

Supplier Auditing and Scorecards

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Course Objectives

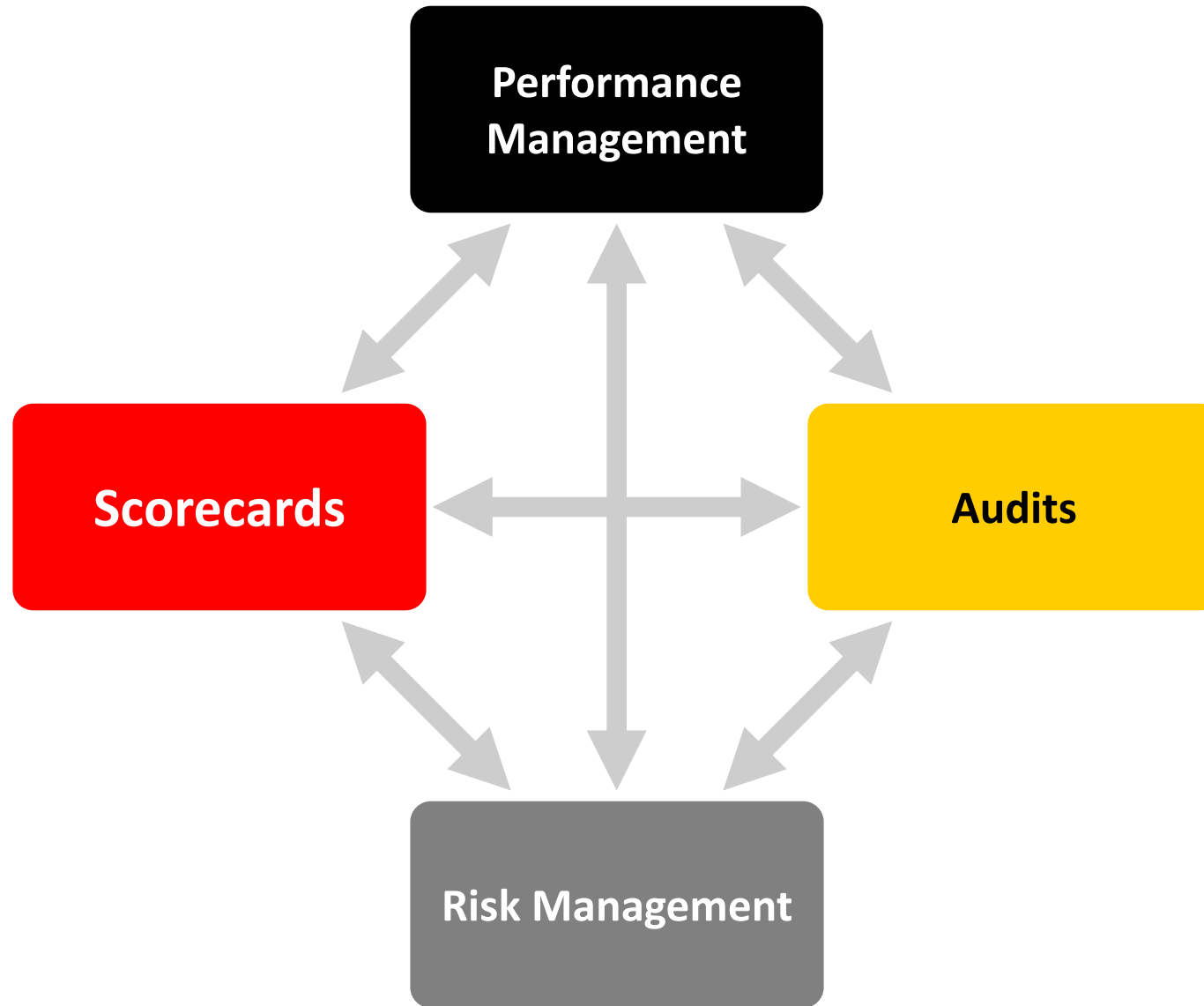
1. Understand the role of supplier audits in supply chain management.
2. Design and execute effective supplier audit processes.
3. Develop and implement supplier performance scorecards.
4. Drive supplier performance improvements and mitigate risks through data-driven insights.

Have you ever made a “big” decision?

Does your organization face
supplier problems?

Do you know your suppliers?

Do you tend to fight fires?





Why do we perform audits?

What is an *audit*?

- A documented activity performed in accordance with written procedures or checklists to verify, by review and evaluation of objective evidence, that applicable elements of the process, product, or system have been developed, documented, and effectively implemented in accordance with specified requirements
- Verify *compliance* or *performance* to stated criteria
- Determine effectiveness of a system or program
- Results of audits shall be evaluated over time to drive continuous improvement

Purpose of Audits

Compliance

- Internal procedures
- Internal process
- Management systems
- Industry standards
- Requirements
- Specifications
- ...



Performance

- Key performance indicators
- Proficiency
- Operational effectiveness
- Goals and objectives
- Score to benchmark
- Expectations
- ...

Example: Purchase order is placed per the required processes and procedures. However, it takes two days, five approvals, and three attempts each time a purchase order is placed to order the right item.

Purpose of Audits

- Status, adequacy, and effectiveness
- Verify conformance to requirements
- Evaluate controls and effectiveness
- Evaluate strengths and weaknesses
- Evaluate whether the system produces desired results
- Evaluate product to specified requirements
- Evaluate problems and errors in work processes
- Evaluate effectiveness in responding to independent audits
- Report audit findings
- Verify corrective actions



Types of Audits

Process Audit

- Verifies that processes are working within established limits
- Evaluates processes against an operational instruction or standard

Product Audit

- Examines if a product (or service) conforms to requirements
- Means to verify (meets requirements) and validate (meets customer expectations)

System Audit

- Conducted on a management system (ISO 9001, ISO 45001, etc.)
- Verify, using objective evidence, that the system is implemented and effective

Audit Perspectives

First-Party Audit

- Internal audit
- Performed within an organization
- Auditors are members of the organization being audited or a subcontractor

Second-Party Audit

- Supplier audit
- Performed by a customer or subcontractor on a supplier's organization
- Typically based on contract law

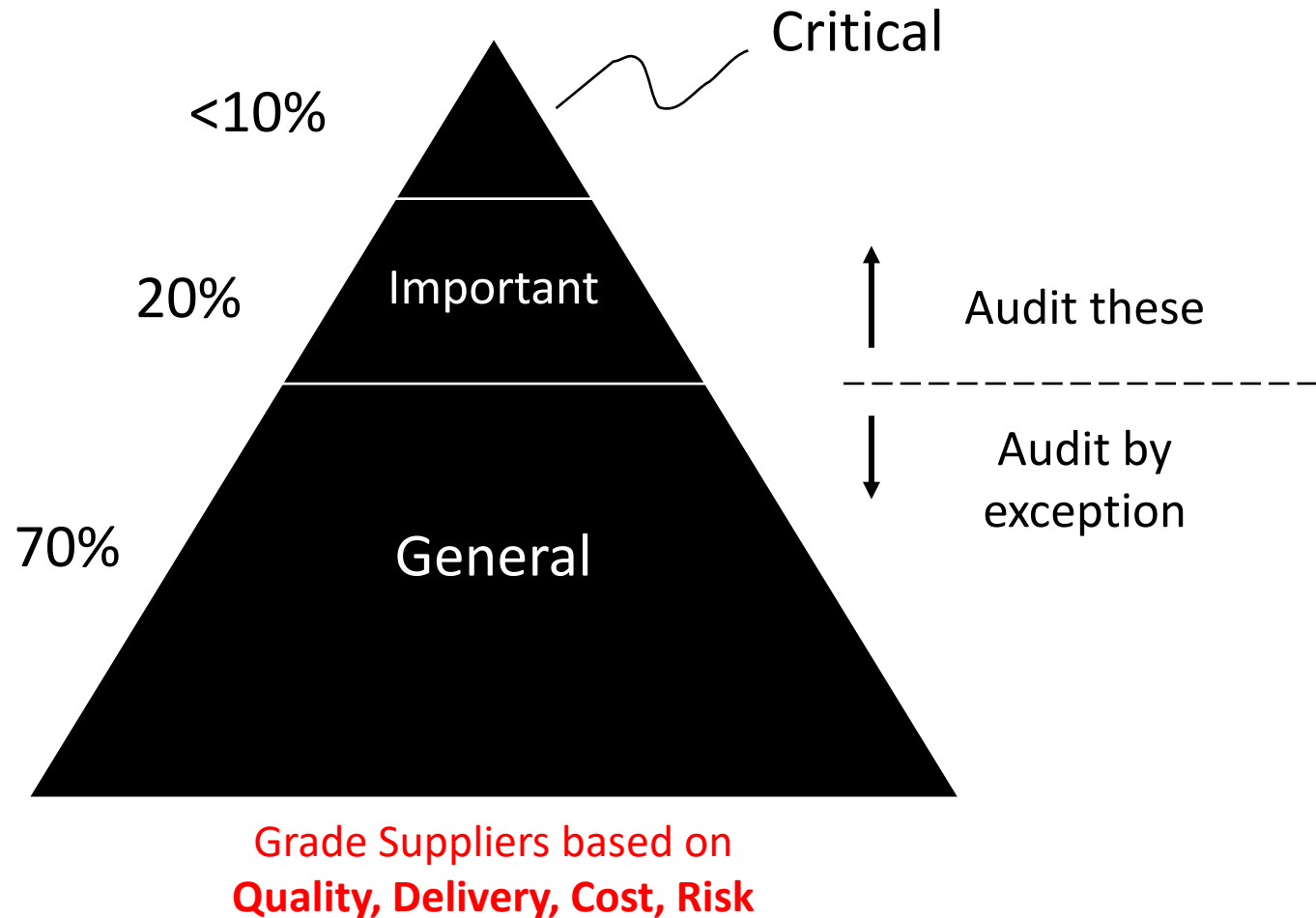
Third-Party Audit

- External audit
- Performed by an independent organization
- Certifications (ex: ISO), registrations, licenses, etc. may result

