

Enterprise Interactions and Waste



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Objectives

- **Enterprise Interactions**
 - **Process**
 - **Stakeholder**
- **X- Matrix to assess alignment of**
 - **Strategic Objectives**
 - **Metrics**
 - **Key Processes**
 - **Stakeholder Values**
- **Enterprise-level Wastes**



Enterprise Interactions

- **Process Interactions**
- **What flows in interactions between processes?**
 - **Material**
 - **Information**
 - **Resources (people, \$s, etc.)**



Interaction Performance Parameters

- **Reactive vs. Proactive**
- **Stability**
- **Timeliness**
- **Accuracy**
- **Completeness**



Interaction Checklist Template

What flows in this interaction?

- Information
- Material
- Resources

Blue dot for
cross-
organization
handoff

Red, yellow,
or green dot

Goes from: _____ to _____

Note: _____

Is this interaction Reactive

Proactive

Rate each of the following as:

Lo

Med

Hi

Stability

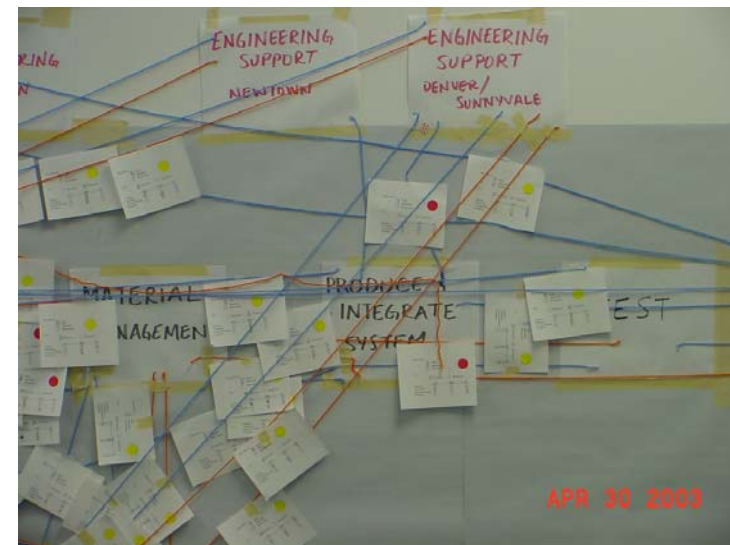
Timeliness

Accuracy

Completeness



Mapping Enterprise Interactions



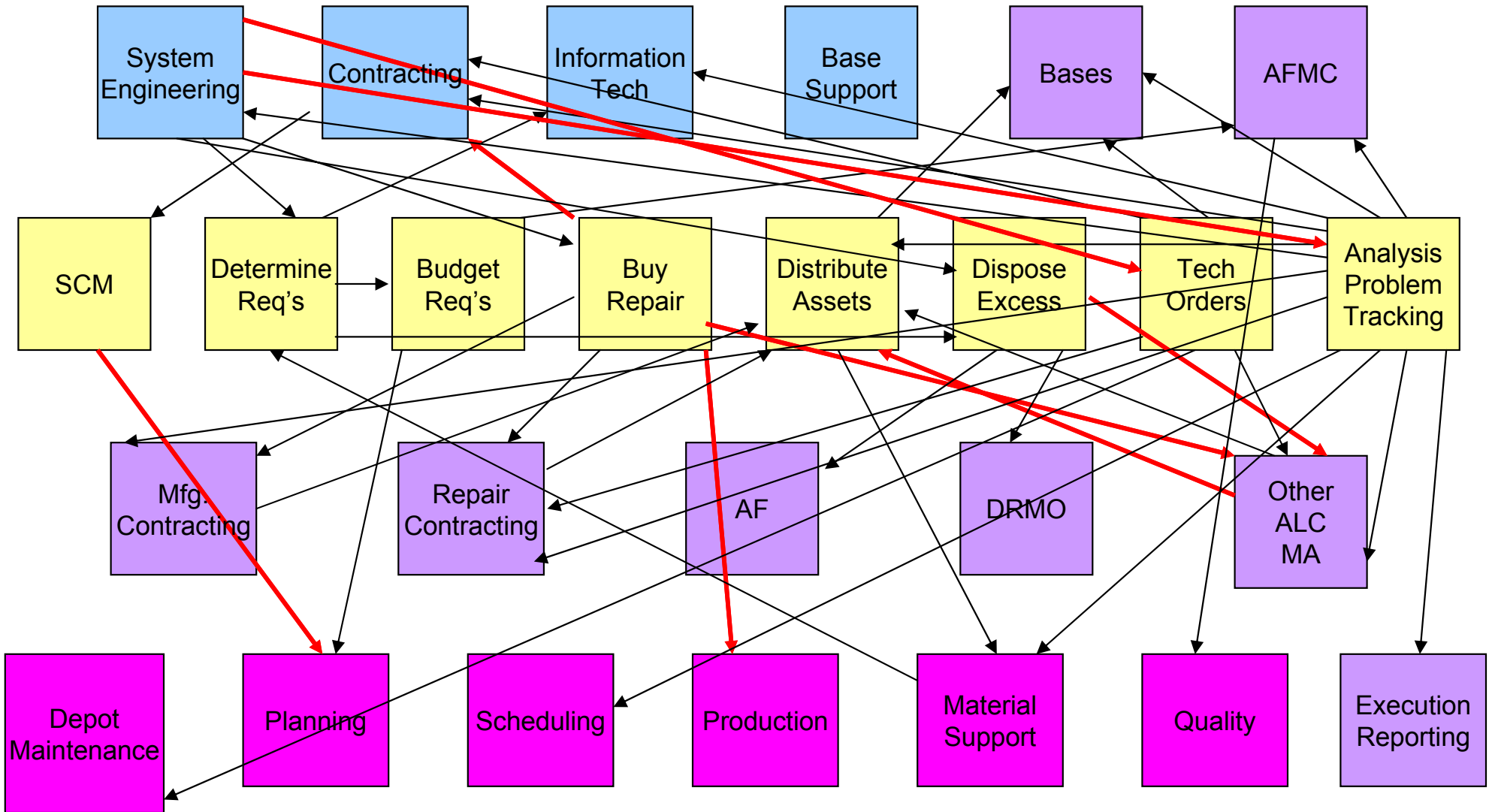


Interactions



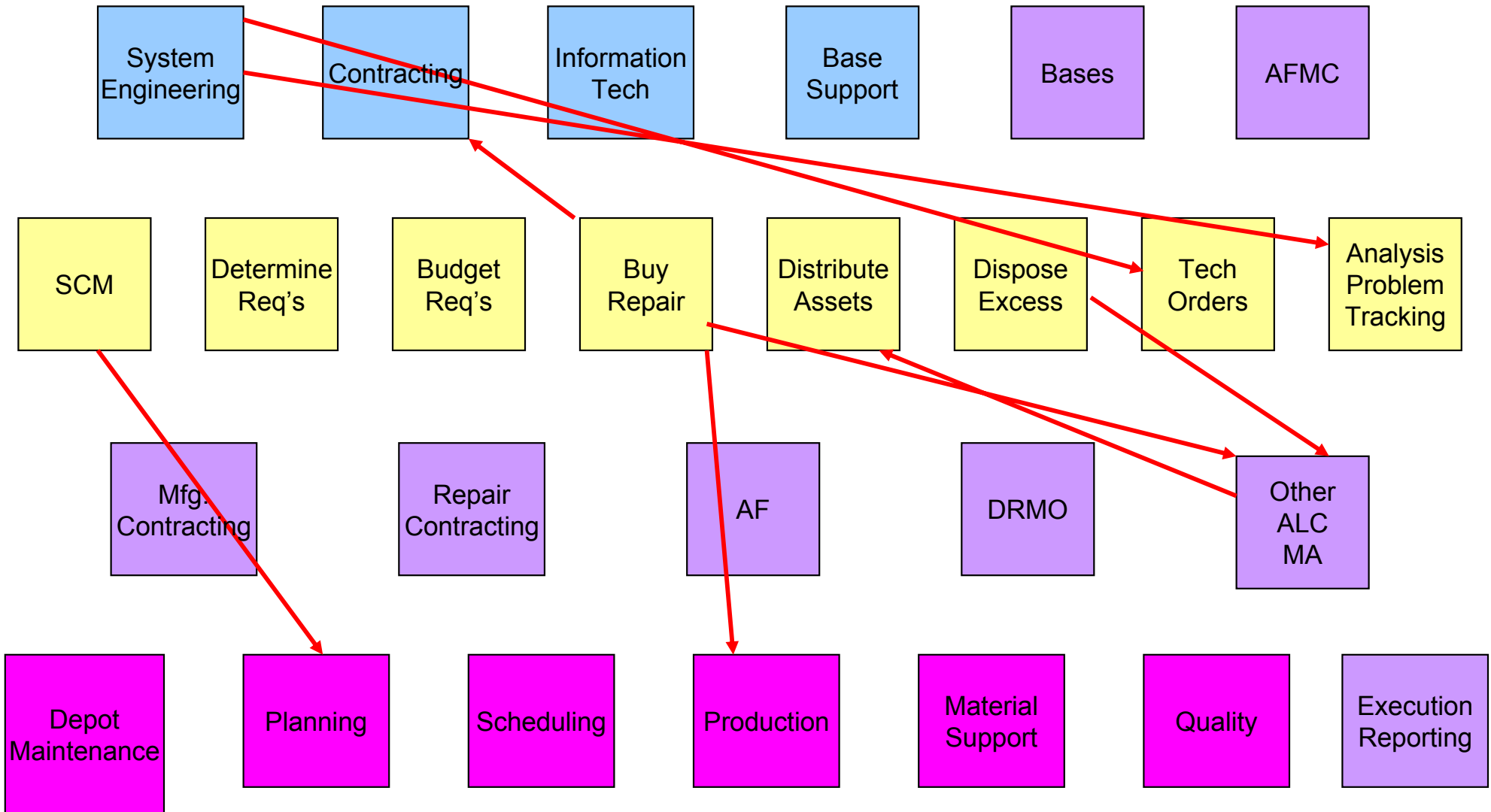


Supply Chain Management



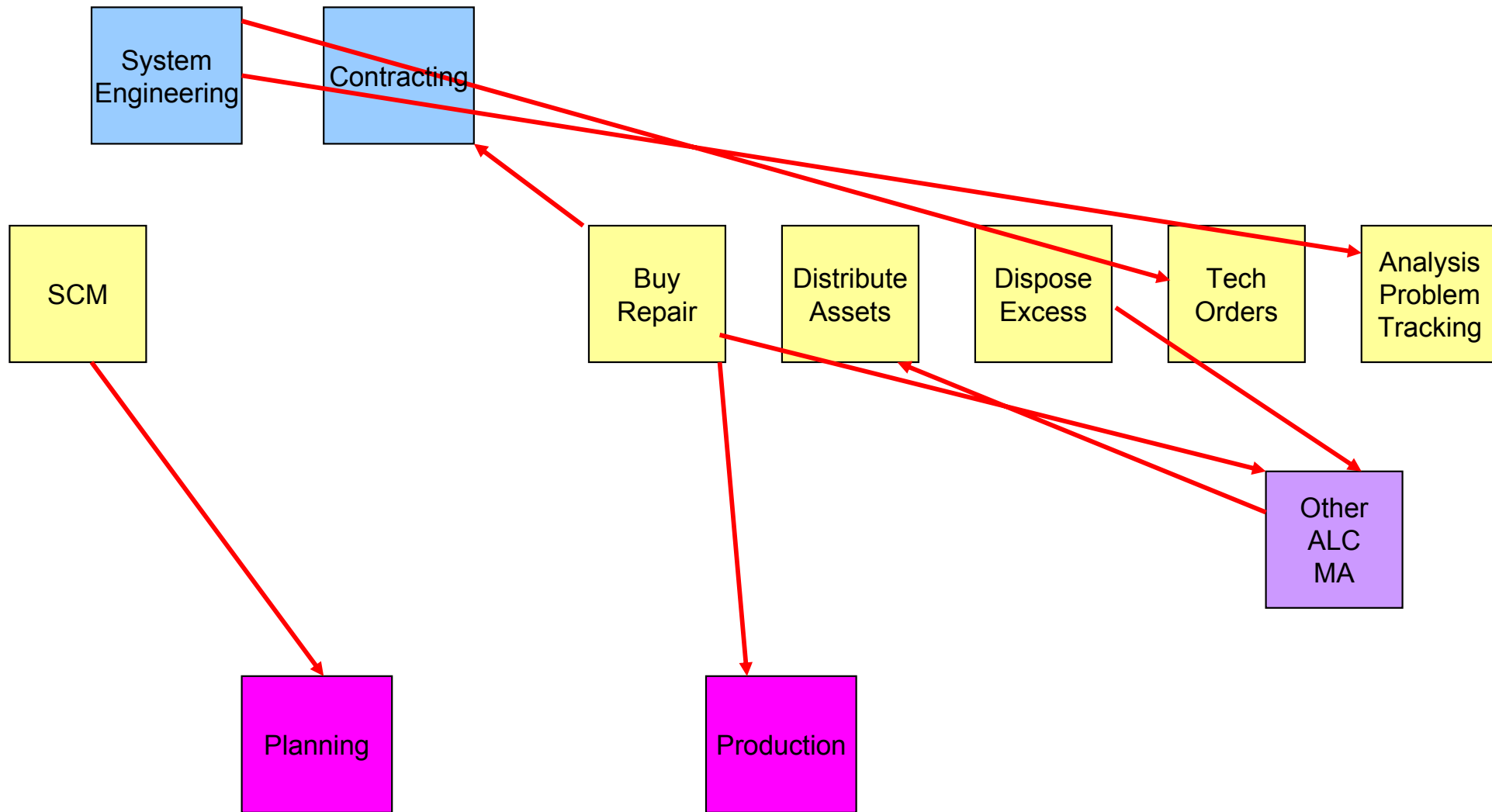


Supply Chain Management



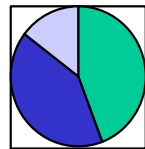


Supply Chain Management



Process Interactions Analysis Supply Chain Management

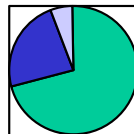
Supply Chain Management (Overall) Incoming Interactions



Incoming Interaction

- **Most low assessed interactions occur in sub-processes**
 - Analysis & Problem Tracking (46%) & Determine Requirements (31%)
 - Timeliness largest driver (54%) with remaining split evenly Stability, Accuracy, & Completeness

Supply Chain Management (Overall) Outgoing Interactions



Outgoing Interaction

- **Most low assessed interactions occur in sub-processes**
 - Buy/Repair (75%)
