tulkita™

IT Optimization and Quality

Tulkita Test Training Series

Measuring QA Value

Introducing your Instructor

Meet Jamie Campbell:

- Management Consultant – IT Strategy, Governance & Process Optimization
- Test Leader – launched and managed 4000+ person, global testing practice
- Test Strategist – designed and optimized over 120 test practices, globally
- Test Architect – assessments, roadmaps, operations, governance & metrics
- IT Sr. Leader – VP of Information Technology, VP of Shared Services
- Founder, Tulkita Technologies Inc. – Consulting, Solutions & Training

Relevant Specialties:

- QA Practice Setup and Fine-Tuning
- Process Rationalization and Optimization
- IT Metrics & Reporting
- QA Efficiency and Optimization
- QA Calibration & Organizational Alignment
- Communication Coach
- Lean IT Practitioner

Today's Agenda

1. **Demystifying your Metrics (Lecture)**
   - The Problem
   - Approach
   - Building a viable Measurement Framework
   - Automating your Metrics

2. **Building your Measurement Program**
   - Identify your Stakeholders
   - Identify Stakeholder Questions
   - Identify Answers
   - Identify Measures/ Reports

3. **Stakeholder Communication**
   - Communication Essentials 101
   - Establishing a fail-safe Communication Plan
   - Managing and 'Beating' your Stakeholders

Objective

Why is this subject important?

Key Thoughts:

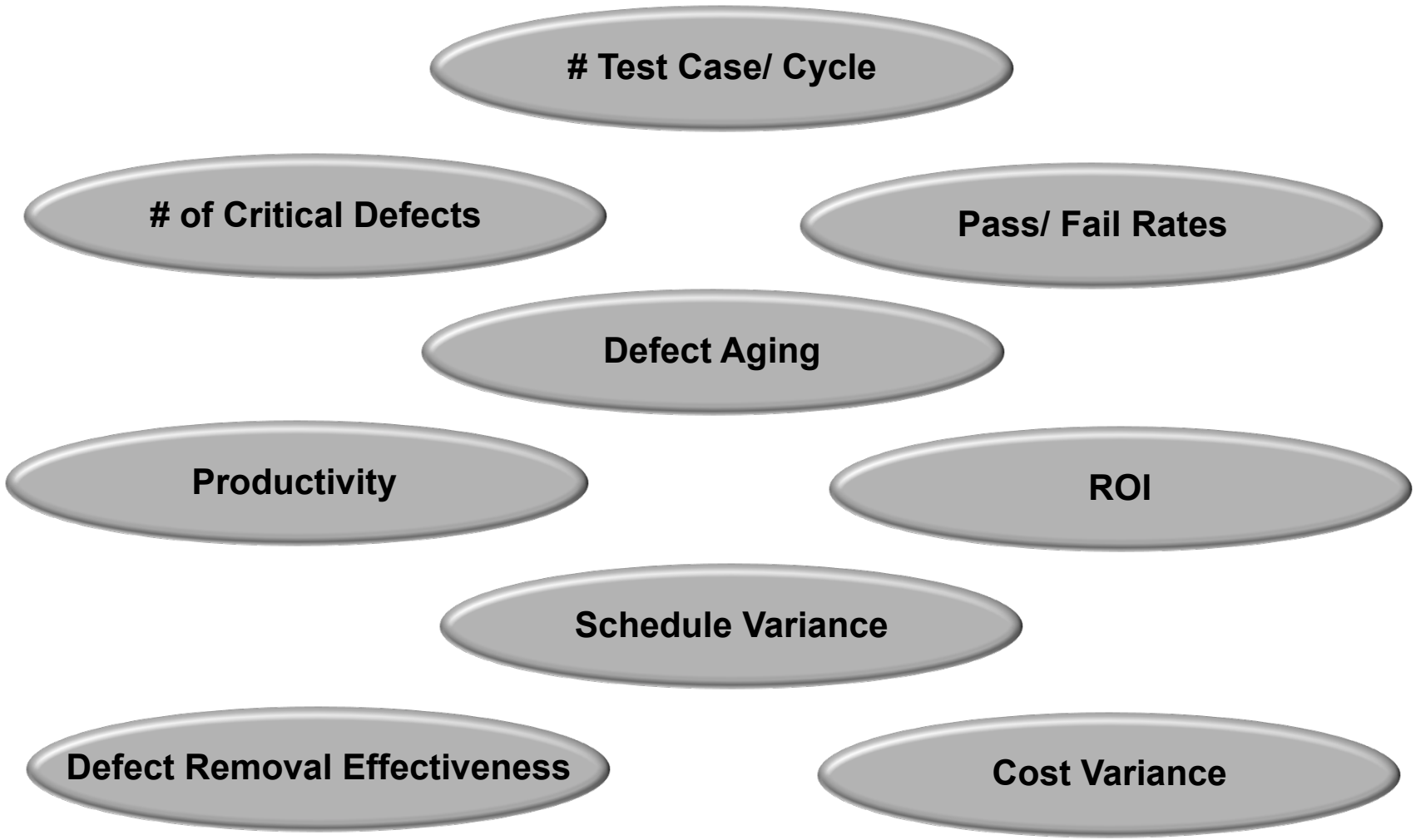
- Test Professionals rarely have the right metrics to quantify/ qualify value
- Metric collection and reporting are typically onerous activities
- QA Metrics generally focus only on test execution
- Test Management Tools only have ~40% of the metrics you require
- TCoE Measurement should focus on strategic information as well as tactical
- Only ~10% of all reports generated by a QA Lead are ever reviewed

