

IBM Software

# Innovate2012

The Premier Event for Software and Systems Innovation

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## Welcome

### Charles Lupton

Business Unit Executive, UKI Rational





## FIRE INSTRUCTIONS

### IF YOU DISCOVER A FIRE

1. Immediately operate the nearest fire alarm call point
2. Try to put out the fire if possible with the appliances provided but without taking personal risks

### ON HEARING THE FIRE ALARM

1. The alarm will sound for a short time and then go off. If it does not sound again, it was a practice or a false alarm
2. If the alarm sounds again and remains on, then evacuate as quickly and calmly as possible through the nearest fire exit
3. The duty manager or receptionist will call the fire brigade immediately
4. All persons who leave the building should report to the conference organizer for the day. This person should then inform the manager in charge at the assembly point that everyone is present.
5. The assembly point is: **GODLIMAN STREET**
6. The manager or deputy will take charge of any evacuation and ensure that no-one is left in the building

### PLEASE REMEMBER .....

- Use the nearest available exit
- Do NOT use the lift
- Do NOT stop to collect personal belongings
- Do NOT re-enter the building until you are told it is safe to do so

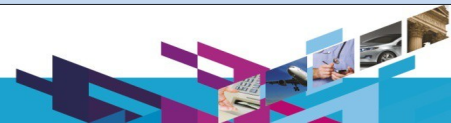


**The Grange St Paul's**  
**Important Information –**  
**Applicable to all meeting and**  
**conference rooms**



# AGENDA

09:00	09:30	<b>Registration</b>				
09:30	09:35	Welcome: Charles Lupton - Rational Business Unit Executive for UKI				
09:35	10:30	Michael O'Rourke - VP Strategy and Product Delivery and Dibbe Edwards - VP of Software Development - Rational Strategy & Delivery Management Rational Strategy & Delivery Management				
10:30	11:00	Diego Lo Giudice, Forrester - Vice President, Principal Analyst serving Application Development & Delivery Systems of Engagement need Agility: Key App Dev trends to get there.				
11:00	11:30	<b>Break</b>				
		<b>Application Lifecycle Management</b>	<b>Design, Development and Deployment</b>	<b>Complex &amp; Embedded Systems</b>	<b>Mobile Application Development</b>	<b>Strategic Business Planning for IT</b>
11:30	12:10	Extending the Jazz Platform Beyond Rational Using OSLC.  <i>Stephanie L. Trunzo</i> Jazz Lifecycle Management Capabilities	Agile Development using Visual Requirement Definition & Management in Rational Requirements Composer 4.0  <i>Jared Pulham, IBM</i> Senior Product Manager	Rational Systems Future Forward  <i>Andy Gurd, IBM</i> Engineering Lifecycle Management	Mobile Application Development Track  <i>Leigh Williamson, IBM</i> Distinguished Engineer	Risk-Aware Business Cases  <i>Murray Cantor, IBM</i> Distinguished Engineer
12:20	13:00	A case for OSLC - a business perspective.  Sean Kennedy, OSLC Community Development Leader Andreas Keis, Manager Software Engineering, EADS Innovation Works UK	Effective Collaboration for Better Design with Rational Software Architect Design Manager v4.  <i>Steve Arnold, IBM Client</i> Technical Specialist	Testing is Dead, Long Live Quality.  <i>Bart Vrenegoor, Sogeti</i>	Advancing Enterprise Capabilities with Worklight  <i>Paul Collins, Ascendant Technologies</i>	Powering the PMO at Bank of America  <i>Sarah Nunn, Analyst</i> Bank of America
13:00	14:00	<b>Lunch</b>				



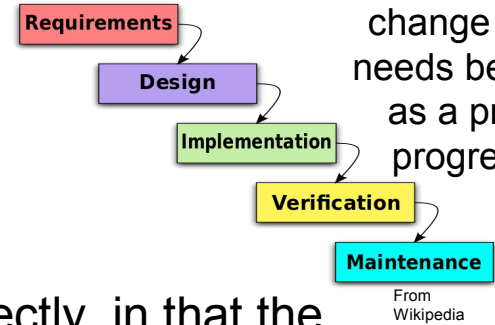
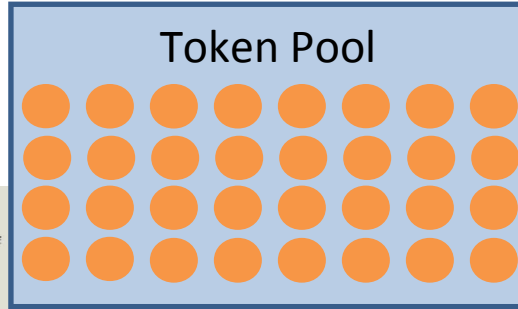
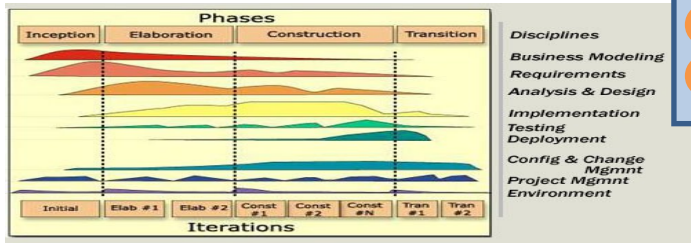
## AGENDA (cont.)

14:00	14:40	<p>Agile Everywhere – An organisation-wide adoption.</p> <p>Carson Holmes, Fourth Medium Consulting &amp; Julian Holmes (Rational Champion) - Agile Mentors</p>	<p><i>Extending the Agile Development Discipline to Deployment.</i></p> <p>Dan Berg, IBM SmartCloud Continuous Delivery (DevOps)</p>	<p><i>BTC Embedded Systems AG: Model-Based Development and Testing of Safety Related Software.</i></p> <p>Dr. Udo Brockmeyer</p>	<p>How to Select the Right Mobile Testing Solution for your Enterprise: Best Practices and Case Study.</p> <p>Alon Geva, Perfecto Mobile</p>	<p><i>Using Crowdsourcing to Help Make Strategic Planning Decisions.</i></p> <p>Giles Hearn and Jamie Knowles, Corso</p>
14:50	15:30	<p>Industrialisation and Innovation with Rational Team Concert.</p> <p>Robert J. Errington &amp; Dave Ingram, Accenture</p>	<p><i>From Waterfall to Agile: A One Year Retrospective of IBM CICS.</i></p> <p>Nigel Hopper, IBM, Application &amp; Integration Middleware - CICS Platform Leader</p>	<p><i>Managing Complex Systems Engineering - A Nuclear Perspective.</i></p> <p>Paul Fechtelkotter &amp; Pachanee Petprayoon of IBM Rational</p>	<p>Accelerate Construction of Mobile Applications with IBM Worklight Studio</p> <p>Jon Walton, Client Technical Professional for Rational Mobile</p>	<p><i>Competitive Intelligence - A Strategic Business Driver</i></p> <p>Mark Cooper, Market Intelligence Co-ordinator Laminar Medica Ltd.</p>
15:30	15:50	<b>Break</b>				
15:50	16:30	<p>Goldfish Bowl - Why ALM? ALM is everywhere. What does it really mean? How does it improve the way that we work? What are the pitfalls?</p>	<p><i>Creating Value Through Infrastructure Service Delivery at Aetna.</i></p> <p>Dan Berg IBM SmartCloud Continuous Delivery (DevOps)</p>	<p><i>Customer experiences in the innovation of tool use and processes.</i></p> <p>A multi-speaker session inc. RAF, MBDA and EADS</p>	<p>Driving Innovation in the Banking and Insurance Industries with Mobile</p> <p>Keynote. Richard Field IBM Financial Services Market Manager</p>	<p><i>Delivering Value whilst Balancing Cost, Time and Innovation on a Globally Outsourced Telco Programme</i></p> <p>Tony Grout, IBM Solutions Executive &amp; Rajan Kumar Jha, Programme Manager at Infosys</p>
16:45	17:30	<b>Guest Speaker, Kriss Akabusi MBE</b>				
17:30	18:00	<b>Drinks</b>				



# Cope with Inconsistent Tool Usage Levels

As a project progresses, the emphasis on disciplines and therefore tools changes over time



And the more waterfall and long term your projects you are, the more exacerbated the change in tool needs becomes as a project progresses

The token pool addresses this problem directly, in that the pool is not tied to any one particular product

**BENEFIT:** As your project progresses, so can your tool usage without a large investment in different practitioner tools and leaving a trail of disused ones. Tokens effectively break down the individual tool license silos



## BUSINESS PARTNERS



Get social. Do business.



