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Beyond the Technical

strategic technology planning for medical imaging

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February 10, 2019

Why should I care

about strategic technology planning?



Influence

prioritization of capital spending in support of your organization's mission & vision



Communicate

with department & enterprise executives



Align

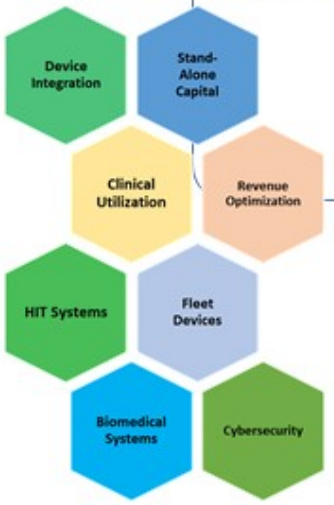
resources – staff, time, budget

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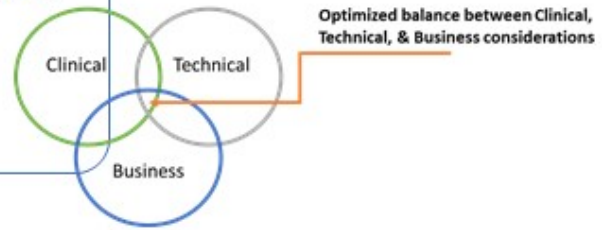
What Is Strategic Technology Planning?

Strategic Technology Planning

- Medical Imaging
- Biomedical
- Laboratory



- Technology Assessment
- Value Analysis
- Committee Structure

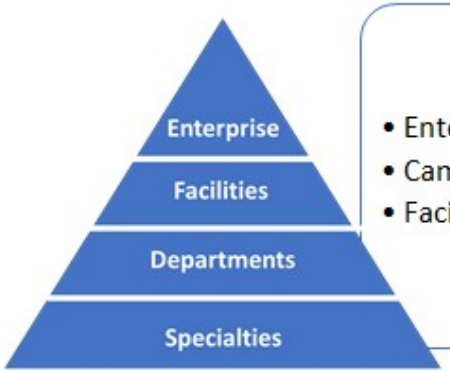


Strategic Technology Plan

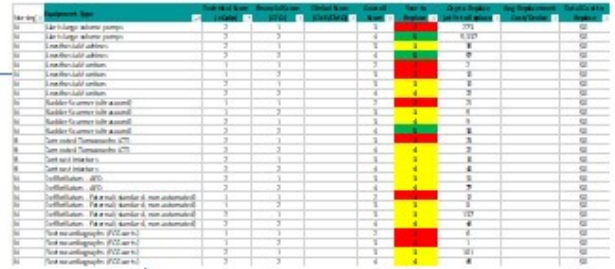
Strategic Sourcing

Facility Master Plan

Financial Planning



- Enterprise
- Campus
- Facility



- Capital
- Leasing
- Rental
- Pay per Use

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What Resources Are Available?

Healthcare Technology Management CMMS

This is the maintenance management information system for the medical devices and systems – the "health record" for each equipment asset. It contains the foundational data required for creation of a strategic technology plan – the healthcare delivery organization's physical inventory of all medical device assets regardless of financial value.

Facilities Master Plan

This is the healthcare delivery organization's strategic plan for its physical infrastructure – hospitals, clinics, administrative buildings. Timing of STP recommendations should be aligned with the Facility Master Plan forecast.

Supply Chain Management ERP & Sourcing Standards

The enterprise resource and planning (ERP) system contains supplier and consumable data that is relevant to medical devices and systems. Similarly, the sourcing standards provide guidance to the healthcare delivery organization's purchasing processes and preferences.

Finance Asset Management System

This is the financial information system for managing capital assets – depreciation, taxes. Timing of STP recommendations should be aligned with the depreciation schedule. The threshold for "capital" varies amongst, and sometimes within, healthcare delivery organizations; and, therefore, must be clarified so that STP recommendations are appropriately aligned.

