# IBM at Agile Australia 2012



# Building an Agile framework that fits your organisation

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Tuesday 29th May 2012

### **Agenda**



- Welcome and introductions
- Activity
- Learning from IBM's transformation to agility@scale
  - Anti-patterns and scaling factors to look for
  - ✓ Addressing the 5 Ps of IT
- Activity
- Insights to help you build your framework
- Action Plan
  - ✓ Your guide to building an Agile framework that fits your organisation.
- Feedback

### Learning objectives and expected takeaways



 Understanding of the critical anti-patterns and scaling factors that inhibit scaling Agile within organisations large and small

Strategies and tactics to overcome challenges faced

Action plan to build a flexible Agile framework that fits your organisation

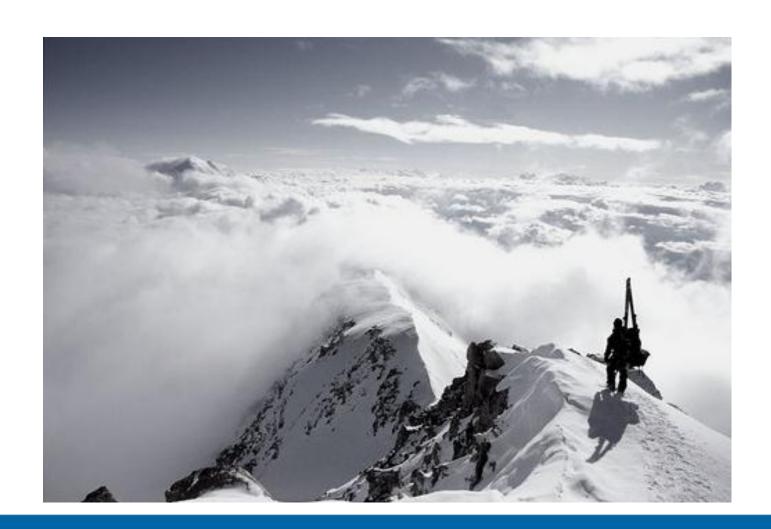
# Activity

How Agile are you?



# Our Journey to Agile...





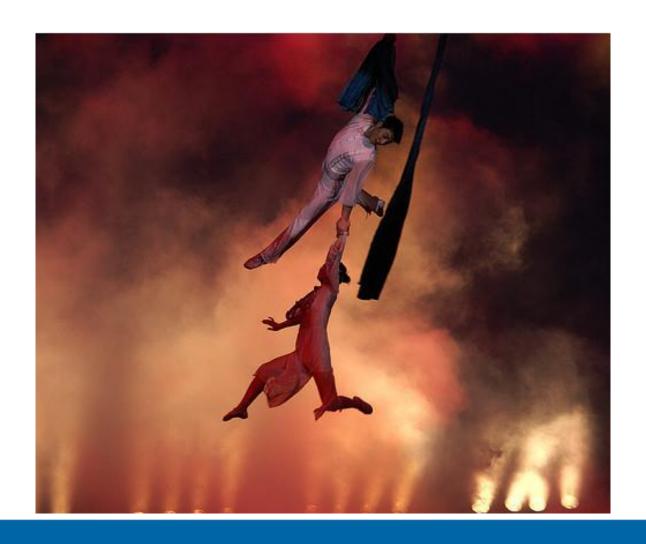
# Was a bit daunting at first...





