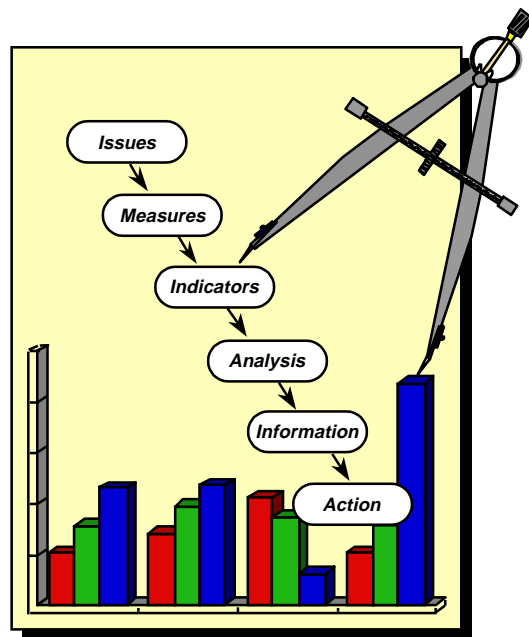


Practical Software Measurement

A guide to objective program insight



PSM Guidance Planning and Feedback

July 24, 1997

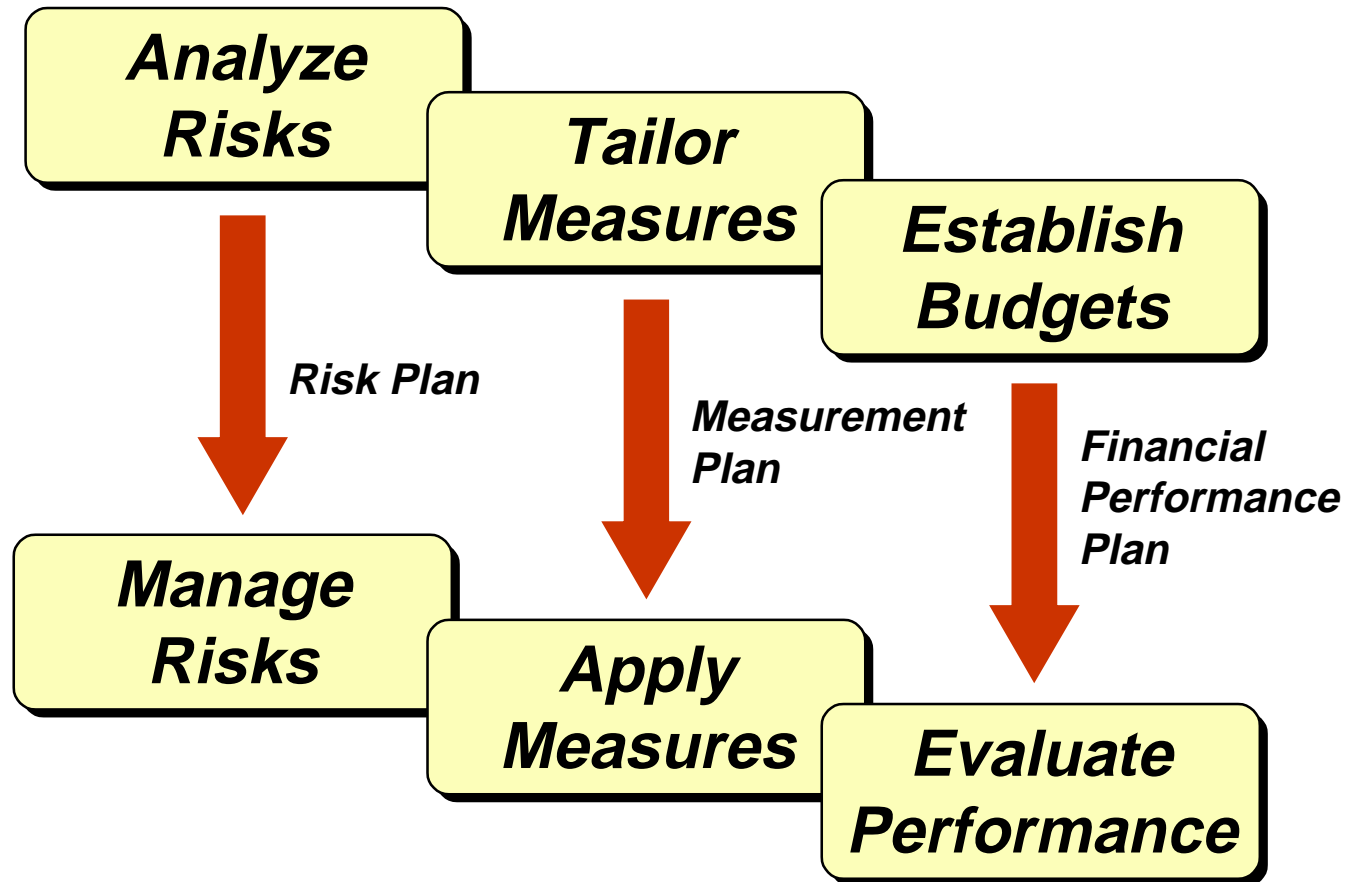
***Joint Logistics Commanders
Joint Group on Systems Engineering***

***Office of the Under Secretary of Defense
Acquisition and Technology***

Restatement of Objectives

- ***Review the PSM Version 3.0 Guidance***
- ***Identify Additional User Requirements To be Addressed in PSM Version 3.0***
- ***Assess Current PSM Guidance and Associated Products - Identify Required Revisions***
- ***Review the Current PSM Project Plan***