Group Purchasing Organizations

- HealthTrust
- Intalere
- Premier
- Vizient

Professional Organizations

- AAMI
- ACCE
- AHA
- AHRMM
- ASRT
- HFMA
- HIMSS
- RSNA
- Other clinical specialty associations

Medical Device Industry

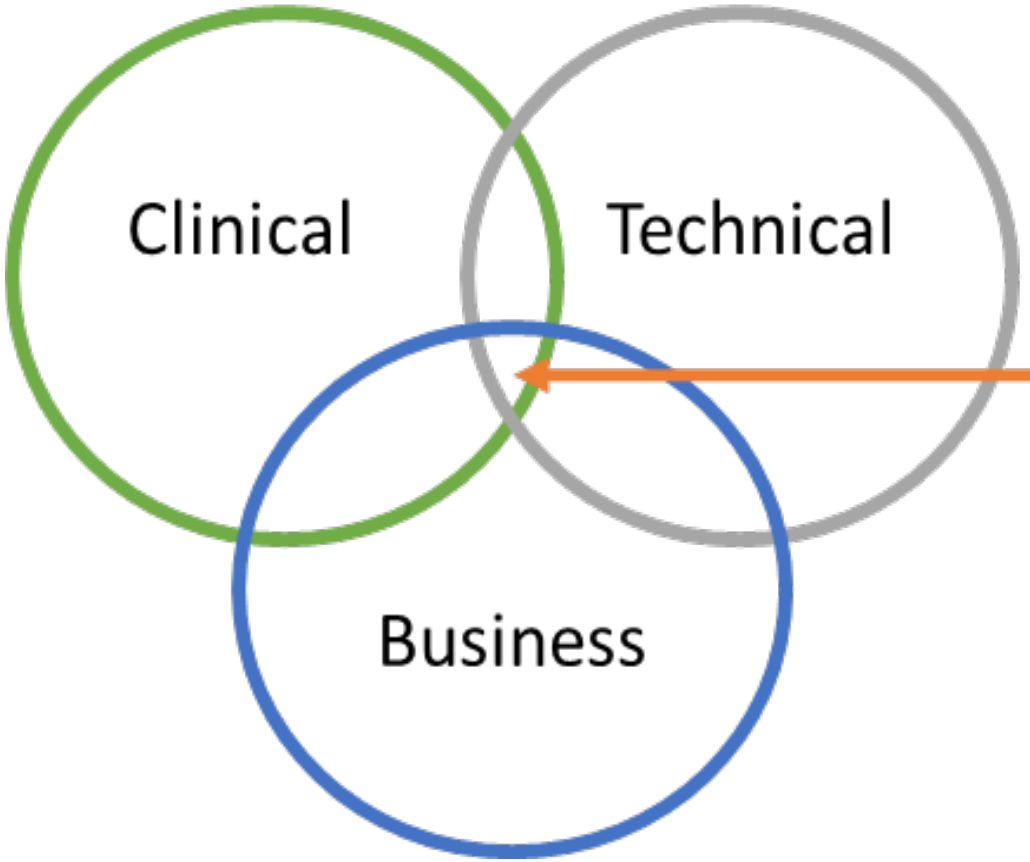
- Distributors
- Original Equipment Manufacturers (OEM)
- Parts Suppliers
- Remanufacturers
- Technical Training Organizations

Advisory & Research Organizations

- Advisory Board
- ECRI Institute
- MDBuyline
- Sg2

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Can The Plan Be Optimized?

