



IBM Rational solution for Collaborative Lifecycle Management



Agenda

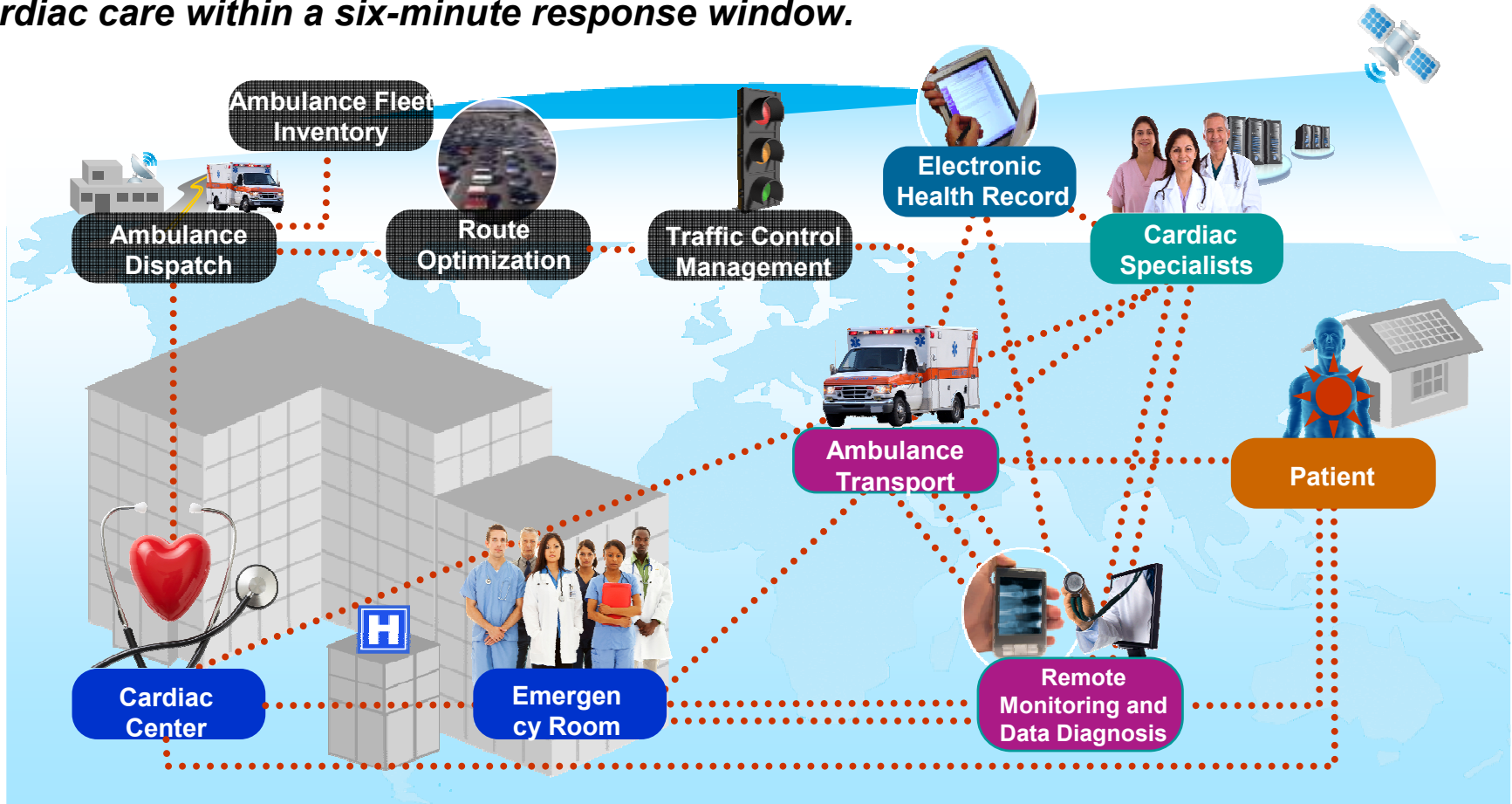
- 
- 1 The defining challenge
 - 2 ALM imperatives
 - 3 IBM Rational and Collaborative Lifecycle Management

Agenda

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- 1 The defining challenge
 - 2 ALM imperatives
 - 3 IBM Rational and Collaborative Lifecycle Management

Software is the invisible thread that drives business innovation

Example of software-driven "systems of systems" used to deliver emergency cardiac care within a six-minute response window.