 - Dispose of Excess Assets (25%)
- **Stability largest driver (38%)
Timeliness (25%) & Accuracy (25%)**



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X-MATRIX

0 0 0 0 0 0 0 0 0 0 0											0 0 0			
0 0 0 0 0 0 0 0 0 0 0											0 0 0			
0 0 0 0 0 0 0 0 0 0 0											0 0 0			
0 0	0										Strategic Objective			
0 0	0										Strategic Objective			
0 0	0										Strategic Objective			
0 0	0										Strategic Objective			
0 0	0										Strategic Objective			
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											<div style="border: 1px solid black; padding: 10px; text-align: center;"> <p>Strategic Objectives</p> <p>Metrics Stakeholder Values</p> <p>Key Processes</p> </div>			Stakeholder Value
0 0	0										Enterprise Process			
0 0	0										Enterprise Process			
0 0	0										Enterprise Process			





X-Matrix Assessment Process

- **The grids in each corner of the matrix represent potential interaction between the row and column they connect:**
 - **Strategic objectives**
 - **Enterprise metrics**
 - **Enterprise processes**
 - **Stakeholders values**



X-Matrix Completion Process

- **Start in the upper left quadrant and move around the matrix in a counter-clockwise direction**
- **The following questions will help fill in the matrix with either, strong, weak, or no interaction.**
 - 1. Is this strategic objective measured by this metric?**
 - 2. Does this metric measure performance of this process?**
 - 3. Does this process contribute to delivering this stakeholder value?**
 - 4. Is this stakeholder value represented by this strategic objective?**



Metric Alignment with Strategic Objectives

- *Do the metrics currently employed align to the strategic objectives?*
- **What is the relationship between the metrics and the strategic objectives?**
- **Do the metrics accurately evaluate enterprise performance and achievement of strategic objectives?**



