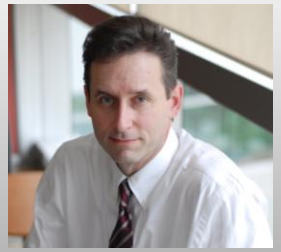
Innovate2012

The Premier Event for Software and Systems Innovation



Michael Rhoads
Director, Rational Software
Asia Pacific

Smarter Software Delivery - Topics

- The Perfect Storm
- Accelerating Software Delivery
- Software Supply chain
- Announcements & Summary

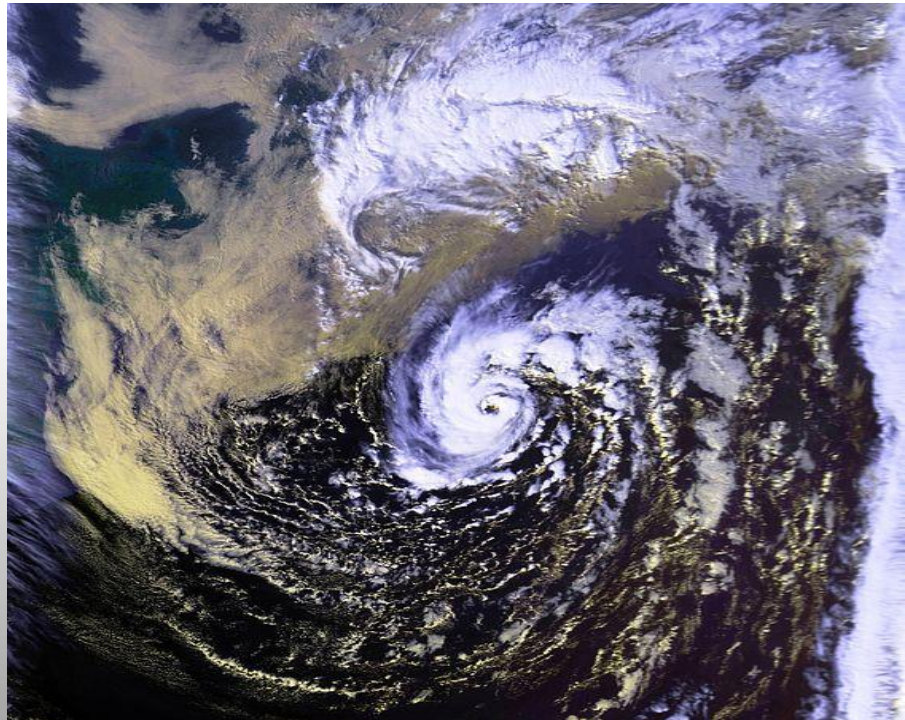
For the first time, CEOs identify “technology factors” as the most important external force

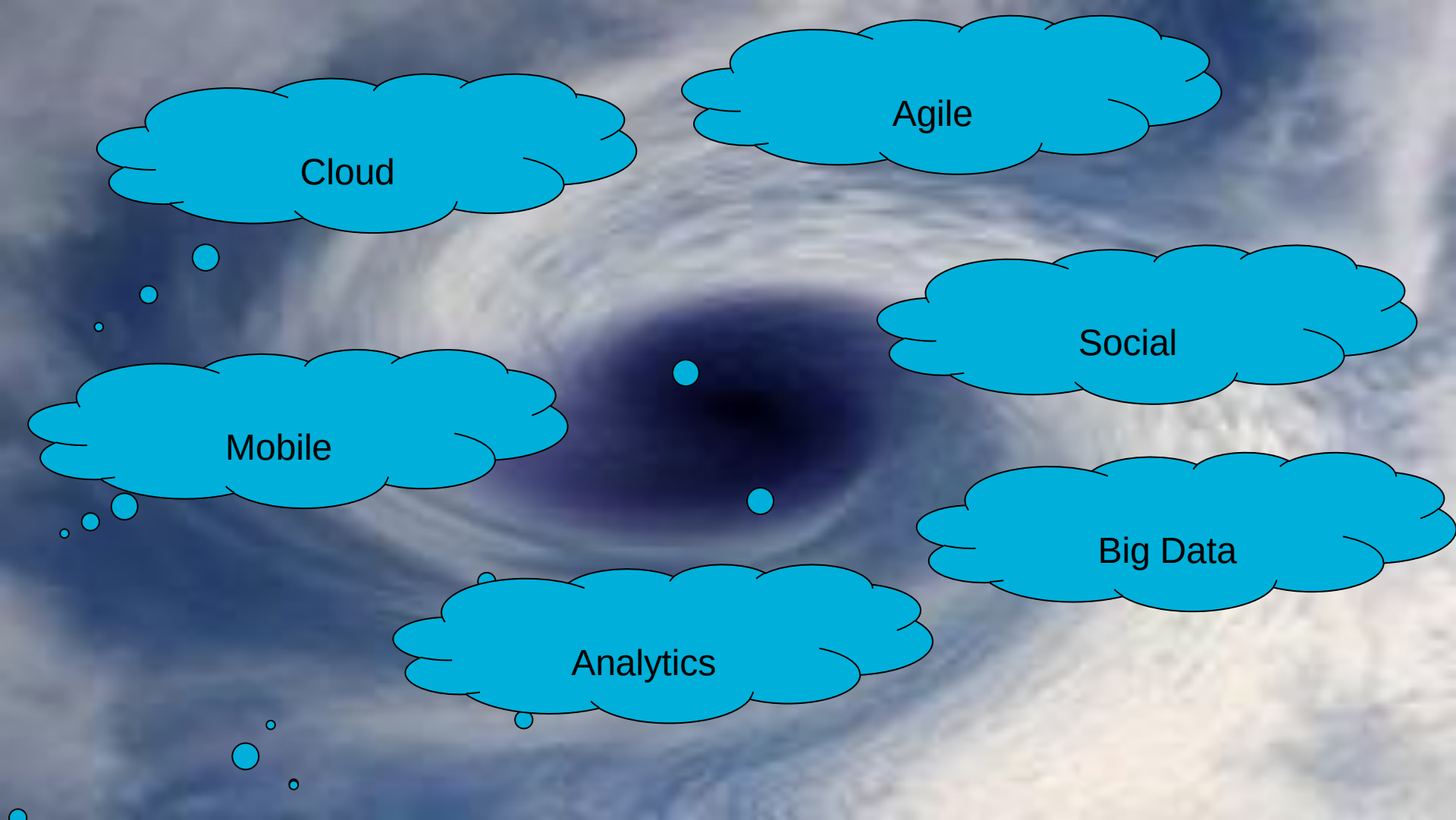
Source: Q1 “What are the most important external forces that will impact your organization over the next 3 to 5 years?” (n=1709)

Perfect Storm is a confluence of events that drastically aggravates a situation.

Storm in 1991 October that hit the Northeast of the US and Canada. Was the result of multiple storms converging into a storm of the century. Resulted in over $200M in damages.