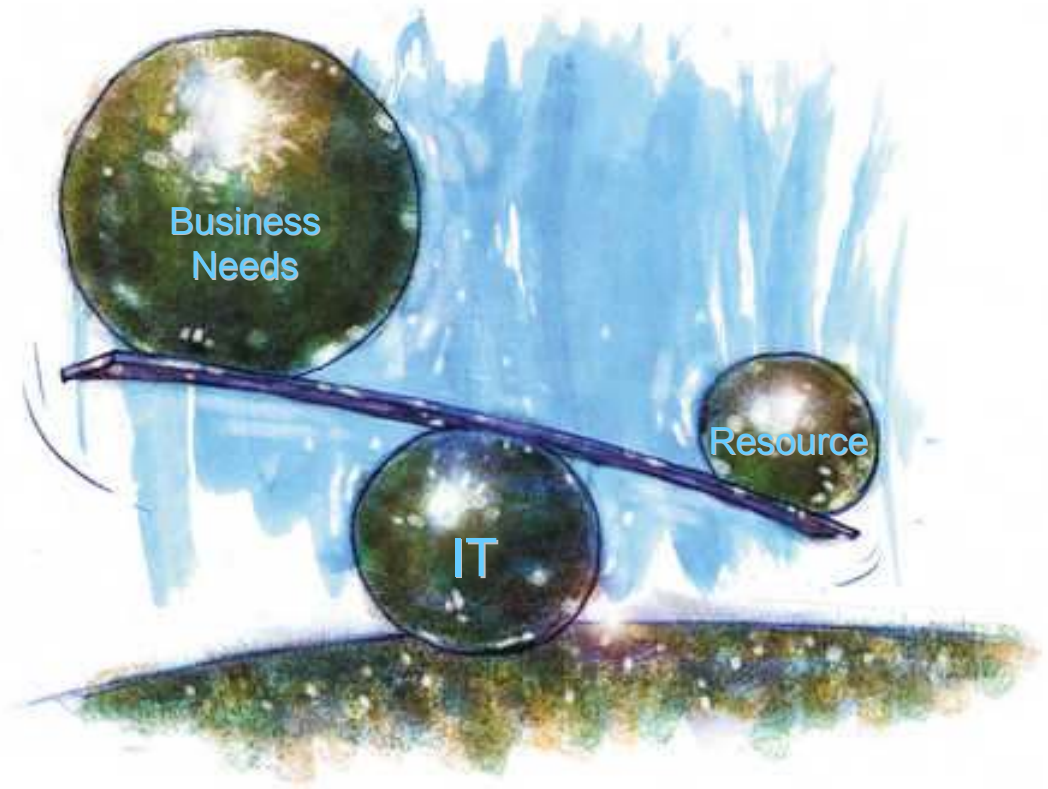


What is Needed to Support Business and IT Agility

- IT Must Deliver:
 - ✓ More business solutions
 - ✓ More flexibility
 - ✓ More quality
 - ✓ More business value

