Enterprise Business Intelligence

Building Meaningful Metrics and KPI's

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Methodology Overview

1. Metrics – What & Why

2. Metrics – Categories, Attributes, et al

3. Methodology – Assessment & Selection

4. Sample Ranking Matrix

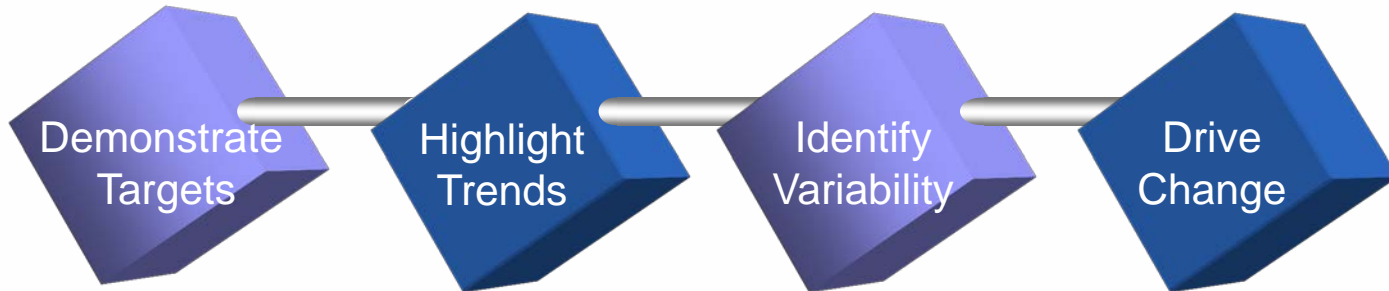Metrics are a set of objective measurements that quantify results.

Measurements

You can't manage what you don't measure.

What you measure is what you get.

Activities/Results

They help illustrate an organization's progress in measurable terms.

Demonstrate Targets → **Highlight Trends** → **Identify Variability** → **Drive Change**

Objectively demonstrate if targets and service levels (SLA and SLO) are being met	Highlight both positive and negative trends over a period of time	Identify variability in results	Focus efforts • Targets not being met? • Trends predict future problems?

Long term: Metrics help to drive and demonstrate improvements in an organization's process maturity on the CMM scale.

Metrics – Categories

Effectiveness

Doing things right with fewer errors

Measure process quality

NB "right" includes both process accuracy AND security!

Productivity

Doing more things

Measure volume of activity

Efficiency

Doing things at a lower cost (either in dollars or time)