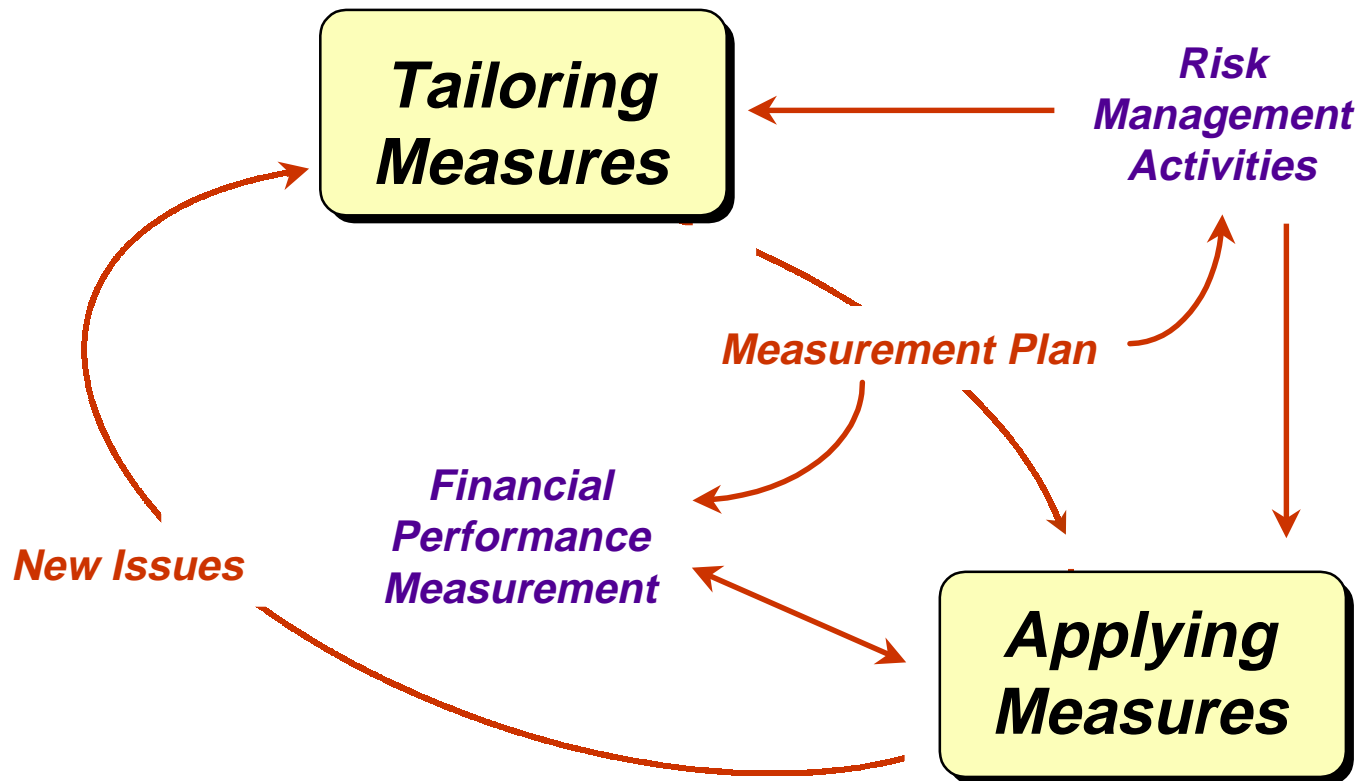
Quantitative Software Management



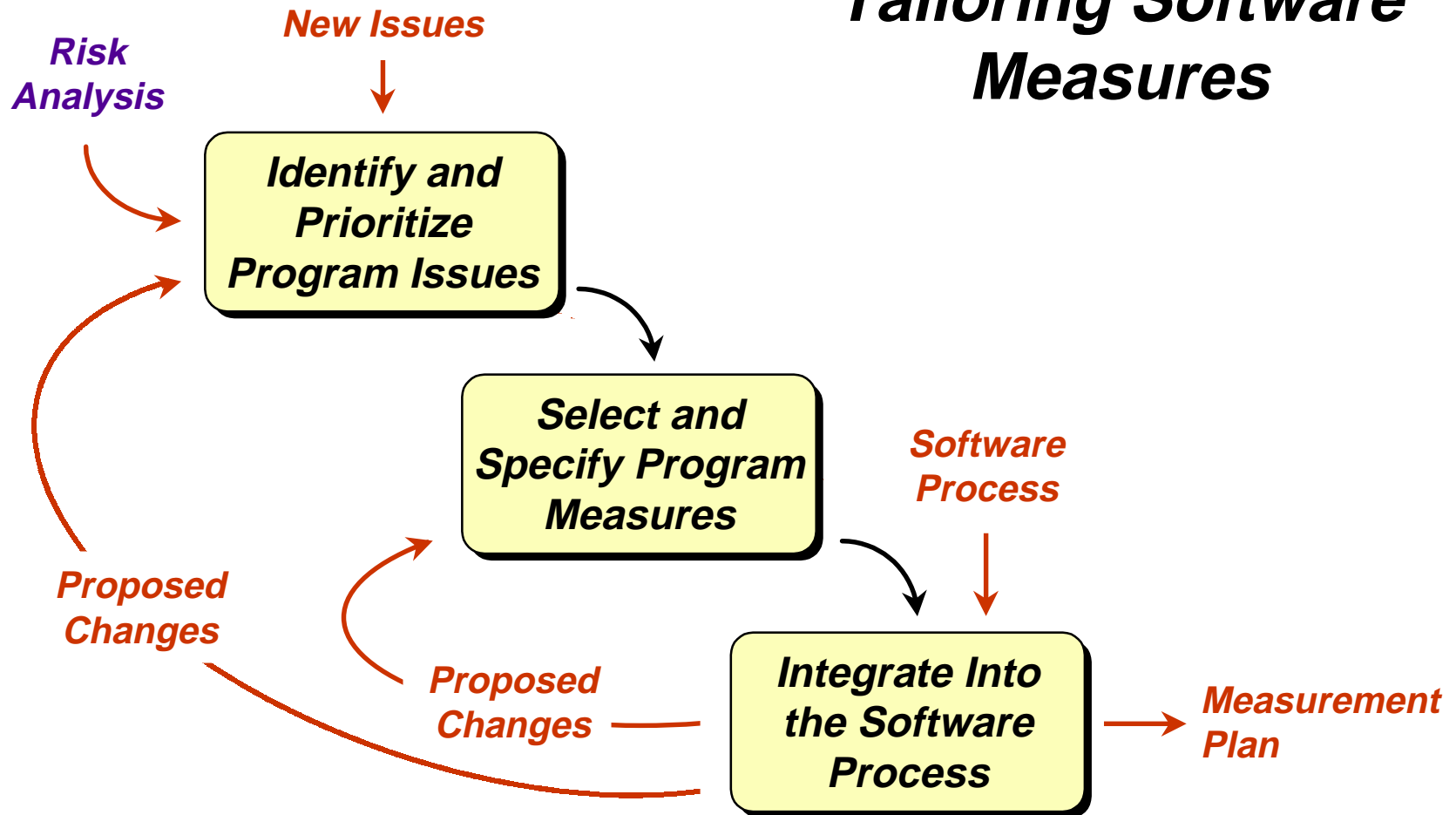
PSM Version 3.0 Additions and Revisions

- ***Measurement Process Revisions***
- ***Risk Management Integration***
- ***Performance Measurement Integration***
- ***Revised Software Analysis Guidance***
 - ***Software Estimation Guidance***
 - ***Structured Analysis Model***
- ***Software Maintenance Guidance***
- ***Revisions to Current Guidance***