Metrics Alignment with Processes

- *Do the enterprise metrics measure the performance of the enterprise processes?*
- **What is the relationship between the metrics and the processes?**
- **Do the metrics flow down through the organization in a logical manner to measure process performance?**



Process Alignment with Stakeholder Values

- *Do the enterprise processes deliver the stakeholder values for the enterprise?*
- **How well do the enterprise processes deliver value to the stakeholders?**
- **Which processes deliver the most value? which deliver the least?**



Strategic Objectives Alignment with Stakeholder Values

- *Do the strategic objectives represent the stakeholder values?*
- **Are the strategic objectives well aligned with the stakeholder values?**
- **How many stakeholder perspectives are represented by the strategic objectives?**



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Production Wastes

Waiting: Idle time in which no value is added

Transportation: Excessive movement of material, tools or parts

Over-processing: Effort expended which does not add customer value

Inventories: Accumulations of materials beyond JIT requirements

Unnecessary Motion: Any human movement that does not add value

Product Defects: Any item that does not meet specifications

Over Production: Producing more or sooner than required



Information Wastes

Waiting: Idle time due to unavailable information

Transportation: Unnecessary movement of paper, people, or bits

Excess-processing: Processing information beyond requirements, e.t., unneeded precision

Inventory: Information that is unused or is “work in progress”

Unnecessary Motion: Any local human movement necessitated by poor Information System design

Defects: Any element of data, information or intelligence that is erroneous

Over Production: Producing, duplicating and distributing more information to more people than is needed



Enterprise Level Wastes

- **Waiting/Delays**
- **Excessive Transportation**
- **Inappropriate Processing/Ineffectual Effort**
- **Inventory**
- **Excessive Motion**
- **Defects/Rework**
- **Over Production**
- **Structural Inefficiencies**
- **Opportunity Costs**



Waiting/Delays

Idle time due to late decisions, cumbersome and excessive approvals, and unsynchronized enterprise processes



Waiting/Delays

Idle time due to late decisions, cumbersome and excessive approvals, and unsynchronized enterprise processes

Examples	Causes
In making decisions	<ul style="list-style-type: none"> Unnecessary levels/steps in decision structure and approval processes Multiple handoffs Information unavailable or inaccessible Risk aversion mentality Inflexible policies and procedures Excessive rules and regulations
In administrative processes	<ul style="list-style-type: none"> Undisciplined processes and practices Variability in enterprise processes Lack of standardization Lack of common tools and systems Errors in data Linear, serial task sequencing Batch and queue mentality in enterprise processes Lack of flow—lack of level scheduling of administrative processes Unsynchronized enterprise processes Delays in information processing, dissemination and consequent actions Ineffective, inefficient business systems Lack of connectivity and interoperability



Excessive Transportation

Unnecessary movement (including electronically) of administrative information and people; multiple approvals and handoffs



Excessive Transportation

Unnecessary movement (including electronically) of administrative information and people; multiple approvals and handoffs

Examples	Causes
Movement of forms, reports, other paperwork	Poor design of business processes
Multiple handoffs	Unsynchronized enterprise processes
Expediting administrative paperwork	Poor design of business processes
Dispersed facilities	Poor location decisions



Inappropriate Processing/Ineffectual Effort

Effort expended that does not increase value to any of the enterprise's stakeholders; can occur within the workforce, within management ranks, or across the entire enterprise



Inappropriate Processing/Ineffectual Effort (cont.)

Effort expended that does not increase value to any of the enterprise's stakeholders; can occur within the workforce, within management ranks, or across the entire enterprise

Examples	Causes
<p>Poor enterprise performance</p>	<p>Inefficient, ineffective process interfaces Physical, information and conceptual disconnects—lack of connectivity and interoperability Lack of standardized processes; lack of common tools, systems and platforms Bloated middle management Outdated, counterproductive financial systems & performance measures Enterprise managers not on the same page Inflexible policies and procedures, excessive rules and regulations Organizational rigidity, lack of responsiveness and adaptability Unsynchronized enterprise processes Wrong metrics Poor strategy execution Business systems are cumbersome and disconnected</p>



Inventory

Unnecessary levels of any enterprise resource:
capacity, space, workforce, suppliers,
information/data



Inventory

Unnecessary levels of any enterprise resource: capacity, space, workforce, suppliers, information/data

Examples	Causes
Excessive capacity	Poor planning
Excessive space	Poor planning, redeployment of freed-up resources
Excessive workforce	Poor planning, redeployment of freed-up resources
Excessive technical staff	Poor staffing planning
Excessive suppliers	Lack of rationalized lean supply chain network



Excessive Motion

Any human effort that does not increase stakeholder value.