Focus Areas:

- Choosing the right metrics
- Learn how to properly design & build a Test Measurement Framework
- Establish reporting that is meaningful to ALL stakeholders
- Use metrics to not only manage testing, but act as a barometer reading for IT
- Show your value

Defining Metrics

Do you know all of these metrics? Are they all test metrics?



Starting Point

You require a broader perspective of QA metrics.

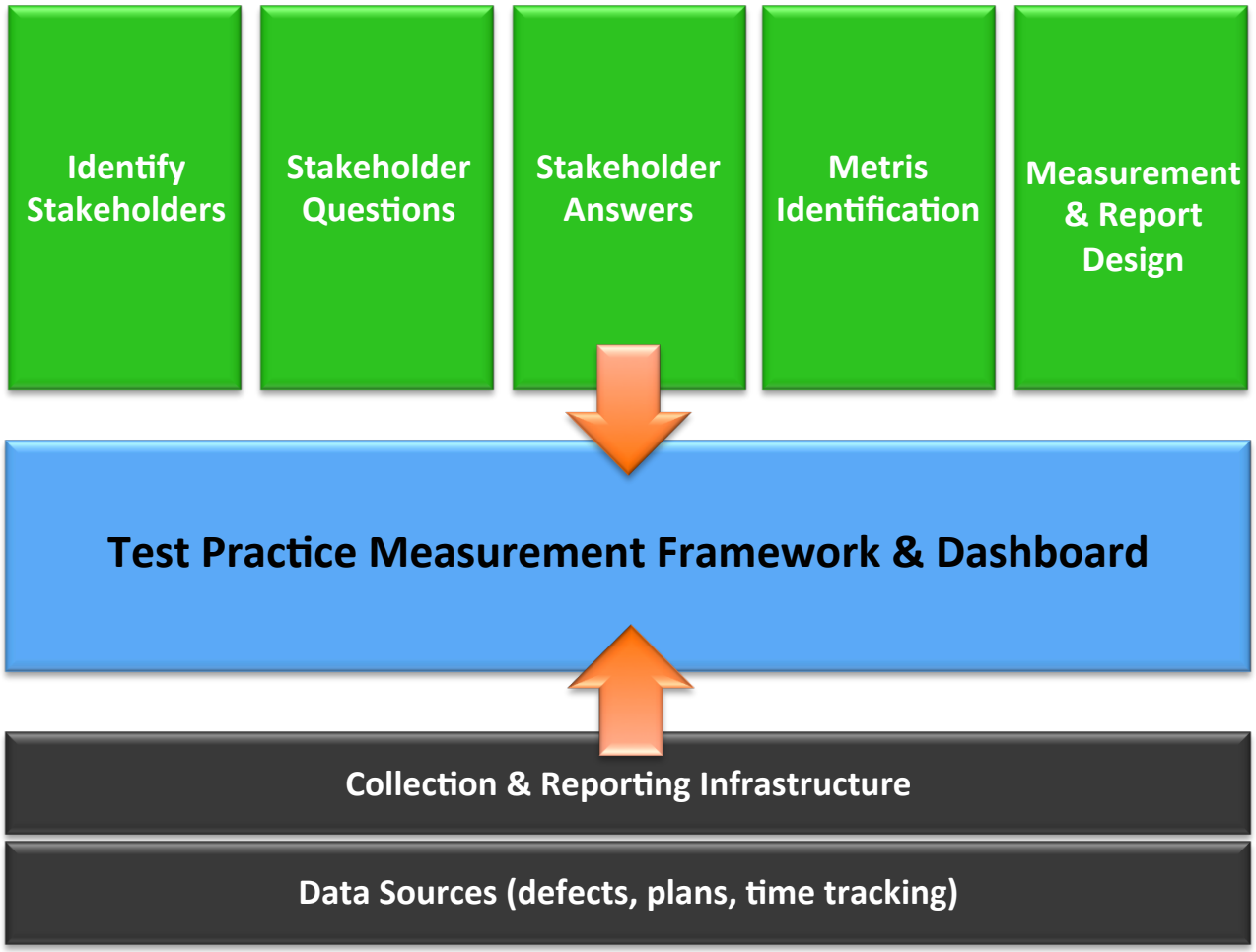
Guiding Principles:

- Metrics can represent a point of time
- Metrics can represent change over time
- Metrics can be simple
- Metrics help to make decisions today
- Metrics help to make decisions for tomorrow
- Metrics are critical to come, while meaningless to others

Changing your mindset and understanding the power of metrics will propel your career forward, guaranteed.

Approach

Use an iterative approach for identifying, designing and implementing metrics.



