

# Goal-Driven Performance Measurement

SEER User Conference

Redondo Beach CA April 10, 2008

Terry Vogt, CFPS

# Agenda

- ▶ What is Performance Measurement
- ▶ Difficulties of Measurement
- ▶ Goal-Question-Indicator-Measurement (GQIM) Framework Overview
- ▶ The Role of Stakeholders
- ▶ Identifying and Clarifying Key Goals
- ▶ Developing Clear Indicators
- ▶ Rounding Out the Measurement Architecture

# What is performance measurement?

- ▶ The identification of significant attributes that describe conditions, behaviors, situations and relationships in quantifiable terms
- ▶ The assignment of absolute or relative values to specific and composite observed occurrences of those attributes



- ▶ These attribute measurements can be used to analyze processes, assess progress, develop plans, evaluate alternatives and predict and assess results
- ▶ Performance measurement provides a common language that links inputs, outputs, processes, outcomes, resources, events, plans, participants and a host of other items that make up the complete set of functional components of business and enable effective management of its performance

# Major focus areas of performance measurement



**Strategic Success Measures** – Measure external business outcomes. Identify the external business degree of success. Examples :

- Increased profitability or market share
- Improved customer satisfaction or retention
- Improved competitive capability or resilience

**Program / Organization Measures** – Measure performance in relative contribution to outcomes. Identify the external business impact of a collective investment or resource area. Examples :

- Financial savings as a result of increased automation
- Improved internal rate of return on investment

**Project Measures** – Measure whether a development, acquisition or sustainment project is performing as planned. Examples :

- Delivery on time and within budget: vs plan, increased functionality
- Rollout of new technology to user base: vs schedule, efficiency gains

**Operations Measures** – Measure operation continuous/recurrent performance. Example : -System availability or system response time

**Initiative Impact Measures** – Measure effect of internal impact of an initiative. Examples :

- Reduced processing time or inventory expense
- Improved data quality or technology reliability

# Many of the challenges of measurement result from how it is approached on programs or projects

- ▶ Measurement is treated as a “side show”
  - Secondary responsibilities for measurement
  - Untrained staff assigned measurement responsibilities
- ▶ Assume that measurement itself will solve problems
  - Critical part of measurement (analysis) never happens
  - Measures become “shelfware”
- ▶ “Big Bang” approach
  - Ambitious programs can easily collapse
- ▶ Volatile measurement requirements
  - Requirements for measurement need to be managed
- ▶ Bottoms up (or “Jeopardy”) approach
  - We have our answers, now what are the questions?

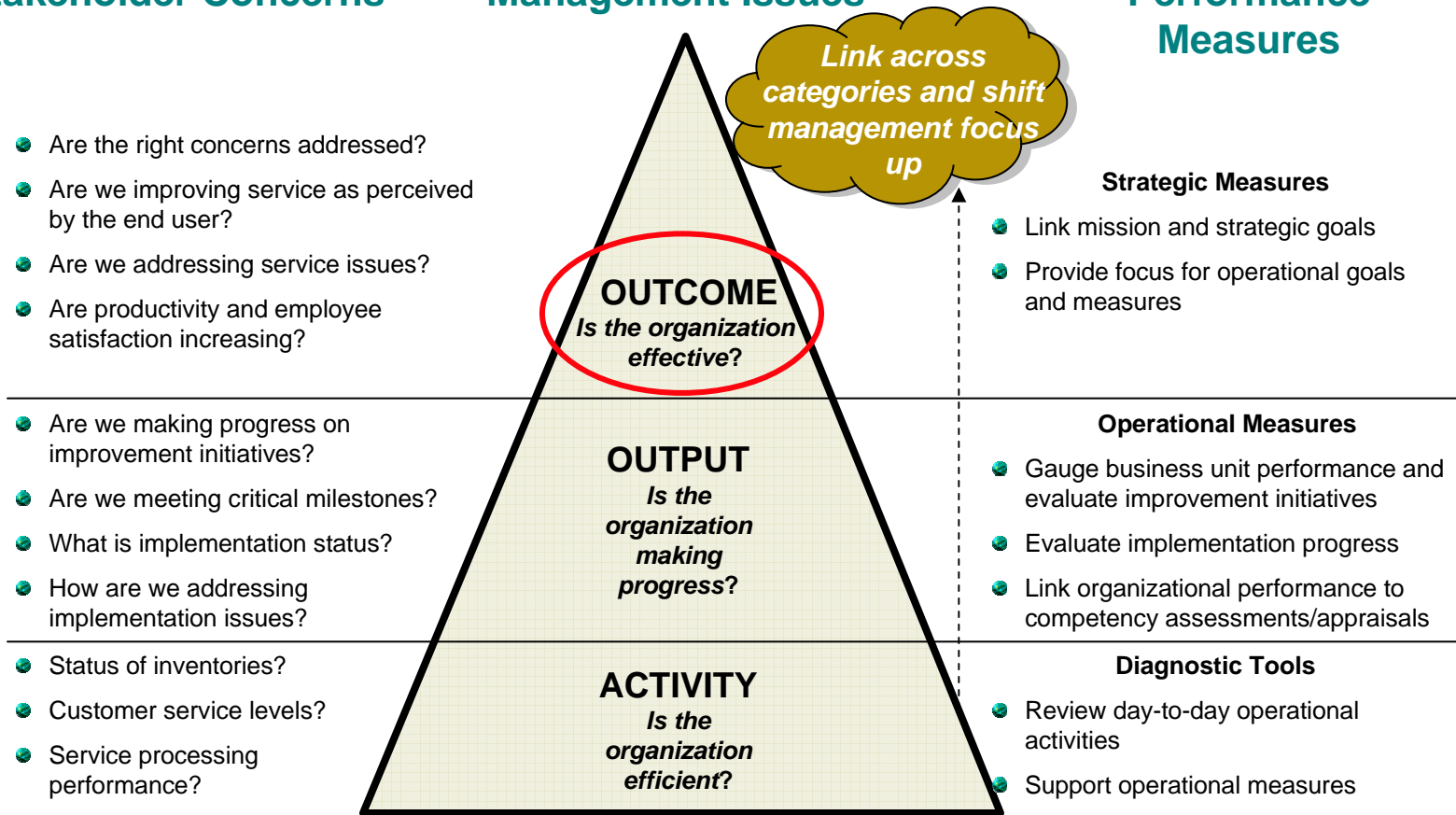
*Would you want this guy in charge of your measures?*