Supplier Audits

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A Graded Approach



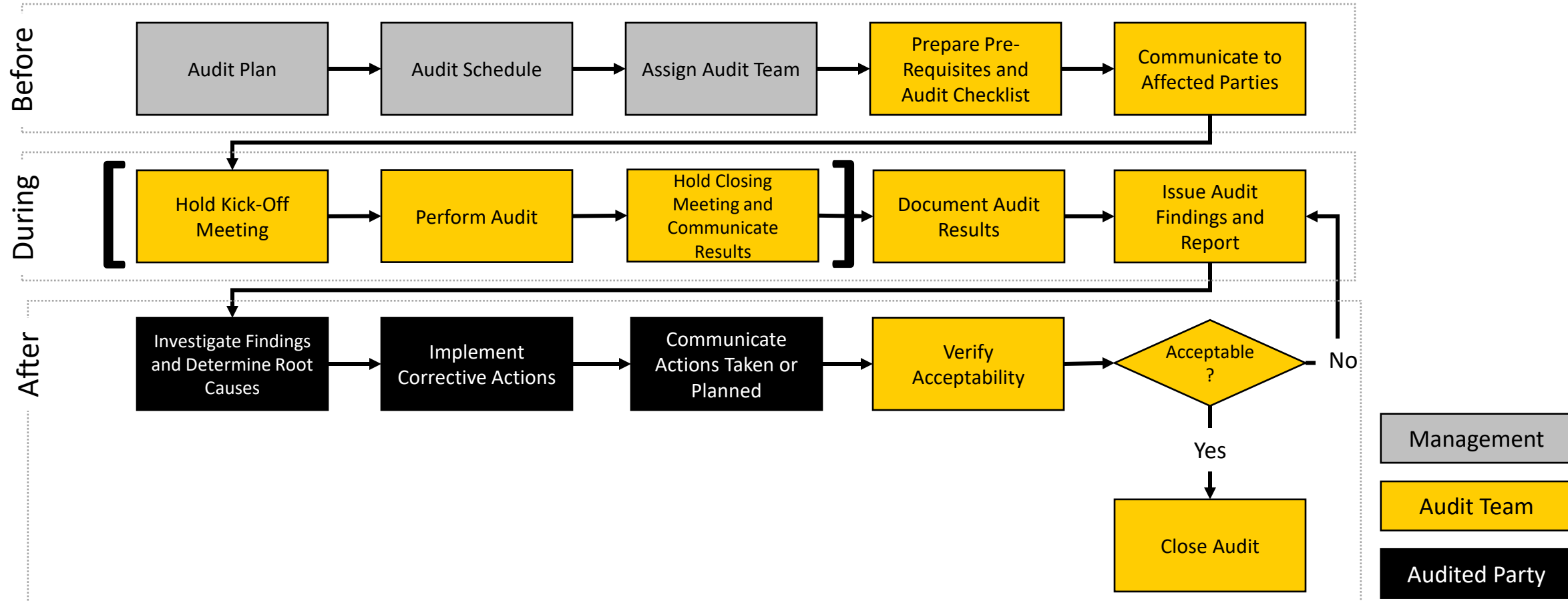
Category	Frequency	% of Suppliers
Critical	6-18 months	<10%
Important	< 3 years	20%
General	By Exception	70%

Frequency and % of suppliers in each category dependent on industry, company, and situational requirements

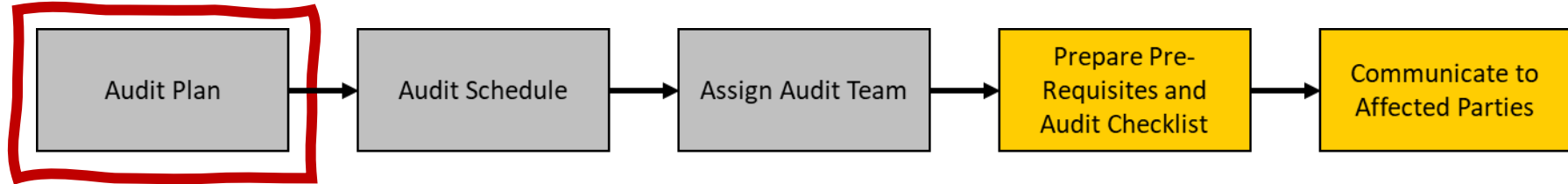
Supplier Audits

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Audit Process

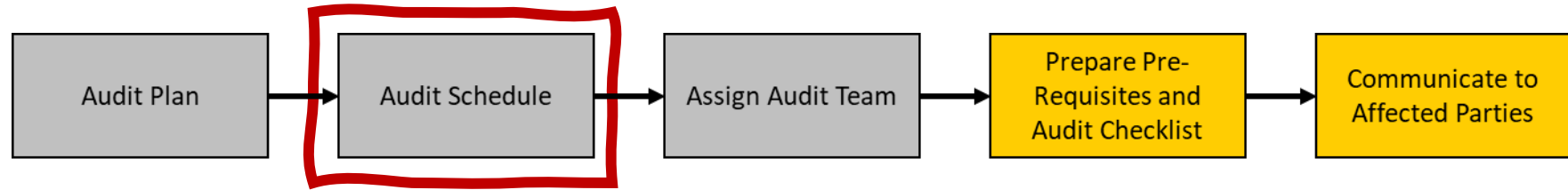


Audit Process: Before the Audit



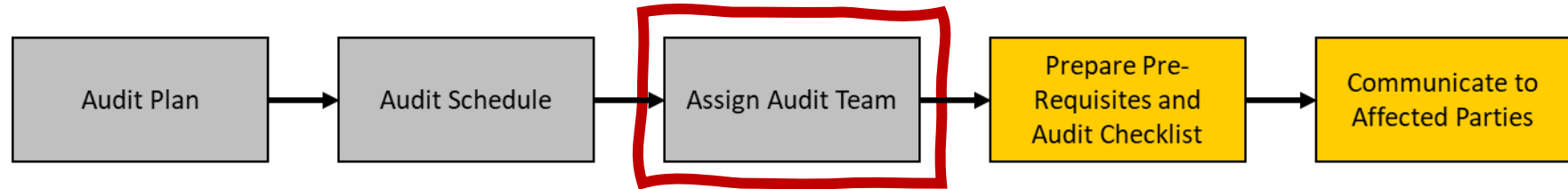
- Determine the standard to which the audit will be based on
- Determine the location of the audit

Audit Process: Before the Audit



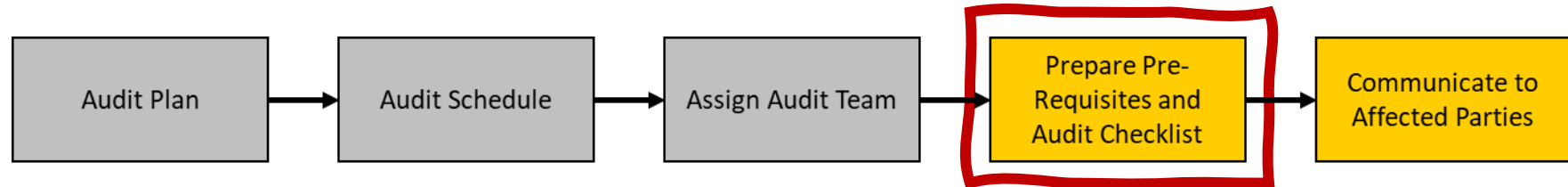
- Determine mutually acceptable dates
 - According to audit program frequency and annual planning calendar
- Confirm affected parties and availability

Audit Process: Before the Audit



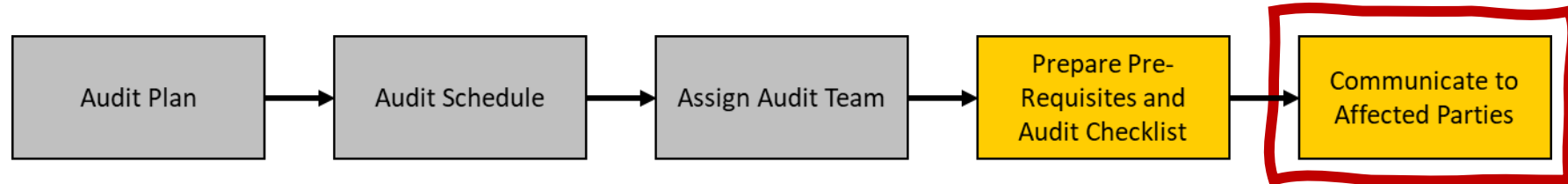
- Select the appropriate team based on knowledge, skills, and abilities
- Independence of area to be audited
- Schedule availability
- Avoid any conflicts of interest
- Determine team size

Audit Process: Before the Audit



- Determine scope
- Review applicable standards
- Confirm mutually acceptable date(s)
- Confirm location
- Confirm the status of activities
- Create/select standard checklists based on applicable standards
 - Options: directly to procedures, standard checklist, custom checklist

Audit Process: Before the Audit



- Confirm mutually acceptable date(s)
- Confirm location
- Confirm the status of activities
- Determine applicable PPE
- Develop and transmit Audit Notification Letter and Audit Plan

Audit Process: Before the Audit

The Audit Notification Letter

- Cover letter for Audit Plan
- Addressed to the primary point of contact
- Objectives of audit
- Timetable for audit
- Audit team
- Pre-requisites required
- Kick-off Meeting date and time
- Closing Meeting date and time
- Sent at least one month prior to the audit

[DATE]

[NAME, TITLE]
[ORGANIZATION]
[STREET ADDRESS]
[CITY, POSTAL CODE]

Dear [Person to be audited]

The Internal Audit Team is planning its audit for [Audit Process, i.e. enrollment]. The objectives of this audit will be:

[LIST ACTUAL OBJECTIVES HERE]

For example:

- Auditing reliability and integrity of financial and operational information
- Auditing for compliance with laws, regulations, and contracts
- Auditing the safeguarding of assets
- Auditing effectiveness and efficiency of operations
- Following-up on recommendations included in prior audit reports.

The proposed timetable for this audit is as follows:

Start date in the field: [DATE]
Estimated weeks to complete: [NUMBER OF WEEKS]

The audit team is to include the following members:

[NAME], RIAM
[NAME], Staff Auditor
[NAME], Staff Auditor

At the beginning of our audit, we would like the opportunity to meet with you to discuss our audit objectives and get your input. Our goal is to perform an effective and efficient audit. We will need your staff to provide us the following documents and schedules on:

1. [DATE]
2. [DATE]

Before the audit team leaves the client site at the end of the fieldwork phase, a meeting will be held with you to discuss preliminary findings raised, any outstanding information and the next steps to the audit. The draft audit report will be completed by the audit staff and reviewed by RIAM in the next three weeks. You are then expected to provide a response to the draft report within two weeks. The report will be finalized and presented to the audit committee at their next meeting.