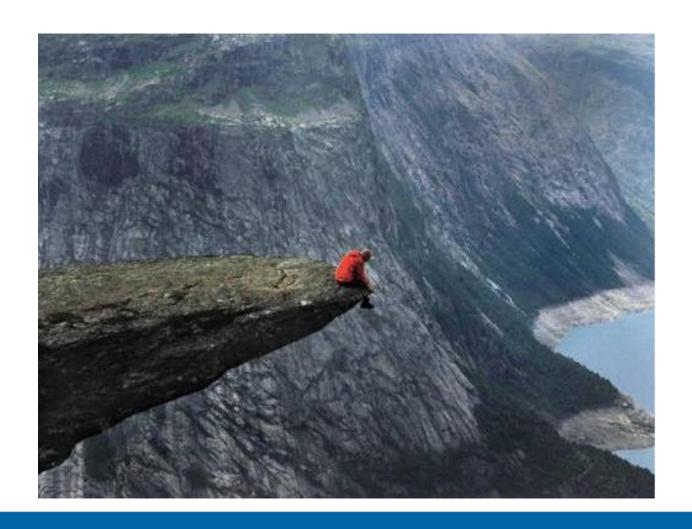
# **But through Teamwork...**





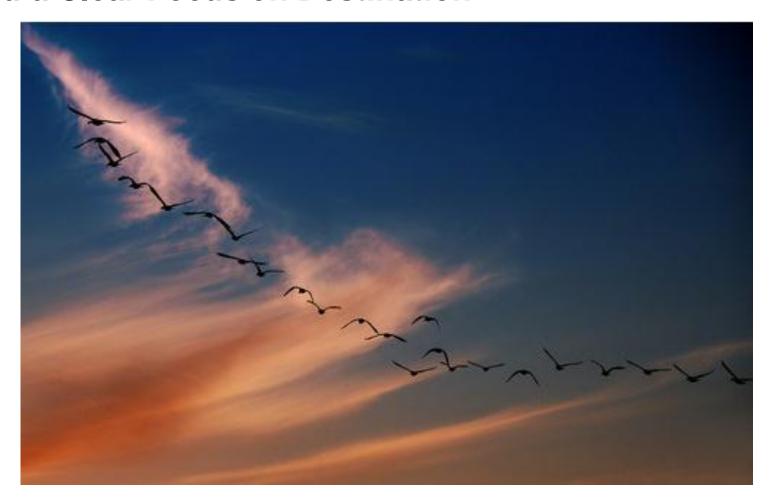
# **No Fear of Heights**







### **And a Clear Focus on Destination**





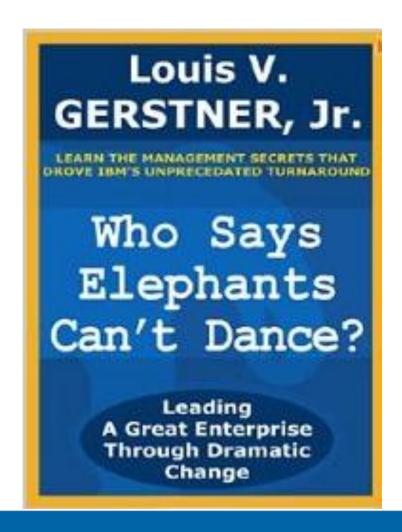
### We found our way to Success!





### ...and We Proved that Elephants CAN dance!





## **Measuring Improvements...**



Metric	2006 Measurement	2011 Measurement
On Time Delivery	47%	95%
Defect Backlog	9+ Months	3.5 months
Enhancements Triaged	3%	100%
Enhancements into Release	1%	21%
Customer Sat Index	88%	96%
Beta Defects Fixed Before GA	3%	94%
% of Agile Projects	5%	78%



### Some of the Challenges IBM faced...



### **Complexity Challenges**

- More granular service functionality in composite business applications
- Large number of projects and assets (coming from all different sources)

### **Process Challenges**

- Blind adherence to process insensitive to potential business trade-offs
- Need for agility at scale

### **Team Challenges**

- Geographically dispersed teams
- Effective cross-organizational visibility and synchronization, sharing becomes an imperative

#### **Tools Challenges**

- Lack of standards impacts ability to collaborate, automate and report across teams and assumptions
- Frequent asset updates and changing interdependencies



### **Key Principles We Learned (Inspired by LEAN)**





**Eliminate Waste** 

- Value Stream Maps
- Complete Solution



**Build Quality In** 

- Foundation Disciplines
- Continuous Validation



**Defer Commitment** 

Keep options open



**Deliver Fast**Queuing theory



**Focus on Learning** 

Product & process



**Respect People** 

- Teams
- Partners



**Optimize the Whole** 

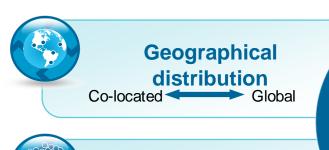
- Systems thinking
- Set-based design

### **Agile Scaling Factors**









**Project** 

focus

**Enterprise discipline** 



### **Domain Complexity**

Straight Intricate. -forward emerging

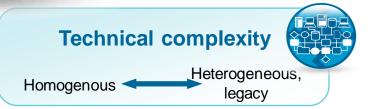


Organisation distribution 🚎 (outsourcing, partnerships) Collaborative Contractual



