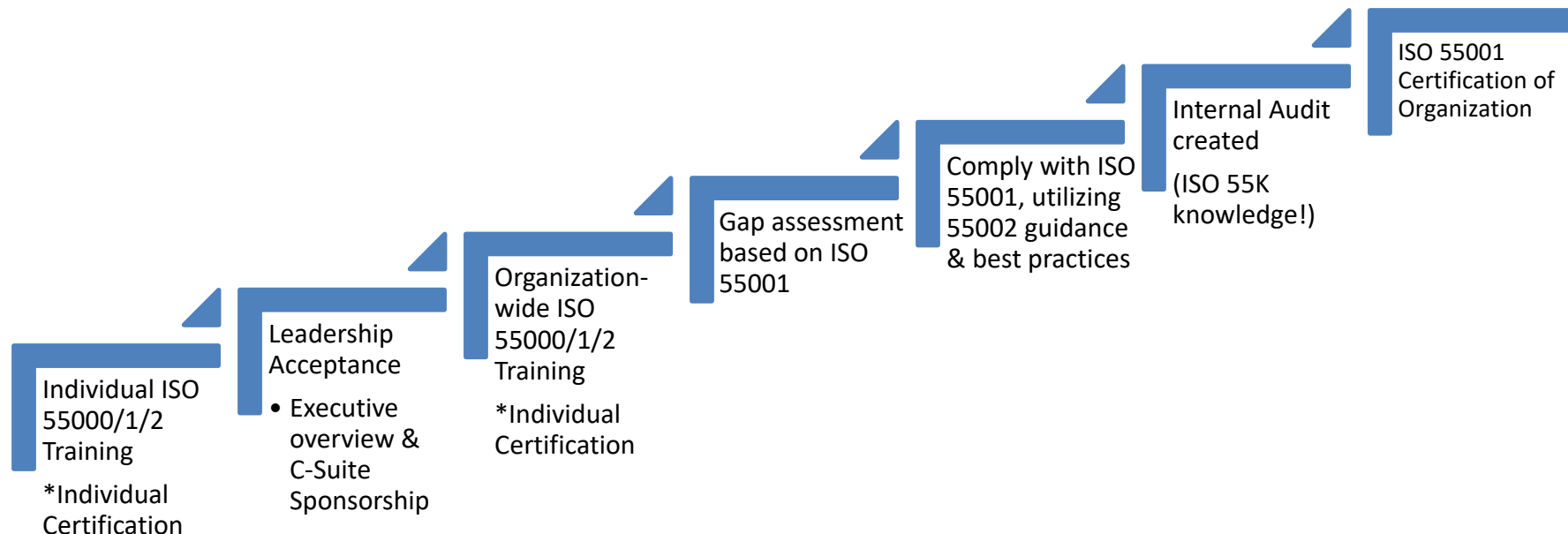
| | | | |
|-----------------------------|-------------------------------------------|----------|----------|
| | Moderate | High | Critical |
| Probability of Occurrence ↑ | Low | Moderate | High |
| | Extremely Low | Low | Moderate |
| | Sensitivity/Value of Data/Damage Caused → | | |

How do I even begin? Training & Certification!

- There are two types of certification to ISO 55000: individual and organizational
- The ALN's A55K Professional Certification designation certifies that an individual has the knowledge to participate in and contribute to ISO 55K Asset Management efforts
- Other certifications are available that are more focused on asset management activities such as maintenance and engineering



How do I even begin? Training & Certification!



How do I even begin? Training & Certification!

- AJAG provides courses in both on-site and remote formats
- Currently offering only remote format due to COVID-19
- Course offerings include:
 - Full ISO 55K / A55K training course – 4 day on-site or 2-week online format
 - Executive overview, in either pre-recorded or webinar format
 - One-day ISO 55K summary course
- Next class planned for November 9 – 20
 - <https://www.andrewjamesadvisory.com/hybrid-cbt-training-request-form/>



In Conclusion: ISO 55000/1/2 In Hospitals

- ISO 55000 is intended for *“those considering how to improve the realization of value for their organization from their asset base”*.
- Adoption of ISO 55000/1/2 in industry worldwide is increasing, and it is time for healthcare to lead instead of follow.
- In the continuing environment of cost and regulatory pressures, ISO 55000/1/2 provides a framework and methodology to reduce risk and align asset and asset lifecycles to the strategic goals and objectives of the organization.





Questions?

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Disclosures

- The speakers have no relevant financial and non-financial relationships to disclose.
- The opinions presented are our individual opinions, based on our experience and do not represent those of anyone else, including the University Health System or its affiliates.