PSM 3.0 Measurement Process

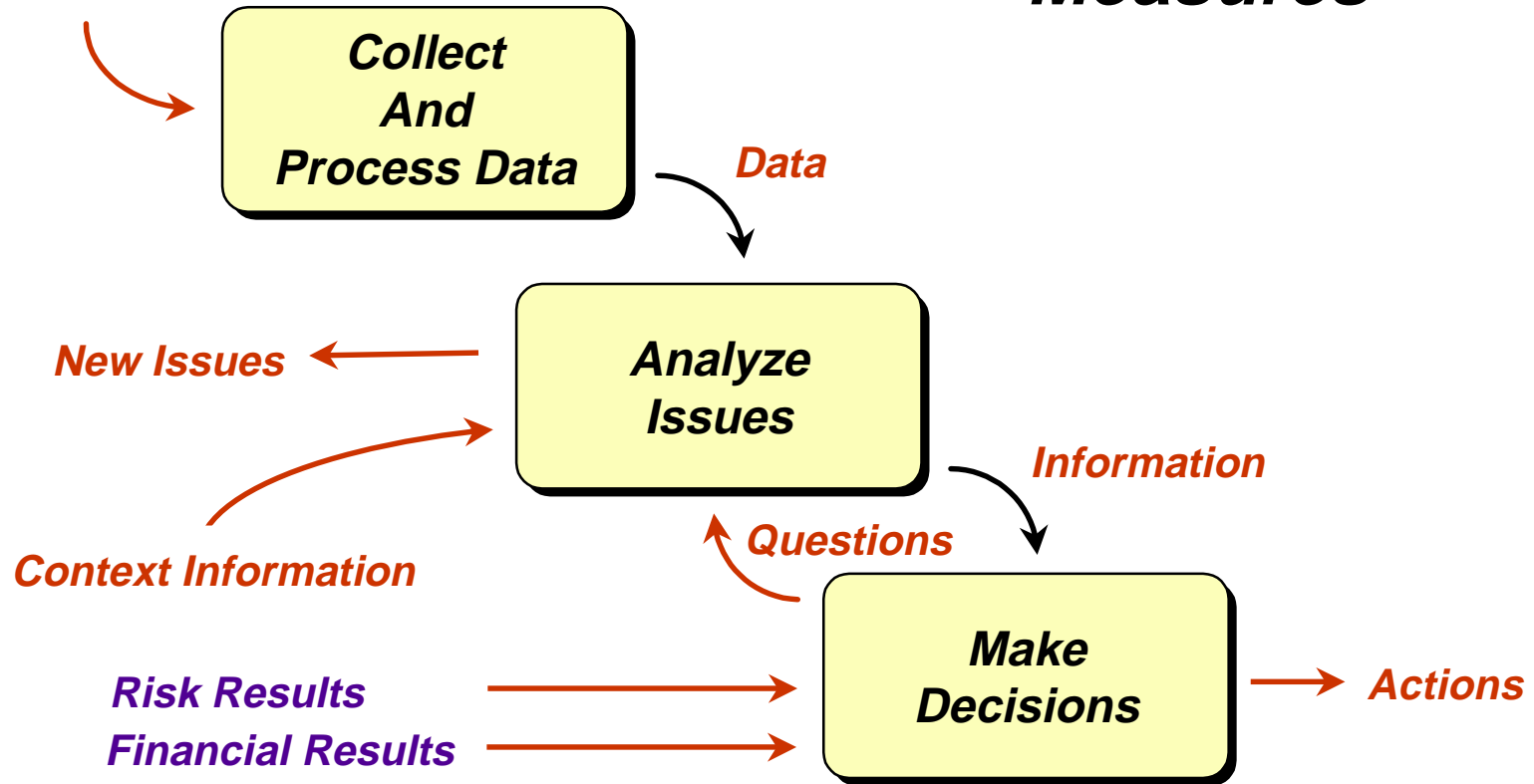


Tailoring Software Measures

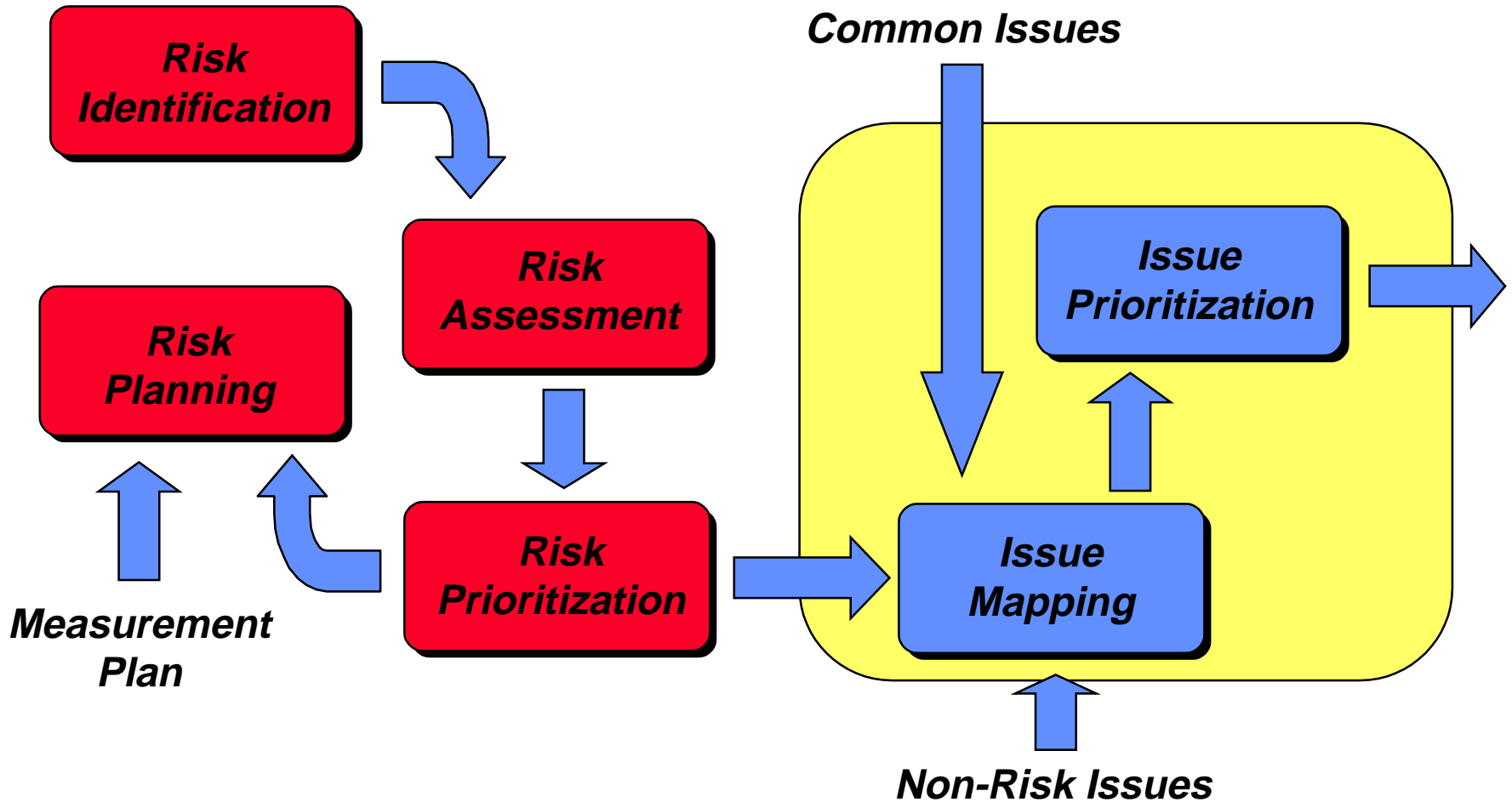


Applying Software Measures

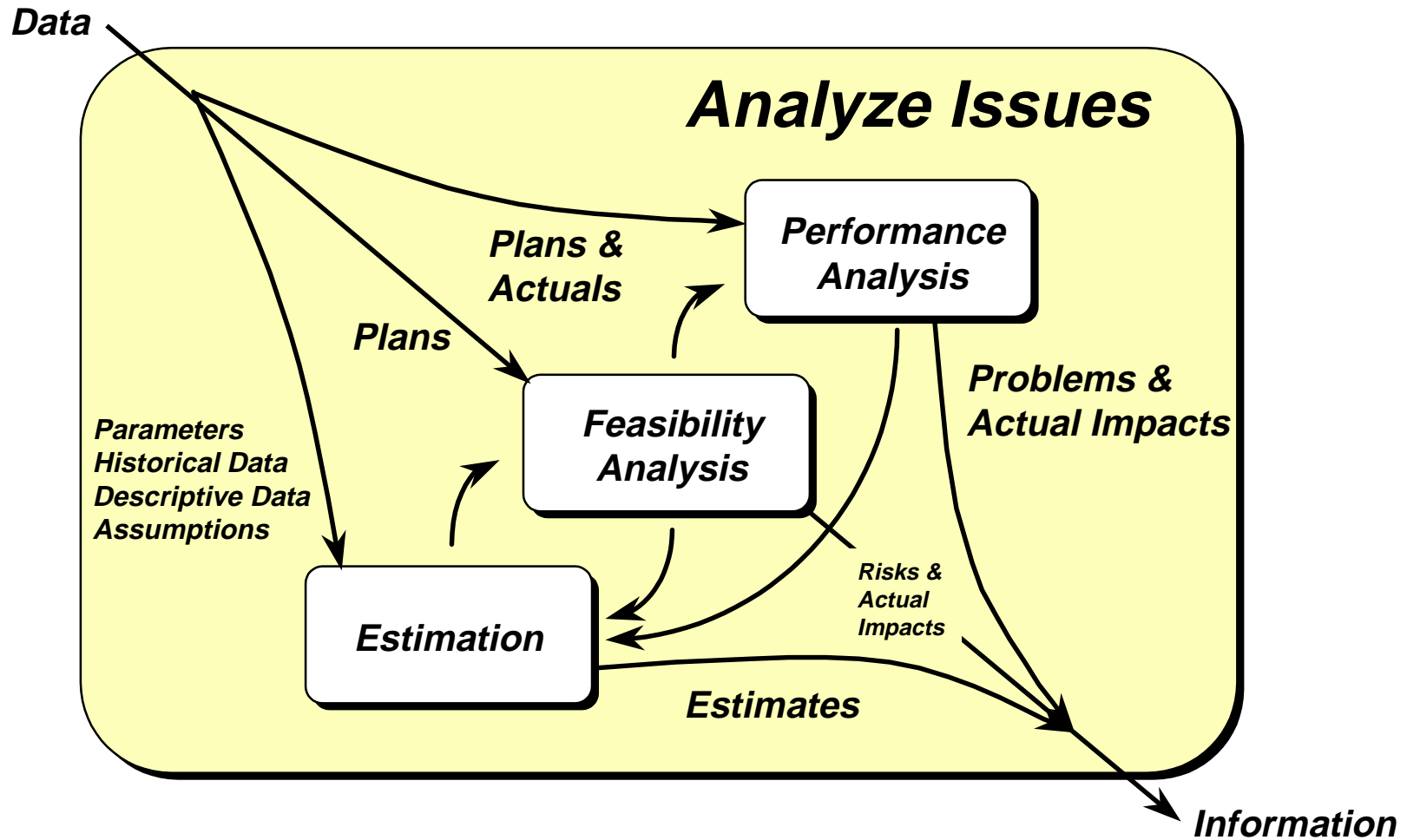
Measurement Plan



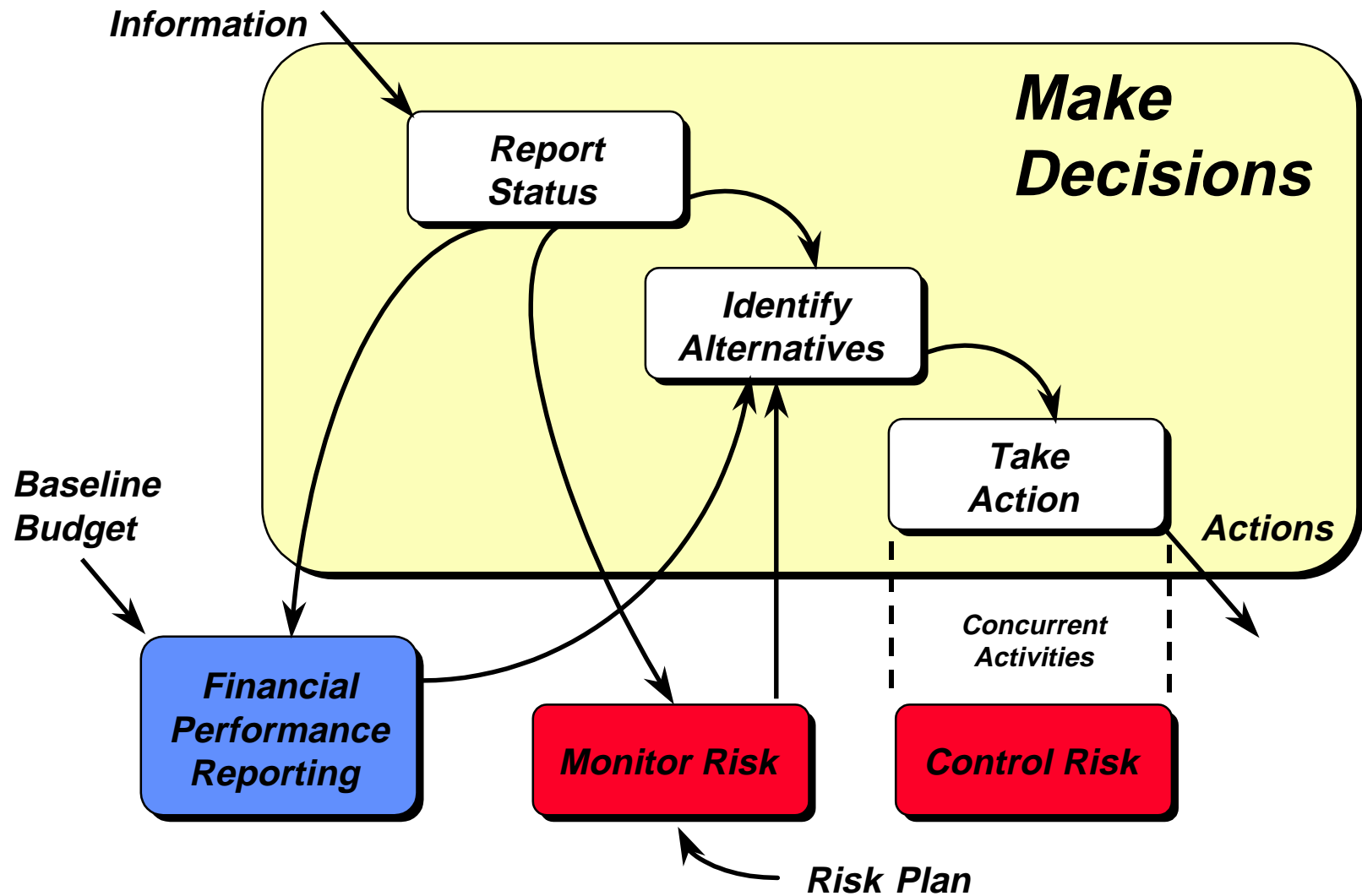
Identify and Prioritize Program Issues



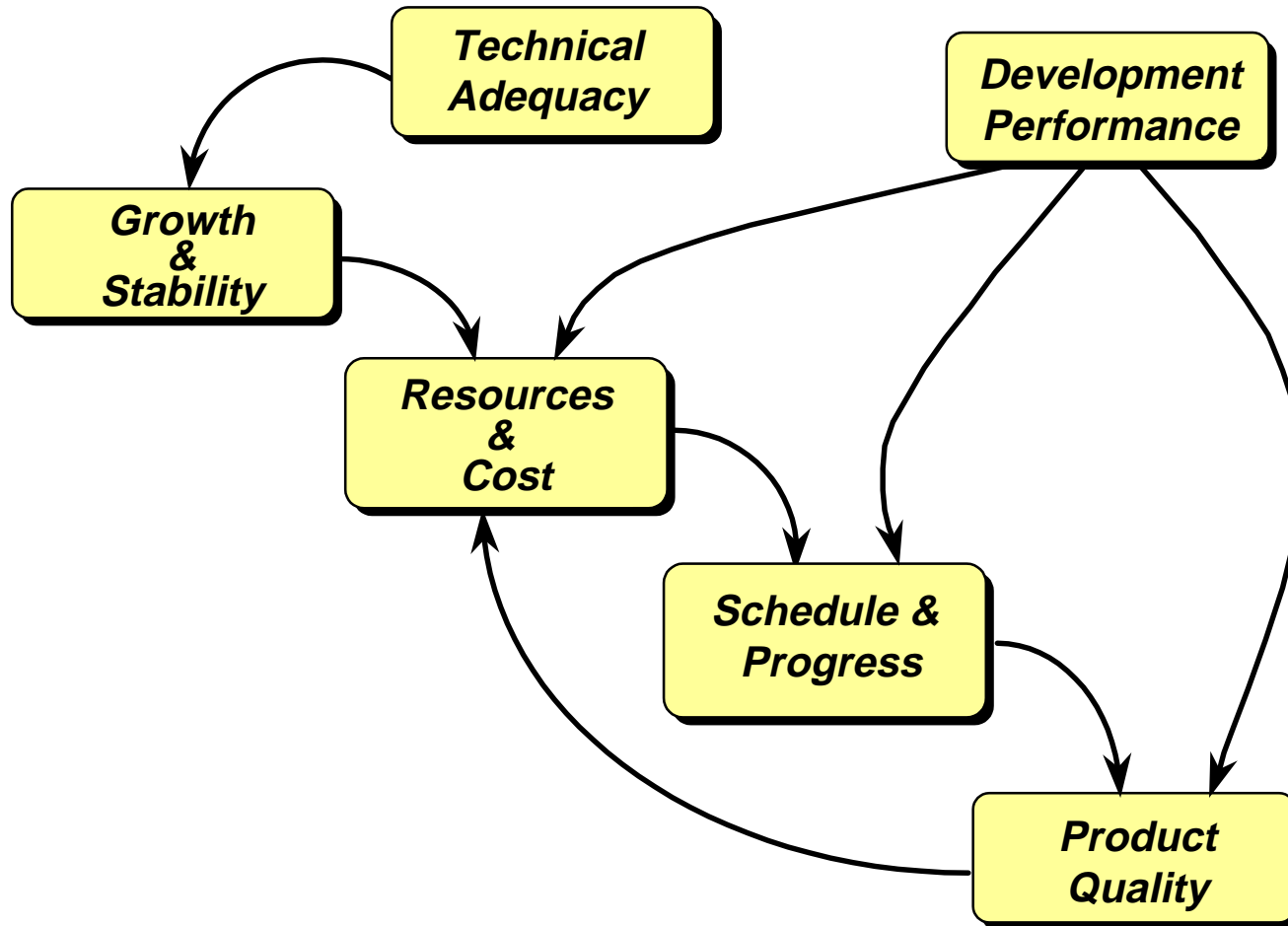
PRACTICAL SOFTWARE MEASUREMENT



PRACTICAL SOFTWARE MEASUREMENT

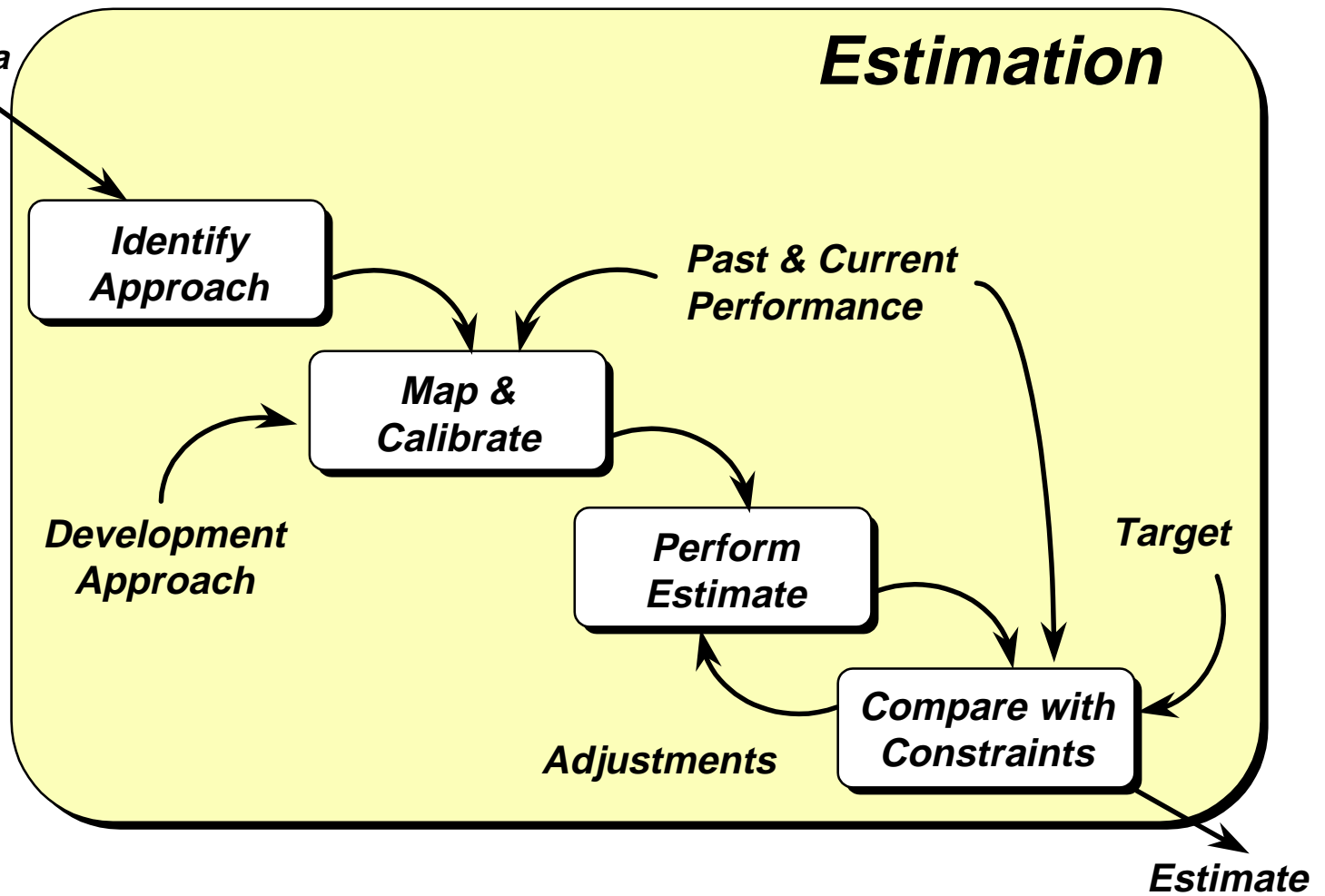


