



# Optimize Your Testing

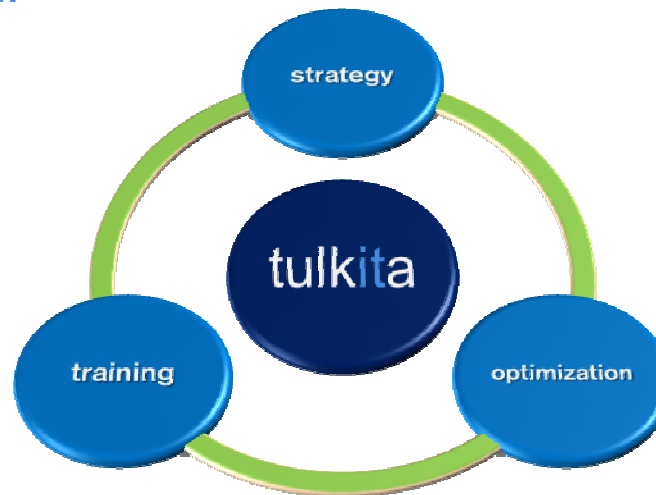
**Tulkita Technologies Inc.**  
**TASSQ – May 24, 2011**

# introductions

Meet Tulkita Technologies Inc.

## About tulkita:

- Specialists in Test Strategy, Optimization and Training
- ACCELETESTER™ – a full-service test training program
- [www.tulkita.com](http://www.tulkita.com)



- **STRATEGY:** Assessments & Roadmaps, Test Maturity, TCoEs, Sourcing & Innovation
- **OPTIMIZATION:** ROI, Measurement, TULKITA TOPS, Cost Effectiveness, Consulting
- **TRAINING:** Test Leadership, Test Management, Specialized Skills and Coaching



@tulkita #testing#TCoE#TASSQ

# our agenda today

## Introduction

### Optimize your Testing

- ✓ Defining your Approach
- ✓ Identifying and Evaluating your Options
- ✓ Selling to your Stakeholders
- ✓ Measuring your Results

### Running your Testing

### Putting it into Practice

# Facing reality

Building a Test Practice is the easy part.

Growing, maturing and improving your Test Practice is the 'fun' part.

## The unfortunate truths:

- You are never done, there is always something to improve
- Growing means new challenges and inefficiencies
- Cost & Time are paramount in the eyes of Sr. Leadership
- New technology is exciting for end users, not so much for testing
- Nothing ever goes totally to plan!

## What this means:

- Your Testing needs to be cost effective while delivering superior quality
- Your Testing needs to be flexible, responsive and creative
- Your Testing needs to understand and effectively test new technologies
- Your Testing needs productive and efficient test professionals
- And so on...

# Weighing your options

To optimize your Test Practice and be successful, you often have to go well beyond the day-to-day testing – it becomes a balancing act.

## To be successful you need to:

- Align with your IT and Business Stakeholders
- Show Value to your Stakeholders
- Deliver Cost Savings
- Realize Efficiency and Productivity improvements
- Measure and Communicate results
- Justify Upfront Costs
- Show 'Quick Hits'
- Define a Journey
- And finally, Maintaining and Delivering your Test Practice!

*Optimizing a Test Practice becomes much more than the selection of an optimization technique – you have a lot to think about and plan for.*



# Taking action

To address these realities and improve your Test Practice, you need the right game plan and set of tools in place.

## 5-step Approach:

1. Analyze
2. Select
3. Roadmap
4. Evaluate
5. Sell, Implement and Measure

*You need the right approach and tools in place  
BEFORE you begin optimizing.*





# today

We will walk through the essential steps required to successfully optimize and improve your Test Practice.

## What we will cover:

- Review the steps necessary to plan and evaluate your optimization needs
- Identify common Test Optimization Practices
- Learn techniques and practices that improve how you run your organization
- Key Lessons Learned and Common Pitfalls

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# Establishing your approach

First take the necessary time to develop an approach that identifies and guides you through your optimization journey.

Jumping right in does not generally achieve optimal results.