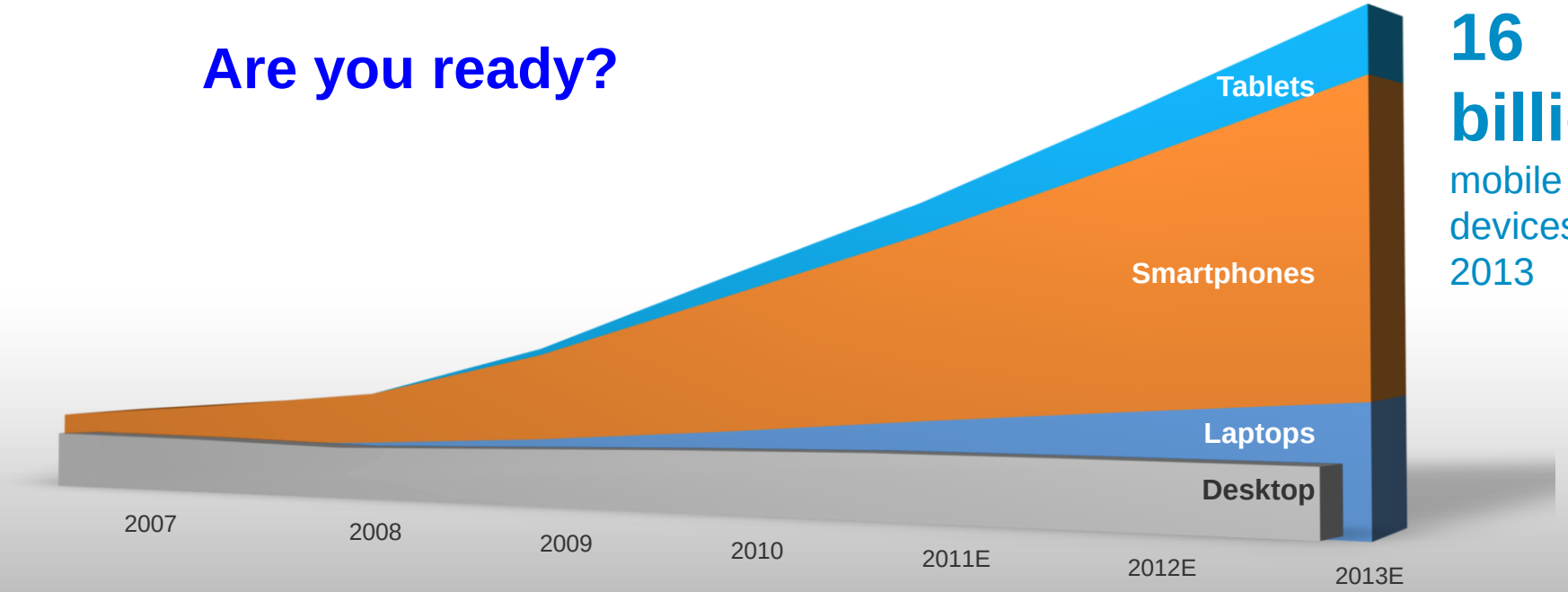
(Movie starring George Clooney)




Cloud
Agile
Social
Mobile
Big Data
Analytics

Explosion of mobile devices suggest new Use Cases

Are you ready?



16 billion mobile devices by 2013

Source: Gartner Research; Smartphone, Tablet, and PC Forecast, December 2010.

Four Key Mobile Development & Delivery Challenges

1. Multiple Mobile Platforms

- Highly fragmented set of devices, platforms and development models
- Native programming models not portable across devices
- Very large number of environment configurations to test

2. Consumer Expectations

- Strong demand by Line of Business to extend brand to mobile
- Perceived app quality influenced as much by design quality as it is by functional quality

3. Time to Market Requirements

- Faster time-to-market demands
- More iterative – frequent releases and updates for apps
- Late rework due to misalignment of stakeholders

4. Connecting mobile to the enterprise

- Mobile apps are typically multi-tiered and need to leverage existing enterprise back-end data
- Development lifecycle needs to bridge multiple teams

Mobile is Connected to Social

- **Group Texter -** This model focuses on ability to send short, text based messages to a large group of people simultaneously. It can be by SMS or micro-blog. This category enables messages reach right people as quickly as possible.
- **Radar -** Radar takes advantage of growing interest in location-based services by keeping track of all the contacts. This allows knowing people who are nearest to the user. A lot of these sites also allow you to check if there's anyone near a particular venue or location, and some of them will actively alert you if any of your contacts comes within a certain distance.
- **Geo Tagger -** This model is heavily location based. This allows users to tag particular locations with images and other information. These tags can be accessible by the users which are mapped on world map. Some of the sites in this category enable to receive alerts when the user passes by the location in which somebody was tagged in.
- **Dating Service -** The sites using this model are almost identical versions of their online counter parts. Users create a profile and are matched with other profiles on-line. Some of these sites use radar so that they ping you if there is a matching single profile within a certain distance. These sites are marked with serious security measures, so that no personal details are released without user's consent.
- **Social Networker -** The sites using this try to use on-line social networking sites as closely as possible. Many of these sites use mobile portals of already existing and successful sites such as Facebook.They offer vast number of functions including multimedia posts, photo sharing instant messaging etc. Most of these sites offer inexpensive international calling and texting facilities.
- **Media Share -** The sites using this model are almost the advanced version of the sites of Group Texter category. Instead of text messages, audio and video files are transmitted among the group. These sites are only concerned with sharing files as quickly and efficiently as possible with your friends and groups. Most of them store your phone content on-line so that your mobile doesn't get clogged with large video files. These sites are dangerous when compared to other categories of sites.

Cloud use for Scalability, but increasingly for Agility

Large Volume & Variety of Data for “New Insights”

Multi-channel customer sentiment and experience a analysis

Detect life-threatening conditions at hospitals in time to intervene

Predict weather patterns to plan optimal wind turbine usage, and optimize capital expenditure on asset placement

Make risk decisions based on real-time transactional data

Identify criminals and threats from disparate video, audio, and data feeds

Market Trends : New Technology for Business Applications

- New applications developed for mobile, social and analytics - Instagram
- Transformation of existing applications to the new model – Netflix
- Coexistence and integration of new application models with existing applications - StateFarm