*How about this guy?*

# It is critical to design measures around *outcomes* and *outputs* rather than activities

Stakeholder Concerns ↔ Management Issues ↔ Performance Measures



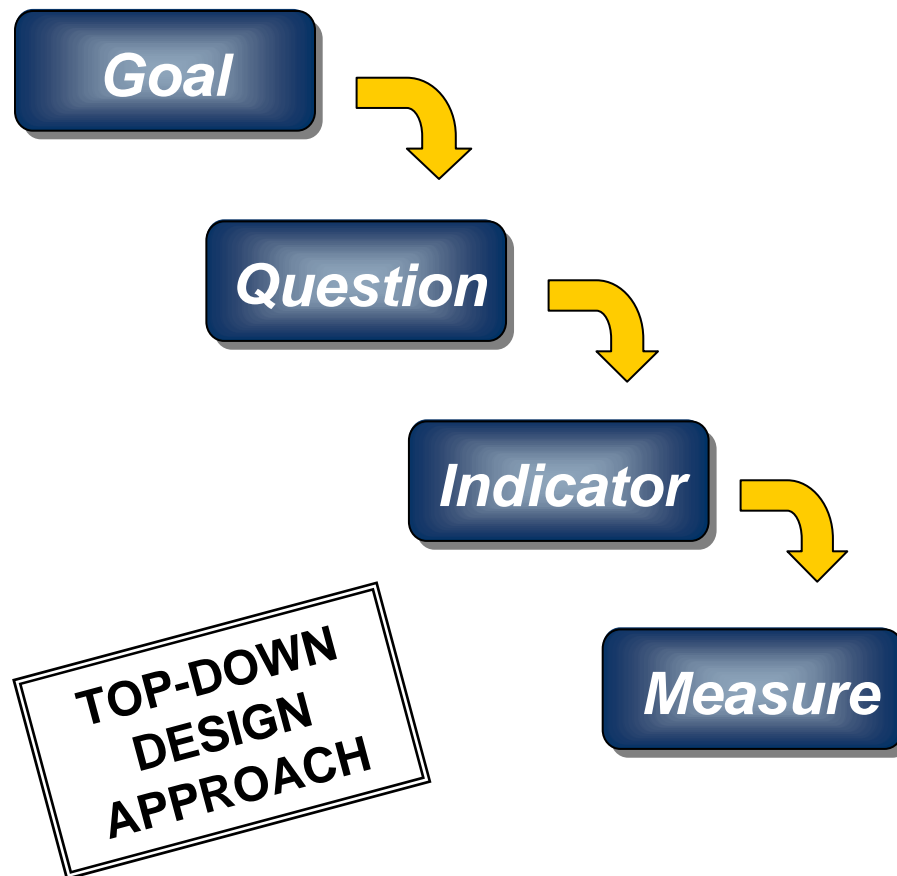
**Performance Measures Design**

# Why top-down measurement begins with business goals



- ▶ Business goals are always the starting point for effective measurement
- ▶ Questions refine abstract goals to an operational level
- ▶ Questions should trigger hypotheses about expected answers and outcomes
- ▶ Resulting measures are tailored to the specific scope, circumstances and business needs and objectives
- ▶ Measurement plays a constructive and instructive role in the organization
- ▶ Measures and interpretation must reflect the values and viewpoints of all stakeholders

# Highly successful measurement programs are directed towards an explicitly stated purpose



- ✓ **Conceptual** What are the business *goals*?
- ✓ **Operational** What are the *questions* to answer to assess progress toward those goals?
- ✓ **Expressive** What *indicator measures* will answer the questions?
- ✓ **Finite** What specific *base measures* will populate the indicators?