Our mission is to help you achieve [DEPARTMENT'S] objectives by providing you information about the effectiveness of internal control and by recommending courses of actions which improve performance.

If you have any questions about this year's audit, please do not hesitate to call at [PHONE NUMBER] or email us at [EMAIL ADDRESS].

Sincerely,

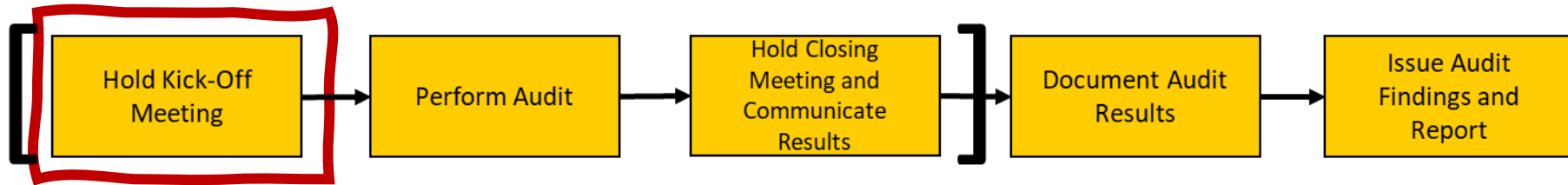
Audit Process: Before the Audit

The Audit Plan

- Scope
- Applicable requirements
- Audit personnel – Lead Auditor, Audit Team
- Activities to be audited
- Stakeholders identified
- Schedule and agenda
- Reference to audit checklist to be used

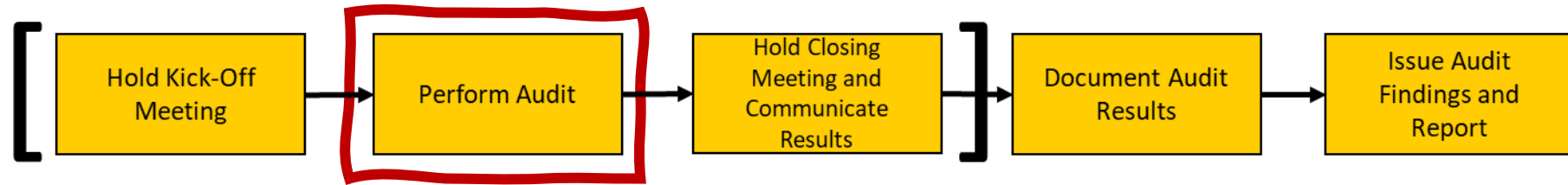
Audit Plan		
Audit purpose: Inventory verification		
Audit scope: <ul style="list-style-type: none">• Inventory risk assessment• Audit consists of XXX hours of work		
Audit process The audit process consists of inspection, data collection, inquiries with employees, review of documents, etc.		
Stages	Deliverables	Estimated hours
Risk assessment <ul style="list-style-type: none">• Understanding of client business• Scrutinize financial statements to identify the risk of material misstatement	<ul style="list-style-type: none">• Compliance checklist• Inventory risk checklist• Suggestions	<ul style="list-style-type: none">• 50
Further audit procedures <ul style="list-style-type: none">• Inspecting warehouse and factory• Physical counting of inventory• Reconcile the physical inventory count to the general ledger	<ul style="list-style-type: none">• Audit evidence• Resulting documents from the implementation of the audit procedures	<ul style="list-style-type: none">• 70
Reporting <ul style="list-style-type: none">• Draft report• Follow-up meeting• Discussion on risks and recommendations• Incorporation of comments (if any)• Final report	<ul style="list-style-type: none">• Draft report• Final report	<ul style="list-style-type: none">• 90
Conclusion We expect to submit our final report for this audit by XXX hours. Our findings and recommendation will be discussed with the management before the submission of the final report.		

Audit Process: During the Audit



- Includes responsible management and stakeholders
- Arrive on time
- Take attendance
- Introduce team
- Review Audit Plan
- Review audit schedule and agenda
- Provide overview of the audit process (during and after)
- Communicate how deficiencies will be handled
- Identify specific counterparts and points of contact during audit
- Address any questions that may arise
- Keep it brief – no more than 15 minutes

Audit Process: During the Audit

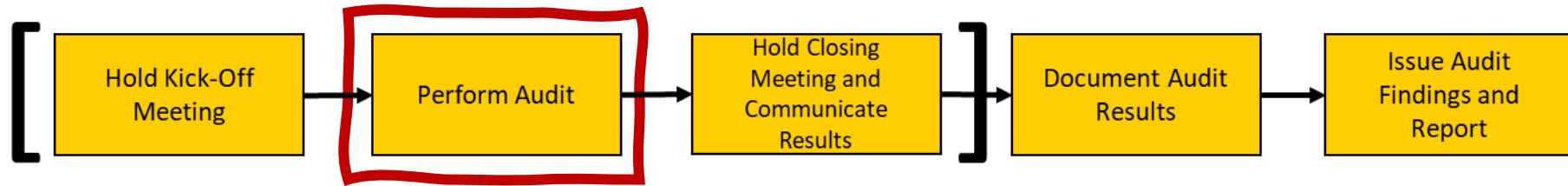


The Investigative Process

1. Address checklist item with audited organization
2. Responses by audited organization
3. Verification of responses by review of objective evidence
4. Evaluation for acceptability
5. Conclusion
6. Record results and objective evidence
7. Repeat for each checklist item

Supplier Audits

Audit Process: During the Audit

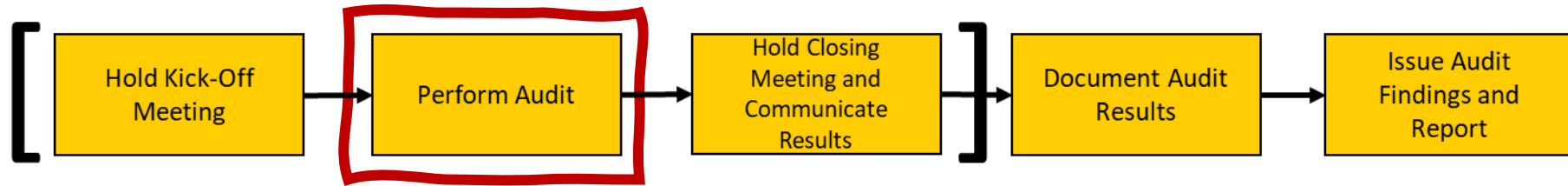


Investigative Modes

Mode	Objective Evidence	Evaluate	Requirements	Report Objective Evidence and Results
Examine	Materials, Items, Facilities	➡	Specifications, Drawings	Documentation
Review	Procedures, Instructions	➡	Codes, Standards	Documentation
Observe	Work process, Activities	➡	Measurable results	Documentation
Question	Personnel	➡	Complete and correct responses	Documentation

Supplier Audits

Audit Process: During the Audit



Example: Investigative Questions

Auditor: *Are purchase orders reviewed prior to award?*

Audited: *Yes. Quality Assurance performs this task.*

Auditor: *Can you show me how this is done on some actual purchase orders?*

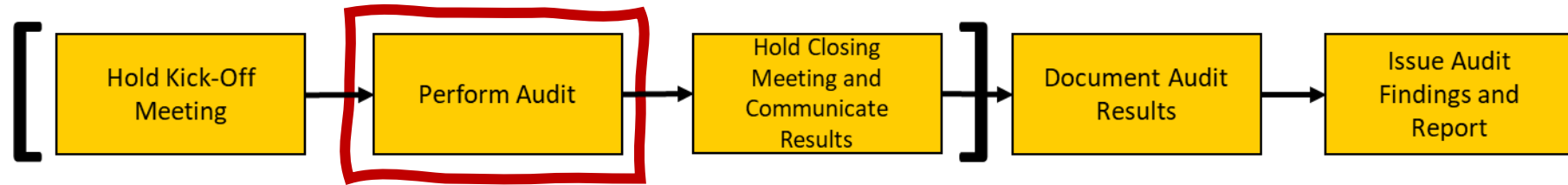
Audited: [Shows purchase orders reviewed and checklist used for a specific purchase order.]

Auditor: [Evaluates to standard.]

This looks good.

[Documents objective evidence.]

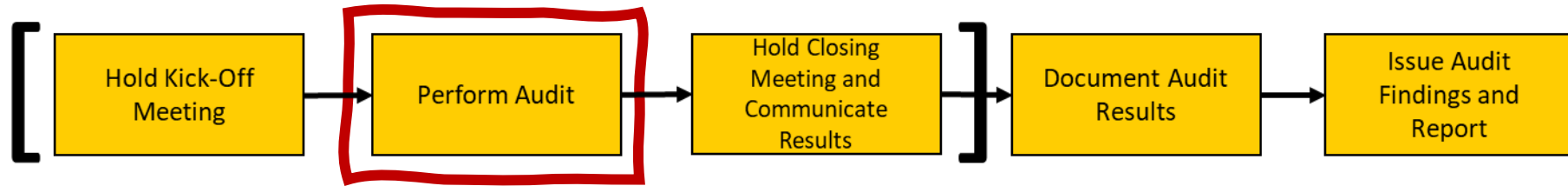
Audit Process: During the Audit



Example: Checklist Entry

Adequacy	Supplier's controls for review of procurement documents are addressed in QA Manual Section 4.0 and detailed in Procedure QAP-4, Rev. 0 (05/14/03) "Procurement Documents Control."
Implementation	<div>Controls Include:</div> <div>1) Review by QA Engineer prior to award to the date supplier and sign off with signature and date.</div> <div>2) Changes are reviewed in the same manner.</div> <div>The audit confirmed implementation of these controls.</div>
Objective Evidence	See attached table for details of purchase orders reviewed as objective evidence during the audit.

