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Results Oriented Reliability and Maintenance
Management Consulting and Training

8 Key Components of an Effective Technical Database

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Introduction

Agenda

- Definitions
- Value
- 8 Key Components
- 3 Best Practices
- Next steps

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IDCON Productivity Cycle

Planning:
Defining the ***What, How*** *and* ***How Long*** of a maintenance activity

Scheduling:
Defining the ***Who*** and ***When*** of a Maintenance activity

Technical Database:
All files, drawings, instructions, lists and standards needed to plan and schedule efficiently and effectively.

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Uncover the Hidden Value of the Technical Database

Number of Craftspeople	% of Time Craftspeople "Plan"	Actual "Planning" Time (hours/day)	Target "Planning" Time (hours/day)	Freed Up Time Time (hours/day)
60	50	240	50	190

Number of Planners	Actual Time Managing Parts (hours/day)	Target Time (hours/day)	Freed Up Time (hours/day)
4	12	4	8

Cost of Downtime ($/hour)	Downtime Due to Missing Parts (hrs/year)	Cost of Increased Downtime ($/year)	Target Downtime (hours/year)	Bottomline Profit ($/year)
10,000	40	400,000	4	360,000

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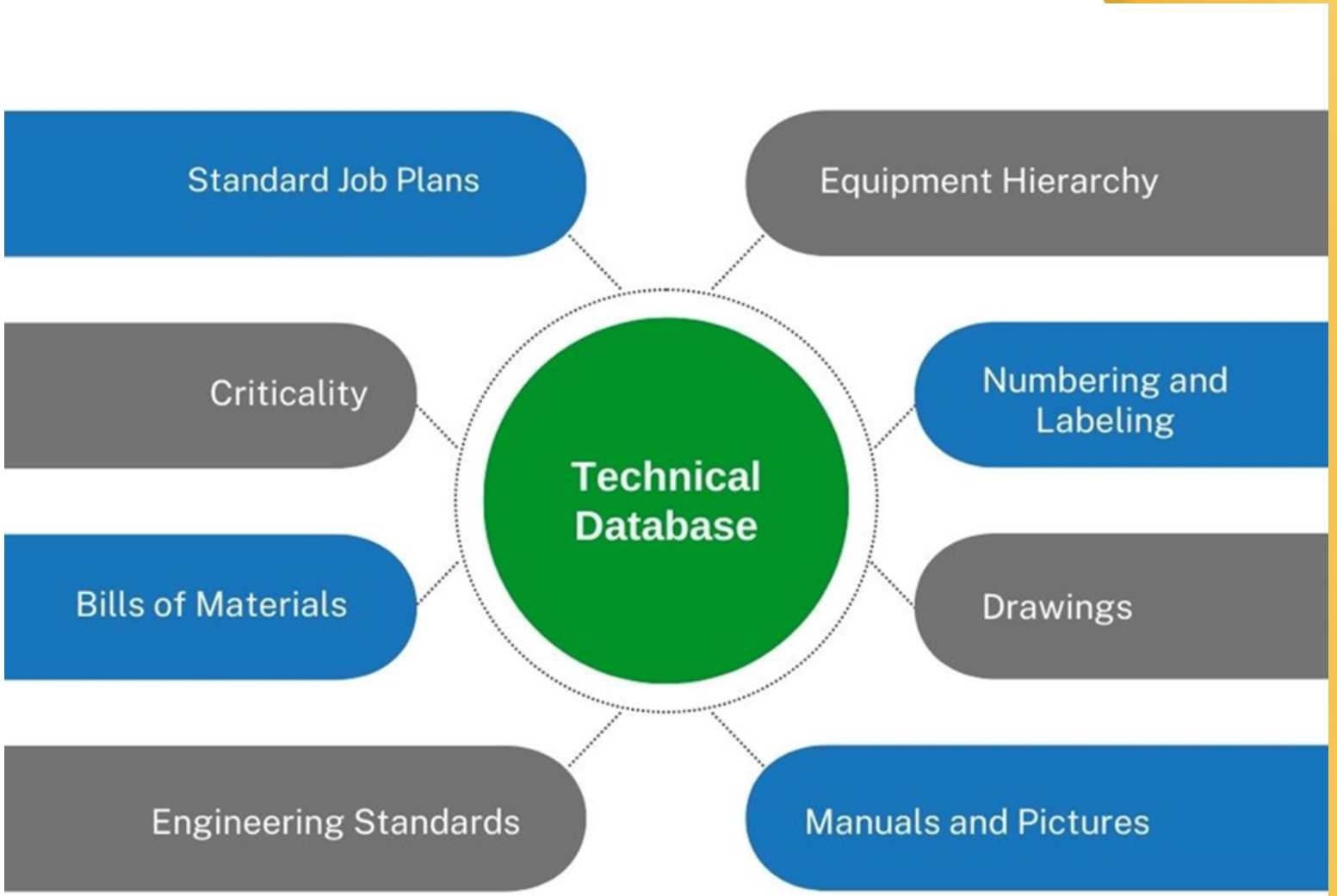
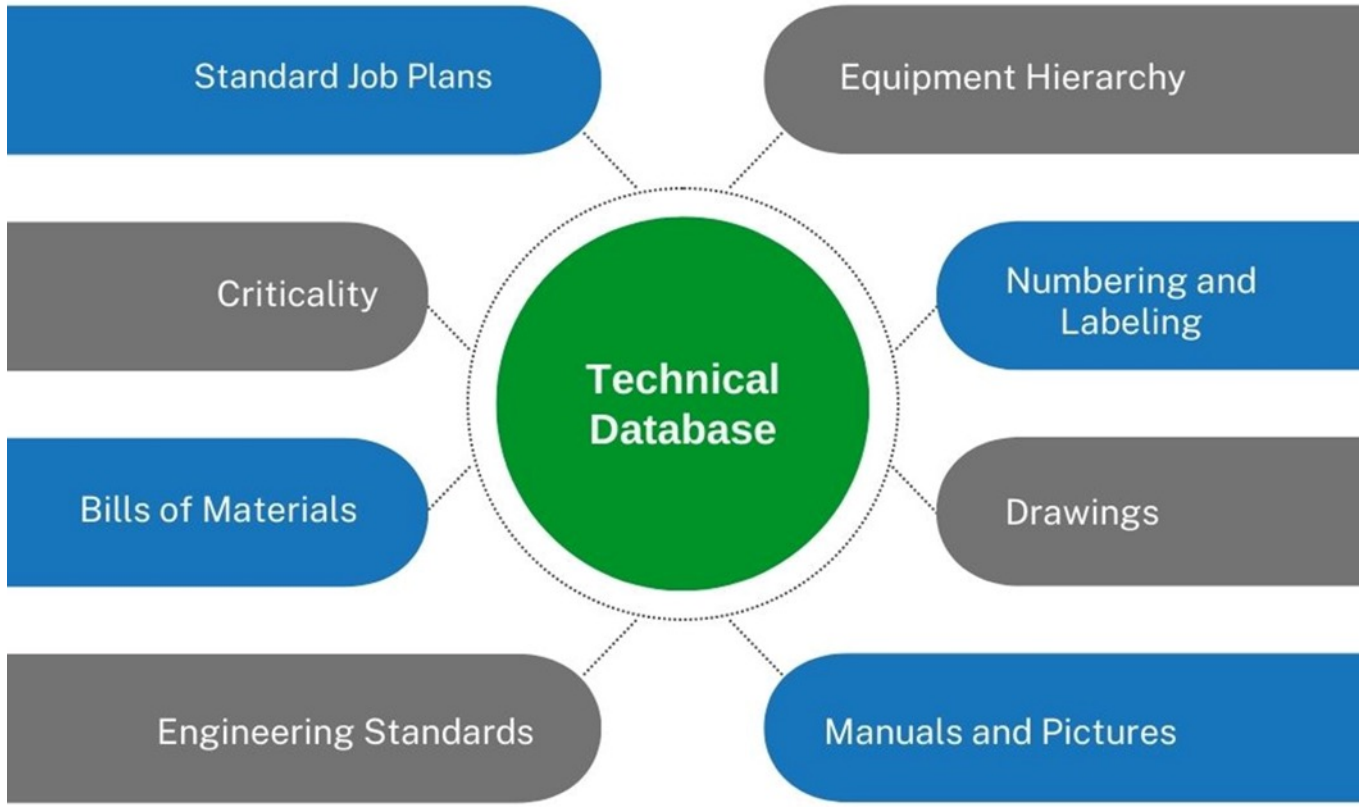
8 Components of an Effective Technical Database