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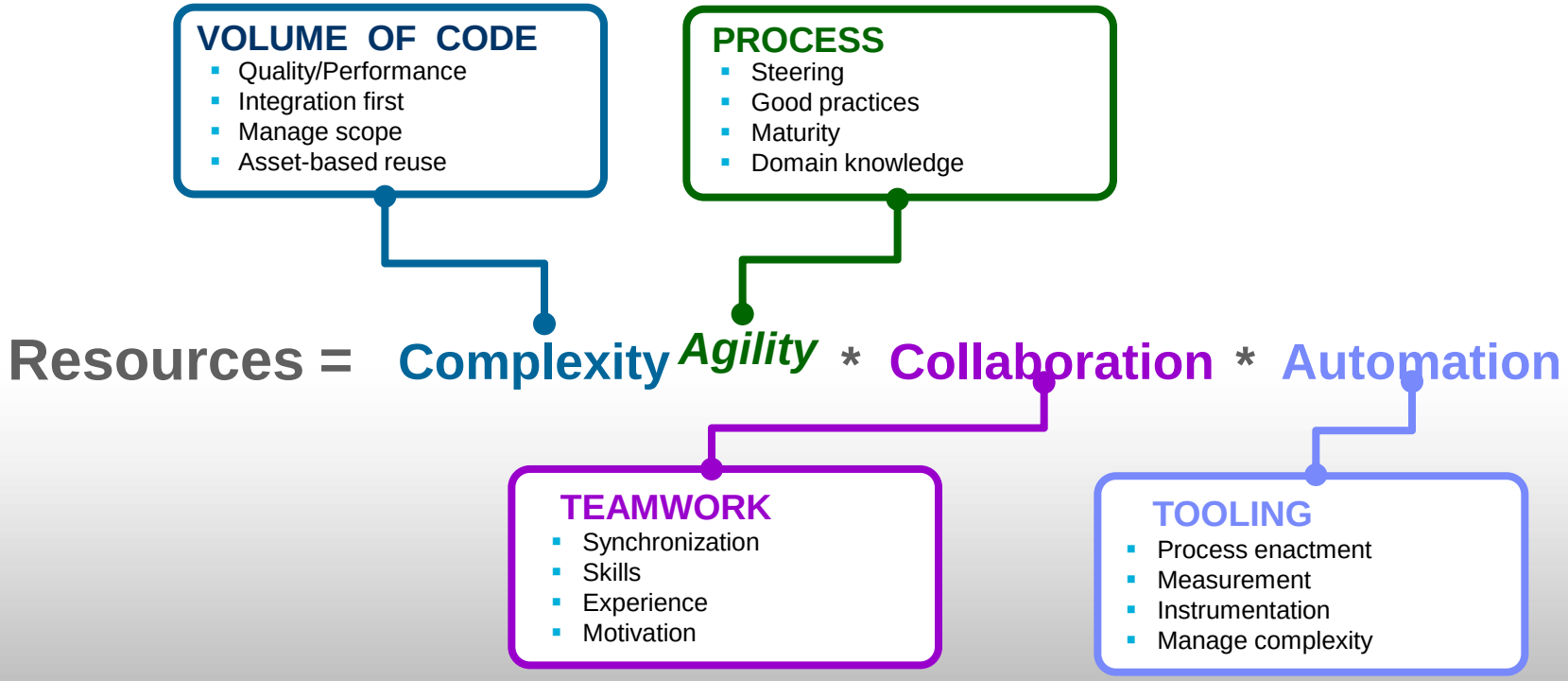
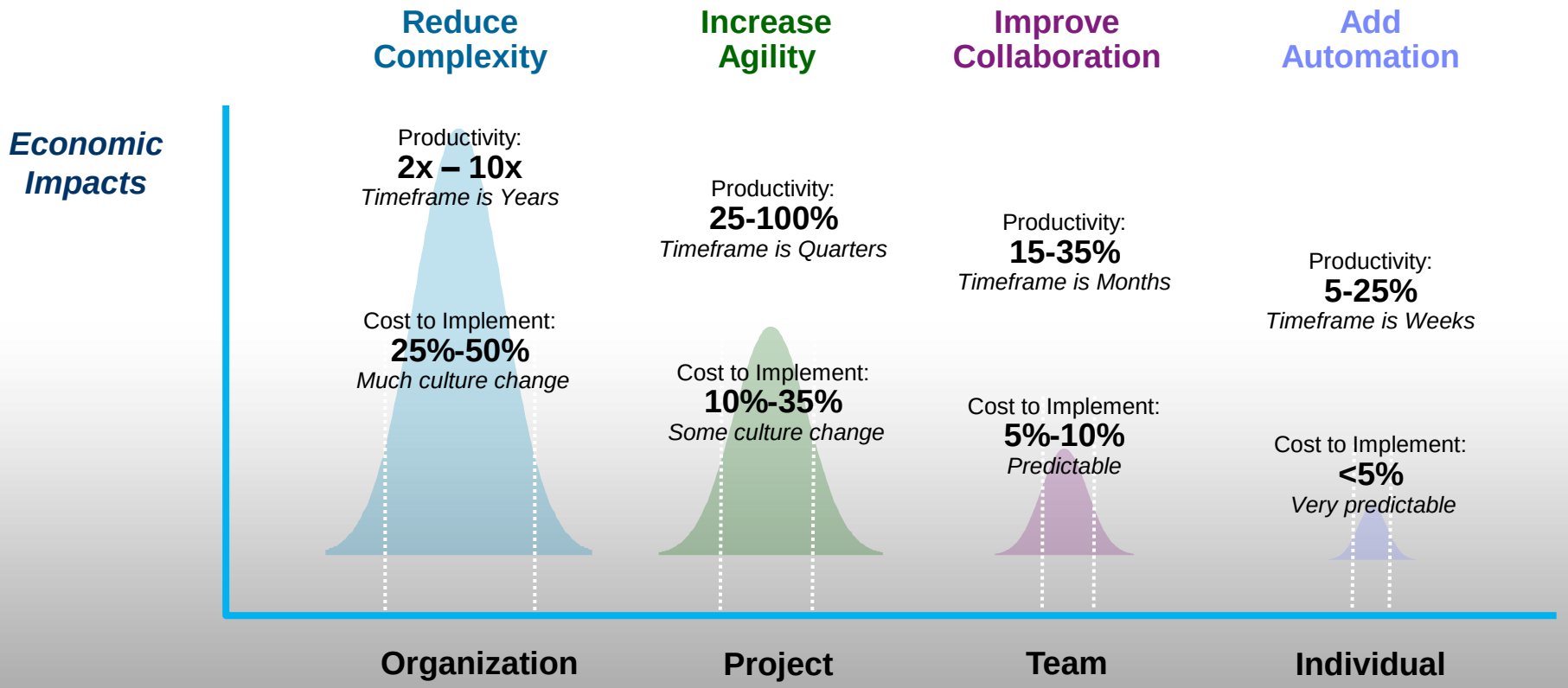
Accelerated Delivery Demands a Quid Pro Quo