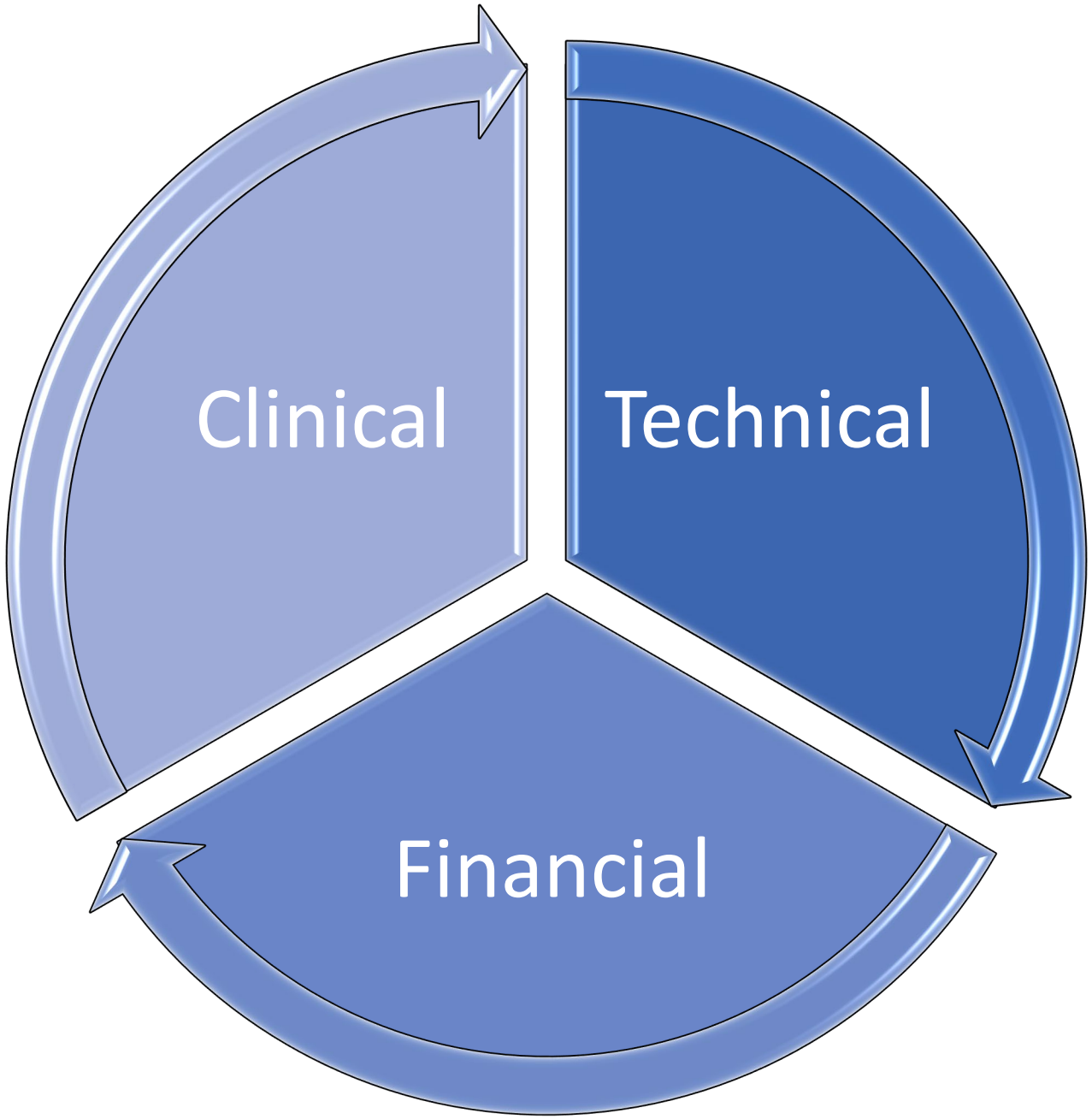


Optimized balance between Clinical, Technical, & Business considerations

Stakeholders:
influencers or decision-makers?

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How Is The Plan Assessed and Scored?



Technical

- Cost of Service Ratio (COSR)
- End of Manufacture (EOM)
- End of Service/Parts (EOS)
- Obsolete Operating System

Clinical

- Clinical Protocols
- Regulatory Impact
- Utilization & Workflow
- Technology Backups & Redundancy

Financial

- Cost of Service Ratio (COSR)
- Depreciation
- Residual Value
- Revenue &/or Cost Avoidance Opportunities

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Clinical Scoring



Clinical Protocols

Does the existing technology meet current protocols?

What protocol changes are on the horizon?



Regulatory Impact

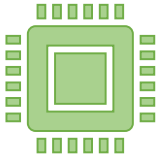
Some technologies are tied to healthcare related mandates – i.e. Fetal Monitoring recordings, ACR, MQSR.



Utilization & Clinical Workflow

The technology should complement the clinical workflow; not impede it.

Utilization of technology may be enhanced or impeded by the operational norms (e.g. hours of operation, changes in patient volumes).



Technology Backups & Redundancy

Technology downtime is inevitable.

Are there backup units and/or redundancy – within the facility, region, enterprise?

What are the impacts to care delivery if backups and/or redundancy is not available?

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Business/Financial Scoring

Cost of Service Ratio

$$\frac{\text{Total Service \$}}{\text{Value \$}}$$

Total Service = labor + materials

Value may be the actual purchase cost or the forecasted replacement cost. Consistency is critical!