Enterprise

focus



### **Common anti-patterns**



- ✓ No support for skills development
  - ? Have you invested in coaching, training and education
- ✓ Agile in name only
  - ? Agile adoption is a paradigm shift
- ✓ Only focusing on construction
  - ? Have you applied agile practices to the full delivery cycle?
- ➤ Thinking that you're special
  - ? Do you think you can't become more agile? Interesting



### Scaling Agile - Our point of view



- Each organisation is different and faces a unique set of challenges
- A one size fits all approach to adopting Agile practices may not be appropriate
- Do what is practical for your team
- The ability to understand and prioritise business objectives and track your success in achieving them is key to success
- Your Agile transformation is an ongoing journey that needs constant review and refinement



Your challenges



### Reviewing your organisation



#### **Scaling Factors**

- ☐ Our team size is growing/is already large
- Our team is distributed geographically
- Enterprise focus is needed, we used to get by on focusing on projects
- Our organisational structure is complex
- We have complex compliance requirements
- Our technical environment is complex
- ☐ Our partnering relationships are complex
- Our problem domains are complex

#### **Anti-Patterns**

- We have no support for skills development
- We are Agile in name only
- We are only focusing on construction
- We think we have achieved all there is to achieve with Agile practices



# Activity

IBM.

Your challenges discussed

### Organisational Adoption: Address the "5Ps" of IT



- 1. People
- 2. Principles/Philosophies
- 3. Practices/Patterns
- 4. Products
- 5. Process





# **Activity**

IBM.

Your challenges discussed

### Agile changes your relationship with the business



- Your business and development processes must reflect one another
  - Plans must be high-level with the details coming just in time (JIT)
  - Schedules and estimates must be given in ranges
  - Traditional business approaches will eliminate most benefits of agile
- The new relationship with the customer:
  - They must be actively involved with development all the way through the lifecycle
  - The greater visibility and control that they now have implies the need for greater accountability on their part
  - They often don't understand the implications of what they ask for, you need to educate them

### Agile changes your relationship with the business



- Common problem: Customers don't want to be actively involved with development, not realising that they increase project risk
  - The customer must be involved with development projects on a daily basis
  - The customer must provide information and make decisions in a timely manner

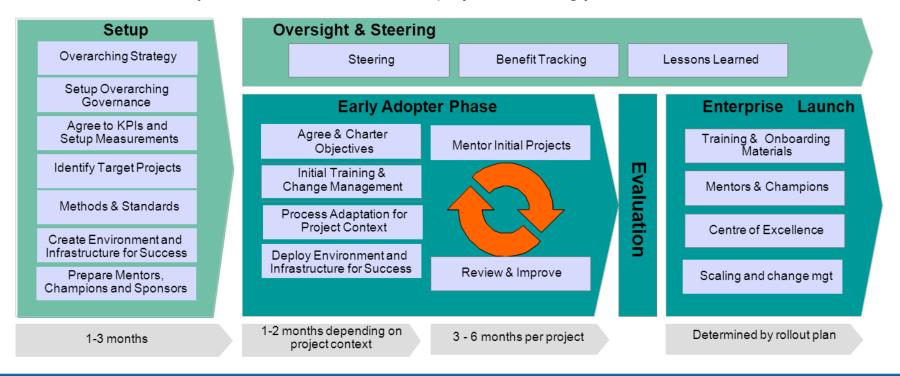
### Suggested strategy:

- Help your customers to understand what is expected of them and why
- Customer decision makers need to be coached too
- Be selective about the projects you apply agile strategies to. If the customer isn't willing to step up then the project isn't a good choice for agile