# The GQ(I)M Framework

## Goal

General statement of success as a desired condition or outcome. Can be broken into sub-goals

## Question

Means of determining if goal has been attained or progress is being made. Begins as a concept, develops measurable objectives from goals

## Indicator

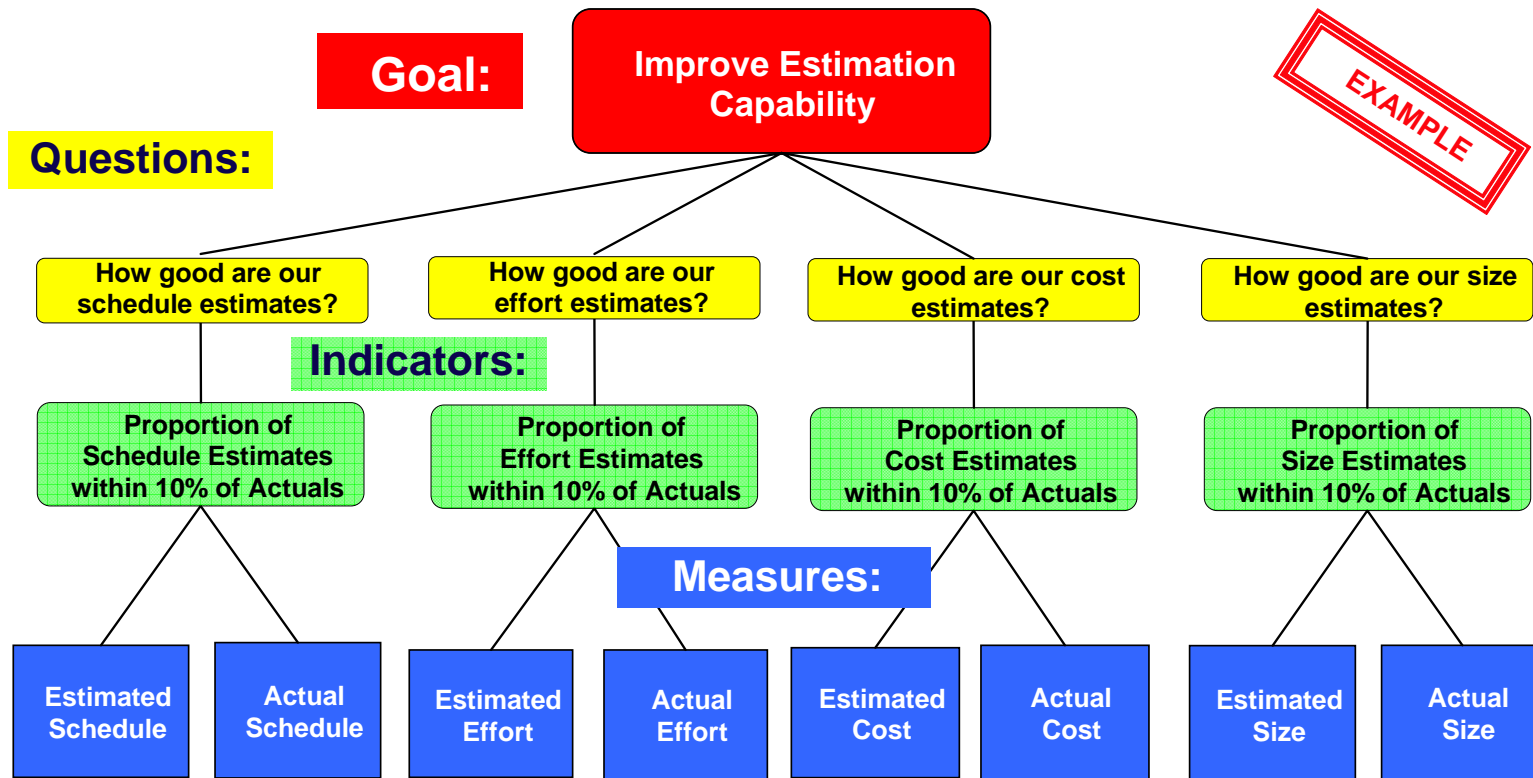
Value expressing the answer to the question. May be a single value or a combination of values and includes use of calculations

## Measure

Base measures obtained through direct measurement, and derived measures computed from base measures, that are input to the expression of value provided by an indicator

