

Innovate2011

The Premier Software and Product Delivery Event



Desarrollo Ágil y Ordenado

Germán Domínguez
Rational IT Specialist
IBM Software México, Rational





1 The defining challenge

2 ALM imperatives

3 IBM Rational and Collaborative Lifecycle Management

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 Software. Everyware.

Our clients seek help in the following areas

Decide
Help me make strategic decisions

Develop
Help me develop what I decide

Deploy
Help me deploy what I develop

Integrate, Instrument & Improve
Help me oversee this entire value chain and incrementally improve

3 inter-related lifecycles of activity involving different goals, timelines, roles, processes and tools

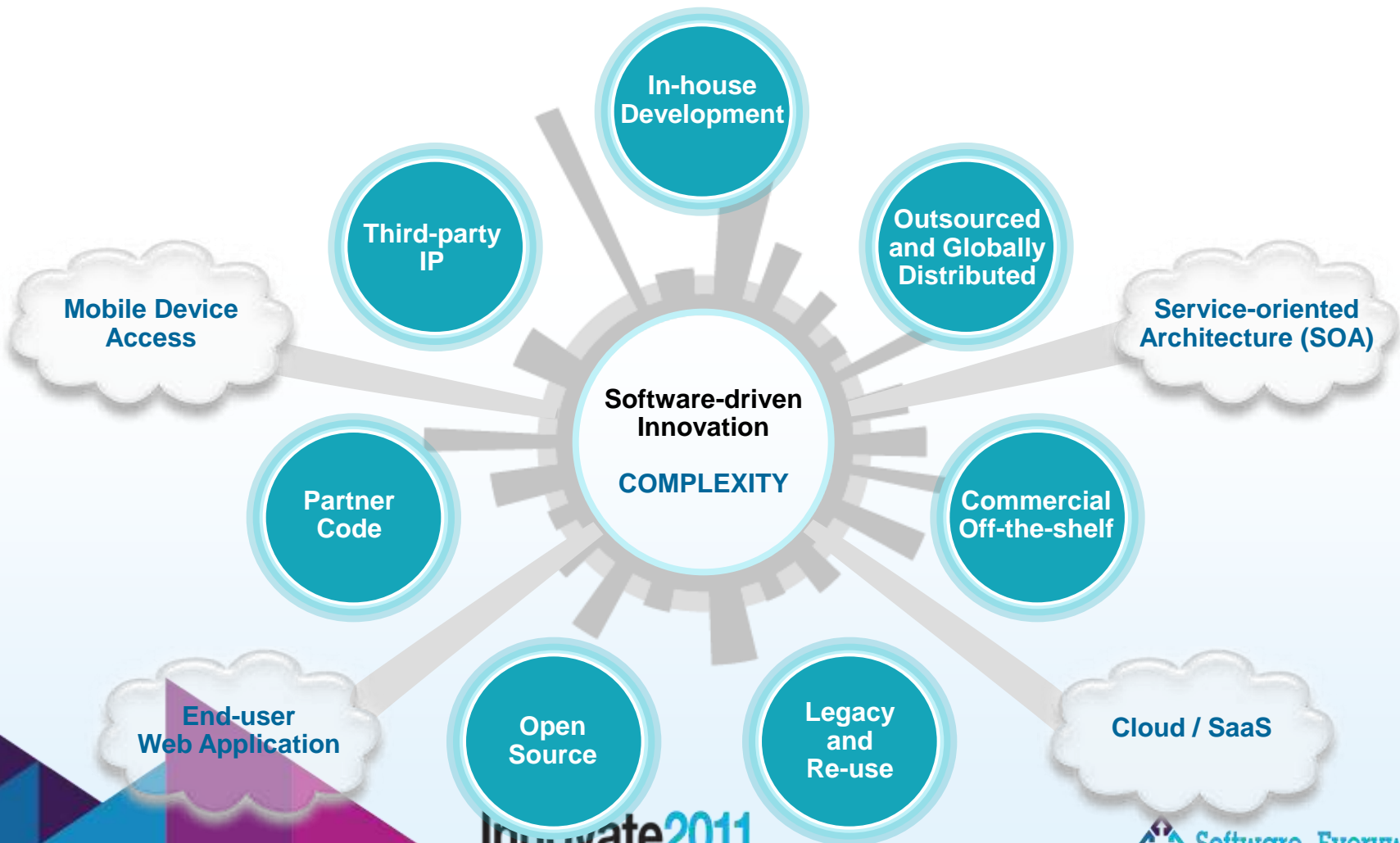


Software drives today's innovation for a smarter planet

Transforming the way we live, work, and play



*The defining challenge: Managing “systems of systems”
From back-end software to customer facing portals, systems
of systems
drive your relationships with customers, suppliers and
business partners*



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 **Software. Everywhere.**

Silos create barriers to effective software delivery



Analysts



Project Managers



Quality Professionals

*“At some point,
you take a step back,
and you realize you have an awful lot
of siloed systems that are limiting transparency
across strategic projects.”*

Development Director
Temenos, Inc.



Developers



Architects



Release Engineers

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Our clients seek help in the following areas



Enterprise Architecture and Portfolio Planning

Our heritage, and the focus of today's discussion

Application Lifecycle Management

Deployment Planning & Automation

Measured Improvement

ALM is about connecting the disciplines

Project/Planning

- Business Drivers
- Iterations
- Sign-off
- Contract
- Risk Assess
- User Involvement

Requirements

- Use Cases
- Nonfunctional
- Sign-off
- Contract
- Risk Assess
- Threat Model
- Test Requirements