# RATIONAL USER GROUP UKI



Julian Holmes

UKI Lead & Worldwide User Council

Rational Champion



Carson Holmes

Worldwide User Council

Monthly 'Lunch & Learn' webinars – next one 16<sup>th</sup> November





## FEEDBACK FORM – PRIZE DRAW

Please complete your feedback form & return it by 5PM

Prize Draw by Kriss Akabusi

Thanks to sponsors NMQA

**NMQA**



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# Enterprise Software Delivery: Balancing Agility and Efficiency in the Software Supply Chain

**Michael O Rourke**

VP of Offerings Strategy and Delivery, IBM Rational

**Dibbe Edwards**

VP of Development, IBM Rational

IBM Software

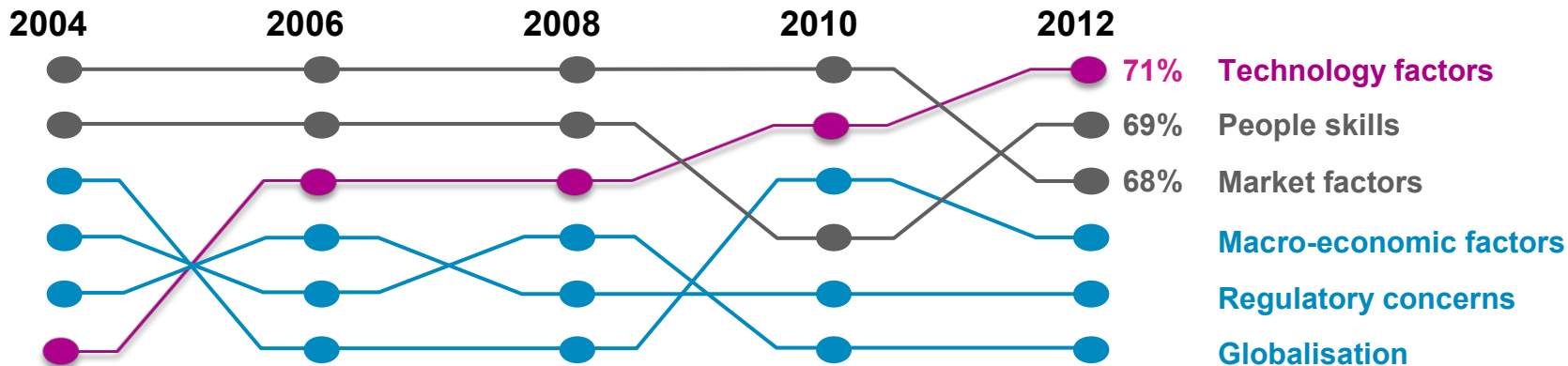
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# Technology has never been more important to business

*For the first time, CEOs identify technology as the most important external force impacting their organizations*



Source: IBM CEO Study, May 2012

## Market trends

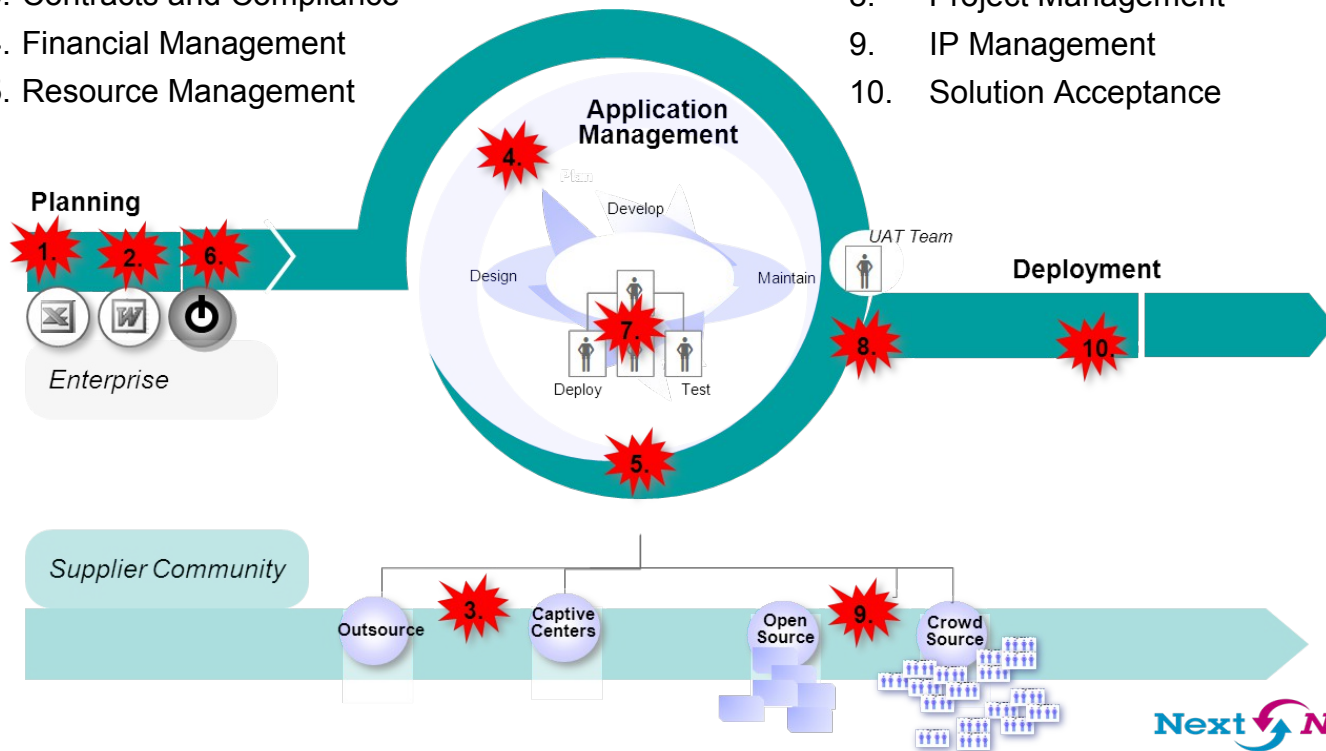
*Software sourcing is shifting rapidly towards non-traditional models*

- Enterprises are rapidly increasing their use of multi-source options for software and systems delivery strategy
- Enabling technologies provide a dynamic way to manage the process across a continuum of options
- Growing market
  - +7.4% CAGR to \$361B by 2015
  - Increasing to >50% of overall spend



# SW supply chain- Key pain points impacting business outcomes

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





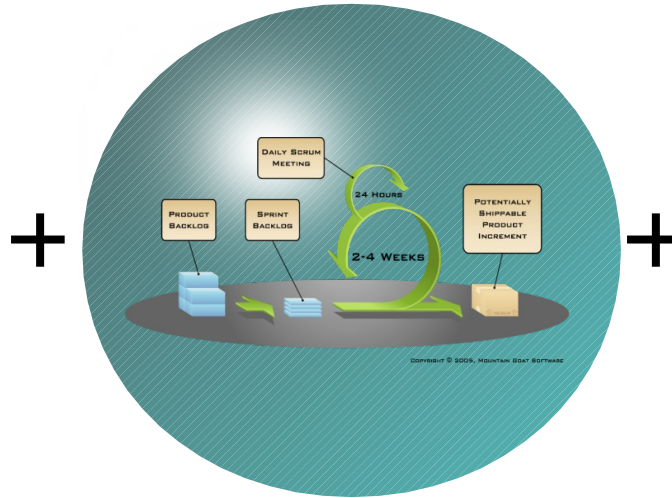
# Hypothesis:

*Effective Software Delivery in the Software Supply Chain*

## Speed and Innovation



## Delivery Discipline



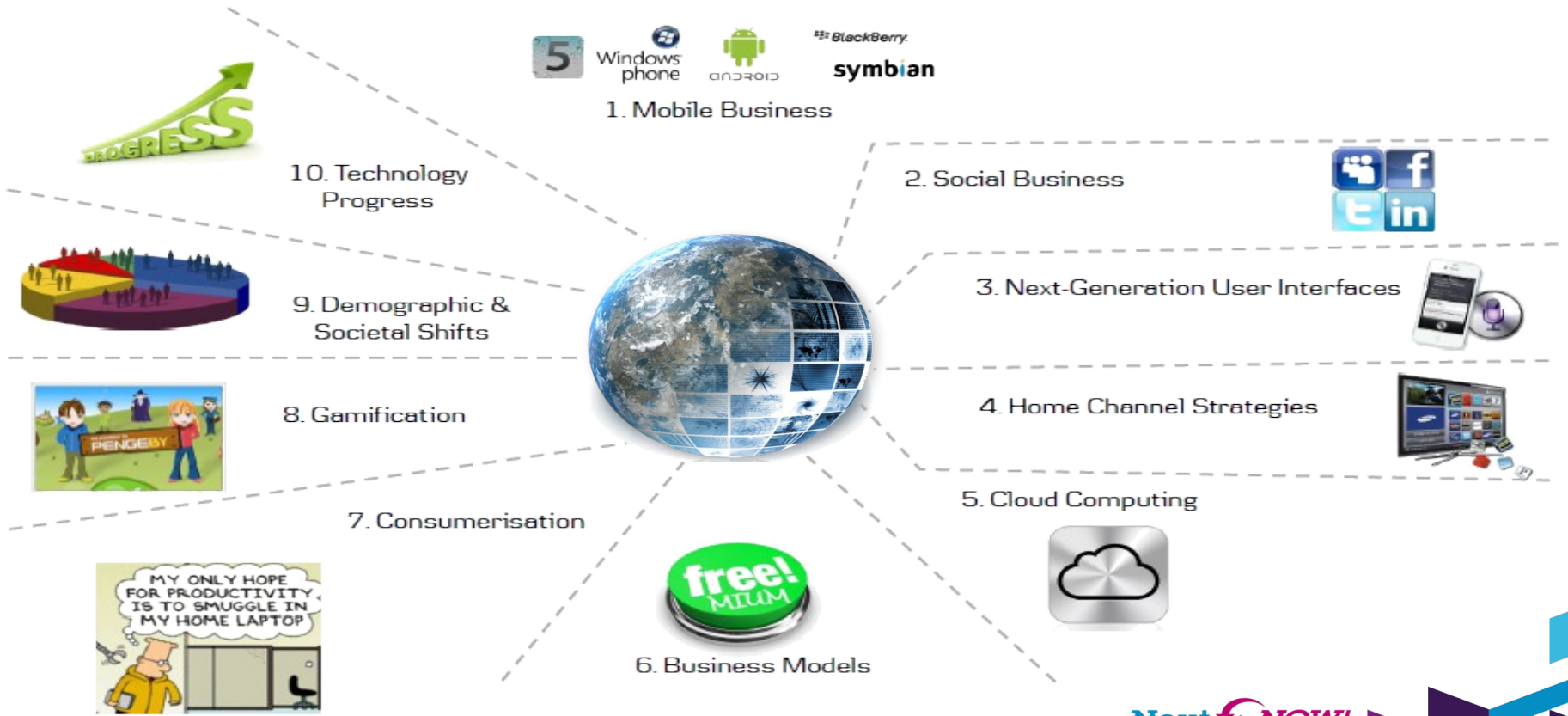
## Management Discipline



Speed and innovation



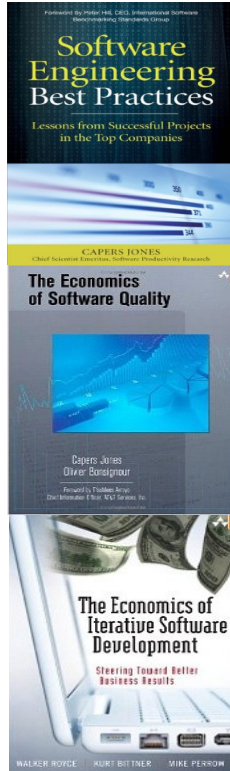
# The world we live in is exciting!



# Why do software projects fail?

## Understanding the software engineering lifecycle

1. Unstable, changing requirements (95%)
2. Inadequate quality control and poor quality measures (90%)
3. Inadequate progress tracking (85%)
4. Inadequate cost and schedule estimating (80%)
5. False promises by marketing and sales personnel (80%)
6. Rejecting good schedule estimates for arbitrary dates (75%)
7. Informal, unstructured development (70%)
8. Inexperienced clients who can't articulate requirements (60%)
9. Inexperienced project managers (50%)
10. Inadequate tools for quality/analysis, lack of inspections (55%)
11. Reusing assets filled with bugs (30%)
12. Inexperienced, unqualified software engineering teams (20%)



From Caper Jones



# Implications for software and systems delivery

## More speed and agility

- Compelling user experience
- Rapid iterations
- Continuous delivery



## Better control

- Regulatory compliance
- End-to-end security
- Financial predictability

# Accelerated delivery demands a quid pro quo

## Engineering Practitioners

- Design, create, test
- Reuse knowledge, best practices
- Address uncertain things first
- Be adaptive to change

Embrace



The  
Speed  
Of Trust

## Governance Stakeholders

- Achieve predictable outcomes
- Manage risk
- Ensure compliance
- Improve software economics
- Visibility and transparency

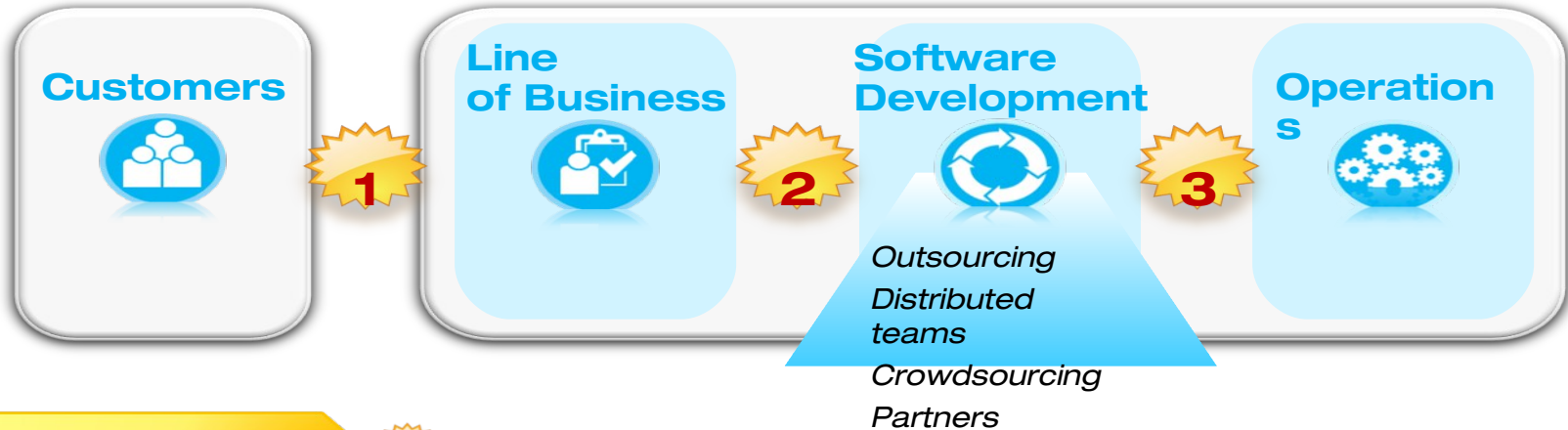
Enable Agility



# Succeeding in the new reality



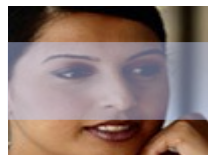
# Inhibitors to accelerated delivery



## INHIBITORS

- 1 Slow feedback between Customers *and* Line of Business
- 2 Ineffective iteration between Line of Business *and* Development
- 3 Inefficient linkage between Development *and* Operations
- 4 Poor end-to-end customer requirements visibility
- 5 Complex network of stakeholders and actors

## High impact initiatives to accelerate delivery today



**Scale Agile to enterprise with governance and metrics**



**Target:** 50% more time on task by eliminating overhead activities (*progress reporting, etc.*)



**Make integration, test and deployment continuous**



**Target:** 50% reduction rates in lifecycle scrap and rework



**Elaborate user experience earlier in the lifecycle**



**Target:** 25% less scope creep in development *and a substantial increase in stakeholder trust*

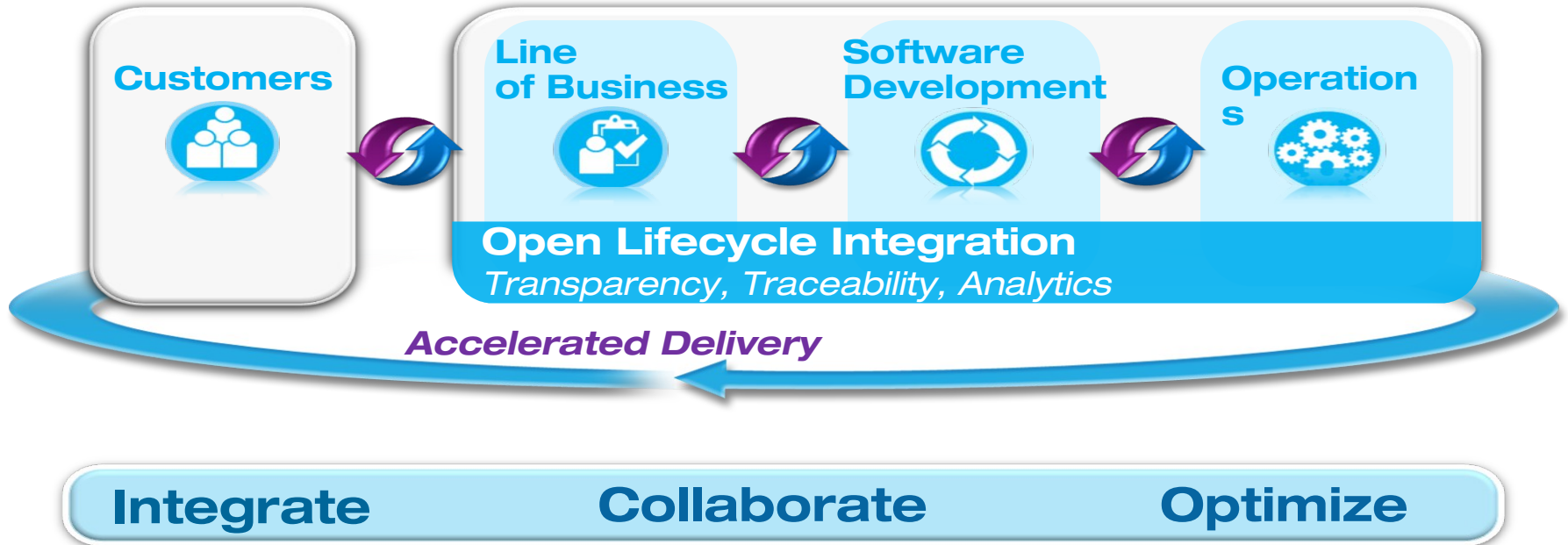


**Link requirements management to test**



**Target:** 25% lower variance in cost/schedule performance

# Accelerated delivery



# Companies addressing these areas today



A person is captured in a dynamic, mid-air pose, possibly a dancer or athlete, against a black background. The person is wearing a light-colored, form-fitting outfit. They are surrounded by vibrant, multi-colored light trails in shades of green, blue, red, and yellow, which create a sense of motion and energy. The light trails are blurred and flow around the person, suggesting a fast-paced or agile movement.