8 Key Components of the Technical Database



Equipment Hierarchy

- Group of equipment locations or numbers in a tree structure that matches the manufacturing process
- Foundation of the technical database
- Use 8 step process to create a great hierarchy

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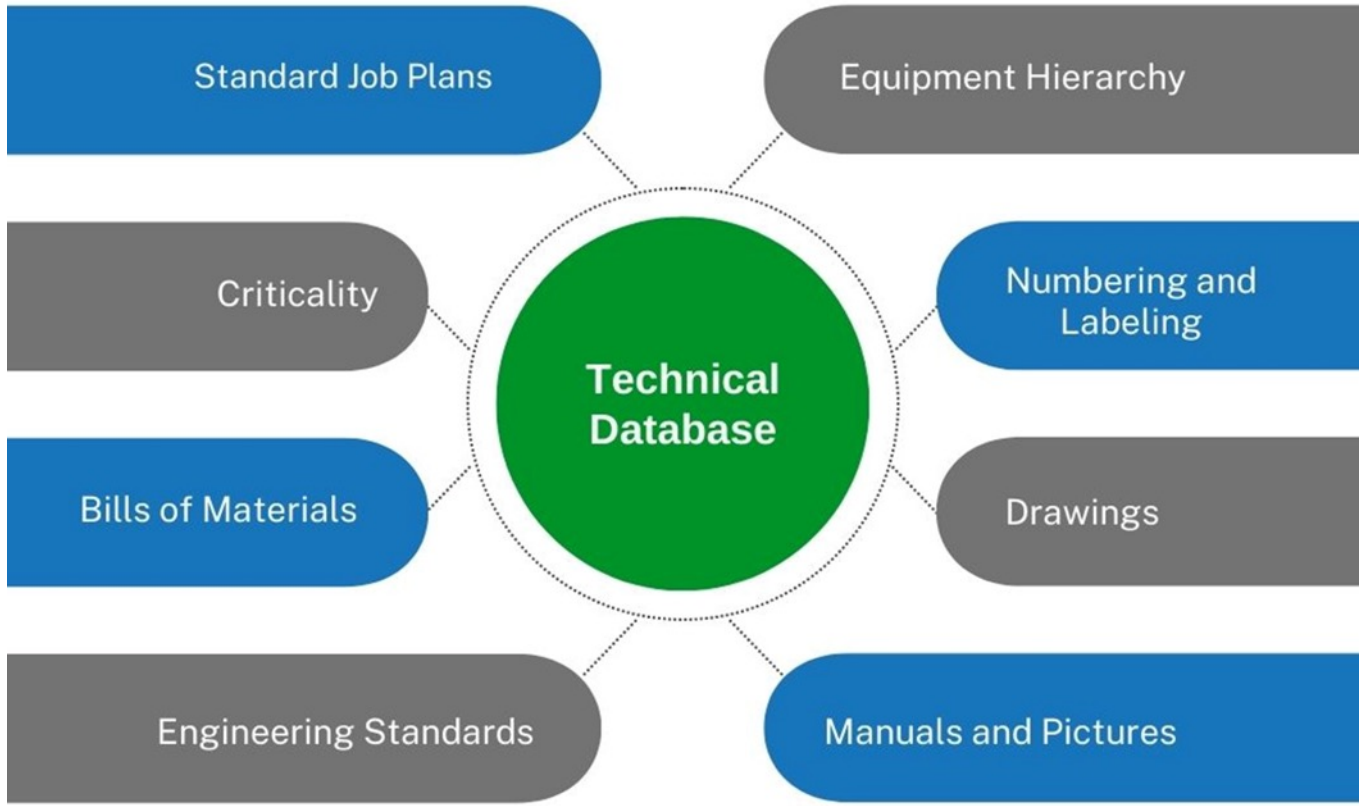