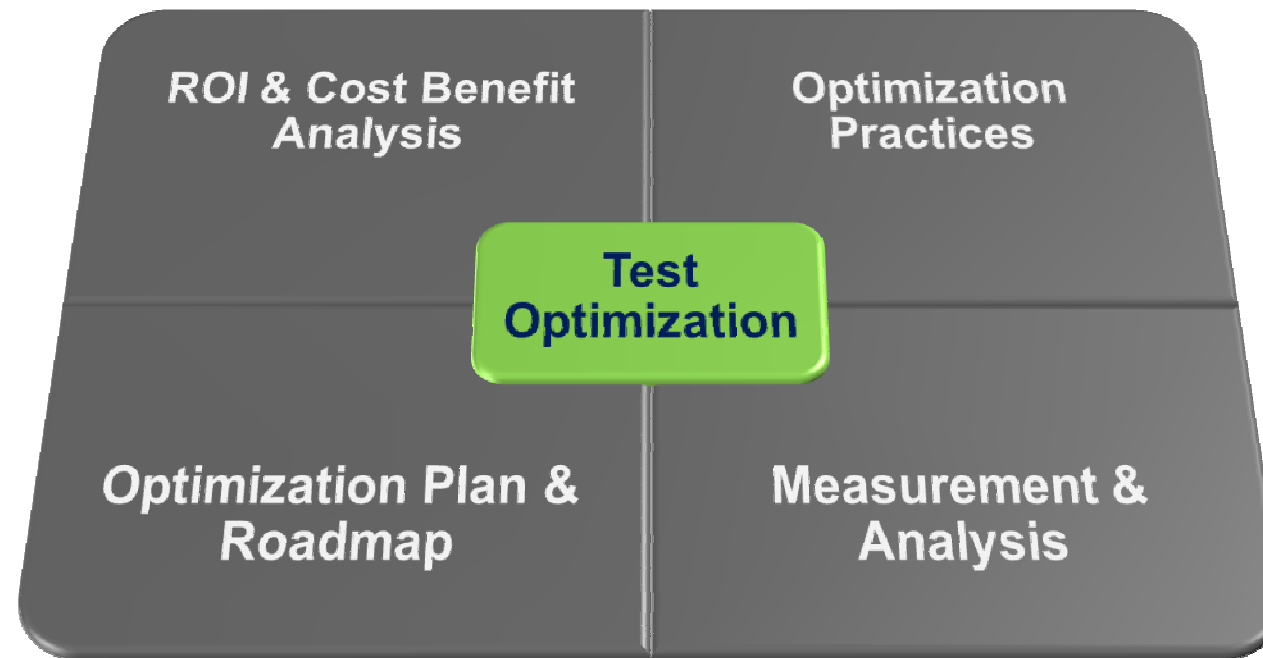
## Guiding Principles:

- Define a Test Optimization Framework
  - Measure what's wrong and/ or ineffective today – *show me the numbers!*
  - Research industry bench-marks and compare against your organization
  - Understand the wants and goals of your stakeholders – document them
  - Find Optimization Practices that can show improvement AND savings
  - Complete a Proof of Concept to measure & evaluate appropriateness
  - Develop a clear Business Case and Cost-Benefit Analysis to sell your idea
  - Define both 'Quick Hits' AND long-term gains
  - Achieve buy-in
- 
- And now, finally, you can implement!



# Test optimization framework

We encourage you to develop an Optimization Framework that allows you to identify, select, evaluate and prove what optimization you need and if it is working – never assume that leadership will see it!



*You need to be able to justify and prove that your selected optimization practices are adding value. Without it, you will not obtain buy-in.*



# Step 1: analyzing your As is

We see organizations 'jumping' into a new major optimization initiative without first analyzing and quantifying the 'as is'.

## We Recommend:

- Establishing metrics and reports to evaluate your current effectiveness
- Setup trending and historic analysis to see what direction you are moving in
- Find industry bench-marks that are relevant to your Test Practice & compare
- Communicate inefficiencies to Sr. Leadership – provide transparency
- Incorporate measurements into your Test Practice operations & governance

## Common Measures to Analyze & Evaluate:

- Individual Productivity Measurement
- Cost per Script, Cost per Test Release
- Cost of Poor Quality
- Total Cost of Ownership (TCO)
- Test Automation Coverage
- Test Script Preparation/ Execution Time
- Test Effectiveness – Quality Measurement

# Step 2: Optimization selection

You may be surprised where and how you can optimize your testing practice. You may not necessarily require a large capitalized project to realize improved effectiveness in your Test Practice.

