



"Introduction to IT Governance with CobiT 4.1 and CobiT Quickstart"

ISACA

Joint Session

San Francisco Chapter and Silicon Valley Chapter

April 23, 2008

Debra Mallette

CISA (Information Systems Audit and Control Association Certified Information Systems Auditor)

CSSBB (American Society of Quality Certified Six Sigma Black Belt)

ITIL V2.0 Foundation Certified

Managed Change™ Master (LaMarsh and Associates)

Agenda



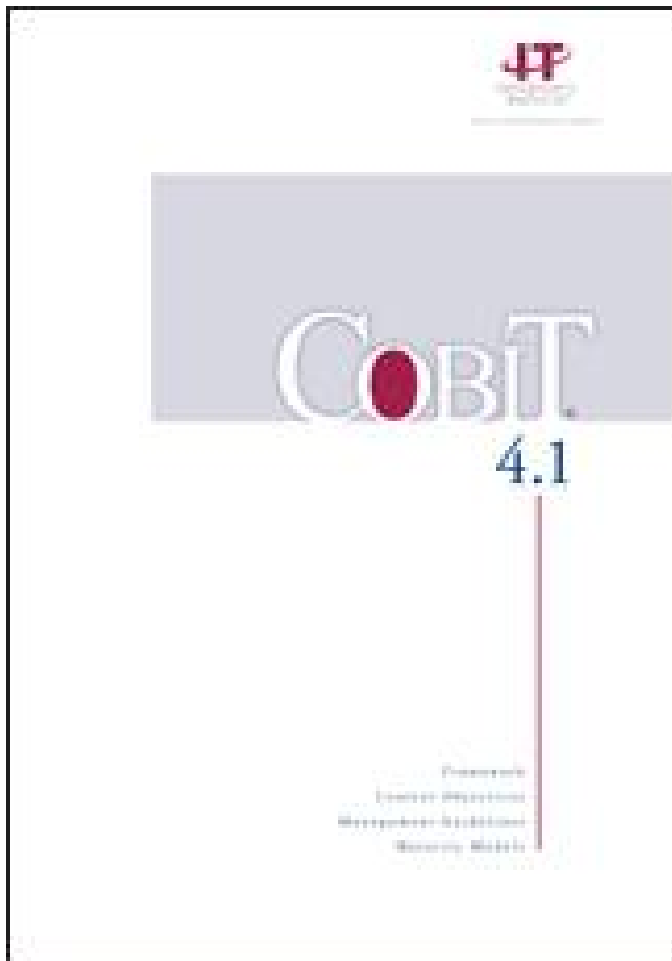
Time	Topic
8:00-8:30	Registration
8:30 – 10:00	Introductions, Overview, Navigation, Exploration of Differences
10:00-10:15	Break
10:15 – 12:00	IT Governance & Management Control Flows –
12:00 – 1:00	Lunch
1:00 – 1:45	Group Exercises – Using CobiT Quickstart to Identify IT Governance & Management Control Flow
1:45 – 2:30	Translating Audit Findings into Persuasive Management Communications – Reversing the Control Flows
2:30 – 2:45	Break
3:00 – 4:00	Systematic Approach to Implementing & Improving IT Governance & Management Control Flows
4:00 – 4:30	Review with Burning Questions
4:30 – 5:00	Course Evaluations, Certificates

Introductions



- Your name
- ISACA involvement
- Governance, Management and/or Audit responsibilities
 - (Auditor, IT manager, consultant/professional services)
- Why are you here? What would you like to get out of the class?
- Burning question?

COBIT 4.1



Please Label your materials!

Guided Tour



- COBIT 4.1 Contents (Cover)
- IT Governance Institute TM
- Table of Contents (p 4)
- How to Use your book – Framework navigation (p 26 & 27)
 - Tabs – Framework
 - Relationship to Job Aid
- Executive Overview (p 5)
 - COBIT [®] *Control Objectives for Information and related Technology*
(P 5, Executive Overview, about half-way down)
 - Management need for Control Objectives: (bottom of page):
 - Business Objectives are achieved
 - Undesired events are prevented or detected and corrected
 - Analogy to Brakes on the car: Go fast, safely
 - IT Governance Focus areas (Figure 2, p 6 – next slide):
 - Strategic alignment: IT is aligned with the business
 - Value Delivery IT enables the business and maximizes benefits
 - Resource Management: IT resources are used responsibly
 - Risk Management: IT risks are managed appropriately
 - Performance Measurement: objective feedback

Questions and Answers



- What does the acronym CobiT stand for?
 - *Control Objectives for Information and related Technology*
- What are the objectives for IT Governance?
 - IT is aligned with the business
 - IT enables business and maximizes benefits
 - IT resources are used responsibly
 - IT risks are managed appropriately
- What are the IT Governance Focus areas?
 - Strategic alignment, Value delivery, Resource Management, Risk management and Performance Measurement
- What are the CobiT Domains?
 - Plan & Organize
 - Acquire & Implement
 - Deliver & Support
 - Monitor and Evaluation
- How many processes are in each Domain?
 - Plan & Organize = 10
 - Acquire & Implement = 7
 - Deliver & Support = 13
 - Monitor & Evaluate = 4
- What are the IT resources controlled?
 - Applications
 - Information
 - Infrastructure
 - People

Questions and Answers



- Which Domains contain processes that control the majority of the IT resources?
 - Acquire & Implement
 - Deliver & Support

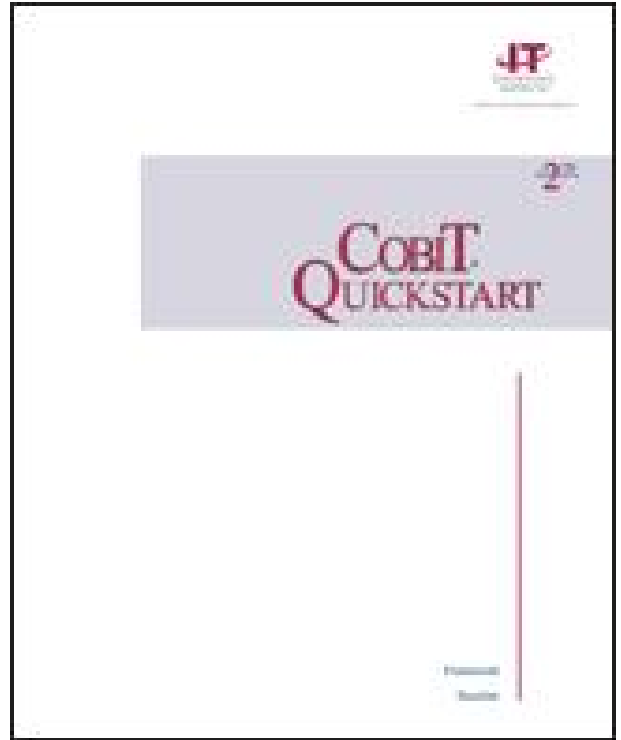
- What are the CobiT Information criteria?
 - Effectiveness,
 - Efficiency,
 - Confidentiality,
 - Integrity,
 - Availability,
 - Compliance &
 - Reliability

- Which processes might the organization focus on improving if Availability is of concern?
 - PO9: Assess & Manage IT Risks
 - AI7: Manage Change
 - DS4: Ensure Continuous Service
 - DS12: Manage the physical environment

- Which processes might the organization focus on for achieving Sarbanes/Oxley (COSO) compliance?
 - See Table: Mapping IT Processes to IT Governance Focus Areas, COSO, CobiT IT Resources and CobiT Information Criteria: Appendix II.

- Which of the COBIT Processes addresses:
 - Strategic Planning and Portfolio Management: PO1
 - Risk Management: PO9
 - Financial Management: PO5 & DS6
 - Policy and Process Definition and Implementation: PO6
 - Regulatory Compliance: ME3
 - Project Management: PO10
 - System Test: AI7
 - Managing Change to the Production Environment: AI6
 - Contract and Vendor Management: AI5 & DS2
 - Help Desk: DS8
 - Business Continuity: DS4
 - Disaster Recovery: DS4
 - Configuration Management: DS9 (for production environment)
 - Asset Management: Unclear – usually combination of DS9 & DS6
 - Security: DS5
 - Performance Measurement: DS3
 - Internal Audit: ME2
 - IT Governance: ME4
 - Training: DS7
 - Roles & Responsibilities: All Processes
 - Access management: DS12 for Physical Access, DS11 for Data/Information Access, DS 5 for User Access and Identity Management

COBIT Quickstart



Please Label your materials!

COBIT® and COBIT® Quickstart



Business Objectives

Governance Objectives

- PO1 Define a Strategic IT Plan
- PO2 Define the information architecture
- PO3 Determine the technological direction
- PO4 Define IT Processes, Org. & Relationships
- PO5 Manage the IT investment
- PO6 Communicate Mgmt aims and direction
- PO7 Manage IT Human Resources
- PO8 Manage Quality
- PO9 Assess and Manage IT Risks
- PO10 Manage Projects

- ME1 Monitor and Evaluate IT Performance
- ME2 Monitor and Evaluate Internal Control
- ME3 Ensure Regulatory Compliance
- ME4 Provide IT Governance

Information Criteria

- effectiveness
- efficiency
- confidentiality
- integrity
- availability
- compliance
- reliability

PLAN AND ORGANISE

MONITOR AND EVALUATE

IT RESOURCES

- Applications
- Information
- Infrastructure
- People

ACQUIRE AND IMPLEMENT

- DS1 Define and Manage Service levels
- DS2 Manage Third party Services
- DS3 Manage Performance and Capacity
- DS4 Ensure Continuous Service
- DS5 Ensure Systems Security
- DS6 Identify and Allocate Costs
- DS7 Educate and Train Users
- DS8 Manage Service Desk and Incidents
- DS9 Manage the Configuration
- DS10 Manage Problems
- DS11 Manage Data
- DS12 Manage the Physical Environment
- DS13 Manage Operations

- AI1 Identify Automated Solutions
- AI2 Acquire and Maintain Application Software
- AI3 Acquire and Maintain Technology infrastructure
- AI4 Enable Operation and Use
- AI5 Procure IT Resources
- AI5 Manage Changes
- AI6 Install and Accredite Solutions and Changes

DELIVER AND SUPPORT

COBIT Quickstart Questions



1. Which processes are in CobiT 4.1, and not *CobiT Quickstart*?
 1. (DS6 : Identify and Allocate Costs
 2. (DS7: Educate and Train Users

2. Processes are further subdivided into *detailed control objectives* .
There are 210 in CobiT and 59 in *CobiT Quickstart*.

3. There are overarching Generic Process Controls that should be considered together with the process control objectives to have a complete view of control requirements are: (See page 14 in CobiT 4.1)
 - PC1: Process Goals and Objectives
 - PC2: Process Ownership
 - PC3: Process Repeatability
 - PC4: Roles & Responsibilities
 - PC5: Policy, Plans and Procedures
 - PC6: Process Performance Improvement
 - List 5-7 observations about the differences between COBIT 4.1 and COBIT Quickstart based on DS5: Ensure Systems Security.
 1. See next page

Differences between CobiT 4.1 & Cobit Quickstart



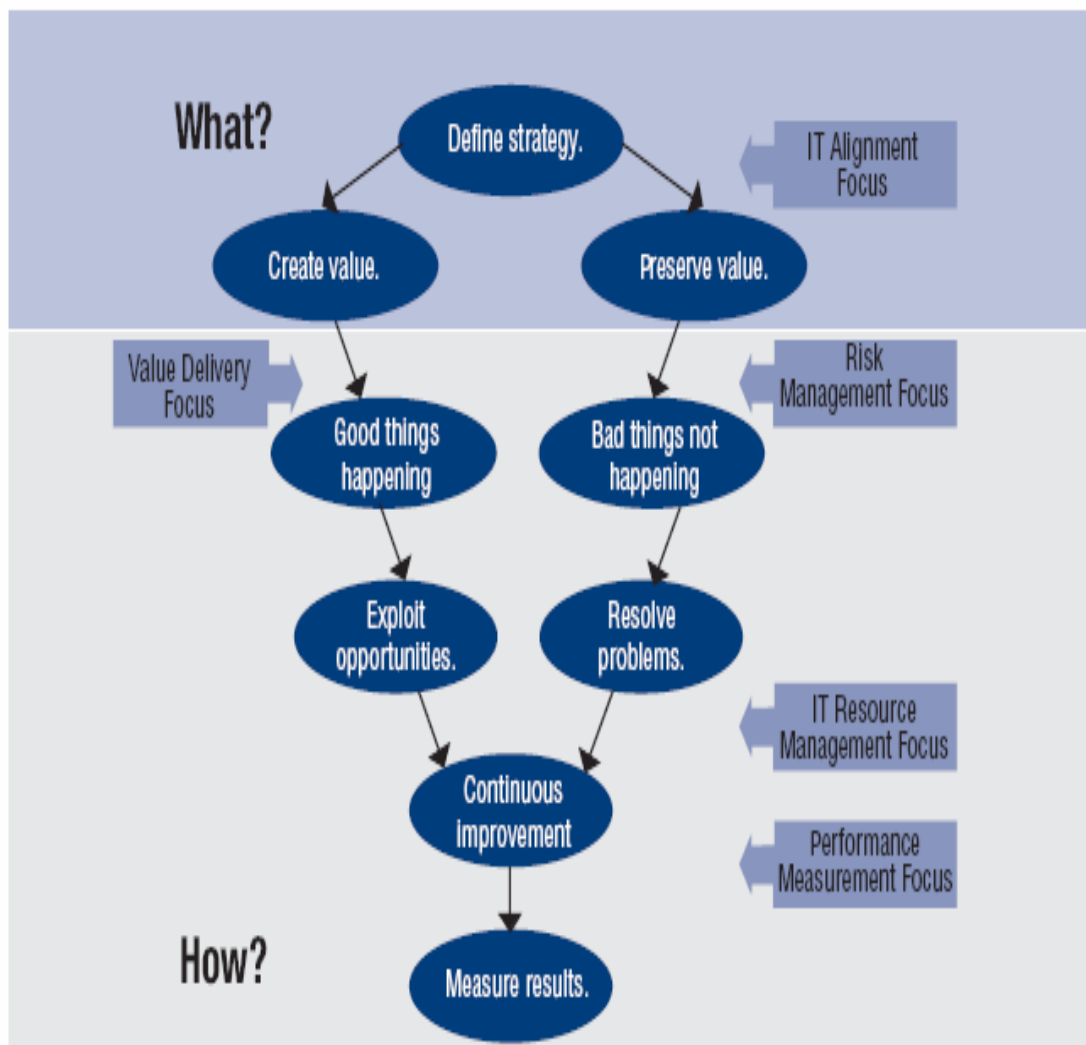
- Quickstart does not list all Control Objectives
- Quickstart is “missing” the maturity model
- 4.1 Doesn’t call out Application Controls as critical supporting reference.
- 4.1 had more metrics
- 4.1 talks about inputs and outputs
- Quickstart shows less detail in the RACI chart (including what RACI means)
- Quickstart combines Implementation with the Model and 4.1 does not. (Can we download Implementing IT Governance from the site?)
- Quickstart uses the term “Good Practices” rather than “Control Objectives” listed in the manual.
- Quickstart isn’t targeted toward auditors – targeted management
- Quickstart seems to be based on the size/complexity criteria. May be organizations that meet the size/complexity criteria that still need to go to “full CobiT” and beyond.
- Quickstart self-assessment takes a different approach than Implementation Guidelines for “full” CobiT.