Numbering and Labeling

- Use materials to withstand environmental conditions
- Apply labels with consistent methods and locations
- Label large equipment in multiple locations
- Inspect your labels routinely
- Use equipment name and number

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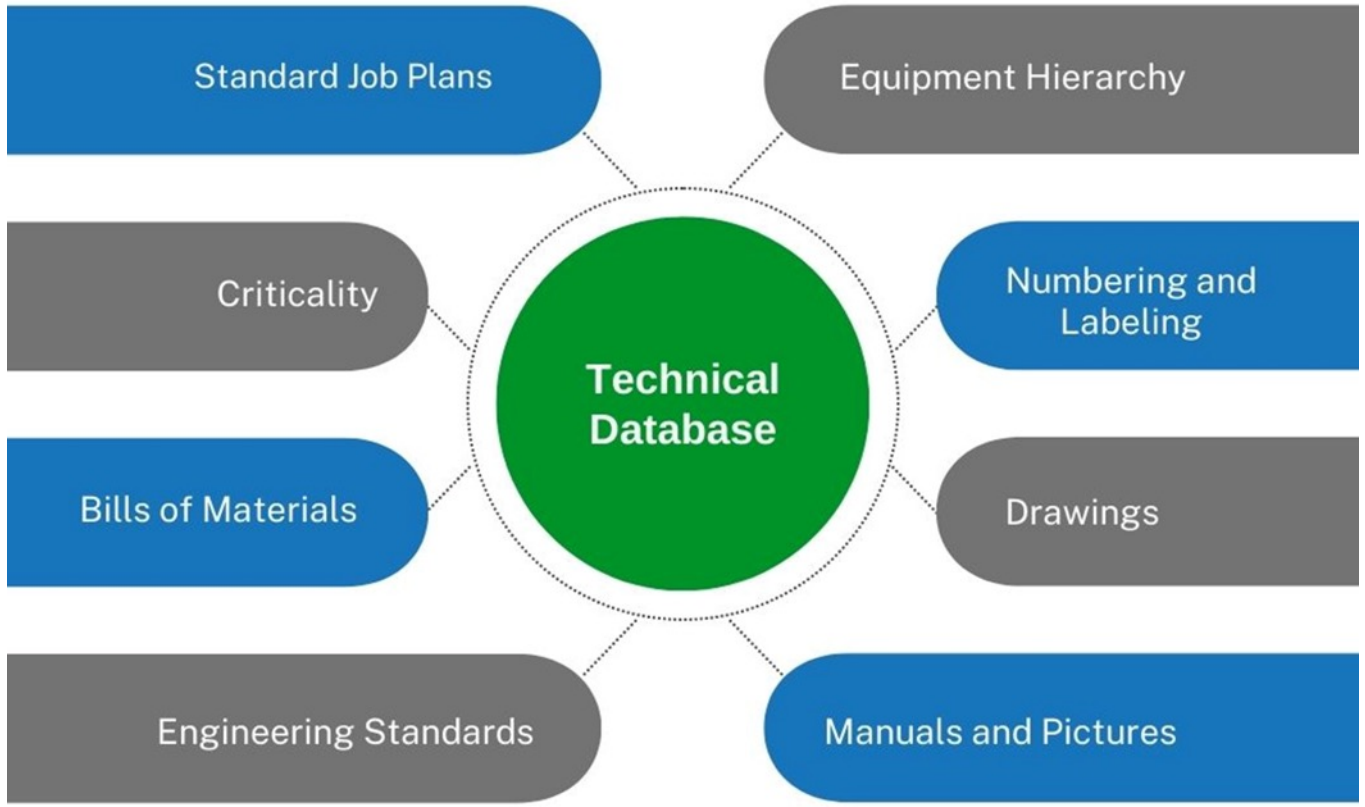

Drawings

- Focus on providing access to drawings best suited to support planning and scheduling
- Link manufacturer part numbers to plant specific parts in the CMMS