Measure process efficiency

Metrics – Correlation

Strategic Goals

The driving strategic goals and objectives tend to be subjective

SLA / SLO

Metrics by definition have to be objective

Selected Metric

Selected metrics seldom are able to directly measure performance

Identify a set of objective metrics that will correlate with subjective goals

Most metrics are proxies based on objective measures of activity that are thought to correlate to success in the underlying goals and objectives
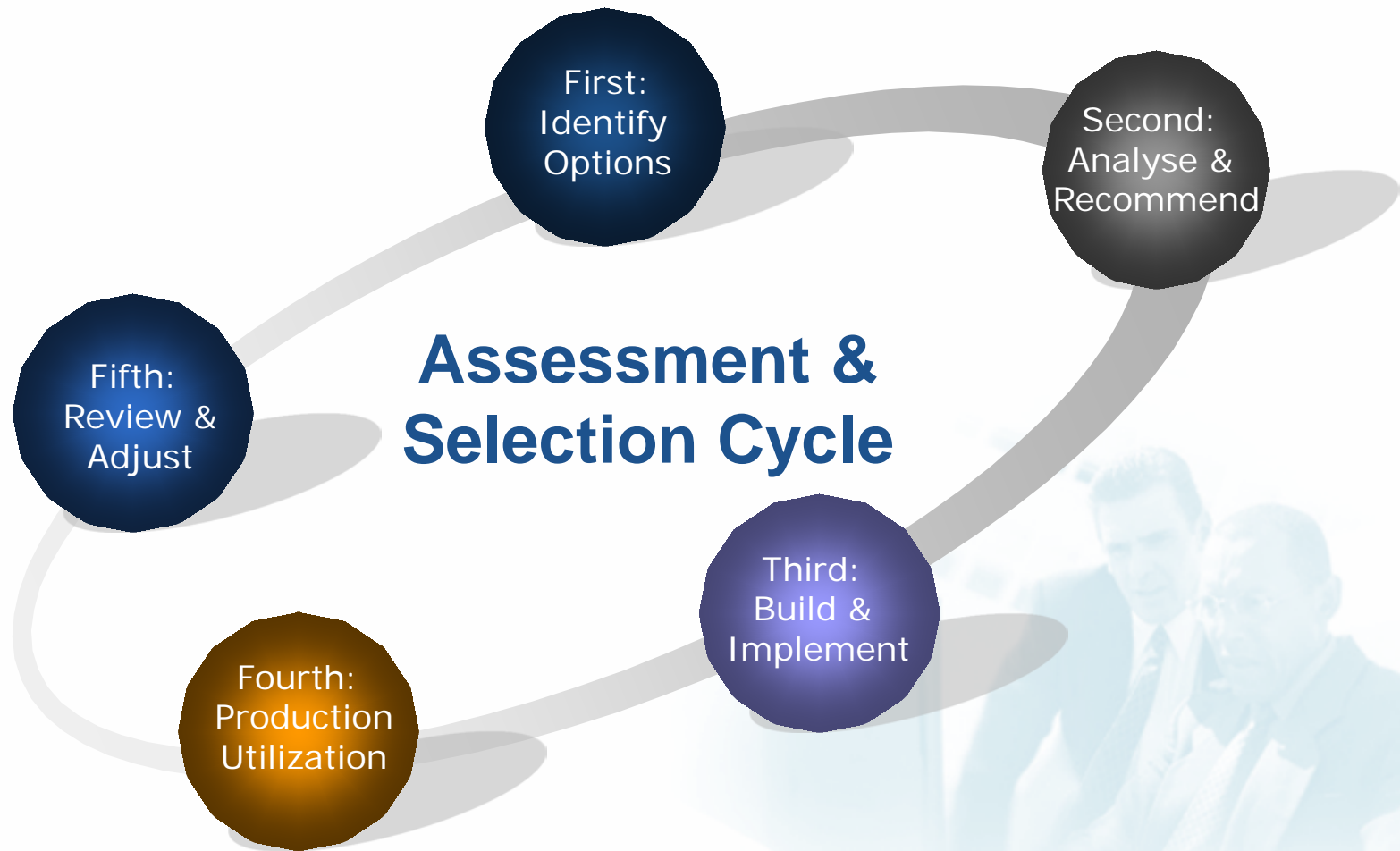
Metrics – Availability

Metrics need timely data in a usable format:

- identify the source of the underlying data
- rank availability on a 1-5 scale, eg:

  I. available electronically in a timely fashion (including historic data)

  II. available manually in a timely fashion

  III. available but not timely – would require modest effort to correct

  IV. not yet available but clearly defined – could be available in near future

  V. not yet available and no clear roadmap for near future

First:
Identify
Options

Second:
Analyse &
Recommend

Fifth:
Review &
Adjust

**Assessment &
Selection Cycle**

Third:
Build &
Implement

Fourth:
Production
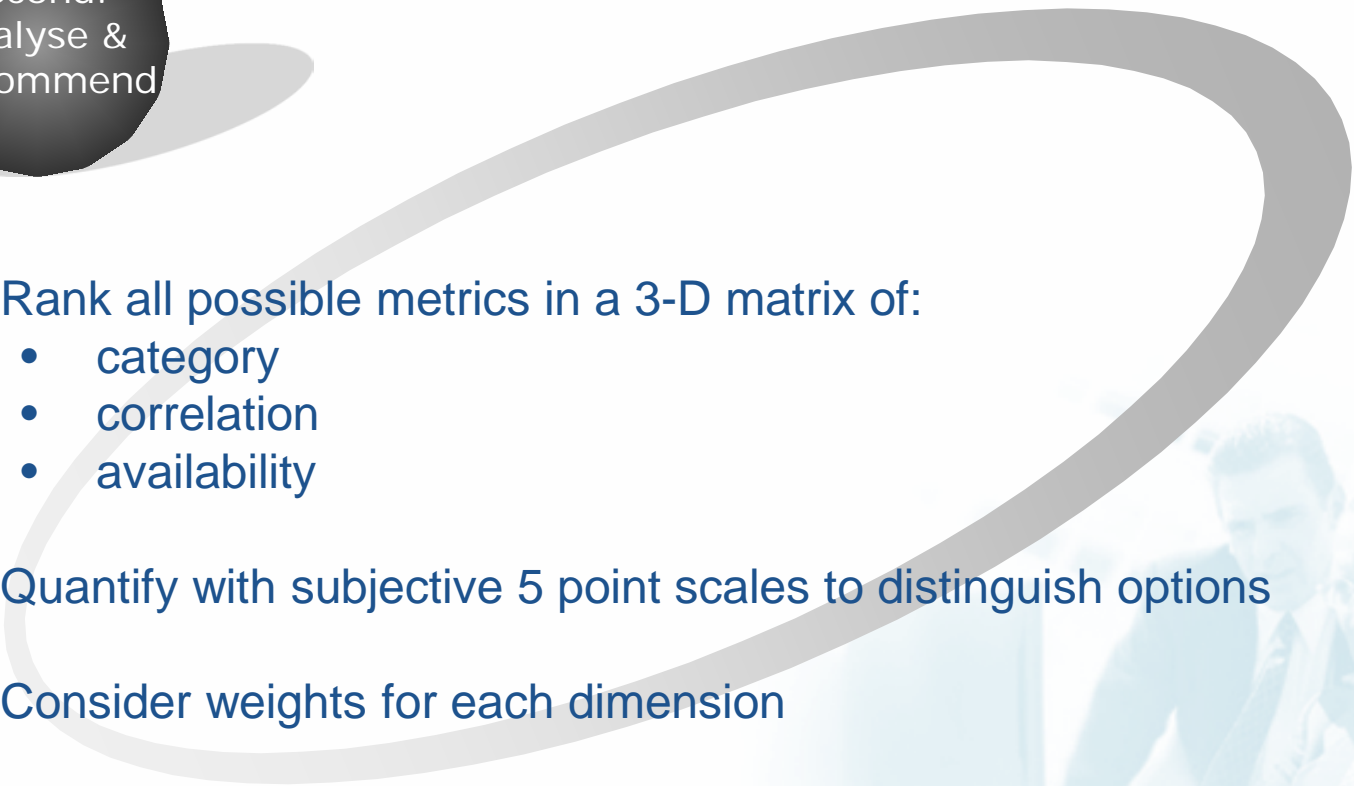Utilization

First: Identify Options

- Start with the organization's Strategic Goals and Objectives

- Gather any existing Service Level Agreements (SLAs) or Objectives (SLOs) – review annual reporting for ideas

- Identify who the key stakeholders and customers are for each service

- Brainstorm a list of "possible" metrics with a representative team
  - Categorize by: Effectiveness, Productivity and Efficiency