Delivery discipline

and agility



# Delivery Discipline ~~=~~ Development Discipline



Water



Scrum



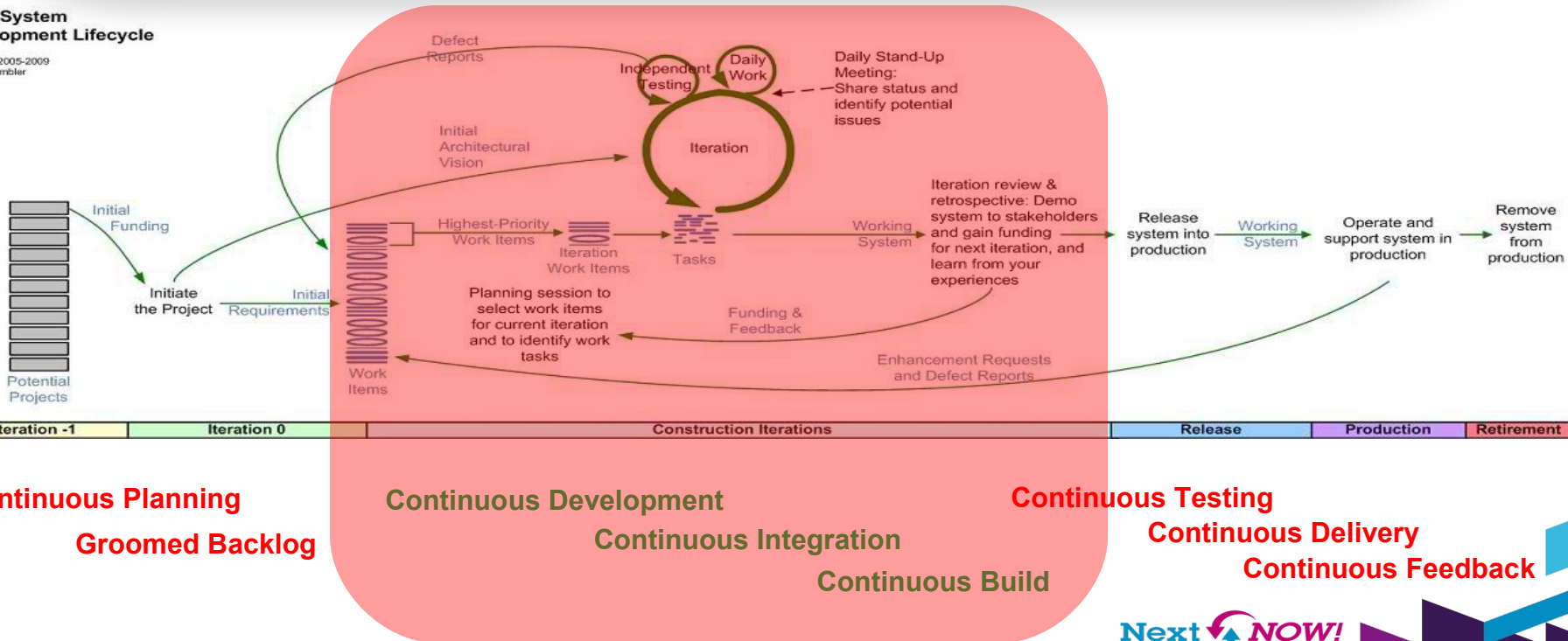
Fall

# For Many, the Benefits of Agile Aren't Fully Realized

We believe over 90% of all companies claiming to have adopted agile methodologies, have only transformed their development teams, minimizing their overall return... thus, our term "Water-Scrum-Fall". *Dave West, Forrester Research 2011*

## Agile System Development Lifecycle

Copyright 2005-2009  
Scott W. Ambler



Continuous Planning  
Groomed Backlog

Continuous Development  
Continuous Integration  
Continuous Build

Continuous Testing  
Continuous Delivery  
Continuous Feedback

## An Example from Within Rational – CLM (RQM, RTC and RRC)

Lifecycle Measurements	2008	2010	2012 – 2013	Total Improvement
Project Initiation	30 days	10 days	2 days	28 days
Groomed Backlog	90 days	45 days	1 day	89 days
Overall TTD	120 days	55 days	3 days	<b>117 days</b>
Iteration Length	6 weeks	4 weeks	4 weeks	4 weeks
Number of Iterations	6	8	3	N / A
Composite Build Time	36 hours	12 hours	8 hours	400 %
BVT Availability	N / A	18 hours	< 1hour	17 hours
Iteration Test Time	5 days	2 days	4 hours	4 days
Total Deployment Time	2 days	8 hours	2 hours	2 days
Overall TTP	9 days	3 days	15 hours	<b>8 days</b>
Time Between Releases	12 Months	12 Months	3 Months	9 Months

# The text book version of agile is not aligned with the realities seen in software supply chains...

**Contracts:** Lack of strong focus on contracts and formal agreements

**Contracts / SOW**



**Sub-contracting:** No sub-contracting of deliverables (incl. off-shore)

**Transparency**



**Acceptance Test:** User and acceptance test can be performed in each sprint

**Sub-contracting**



**Planning**



**Acceptance Test**



**Transparency:** Global transparency ignores need for multiple, customizable layers of visibility, privacy, security, etc.

**Planning:** No need for a project manager, resource manager. Product owner is one person.

Management discipline

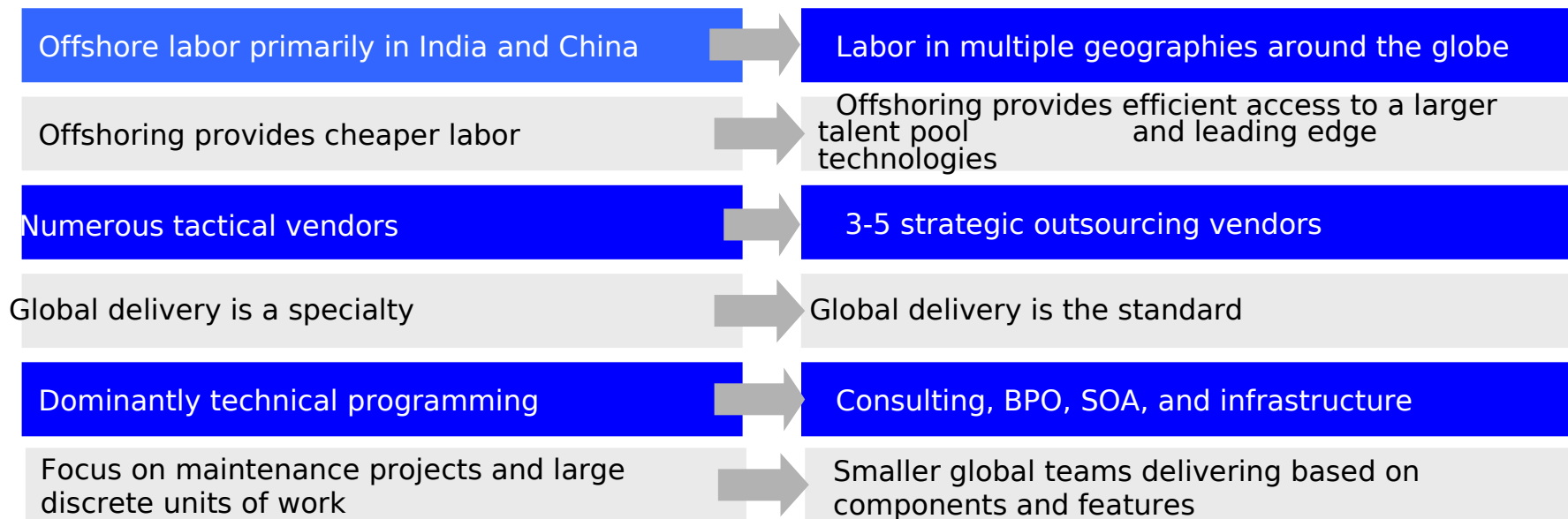


## Globally Distributed Delivery

- Extensive globally distributed delivery models...taking many forms....