1. Identify Stakeholders

Who are the stakeholders that you are required to communicate with? Find out.

Stakeholders	Questions	Answers
CIO		
VP - Quality		
Director		
Test Manager		
Development Manager		
Business Owner		
Audit		
Test Lead		
Test Analyst		
Sourcing Partner		
Etc., Etc., Etc.		

Do you know how to report to all of these individuals? What they want? What they need?

2. Stakeholder Q&A

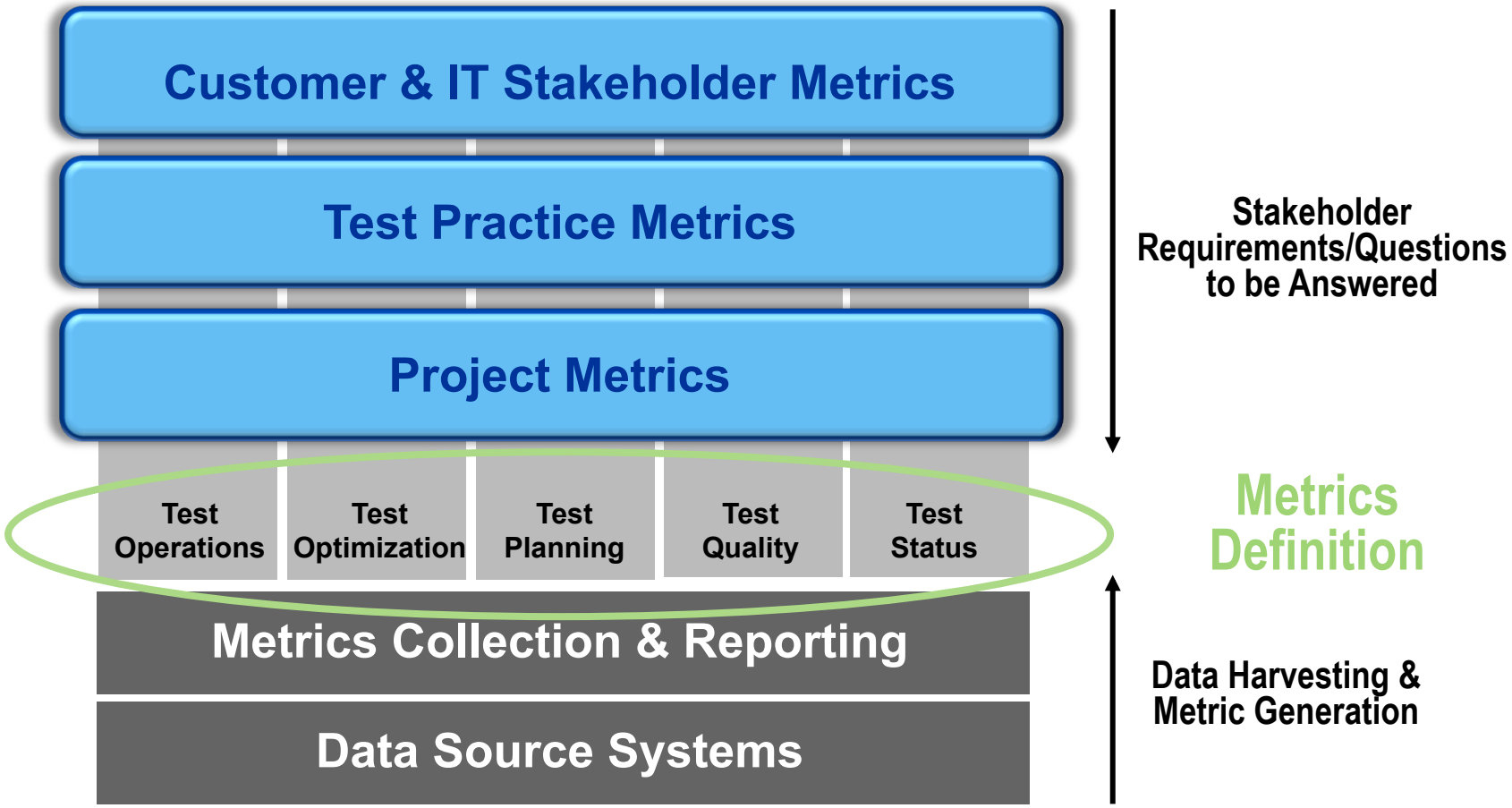
What questions are being asked by your stakeholders? Conduct Q&A workshops.

Metrics Worksheet				
Question	**Category**	**Metrics**	**Tools**	**Gap**
Where are IT resources allocated?	Resource Allocation	Number of resources and where their effort is going to. Multiple graphs for the levels within IT.	Time Tracking Tool, Resource Management	Time Tracking Tool
What are the defects and where are they from?	Quality	Number of defects (Defect Rate) classified detail for traceability to QIPP, BIPP, KTLO and TIPP, Defect Aging, Defect Closure Rate	Defect Management - VSTS	Possible enhancement with Defect Management tool to confirm the required data
Are we meeting the schedule?	Resource Allocation	Schedule Variance (Planned vs Estimated), Estimate to Complete, Variance at Complete	Time Tracking Tool	Time Tracking Tool (includes estimates for end date and effort)

This step is critically important! Doesn't it make sense to prepare metrics that answer your stakeholder questions?