Management Control Flows



Control Flows for Enterprise IT Governance and Management:

Connecting IT Alignment Focus on Creating and Preserving Value to Measured Results



Flow is Top Down

2 Paths: Value-Delivery and Risk Management

Ref. IT Governance Implementation Guide, 2nd edition, Page 14

COBIT Quickstart
DS5: Ensure Systems Security (p45)



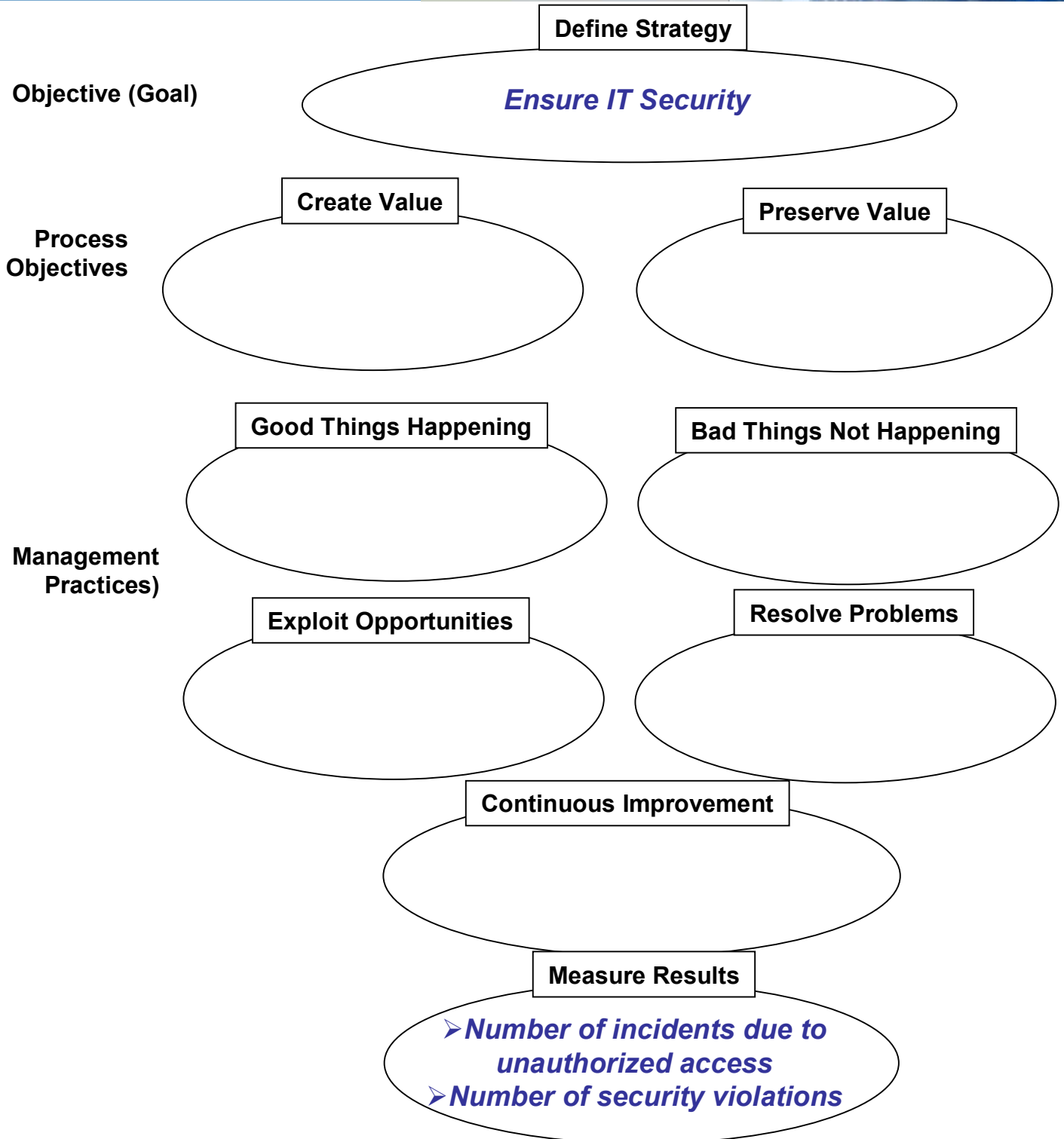
Processes and Good Practices				Key Metrics	
DS5 Ensure systems security.					
COBIT Quickstart Process		COBIT Quickstart Management Practices	CO Ref	Control Objective Metric	IT Process Metrics
Define IT security principles and procedures, and monitor, detect, report and resolve security vulnerabilities and incidents.	42	Implement procedures to control access based on the individual's need to view, add, change or delete data. Especially consider access rights by service providers, suppliers and customers, and change passwords of standard users.	DS5.3 DS5.4	- Elapsed time to grant, change and remove access rights	- Number of incidents due to unauthorised access - Number of security violations
	43	Make sure one person is responsible for managing all user accounts and security tokens (passwords, cards, devices, etc.) and that appropriate emergency procedures are defined. Periodically review/confirm his/her actions and authority.	DS5.4 DS13.4	- Number of violations during emergency situations.	
	44	Log important security violations (system and network, access, virus, misuse, illegal software). Ensure they are reported immediately and acted upon in a timely manner.	DS5.5 DS5.6	- Time since last update of violations log.	
	45	Ensure that all users (internal, external and temporary) and their activity on I T Systems are uniquely identifiable.	DS5.3 AC6	- Number of generic accounts	
	46	Implement virus protection, update security patches, enforce use of legal software. Put preventive, detective and corrective measure to protect from malware. Install and configure firewalls to control network access and information flow.	DS5.9 DS5.10	- Time since last security patch - Number of preventive and detective measures per month	

Diagram the Control Flows

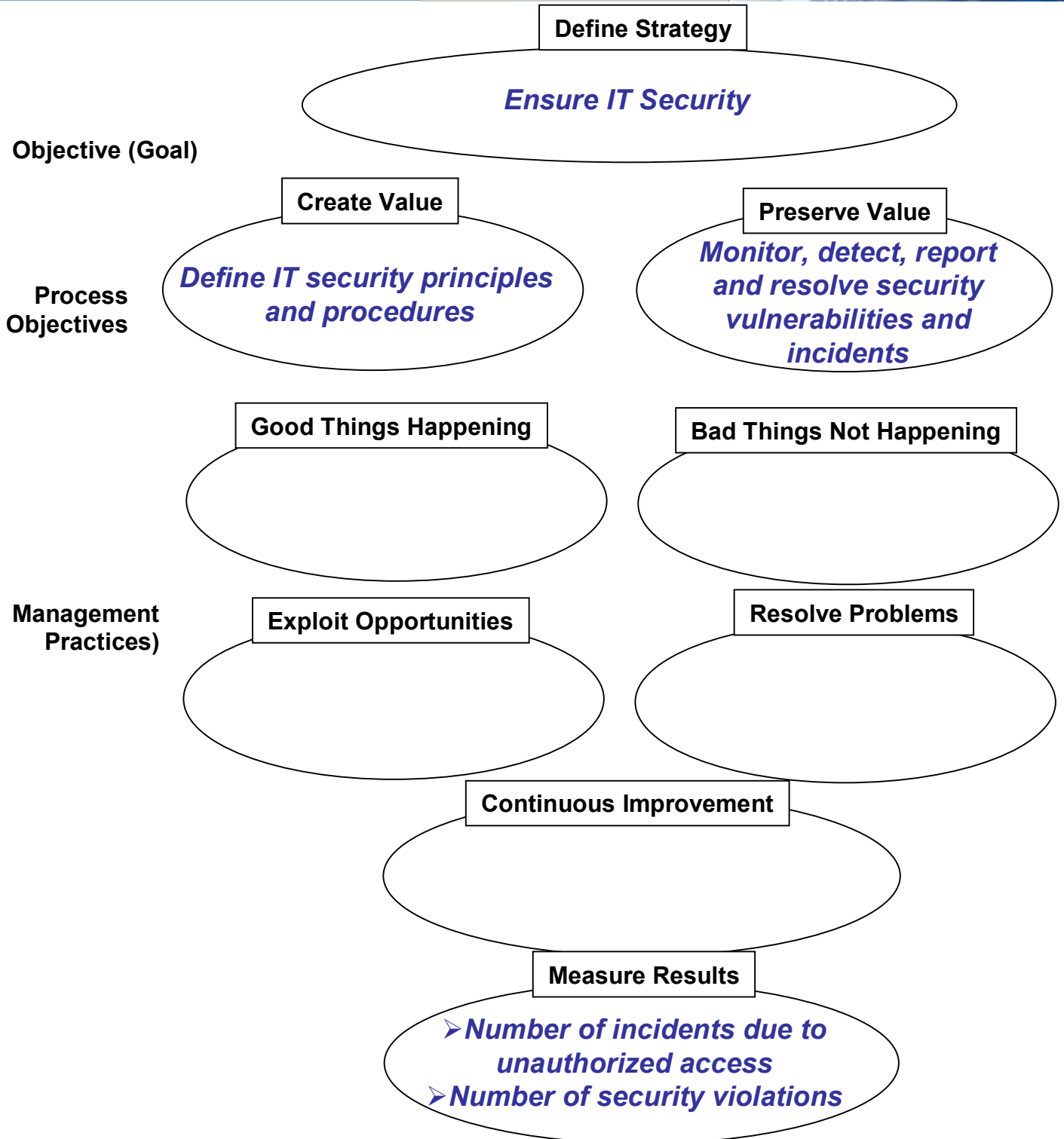


- Top => Strategic Objective
- Bottom => Performance Measurement
- IT Objective is Process Objective
- Management Practices
 - Deliver Value
 - Manage Risk
 - Manage Resources
 - Improve Performance & Process

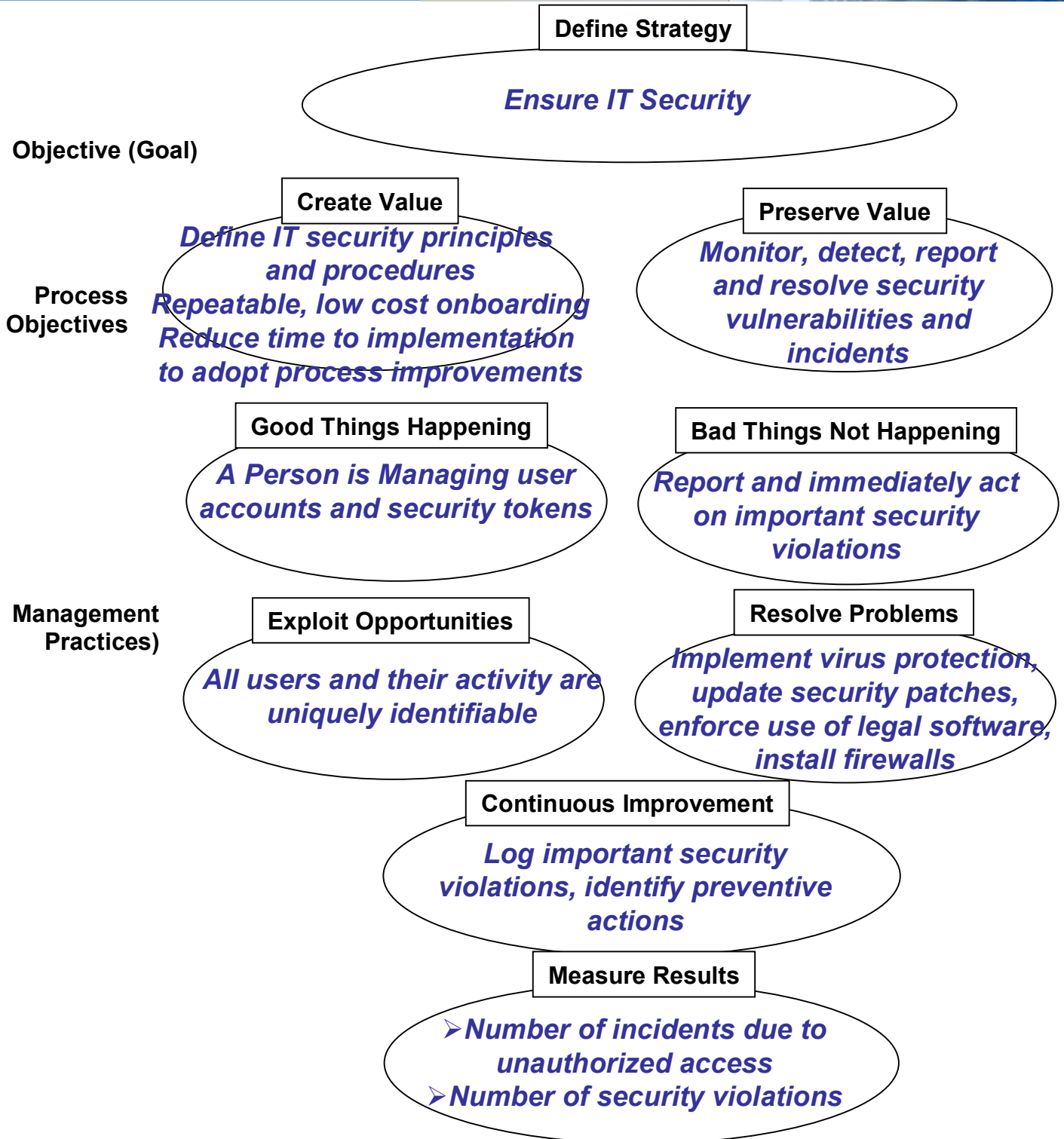
**COBIT Quickstart's
DS5: Ensure Systems
Security
(Page 45 in *Quickstart*)**