-yet-

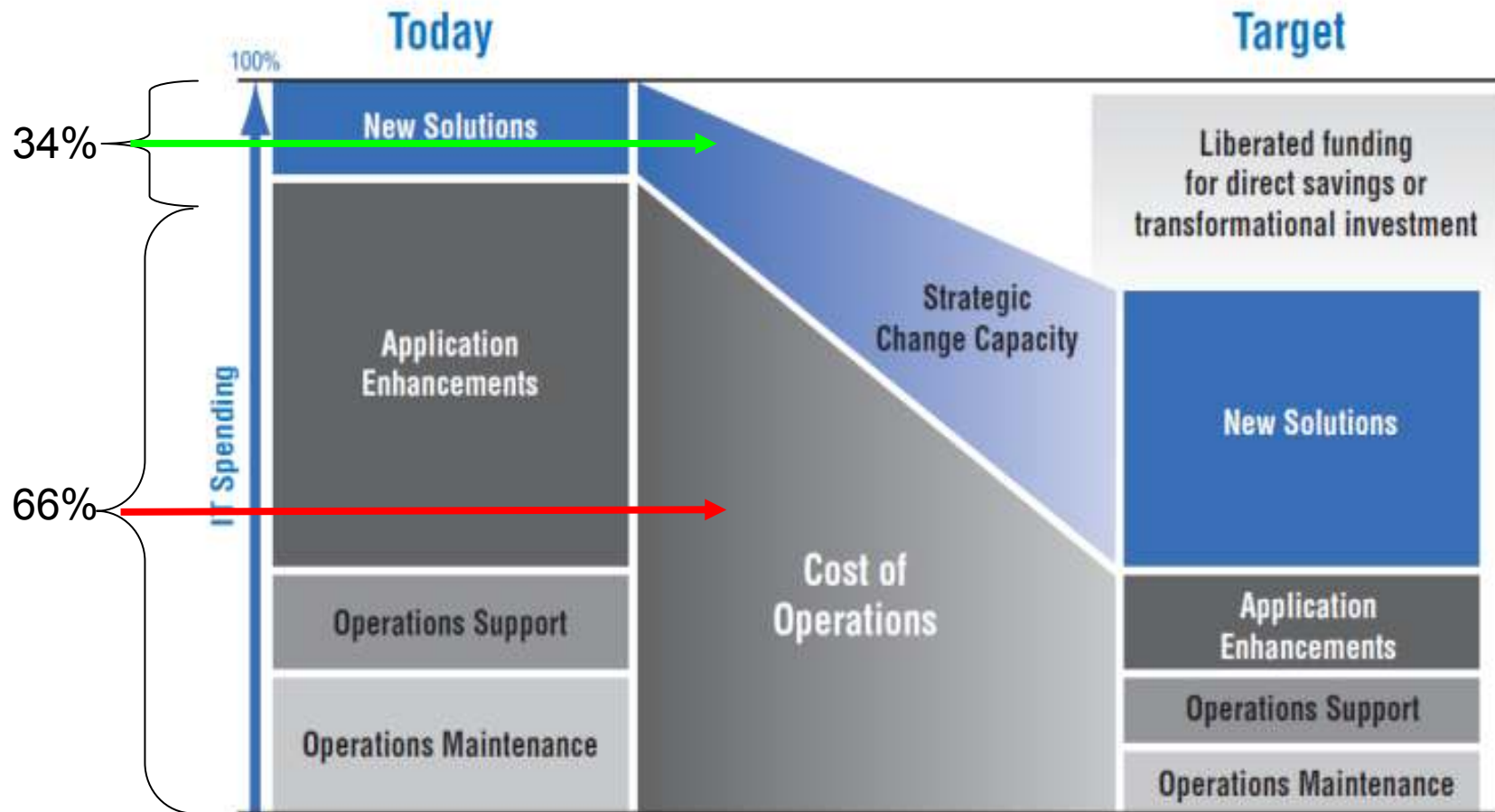
 - ✓ Less risk
 - ✓ Less costs
 - ✓ Less or flat resources



Agility requires a delicate balance of resources, reducing costs