3. Metrics Identification

Select Metrics that address & answer your stakeholder questions.



4. Measurement & Report Design

Choose/ Build metrics that best align to your stakeholder requirements.

Sample Test Practice Measurements

Test Operations:

- Requirements Volatility
- Test Downtime
- Defects – Assigned To
- Cost of Poor Quality
- Cost of Quality
- Defects – Time to Close (Aging)
- Defects – Arrival Time
- Defects – Closure Trend
- Schedule Performance Index (SPI)
- Cost per Test Case
- Defects – Root Cause Trend
- Testing Schedule Variance
- Test Program – Project Status
- Cost Performance Index (CPI)
- Cost of Production Defects

Test Optimization:

- Test Resource Productivity
- Test Automation Coverage
- Defects – Removal Eff.
- Test Script Exec. Time
- Test Productivity Improvement
- Test Regression Scope
- Test Effectiveness

Test Planning:

- Rqmts Coverage
- Test Case Complexity
- Requirements Traceability
- Test Case Criticality
- Requirements Review & Approval
- Test Execution Prioritization

Test Quality:

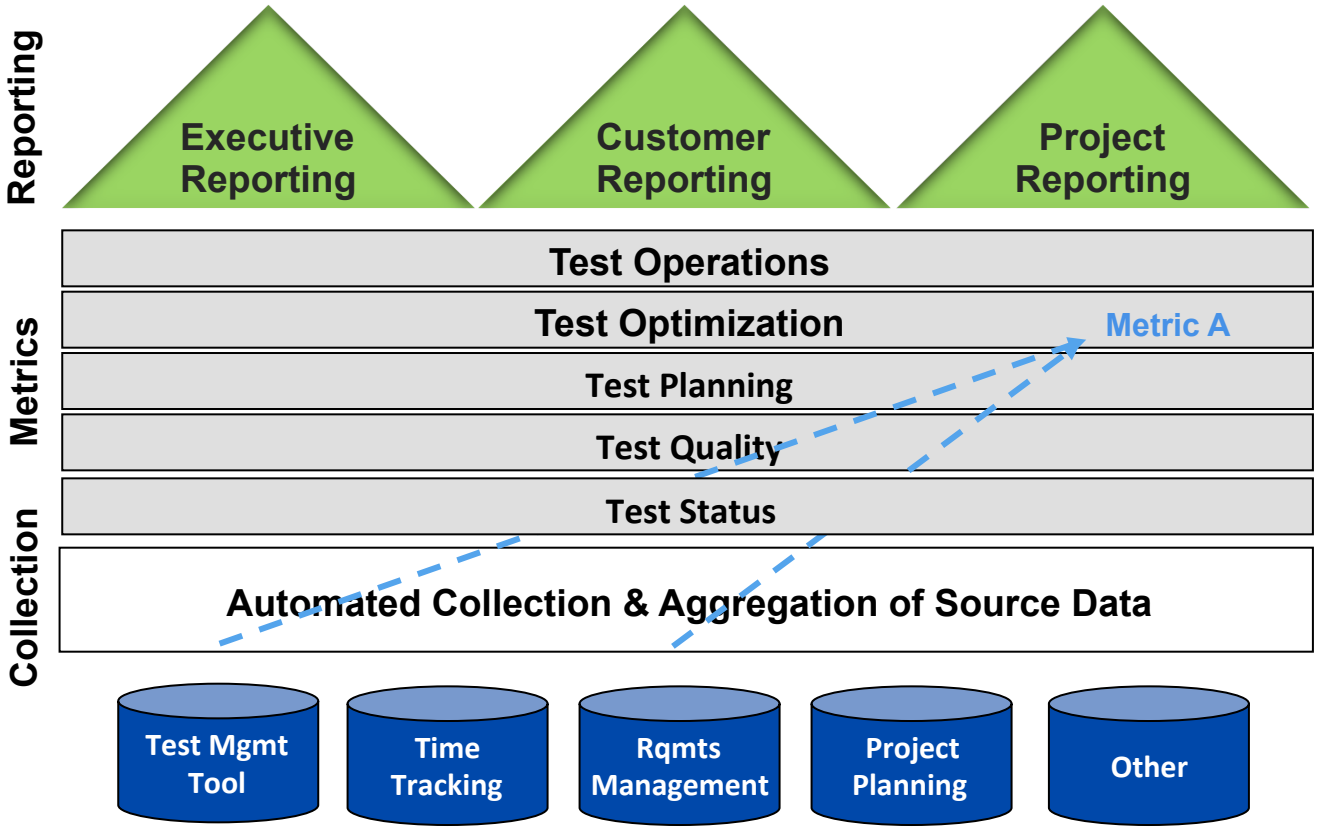
- Test Case Review Status
- Test Pass/ Fail Rate
- Defects - # of Defects/ Scripts
- Defects – # Found in Prod.
- Defects - # of Open
- Defects – Priority/ Severity
- Defects - # of Defects to Application Size
- Defects - # Post Go-Live
- Defects Re-Opened
- Defects Ready for Retest
- Defects – Density
- Stage Containment Effectiveness