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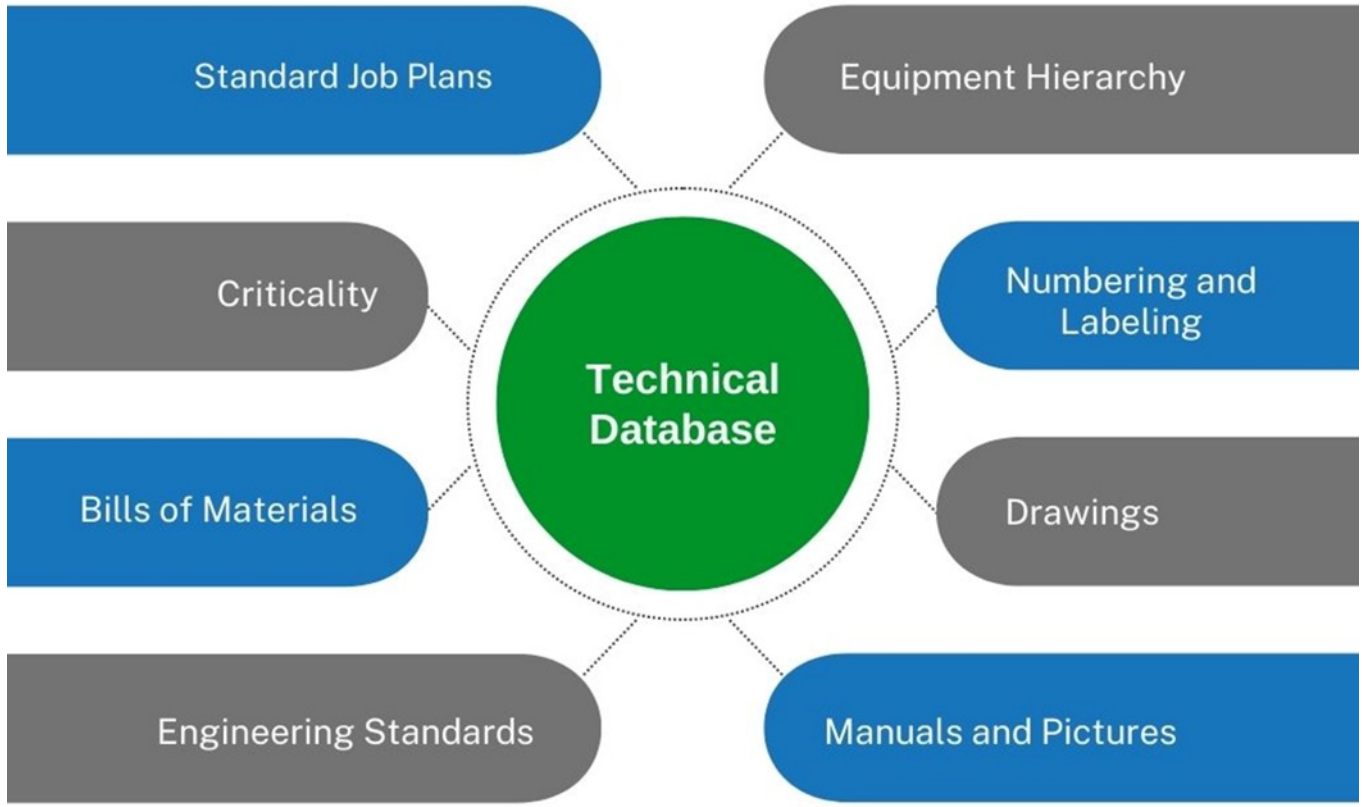

Manuals and Pictures

- Add procedures from manuals to standard job plans
- Use pictures to document as-found condition and improve documentation
- Save manuals and pictures in a structure that matches the equipment hierarchy

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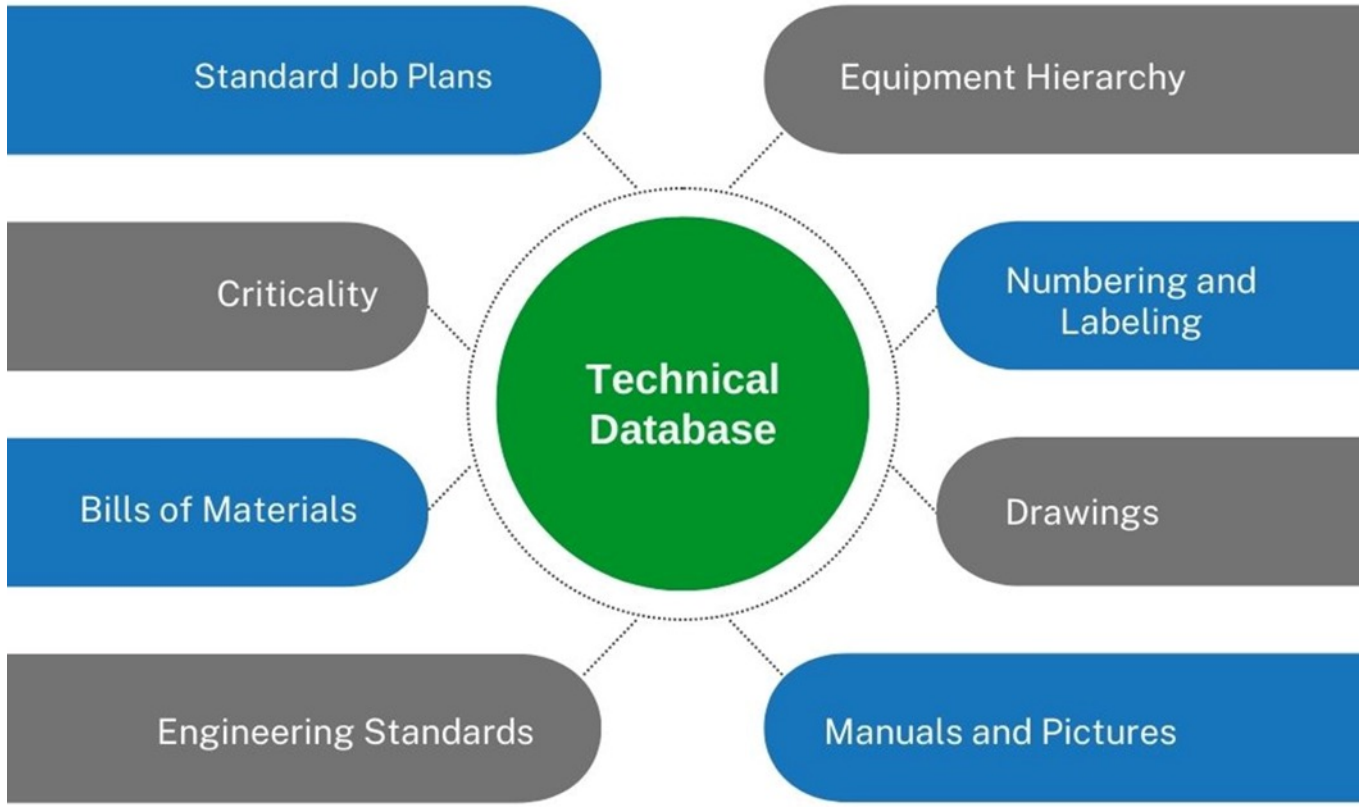

Engineering Standards

- Formal documents that define standard work methods
- Use existing industry standards and create plant specific standards
- Focus on critical and repetitive jobs