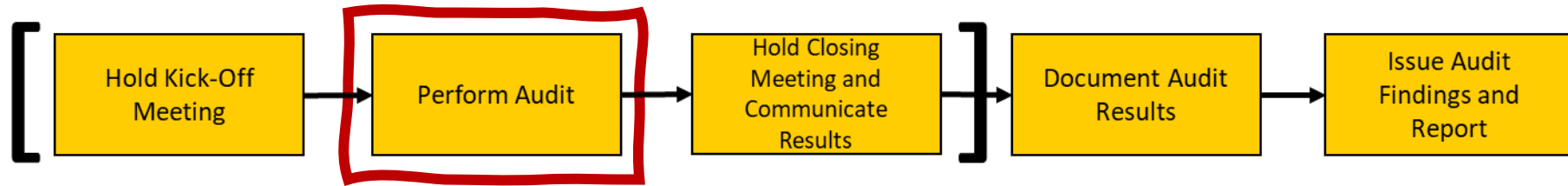
Audit Process: During the Audit



Investigative Tips

- Establish rapport
- Don't be overly direct or blunt
- Listen
- Avoid providing opinions
- Gain acceptance
- Don't preach, police, or consult
- Ask open-ended questions to keep the interview moving forward
- Ask close-ended questions to bring the interview to an end

Audit Process: During the Audit



Best Practices

- Provide ongoing status of progress, feedback, and results
- Use 'common sense'
- Emphasize value and results over strict compliance
- Be deliberate in your collection and recording of objective evidence
- Hold daily audit team caucuses and report outs to stakeholders

Audit Process: During the Audit

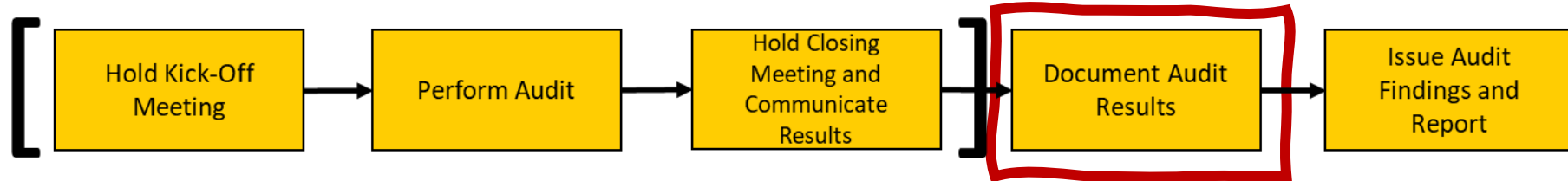


- Bookend to Kick-Off Meeting
- Include all stakeholders (in-person, virtually)
- Take attendance
- Review the scope and purpose of the audit
- Last activity of conducting the audit
- Summarize findings
- Give positive feedback
- If compliance audit, make a statement about adequacy, compliance, and effectiveness
- Communicate schedule and process for audit report
- Communicate expectations for responses

Supplier Audits

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Audit Process: During the Audit

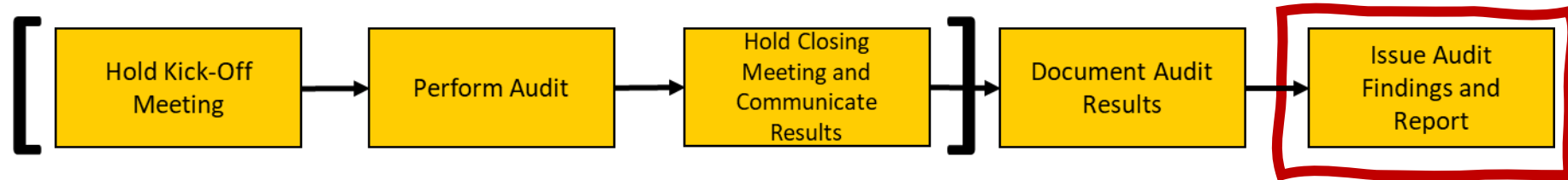


The Audit Report

- Scope
- Auditor
- Organization
- Dates
- Interviewees
- Summary of results
- Statement of effectiveness
- Exclude proprietary or business-sensitive data
- Avoid strong or opinionated language
- Express noncompliance in terms of sample size and objective evidence reviewed
- Stick to the facts
- Be direct and clear

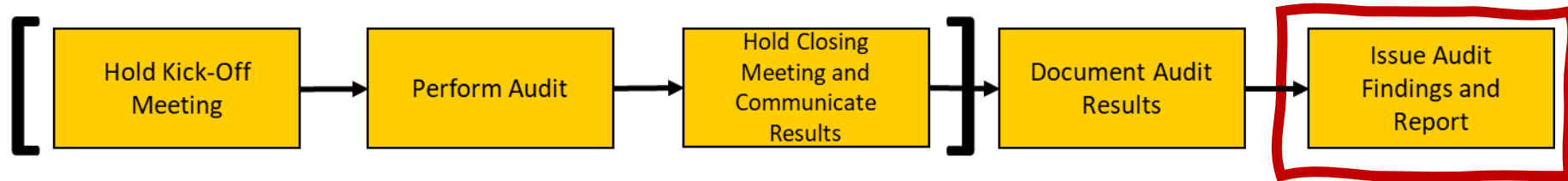


Audit Process: During the Audit



- Submit to independent review before issuing
- Provide 'heads up' to stakeholders – no surprises
- Do not change from what was communicated in Closing Meeting
- Be prompt in issuing the report – no more than 30 days post-audit

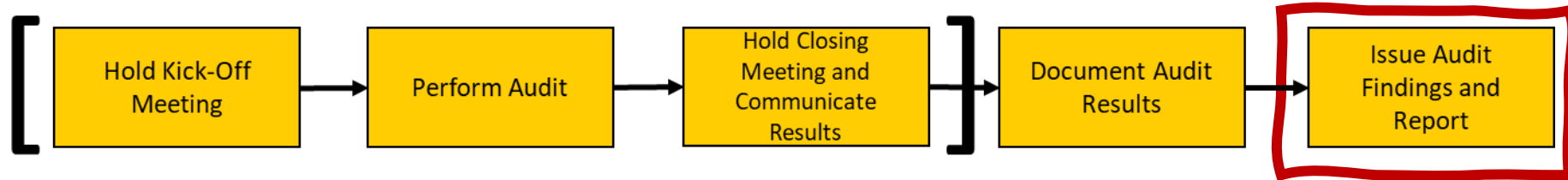
Audit Process: During the Audit



Deficiencies identified shall be...

- Related to established requirements
- Factual and not subject to opinion
- Described clearly and concisely
- Reviewed with the audited party before the exit meeting – no surprises

Audit Process: During the Audit

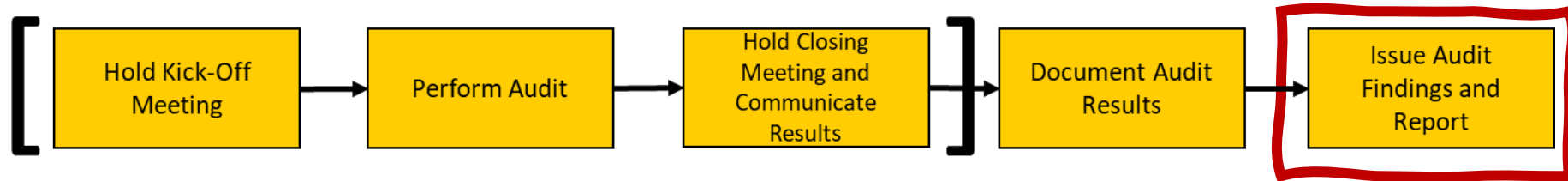


Items Corrected During the Audit

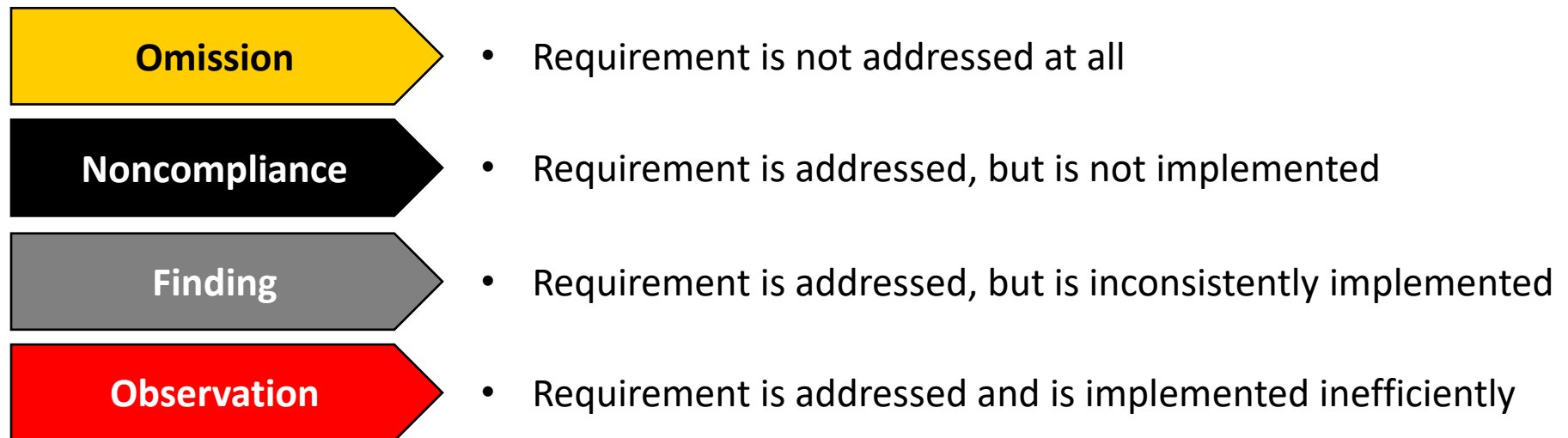
- Correct isolated incidents discovered during the audit “on the spot”
- Not systemic
- Does not adversely impact other activities
- Requires only remedial actions to correct
- Conditions significant to personnel safety