### Pulling it all together with planning & governance



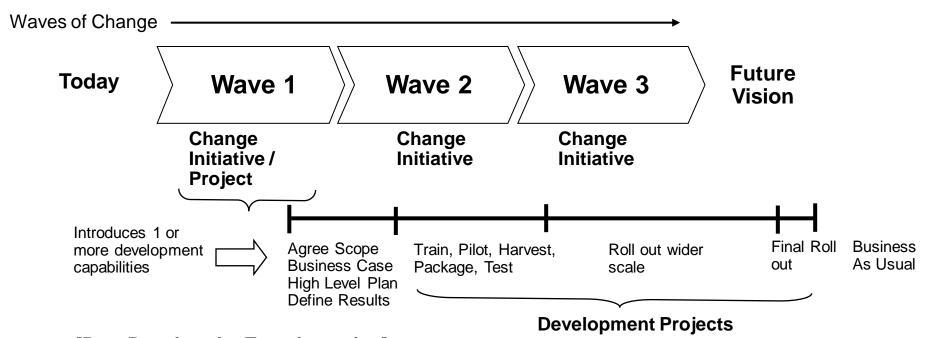
- Treat agile adoption like an agile project
  - Have a release plan
  - Have iterations where you deliver something regularly
  - Demo your results, both successes and failures
  - Reflect on what you've learned and steer the project accordingly





### **Our Strategy for Agile Transformation**





- [Best Practices for Transformation]
- Adopt process & tools <u>incrementally</u> in projects
- Support project teams with <u>just-in-time</u> training & mentoring to accelerate learning/adoption
- Demonstrate <u>quick-wins</u> from projects.
- Develop internal SMEs/Mentors who deliver mentoring to project team via CoE/Tools Group

### **Five Best Practices for Driving Change**



# Outside-in Design

**Development Processes** 

# Componentization and Reuse

Communities and Community Source

Measurements and Reporting

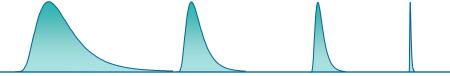


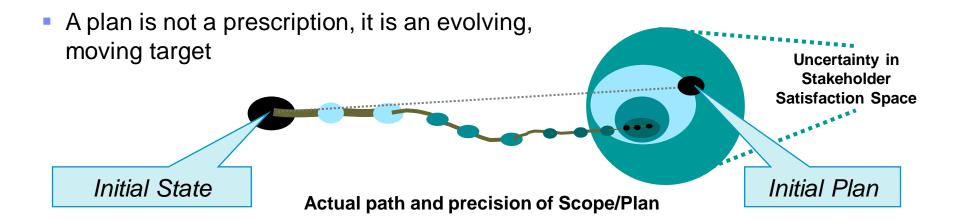
# Our Approach for Agile Governance = Managing Uncertainty and Managing Variance



Scope is not a requirements document, it is a continuous negotiation

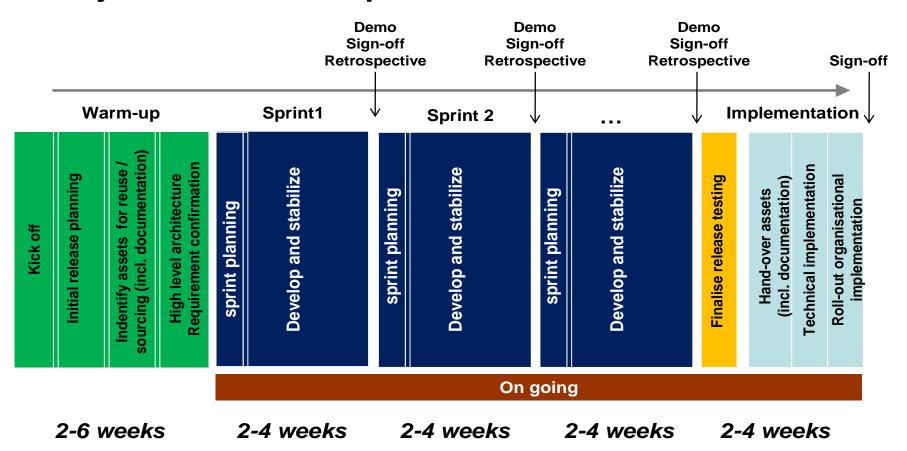
Plans/Resource estimates Scope Product features/quality







### **Project Timeline Template**





# **But What Should We Measure? An Example Set of Candidate Agile Metrics..lots of**



#### **Executive Dashboard**

#### Project Health

- Defect Backlog
- Defect Density
- Defect Repair Latency
- Build Health
- Project Velocity
- Staffing Actuals
- Process Timeliness
- Milestone Status
- Severity Analysis
- Security Vulnerabilities
- Static Code Analysis
- Requirements Met
- IPD Timeliness