Development

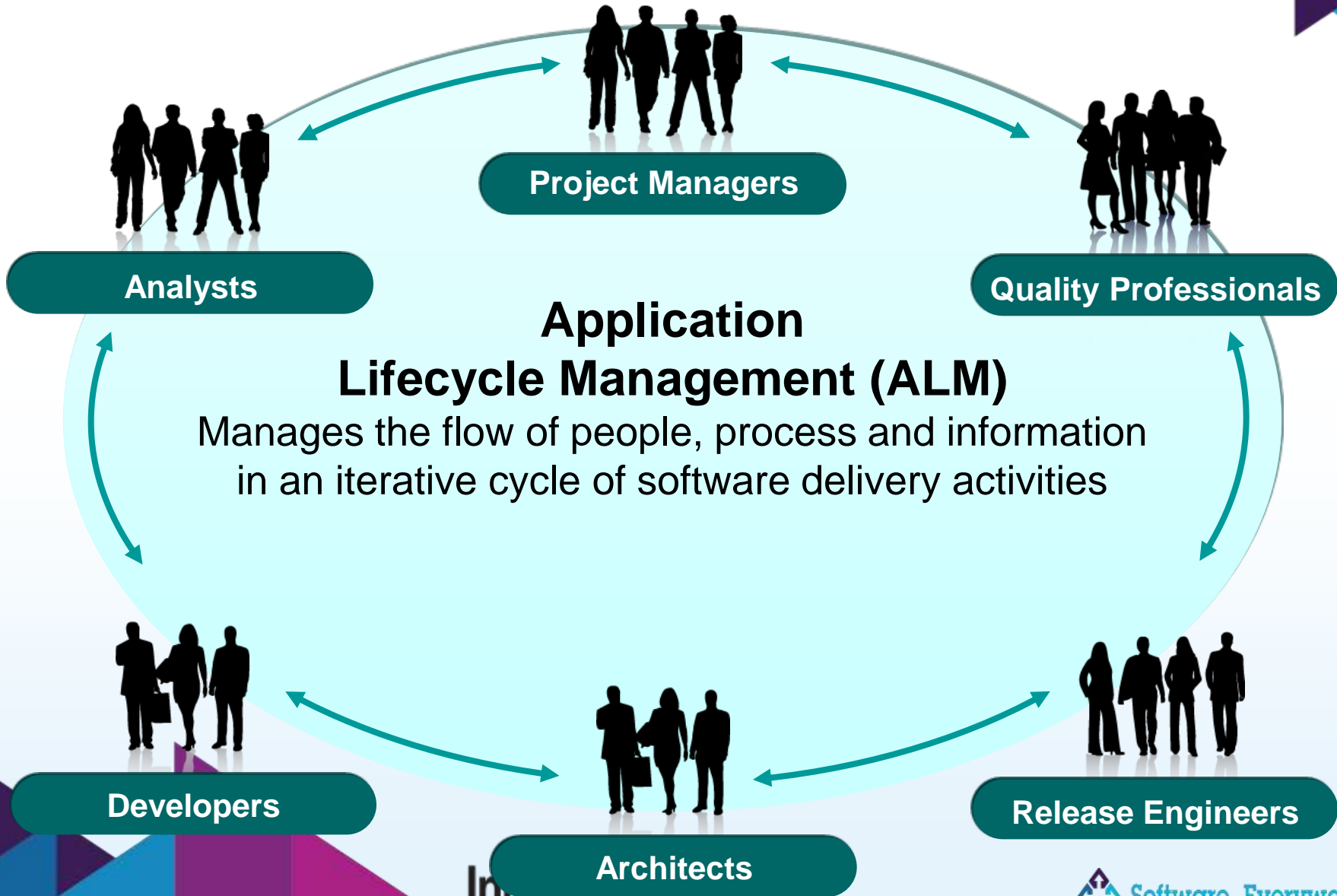
- TDD
- Build Management
- Static Analysis
- BVT
- Source Management
- Pair Programming/
Code Review

Testing

- Scenario-Driven Automation
- Exploratory Test
- User Involvement
- Contract Validation

Continuous Learning and Feedback

Adopting a whole-team, whole view approach to software delivery



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Principal benefits of ALM



What do you get from ALM implementations?

Agility Through the collaboration and application of “just enough” processes

Predictability Through better estimation, better communication and more repeatable processes

Auditability Traceability of work back to a business need,

Quality Through more-effective management of requirements, design and quality processes

Productivity Through the continuous improvement of processes and practices, and more effective utilization of resources



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What is required to deliver end-to-end visibility across teams, tools and projects?



Criteria for effective lifecycle management: ALM imperatives

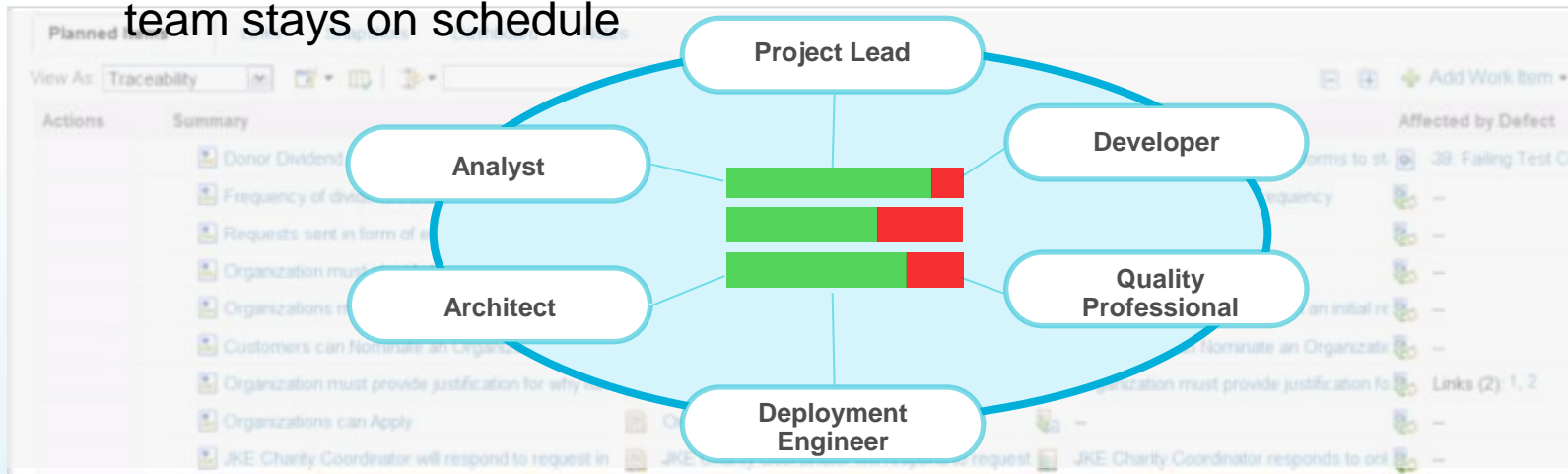
1. Accelerate **time to delivery** with **Real-time Planning**
2. Improve **quality** with **Lifecycle Traceability**
3. Maximize **product value** with **In-Context Collaboration**
4. Achieve **predictability** with **Development Intelligence**
5. Reduce **costs** with **Continuous Improvement**



What is Real-time Planning?

Real-time Planning accelerates time to delivery by:

- Providing a **single plan** that spans requirements, development, and test, ensuring a team understanding of the overall scope of a project
- **Integrating planning with execution** ensuring the entire team understands the true project status
- Allowing **everyone to participate** in keeping the plan current and accurate
- Helping teams **respond to the unexpected** in a timely manner ensuring the team stays on schedule



Test your Real-time Planning capabilities

Can your team...