Methodology - Recommend

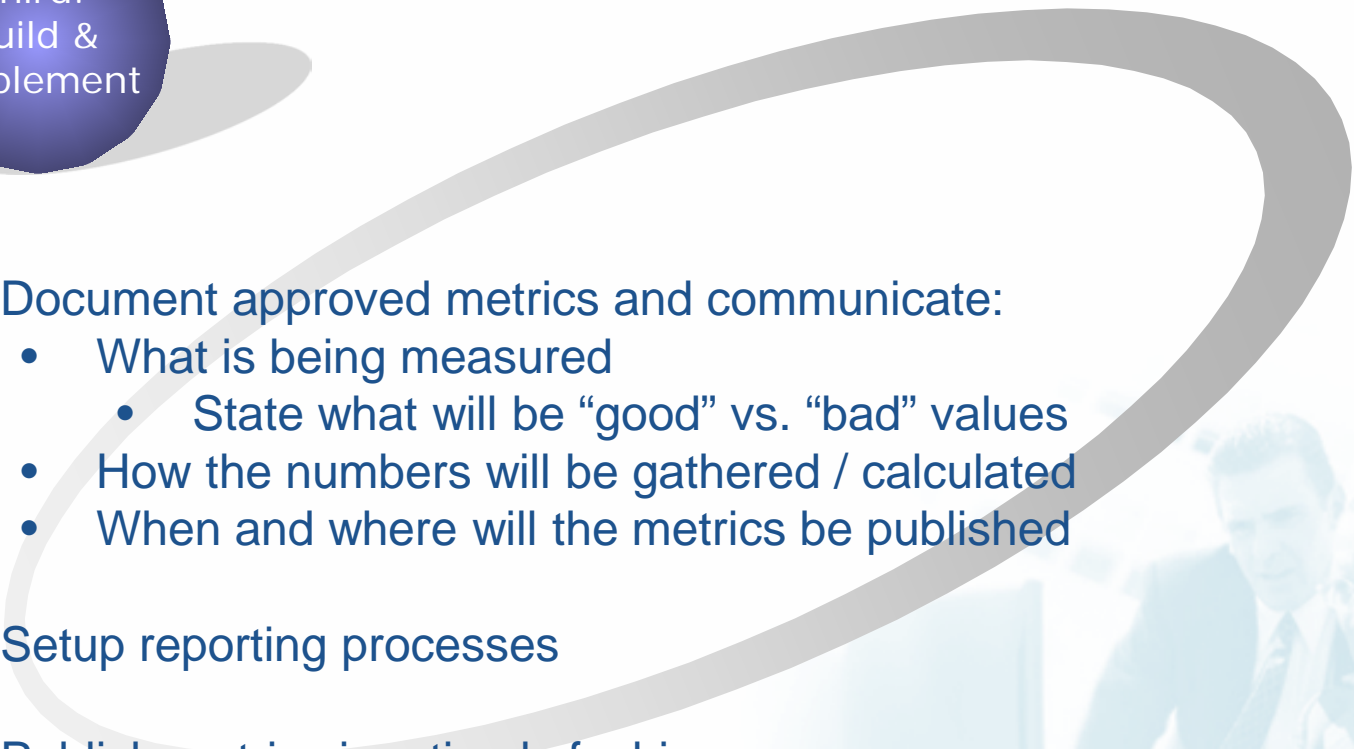Second: Analyse & Recommend

- Rank all possible metrics in a 3-D matrix of:
    - category
    - correlation
    - availability