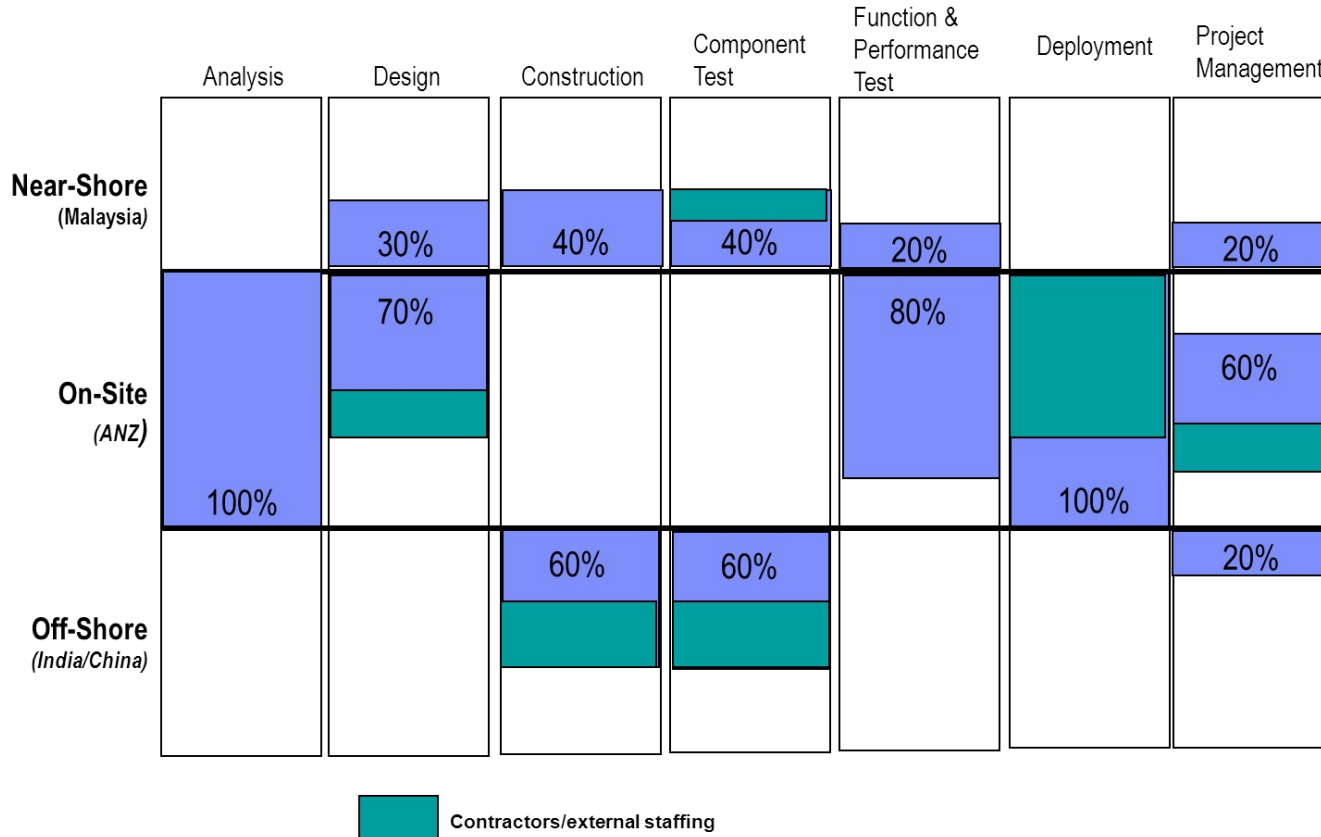
***Evolving From***

***Evolving To***

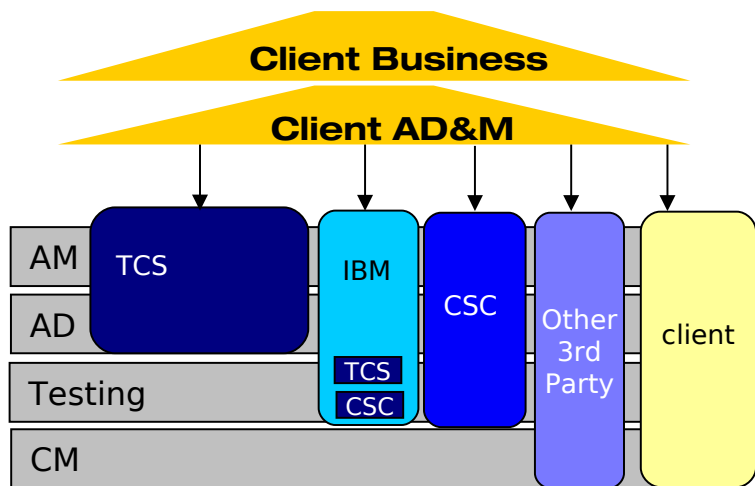




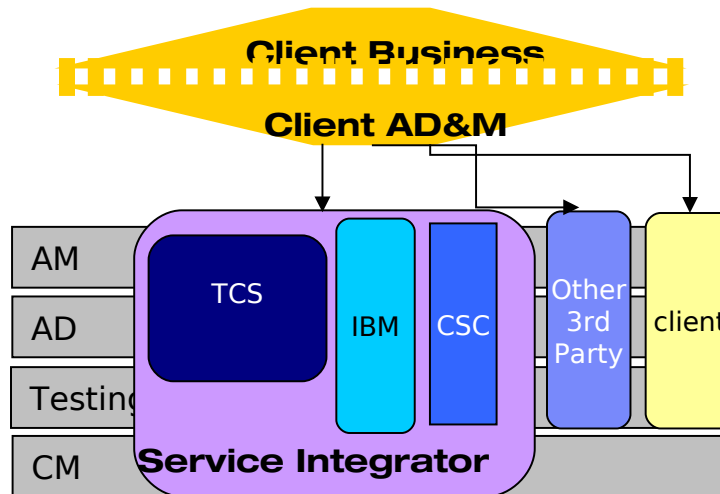
# Global delivery of software: An example



## Example: Global IT delivery in large insurance company

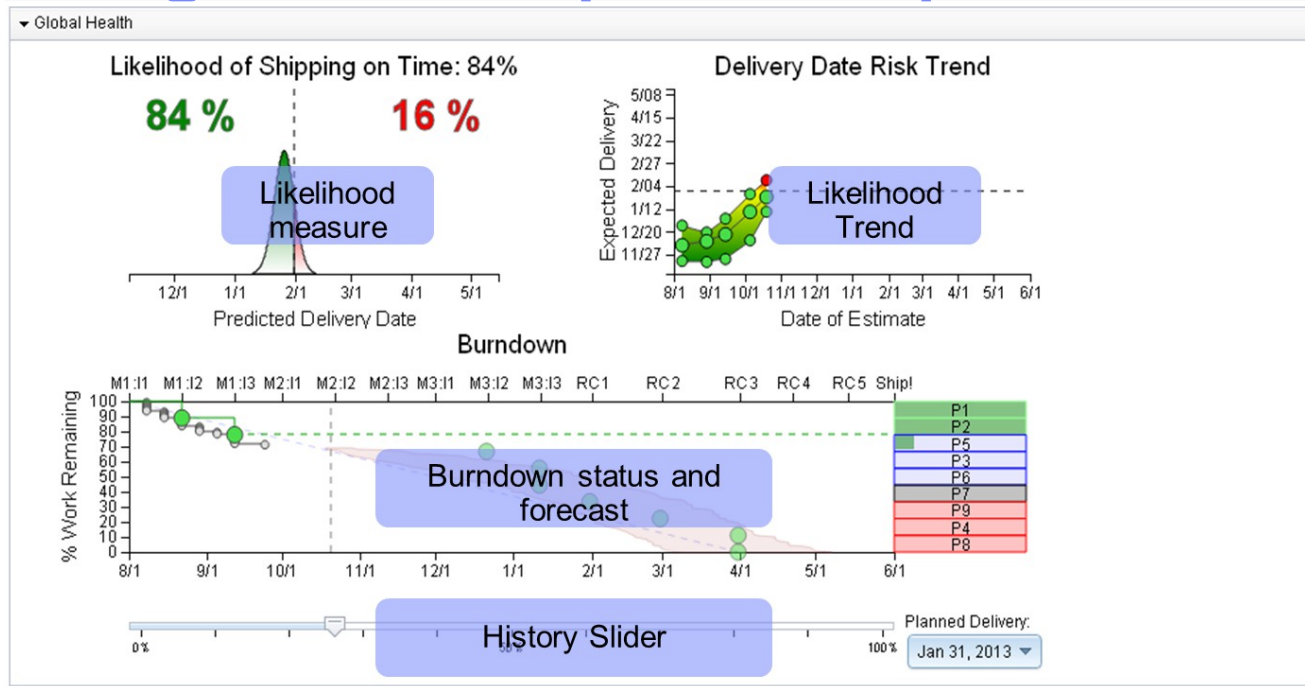


- Skills and time-based delivery
- Hours x rate card
- Utilisation measures
- Location-based model
- Global Delivery Centers
- Staffing levels-led