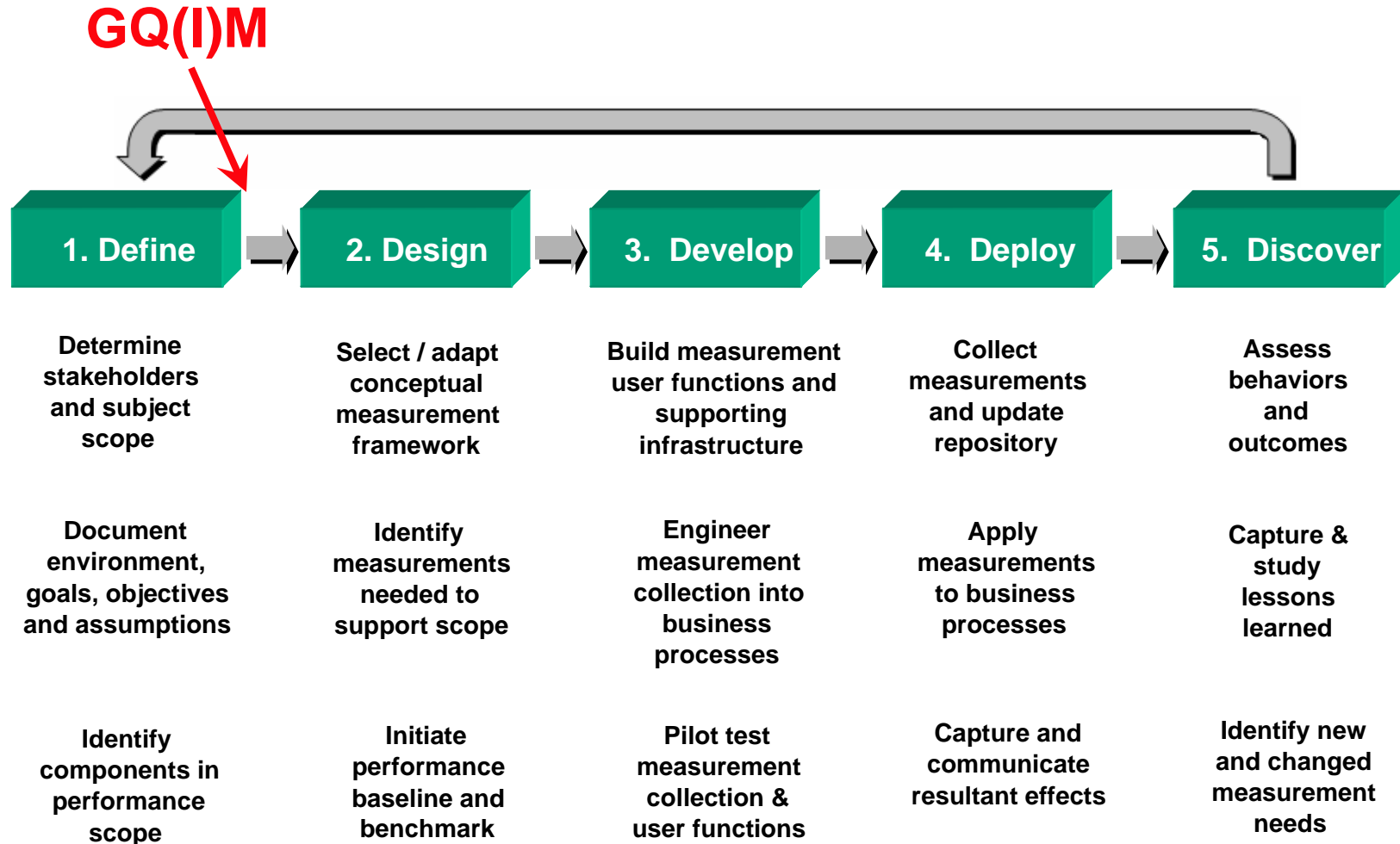
# GQ(I)M Technique: Design by Breaking It Down

Take clearly articulated goals, identify questions that satisfy them...



... develop indicator values that express success, satisfaction, etc and identify the derived and base measures that compose them.

# Performance Measurement Methodology Recurring Life Cycle



# Crucial stakeholder input identifies measurement scope, content and performance components

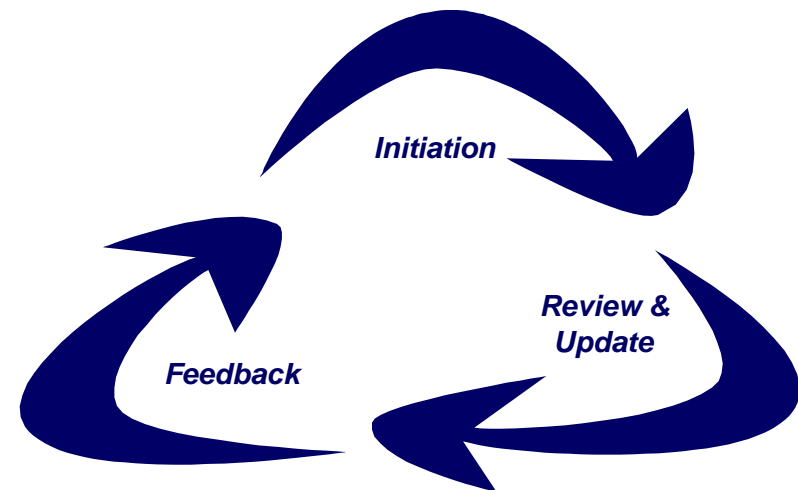
- ▶ **The intent** is to provide people with information so they can make better decisions
- ▶ **Who needs information and how they will use it** will determine in large part *what* information is needed
- ▶ **Stakeholder types** include
  - Executive Management
  - Dept. Directors (e.g. Data Center Operations, Field Services, Customer Care)
  - Market Directors, Business Process Owners, Station Managers
  - Program Managers, Project Managers, Team Leads, Developers, Support
  - Engineers, Technicians, Vendors, Suppliers, Media
  - QA, Technical Process Owners, R&D, Trainers
  - Congress, Government Departments & Agencies
  - End Users, Consumer Market Sectors, Shareholders, Public