Test Status:

- Rqmts Status
- Test Case Build Trend
- Test Exec. Schedule Trending
- Project Risk Analysis
- Test Case & Script Sign-Off Status
- Test Data Preparation Effectiveness

5. Data Harvesting & Collection

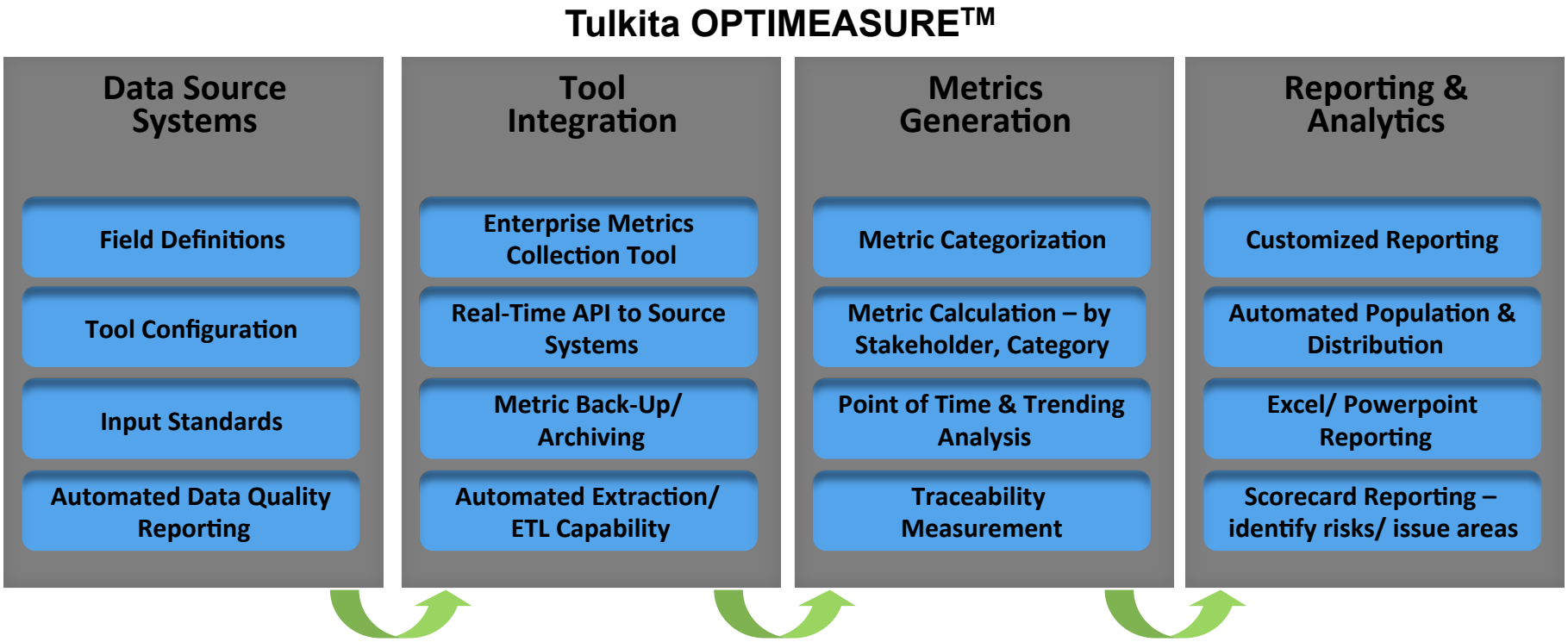
Measurement & Analysis is achievable only if you have the supporting data!



For each metric, you must identify the source systems/ data required to calculate the metric

6. Automated Reporting

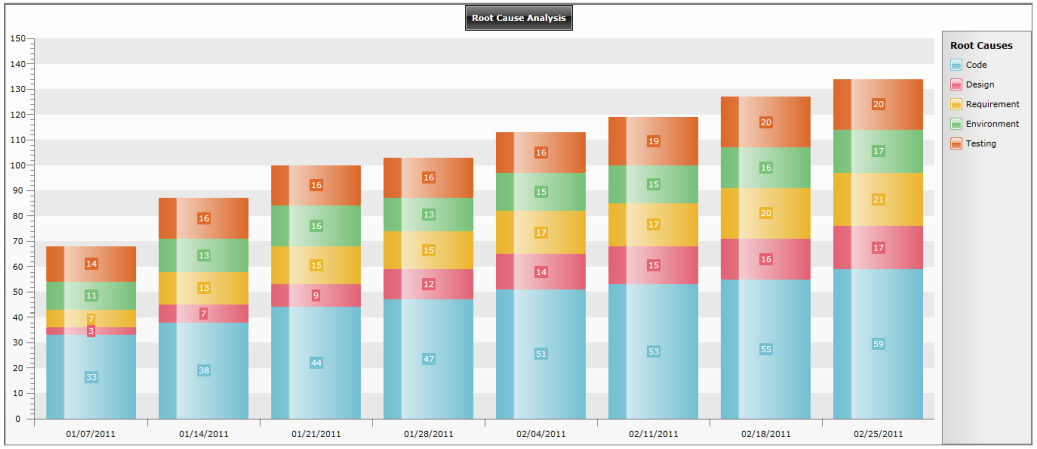
If you are not careful, test metrics can consume your bandwidth & resources.