- Re-usable assets and automation-based delivery
- Outcome-based cost
- Performance-based value measures
- Virtual workflow across centers and geos with emphasis on local interaction and communities
- Globally integrated capability model with Centers of Competency

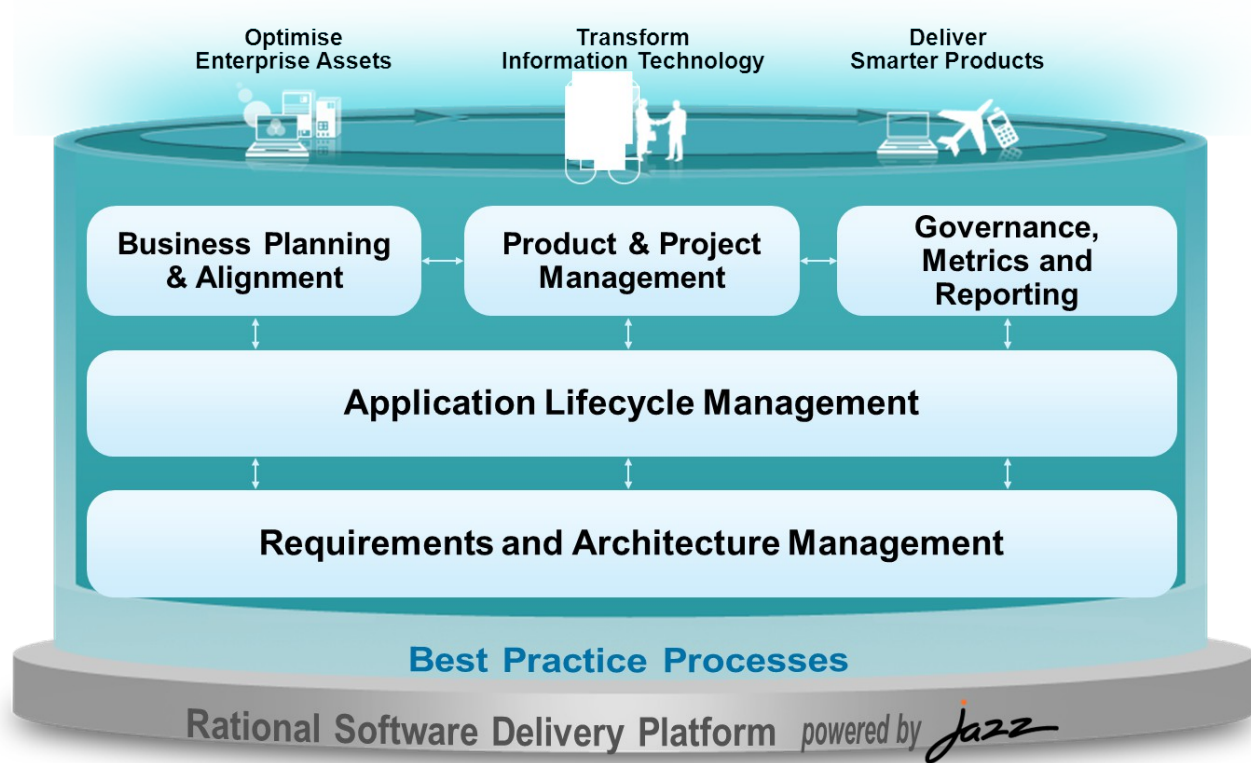
# What management discipline is required?



Pattern identification and diagnosis

Scope management

# IBM Rational Software and the global Software Supply Chain



IBM and Business Partner Ecosystem

## Summary:

Focus on balancing best practice to enhance customer value, improve quality, and increase efficiency

Speed and Innovation

Delivery Discipline

Management Discipline



+



+



# New capabilities from IBM to enable agility with governance



## How to Move Forward

- Act now to transform your software and systems delivery
- Start today and leverage Innovate to the maximum
- Post Innovate: Benefit from our experience!







[www.ibm.com/software/rational](http://www.ibm.com/software/rational)

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***Slides to come...***

# Systems Of Engagement Need Agility

## Key Application Development Trends To Get There

### IBM Innovate - London

Forrester Research

**Diego Lo Giudice**

Vice President, Principal Analyst

**Twitter: @dlogiudice**

October, 23 2012

# Agenda

- › **The Impact of The Digital Disruption: Systems of Engagement**
- › **Agile And Lean: Best Answer for Systems of Engagement**
- › **Holist Transformation Needed To Scale Agile**
- › **And ALM Needs To Adapt**

# Business Technology - a world made of: "Digital", Mobile And Social Media

EU online adults spend an average of 13+ hours/week online

Social Media help enterprises reach mass audience, buyers, customers !!!

> 500 million

622 million

This puts your customers at the center !

phones

The illustration features a central globe with a man in a suit relaxing on a lounge chair. A waiter in a grey suit is serving him a plate of food, and a woman in a purple top is holding a tray. The globe is surrounded by various digital devices: a laptop, a smartphone, and a tablet. Social media icons for Twitter, Facebook, and YouTube are also present. Text boxes provide statistics and a key message about customer-centricity.

# And new classes of applications and systems to be developed



Customers



Partners



Employees



Smart products

## Systems of engagement touch people

- Serving customer, partners, and employees
- Enabled by smartphones, tablets, and smart products
- Focused on in-the-moment tasks and decisions
- Delivering in an individual's personalized context
- Providing analytics-driven experiences
- Leveraging social technologies

Shorter Dev & Delivery Cycles, feedback, Change, Innovation

## Systems of record host processes

- Targeting employees
- Supported by ERP packages and large databases
- Recording as part of
- Maintaining

Stable, Long Dev & Delivery Cycles

Integration

Architecture

But systems of engagement are also about dramatic change

**Business  
Layer**

Systems of Record  
**Business Process Consulting**  
**Desktop Environment**  
**Transaction Applications**  
**Business Intelligence**  
**Document-based Collaboration**

Systems of Engagement  
**Business Process Consulting**  
**Mobile Clients**  
**Apps**  
**Real-Time Analytics**  
**Live Collaborative Sessions**

**Compute  
Processes**

**Web Application Infrastructure**  
**Systems Management Infrastructure**  
**Database**  
**Operating System**

**Mobile Application Infrastructure**  
**Public/Private Cloud Management**  
**In-Memory Caches**  
**Platform as a Service**

**Compute  
Engines**

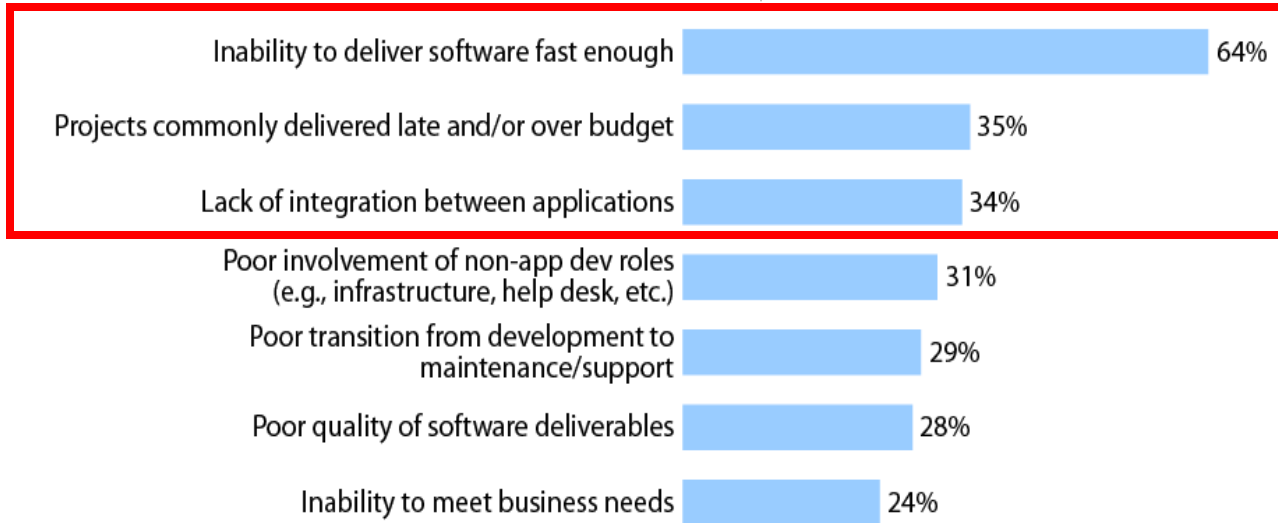
**Mainframes**  
**Servers**  
**Storage**  
**Data Network**  
**Microprocessors**

**Infrastructure as a Service**  
**Voice/Data/Video Network**  
**Microprocessors**

Sadly...IT is having challenges coping with pre-digital disruption, with digital disruption it's only getting worse.....