“Steak” holder

# Stakeholder involvement is crucial throughout the measurement process

- ▶ Ensure wide range of stakeholders are included in GQ(I)M
  - Otherwise measurement program may ignore key business aspects
- ▶ Review business goals with stakeholders periodically to confirm relevance
  - If priorities change, measures should change as well
- ▶ Feedback loop to stakeholders is critical to success
  - Especially to those collecting data
  - Results of measurement and analysis should be shared with and explained to stakeholders regularly



# Defining Mission, Vision, Goals, & Objectives

- ▶ **This is the most critical success factor in measurement**
- ▶ **Scope and focus** set the initial perspective boundaries
- ▶ **Goal decomposition** illustrates breakdown from high level goals to more detailed objectives
- ▶ **“4 Corners” Chart** illustrates how areas targeted for measurement are prioritized for inclusion in the measurement project within acceptable schedule, effort, and cost according to selection characteristics reflecting
  - Client’s most immediate needs
  - Best availability for analysis
  - Severity of impact
  - Combinations of these factors

# Targeted goals and objectives depend on scope and focus perspectives

## Scope Examples

- ▶ **Organization-wide**
  - Big picture
  - General for the whole organization
  - Strategic/market-driven goals
- ▶ **Program / Business Unit**
  - Focused on specific user groups/types
  - General for the program/unit and organizational level
  - May be driven by specific client technical or business environment
- ▶ **Project**
  - Targeted to specific development efforts
  - Goals vary from project to project
  - Emphasizes project management and control issues
  - Goals typically reflect project success factors

## Focus Examples

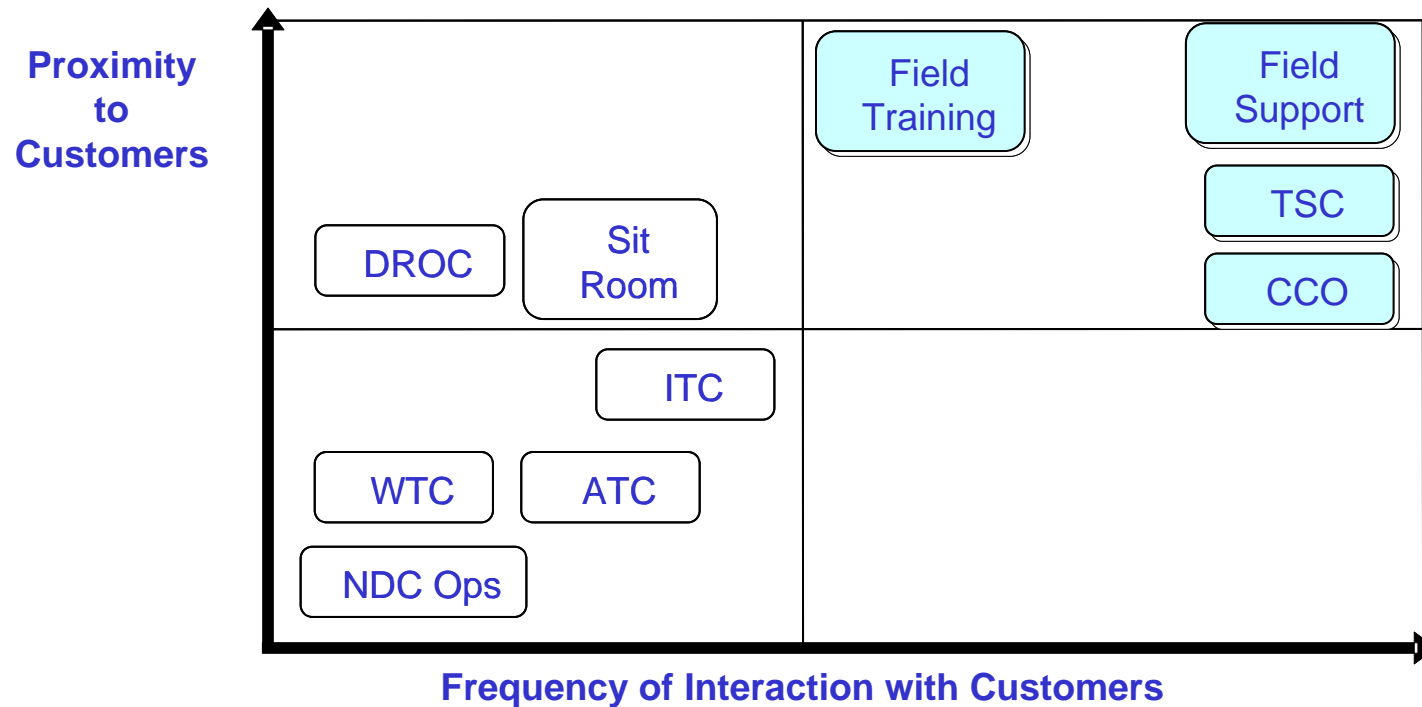
- ▶ **End User**
  - Totally outcome-oriented
  - Issues: capabilities, satisfaction
  - Segmented by user types/areas
  - Goals: effectiveness, retention
- ▶ **Technology**
  - Orientation: equipment, systems
  - Issues: reliability, functionality, throughput, coverage, cost
  - Segmented by technology types
  - Goals: reliability, cost, extensibility
- ▶ **Service Delivery**
  - Orientation: functions and markets
  - Issues: customer service & satisfaction
  - Segmented by technology types, service areas, user types
  - Goals: effectiveness, customer satisfaction, efficiency