## Popular Optimization Options you will know:

- Test Automation & Accelerators
- Test Environment Virtualization
- Risk-Based Testing
- Agile Testing
- Automated Test Data Generation and Masking
- Test Harnesses

## Others Optimization Options you should consider:

- Pairwise Testing
- Resource Productivity Training
- Organizational Re-Structuring
- Test Sourcing
- Test Process Maturity & Optimization
- Traceability and Stage Containment
- Cost Effectiveness & Measurement



# Step 2: Optimization selection

Choose the Optimization Practices that are relevant for your Test Practice; show improved cost, quality and efficiency improvements both in the short and long-term.

## Test Optimization Framework - Practices:

### Operations and Governance Optimization

|              |          |            |
|--------------|----------|------------|
| Organization | Training | Governance |
| Sourcing     | Metrics  | Resourcing |

### Process Optimization

|                 |                  |                    |
|-----------------|------------------|--------------------|
| Test Automation | Pairwise Testing | Process Maturity   |
| Traceability    | Agile Testing    | Risk-Based Testing |

### Infrastructure

|                |                |                 |
|----------------|----------------|-----------------|
| Virtualization | Cloud Services | Automating Data |
|----------------|----------------|-----------------|



# Step 3: Building your roadmap

Based on your Optimization Measurements & discussions with Sr. Leadership, identify your actions and corresponding roadmap necessary to optimize your Test Practice.

## Roadmap Success Factors:

- Identify 'Quick Hits' that show short-term value – CRITICAL
- Divide actions and initiatives into phases – don't do everything all at once
- Select initiatives that show: cost, efficiency, productivity & quality improvements
- Coordinate optimization initiatives with day-to-day operations
- Tie Roadmap Actions to quantifiable metrics – not just qualitative results
- Over-communicate plan to key stakeholders to gain acceptance

## Business Case to Support Roadmap:

- Quantify Costs and Benefits
- Select realistic timeline against which to measure costs & benefits
- Be realistic in your estimates & do not over commit
- Articulate how the planned optimization initiative will not impact your operations
- Quantify key factors such as: planning time, external costs, hardware, etc.

# Step 4: evaluating effectiveness

We highly recommend that you first evaluate the effectiveness of the proposed Optimization initiative prior to scaling across your Test Practice and organization – particularly for large programs.

## Proof of Concept:

- Identify areas that are indicative of the work you are trying to optimize
- Develop a robust sampling – easy, medium & complex functionality
- Capture 'As Is' metrics FIRST, prior to executing the pilot
- Leverage external consultants if time constraints or lack of experience exists

## Objectives & Outcomes:

- Savings & Efficiency Metrics [Benefits]
- Establish forecast of costs, investment [Costs]
- Identify measurement requirements
- Timeline to achieve benefits & break-even
- Evaluate impact to business & organization
- Update Business Case



# Step 5: selling your plan

This is the step that we see most Test Practices struggle with. How do you justify and sell the Optimization Plan & Initiative to Sr. Leadership? We suggest being calculated and persistent.

## How to Sell Optimization:

- Know what your stakeholders want
- Establish a Business Case at the beginning & revise/ build upon it
- Understand Sr. Leadership's priorities: Cost, Budget, Time & Quality
- Complete mini Proof of Concept to show results before going for approval
- Have your facts straight and present a clear, understandable plan
- Be patient & show an iterative rollout