Depreciation

The American Hospital Association (AHA) “blue book” is often the reference point for setting depreciation schedules. It is important to recognize that every asset does not depreciate at the same rate – 3, 5, 7, 10 years.

Residual Value

Does the asset have a “market value” – e.g. resale, trade-in?

Can the asset be reallocated elsewhere within the health system?

Revenue &/or Cost Avoidance Opportunities

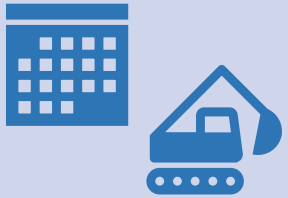
Does the technology produce a revenue stream – e.g. medical imaging?

Does the technology and/or its physical location mitigate the need to defer or refer patients to competitors?

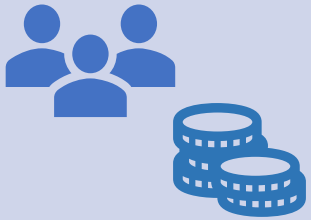
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Are there Leading Practices

for strategic technology planning?



Annual vs Construction



Influence vs Decision

Approval vs Allocation



Policy – Process - Procedure



Proactive vs Reactive

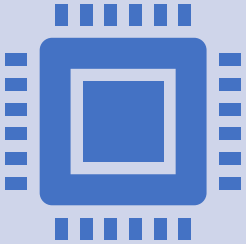
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What are my Next Steps

for strategic technology planning?



Medical Imaging Departments



Healthcare Technology Management (HTM) Departments

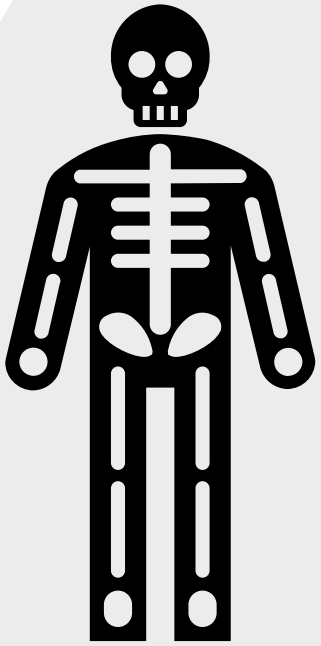


Additional Resources

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Medical Imaging Departments should …