Succeeding in The New Development Reality

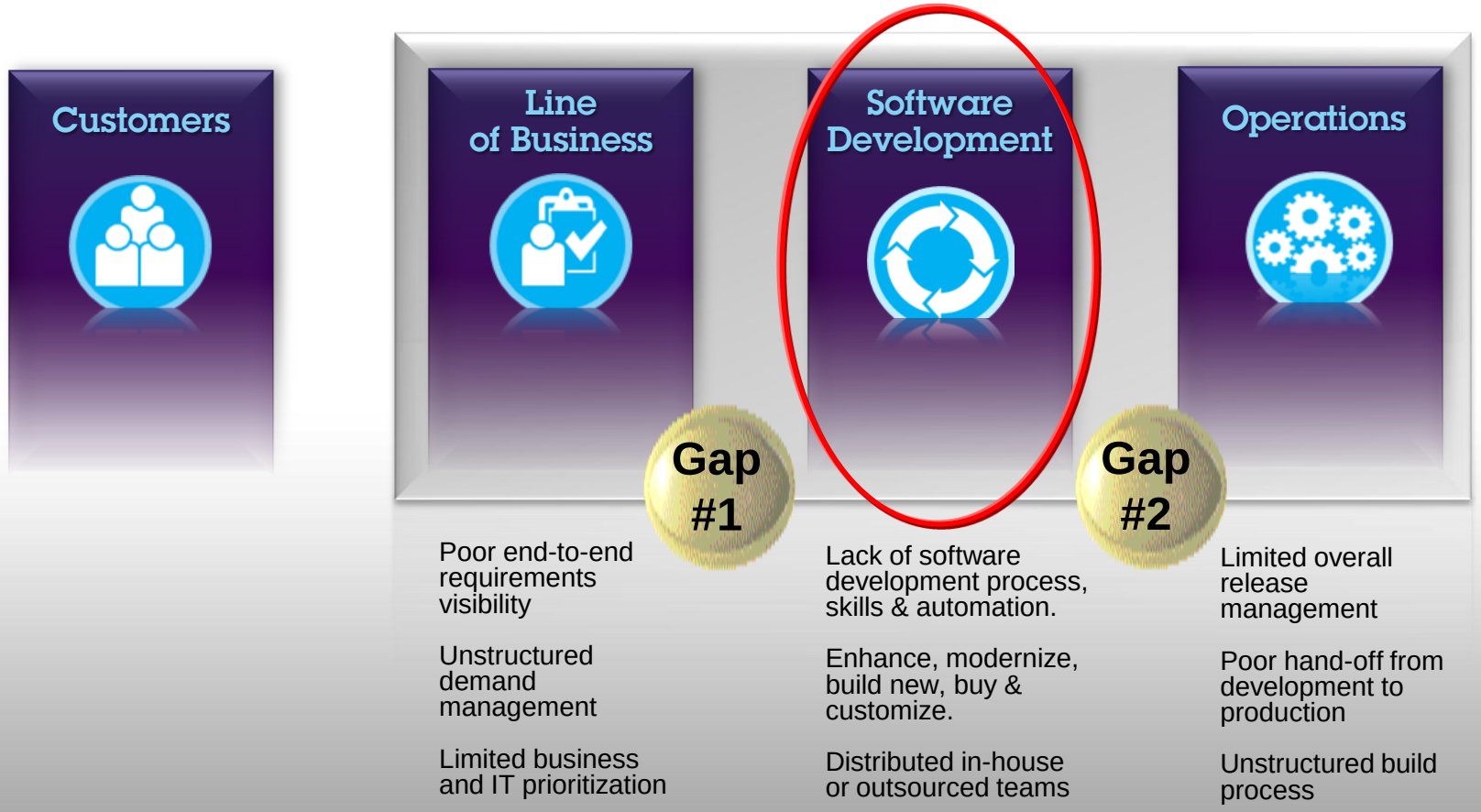
Improving Software Economics



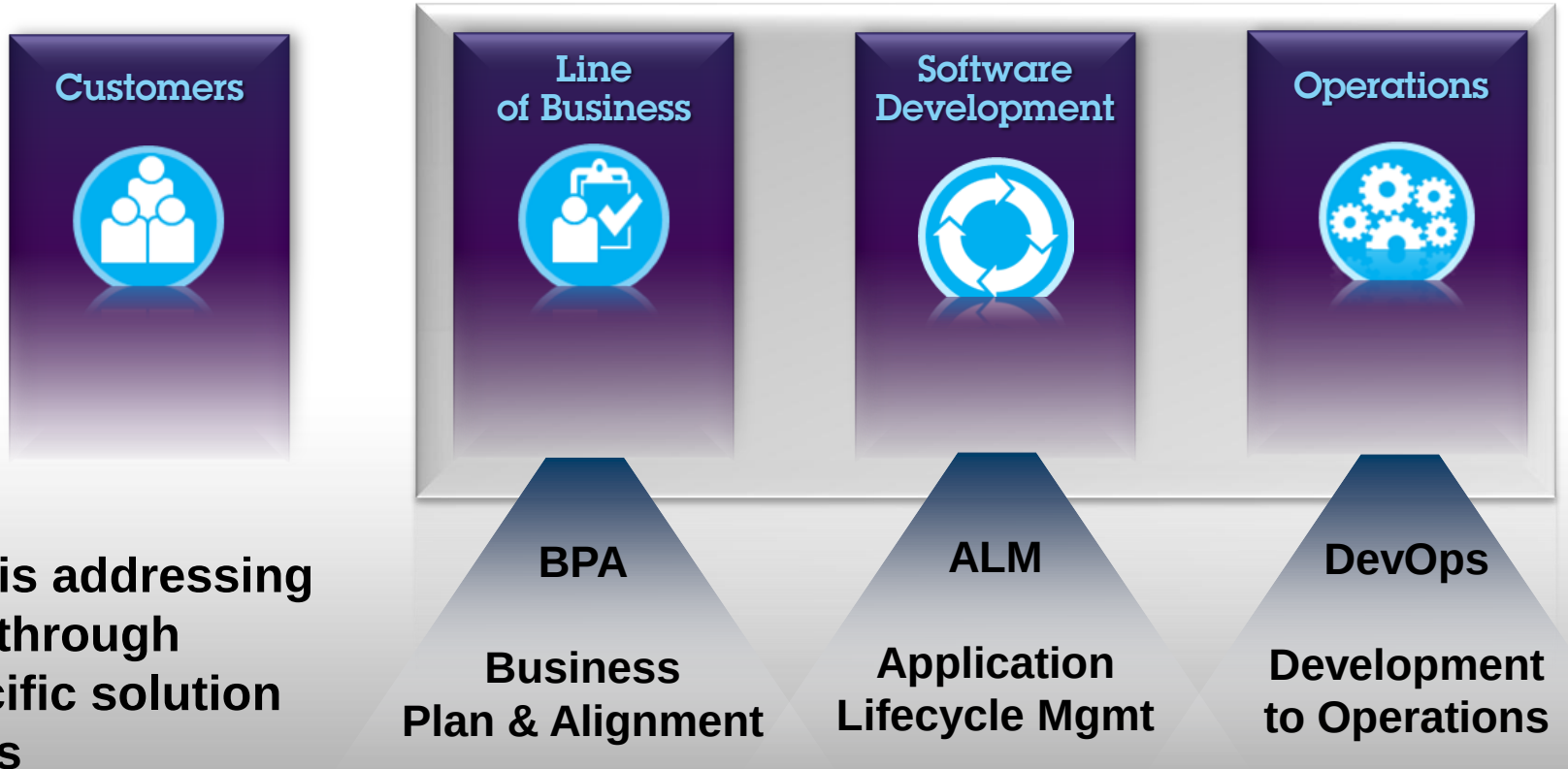
Productivity Improvement Leverage



Accelerating Overall Software Delivery



Accelerating Overall Software Delivery



IBM is addressing this through specific solution areas

Three phases of solution delivery

Planning

- Understand business needs and priorities and decide where and what to invest.
- Define projects and assess resource and budget.
- Decide to build in-house or by outsourcing
- Assess risks and monitor progress for actions.
- Define and manage release plan