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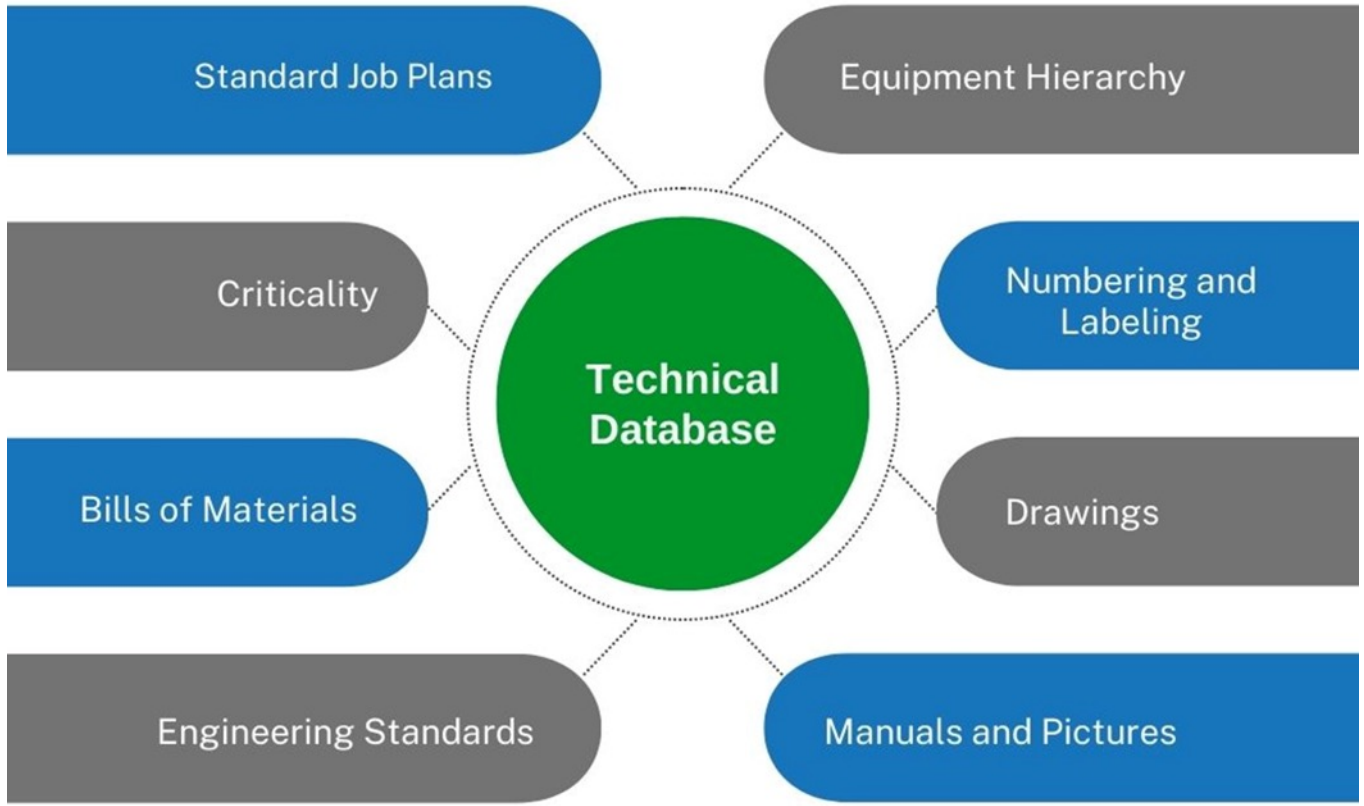

Bills of Material

- A list of parts used on the equipment
- A Planner's Best Friend
- Level of completeness depends on plant needs but should be available for all maintained equipment
- Components must be named well

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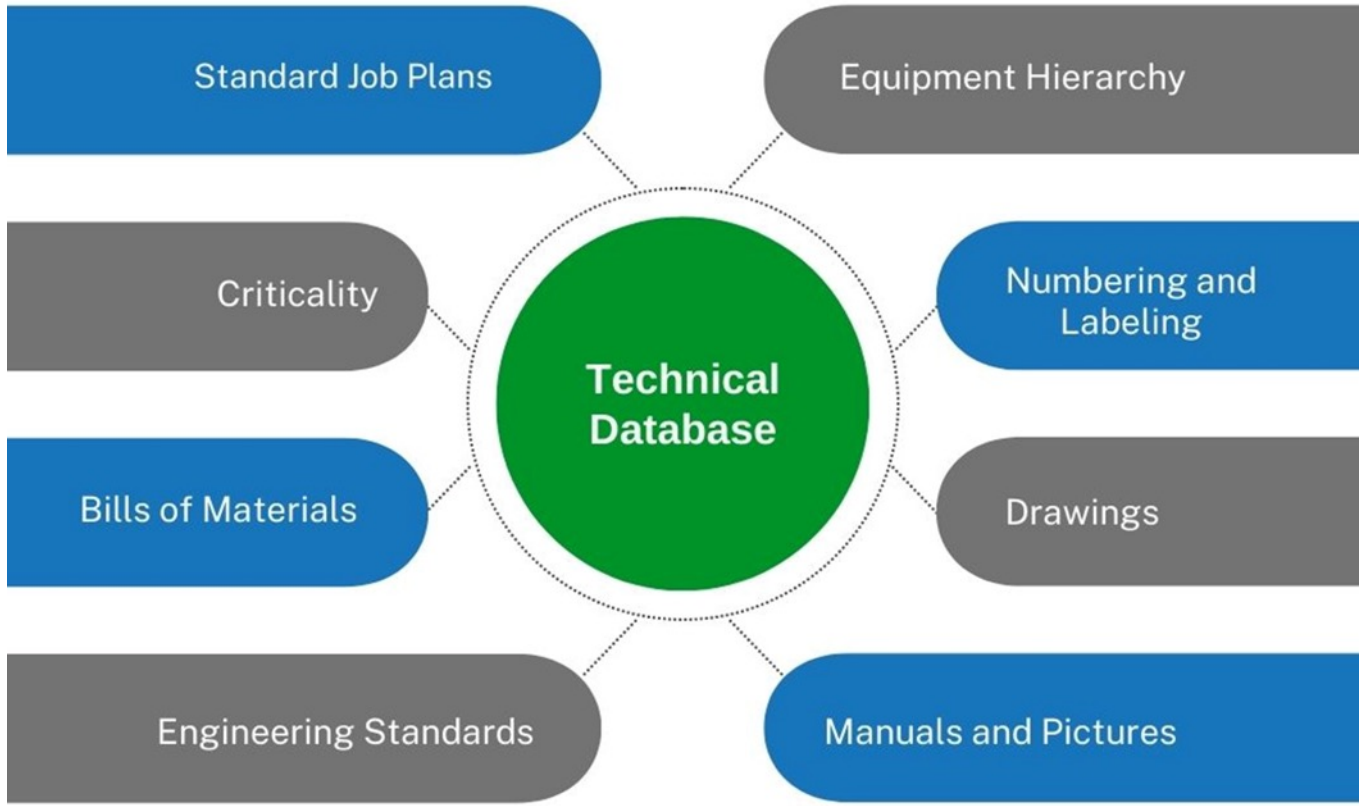