Supplier Audits

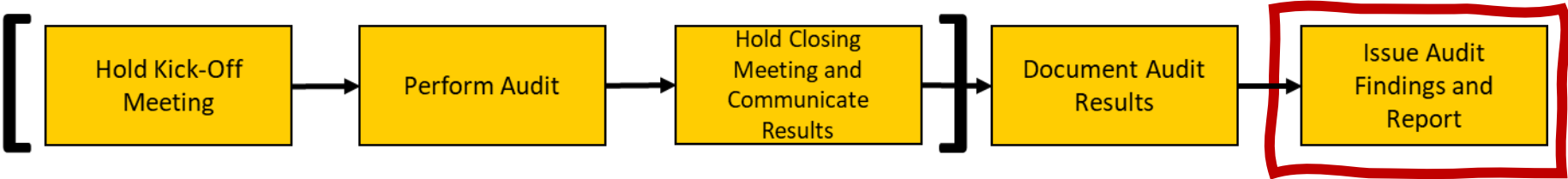
Audit Process: During the Audit



Types of Deficiencies



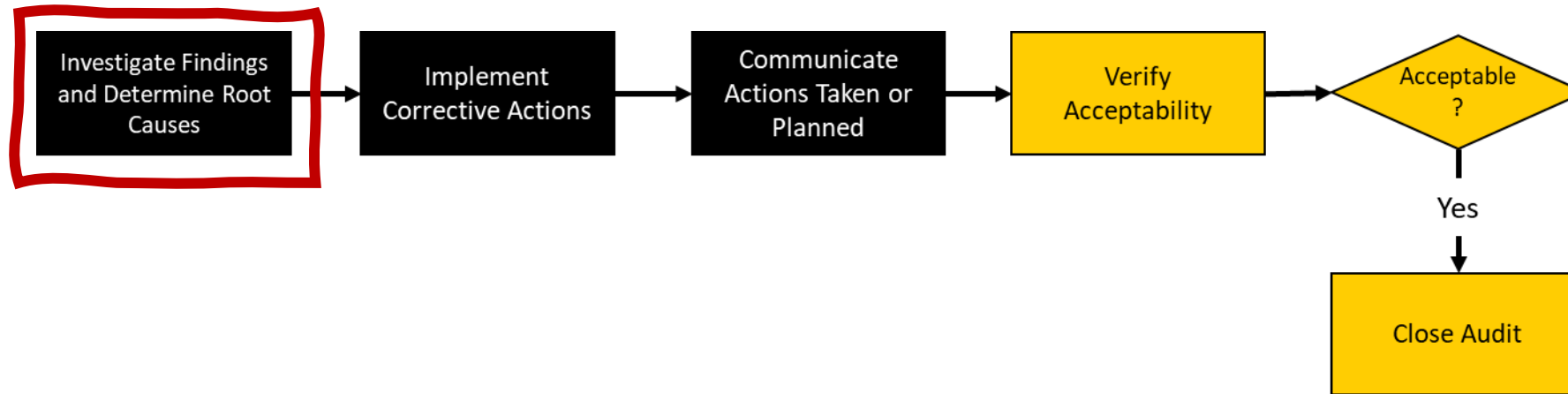
Audit Process: During the Audit



Types of Deficiencies | Examples of Potential Required Actions

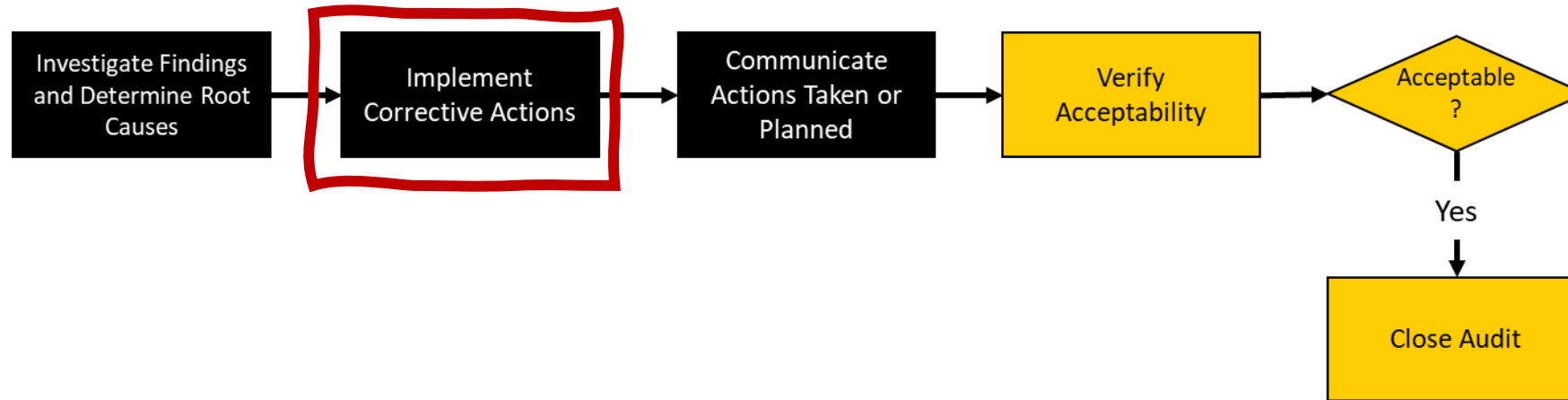
Type	Communication		Documented in Report	Response Required	Formal Corrective Action Required
	Urgency	To Whom			
Omission	Immediate & In Report	Senior Management	✓	✓	✓
Noncompliance	By End of Day & In Report	Management	✓	✓	✓
Finding	In Report	Report Distribution	✓	✓	
Observation	In Report (Optional)	Report Distribution	✓		

Audit Process: After the Audit



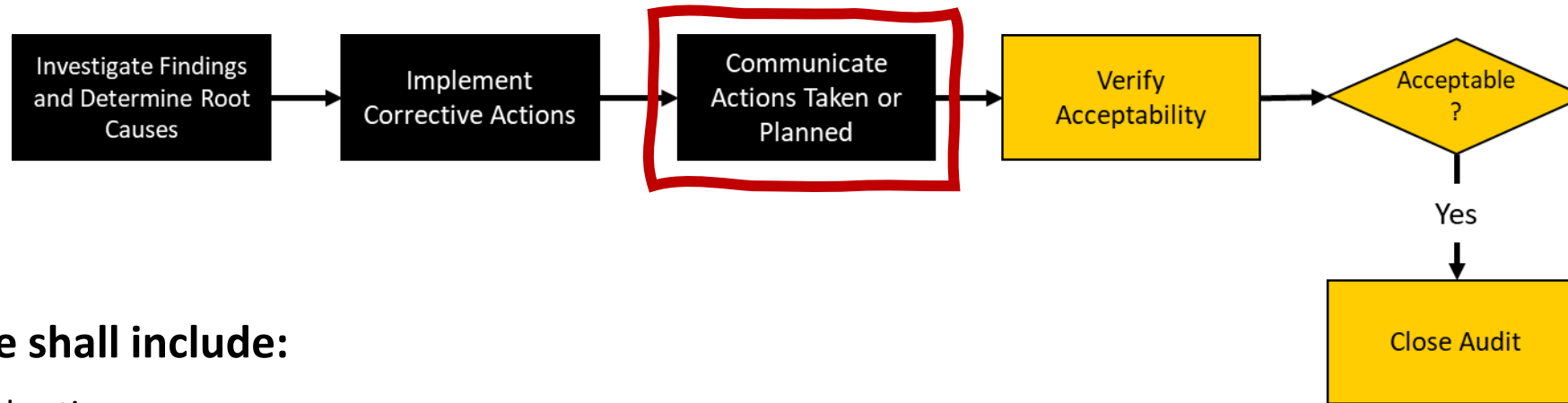
- Formal investigation and root cause analysis determined by the type of deficiency (see previous slide)
- If applicable, evidence of formal root cause analysis techniques shall be demonstrated
 - Five Whys
 - Cause Mapping
 - FMEA
 - Fault Tree Analysis
 - Etc.

Audit Process: After the Audit



- **Remedial actions** – actions taken to correct the immediate problem identified
- **Investigative actions** – actions taken to determine the extent of the problem
- **Extent of condition** – the presence of similar conditions across the organization
- **Extent of cause** – the presence of similar root causes in other similar situations across the organization
- **Corrective and preventive actions** – actions taken to prevent recurrence of the problem

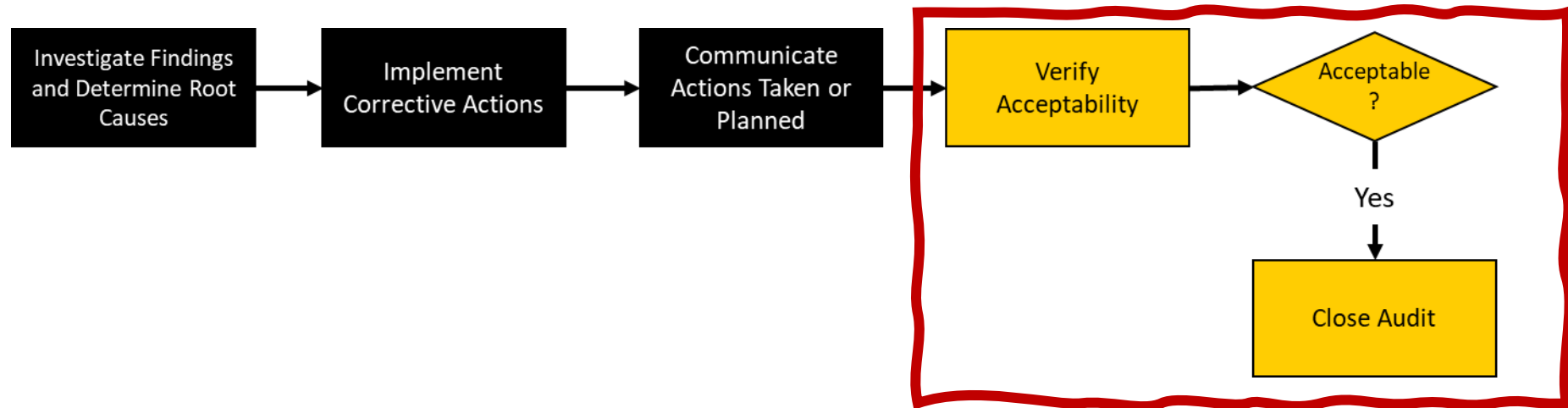
Audit Process: After the Audit



Response shall include:

- Remedial action
- Extent and impact
- Apparent or root cause
- Action to prevent recurrence
- Completion date for corrective action

Audit Process: After the Audit



- Examine for objective evidence that actions are complete
- Re-audit if necessary
- Record details of verification and objective evidence
- If acceptable, close the audit

Audit Fundamentals: Keys to Being a Good Auditor

- Be prepared
- Use an organized and logical approach
- Communicate effectively
- Stick to the facts
- Do not act like a police officer
- Provide good documentation



Audit Fundamentals: Auditor Roles



- Leader
- Planner
- Organizer
- Communicator
- Facilitator
- Arbitrator
- Coach
- Decision maker

Audit Fundamentals: Auditor Behaviors

- Independent of areas audited
- Trained
- Qualified
- Knowledgeable of the area
- Communication
- Leadership
- Good team member



Audit Fundamentals: Common Biases to Avoid



Jumping to Conclusions

- Buying into hearsay
- Jumping to conclusions without objective evidence
- Failure to listen
- Holding grudges
- Having hidden agendas
- Preconceived opinions about how things should be compared to how things are

Audit Fundamentals

- Be cognizant of auditor bias
- Gain consensus on issues during the audit
- Don't use strong language or aggressive interviewing techniques
- Good practice to have someone not participating in audit review the audit report before submitting





How does your organization
measure supplier performance?

