

***Practical Software and Systems Measurement***

# ***Practical Software and Systems Measurement***

***A foundation for objective project management***



***Measuring Outcomes***

***July 26, 2007***

***Brad Clark, Betsy Clark***

***PSM Users Group Conference***

***23-27 July 2007***

***Golden, Colorado***

## ***Objectives of the Workshop***

- ***Define “Outcome Measurement”***
- ***Identify who is measuring outcomes***
  - ***Major IT programs responding to OMB requirements***
  - ***To what extent is outcome measurement occurring in the commercial world?***
- ***Should PSM guidance be adapted to outcome measurement?***
  - ***Provide guidance on establishing causal links between inputs (technology) and outcomes***
  - ***An ICM table for outcome measurement?***
  - ***Telling a good “story”***

# *Practical Software and Systems Measurement*

## **Workshop Format**

- **Agenda**
  - *Brief re-look at Tuesday's presentation*
  - *Five questions to ponder*
  - *Recommendations*
- **Techniques that will be used**
  - *Vulcan self-mindmeld*
  - *Free association experiences*
  - *Group hug*

## ***Intended Output***

- ***Workshop answers to questions***
- ***Recommendations for PSM Steering Group***

## ***Workshop Background***

- ***PSM history in this area***
  - ***PSM has primarily focused on project-level measures during development and maintenance***
  - ***Issues: meeting schedules, costs, technical and quality constraints***
- ***Outcomes focus on benefits resulting once project is deployed***
  - ***Impact on mission or business goals***

# ***Practical Software and Systems Measurement***

## ***Workshop Material***

# ***Practical Software and Systems Measurement***

## ***Introductions***

- ***Name***
- ***Where you work / what you do***
- ***Expectations for this workshop***

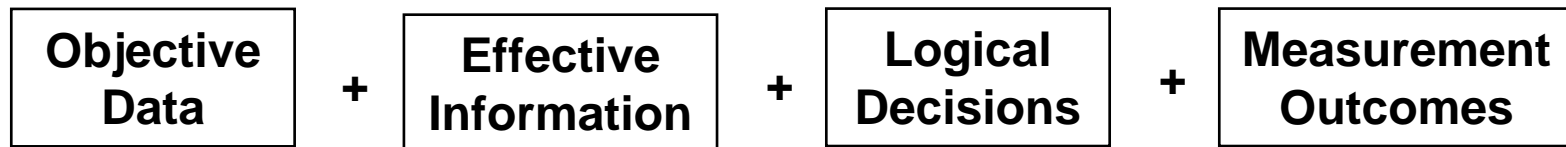
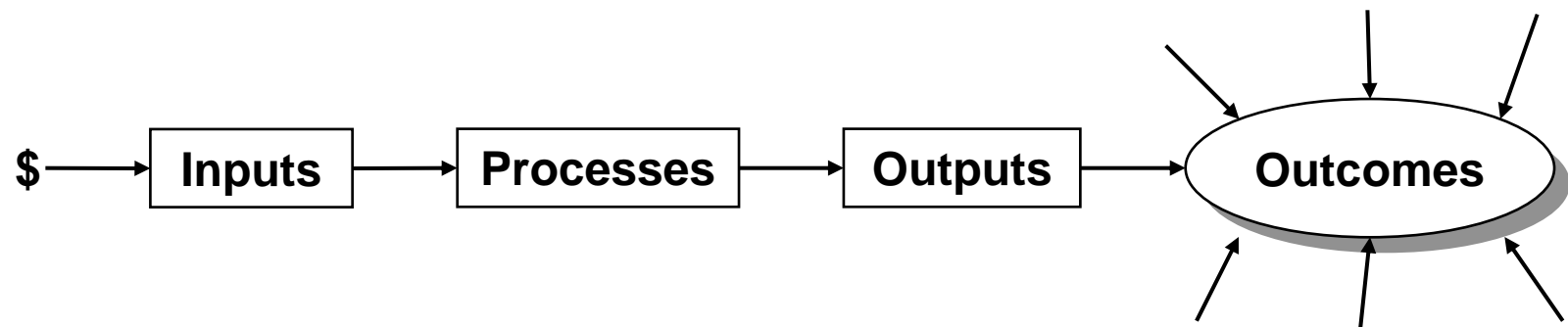
## ***Measuring Outcomes***

- ***Review Tuesday's presentation:  
"Measuring Program Outcomes"***



# *Practical Software and Systems Measurement*

## *Different Views for Measuring Outcomes*



# ***Practical Software and Systems Measurement***

## ***Outcome Measures for:***

- *Weapons system upgrade*
- *Joint forces interoperability technologies*
- *New technology insertion benefits*
- *Secure Border technologies*
- *Medical ID-card benefits*
- *Major modernization programs*
- *ROI benefits from company website*
- *Technologies that make IT “Agile”*
- *Open Source software support and licensing*
- *Value of Blogs, IM, Wiki’s, Collaborative Network tools*
- *Communications technologies: wireless, internet, Wi-Fi*
- *Mobile security*
- *Protecting Enterprise data assets*
- *Internet security threats*
- *Disaster recovery procedures & infrastructure*
- *Technical architecture compliance / intrusion*

# *Practical Software and Systems Measurement*

## *Five Questions*

- *How do you define “Outcome Measurement” (who, what, when & why collected)?*
- *What is the purpose of collecting outcome measures?*
- *Is it possible to identify meaningful outcomes without mission or business goals?*
- *Is it possible to identify a set of generic outcomes (efficiency, effectiveness, accuracy, usability)?*
- *Is it possible to define a set of frequently used outcome measures?*

*Are there other questions we should consider?*

## ***Additional Questions***

- ***What would be required to start measuring outcomes?***

## ***PSM Guidance***

- ***Should PSM guidance be adapted to outcome measurement?***
  - ***Provide guidance on establishing causal links between inputs (technology) and outcomes***
  - ***Telling a good “story”***
  - ***An ICM table for outcome measurement?***

# ***Practical Software and Systems Measurement***

***Out-Brief Material***



# ***Practical Software and Systems Measurement***

## ***Measuring Outcomes***

# ***Practical Software and Systems Measurement***

## ***Workshop Participants***

- ***Brad Clark: co-lead***
- ***Betsy Clark: co-lead***
- ***Jules Verne***
- ***Albert Einstein***
- ***Joan Collins***





# ***Practical Software and Systems Measurement***

## ***Summary***

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# ***Conclusions, Recommendations, and Results***



## ***Practical Software and Systems Measurement***

# ***Next Steps/Action Items***



## ***Practical Software and Systems Measurement***

***Please use Slides #2-7 for your introductions and slides #8-13 for your outbrief on Friday, the 27<sup>th</sup> July***

## ***Practical Software and Systems Measurement***

- ***(1) identified which of CBPs six strategic goals ACE supported***
- ***(2) identified a set of mission outcomes that supported those goals (protect the US, facilitate legitimate trade, collect duties and other revenues)***
- ***(3) identified business processes that impact those outcome***
- ***(4) identified technology enablers***