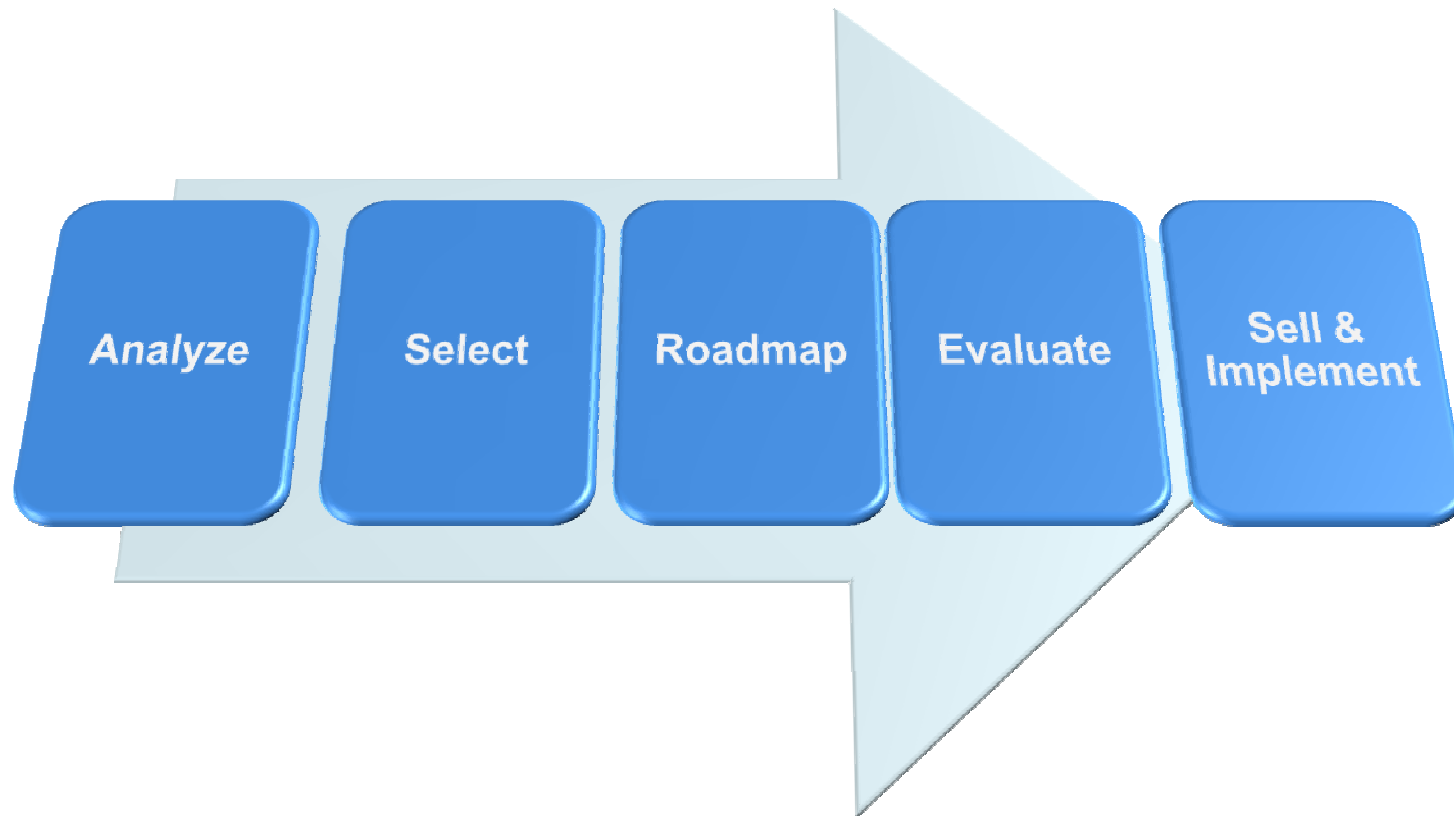
## How to Communicate:

- Communicate 3 times to gain understanding
- Communicate another 3 times to gain acceptance
- Use words, messaging that leadership understands
- If they do not agree with your approach, try proving success using alternative methods
- Sometimes you need to jump the ladder



# Optimizing recap

Following a systematic, 'scripted' approach to optimizing your Test Practice will provide you with the necessary steps to improve and increase its effectiveness and relevancy to the organization.



*Remember to continually measure and evaluate the effectiveness of your Optimization Framework to address the changing needs of your organization.*

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# More than just testing

The Test Practice is a company within a company. While testing theory and process is important, you need the necessary skills and tools required to run your organization.