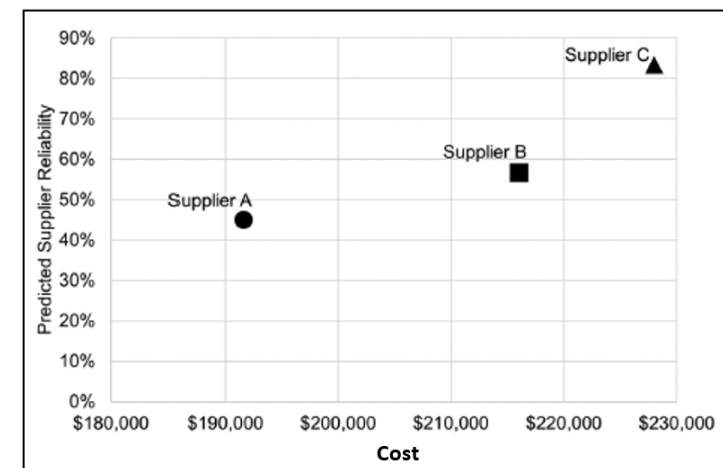
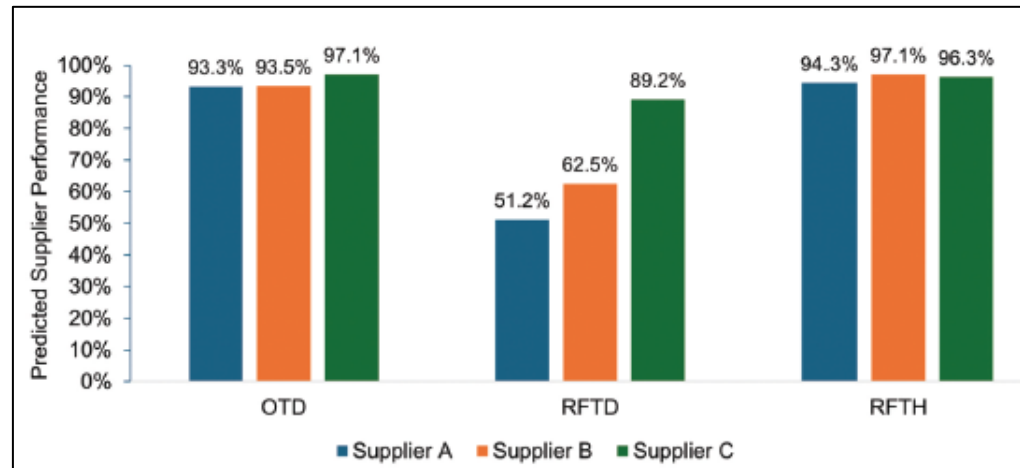
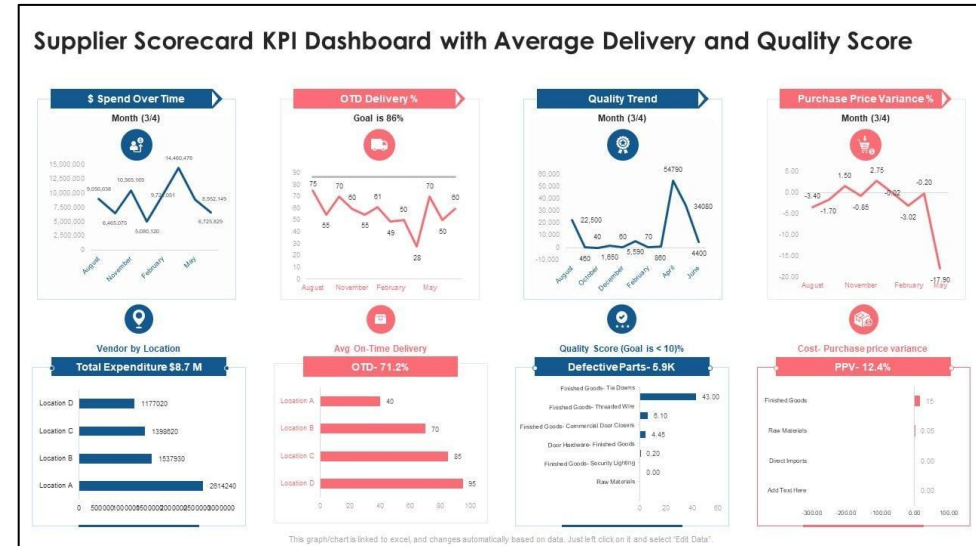
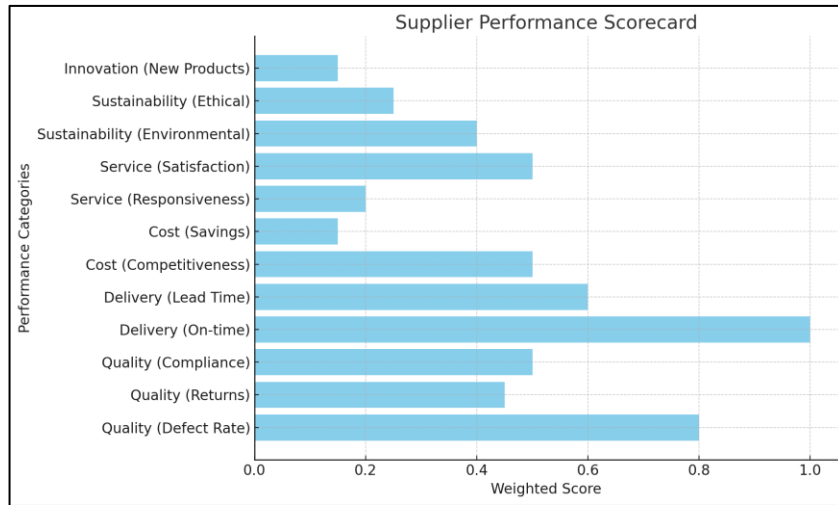
Overview

- Decision support tool
- Objectively evaluate supplier performance using standardized metrics and data from enterprise resource planning (ERP) systems
- Align supplier performance with strategic goals and take corrective actions as needed
- Use key performance indicators (KPIs) that are relevant to both supplier and organizational goals
- Ensure the scorecard is regularly updated (live) to reflect ongoing data and progress



Supplier Scorecards

Examples



Performance Measurement

Roles of measurement

- Create understanding
- Drive behavior
- Lead to results



Good measures

- Quantitative
- Easily understood
- Well-communicated
- Effects are known
- Jointly defined
- Important
- Not too difficult to derive or collect
- Facilitate trust

Performance Measurement

Effective measures link corporate goals and supply chain management goals



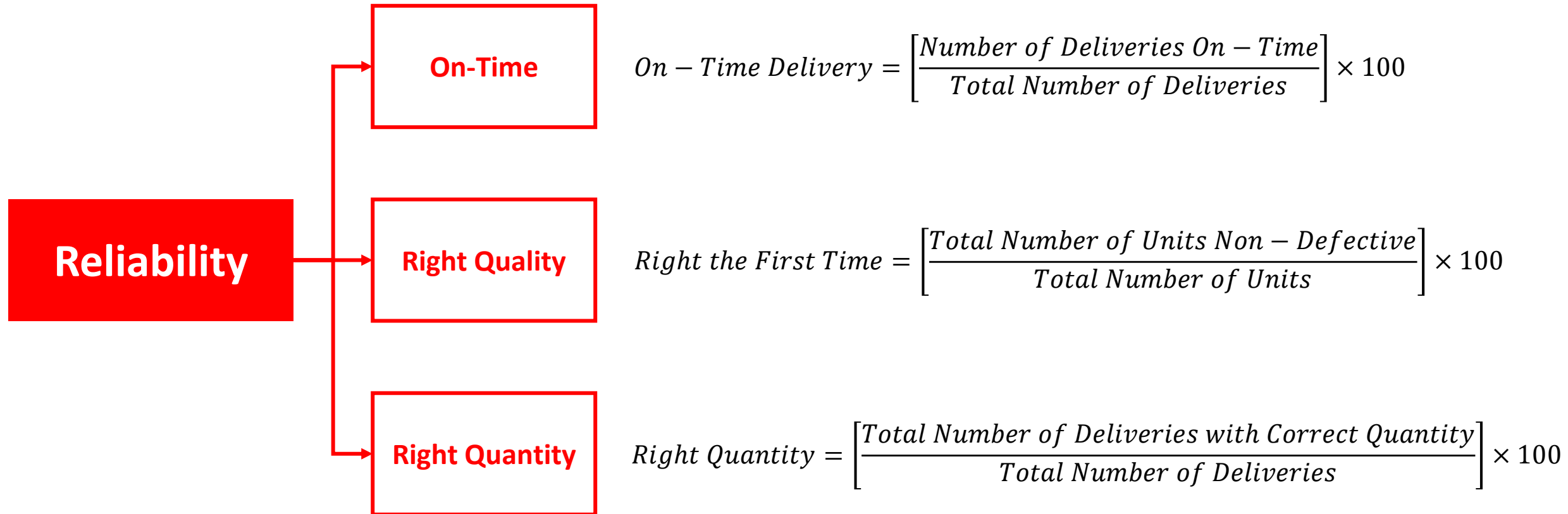
The SCOR Model can help determine specific measures to support these goals.