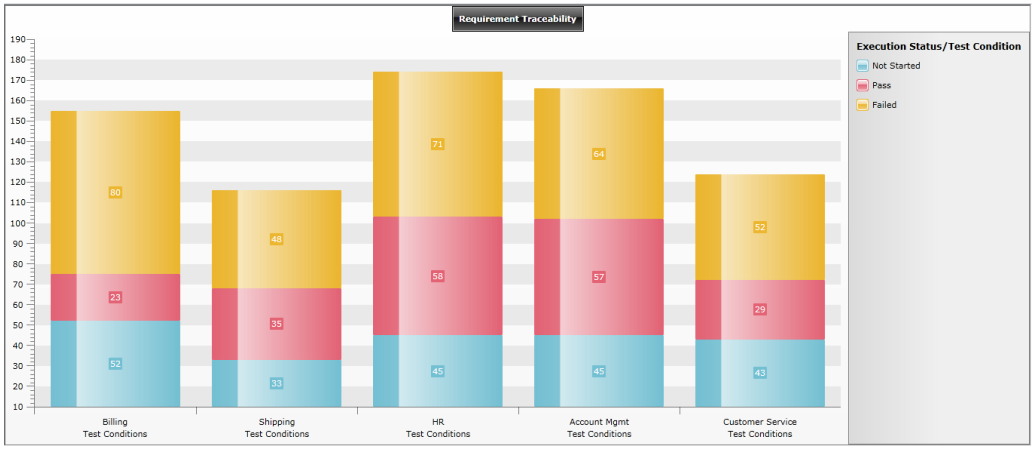


Remember, you are only as good as the data being entered – "Garbage In, Garbage out"…

7. Effective Reporting

Work with your stakeholders to build the right reports, ‘canned’ reports seldom work.





Develop a report catalogue to help you review and select the right reports with your stakeholders

Root Cause & Trending

Arguably the most important metrics you can capture.

Root Cause Analysis:

- Identify sources of defects
- Report to management & sr. leadership
- One of the most important sources of intelligence in IT
- Proactively review and analyze remediation steps with IT stakeholders
- Configure your test tool to consistently capture sources

Trending:

- Trending is simply showing metrics over pre-set time intervals
- Allows stakeholders to see how measurements are changing
- 90% of metrics displayed to IT Sr. Leadership should focus on trends
- Always determine 'point of time' vs. 'trend over time'

Showing Your Value

Determine what value means to each of your stakeholders.

Business and Customer:

- Are you delivering a quality product?
- Are you meeting my timelines?
- Did you understand my requirements?
- How much is your QA costing me?

IT Sr. Leadership:

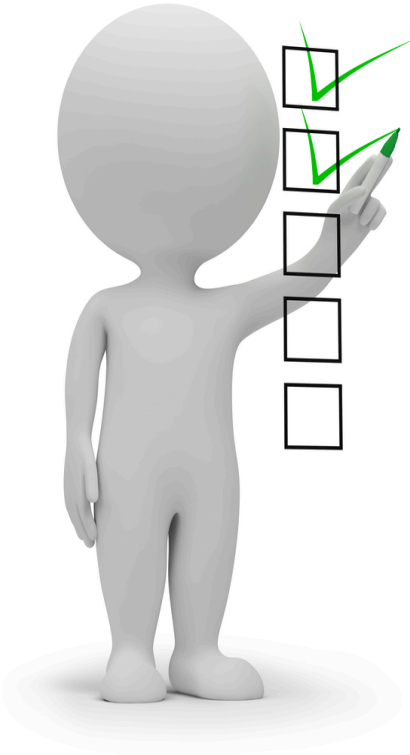
- Are you meeting your budget?
- Are you working to schedule?
- How have you tried to cut costs?
- How have you improved efficiency?
- What are the causes of delays & poor quality?
- Is quality improving?
- What is your status?

Takeaways

Key success factors & implementing in practice.

Your Checklist:

- There is no one right answer
- Metrics are interpretive – everyone sees them differently
- Senior Leadership need metrics – you cannot avoid this
- Test Management Tools only have a fraction of what you need
- Know what your stakeholders want answered
- Metrics often fail due to poor communication



In Practice:

- Define a metrics improvement plan & approach
- Conduct stakeholder workshops
- Create a Q&A Inventory
- Setup metrics catalogue & reports
- Develop supporting infrastructure & operationalize

Concluding Thoughts

Hours, Days, Months are spent producing ineffective/ irrelevant metrics... Be smart!