- **Plan across the entire team?**
- **Plan for waterfall, iterative and agile environments?**
- **Integrate planning with execution?**
- **Instantly see the impact of a change in project scope or resources?**

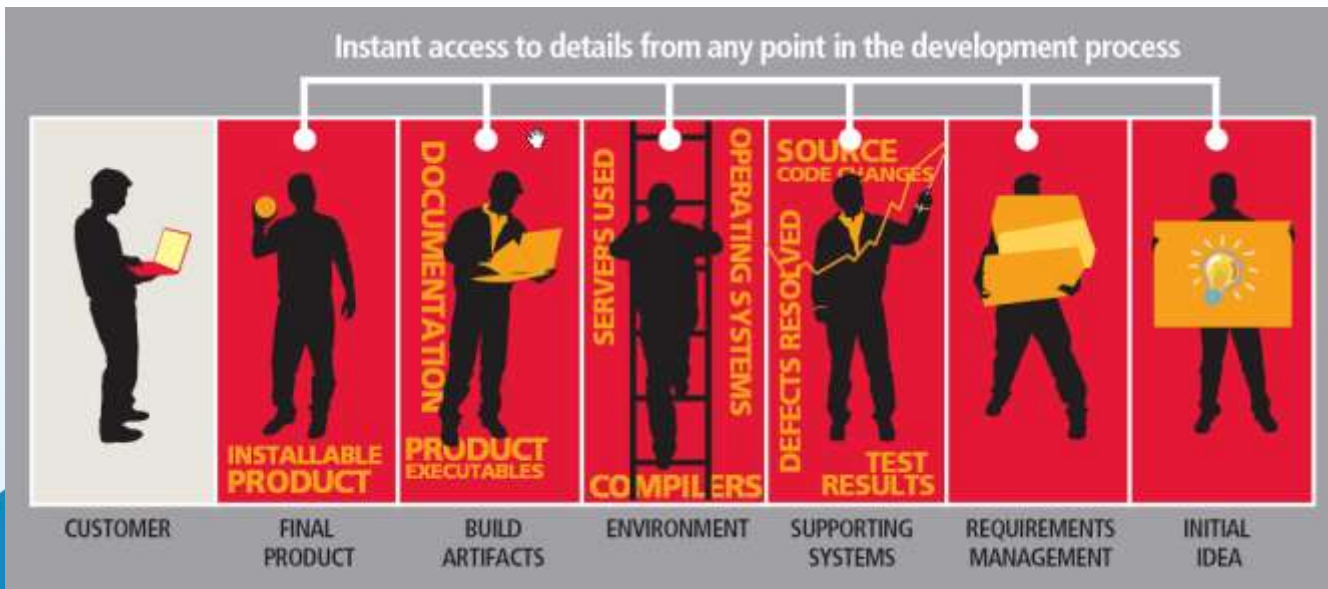


What is Lifecycle Traceability?



Lifecycle traceability improves quality by:

- Establishing **relationships between software artifacts**
- Helping you **identify and closing artifact gaps**, ensuring **coverage** across disciplines
- Provides visibility into the **completeness** of planned items by inspecting all related artifacts
- Provides easy **access to related artifacts** ensuring everyone shares the same view
- Delivers transparency which enables everyone to make **fully informed decisions** based business priorities



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Test your Lifecycle Traceability capabilities

Can your team answer...



Analyst

Which requirements are addressed in this iteration?

Are all of the requirements tested?

What defects are affecting which requirements?

Project Manager

Can we pass an audit? Are we ready to release?

What defects were resolved in this release?

Are we aligned with the business?

Developer

What requirements am I implementing? What test uncovered this defect, on which environment and what build?

What changes occurred overnight?

Release Engineer

How can I standardize when teams use different tools?

Where are the bottlenecks in our processes? Are build times getting longer or shorter?

How can I speed up my builds?

Quality Professional

What is the quality of the build? What is ready for me to test?

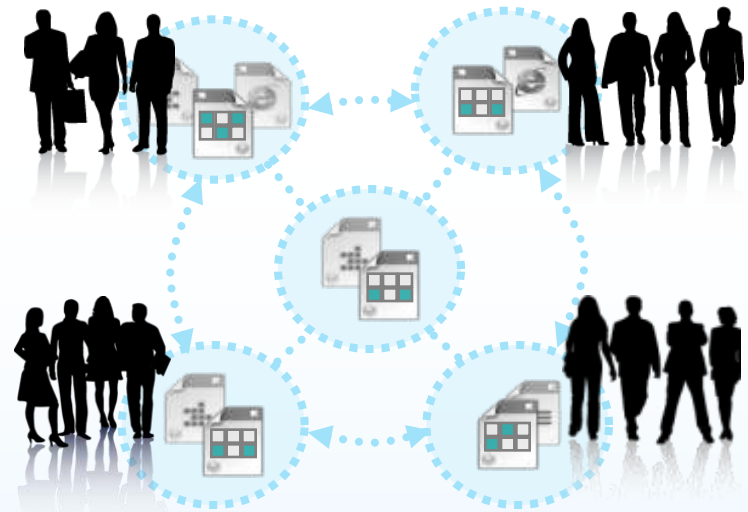
What defects have been addressed since the last build?



What is In-Context Collaboration?

In-Context Collaboration maximizes product value by:

- Making **information immediately accessible** to all team members in the context of their work
- Empowering teams to collaborate on and review software development artifacts so they can **incorporate feedback early and often**
- Providing **single source of truth** hosted in a shared repository so that team members can collaborate effectively around the globe



- Easily access the “single source of the truth”?
- Quickly grasp the “who, what, when and why” of team activities?
- Bring new team members up-to-speed quickly?
- Overcome the barriers of multiple languages and time zones when working with outsourced and distributed team members?



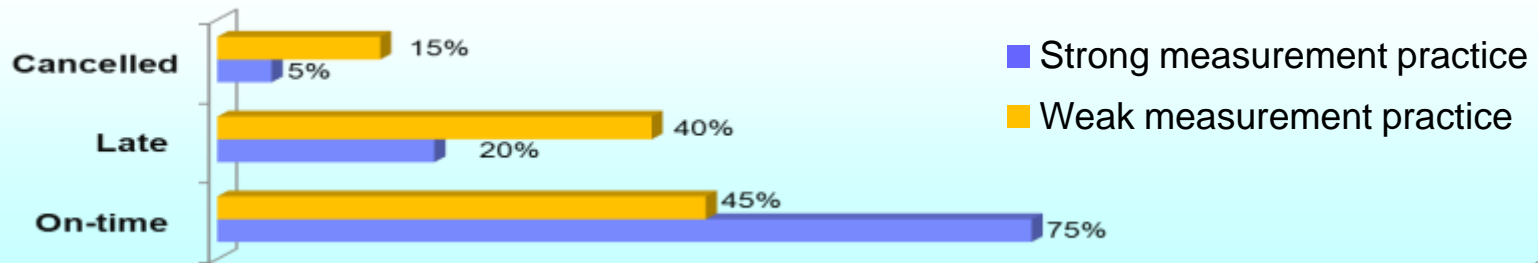
What is Development Intelligence?



Development Intelligence can help you achieve predictability by:

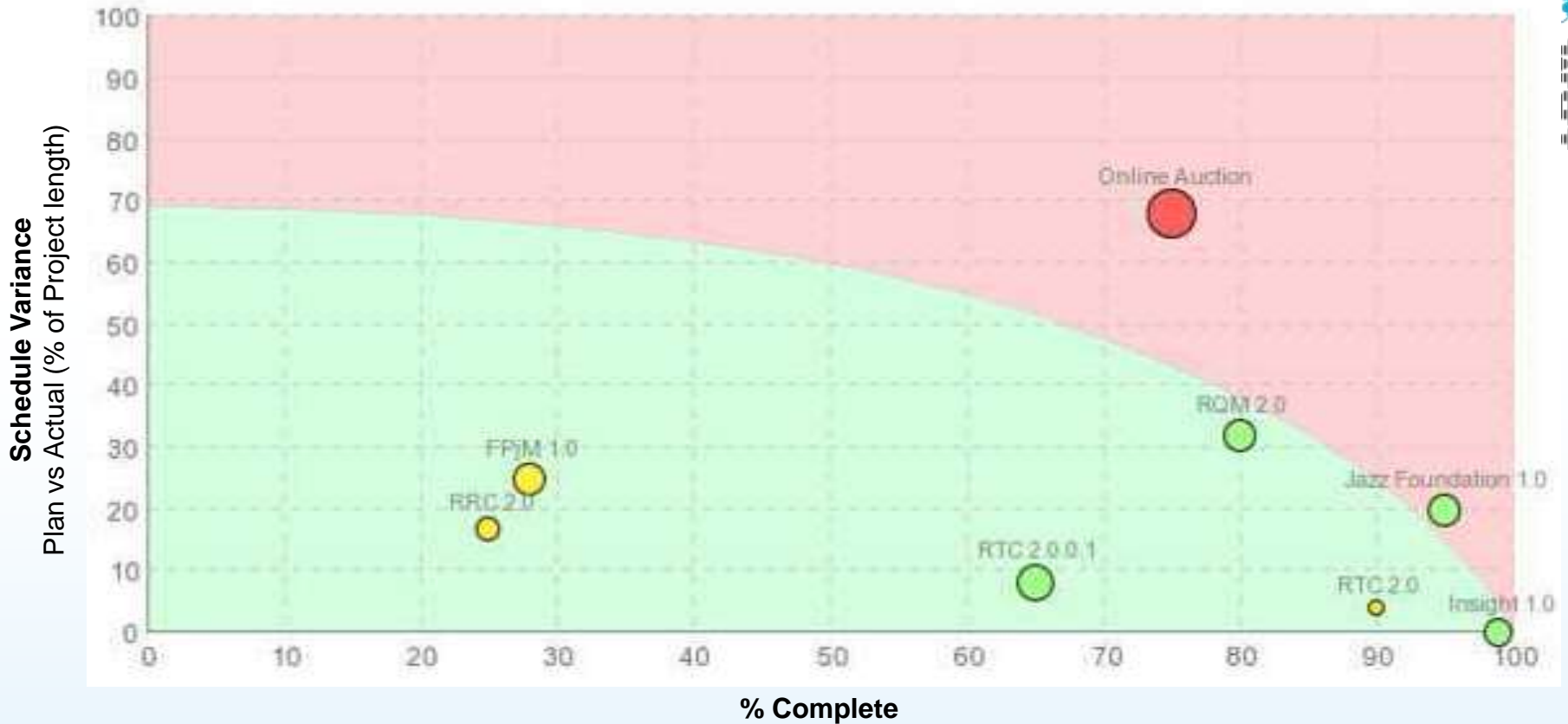
- Applying **Business Intelligence techniques** to software and systems development
- Enabling **fact-based decision making** (to communicate status, monitor progress, diagnose problems, identify corrective actions)
- **Steering projects and programs** to deliver on-time

Measurement practices impact project success



Source: Capers Jones, Measurement, Metrics and Industry Leadership, 2009 and [Software Engineering Best Practices](#), McGraw Hill, 2010.

Measurement: Project-by-project, team-by-team



Project Health
Headcount (planned person years)

Test your Development Intelligence capabilities

Can your team...



- **Minimize administrative overhead by relying on your environment to capture metrics?**
- **Keep all stakeholders advised at the right level of detail?**
- **Keep team members focused with reporting at the individual, team and project level?**



What is Continuous Improvement?



Continuous improvement reduces cost by:

- Improving software delivery through the ongoing **adoption of best practices and automation** to reduce manual, non-creative and error prone tasks
- Promoting **incremental improvement of a project** when needed
- Enabling breakthrough improvement by **capturing best practices and reusing** across teams
- Allowing **everyone to participate** with easy to adopt best practices at your fingertips.



“Successful analytics requires taking it beyond software and reporting, and into the realm of management practices and operations improvement”

Information Management Online, February 23, 2011

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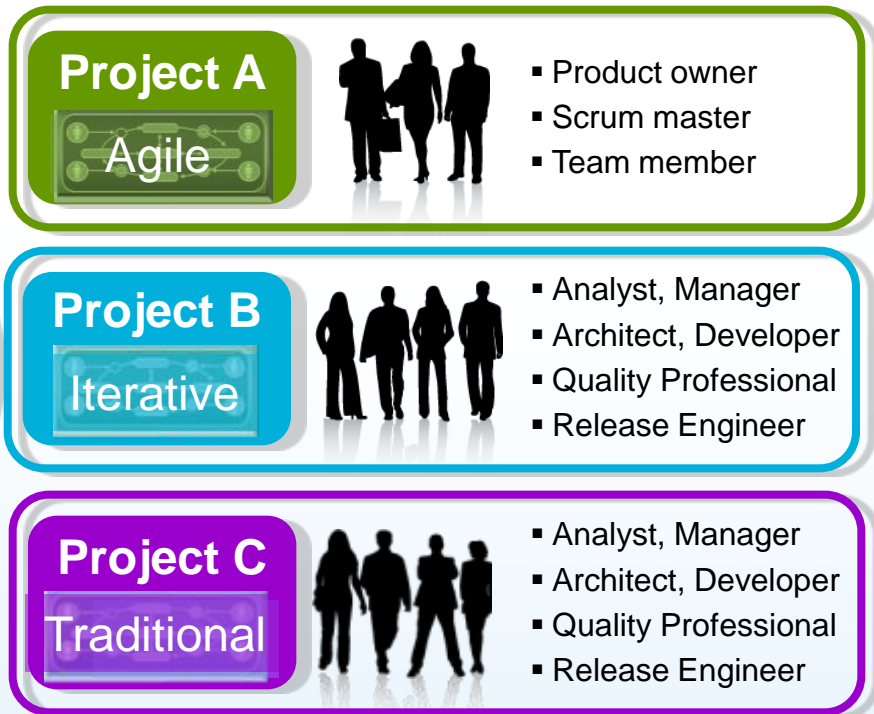
Imperative 5: Continuous improvement



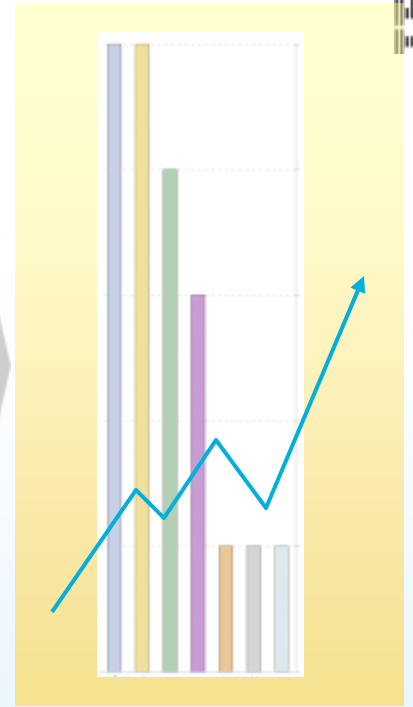
Step 1 Adopt



Step 2 Enact



Step 3 Measure



Step 4 Improve

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Test your Continuous Improvement capabilities

Can your team...