Measures of Performance: ASCM SCOR Performance Attributes



Performance Attribute	Definition
Reliability	The ability to perform tasks as expected. Reliability focuses on the predictability of the outcome of a process. Typical metrics for the reliability attribute include: On-time, the right quantity, the right quality.
Responsiveness	The speed at which tasks are performed. The speed at which a supply chain provides products to the customer. Examples include cycle-time metrics.
Agility	The ability to respond to external influences, the ability to respond to marketplace changes to gain or maintain competitive advantage. SCOR Agility metrics include Flexibility and Adaptability.
Costs	The cost of operating the supply chain processes. This includes labor costs, material costs, management and transportation costs. A typical cost metric is Cost of Goods Sold.
Assets	The ability to efficiently utilize assets. Asset management strategies in a supply chain include inventory reduction and in-sourcing vs. outsourcing. Metrics include: Inventory days of supply and capacity utilization.

Measures of Performance: Reliability



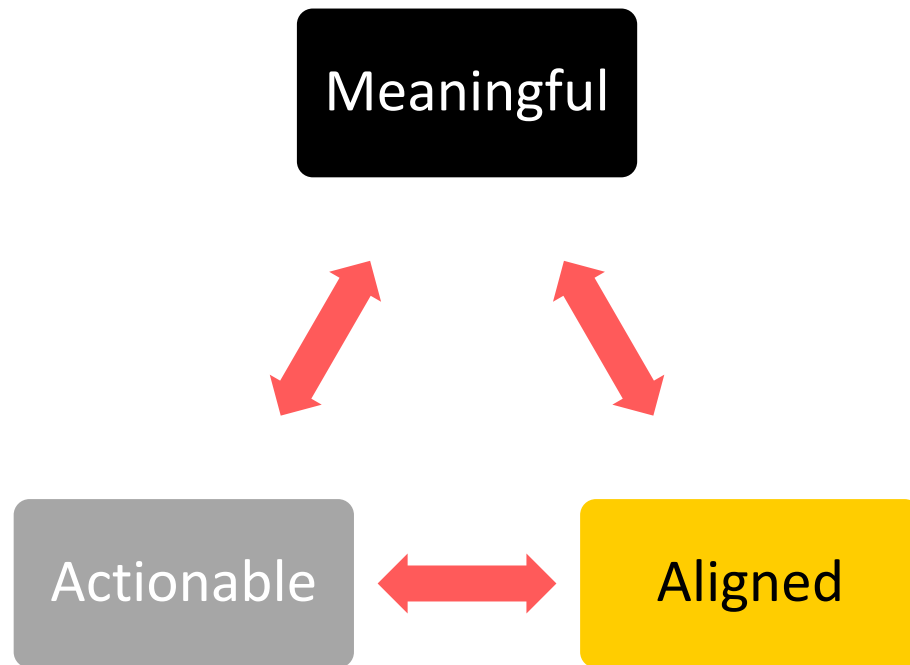
Measures of Performance: Reliability



Measures of Performance: Linking SCOR to Financial Metrics

Metric	Income Statement			Balance Sheet				
	Revenue	Cost of Good sold	Selling, General Adm. Expenses	Inventory	Account Receivables	Account Payables	Fixed Asset	Total Assets
Perfect order fulfillment	•			•	•			•
Order fulfillment cycle time	•			•	•			•
Upside supply chain flexibility	•	•	•	•			•	•
Downside supply chain adaptability	•	•	•	•				•
Upside supply chain adaptability	•	•	•	•			•	•
Cost of goods sold		•		•	•	•		•
Supply chain management cost		•	•	•	•	•	•	•
Return on working capital		•	•	•	•	•		•

Data Collection and Aggregation



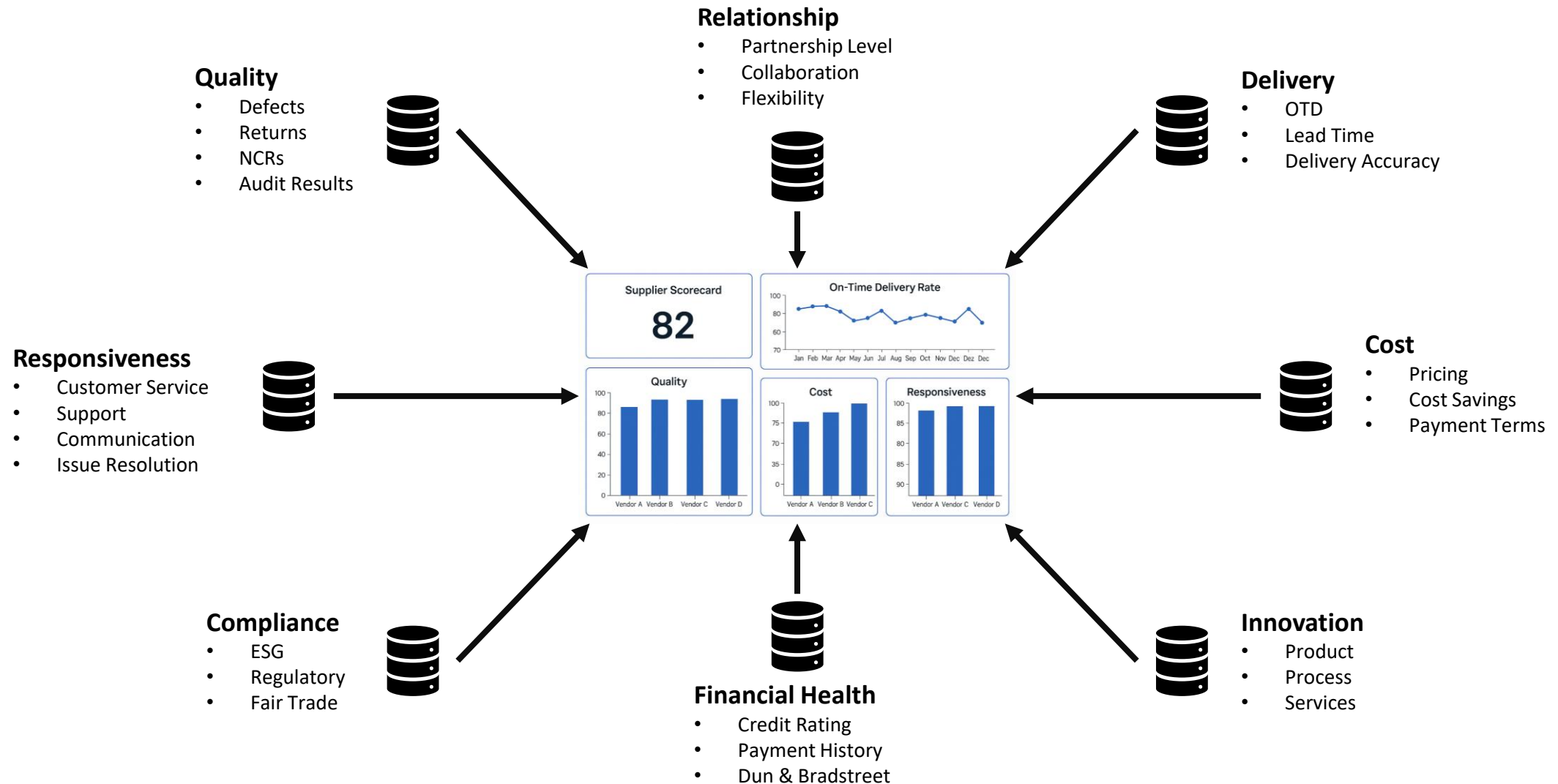
- Accuracy
- Consistency
- Timeliness
- Sources
- Customization
- Targets
- Simple

Start Slow, Begin with the End in Mind, and Strive for Simplicity

Supplier Scorecards

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Data Collection and Aggregation: Examples of Inputs



Taking Action

- Graded approach to activities
- Supplier selection
- Order allocation
- Risk management
- Incentives
- Penalties
- Resource allocation





Overview

Risk

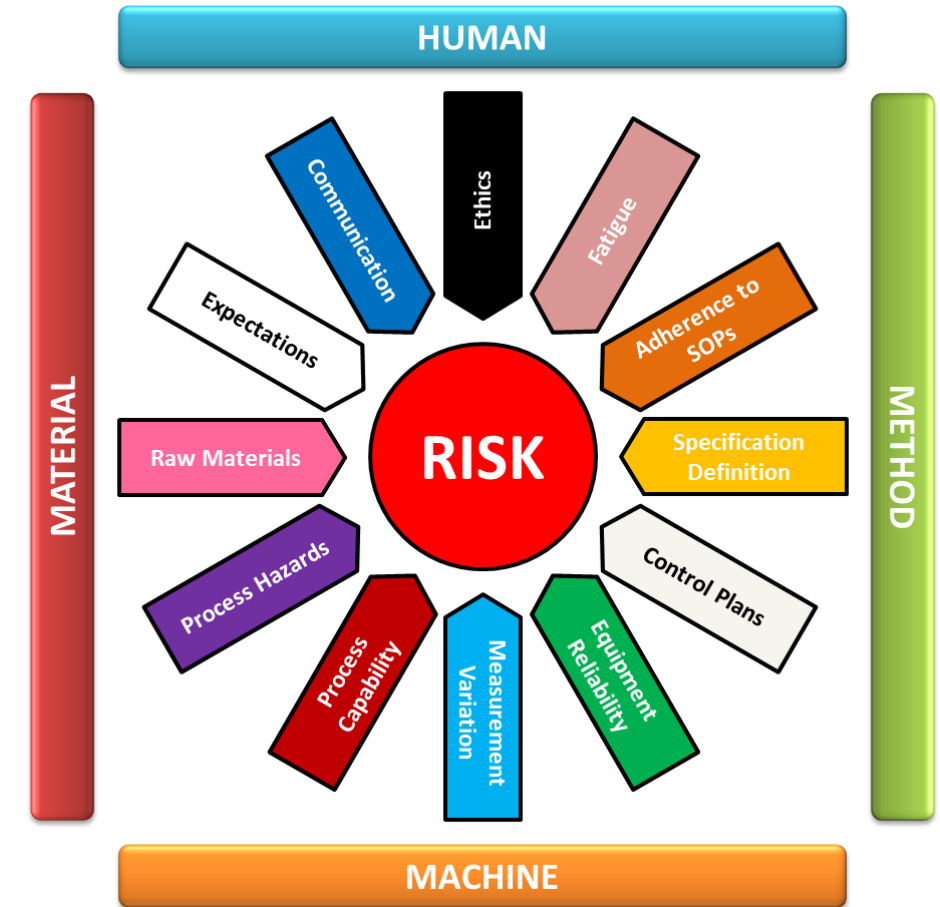
Effect of uncertainty on objectives. [ISO 31000]