## Key Considerations:

- An organization's Test Practice typically grows, not shrinks
- The Test Practice is the 'hub' of the IT organization
- Sr. Leadership are required to improve cost & productivity, not just quality!
- Running a 10 person practice is much different than a 200 person practice
- The complexity of testing is increasing, not decreasing

## What you Need to Know:

- What to change in a growing Test Practice
- What your stakeholders want & need
- How to show your stakeholders value
- How to measure and report your success



# How to grow

The rules of engagement change as you grow your Test Practice and you need to be aware of the key 'inflection' points and corresponding actions.

## Launch - Scale - Mature:

- Launch (~ 0 – 40 FTE). Flexible, Fast-Moving, 'Flat', Minimum Processes
- Scale (~ 40 – 120 FTE). Rapid Growth, Spiraling Scope, 'Get it Done' mentality
- Mature (~ 120+ FTE). Sink or Swim – require mature processes & governance

## Test Practice Essentials (regardless of size):

- Strategic & Operational Roadmap
- Standardized Metrics Framework
- Common Test Strategy & Planning Process
- Centralized Test Management Tool standards
- Career Model & Training Program
- Ring Fencing Test Stages



# Stakeholder alignment

Approximately 70% of your job is spent communicating – or it should be. How much time do you spend?

Do you know who your stakeholders are and what they want?

## Success Criteria:

- Identify ALL of your stakeholders from IT and the Business
- Develop a Communication Plan
- Conduct Monthly/ Quarterly Checkpoints & Operational Reviews
- Align Test Practice Roadmap with Corporate Strategy & Enterprise Architecture
- Monitor Industry Trends & Benchmarks
- Customer Satisfaction Surveys
- Implement an Optimization Roadmap



# Delivering and showing value

It is important to know what value means to each of your stakeholders. You need to understand and be able to translate value into your operations.

## Business & Customer:

- Are you delivering a quality product?
- Are you meeting my timelines?
- Did you understand my requirements?
- How much is your operation 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 it improving?
- What is the status of your testing?



# Measuring success

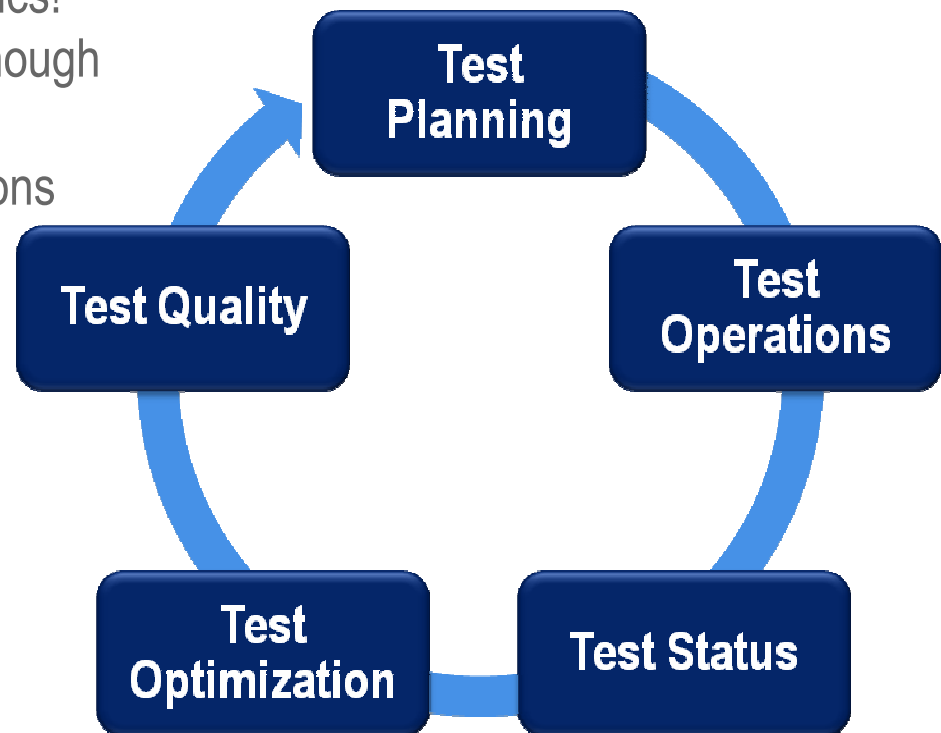
Develop an enterprise-wide test measurement and reporting program to align stakeholders, enforce standardization and show the value and success across the Test Practice.