**COBIT Quickstart's
DS5: Ensure Systems
Security
(Page 45 in book)**



**COBIT Quickstart's
DS5: Ensure Systems
Security
(Page 45 in book)**



Now let's do this with
CobiT 4.1



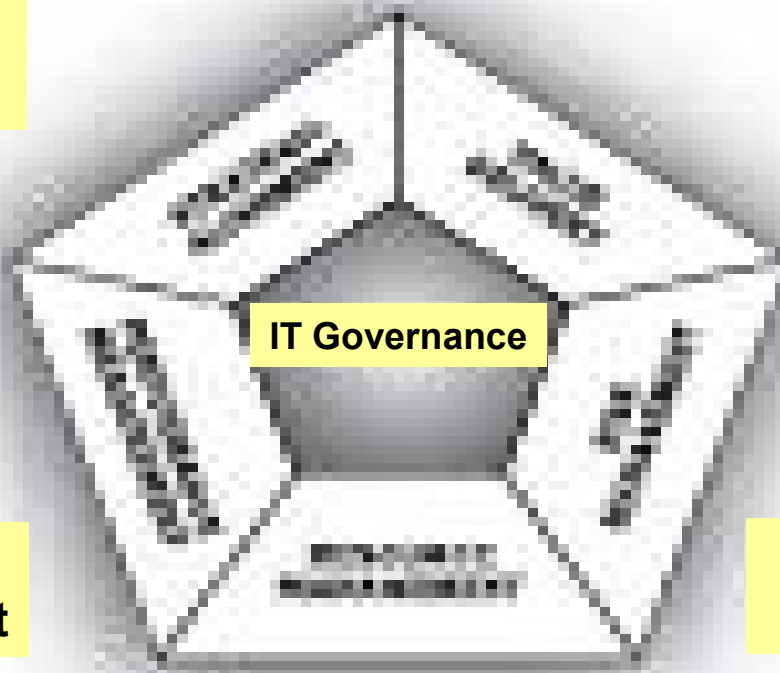
IT Governance Focus Areas



IT Governance Focus Areas:

Strategic Alignment

Value Delivery



Performance Measurement

Risk Management

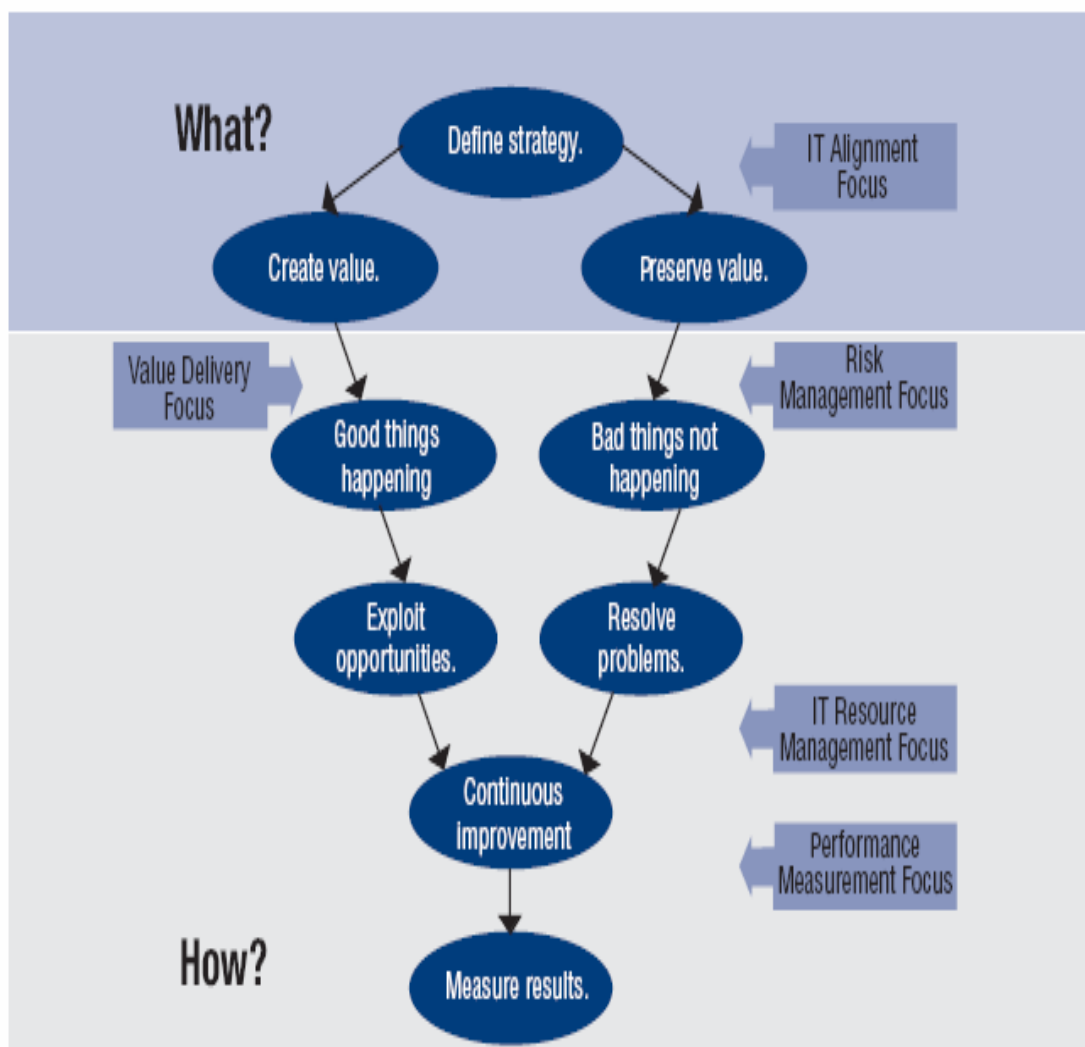
Resource Management

Control Flows Connecting IT Governance Focus Areas



Control Flows for Enterprise IT Governance and Management:

Connecting IT Alignment Focus on Creating and Preserving Value to Measured Results



Flow is Top Down

2 Paths: Value-Delivery and Risk Management

Ref. IT Governance Implementation Guide, 2nd edition, Page 14

**Control Flows
Connecting IT
Governance Focus
Areas**



Control Flows for Enterprise IT Governance and Management:

Connecting IT Alignment Focus on Creating and Preserving Value to Measured Results

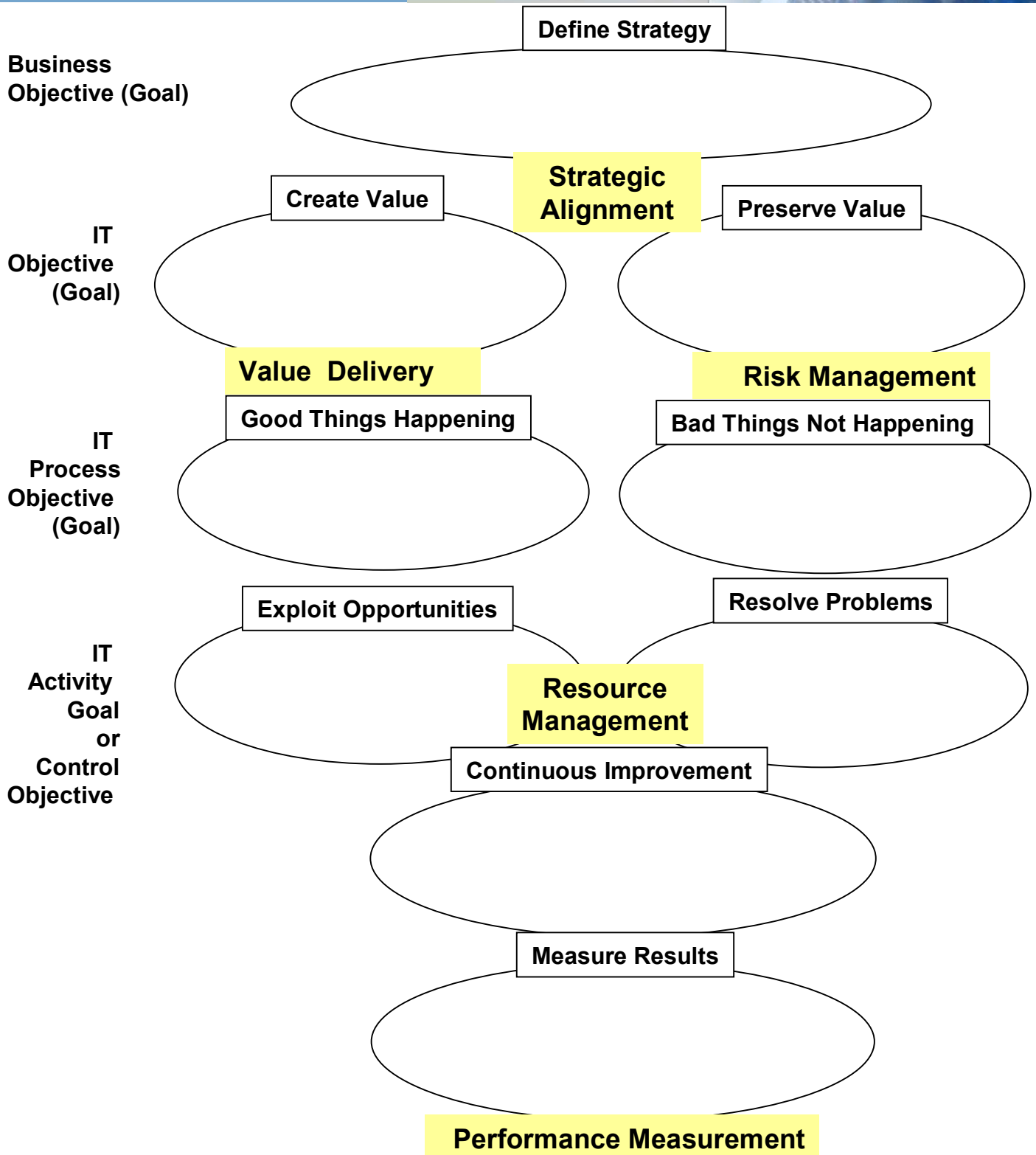


Flow is Top Down

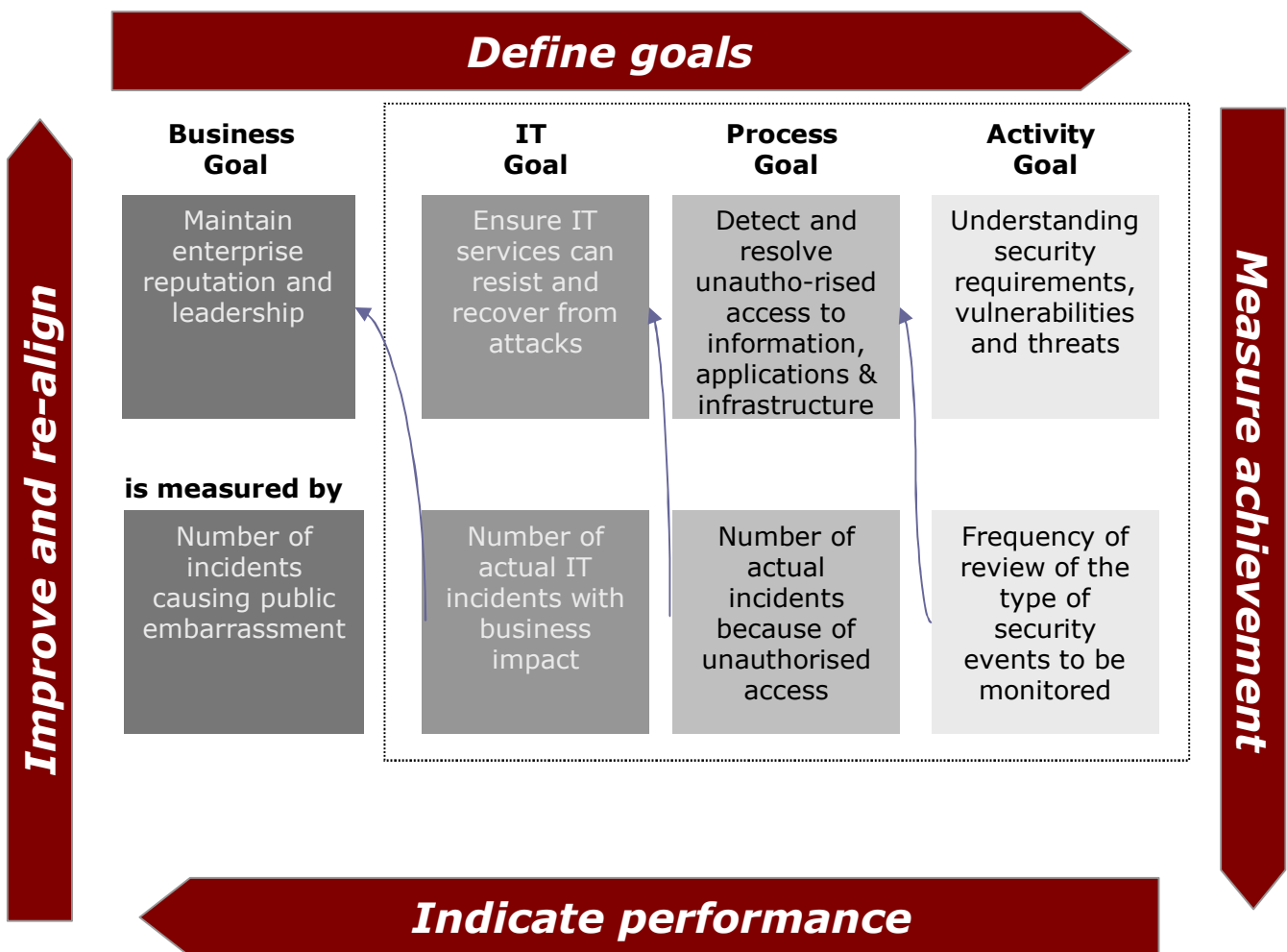
2 Paths: Value-Delivery and Risk Management