Supply Chain Risk

The negative deviation from the expected value of a (supply chain) performance objective resulting in negative consequences for the affected firm. [Wagner & Bode, 2009]

Risk Management

Coordinated activities to direct and control an organization with regard to risk. [ISO 31000]

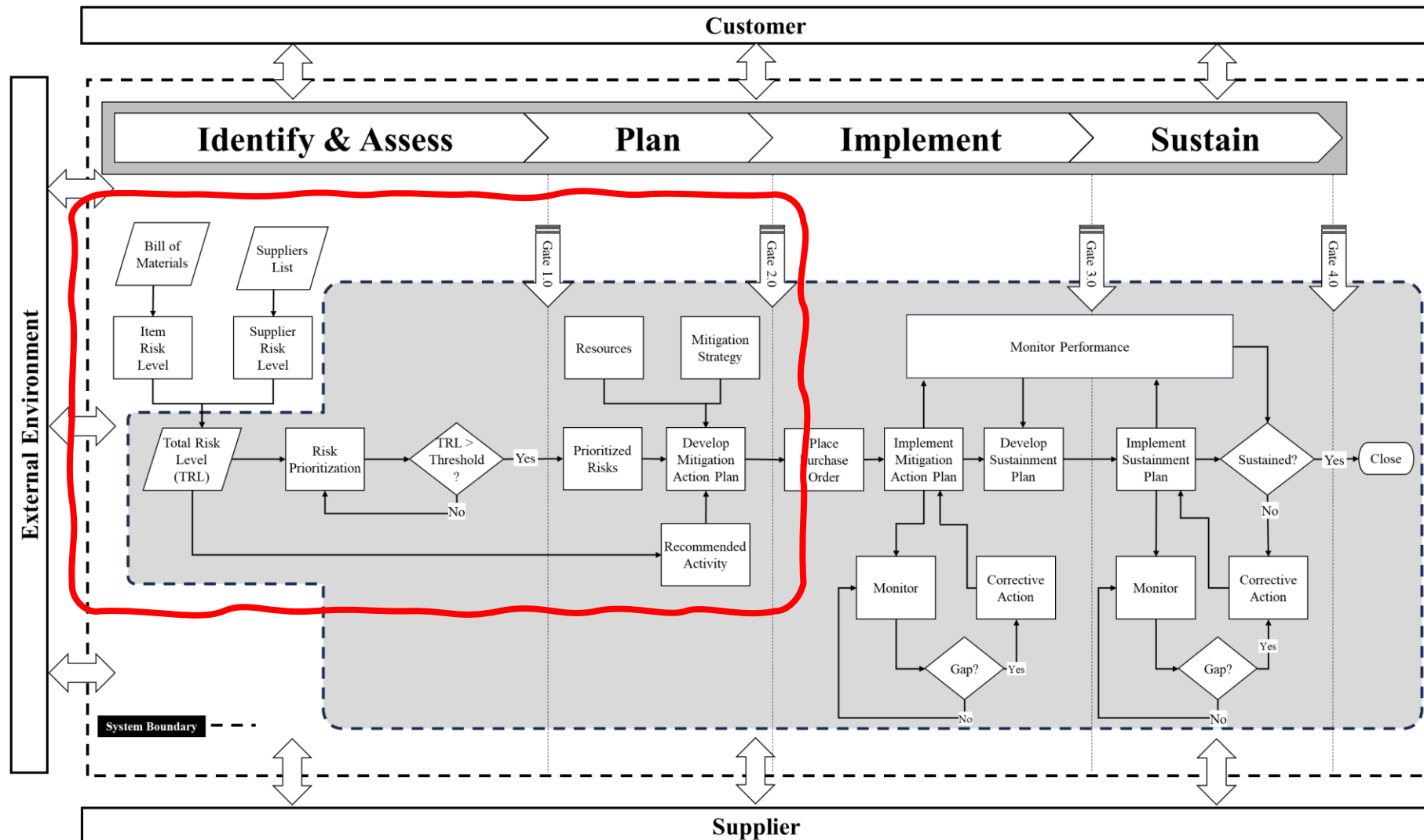


The Right People in the Right Place at the Right Time

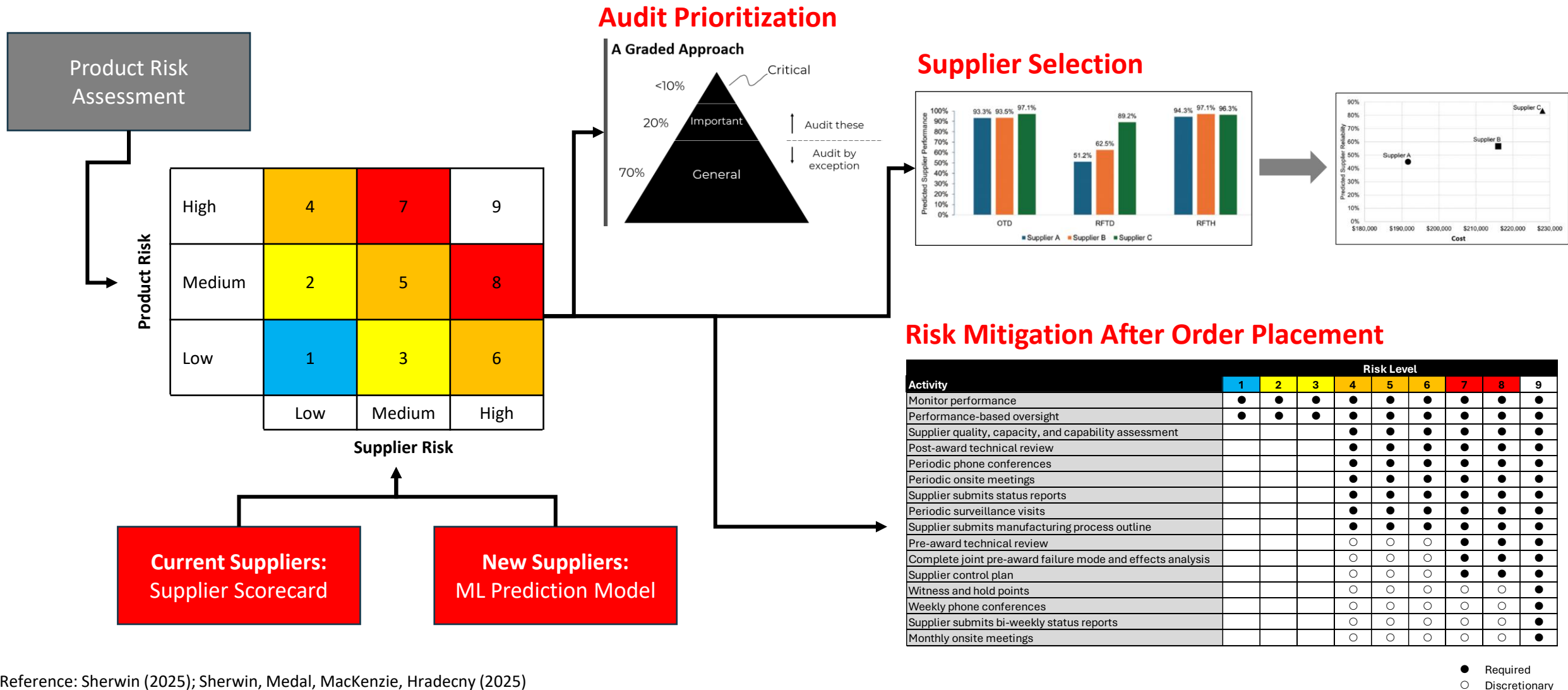
Risk Management

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Supply Chain Risk Management (SCRM) Framework



Supply Chain Risk Management (SCRM) Framework



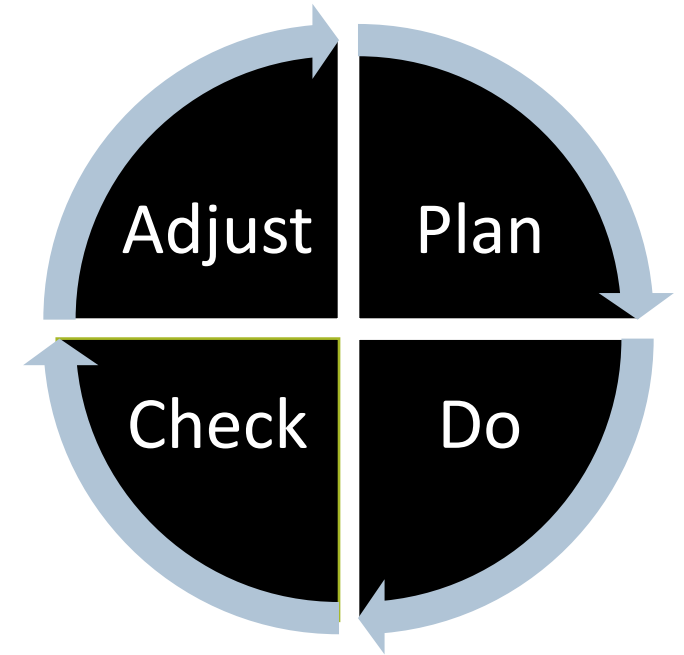


Performance Management

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Making Supplier Performance Management an Everyday Practice

- Define what supplier performance management means to your organization
- Identify the elements that will be part of the system
- Develop the systems and processes to support it
- Create roles, responsibilities, and procedures
- Communicate with your suppliers
- Use leader standard work to establish a routine
- Review the performance management system and its elements
- Continuously improve



Thank You!

Mike Sherwin, Ph.D., P.E.

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