Excessive Motion

Any human effort that does not increase stakeholder value.

Examples	Causes
Redundant activities	Poor integration
Excessive and uncoordinated initiatives	Chasing fads
Wasted effort	Excessive number of meetings, status reporting Unsynchronized enterprise processes



Defects/Rework

Erroneous results from defective enterprise processes and decisions



Defects/Rework

Erroneous results from defective enterprise processes and decisions

Examples	Causes
Errors	Physical information and conceptual disconnects—lack of connectivity Undetected errors in data entry and processing Out-of-date policies and procedures—lack of configuration control Variation in enterprise processes Misinterpretation of data
Incorrect, inappropriate decisions	Optimizing within one function causes sub-optimal enterprise performance Errors (defects) in enterprise processes Unsynchronized enterprise processes Misinterpretation of processes information Confusion regarding roles and responsibilities Lessons learned are not captured and archived Decisions re-decided or changed later Excessive metrics, inappropriate metrics Poorly prepared and facilitated meetings Multiple handoffs





Overproduction

Any creation of enterprise outputs that does not increase stakeholder value



Overproduction

Any creation of enterprise outputs that does not increase stakeholder value

Examples	Causes
Excessive dissemination of data, reports	“Push” mentality prevails Outdated policies and procedures Wrong metrics
Over-managing	Lack of appropriate delegation, employee empowerment Command and control mentality prevails
Exuberant pursuit of illogical initiatives	Too many “movements” (initiatives) being pushed, some at cross purposes, leading to diffusion of commitment Failure to stay grounded in fundamentals Over-reliance on “solutions of the month”
Marketing campaign	Belief that “pushing” sales via incentives will result in overall increase in sales volume, but usually results in short term demand amplification and then sharp drop in demand





Structural Inefficiencies

Waste resulting from inappropriate organizational structure, policies, business model structure, alignment, or strategies



Structural Inefficiencies

Waste resulting from inappropriate organizational structure, policies, business model structure, alignment, or strategies

Examples	Causes
Organizational structure	Redundant activities, overlapping command and control Failure to deploy critical resources horizontally along the value stream Bloated middle management Unclear chain of command Unsynchronized enterprise processes
Supplier relations	Tendency to view suppliers in an adversarial way Failure to create “win-win” relationships Reluctance to share detailed operations data
Partner relations	Lack of interconnectivity and interoperability Reluctance to share detailed internal data
Customer relations	Failure to focus on customer needs and values Failure to anticipate how we can help our customers be successful



Opportunity costs

Wastes resulting from lost opportunities, e.g.,
untapped talent in the workforce



Opportunity costs

Wastes resulting from lost opportunities, e.g., untapped talent in the workforce

Examples	Causes
Customer disconnects	Remoteness from customer Failure to focus on what customer values
Untapped talent in workforce	Failure to capitalize on the whole person by helping each employee grow to full potential; underutilization of people Inappropriate reward/incentive systems
Failure to view knowledge as a corporate asset	Managers unaware of potential of knowledge management No tradition of capturing lessons learned, of growing corporate knowledge base, lack of knowledge transfer internally
Unmotivated workforce	Workforce not empowered, people have no authority or accountability





Enterprise Monuments

- **Centralized command and control structure**
- **Fragmented, multiple legacy information systems**
- **Highly bureaucratic and/or stagnant rules, regulations and procedures**
- **Excess layers of management**
- **Highly concentrated, centralized headquarter facilities**
- **Excessive, bloated corporate staff functions**
- **Monolithic functional organizations (Silos): Purchasing, H.R., Finance, Engineering, etc.**
- **Facilities in disparate locations**
- **Strategic objectives not in alignment**