- Quantify with subjective 5 point scales to distinguish options

- Consider weights for each dimension

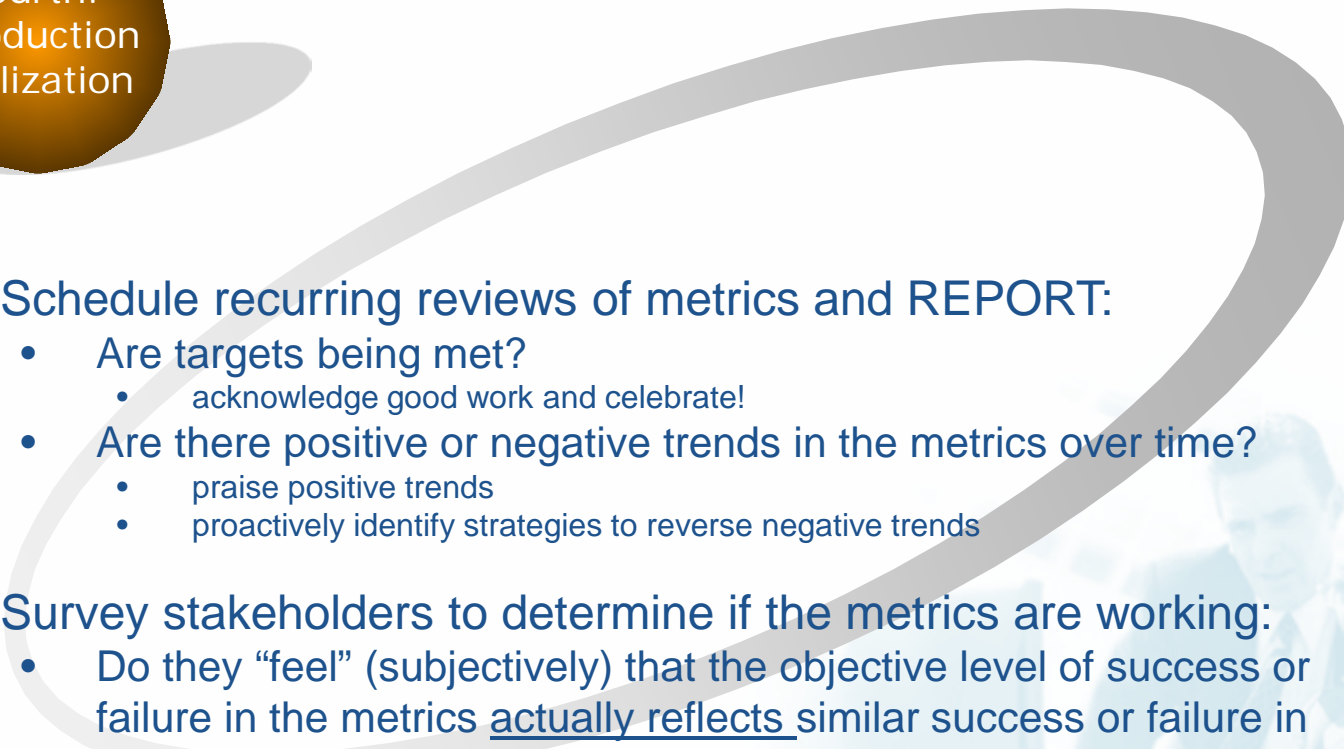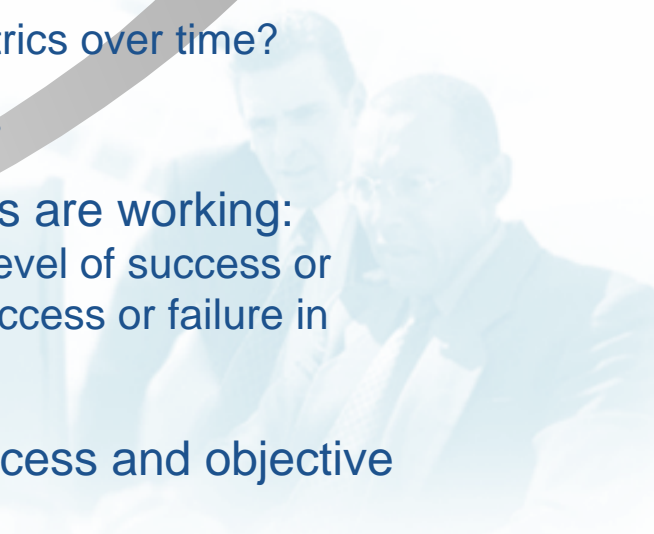- Select 1-3 metrics in each category for initial implementation

Third:
Build &
Implement

- Document approved metrics and communicate:
  - What is being measured
    - State what will be "good" vs. "bad" values
  - How the numbers will be gathered / calculated
  - When and where will the metrics be published

- Setup reporting processes

- Publish metrics in a timely fashion

Methodology - Production

Fourth: Production Utilization

- Schedule recurring reviews of metrics and REPORT:
  - Are targets being met?
    - acknowledge good work and celebrate!
  - Are there positive or negative trends in the metrics over time?
    - praise positive trends
    - proactively identify strategies to reverse negative trends

- Survey stakeholders to determine if the metrics are working:
  - Do they "feel" (subjectively) that the objective level of success or failure in the metrics <u>actually reflects</u> similar success or failure in achieving the underlying (strategic) goals?

- Consider dropping any metric if subjective success and objective perception don't agree

Fifth: Review & Adjust

- Do NOT expect any given set of metrics to continue to drive improvement

- Once acceptable gains have been made, metric should be replaced by more relevant metrics or become "institutional" (continue to track but only report as requested)

- There should ALWAYS be 3-7 key metrics for each service area, but there may be dozens of secondary institutionalized metrics to support analysis if a problem arises

REPEAT!

Ranking Matrix – Metrics

Availability: Rank on a scale 1 = readily available to 5 = no clear data source

Correlation : Rank objective correlation

Metric 1	1	2	3	4	5
Very High					
High					
Moderate					
Low					
Indirect					

Questions?