**“What problems do your current application development and project management organizational structures cause?”**

(Select all that apply)



Base: 105 professionals directly involved with the development or support of software applications

Source: Q1 2011 Global Application Development And Delivery Organization Structure Online Survey



The way forward for **\*ANY\*** SW Development and Delivery Shop is to focus on these themes



Increased velocity

?



Collaboration

HOW

Adaptability

# Agenda

- › **The Impact of The Digital Disruption: Systems of Engagement**
- › **Agile And Lean: Best Answer For Systems of Engagement**
- › **Holistic Transformation Needed To Scale Agile**
- › **And ALM Needs To Adapt**

WELCOME  
Lean and Agile !



Agile adoption is in good health, but scaling Agile is another story...

**OVER 40% OF ORGANIZATIONS  
ARE DOING SOMETHING WITH  
AGILE!**

**BUT**

27%	Mature and spread across enterprise	19%	Feel are midway in adoption journey
25%	Mature but in siloes	24%	Have just started

Base: 205 IT professionals from organizations that are implementing or have implemented Agile

Scrum, iterative, and waterfall are the most common development approaches and Kanban keeps growing...

81.5%

Scrum

58.5%

Iterative

44%

Waterfall

37.7%

TDD, Kanban

Base: 205 IT professionals from organizations that are implementing or have implemented Agile  
(multiple responses accepted)

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## The challenges of Agile in Enterprises

Compliance requirements

From Project Governance to  
Enterprise Governance

Application complexity

Organization and culture

Large agile multi-project teams

Insourcing-Outsourcing

Business Involvement

Geographical distribution

# Agile disrupts traditional ways of working

An example: look what happens to testing !!

Testing in an accelerated environment while not impacting Agile team performance is not easy !

Large centralized testing teams vs embedded testers

Test managers vs Testing practice leaders, coaches and change agents

Smart Automation with SW development skills vs Manual Testers

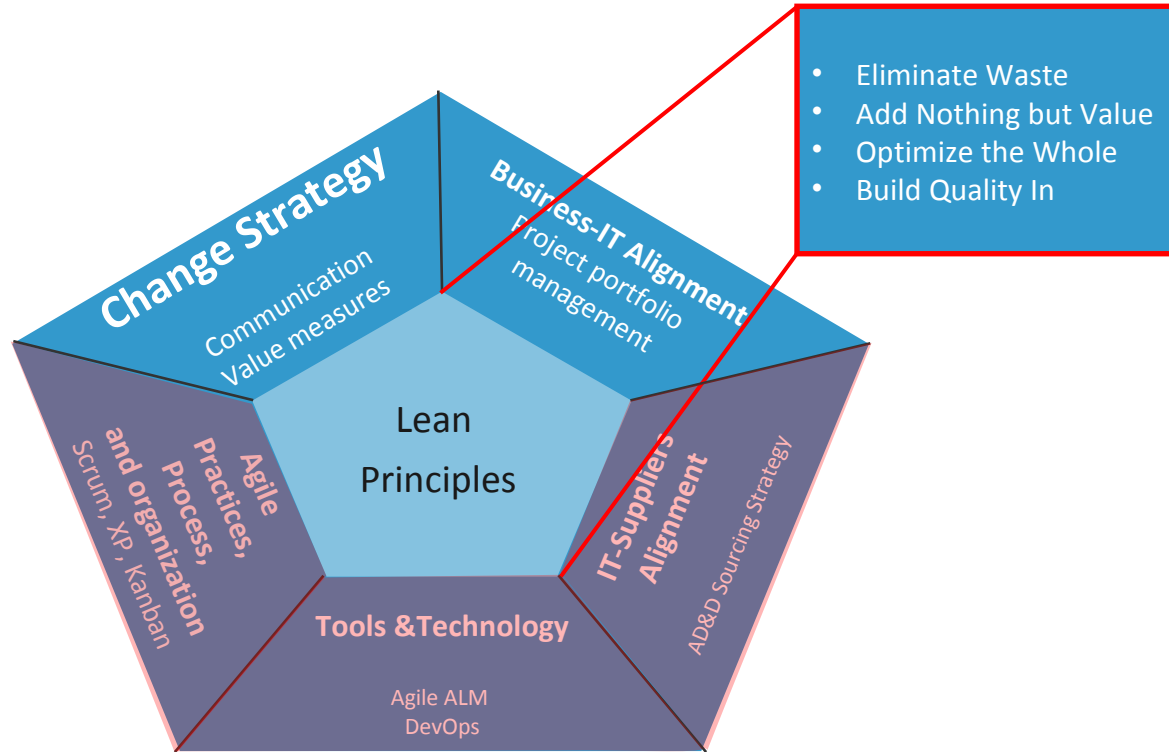
Acceptance Test Driven Development vs testing at the end



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A well concerted and holistic transformation program that deals with the challenges of scaling Agile is necessary...



**Source Forrester:** "Embrace Holistic Change To Achieve Agile Results". *Strategic Plan: The Agile And Lean Playbook*

## Outsourcing Agile: is not easy...

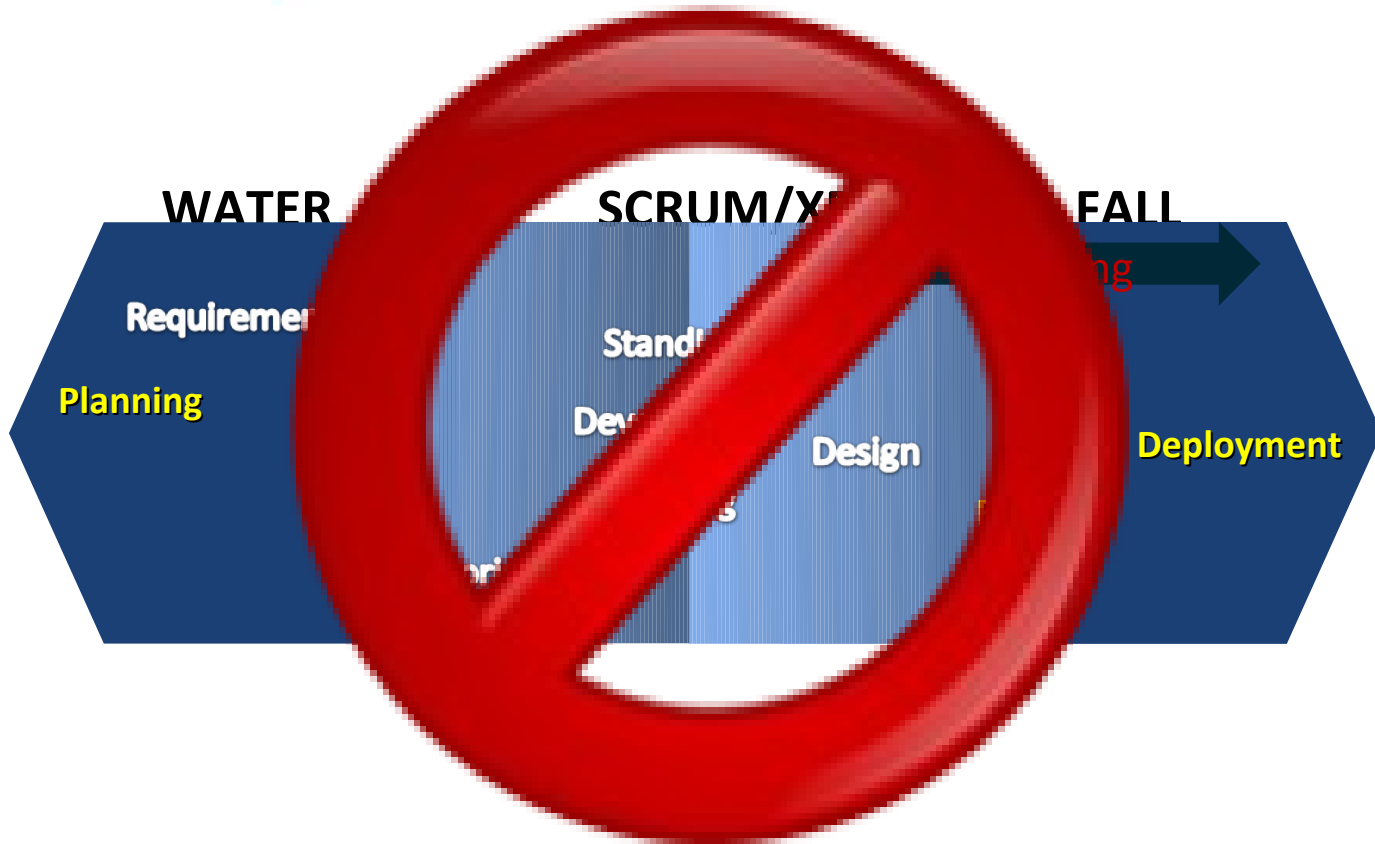
### If Not Properly Addressed The Following Can Become Showstoppers:

- Readiness
- Transparency
- Distributed Teams
- Partner Approach
- Partner Selection
- Contracts



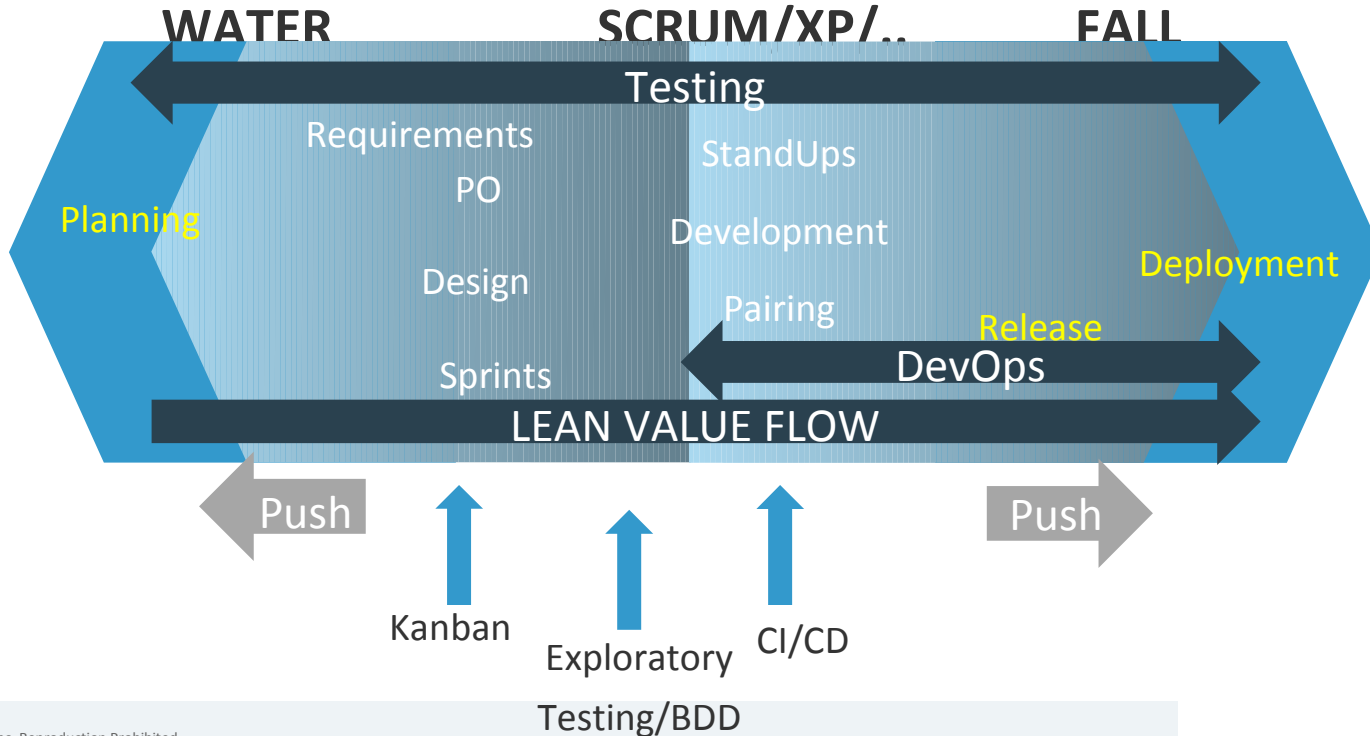
**Forrester Research:** *Rightsourcing for Agile and Lean: Buy vs Build – The Agile and Lean Playbook*

## Practices and process: Water-Scrum-Fall is very common



# Practices and process: Water-Scrum-Fall not a bad thing if done right !

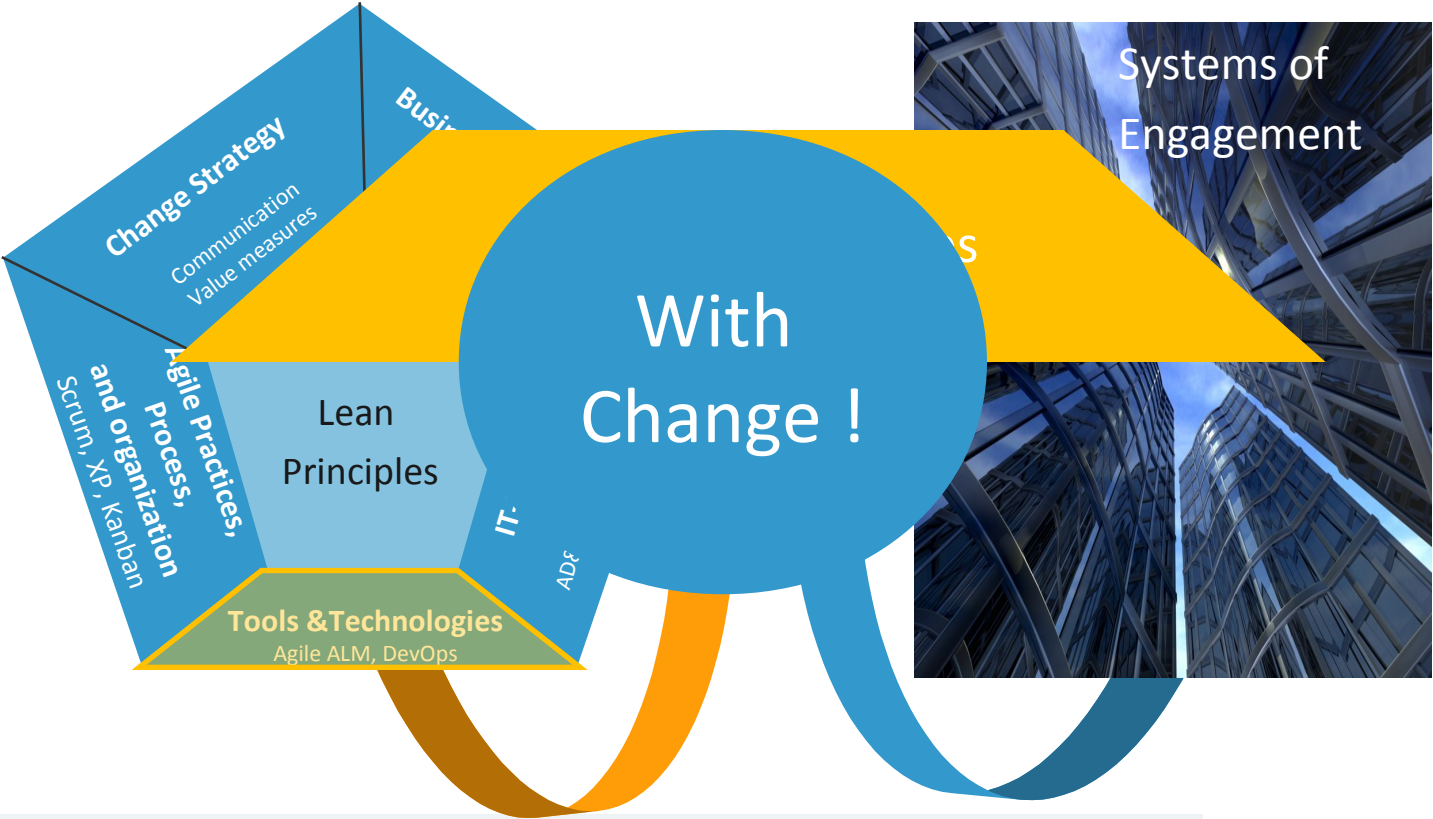
Reality: A mix of Agile methods and practices!



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# How is ALM Coping with all this ?



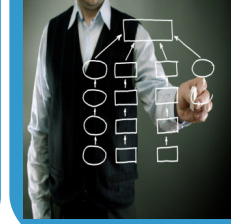
# Here are some of the major ALM trends we see



Smaller  
Teams  
(3-10)



MvP



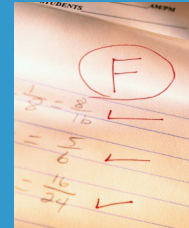
Visual  
Reqs over  
Text  
Social/



Frequent  
Release  
(6+/Year,  
Business)



Pull  
Models  
(eg:Kanban)



Feedback  
Quality /  
Testing  
Upfront



- Simpler
- Collaborative
- Supportive/  
Not  
Prescriptive
- Planning/Rep
- Test Plan/Mngt
- Value-Flow
- DevOps
- Automate
- Builds
- Releases
- Testing
- Metrics



# This is big, And You Need To Act Now !

Prepare to be multidisciplinary in the way you develop apps

SW is the business, business moves fast, so has to App Dev..

Systems of Engagement embed all the innovation coming. They complement systems of record, they do not replace them.

Select your crown jewels and make sure you apply the best AD&D approach out there to deliver higher value to your business.

Agile and Lean: everyone doing it, but scaling it is hard. Clients need external help to adapt and make it all happen.

You need a flexible ALM strategy that increases the value of software that emerges from the value stream (not focusing just on the developer).

# Thank you

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