# Organization-Wide Goal Decomposition Example

<b>GOAL#1:</b> <i>Improve availability of critical systems</i>	<b>GOAL #2:</b> <i>Improve customer satisfaction</i>	<b>GOAL #3:</b> <i>Increase integration across teams and technologies</i>
<b>Sub-goals:</b> <ul style="list-style-type: none"> <li>– Update and maintain COOP plans to improve response and reaction times to emergency events.</li> </ul>	<b>Sub-goals:</b> <ul style="list-style-type: none"> <li>– Negotiate and continually revise customer expectations and consistently meet or exceed those expectations.</li> </ul>	<b>Sub-goals:</b> <ul style="list-style-type: none"> <li>– Baseline, modify and improve deployment, handoff, and O&amp;M processes across technologies.</li> </ul>
<b>Objectives:</b> <ul style="list-style-type: none"> <li>– Improve top 10 most critical systems availability to 98% minimum</li> </ul>	<b>Objectives:</b> <ul style="list-style-type: none"> <li>– Improve customer satisfaction of 90% of customers to 80% average minimum</li> </ul>	<b>Objectives:</b> <ul style="list-style-type: none"> <li>– Reduce lag time between process teams to maximum of 5% of total processing time in 95% of all internal process transactions</li> </ul>
<b>Tasks:</b> <ul style="list-style-type: none"> <li>– Identify, prioritize and baseline top ten critical systems response and reaction times</li> <li>– Measure impact of improvement initiatives</li> </ul>	<b>Tasks:</b> <ul style="list-style-type: none"> <li>– Identify customers and establish customer mapping process.</li> <li>– Establish customer satisfaction measurement systems including surveys and P.O.S. collection</li> <li>– Measure impact of improvement initiatives</li> </ul>	<b>Tasks:</b> <ul style="list-style-type: none"> <li>– Identify processes, teams and transactions through process mapping</li> <li>– Baseline processing time.</li> <li>– Implement a rewards system that promotes strategic goals and encourages team efforts rather than individual efforts.</li> <li>– Measure impact of improvement initiatives</li> </ul>

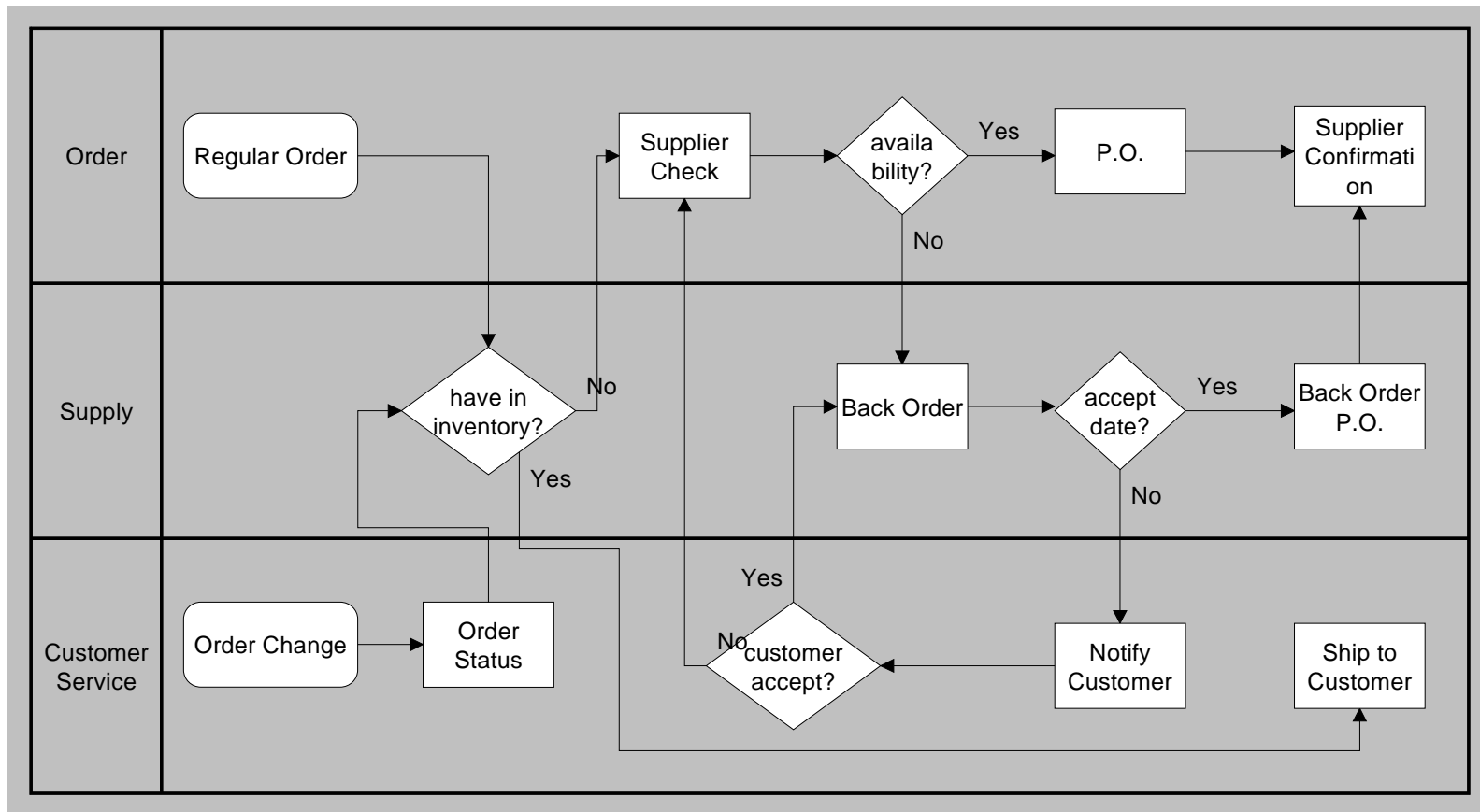
# Prioritizing Areas Targeted For Measurement: “Four Corners Chart”