Ref. IT Governance Implementation Guide, 2nd edition, Page 14

Aligning Business Strategy with Performance Measurement

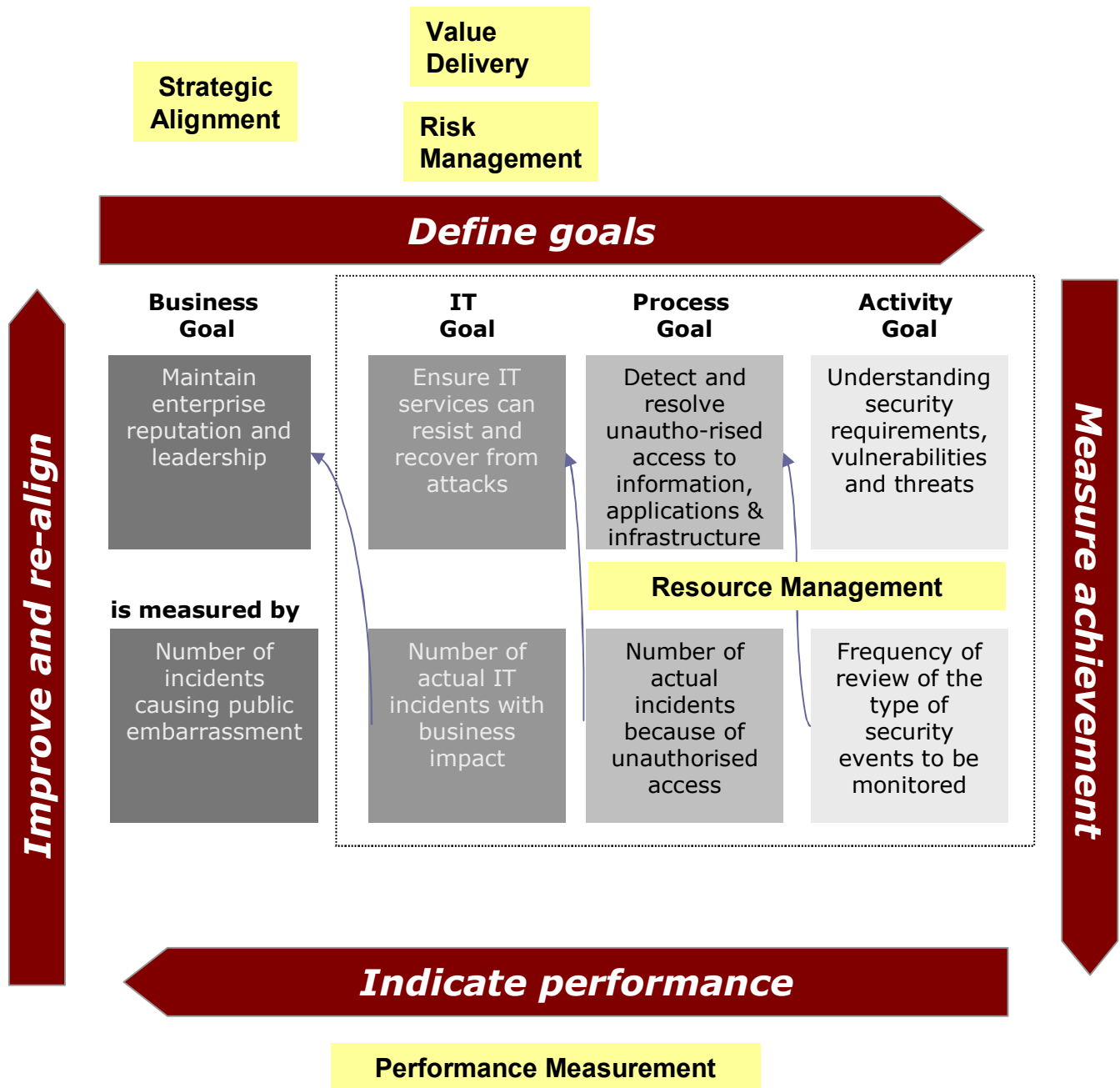


Relationship Amongst Process, Goals and Measures*



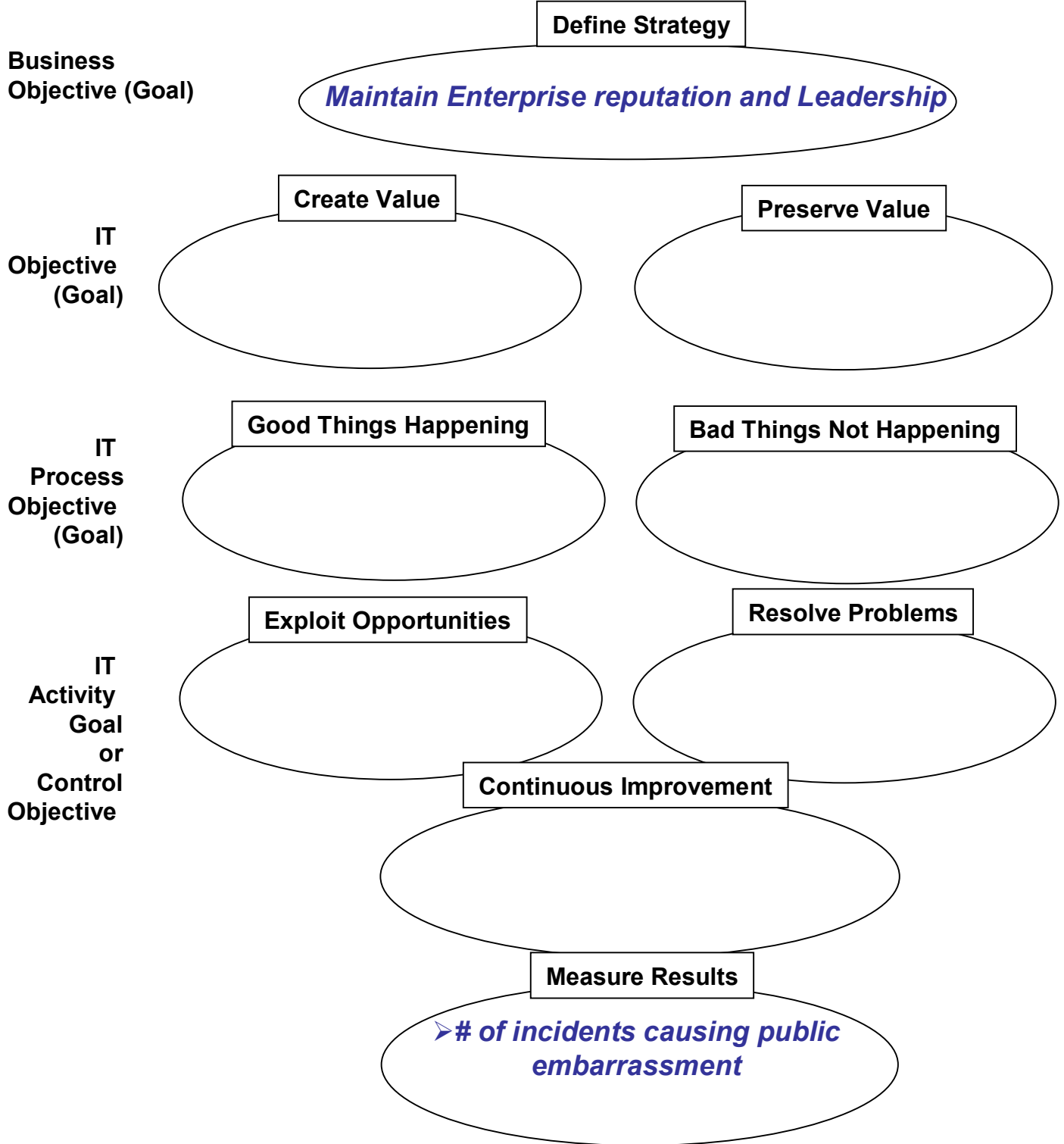
* This is figure 19 in COBIT 4.1. The Example is based on DS5 Ensure Systems Security

Leveraging the Relationship Amongst Process, Goals and Measures*

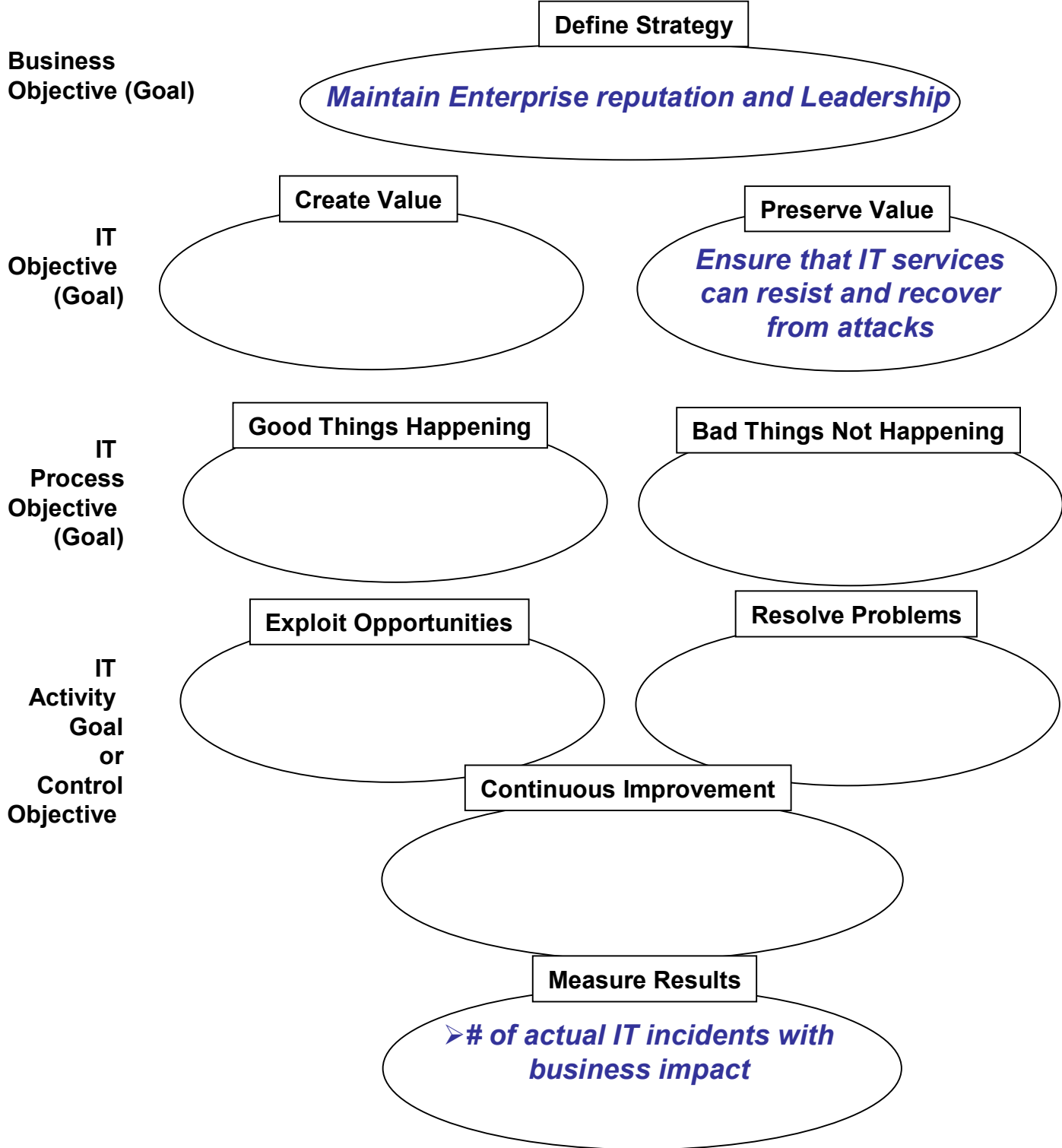


* This is figure 19 in COBIT 4.1. The Example is based on DS5 Ensure Systems Security