while delivering more, higher-quality business solutions.

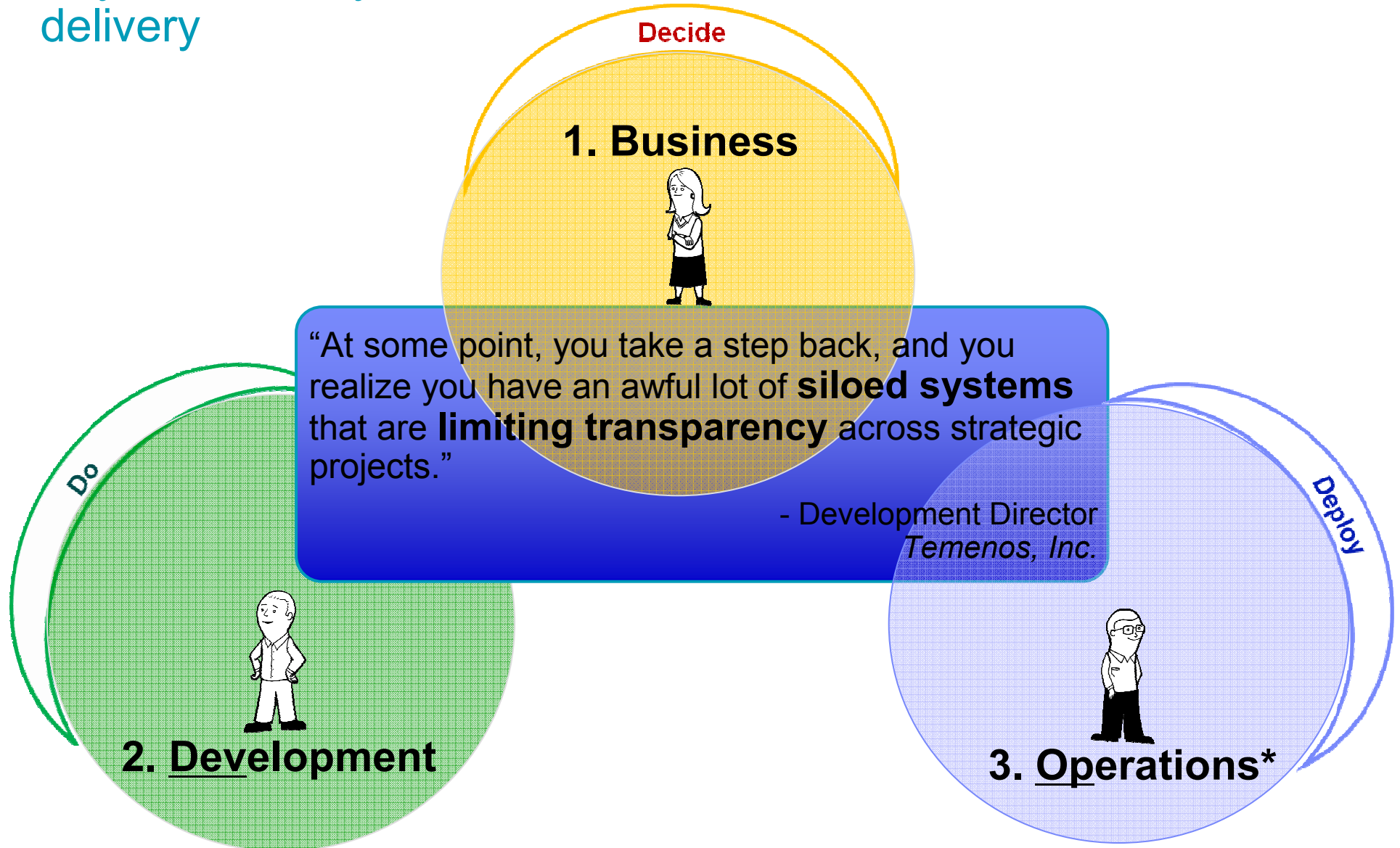
Business and IT Agility: Balancing Resources to Support Business Innovation