- It is estimated that over 65% of an organization's standard test metrics are never reviewed or analyzed
- Only 12% of Fortune 500 CIO's believe their testing organizations are providing them with relevant information
- On average, it takes 3 – 4 hours of manual effort to prepare a report that is reviewed in 5 minutes or less

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Communication Essentials

Objective

Why is this subject important?

Key Thoughts:

- Test Professionals do not spend the necessary time communicating
- Stakeholders are often missed or worse, not even identified
- Knowing your stakeholders is critical to your success
- 3 out of 5 projects FAIL due to stakeholder misalignment
- Selling and showing your value are becoming increasingly important
- The value and successes of testing often go unnoticed

Focus Areas:

- Identifying your Stakeholders
- Establishing a Fail-Safe Communication Plan
- Managing and 'Beating' your Stakeholders

Translation

The majority of your stakeholders will have a much different 'view of the world' then you do.

The Language of Testing:

- Defects
- Pass Rates
- Test Execution Status
- Test Planning Effectiveness

The Language of Business:

- Cost Effectiveness
- Total Cost of Ownership
- Return on Investment
- Cost of Poor Quality
- Efficiency and Productivity

Translate your QA data and 'language' into relevant information that can be understood and consumed by each of your stakeholders.

Successful Communication

~70% of your job as a Test Professional should be spent communicating.

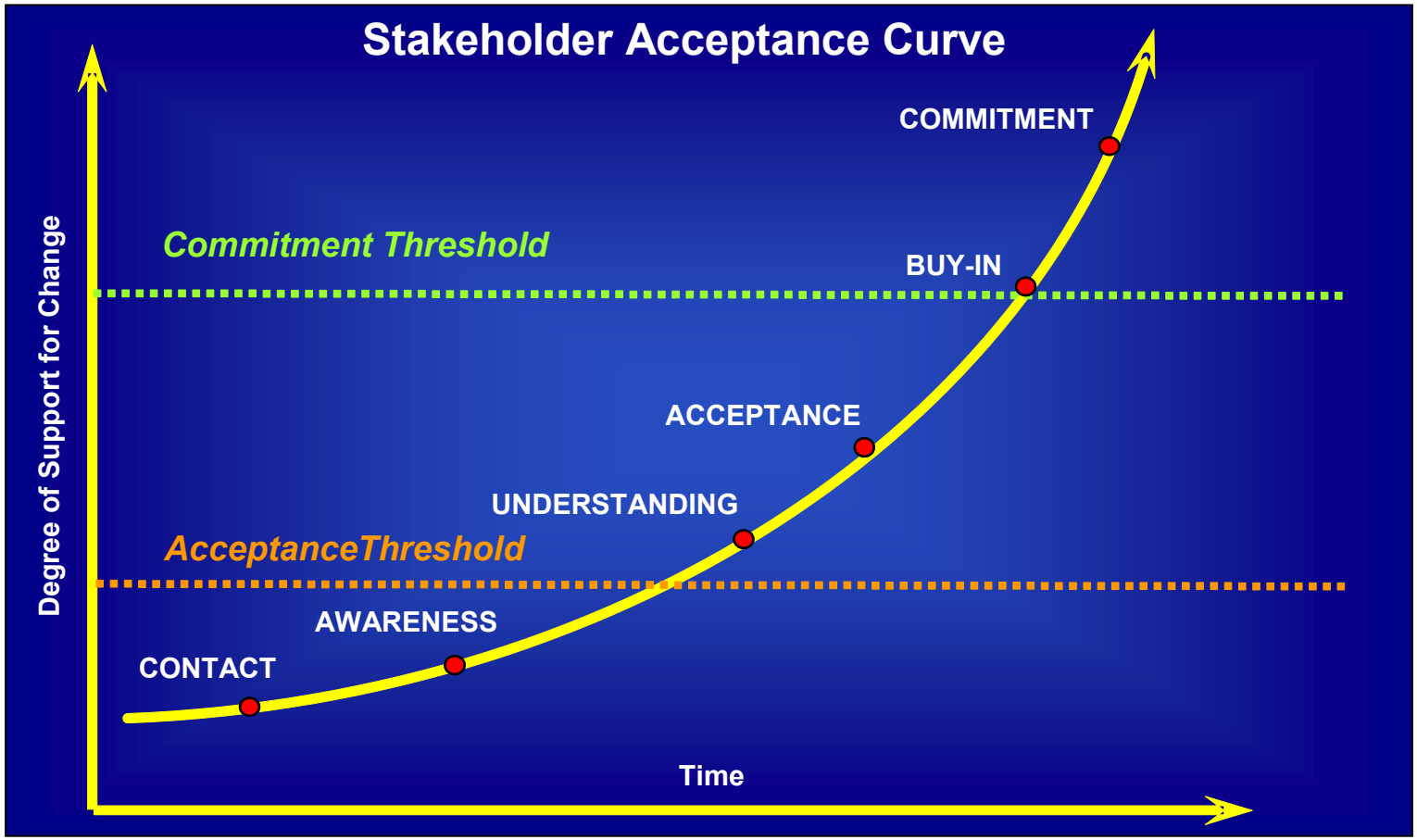
Success Criteria:

- Identify ALL of your stakeholders from IT and the Business
- Develop a Communication Plan
- Conduct Monthly/ Quarterly Checkpoints & Operational Reviews
- Achieve ongoing alignment and actively manage
- Monitor Industry Trends & Benchmarks
- Complete Customer Satisfaction Surveys
- Active Listening and Speaking
- Communicate in 3s?