## Successful Metrics:

- More than Test Execution Metrics!
- Test Management Tools not enough
- Delivery vs. Operations
- Determine Stakeholder Questions
- Metrics to answer questions
- Self Promotion

## Choosing the Right #s:

- Cost of Poor Quality
- Test Effectiveness
- Schedule & Cost Variance
- Test Productivity & Efficiency
- Trending & Root Cause Analysis



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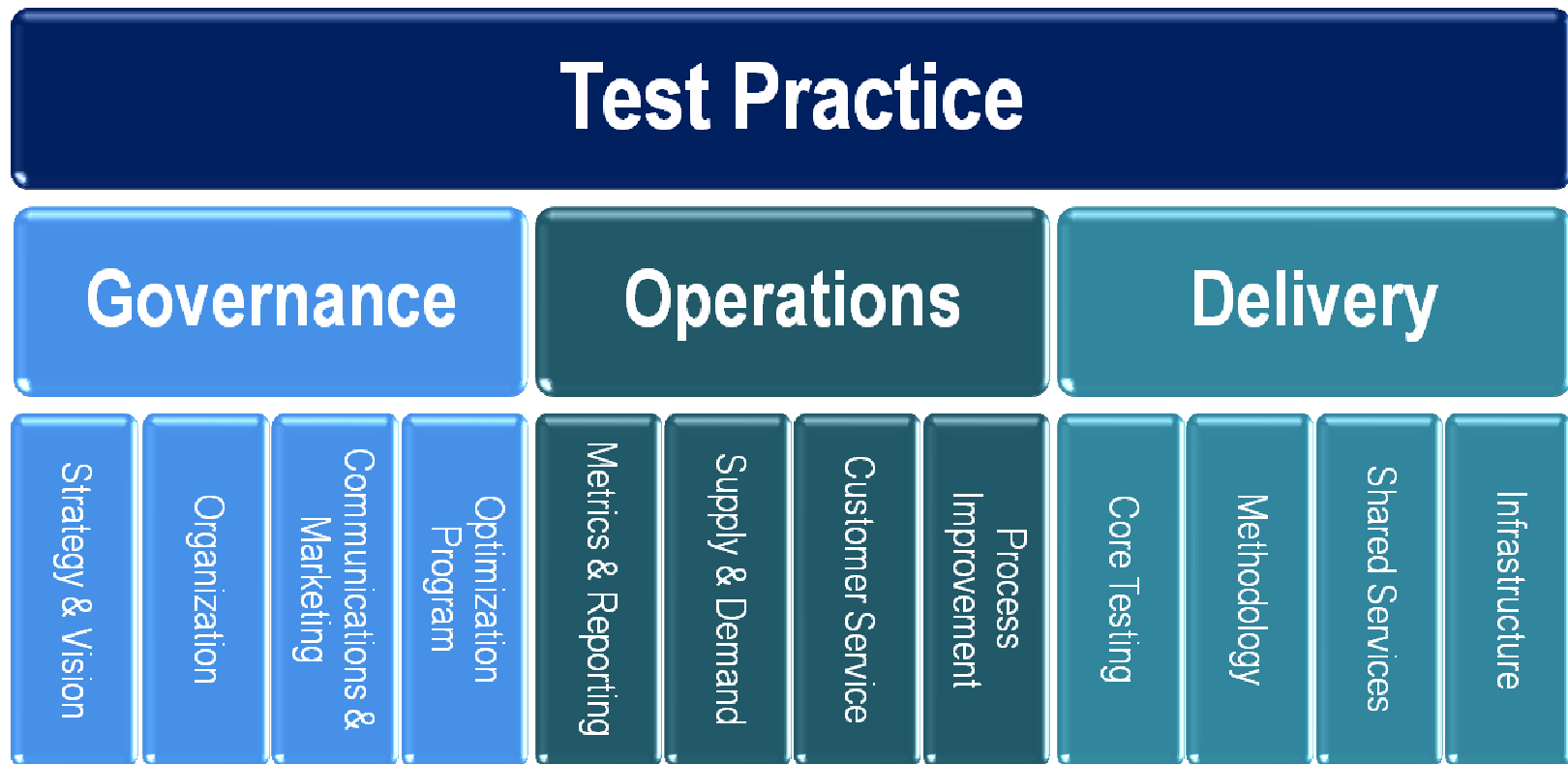
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# Setting the vision