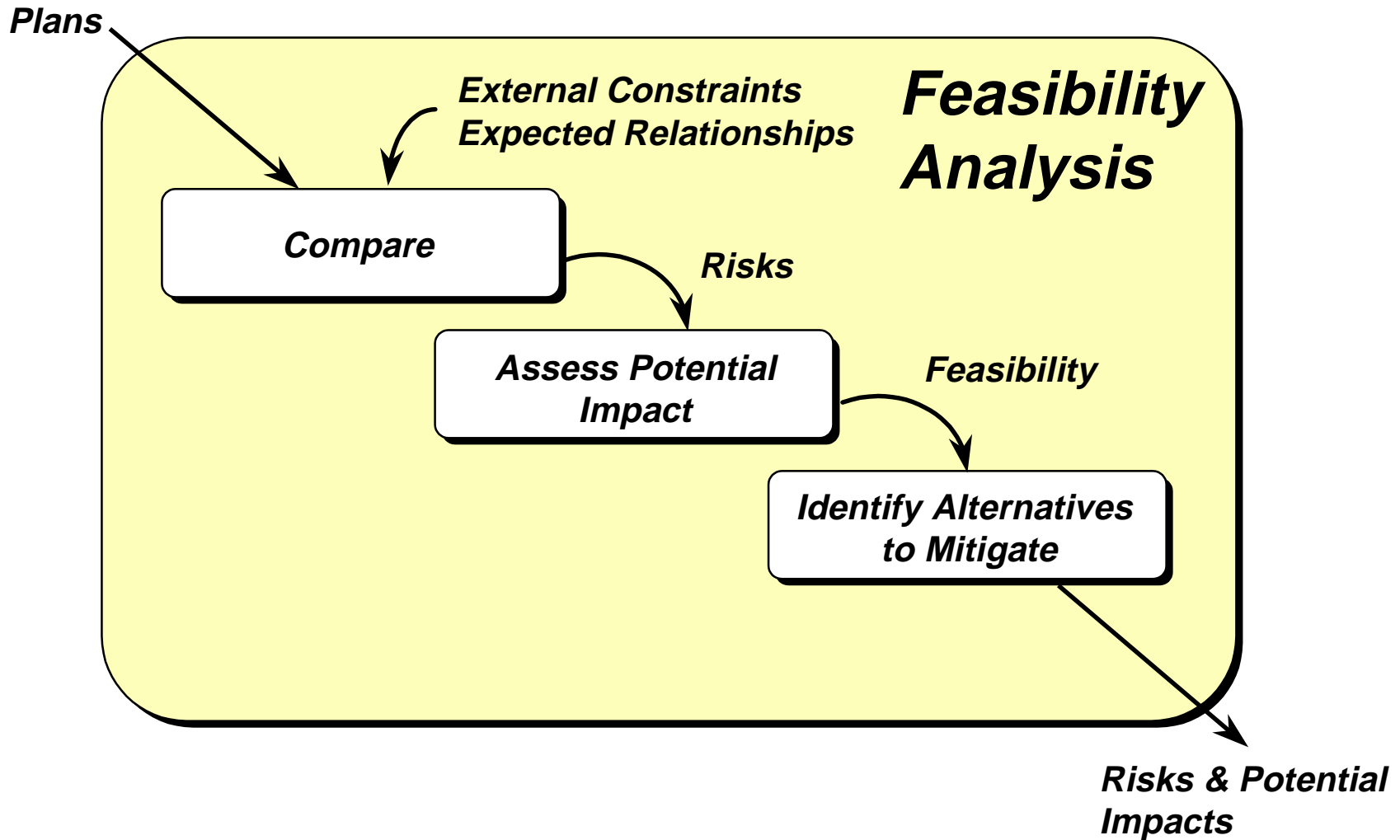
Issue Analysis “Road Map” - High Level



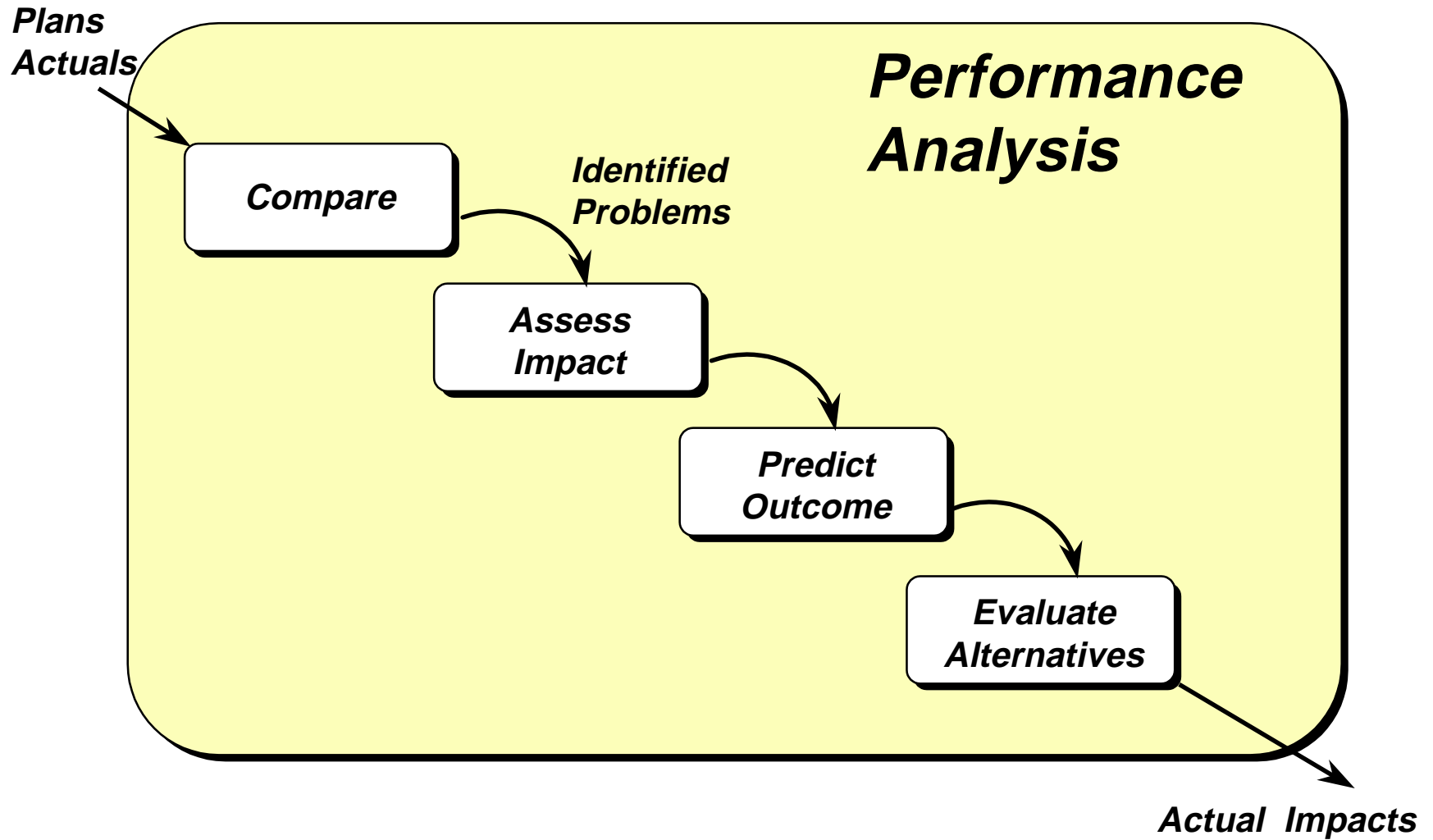
PRACTICAL SOFTWARE MEASUREMENT

Parameters
Historical Data
Descriptive Data
Assumptions

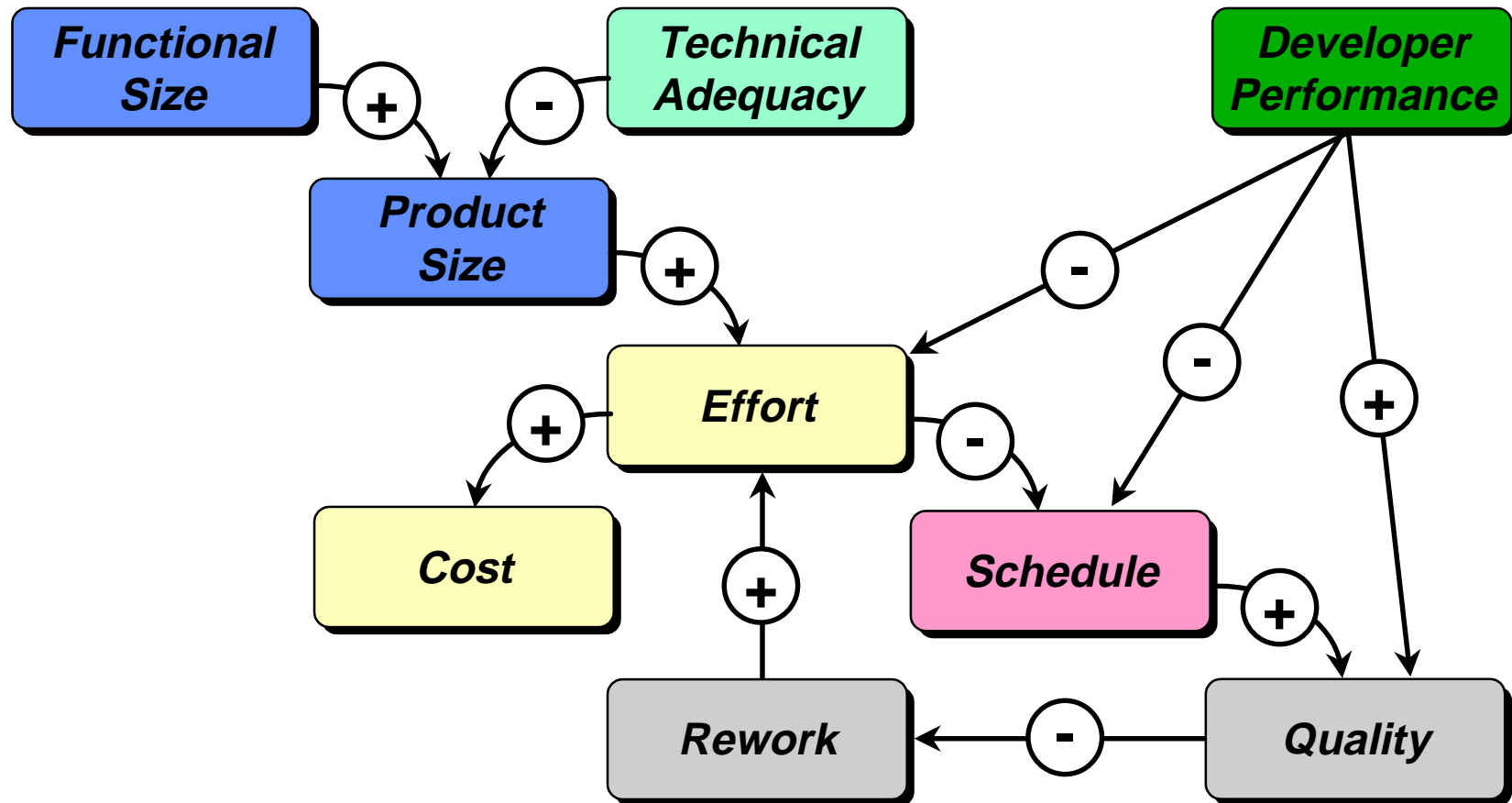




PRACTICAL SOFTWARE MEASUREMENT



Performance Analysis “Road Map”



Software Maintenance

- ***Definition - Small Changes and Fixes Made to a System after Initial Deployment (Major Enhancements are Treated like Development)***