#### Customer Quality

- Transactional Survey
- PMR / Call Rates
- Critical Situations
- Cost of Support
- Installability
- Enhancement SLA
- Useability
- Consumability
- Perceived Performance
- Scalability
- Integrations with other products
- User Experience / Doc
  Time to Resolution

#### **Development Quality**

- Defect Backlog
- Test Escapes
- **Functional Test Trends**
- Critical Situations
- System Test Trends
- S-Curve Progress
- Automation
  - Percentage
- Customer
  - **Testcases**
- Consumability
  - **Scorecard**
- Defect Latency
- Quality Plan Commitments
- **Test Coverage**

#### Strategic Health

- Sales Plays
- Partner Enablement
- Support Enablement
- Technical Enablement
- Sales Enablement
- Localization
- MCIF Index
- Competition
- Integrated into Story
- **Green Threads**
- LCM
- Pipeline / Multiplier
- Revenue

Evolutionary Architecture Vulnerability Assessment Concurrent Testing

Practices

Test Driven Development Whole Team

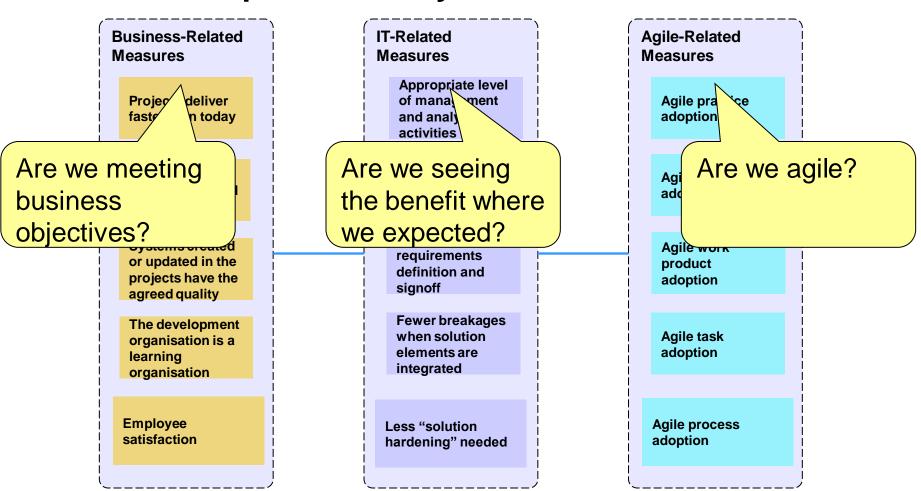
Requirements Management

ıı Team Change Management

Rational. software



### **Measures Help Answer Key Questions**



### **Key Project Performance Metrics: Agile View**

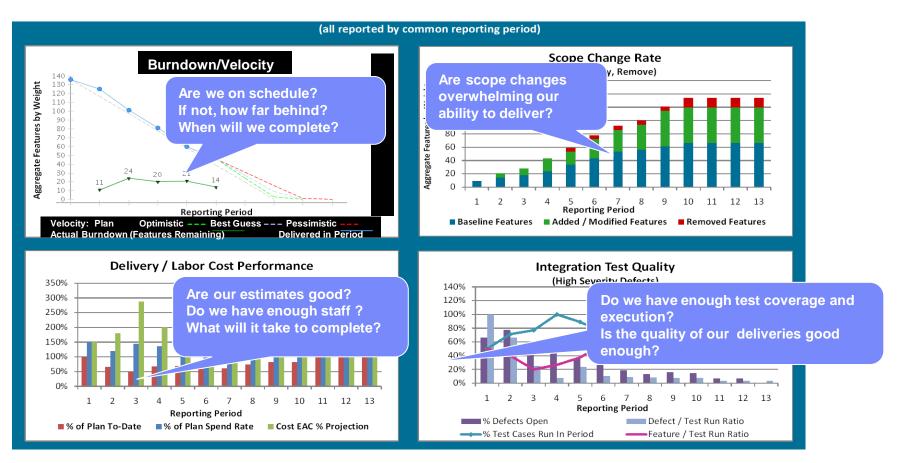




This is a sample view. Metrics can take different forms. The intent is ensure that the charts address core management concerns and associated questions.

### **Agile Performance Metrics: Core Answers**





Here are the key management questions answered by each chart. An inability to answer any of these questions serves as a source of fundamental risk.