Balance IT investments to focus on new solutions.

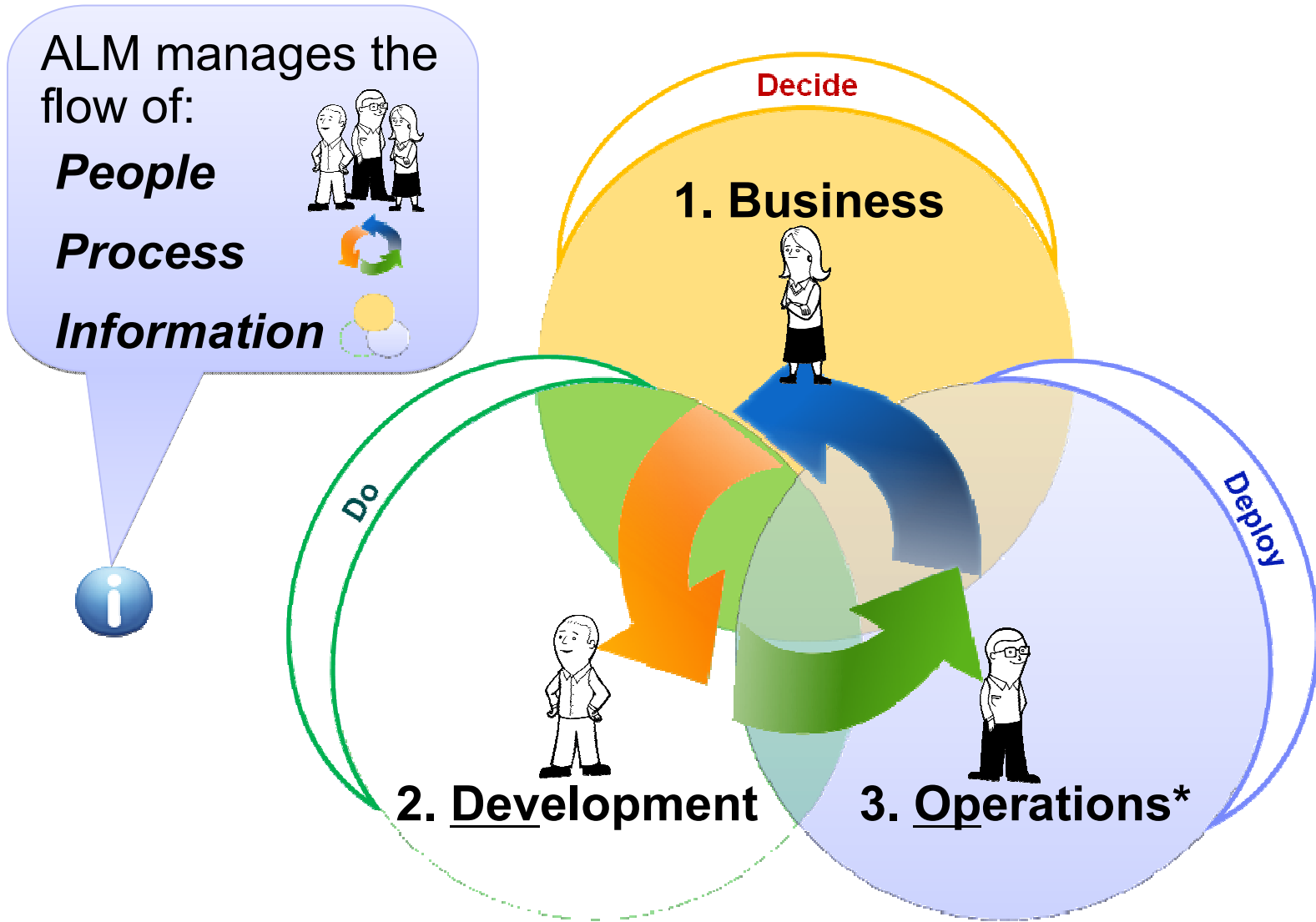


- Forrester estimates that ongoing operations and maintenance consume **66%** of IT budgets
- While new projects and software initiatives represent only **34%**

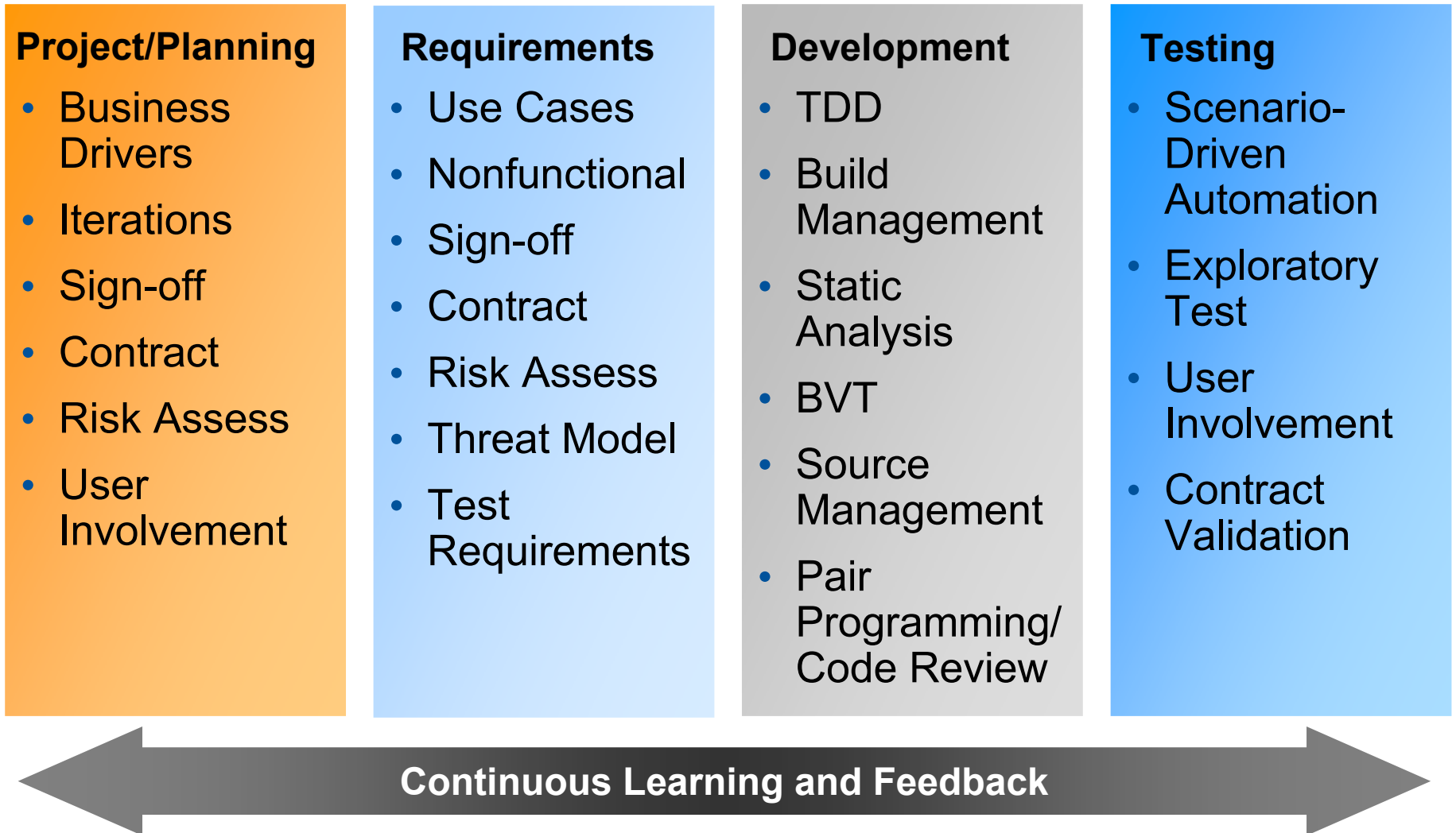
Anytime, for any team, silos create barriers to effective software delivery



Application Lifecycle Management can help!