There are a lot of moving parts when building, growing and optimizing your Test Practice. You need an actionable and measurable plan to help you be successful – starting with your operating model.



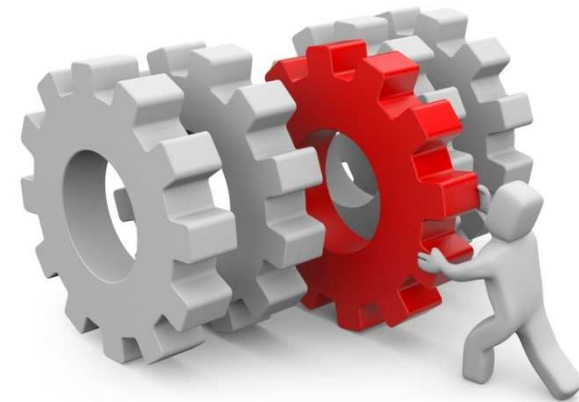
*Align your Test Practice to your organization's goals and objectives.  
You cannot function in a silo.*

# What is important?

With so many things to think about, what are the critical elements you need to focus on? We have some suggestions based on our experiences running and optimizing Testing Practices:

## Achieving an optimized Test Practice:

- Choose an Operating Model that drives efficiency, while minimizing overhead
- Build a Test Measurement Framework using a *Bottom-Up-Bottom* approach
- Develop an impactful Career and Training Model
- Regardless of your size, build and maintain a Test Roadmap & Strategy
- Measure and Communicate: Cost Effectiveness, Quality, Productivity & Efficiency
- Optimize and tightly control your Test Planning – mandate consistency
- Understand & Plan for new technologies (e.g. mobile)
- Communicate, Communicate, Communicate



# Starting your journey

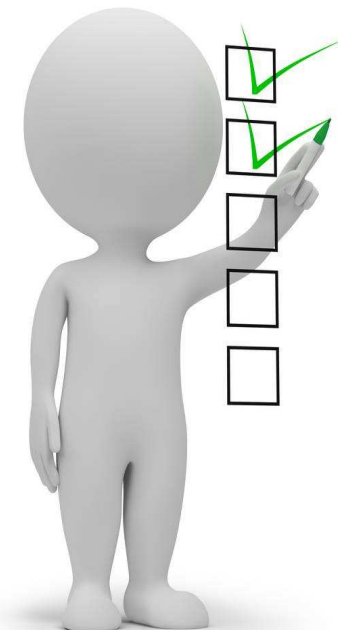
So what now? You had some good ideas in the presentation but how do I get started and put this into practice? Here are a couple of thoughts to get you started:

## Next Steps Checklist:

- Identify and document where you believe bottlenecks to exist
- Sit down with Sr. Leadership and ask them to evaluate your service
- Obtain feedback from your testers & see what they would change
- Confirm and summarize what metrics you track & report on
- Perform a gap analysis against industry standards
- Prepare a list of optimization & improvement actions
- Prioritize actions based on 'Quick Hits' & Business Priorities

## Critical:

- Test Practice Strategy and Roadmap
- Test Practice Business Case and Cost-Benefit Analysis
- Test Practice Measurement and Reporting Framework



# Contact us

If you have any questions or feedback, please feel free to email or tweet me.

Heather Gardiner | James Campbell

**tulkita technologies inc.**

info@tulkita.com

www.tulkita.com

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Good Luck  
and  
Thank You!