Implementation

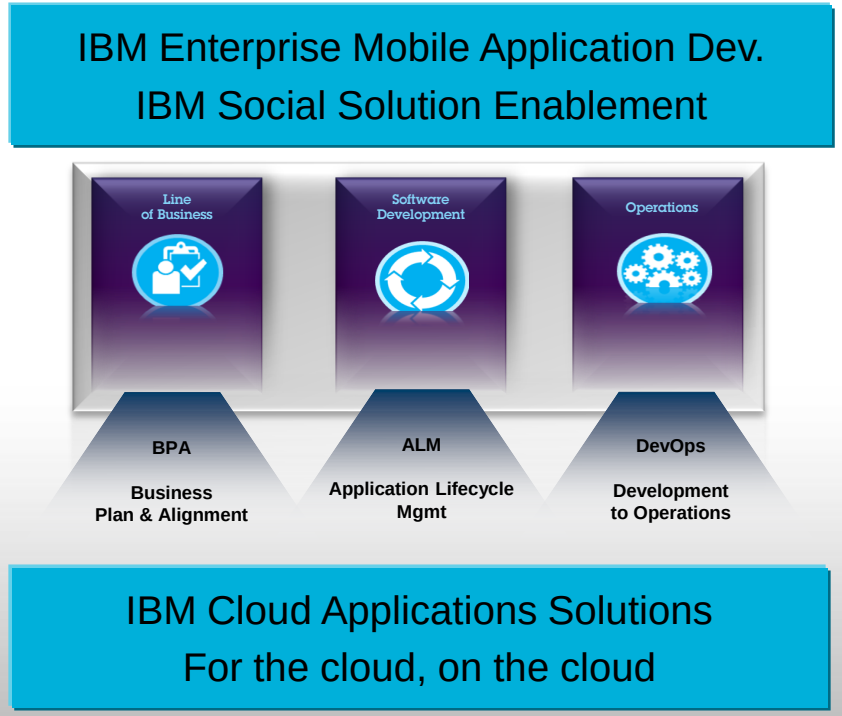
- Create project plans and execute them.
- Define and analyze requirements
- Design, implement and test.
- Produce documents
- Define and implement quality plan.

Operations

- Standardize infrastructure and configuration for deployment.
- Lower the risks of deployments, and have the ability to easily deploy an old version.
- Improve collaboration with development to reduce communication gap

Solution areas are also key for Mobile, Social and Cloud

- The ”Solution Sandwich” shows these three key solution areas are also important for new technology areas.
- Choose entry points where you can gain the most value, based on your level of maturity and business requirements. But principles of iterative adoption always apply.
- Process and Automation is critical to realizing huge benefits. Choose and entry point which makes the most sense to your business, and address it with an approach which you can reuse and expand.
- Remember the pillars of :
  - Integration
  - Collaboration
  - Optimization



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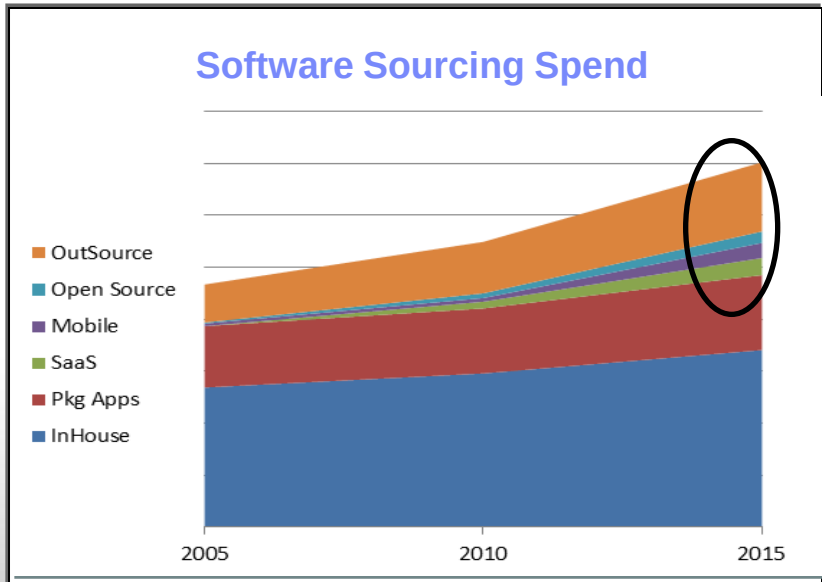
The “Perfect Storm” of disruptive technologies is accelerating / evolving outsourcing models

- A Gartner benchmark study found that 55% of global organizations manage their sourcing activities tactically and at an operational level, failing to add a strategic management layer and invest enough in developing critical multi-sourcing competencies.

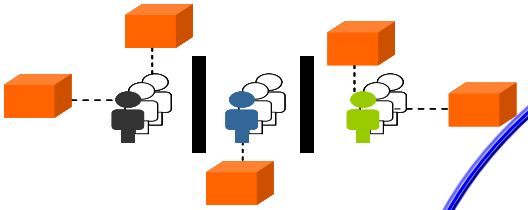
- Key challenges of multi-sourcing include:
  - Difficult to build and manage
  - Often fail to deliver expected outcomes
  - Often relationship fails to evolve
  - Improper balance between oversight and innovation



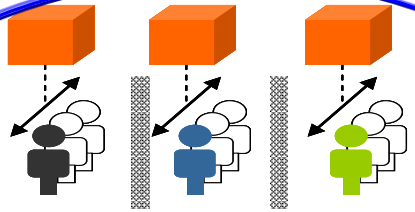
External Supply Chain (2010-2015):

- **7.4% CAGR to $361B**
- **Increasing to >50% share of spend**

Outsourcing models evolving into complicated Software Supply Chains

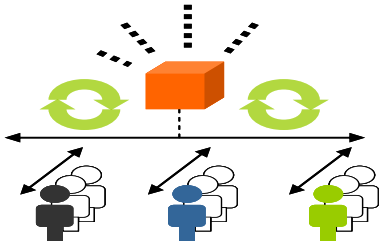


- Labor arbitrage
- Outsource well defined areas
- Manage directly
- Cost focus



- Staff augmentation
- Outsource larger disciplines
- Manage SLAs
- Skills focused

- Core competence
- Outsource projects
- Manage outputs
- Skills and process focused