ALM is about connecting the disciplines

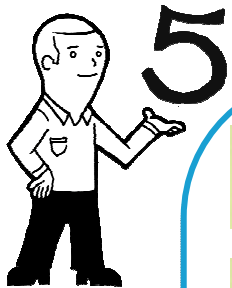


Source: Gartner Application Architecture, Development & Integration Summit Presentation, The Future and Present of AD, Thomas E. Murphy, December 2008

Agenda

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- 1 The defining challenge
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 - 3 IBM Rational and Collaborative Lifecycle Management

Five Imperatives for Effective Application Lifecycle Management to improve organizational productivity



Maximize product value with **In-Context Collaboration**



Accelerate time to delivery with **Real-Time Planning**



Improve quality with **Lifecycle Traceability**



Achieve predictability with **Development Intelligence**



Reduce costs with **Continuous Improvement**

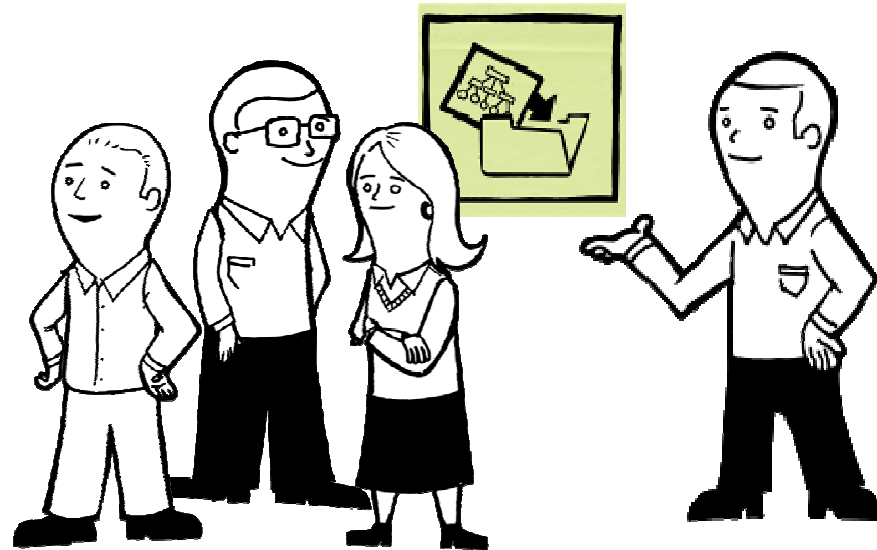
Learn more at [ALM Everywhere](#)

Collaboration challenges

Can your team...



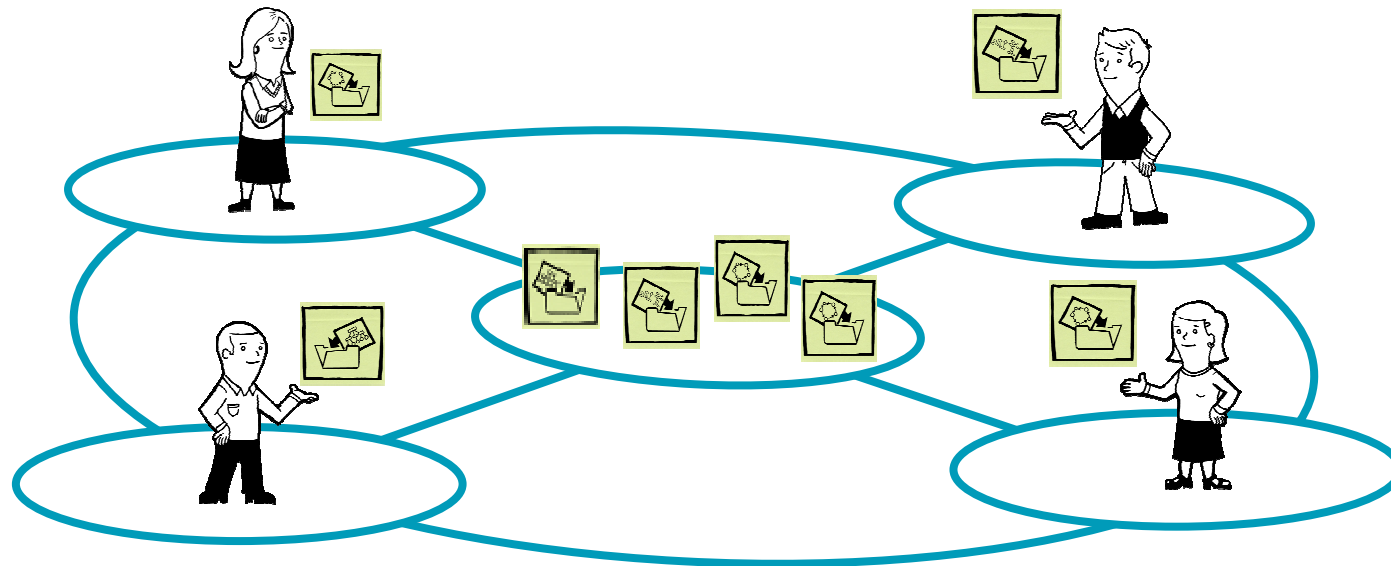
- ...find all the information related to a specific task?
- ...quickly grasp the **“who, what, when and why”** of team activities?
- ...bring new team members up-to-speed quickly?
- ...overcome the barriers of multiple time zones when working with outsourced and distributed team members?