- **Leverage out-of-the-box templates that support traditional and agile workflows?**
- **Change process “on the fly” as part of a continuous feedback loop?**
- **Allow team leads to determine how strict or lax the “rules of the road” should be?**
- **Modify process enforcement over the course of a project, to encourage early-stage experimentation and end-game stability?**





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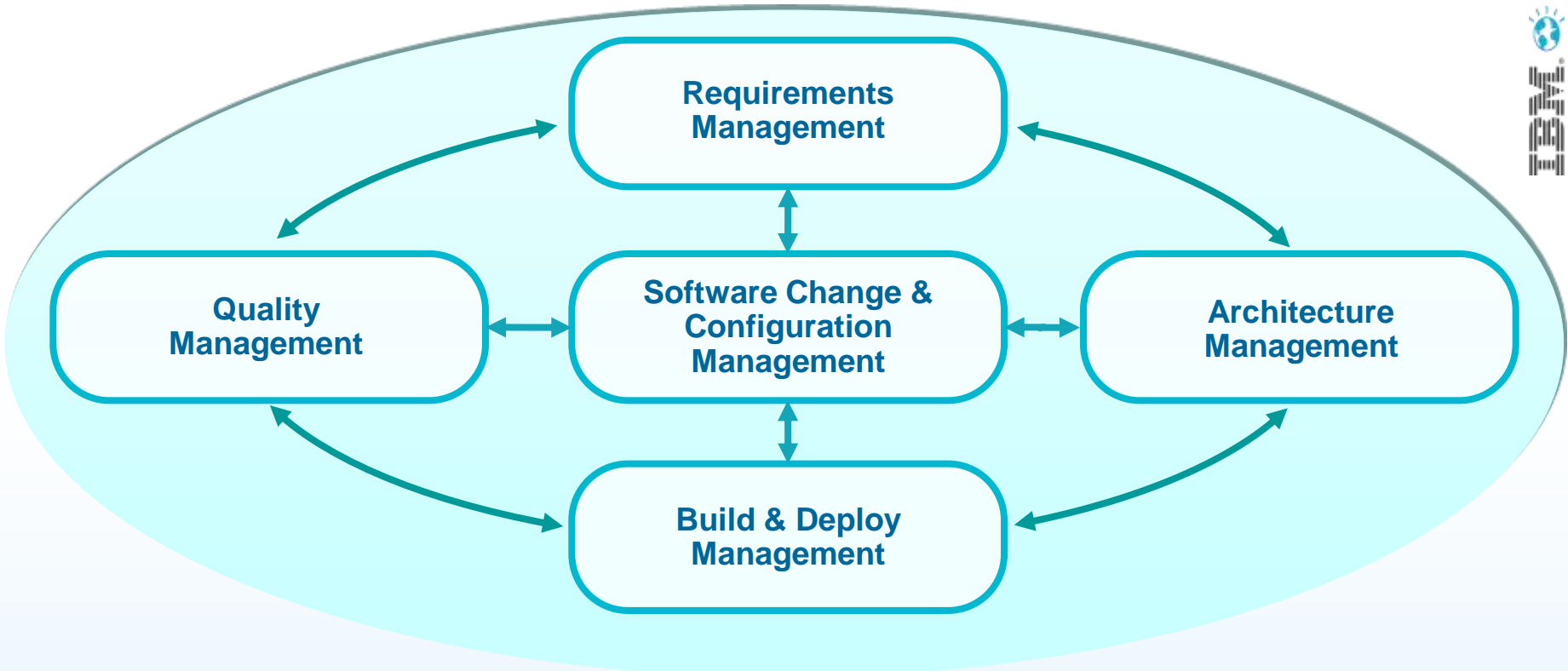


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Rational Application Lifecycle Management (ALM)

Modular, open and extensible



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Gartner MarketScope for Application Life Cycle Management

IBM Rational earns “Strong Positive” – the highest possible rating

Gartner.

Efficient coordination and automation of the delivery process **requires new, collaborative approaches** to the planning, measurement, execution, control and reporting of activities.

These **new approaches are what differentiate current application life cycle management (ALM)** tools, and what make ALM processes vital to leading-edge development activities.

ALM is what **enables sustainable agile practices**. ALM creates a management framework providing consistent, auditable records of the decisions and activities of agile teams.

IBM earns “Strong Positive” the highest possible rating

	RATING				
	Strong Negative	Caution	Promising	Positive	Strong Positive
AccuRev			x		
Aldon			x		
Atlassian				x	
CollabNet				x	
Digite			x		
HP				x	
IBM					x
Kovair			x		
Micro Focus			x		
Microsoft				x	
MKS				x	
Parasoft			x		
Polarian Software			x		
Rally Software				x	
Seapine Software			x		
Serena Software				x	
SmartBear Software			x		
TechExcel			x		
ThoughtWorks			x		
VersionOne				x	

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Jazz provides open collaboration across the software and systems lifecycle



COMMUNITY

Transparent collaboration and exchange of ideas



PRODUCTS

Application lifecycle tools that leverage the Jazz platform

PLATFORM



*Open Services for Lifecycle Collaboration
Integration services*



Application frameworks and toolkits

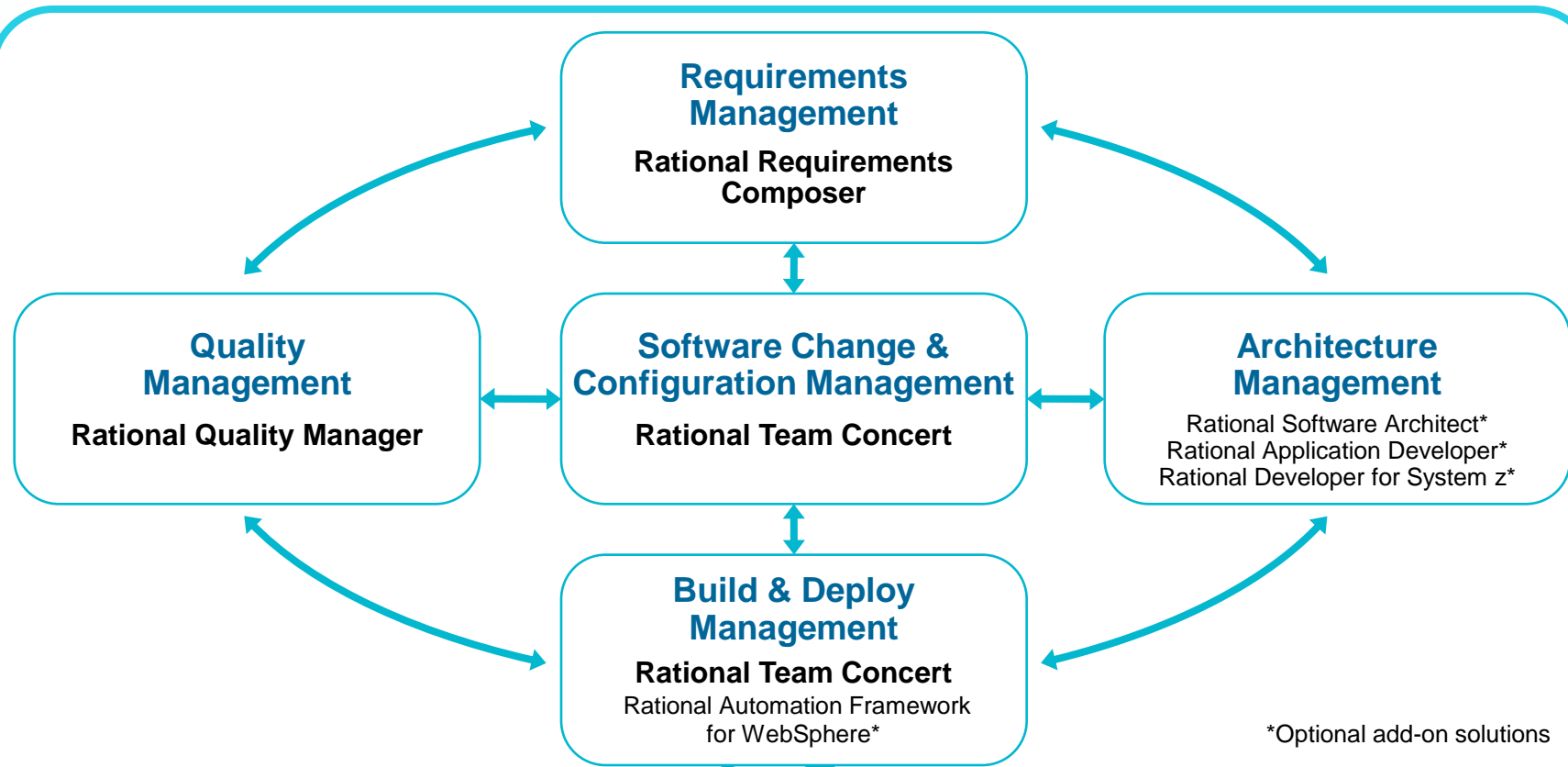
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Turnkey ALM built on the latest Jazz technology