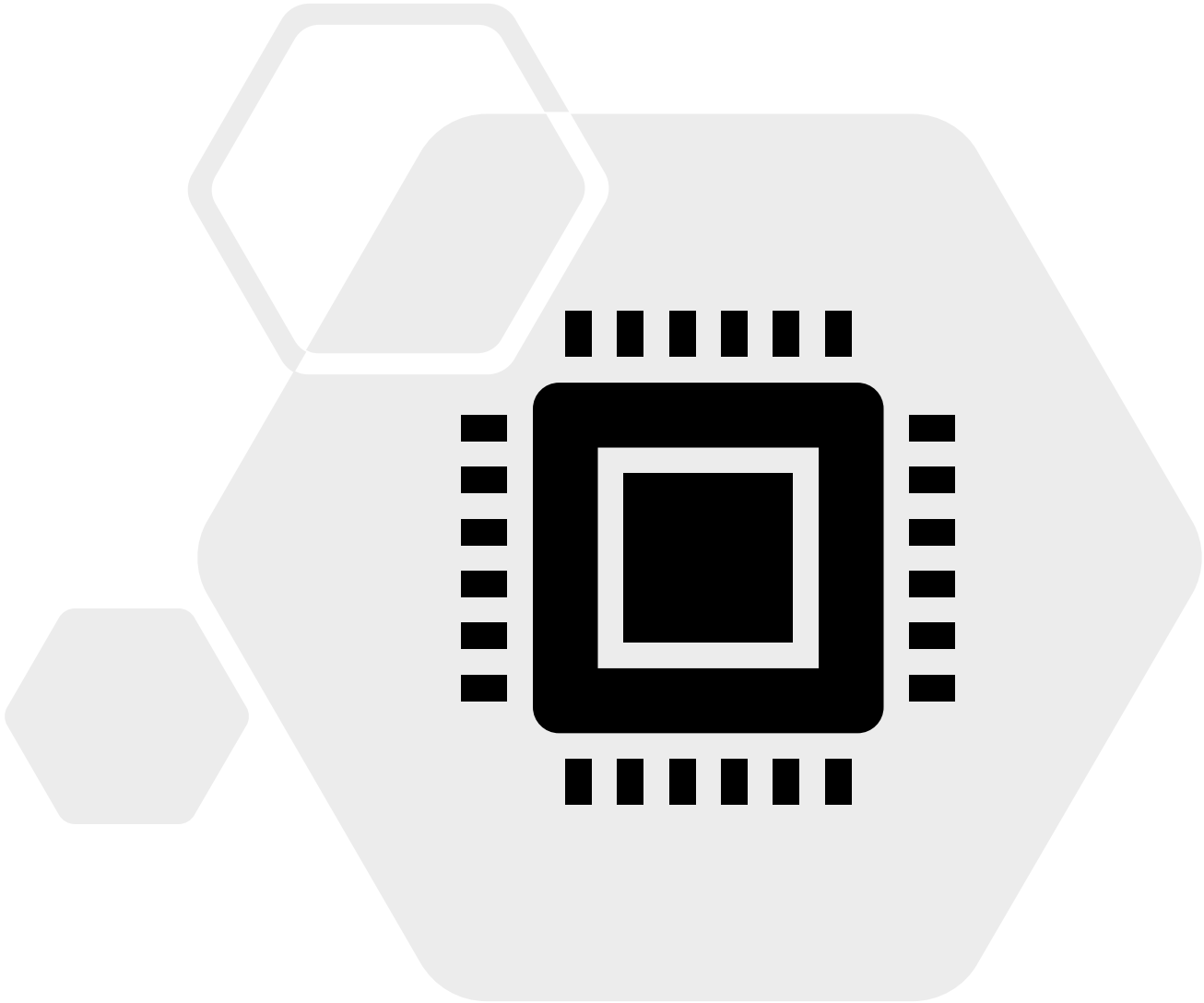
- Collaborate with HTM colleagues to ensure OEM system ID# and EOM/EOS status are accurately documented for all diagnostic imaging and radiation therapy assets.
- Collaborate with Finance colleagues to ensure alignment relative to depreciation schedules, revenue, etc.
- Define (or refine) clinical workflows for consistency of practice and optimal patient outcomes.
- Monitor new technologies in collaboration with HTM and clinical colleagues.



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HTM Departments should …

- Ensure OEM system ID# and EOM/EOS status are accurately documented in the CMMS for all diagnostic imaging and radiation therapy assets.
- Collaborate with Finance colleagues to ensure alignment with the CMMS relative to depreciation schedules.
- Engage Facilities Management / Design & Construction colleagues to align the Strategic Tech Plan with the Facilities Master Plan
- Support colleagues by providing tools, data, and guidance – or by participating directly in the clinical and business (financial) assessments
- Monitor new technologies in collaboration with clinical colleagues.

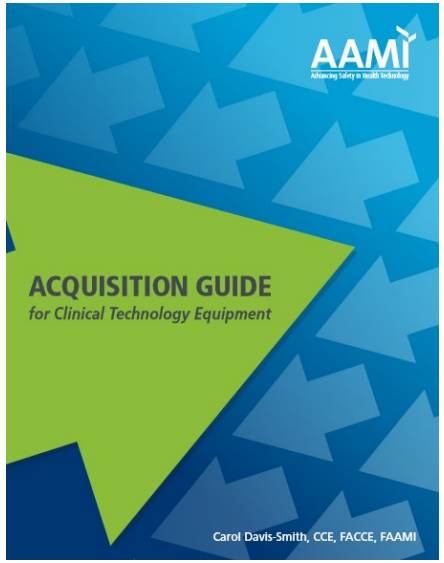


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Additional Resources …

C Davis-Smith. ***Acquisition Guide for Clinical Technology Equipment.*** Association for the Advancement of Medical Instrumentation (AAMI). 2019

https://my.aami.org/store/detail.aspx?id=ACQ-PDF



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Carol Davis-Smith & Associates, LLC provides a consultative bridge between technical, clinical, and strategic perspectives in healthcare through our passion for excellence, creativity, and integrity.