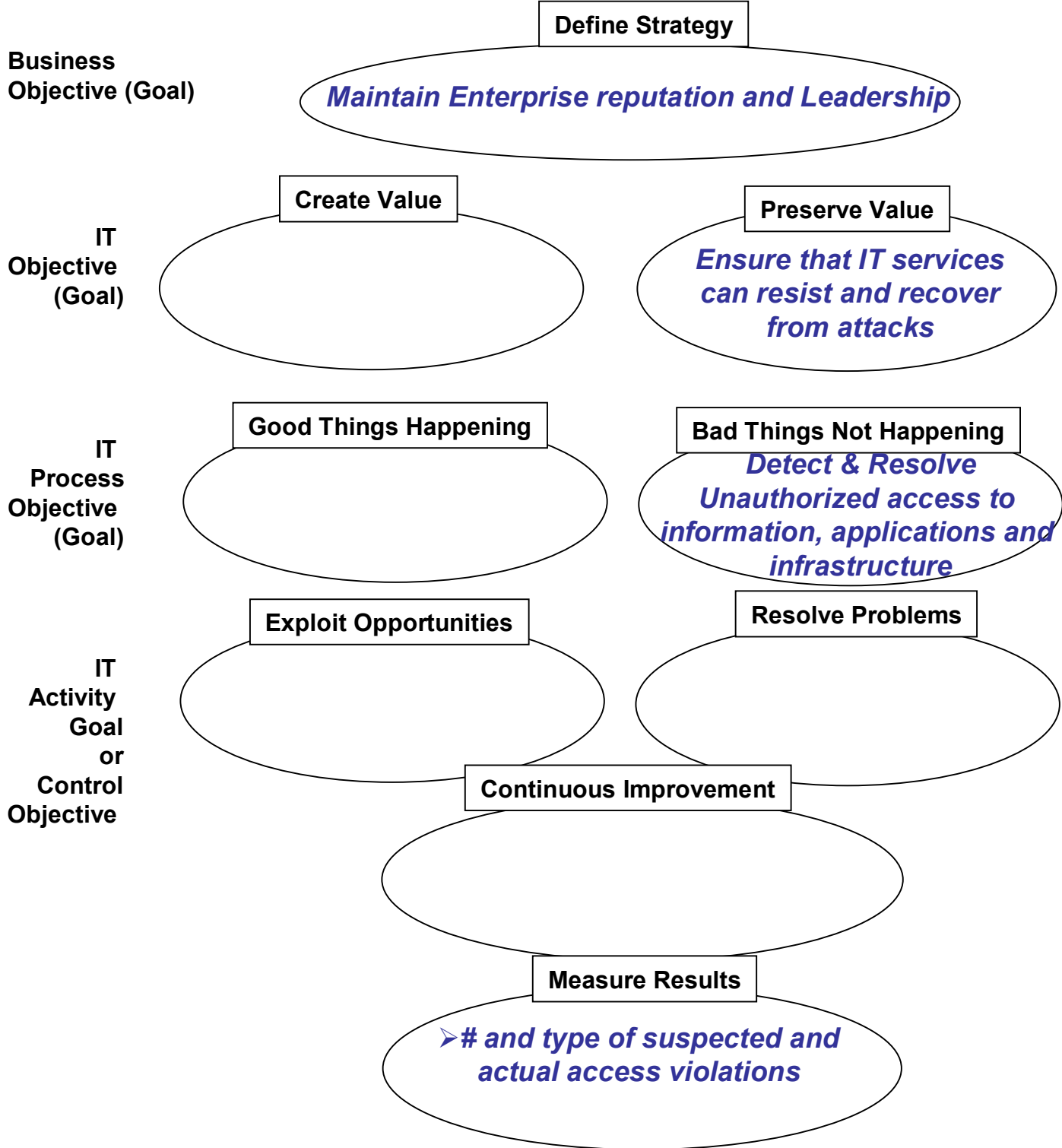
Example DS5: Ensure Systems Security



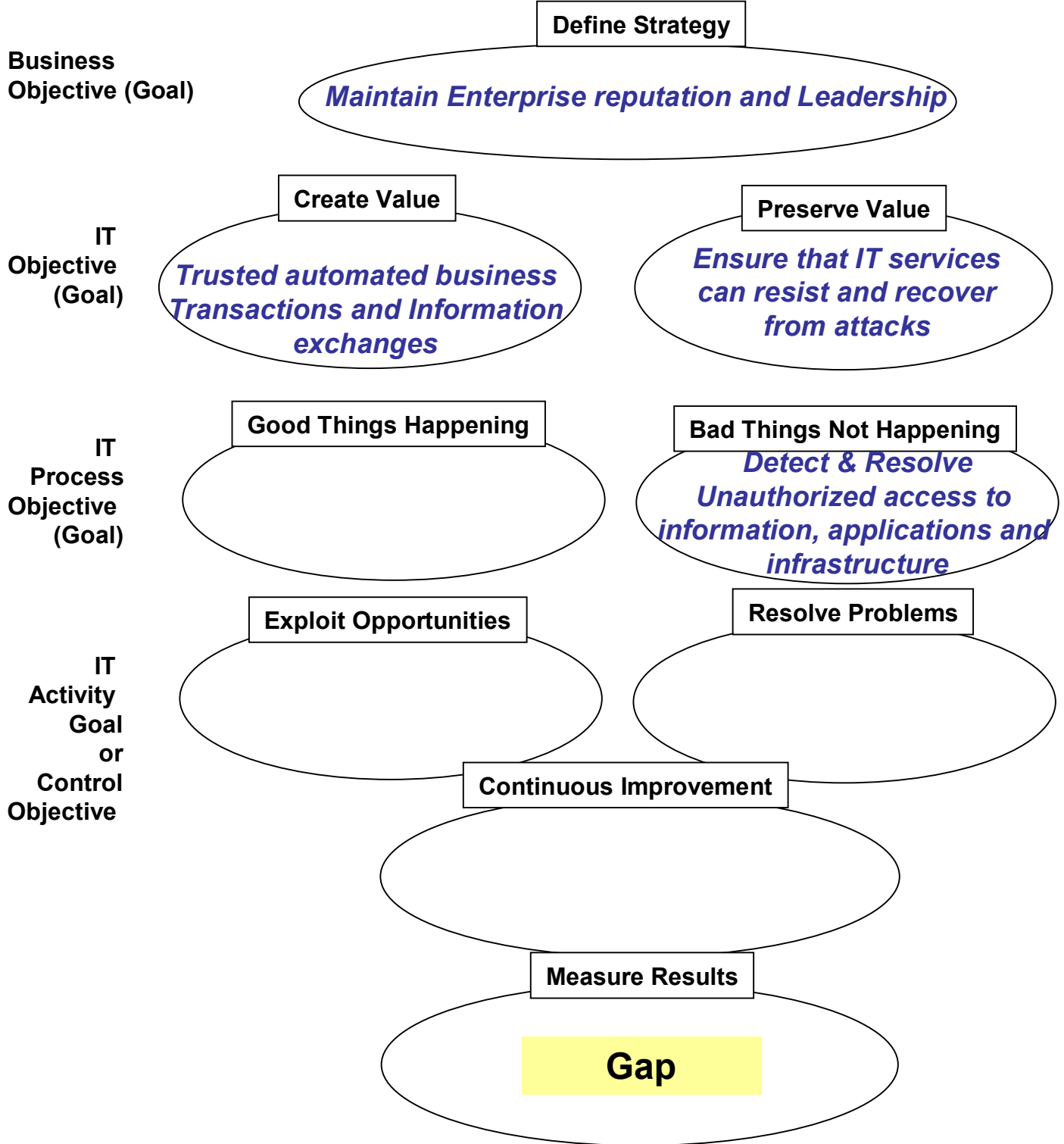
Example DS5: Ensure Systems Security



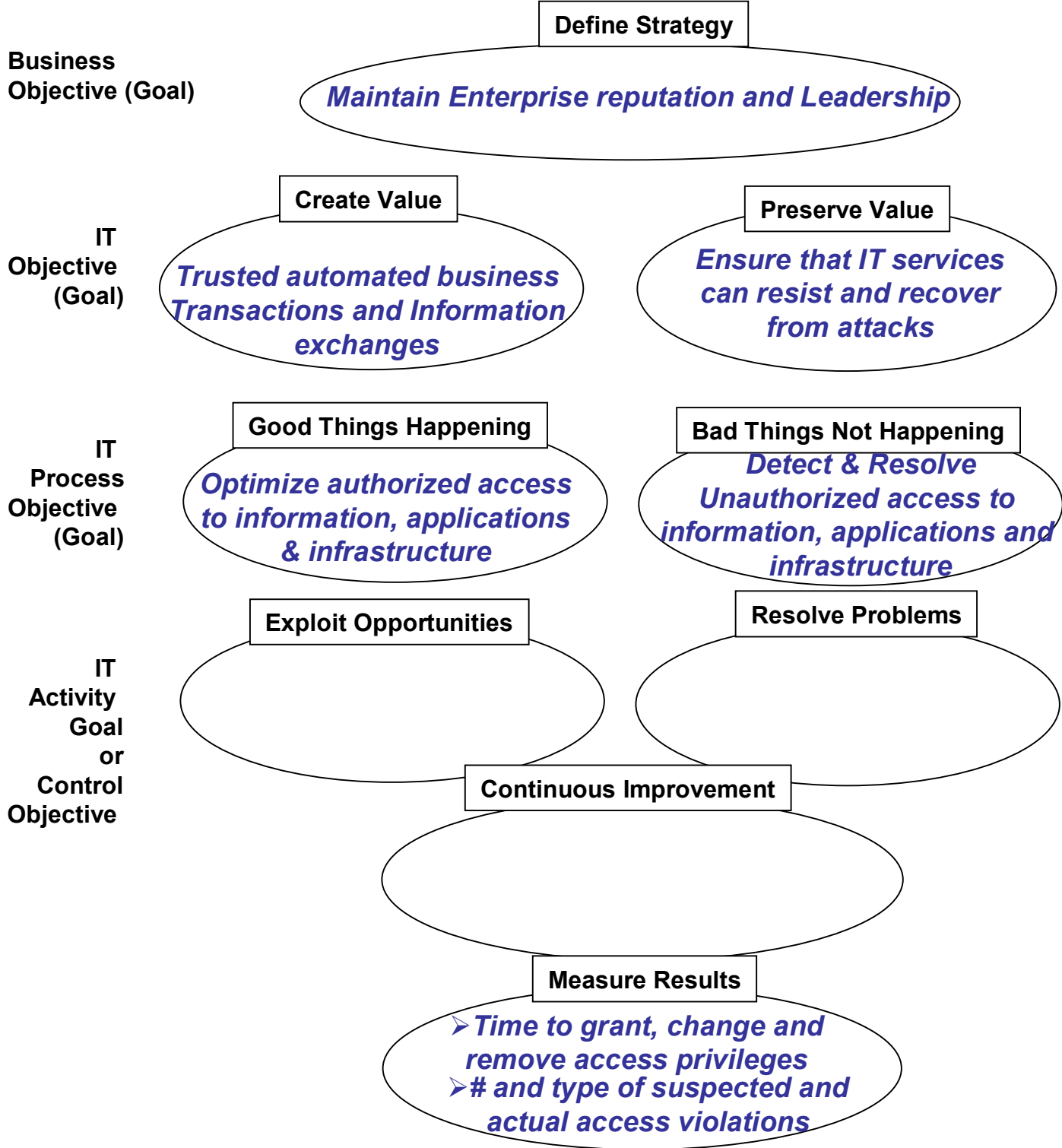
Example DS5: Ensure Systems Security



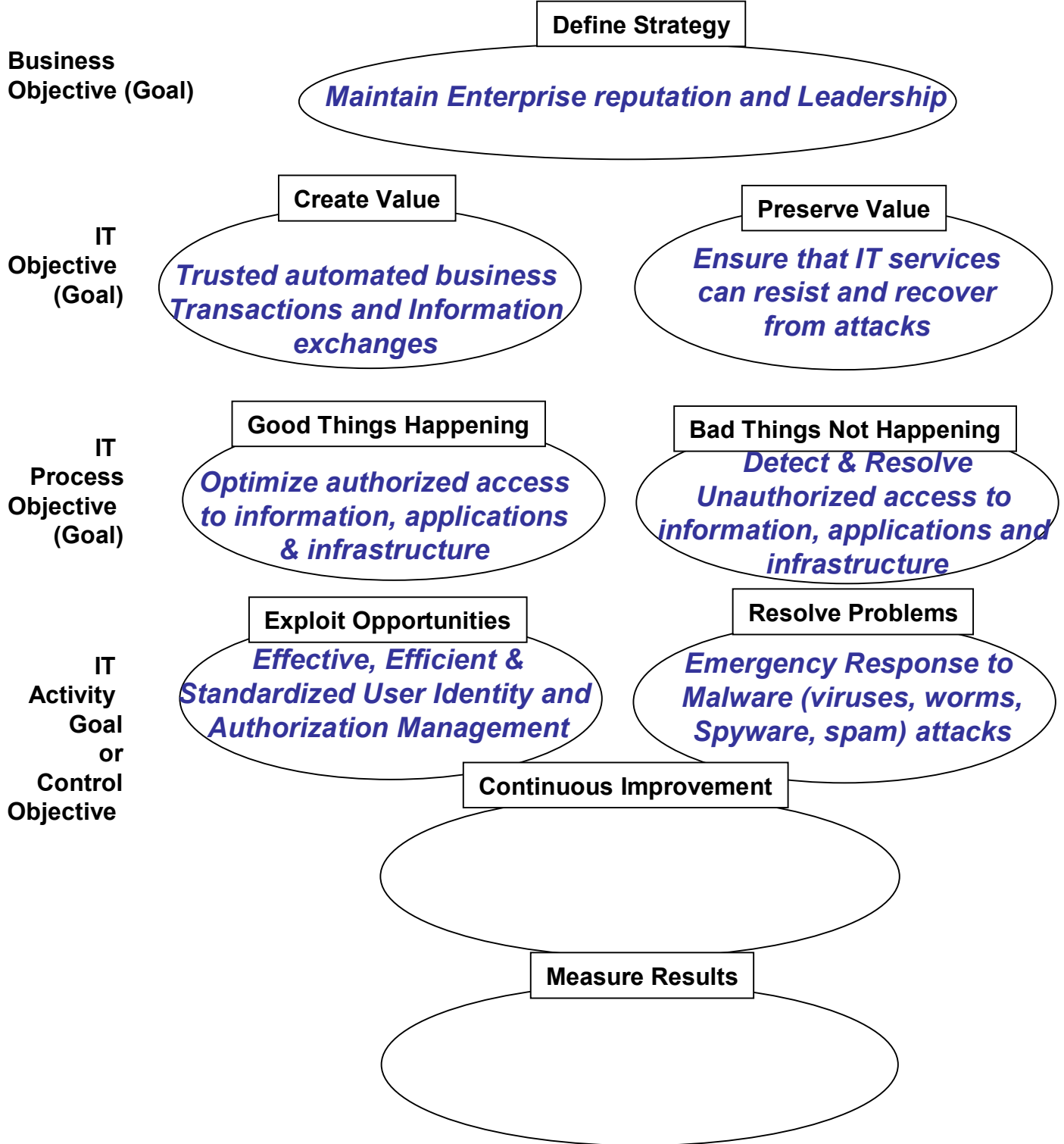
Example DS5: Ensure Systems Security



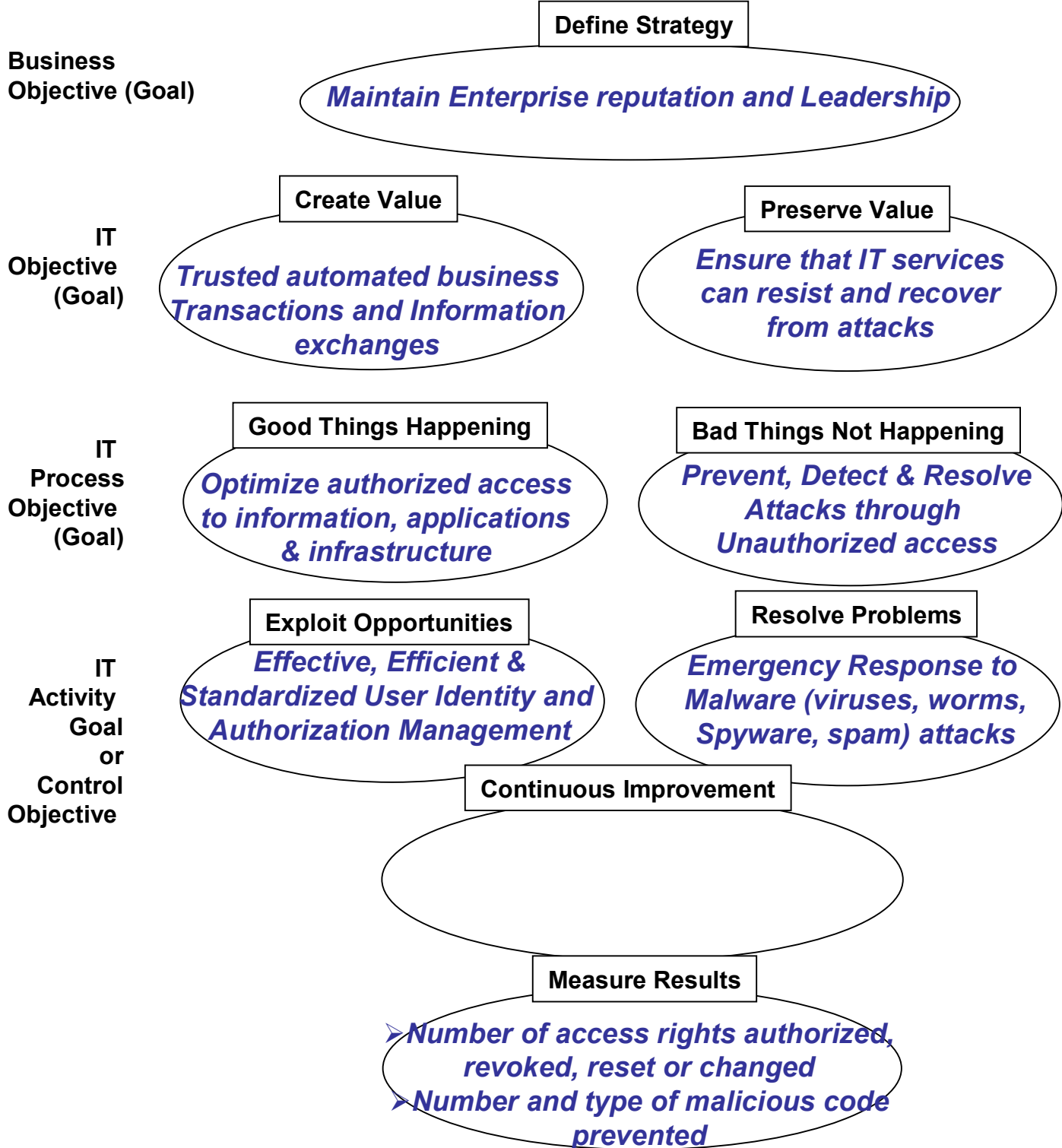
Example DS5: Ensure Systems Security



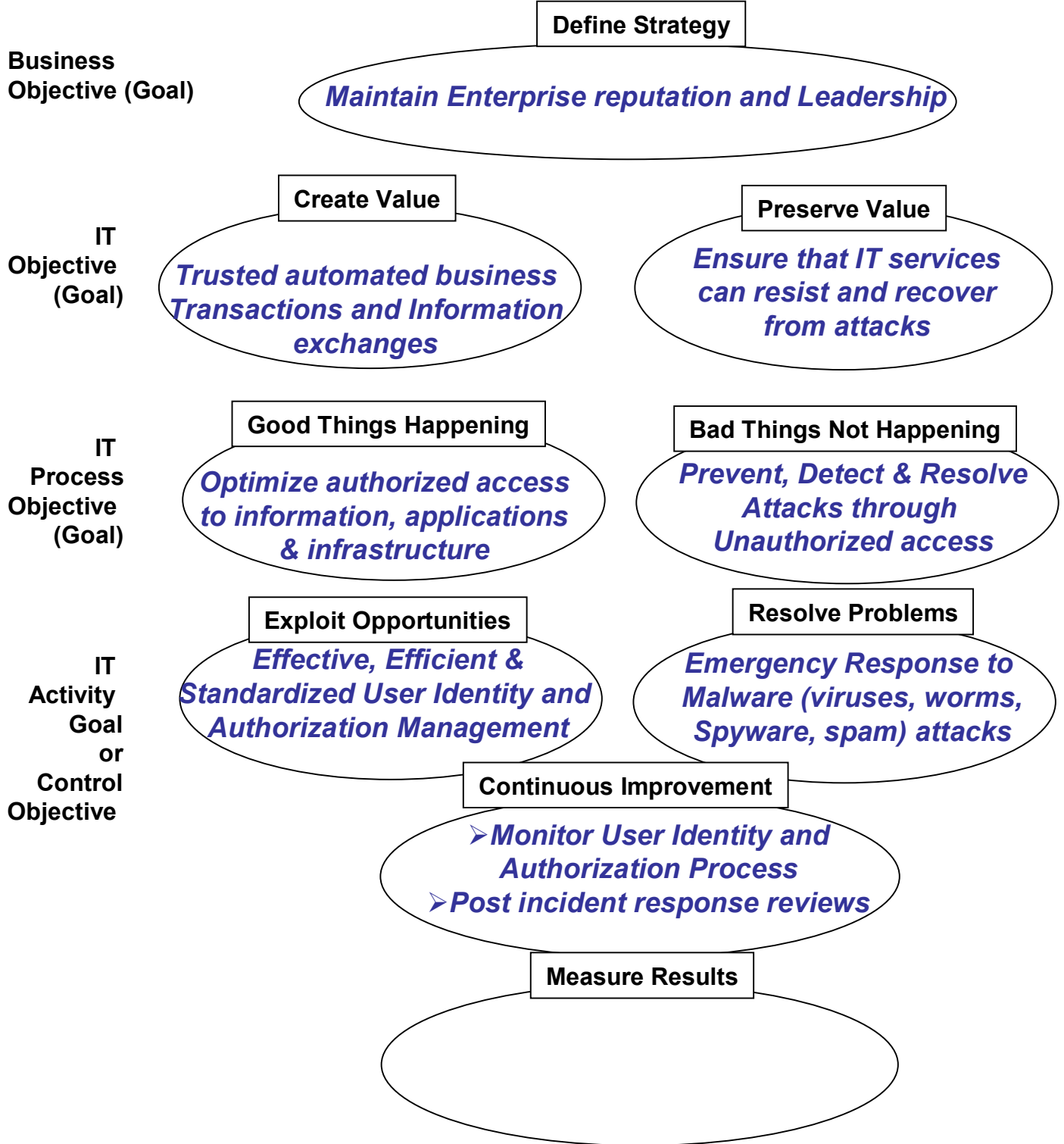
Example DS5: Ensure Systems Security



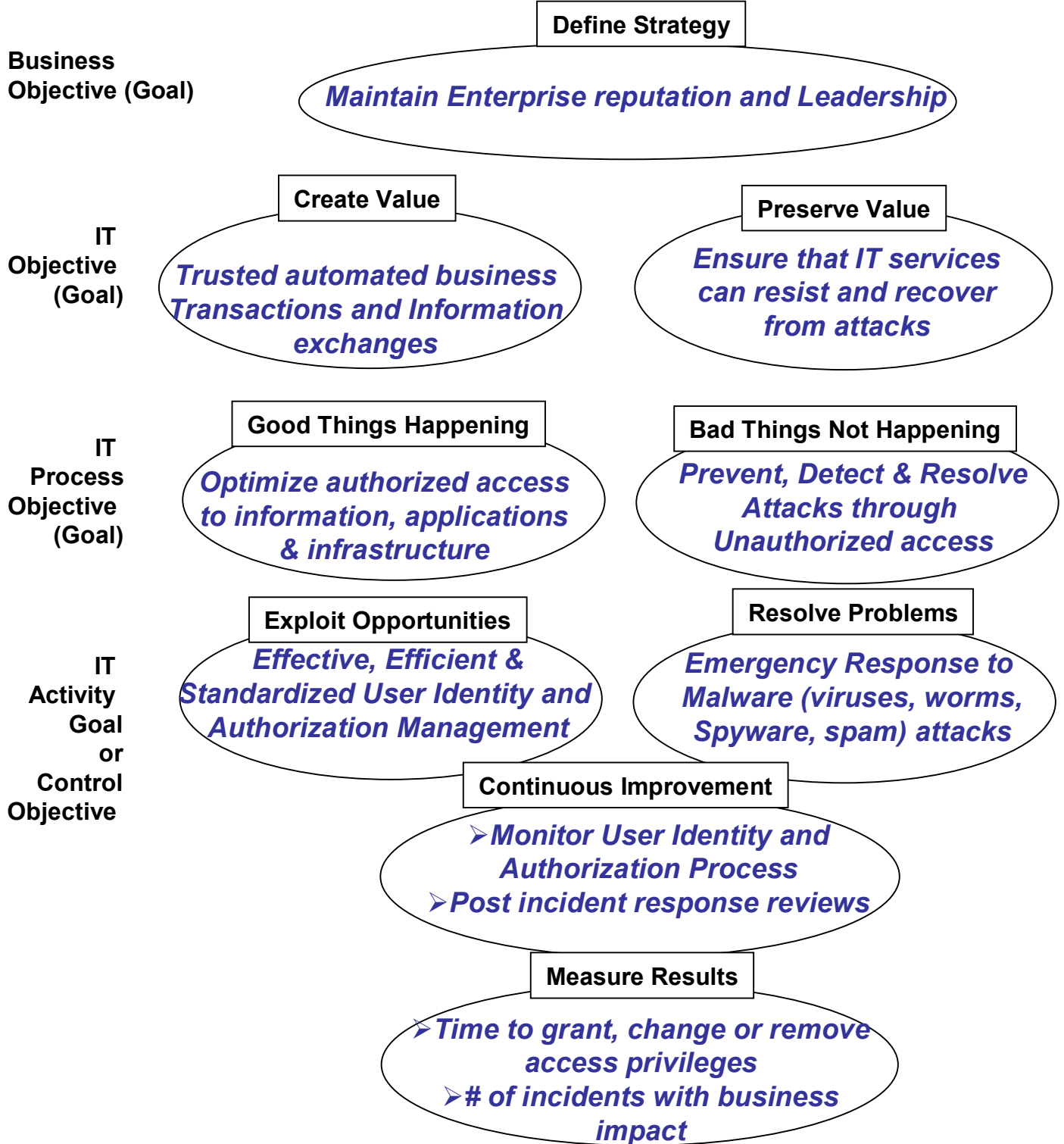
Example DS5: Ensure Systems Security



Example DS5: Ensure Systems Security



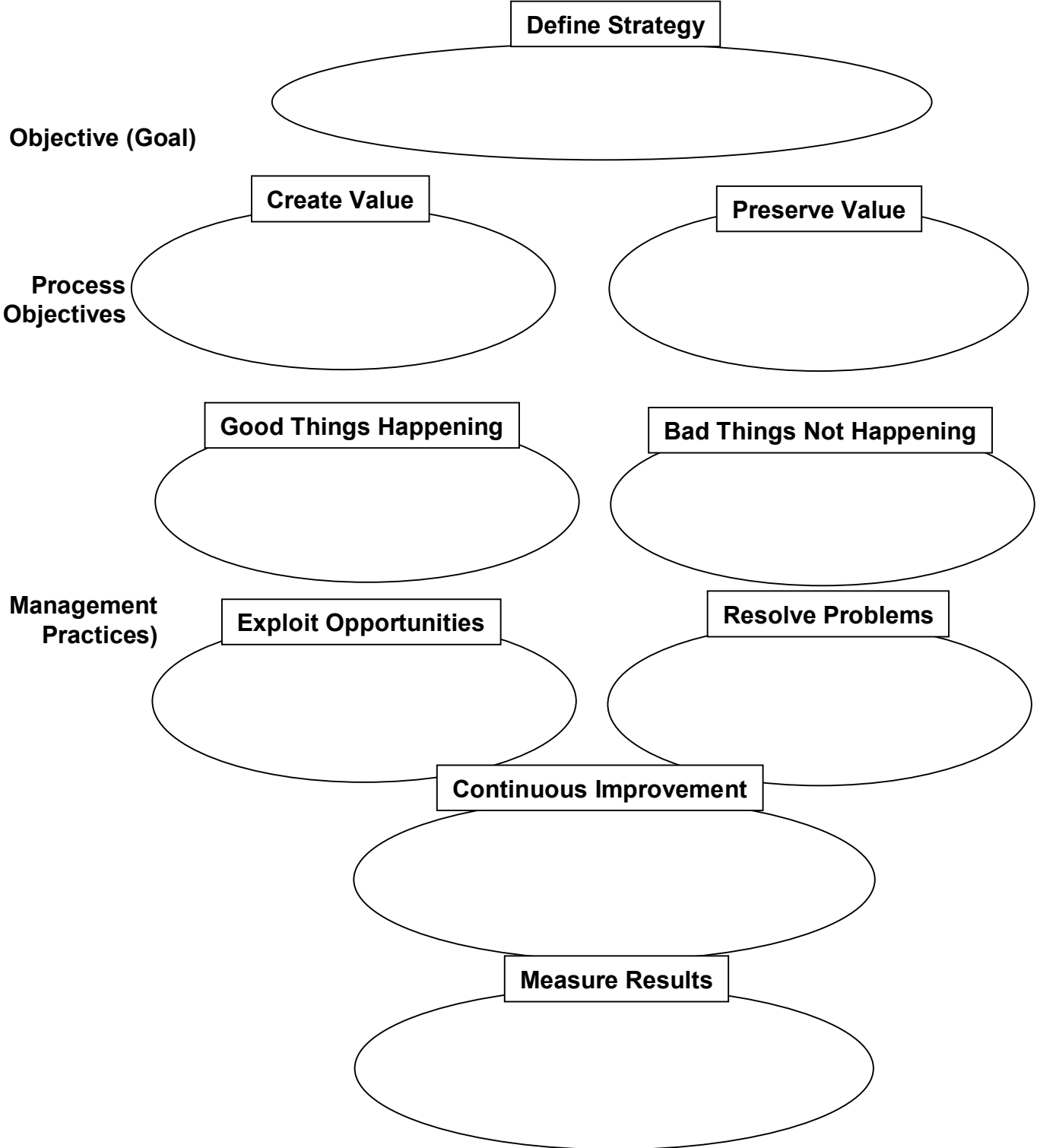
Example DS5: Ensure Systems Security



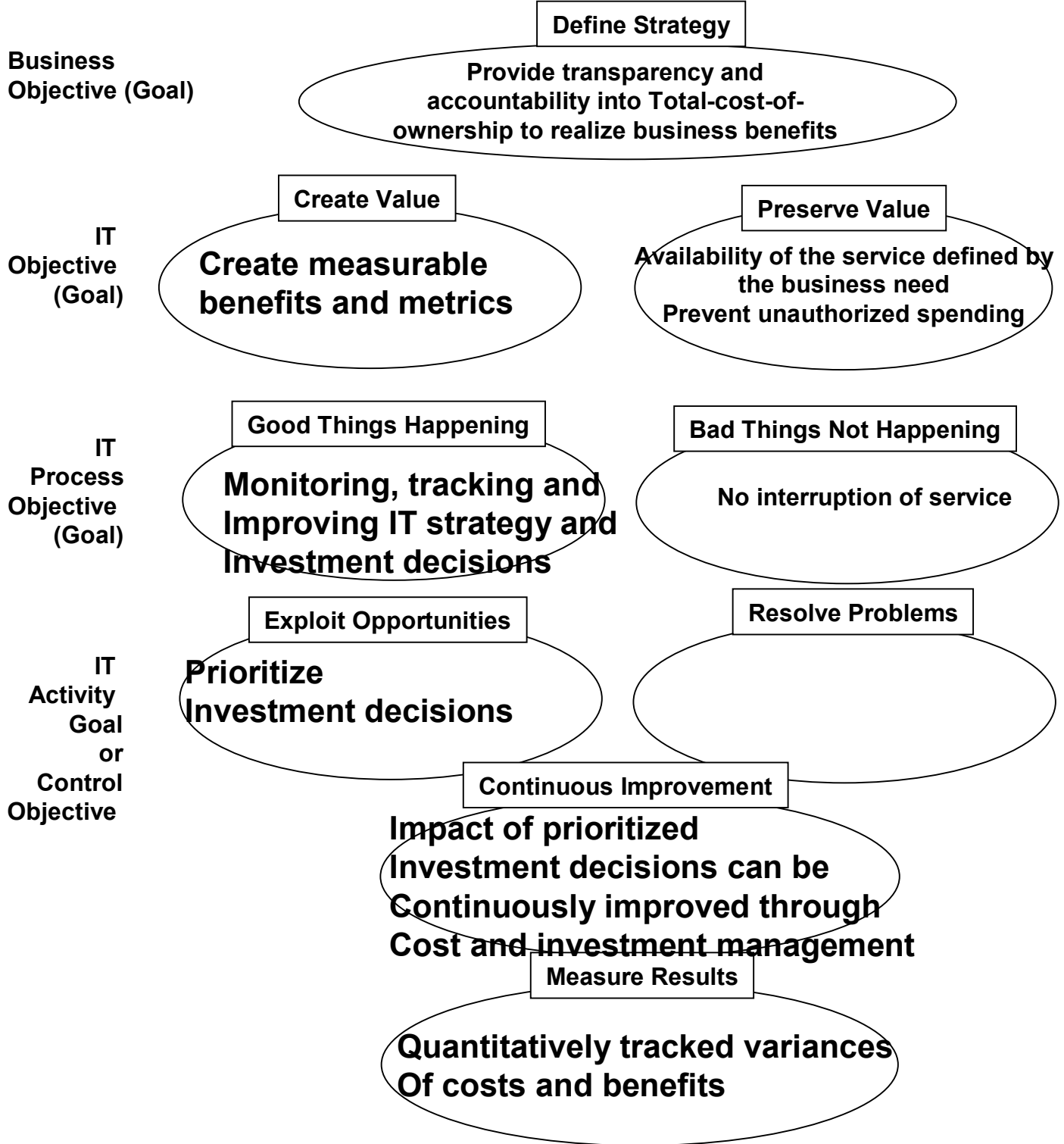
Now it is your turn



- Start with CobiT Quickstart
- Expand focus and direction with CobiT 4.1



(PO5 Manage the IT Investment)



References

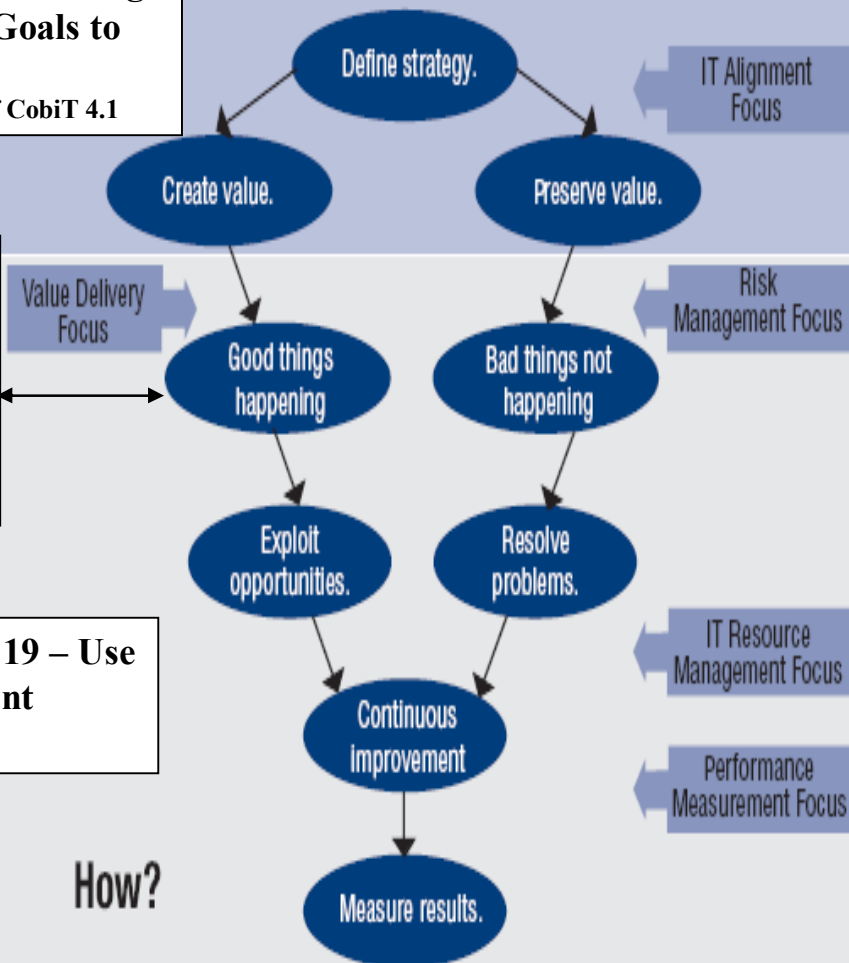


See Table: Linking Business Goals to IT Goals
Appendix I of CobiT 4.1

See Table: Linking IT Goals to IT Processes & Information Criteria

