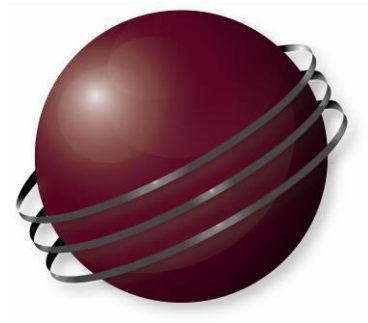


European Competitive Measurement Symposium 2008



Measurement Process Effectiveness

Pete Baxter

Distributive Management

www.distributive.com

pbaxter@distributive.com



Introduction

Justification for Measurement Effectiveness

Organizations must quantify:

- ✚ how well the measurement process serves its “users”
- ✚ how much better the measurement process is getting

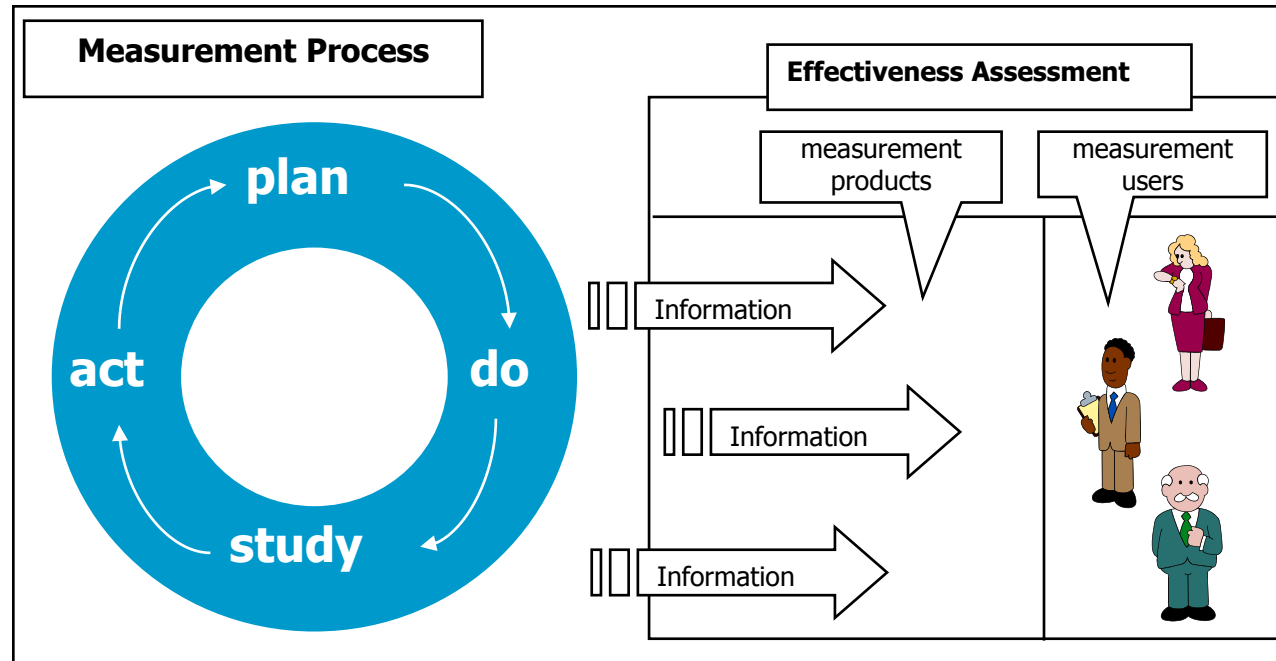


Introduction

- ✚ Identify required process elements
- ✚ Technique for quantifying measurement effectiveness
- ✚ Stimulate you to implement an effectiveness assessment



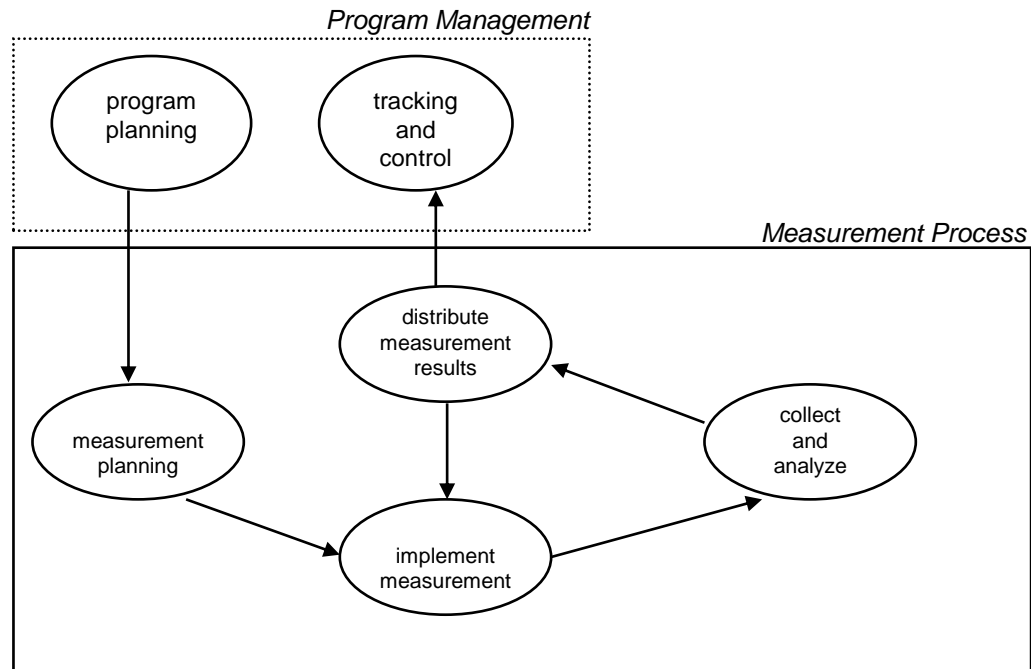
Products & Users of Measurement



- Measurement "Users" are typically managers
- Measurement "Products" are information