Criticality

- Based on risks to safety, environment and production
- Judge likelihood and severity of failure
- Use results to prioritize predictive, preventative and corrective maintenance work

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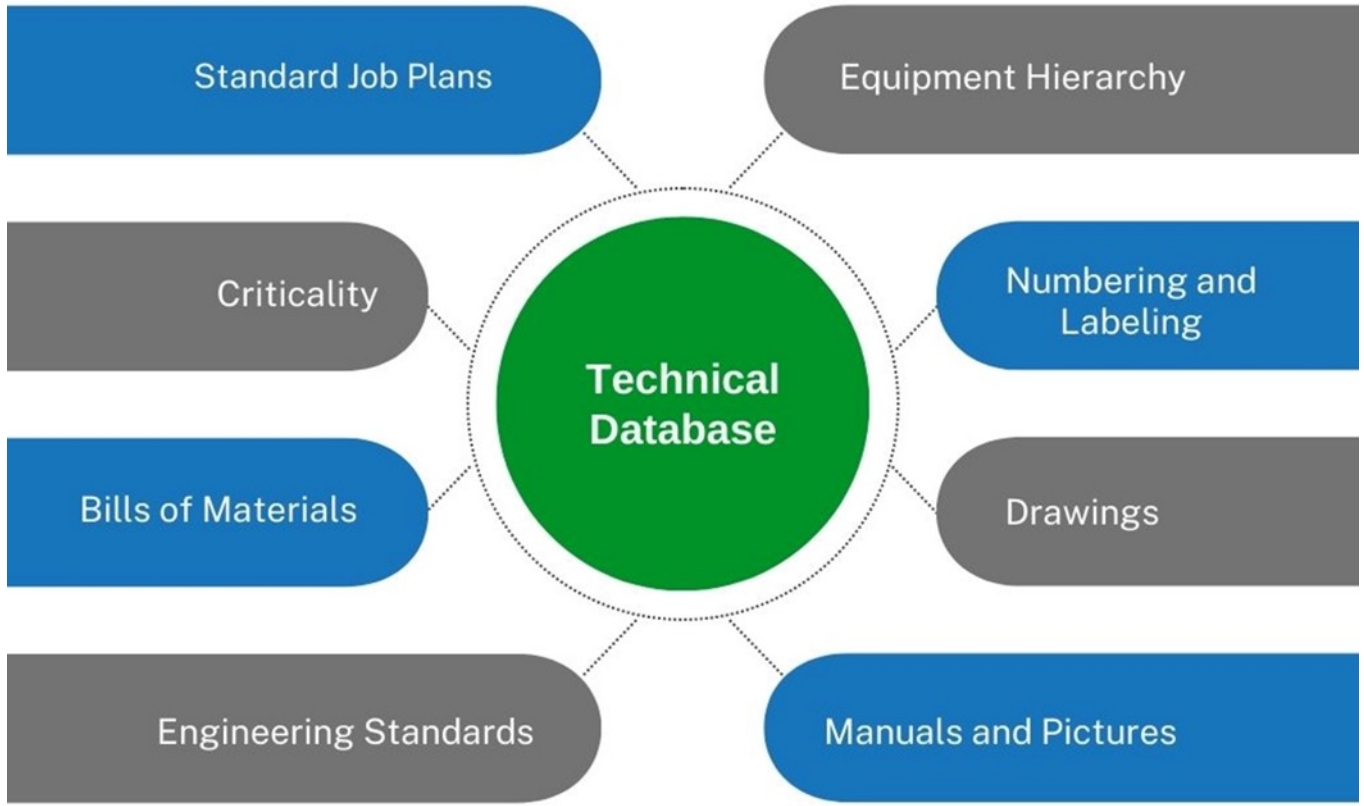

Standard Job Plans

- Documented plan for a job that can be used repeatedly
- The focus and goal of the planning process
- Utilizes all other aspects of the technical database
- Use as a gauge for Planning

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3 Best Practices of an Effective Technical Database

3 Best Practices for the Technical Database

Accurate

- Correct *and* complete
- Cover 100% of maintainable equipment with technical database
- Identify an owner of each component of the technical database
- Use management of change to keep data accurate over time

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3 Best Practices for the Technical Database

Accessible

- Able to be located *and* understood
- Keep documents in an electronic and easily searchable format
- Be consistent with where information is stored
- Increase accessibility through training

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3 Best Practices for the Technical Database

Applied

- The information must be used to be of value
- Conduct routine spot checks of work management processes to ensure data is being applied
- Ensure crews understand the work order packages and how to use the information