- ▶ **EXAMPLE FOCUS GOAL:** Improve customer satisfaction
- ▶ **Methodology for selection:** Cross reference each Branches' proximity to external customers and frequency of interaction with external customers.
- ▶ **Initially Targeted Branches:** Field Support, Technical Support Center (TSC), Communications Center Operations (CCO), and Field Training.



# Process Mapping Used to Describe Business Components

Organizations, processes, conditions, events, participants, etc.



Process maps can identify actors, objects, transactions and conditional situations for measurement.

# Developing clear and relevant indicators is crucial to measurement success


- ▶ **Indicators “operationalize” the goals and questions**
  - There are typically multiple ways to answer questions for an indicator
  - There are often alternative data sources that can be used to construct an answer that will support the question being asked.
    - Adapt to the circumstances
    - Ensure the client accepts the alternatives
- ▶ **Indicators then lead to base measures, which represent the lowest data level of the measurement framework**
  - Be selective – too many Base Measures can be overwhelming
  - Ensure Base Measures truly are at the lowest level, and not derived

# Indicators should be developed using a detailed, structured template

<b>Indicator Identification</b>	Unique name and definition of the indicator.
<b>Indicator Purpose</b>	Reason for the indicator. Intended purpose of its use.
<b>Goal / Sub-goal</b>	General statement of success as a desired condition or outcome.
<b>Information Need</b>	Recognized requirement for information that is needed to support decision making
<b>Question</b>	Identifies how it will be known that the goal has been achieved.
<b>Measurement Concept</b>	An idea about how to satisfy the measurement information need
<b>Objective</b>	Specific statement of success as a measurable value or as a specifically defined outcome condition. Supports the goal.

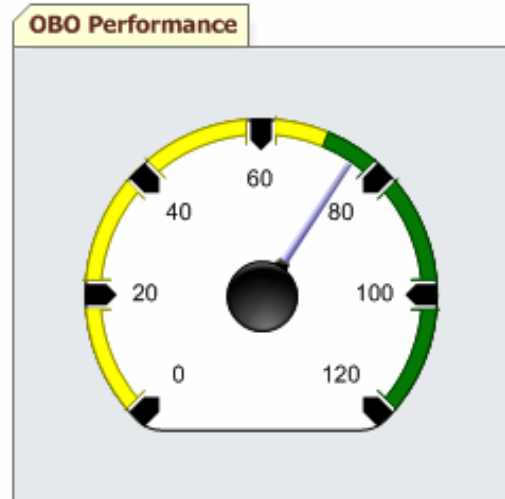
# Performance Measurement Indicator Example

## Performance Measure Details

Status: 