See Figure 19 – Use Management Guidelines

How?



Linking Business Goals to IT Goals & Information Criteria



Information Criteria

	BUSINESS GOALS	IT Goals										Information Criteria						
												Efficiency	Capacity	Connectivity	Security	Availability	Integrity	Timeliness
Financial perspective	1 Expand the balance sheet	25	28									✓	✓					
	2 Increase revenue	25	28									✓	✓					
	3 Reduce the investment	21											✓					
	4 Optimize asset utilization	11										✓	✓					
	5 Manage business costs	2	11	17	18	19	20	21	22					✓	✓	✓		
Customer perspective	6 Improve customer orientation and service	3	20									✓						
	7 Offer customer products and services	5	24									✓	✓					
	8 Service Availability	10	16	22	23										✓			
	9 Agility in responding to changing business requirements (time to market)	1	5	25									✓	✓				
	10 Cost optimization of service delivery	7	8	10	24								✓					
Internal perspective	11 Automate and integrate the enterprise value chain	6	7	10	11							✓	✓					
	12 Improve and maintain business process functionality	6	7	11								✓						
	13 Lower process costs	7	10	13	15	24							✓					
	14 Comply with external laws and regulations	2	19	20	21	22	26	27						✓			✓	
	15 Transparency	2	18															✓
	16 Comply with internal policies	2	18											✓				✓
	17 Improve and maintain operational and staff productivity	7	10	11	13								✓	✓				
Learning and growth perspective	18 Product/business innovation	5	25	20								✓						
	19 Obtain reliable and useful information by strategic decision making	2	4	12	20	26												✓
	20 Acquire and maintain skills and motivate personnel	9											✓	✓				

Recap – Report out



Lunch



- Look to the IT Archetype? Yes!
- Google search on IT archetypes.

Closing the Loop from Audit findings to Strategic Action



Reversing the Control Flows

When performing Audit/Assurance, connect findings with observed Measured Results and Continuous Improvement Successes. Add Value Delivered to Risks Managed Messages