Your action plan













## 1. Our team is growing/ is already large

- Manage growth carefully break teams up functionally or whatever works – need lots of sub teams
- Invest in tools that enable the team to collaborate real time and manage them effectively



## 2. Our team is distributed geographically

- Teaming exercises are important build as much rapport as possible virtually
- Video conferences and scrum of scrums
- Co-locate by location or function if possible
- Invest in tools that enable the team to collaborate real time and allow effective management



3. We need to take an enterprise approach and move beyond single projects

- Metrics and Measured Capability Framework become increasingly important
- Be flexible and pragmatic sometimes Agile does not apply
- Invest in flexible tools that can capture metrics but are also have minimal impact on workload





# 4. Our organisational structure is complex

- You need to be flexible enough so you can change the process model mid project
- Aim for repeatable <u>results</u>, not repeatable processes
- Have manageable growth grow in increments and demonstrate success as you go



5. We have complex compliance requirements

- Invest in people to understand the reason and ramifications of compliance
- Deep understanding of the compliance requirements and the minimum effort needed to meet them
- Invest in tools that allow lifecycle traceability with minimum resource overhead



### 6. Our technical environment is complex

- Cross train the teams across different technologies, processes and organisations
- Be as Agile as you need to be
- Tooling that can handle multiple environments, languages and processes



## 7. Our delivery partner relationships are complex

- Clear rules of engagement including governance program
- Enable process visibility
- A platform that promotes collaboration where possible and separation if needed



## 8. Our problem domains are complex

- Extended team of experts that are integrated into the project
- Tooling platform that can manage additional requirements beyond stories



# 1.We have no support for skills development

- Create a business case and demonstrate value of the agile skills to your organisation
- Train people on a just in time (JIT) basis
- Find an Agile champion in the business to support your efforts



### 2. We are Agile in name only

- Recognise that Agile requires organisational change management
- Identify business champions to help drive commitment
- Agility and achieving results is more important than being Agile



### 3. We are only focusing on construction

- Nothing in isolation there is a lifecycle and interdependency in all processes
- Isolation is anti Agile to achieve agility you must collaborate



4. We think we have achieved all there is to achieve with Agile practices

- Are you ready for disruptive change to the business eg growth, acquisition?
- Can you demonstrate your success to management with on demand reporting and dashboards?
- Acknowledge that process improvement is continuous

### The roles have changed, so must you



- Traditional roles:
  - –Analyst
  - -Architect
  - –Database Administrator
  - -Designer
  - -Developer
  - –Product Manager
  - –Project Manager
  - -Quality Assurance (QA)
  - -Tester

- Agile roles:
  - -Stakeholder/Customer
  - -Team Lead/Scrum Master
  - -Product Owner
  - –Agile Team Member
  - –Architecture Owner

#### **Agile Coaches**



- Good agile coaches
  - Have deep experience in agile
  - Have good interpersonal skills
  - Are respected by their teams based on merit, not on positional status
  - Are actively involved with the team(s) that they are mentoring, but don't dominate them
  - Create an environment where people collaborate and learn together
- Role and responsibilities of an agile coach
  - Provide advice to the team
  - Provide opportunities for people to learn, even through mistakes
  - Pair with the people they are coaching to provide detailed mentoring
  - Help teams to solve problems
  - Negotiate conflicts within the team
  - Promote self organization and self discipline within the team
  - Help the team to understand and meet their improvement goals
- "Growing" your coaches
  - 1 experienced coach can coach two teams (10 people each) on one project at a time.
     While doing so, they can also develop one agile coach with each team.
  - Senior coaches can develop coaches in about 3 months, but typically it takes 6 months to develop new coaches

#### **Agile Champions**



- Good agile champions
  - Understand the fundamentals of agile
  - Understand how to apply agile at scale
  - Understand enterprise-level implications of agile
  - Are respected by agile teams based on their merit, not positional status
  - Create an environment where agile teams are given the resources to succeed
- Role and responsibilities of agile champions
  - Support the agile coaches
  - Work closely with the business to help them understand and shift to agile
  - Work closely with IT senior management to help them understand and adopt agile
  - Communicate to the organization the current status of the agile adoption, successes, ...
  - Help promote communication between the agile coaches and teams
  - Promote and defend agile approach in their LoB
  - Use collected results to show value