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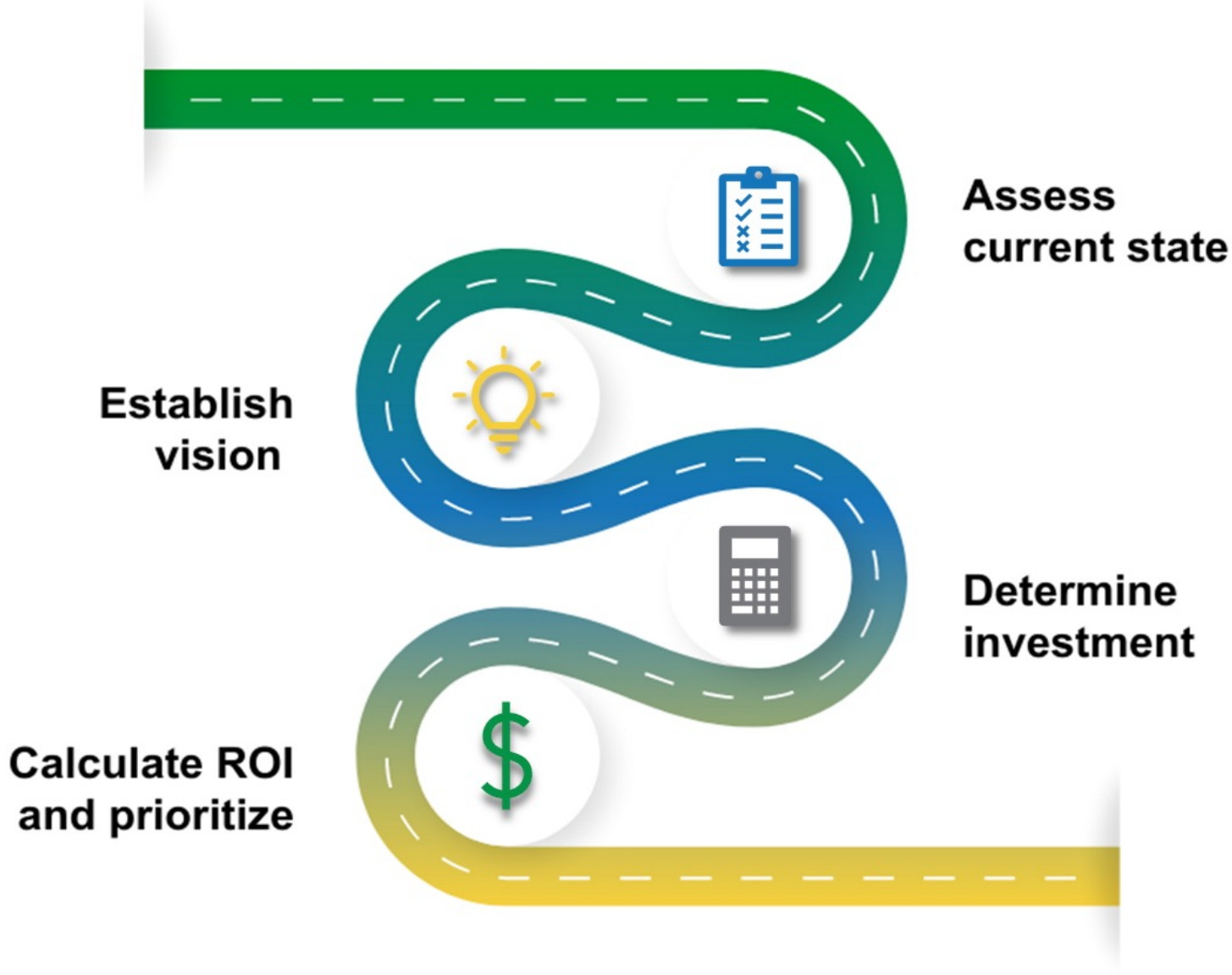
How do I get started improving the Technical Database?



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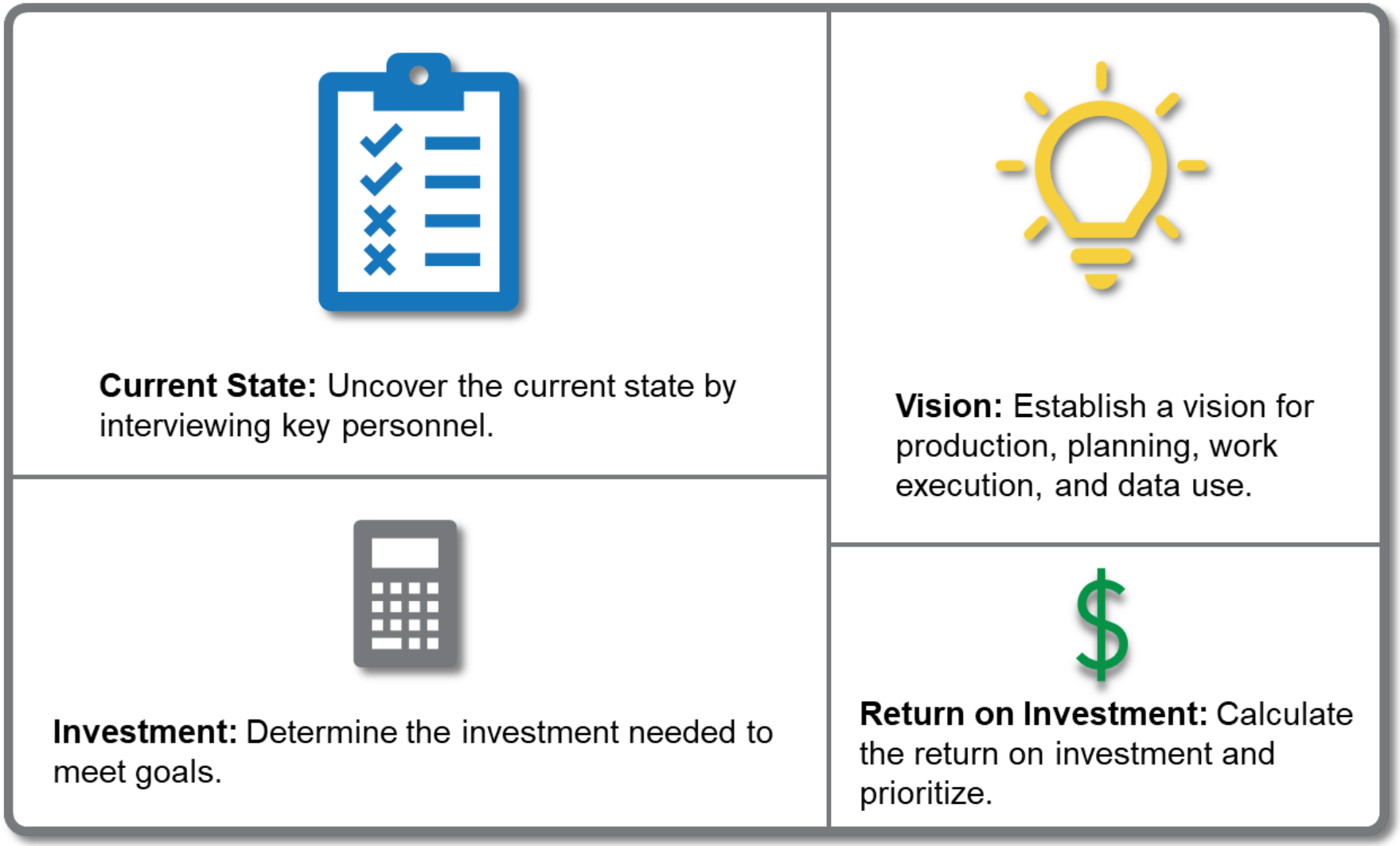