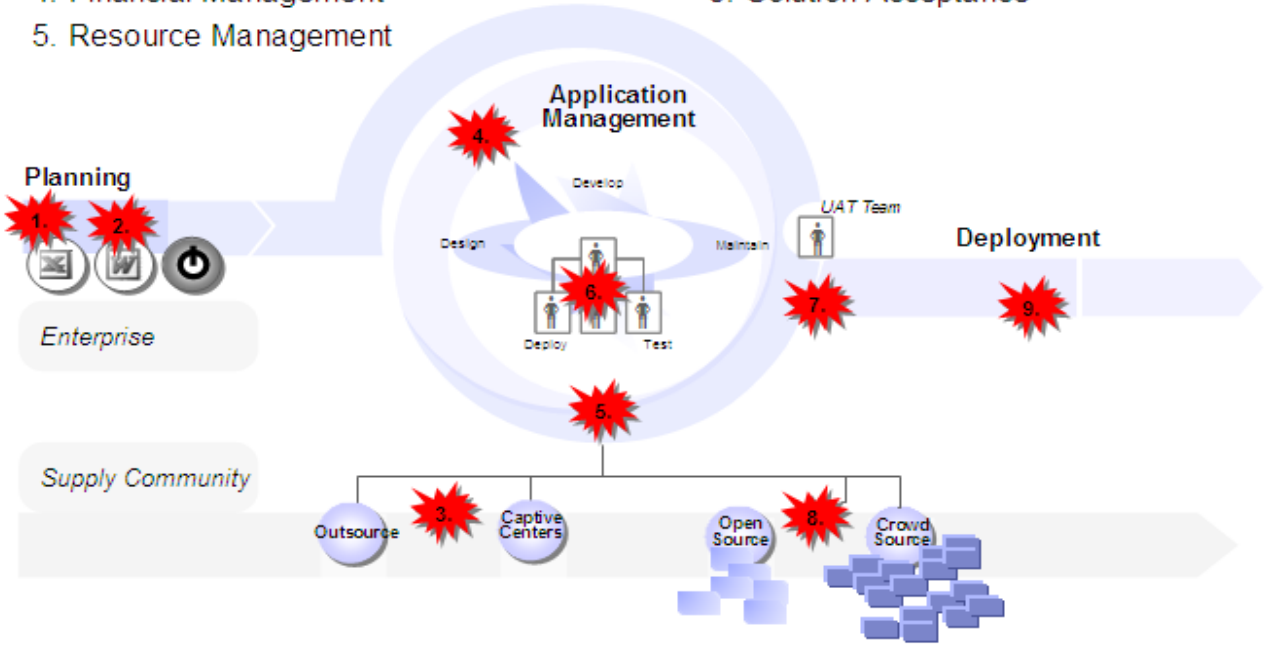


- Business agility
- Outsource multiple projects
- Manage outcomes of multiple vendors
- Process optimization

Significant challenges from weak governance of the Software Supply Chain

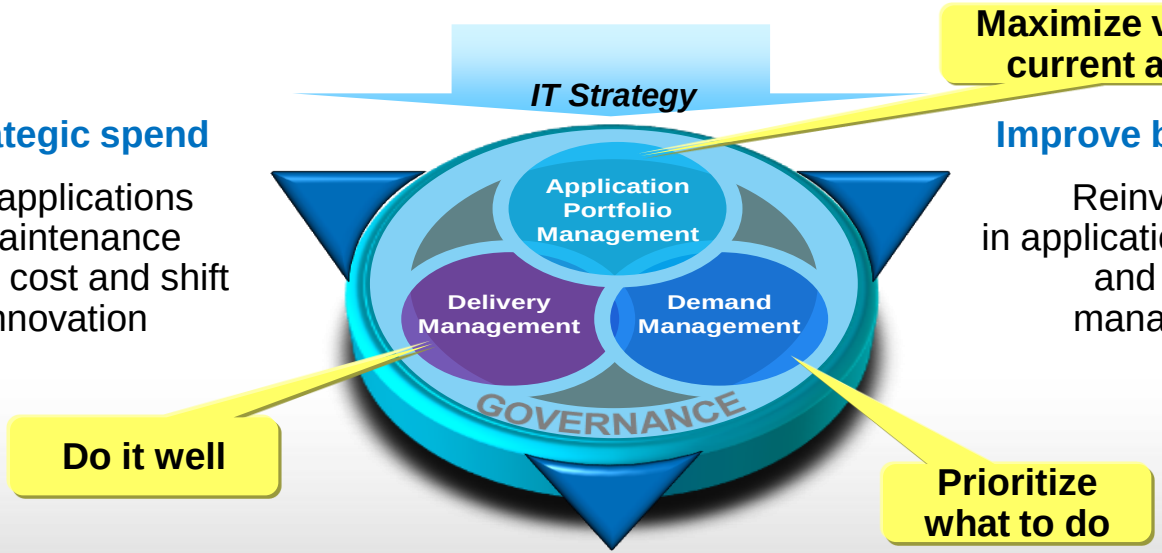
- Software Supply Chain currently fragmented business process like SDLC was before ALM….with many points of failure
- Solution delivery and change mgmt are not transparent, controlled, or predictable
- Lack of business process insight
- Lack of visibility into resources, contracts, SOW, vendor selection, project scoping, and requirements across the suppliers

1. Multi-source Decision Planning
2. Requirements Management
3. Contracts and Compliance
4. Financial Management
5. Resource Management
6. Project Visibility & Governance
7. Project Management
8. IP Management
9. Solution Acceptance



IBM Multi-sourcing Governance

Collaborative decision making



Maximize value of current assets

Increase strategic spend

Consolidate applications to reduce maintenance and operations cost and shift funds to innovation