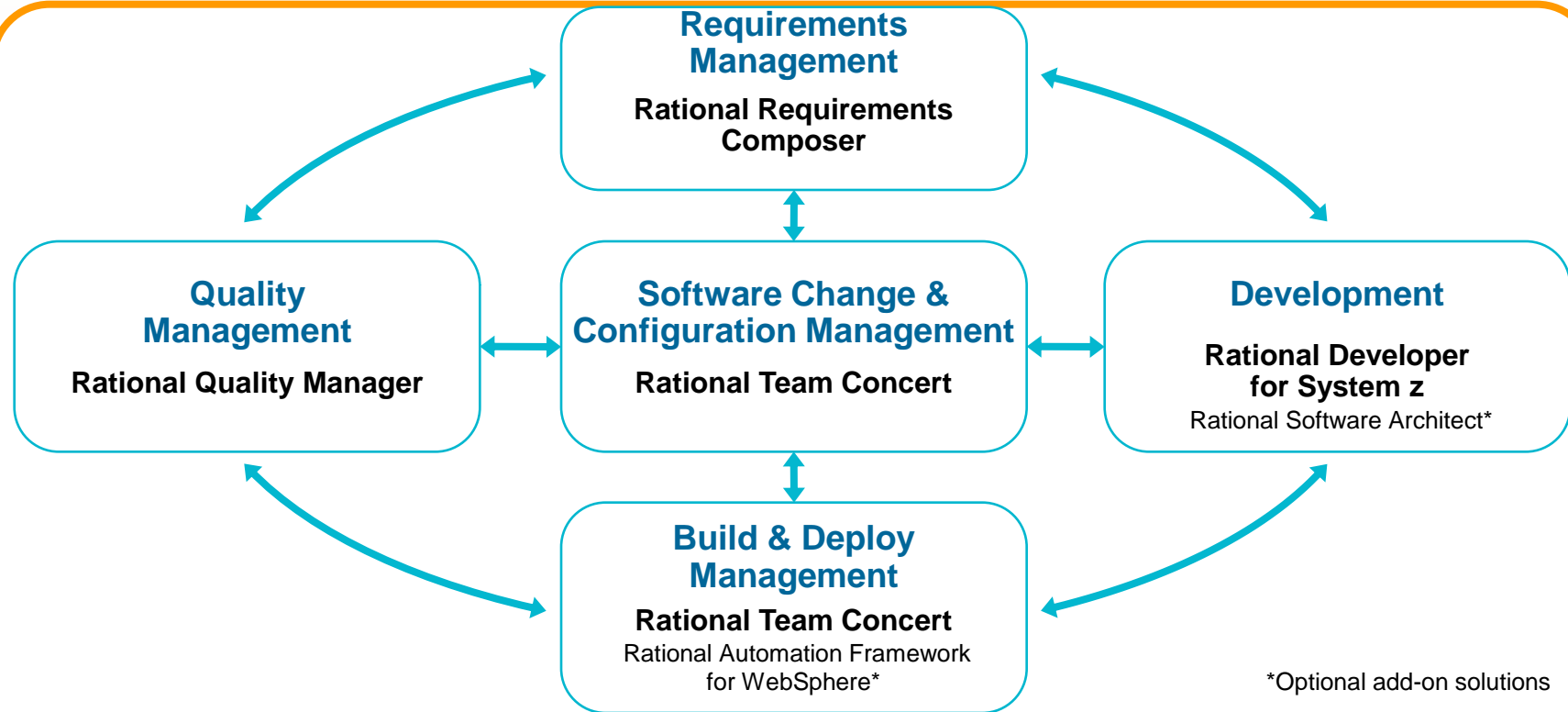
Rational solution for Collaborative Lifecycle Management



Establish a modern development platform designed to extend your investments



Rational solution for Enterprise Modernization



*Optional add-on solutions



On-target product and process management via integration on an open platform



Rational solution for Systems and Software Engineering



Open Services for Lifecycle Collaboration

REQUIREMENTS MANAGEMENT

Manage all system requirements with full traceability across the lifecycle

Rational DOORS

QUALITY MANAGEMENT

Achieve “quality by design” with an integrated, automated testing process

Rational Quality Manager

ARCHITECTURE & DESIGN

Use modeling to validate requirements, architecture and design throughout the development process

Rational Rhapsody

COLLABORATION, PLANNING & CHANGE MANAGEMENT

Collaborate across diverse engineering disciplines and development teams

Rational Team Concert



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Next steps: Resources

- **Jazz Revolution Demo**

Explore the Rational ALM solution at work from the perspective of a typical Agile project team.

[→ Link](#)

- **ALM Buyer's Guide**

Explore objective criteria you can use to evaluate ALM solutions.

[→ Link](#)

- **ALM Value Estimator**

In just five minutes, determine how much money you can save your organization with Rational ALM solutions.

[→ Link](#)

- **ALM Everywhere eKit**

Download the Gartner MarketScope on ALM and get a wealth of resources for improving team productivity.