In-Context Collaboration improves product value



- Empower teams to collaborate on and review software development artifacts so they can **incorporate feedback early and often** aligning delivery with stakeholders' vision
- Provide a **single source of truth** hosted in a shared repository so that team members can collaborate effectively around the globe to build a collective intelligence
- Make **information immediately accessible** to all team members in the context of their work





In-Context Collaboration always shows the latest

Comments (4)

- Bob to Deb, Marco 5 minutes ago (2 replies)

Percentage format - number of decimal places

How many decimal places should we support for percent

Example: none - 16%, 1 decimal place 16.5%
- Marco to Bob, Deb 5 minutes ago

RE: Percentage format - number of decimal places #1

I checked the DB table. We did not take into account decimals for this percentage. If we are going to support decimals I need to know ASAP
- Tony to Bob 1 minute ago

What is the minimum percentage?
- Deb to Bob, Marco Now

RE: Percentage format - number of decimal places #2

Bob, is no decimal support acceptable to the business

Threaded discussions on requirements

View All Artifacts

Page size: 20

ID	Name	Artifact Type	Last Modified By	Last Modified Date
44	Accounts Overview	Part	JTSAdmin	Mar 26, 2011 5:43:08 PM
50	Transaction History	Part	JTSAdmin	Mar 26, 2011 5:43:10 PM
53	Accounts Overview (Home Page)	Sketch	JTSAdmin	Mar 26, 2011 5:43:11 PM
55	Dividend Contribution - screen flow	Screen Flow	JTSAdmin	Mar 26, 2011 5:43:11 PM
60	Account Details	Part	JTSAdmin	Mar 26, 2011 5:43:13 PM
67	Dividend Contribution	Storyboard	JTSAdmin	Mar 26, 2011 5:43:15 PM
75	Donor must be registered user to access account details	Business Rule	JTSAdmin	Mar 26, 2011 5:43:19 PM
79	Donors will receive confirmation and receipt	Feature	JTSAdmin	Mar 26, 2011 5:43:21 PM
89	Dividend contribution - confirmation	Sketch	JTSAdmin	Mar 26, 2011 5:43:23 PM

Recent discussions highlighted on requirements

Work Items Tag Cloud Problems

Found 9 work items - Stories (current sprint)

Id	Status	P	Story Points	Summary	Owned By
55	New		13 pts	Frequency of dividend transfer	Deb
59	Implemented		8 pts	Requests sent in form of email	Marco
60	New		3 pts	Organization must identify how much money is desired	Marco
62	New		1 pt	Organizations may apply with an initial request	Marco
64	In Progress		2 pts	Customers can Nominate an Organization	Deb
66	New		1 pt	Organization must provide justification for why funds are needed	Marco
69	New		2 pts	Organizations can Apply	Marco
70	In Progress		5 pts	Donor Dividend Allocation Criteria	Deb
71	New		1 pt	JKE Charity Coordinator will respond to request in the website trigg...	Marco

Unread work Items bolded for developers

Comments on requirements details are in-context



79: Donors will receive confirmation and receipt

Key Scenarios

1. Donor will receive confirmation notice that donation has been processed.
2. Once the confirmation is received, the Back Office System will initiate an email to the donor based on the primary contact information in the donor's profile.
3. If the profile indicates no email address available and or the given email address is not valid, then a hard copy of the donation will be sent to the donor's mailing address specified in the donor's profile.
4. The Donor will receive an email - mail notice affirming the donation % and amount.
 1. If in email, the donor will be provided an option to print the confirmation notice for tax purposes.
5. The printed confirmation notice must be in a format that is acceptable by country, state, and province agencies and will be mailed in their Bank Statement

Related Features

Overview

Comments (2)

1. Marco to Bob 1 minute ago (1 reply)
Statements must be mailed?
We need to understand if this applies to customers that have opted for electronic statements. Does paper still need to be mailed?
2. Bob to Marco 2 minutes ago
RE: Statements must be mailed? [RE: #1]
No requirement to mail if customer selected electronic statements.