Improve business agility

Reinvest savings in application modernization and effectively manage demand

Do it well

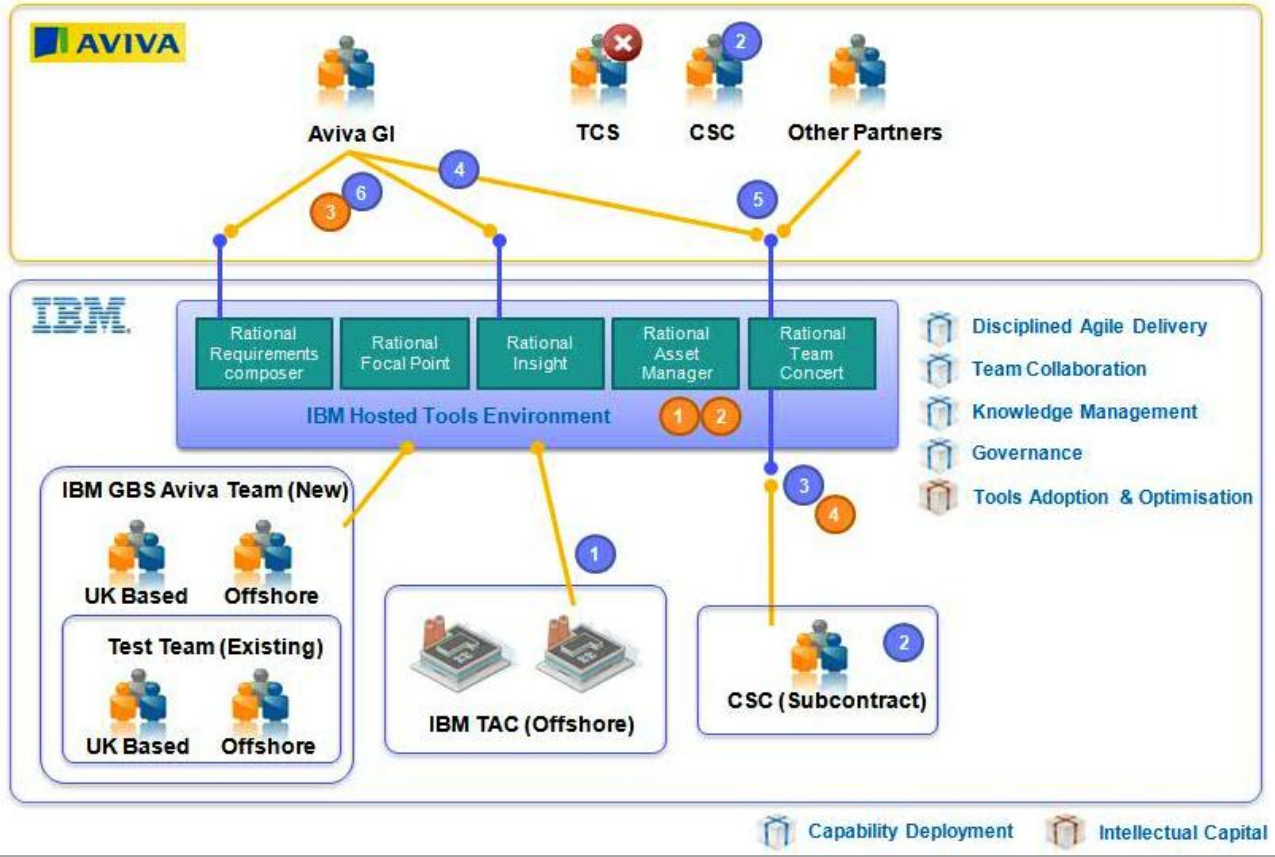
Prioritize what to do

Deliver and improve

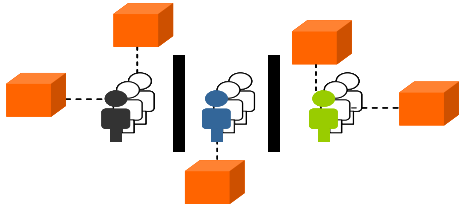
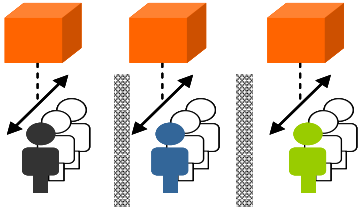
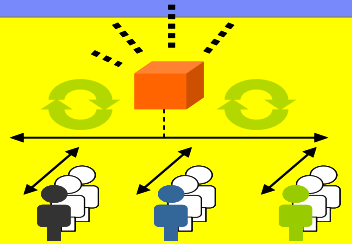
Deliver on projects and measure the result to improve future decision making

New governance model & automation significantly improves results from the Software Supply Chain

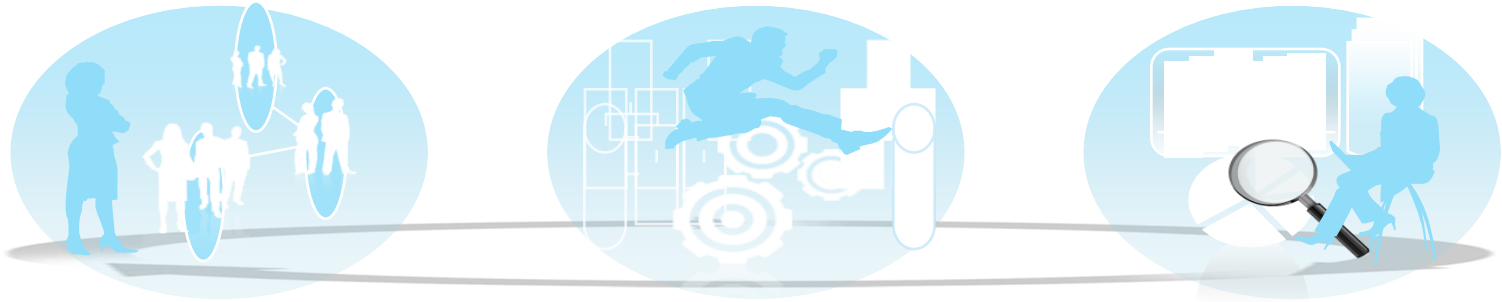
- Visibility across all contributions to SW Supply Chain (SSC)
- Improved accuracy of project outcomes and revenue forecasts
- Consistent delivery process across all elements of SSC
- Capacity alignment to change management
- Improved visibility into contracts, SOW, vendor selection, project scoping, requirements across the integrated suppliers



New governance model enables “Advanced Practice”

Simple Practice	Typical Practice	Advanced Practice
		
▪ Country-based delivery	▪ Onshore / Offshore	▪ Networked Global Centers
▪ Utilization based	▪ Deliverables based	▪ Outcome based
▪ Limited collaboration	▪ Core team collaboration by project	▪ Community Collaboration across process and technology
▪ No workflow management	▪ Limited workflow management	▪ Component-based workflow management
▪ No reuse	▪ Ad hoc reuse	▪ Systematic reuse
▪ Limited visibility	▪ Visibility of standard project metrics	▪ Pervasive transparency of all project artifacts
▪ None	▪ Ad hoc improvement processes	▪ Continuous improvement with Lean
Technology Platform		
▪ Standalone development and project management tools	▪ Limited tool integration and collaboration capability	▪ Integrated technology platform enabling real-time collaboration and AD/M automation

The Focus for Agility from a Software Supply Chain View



Collaboration
Improve communication on priorities and improve workforce empowerment across teams, organizations

Automation
Lower costs and improve quality by automating workflows based on real-time information

Optimization
Continuously improve by measuring progress against desired business outcomes

Governance and Measurement is focused on

- **Outcome** over **Output**
- **Empowered teams** over **Resourcing**
- **Prioritizing** over **Planning**
- **Features** over **Projects**

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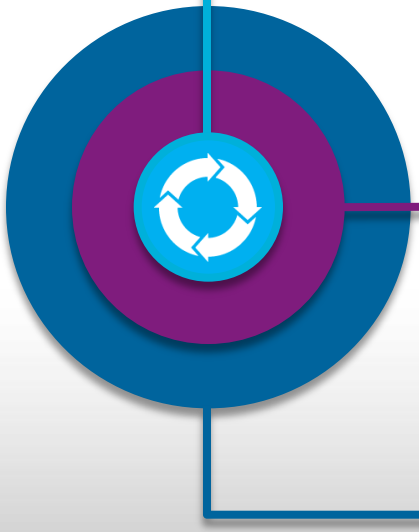
Announcements : New Capabilities in Three Key Areas



DEVELOPMENT LIFECYCLE

- Rational Solution for Collaborative Lifecycle Management
- Rational Solution for Systems and Software Engineering
- Continuous integration and testing features Green Hat technology

EXPANDING LIFECYCLE AND INDUSTRY FOCUS

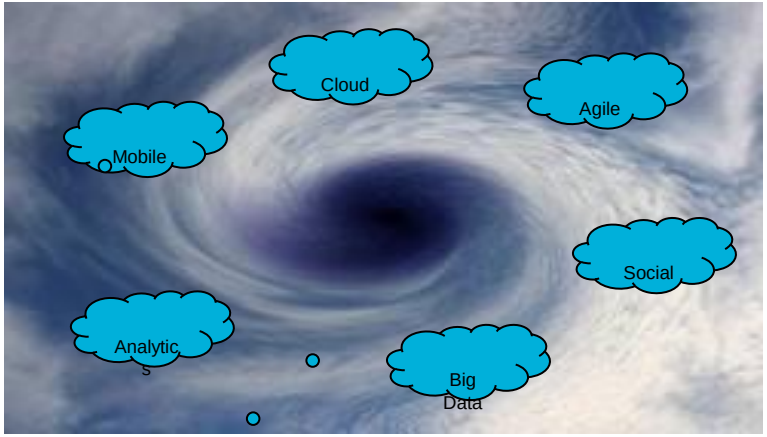
- Integrations for Collaborative DevOps
- SmartCloud Continuous Delivery
- IBM Enterprise Mobile Development Solution
- Targeted industry-specific guidance for compliance standards