[→ Link](#)




Get the facts on application
lifecycle management

20 vendors compared

→ 2010 Gartner MarketScope now available

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IBM Software

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The Premier Event for Software and Systems Innovation



The Rational Software Conference **June 5 - 9** Orlando, Florida

TOP 5 REASONS TO ATTEND

- 1 Learn better ways to innovate with over 400 technical sessions across 19 tracks focused on software, systems, security, services and much more
- 2 15 hands-on technical workshops showing how IBM Rational software helps you drive greater value from your software investments
- 3 Inspiring and educational keynotes from IBM Executives plus Customer Success stories
- 4 High-energy Exhibit Hall and IBM Solution Center featuring Innovation Labs and Business Partner Solutions
- 5 Networking and innovating with 4,000 peers!

Innovate 2011 is *the* event for software innovation. It is the conference totally focused on helping you transform software innovation *and* accelerate better business outcomes.

Profit from **Software. Everyware.** Starting at Innovate 2011. Mark your calendar and register today!

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What customers are saying...

“**The Jazz platform is a game changer...** Very quickly, the developers came to the conclusion themselves that we would really **raise the bar** with Rational Team Concert, that we are able to do things that we couldn't possibly do in any of the other toolsets.”

– Bob Aiello, CM Crossroads

→ ☉⌘ⓂⓂ ⬠□ ⚡⌘ⓂⓂ□



“**We are seeing an amazing sort of collaborative effect** that you know of course the experts say that's what happens, but it's kind of remarkable to see it happen in real life ... we have seen a reduction in the effort spent on requirements from about 21% of our overall effort in development down to 9%.”

– Mia McCroskey, Emerging Health IT

→ ☉⌘ⓂⓂ ⬠□ ⚡⌘ⓂⓂ□

“What's important for us that these tools are communicating. The Jazz based tools are well fitting to the whole portfolio so **we can protect our investments.**”

– Daniel Pfeffer, DHL

→ ☉⌘ⓂⓂ ⬠□ ⚡⌘ⓂⓂ□



“The integration, the collaboration, the openness of the platform: It's no secret what's going on into Jazz. That **makes our company capable of doing things with customers that was not possible just a couple of years ago.**”

– Peer Eeland, Tieto

→ ☉⌘ⓂⓂ ⬠□ ⚡⌘ⓂⓂ□

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What analysts are saying...

Liz Barnett, Ez-Insight

“With the Jazz project, Rational has developed **breakthrough technology** and is **poised to set the standard for collaborative ALM...** Given the current business climate of ‘deliver more with less much sooner,’ organizations have no choice but to rethink the ways that they deliver software solutions. The Jazz project will help teams achieve that goal.”

Paul Herzlich, Ovum

“IBM has taken the opportunity to exploit the Jazz platform’s power inventively. Its ‘living’ test plan is a **masterpiece of applying new technology to a familiar problem...** What is being delivered will demonstrate convincingly that IBM is raising the standard for a test management product.”

Julie Craig, EMA

“Rational’s differentiators are **difficult for competitors to equal**, and the new Jazz platform foundation may well turn out to be one of the best investments the Rational team has made.”

Simon Jacobson, AMR

“Frankly I wish folks who sold quality management solutions took this approach. **Most of the folks I speak to talk about the lifecycle, but they are selling you a mass transit system, but only really provide the train station.**”

Dave West, Forrester

“IBM has taken the opportunity to exploit the Jazz platform’s power inventively. Its ‘living’ test plan is a masterpiece of applying new technology to a familiar problem... What is being delivered will demonstrate convincingly that IBM is raising the standard for a test management product.”



What is Application Lifecycle Management (ALM)?

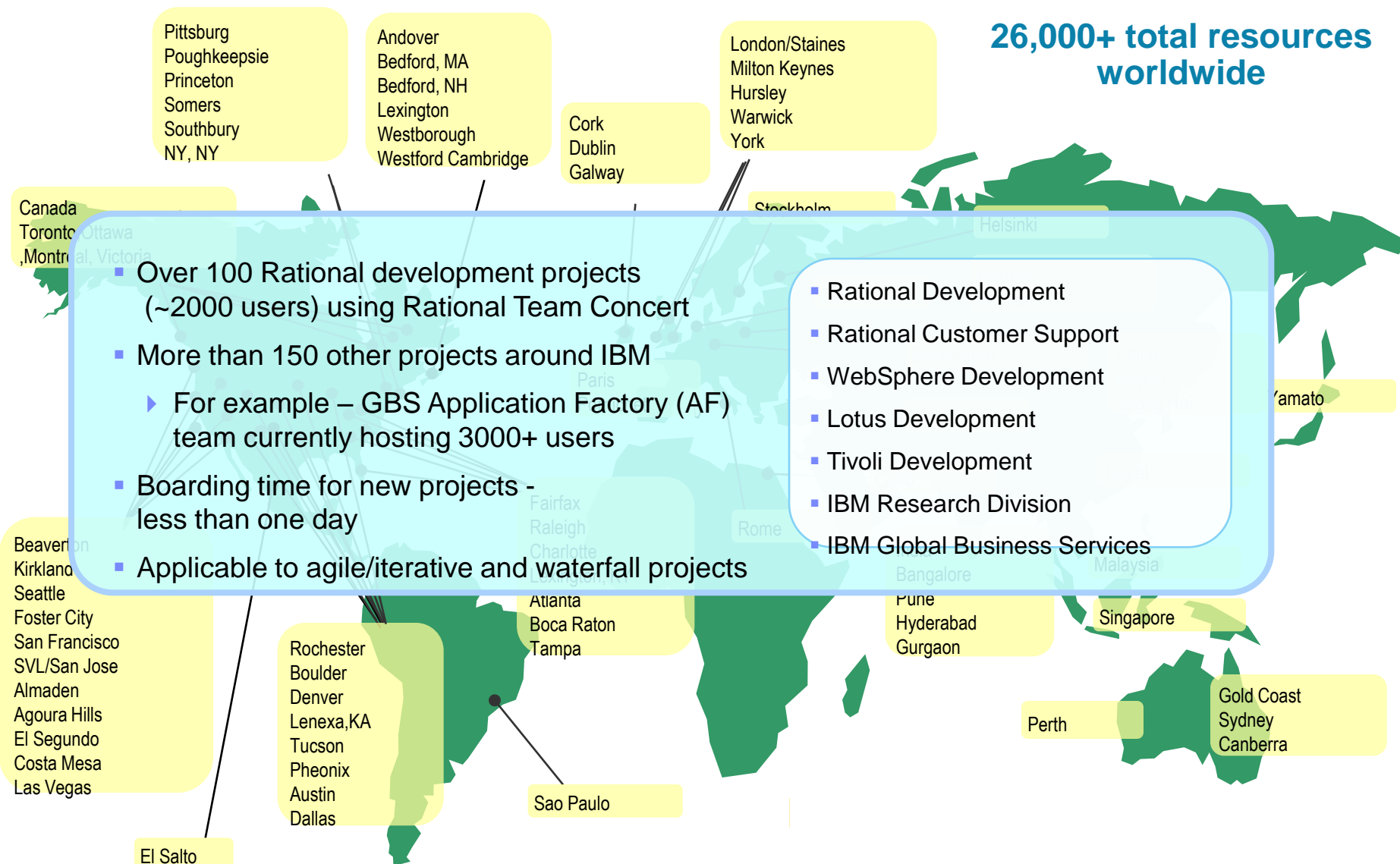
Application lifecycle management manages the flow of people, process and information in an iterative cycle of software delivery activities. The Rational ALM solution, powered by Jazz, provides the foundation for end-to-end process improvement and enhanced team collaboration, automation and reporting.