Current State: Uncover the current state by interviewing key personnel.

Vision: Establish a vision for production, planning, work execution, and data use.

Investment: Determine the investment needed to meet goals.

Return on Investment: Calculate the return on investment and prioritize.

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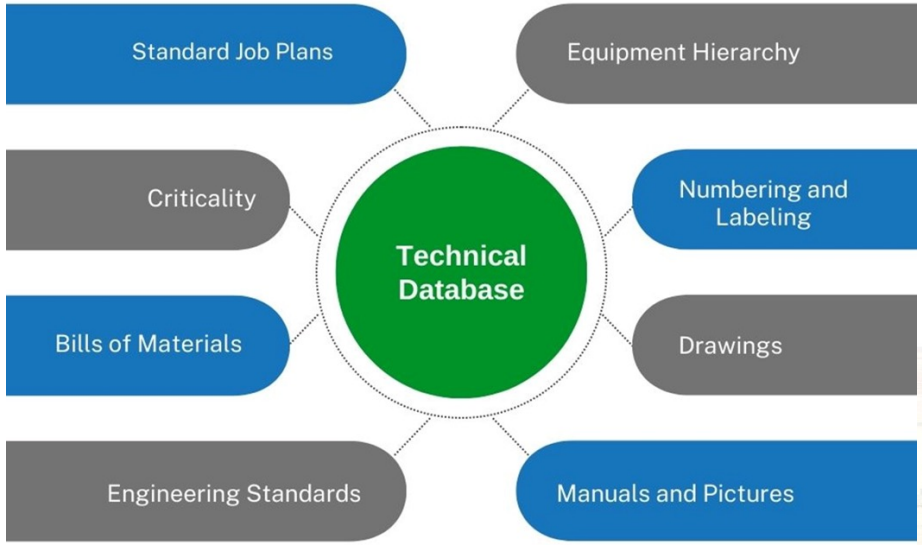
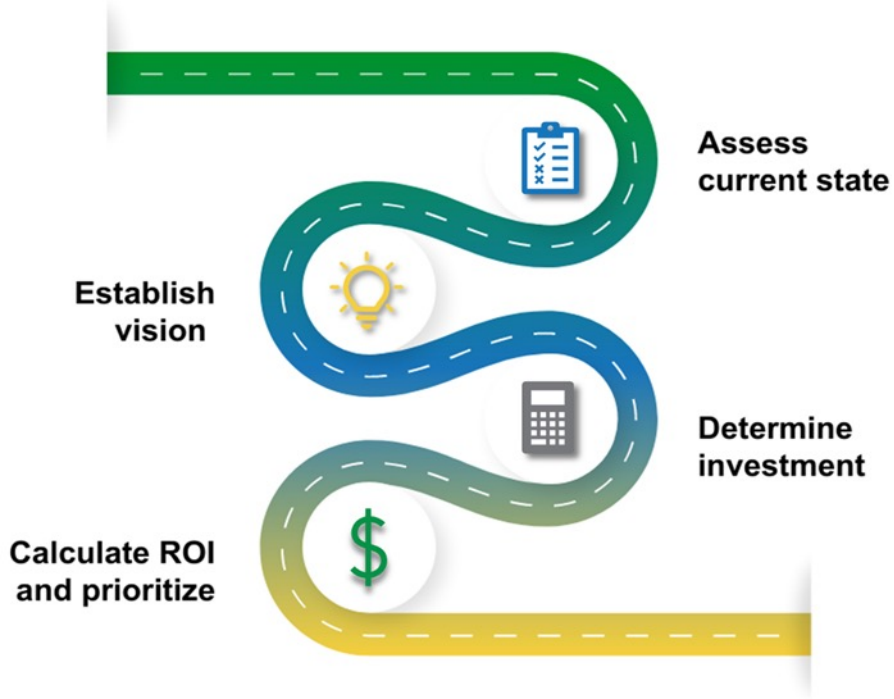
Market
Production Plan
Prevention
+
Priorities, Condition Monitoring
Maintenance Planning and Scheduling
Technical Database & Stores
Do
React
Repair
Return
Repeat
Circle of Despair
Record
Continuous Improvement RCPE
Circle of Continuous Improvement


Standard Job Plans
Equipment Hierarchy
Criticality
Numbering and Labeling
Technical Database
Bills of Materials
Drawings
Engineering Standards
Manuals and Pictures

Summary


ACCURATE
AAA BEST PRACTICES
APPLIED
ACCESSIBLE


Assess current state
Establish vision
Determine investment
Calculate ROI and prioritize

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Q&A

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