### October 2004

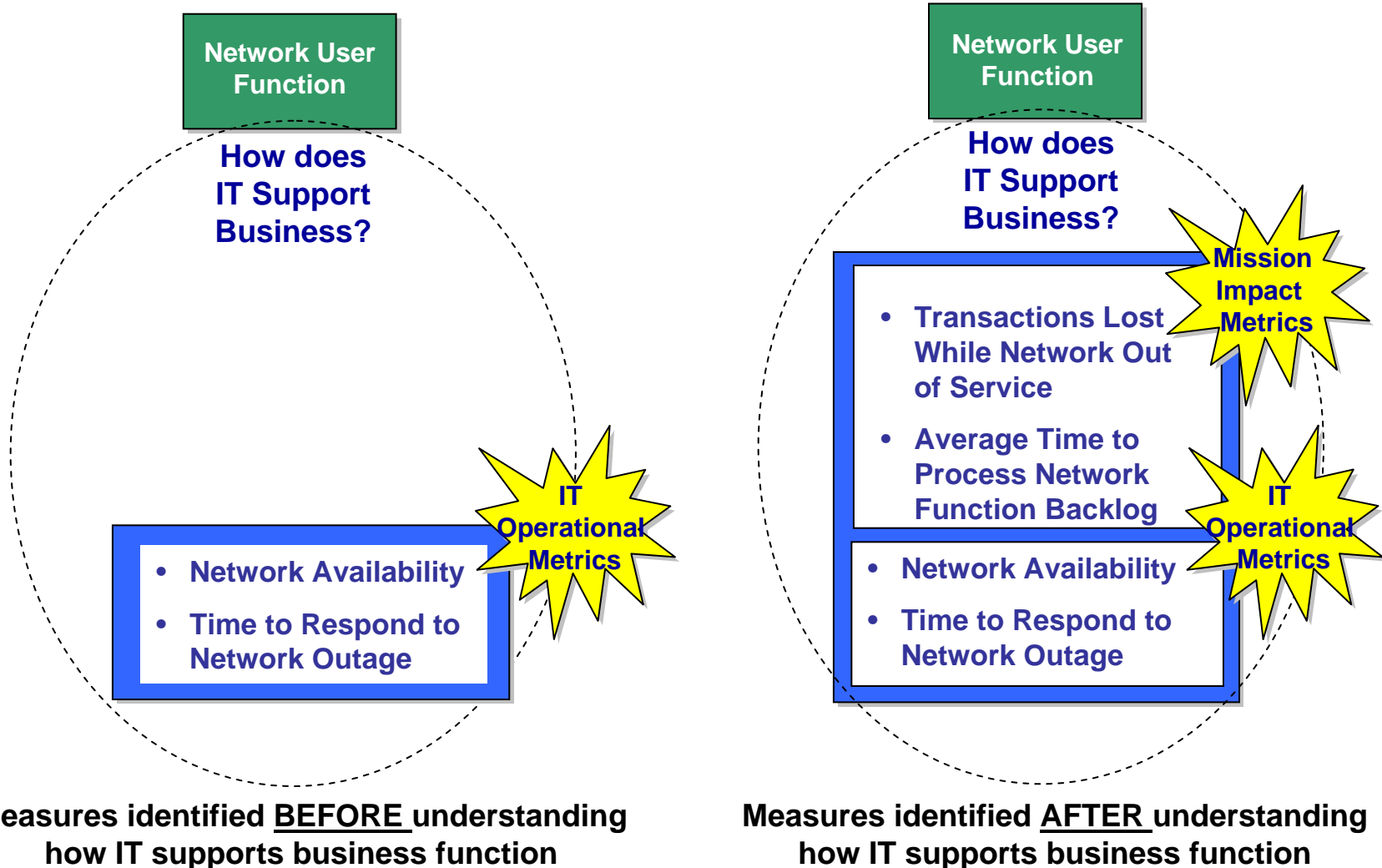
Measure Number	3.1.5
Strategy	Provide responsive customer service and support to senior Department management while managing the overseas leasing process.
Description	At least 70% of customers indicated being either 'Satisfied' or 'Very Satisfied' with the timeliness of RPMs project services.
Target Value	70.00
Current Value	<input type="button" value="Update"/> 75.00
Calculated	No
Goal	Acquire, dispose of and manage real property in a professional manner that meets Department needs and on terms favorable to the USG and defensible to OMB and Congress.
Explanation	66.0% of the respondents indicated they were either 'Satisfied' or 'Very Satisfied'.



[< Back](#)

## Indicator: Overseas Building Operations Performance

# More complete performance measures can be developed with better understanding of a business function



# Other critical pieces of the Measurement Architecture

## ▶ Measurement Plan

- Lays out GQ(I)M framework, identifies base measures, derived measures, and indicators
- Sets forth collection, reporting, and analysis processes
- Identifies roles and responsibilities, tools, and data sources

## ▶ Measurement Construct Document

- Provides details for each measure collected (Indicators, Base Measures

## ▶ Service Level Agreement

- Establishes expected service levels for each of the critical measures

## ▶ Measurement Repository

- Central database for collection, storage, and analysis of measures
- Evolves into Knowledgebase: info on all measurement-related components i.e. processes, transactions, actors, objects, etc.

# Contact Information

## ▶ Terry Vogt

– Booz Allen Hamilton

- Email: [vogt\\_terry@bah.com](mailto:vogt_terry@bah.com)
- Office: (703) 377-4562

## ▶ Software Engineering Institute

– Carnegie Mellon University

- <http://www.sei.cmu.edu/>