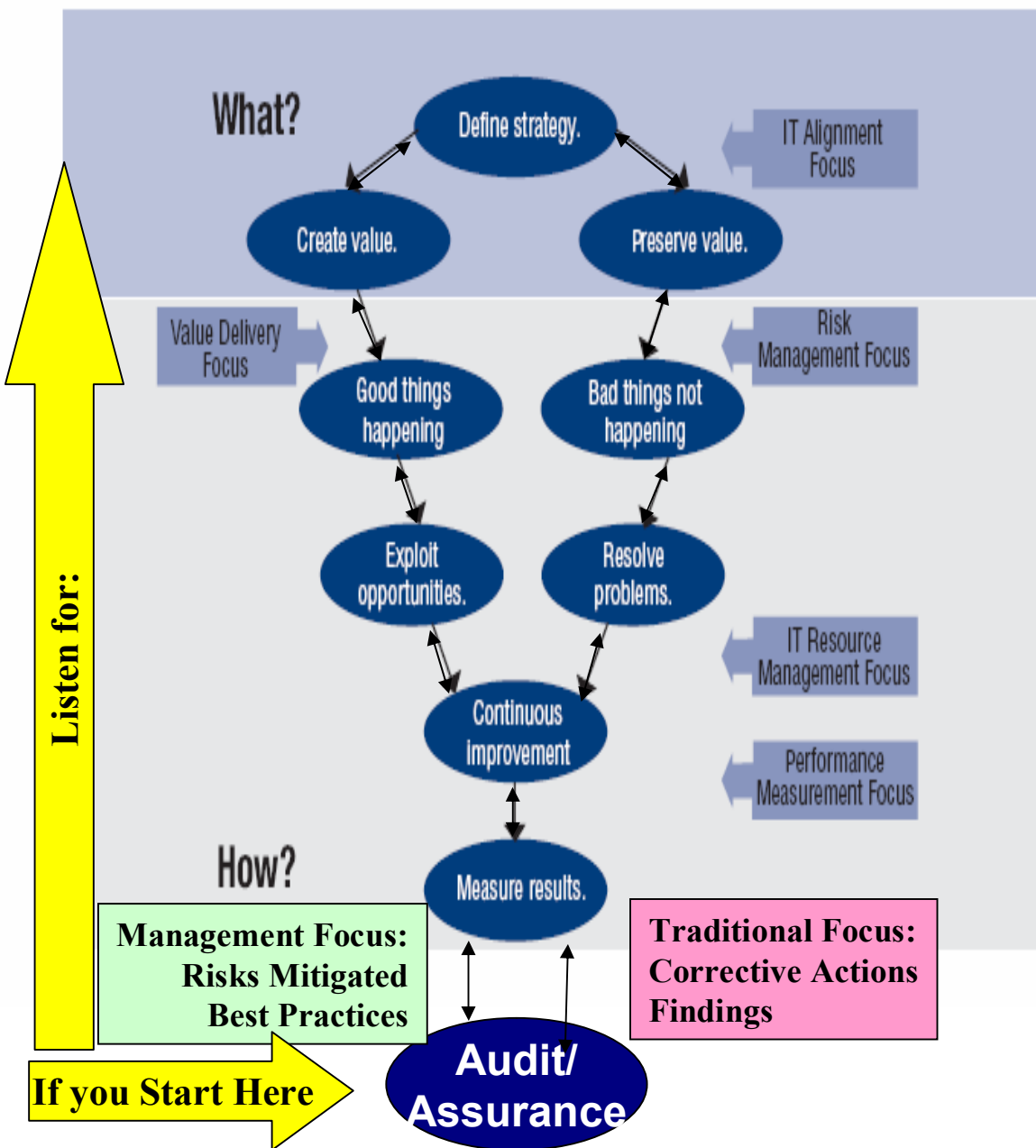


Translating Observations into persuasive Communications

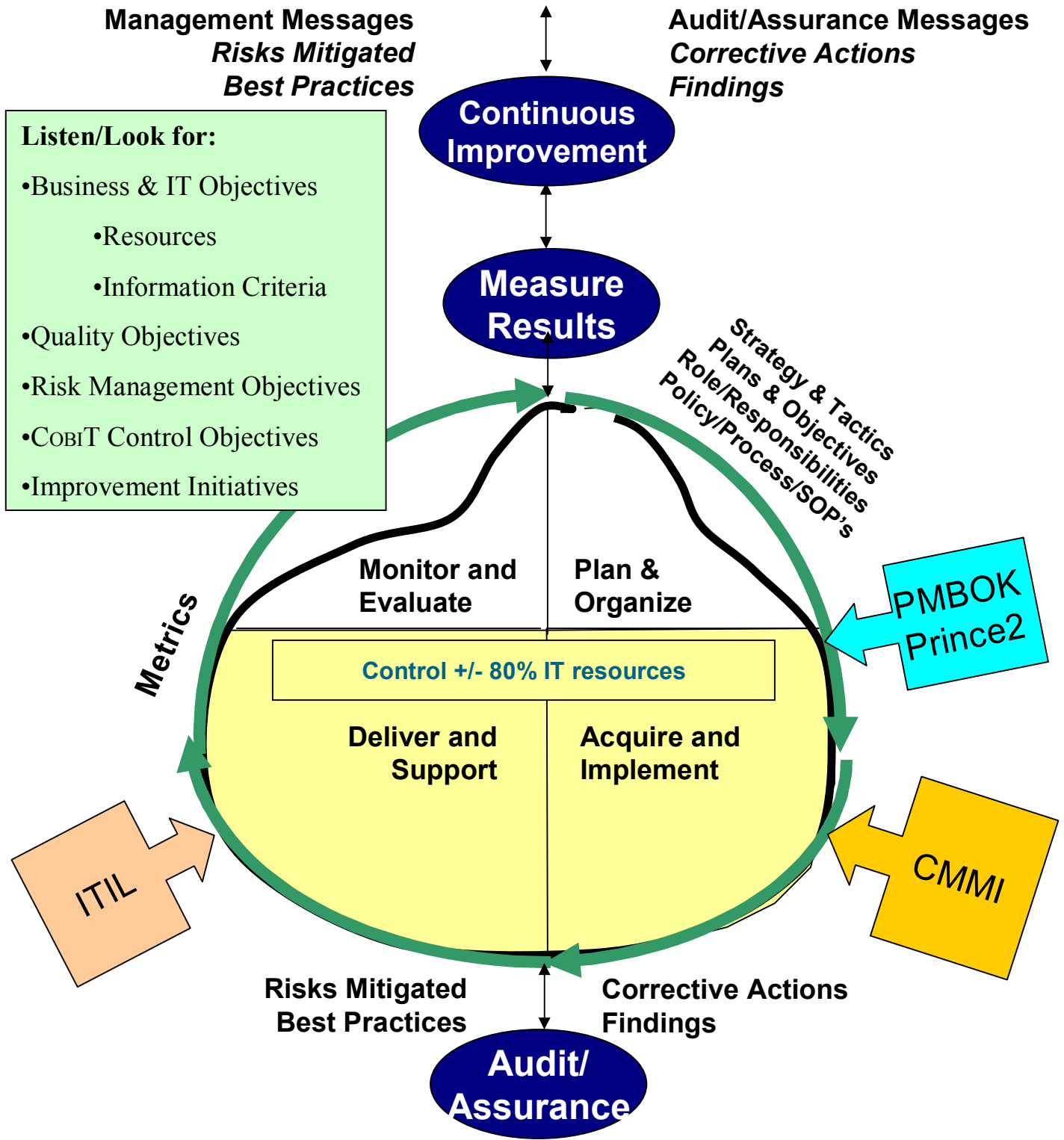


Value Delivery (Value Creation)

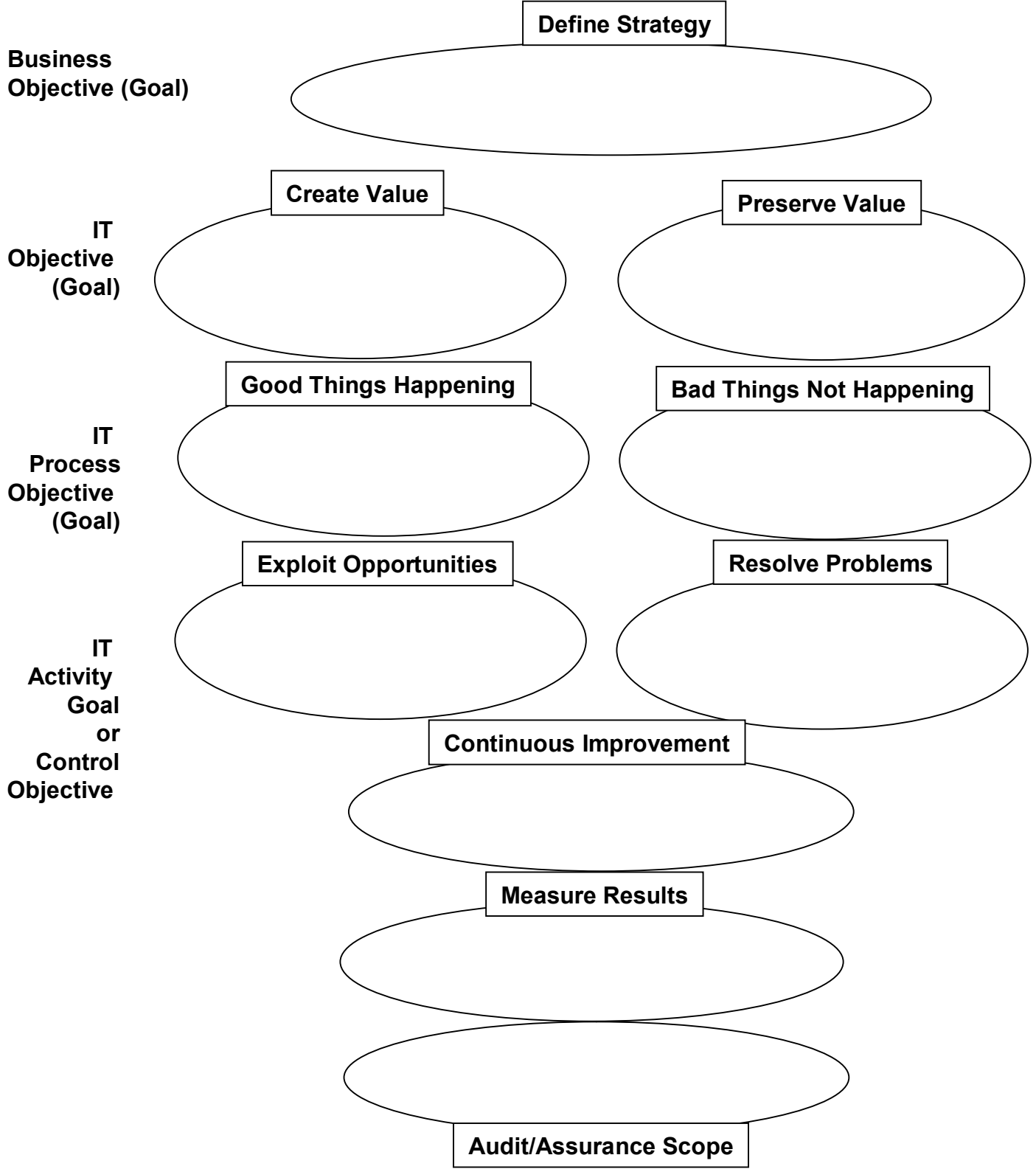
Figure 7—Two Views of Control



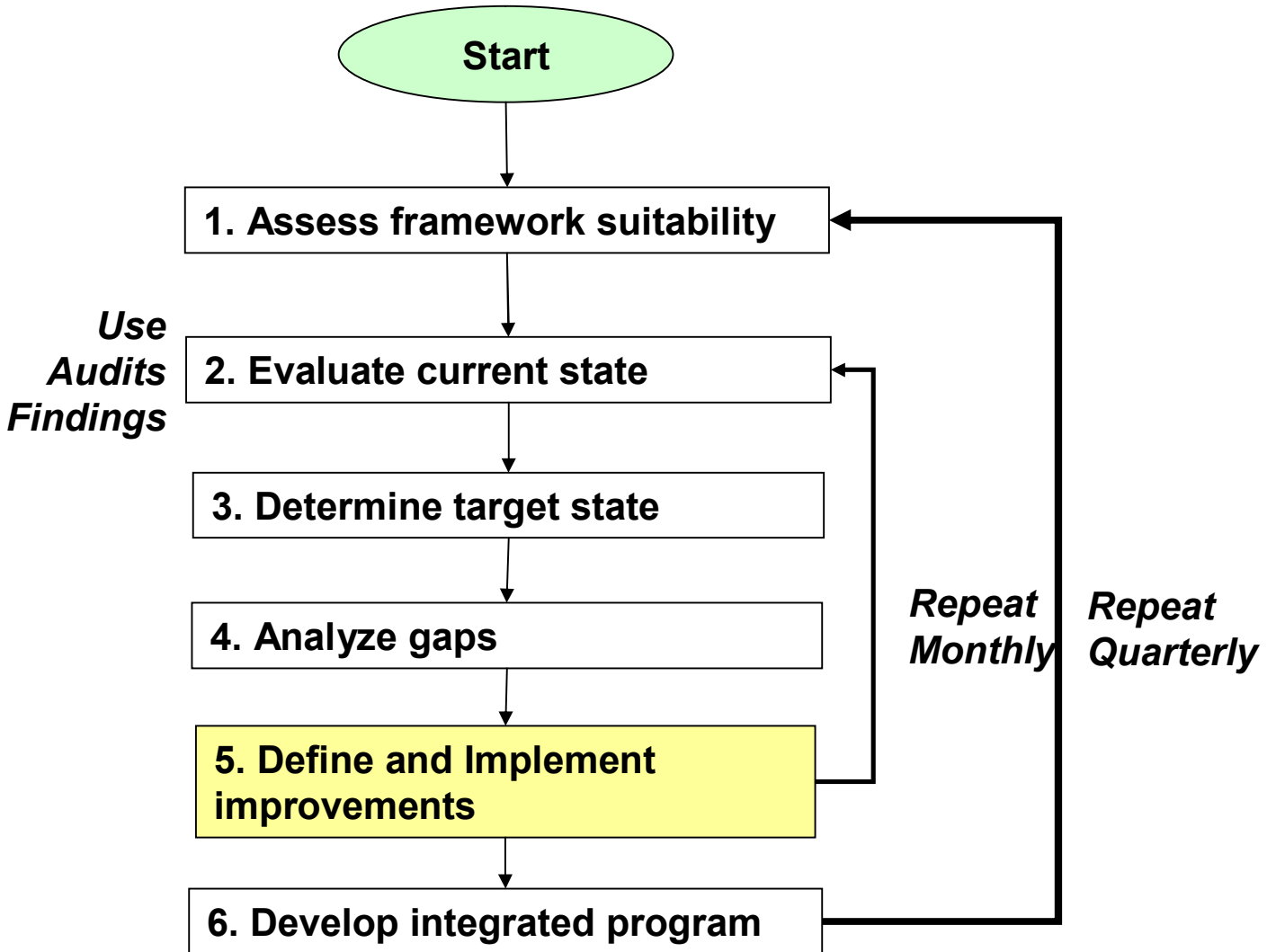
Use COBIT to translate
Audit Findings &
Observations into
Persuasive
Communications



Template to collect Management Messages in Audit/Assurance Visit:



Systematic approach to Implementing Improvement



*See Quickstart Page 21
For more robust guidance see
IT Governance Implementation Guide, 2nd edition*

Quickstart on Assessing Suitability



- CD & see pgs 17 & 18

Evaluate current state Self-Assessment



- CD – CobiT Quickstart see page 19 & 20 for instructions

Review with Burning Questions



- What's after SOX?
 - ISO 9001 + Privacy/Security + Financial Controls
- Global/International Standard for a framework?

Thank You



For more information, please see

www.isaca.org

www.itgi.org

Speaker Contact information

debra.mallete@kp.org

Cell phone: 510-295-3217