ECOSYSTEM

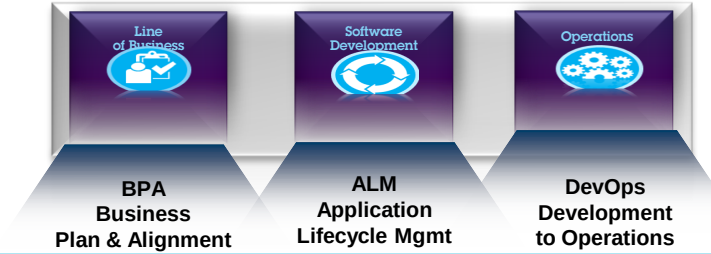
- New partnerships: NATIONAL INSTRUMENTS, SAP
- New steering committee for OSLC
- New Linked Data Workgroup within the W3C
- IBM PureSystems Trial powered by SmartCloud
- Enhancements to Jazz.net and Jazz Hub

IBM

Perfect Storm of Disruptive Technologies

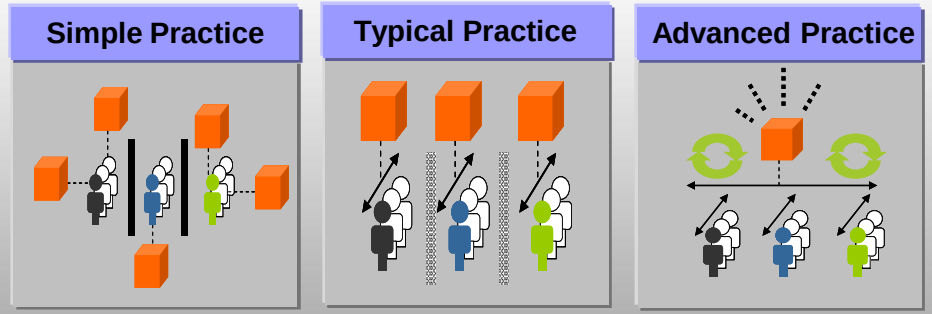


IBM Enterprise Mobile Application Dev.
IBM Social Solution Enablement

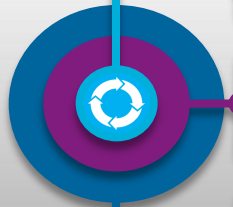


IBM Cloud Applications Solutions
For the cloud, on the cloud

Managing the "Outsource" Software Supply Chain



New Announcements



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Are you ready?

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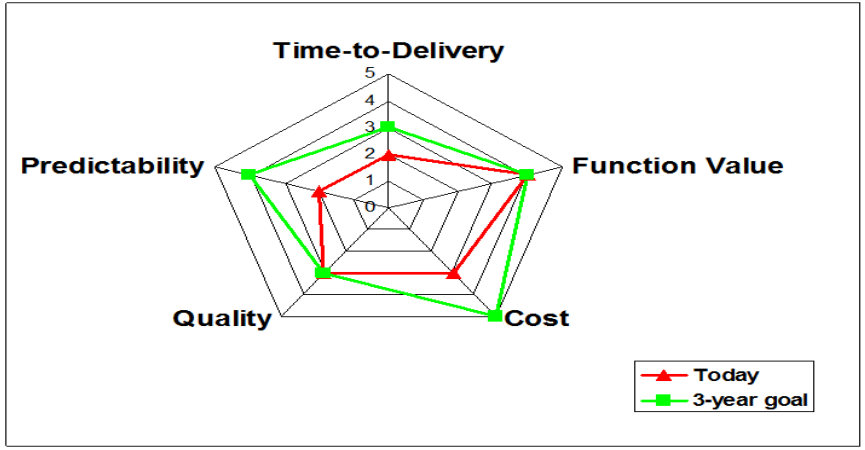
Back-Up

Our Offer : IT Transformation Workshop

- 5 day Workshop as an IT Practices “Health Check”.
- Review business drivers, existing IT practices, and industry best practices
- Simple, organized method for considering needs and ROI from making a change.
- Technique uses structured interview process, industry / practice templates, best practices review and gap analysis.
- Workshop provides “Heat Maps” to visualize strengths & weakness, “Recommendations” prioritized by your business drivers, a “Roadmap” for guidance on how to get there, “Metrics” to baseline and track progress, and high level “ROI” estimates.
- Techniques and content based on many, many customer engagements around the world.



Capability Matrix

Capability Improvement Framework	Product Portfolio Management	Requirements Definition and Management	Architecture Management	Collaborative Application Lifecycle Management	Quality Management	Asset Management	Change and Release Management
Business Value Reporting	Performance Management	Business Requirements	Application Modelling	Coding	Application Compliance	Asset Management	Application Provisioning
Measurement and Metrics	Product Peformance Management	Requirements Elicitation	Architectual Reuse	Collaboration	Applicati Securit		
Process Standardization and Automation	Project Estimation	Requirements Traceability	Communicate Solution	Developer Efficiency	Functional T		
Readiness	Project Inception	Risk Management	Enterprise Architecture	Developer Testing	Non- Funct Testin		
Vision	Project Management	Scope Management	Evolutionary Architecture	Global Distributed Development	Performa Testin		
Roles	Quantitative Project Management	System Requirements	SOA	Reverse Engineering	System Tes		
	Realtime Reporting	Trade- off Analysis	Data Modelling	Roundtrip Engineering	Test Manag		
	Portfolio Mangement			Vendor Management	Test Da		
	Resource Management						

considerable gap gap
room for improvement
good practice
not surveyed
not relevant

Announcing CLM Version 4.0 : The Industries Best Collaborative Lifecycle Management – Now Even Better!!

Requirements Composer v4.0

- Enhanced enterprise deployment and scalability to support high availability and availability via clustering
- Extend and refined data access control and improved requirements organization structures
- More solutions for analyzing traceability through graphical explorers and suspect link change identification
- Extended CLM lifecycle integration for Rational Design Manager to trace and report requirements and models/elements

Team Concert v4.0

- Automated high availability via clustering
- Manage plans and schedules that span multiple projects
- Finer grained security to more easily support outside suppliers and consultants
- Locate and verify changes to multiple release variants using drag and drop
- Version anything simply, from within the Windows shell
- Enhanced ISPF support and impact analysis for System z developers

Quality Manager v4.0

- New role-based reporting and live views showing traceability to requirements and testing progress
- Enhanced test planning through support of hierarchical timelines and test prioritization
- New manual test authoring capibility leveraging Rational Functional Tester recording
- Enhanced process enforcement and customization flexibility
- Enhanced enterprise deployment and scalability to support high availability via clustering

New Offerings and Packaging – Testing, DevOps, Mobile and Industry Accelerators

New Testing Solutions

- Test Workbench v8.0
- Performance Test Server v8.0
- Test Virtualization Server v8.0

New Industry Accelerators

- IBM Rational Compliance for Financial Services (New)
- IBM Rational Software Development Compliance for Collaborative Lifecycle Management (beta)
- IBM Rational Connector for SAP Solution Manager v.4.0 (RRC & RTC support)

New DevOps Solutions

- IBM SmartCloud Continuous Delivery *(Managed Beta)*
- IBM SmartCloud Control Desk v7.5
- IBM SmartCloud Application Performance Mgmt v7.5
- IBM SmartCloud Provisioning v2.1 *(Beta)*

New Mobile Solutions

- Rational CLM Integrations for Mobile (CLM V4.0)
- IBM Worklight Studio v5.0 and IBM Worklight Server v5.0
- IBM Application Center v5.0