- ✓ **Meet domain-specific needs** while enabling a real-time flow of information and ideas
- ✓ **Improve collaboration across teams and geographies** by providing consistent access to team process, workflow and artifacts
- ✓ **Helps meet compliance requirements** through asset traceability and approval workflows
- ✓ **Provide the foundation for continuous capability improvement** through flexible, rules-based process enforcement, real-time reporting and integrated best practices
- ✓ **Reduce total cost of ownership** through streamlined and enterprise-ready deployment, security and administration



Collaborative Lifecycle Management at IBM

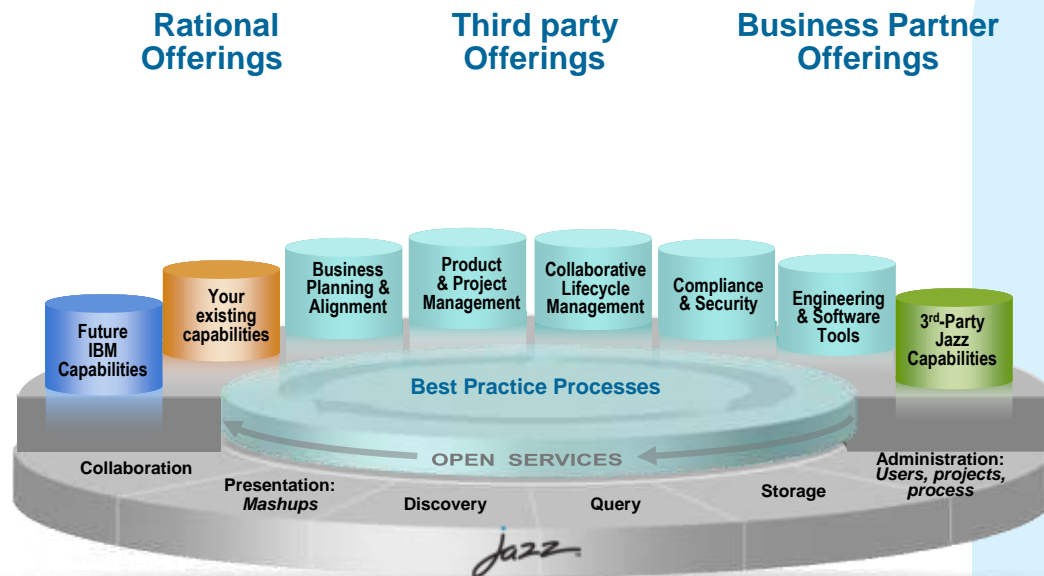
26,000+ total resources worldwide



- Over 100 Rational development projects (~2000 users) using Rational Team Concert
- More than 150 other projects around IBM
 - For example – GBS Application Factory (AF) team currently hosting 3000+ users
- Boarding time for new projects - less than one day
- Applicable to agile/iterative and waterfall projects

- Rational Development
- Rational Customer Support
- WebSphere Development
- Lotus Development
- Tivoli Development
- IBM Research Division
- IBM Global Business Services

Jazz is a platform for transforming software delivery



Jazz is...

- Our vision of the future of systems and software delivery
- A scalable, extensible team collaboration platform
- An integration architecture enabling mashups and non-Jazz products to participate
- A community at Jazz.net where Jazz products are built
- An evolution of our portfolio over time

Jazz is a platform for *transforming how people work together* to deliver greater value and performance from their software investments.

Open Services for Lifecycle Collaboration (OSLC)



**Open Services
for Lifecycle
Collaboration**

Open interfaces. Open possibilities.



*An industry initiative
for making it easier to use software
delivery tools in combination.*

The Open Services initiative:

- **Building** a community of vendors, open source projects, integrators and IT teams, at open-services.net
- **Creating** public specifications of resources and services, like change requests, test cases, defects, requirements and user stories
- **Delivering** loosely coupled resource formats and services with “just enough” standardization

SIEMENS

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ascendant
TECHNOLOGY



BSD GROUP
Better Software Development

Tasktop



ORACLE

Agile / ALM video series

IBM STG



“What does software mean to (IBM) System Technology Group? Software is basically their pen and pencil. We have got 25,000 engineers, programmers, developers. The better our tools can enable them to focus on the bigger picture, the more innovative they can be.”

– Terri Lundak, IBM, System Technology Group

→ [Link to video](#)

Forrester on ALM



“For too many years we have built cubes around our engineers and our testers and our business analysts, ...and really that’s got in the way of effectively delivering business value. What collaborative application lifecycle management is going to provide us with as an industry is the idea that these people have to work together on a platform to support them... I think that’s really exciting...”

– Dave West, Senior Analyst, Forrester Research, Inc.

→ [Link to video](#)

CM Crossroads



“Very quickly, the developers came to the conclusion themselves that we would really raise the bar with the Rational Team Concert, that we are able to do things that we couldn’t possibly do in any of the other toolsets. And the most important thing was the traceability and the communication between the developers and their managers and also the speed and ease of use that Rational Team Concert provided.”

– Bob Aiello, CM Crossroads

→ [Link to video](#)

Agile / ALM video series

Why Jazz?



“Jazz is different and exciting to me because we have the opportunity to really rethink many things. Jazz is about teams and we had this in our mind with each feature we designed for it. So it makes the team more productive—happier, I would say.”

– Erich Gamma, IBM Rational

→ [Link to video](#)

Customers on ALM



“It’s no secret what’s going on into Jazz. That makes our company capable of doing things towards customers that was not possible for just a couple of years ago.”

– Peer Eeland, Tieto

→ [Link to video](#)

IBM Rome Tivoli Labs



“We needed to transition to a more flexible way of working, a way of working that could empower the development team. The solution that we had in mind was Rational Team Concert, Quality Manager and Rational Requirements Composer. And the idea was that using these three tools linked together, you can get the right amount of traceability you need about the artifacts that you develop during your lifecycle.”

– Mariangela Orme, IBM Rome Tivoli Labs

→ [Link to video](#)

Agile / ALM video series

Agile Transformation



“Getting stuff into the face of your customers, allowing them to collaborate and provide that feedback to you in a faster way changes everything about development! You can’t sit down and spend 18 months to deliver software.”

– Dave West, Senior Analyst, Forrester Research

→ [Link to video](#)

Customers on ALM



“We are seeing an amazing sort of collaborative effect that you know of course the experts say that’s what happens, but it’s kind of remarkable to see it happen in real life and with real people and to see the personality conflicts as well as positive results. So that’s very exciting to just turn everything upside down and see what happens when the dust settles and see improvement and see people collaborate together.”

– Mia McCroskey, Emerging Health IT

→ [Link to video](#)

Citrix



“We were able to deliver our products with a higher quality and on time. We were able to performance test and identify any performance bottlenecks... In one of my latest projects, we were able to save 40% of the time because we were able to reuse some of the scripts that were created for a previous project.”

– Moazzam Naim, Citrix Systems, Inc.

→ [Link to video](#)