Know what ALL of your stakeholders want, and how they want to be communicated to.

Communication Approach

Understand the essential steps required to connect and be understood by your stakeholders.



Communication becomes more important the higher in the organization you go. Often Sr. Leadership do not understand what you do on a day-to-day basis.

Communication Plan

A Communication Plan is an integral component of your test practice. Build one!

Basic Elements:

- Stakeholder Inventory
- Stakeholder Requirements (questions)
- Communication Channels/ Types
- Frequency
- Supporting Data & Metrics
- Status & History

The Approach:

- Identify your stakeholders
- Setup meetings with your stakeholders to determine what they want
- Determine channels to support communications (i.e. meetings, email)
- How often do your stakeholders want to be engaged?
- Setup supporting reports, status & templates for team to follow
- Collect necessary data to support communications

Communication Plan

A Communication Plan is an integral component of your test practice. Build one!

#	Communication	Description	Type	Frequency	Phase	Stakeholders	Status	Date Due
1	Roadmap Review & Acceptance Meeting - IS Mgmt	Review proposed QA Roadmap & Vision	Meeting	One-Time	Kick-Off	IS Management Team	Not Started	10/28/2011
2	Roadmap Walkthrough & Acceptance - QA Leads	Review roadmap & vision with QA Leads	Meeting	One-Time	Kick-Off	QA Leads	Not Started	10/28/2011
3	Roadmap Walkthrough & Acceptance - IS Leadership	Provide high-level plan & vision to IS Leadership	Meeting	One-Time	Kick-Off	IS Directors	Not Started	11/04/2011
4	Roadmap Walkthrough & Alignment - Sr. Leadership	Share vision & high-level strategy	Meeting	One-Time	Kick-Off	Benita	Not Started	11/11/2011
5	QA Services Team - Leadership Meeting	Leadership meeting for QA Services Team	Meeting	Weekly	All	QA Leads, Oana	In Progress	10/29/2011
6	QA Council Meeting	QA Leads review status, issues, strategy, etc.	Meeting	Monthly	All	QA Leads	Not Started	11/18/2011
7	QA Services Team - Scope of Services & Contacts	Postcard to all QA Stakeholders	Email Dist.	One-Time	Kick-Off	TBD	Not Started	12/02/2011
8	Roadmap Walkthrough & Scope of QA Services	Review QA Scope & proposed plan with business	Meeting	One-Time	Kick-Off	Business Stakeholders	Not Started	11/11/2011
9	QA Services Team Awareness Campaign	Increase awareness of QA Services	Posters	Ongoing	Kick-Off	TBD	Not Started	TBD

In Practice:

- Everyone on your team should have individual communication plans
- 'Quality vs. Quantity' is the golden rule for building plans
- Setup frequent touch points with 'difficult' stakeholders
- Plans should be setup & implemented during Test Planning – do not wait!
- Use Communication Plans to script the rollout of new ideas, concepts
- Focus on change management activities
- Monitor communication success & continually modify/ expand

Controlling Your Stakeholders

Controlling, or 'Beating' your stakeholders should become your favorite activity.

Why this Topic?

- Many Test Professionals get 'beaten' by colleagues or management
- Stakeholders often are misaligned with what is happening in testing
- Stakeholders do not understand why there are delays/ scope creep
- This happens in every organization, it will never go away

Solution

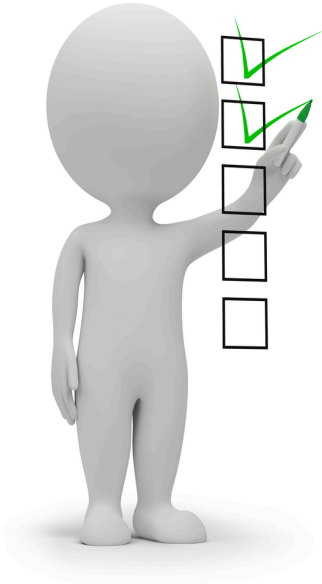
- Identify your top stakeholders that you want to 'beat'
- Document how/ when they 'attack' and for what reason
- Articulate proactive activities to address these 'attacks' & assemble in plan
- Change your communication style with these individuals
- Provide information that will circumvent/ 'beat' these individuals
- Repeat and continue these steps for 2 months (it takes time), by the third month you now have to deal with someone else! ☺

Takeaways

Key success factors & implementing in practice.

Your Checklist:

- Identify all stakeholders in testing, IT and the business
- Develop a simple, clear, Easy-to-use Communication Plan
- Avoid ‘silo’ thinking – identify who you are impacting & when
- Continuously review and modify your Communication Plan
- Be proactive, plan ahead and understand top issues
- Achieve stakeholder buy-in of Communication Plan



A Visual to Sum it Up

You are the integrator and hub of the IT organization. Are you up to the challenge?