- ***Special Concerns***
 - ***Staffing and Resources Usually Fixed (Size of Change and Functionality Usually Negotiable)***
 - ***Many Work Items Processed Rapidly***

Software Maintenance

- ***Software Support is a Life Cycle Phase***
- ***Software Maintenance is an Activity Conducted Within Software Support***
- ***Development Can Also Occur During the Software Support Phase***

Other Proposed PSM 3.0 Changes

- ***Update Measurement Principles***
- ***Revise DoD Contracting Guidance***
- ***Generalize PSM Target User***
- ***Address IPT Implementation***
- ***Add Software Maintenance Examples***
- ***Add Tailoring, Risk Management, and Estimation to Case Studies***
- ***Revise Measurement Tables***
- ***Update Indicator Examples***
- ***Acquisition Reform Update***

Workshop Recommendations

- ***PSM For Small Projects***
- ***PSM Linked to CMM***
- ***Retiring Measures***
- ***Measurement Effectiveness***
- ***Pocket PSM***
- ***Historical Data Approach***
- ***Complete Measurement Plan Outline***
- ***TTT Delta Course***
- ***Non DoD Case Study***
- ***Non-Traditional Development Model Case Study***
- ***Outsourcing Scenario***

Conclusions And Recommendations

- ***Separate Risk and Measurement Activities***
- ***Consistently Define Revised Process(es)***
- ***Clearly Define “Performance Measurement”***
- ***Clarify “Roadmap” Relationships***
- ***2-Step Revision of PSM Target User***
- ***Keep Independent Analysis Principle***
- ***Initiate Product Repackaging***

Next Steps - Action Items

- ***Provide Additional Comments - Ideas***
- ***Draft PSM 3.0 - September***
- ***PSM 3.0 on Website for Review***
- ***Incorporate Revisions***
- ***Publish PSM 3.1 - October***
- ***Incorporate Workshop Recommendations
Into PSM Project Plan***