Measurement Process Overview





Effectiveness Is ...

Effectiveness is extent to which:

- ⊕ measurement process goals and objectives are met
- ⊕ managers use measurement information during decision-making

Effectiveness is not:

- ⊕ conformance to stated measurement process
- ⊕ efficiency of measurement process in using resources



Who Uses “Effectiveness” ?

- ❖ Measurement process effectiveness is not normally done as part of an on-going measurement process.
- ❖ Effectiveness assessment determines how well the measurement process translated information needs into a measurement plan.
- ❖ It is used by measurement process managers and analyst.



Effectiveness Assessment

Overview of steps

1. Document measurement goals and issues
2. Define periodic and a-periodic decision-making
3. Develop survey
4. Conduct assessment
5. Analyze results
6. Take action



1) Document Goals and Issues

- ⊕ Need to extract what goals (e.g. “SW CMM Level 3) and issues (e.g. “Requirements Creep”) the measurement plan address
- ⊕ Should be contained in a Measurement plan or organizational measurement standard



2) Define Decision-Making Activities

- ❁ Users of measurement information are managers
- ❁ Find out what decisions they are making and when they make them
 - ❁ How many meetings each week/month?
 - ❁ What reports do they use?
 - ❁ What is source of reports?
- ❁ Interested (later) in seeing how frequently measurement is used in such decision-making



3) Develop a Survey

- ✚ Formulate a simple questionnaire that can be given to measurement users
- ✚ Include:
 - 1) what issues and goals measurement address
 - 2) how much users rely on metric data
 - 3) whether measurement has and could improve
- ✚ Need criteria for each question



Effectiveness Assessment

Step 3 - Partial Sample Survey

Assess Measurement Implementation

C0	How many periodic decision-making activities do you complete each month? For how many do you rely on metric data?
C1	What percent of the information you use for decision-making is provided by the measurement process?
C2	Is metric data provided to you at the frequency specified?
C3	Is the associated metric data accurate and valid?
C4	Is measurement data timely?
C5	Are adequate SPC techniques employed?
C6	Is the data presented in a useful way?



3) Establish Focus

- ❖ The survey should be developed to provide the intended “weight” to either goals or users
- ❖ For example, each question is worth 1 point and there are 10 question related to goals and 10 questions related to user satisfaction



4) *Conduct*

- ✚ Prepare a package containing, purpose, instructions for completing, contact information and the survey itself
- ✚ Send to all users identified in measurement plan
- ✚ Use an Excel spreadsheet or a simple Word document



5) Analyze Results

- ✚ Combine results
- ✚ Review for patterns and exceptions
- ✚ Calculate a gross effectiveness
- ✚ Determine assessment drivers (I.e. what areas helped or hurt the most?)
- ✚ Summarize by goal, management level, etc



6) Take Action

Use the survey results as input during the next measurement process planning to:

- ❑ better support users
- ❑ identify corrections/improvements to the measurement process
- ❑ Get rid of un-needed/un-used elements



Using the Results

First Time

- ❖ Provides a baseline for measuring future improvements in the measurement process
- ❖ Shows the areas of of decision-making that users care about the most
- ❖ Performing the first time sets the “core” set of survey questions (you can always add on)



Using the Results

Ranking and Prioritizing the Results

- Link survey results to your measurement goals to see how well the measurement goals were set for servicing user needs

... Or ...

- Measurement goals provided priority weights for determining what is most important in the results



Using the Results

Examine Results by Management Level

- ❖ Help identify levels of management that are not well-serviced by measurement (but should be)
- ❖ May be some correlation between reluctance to commit and survey results
- ❖ Ensure that you are not “too high” or “too low” with management focus



Using the Results

Plan/Re-plan the Measurement Process

- ✚ At next measurement process planning activity, survey results are used to initiate process improvement
- ✚ May add goals (if users are not happy with current set) or delete goals (if users are not using some of current set)

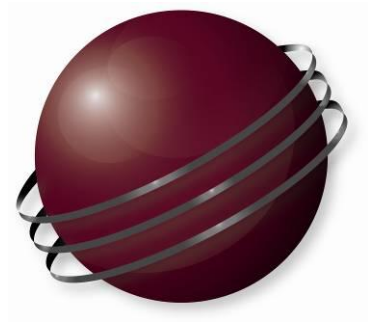


Summary

Conclusions

- ✦ More detailed information is available as a technical paper (appeared in short form in INCOSE Insight)
- ✦ Share your experiences or suggestions
- ✦ Thank-you for your time

European Competitive Measurement Symposium 2008



Questions