A click on the comment highlights the text under discussion.

Formal reviews drive agreement & prevent re-work



✓ Reviews & approvals insures artifacts are reviewed and/or approved by key team members and captures compliance requirements.



J&E Banking (Requirements) > Approval

Participant's Review: In progress 0% completed | Your role: Approver

Overall Review: Draft → In progress 65% completed | Pause Review

Due: Apr 18, 2011

Instructions to reviewers:
List of requirements for our second sprint. All comments have been resolved. Please review and approve requirements as written.

Participant	Type of Participant	Review results
Bob	Approver	Done - 5 Approved
Deb	Approver	Done - 5 Approved
Marco	Approver	60% - 2 Approved, 1 Disapproved
Tanuj	Approver	



18 : Dividend Allocation by Percentage

Test Case Overview | Snapshots | History

Originator: Tanuj | Owner: Tanuj | State: Under Review

Description: select a list of potential donations and enter percentages for each

Formal Review

List the people who will be reviewers and approvers of this content and define your review process.

View: All

Show All items per page | Previous 1 - 4 of 4 | Next

Review Type	Name	Status	Comments
Approver	Bob	Pending	
Reviewer	Sally	Pending	



Task 41

Summary: Implement - Frequency of dividend transfer

Overview | Links | Approvals | History

Approvals (1) - 1 pending

New Approval

Type	Name	Status	Due
Review	Check of algorithm to prevent transfer on weekend	Pending	Apr 18, 2011
	AI	Pending	
	Curtis	Pending	
	Tanuj	Approved	

Add Approvals...

Rich hovers automate information access without having to click



✓ Rich hovers provide quick access to information to determine if additional details are required!

The screenshot shows a web application interface for 'Quality Management (/qm)'. The main header is 'JKE Banking (Quality Management)'. Below the header is a navigation menu with items: Requirements, Planning, Construction, Lab Management, Builds, Execution, and Reports. A 'Mini Dashboard' is visible on the left, containing a 'My Tasks' section. A rich hover is displayed over a task item '14: Release 1 Planning'. The hover contains the following information:

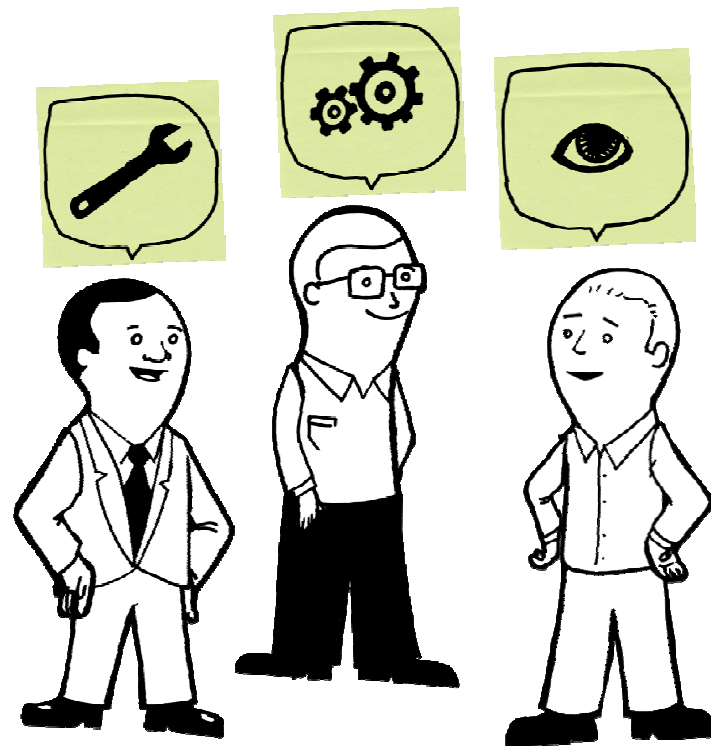
- 14: Release 1 Planning**
- 58: Dividend processing payment is a one time transaction.
- 78: Requests sent in form of email
- 80: Donors will receive confirmation and receipt
- 69: Dividend allocation by percentage
- 79: Organizations may apply with an initial request
- ... 13 More
- Location**
 - JKE Banking (Requirements) Collections
 - Release 1
- Attributes**
 - Type: Release Collection
 - Format: Collection
 - Description:
 - Status: Approved
- Links**
 - Validated By (1): ...
 - Implemented By (1): ...

Planning challenges

Does your team...



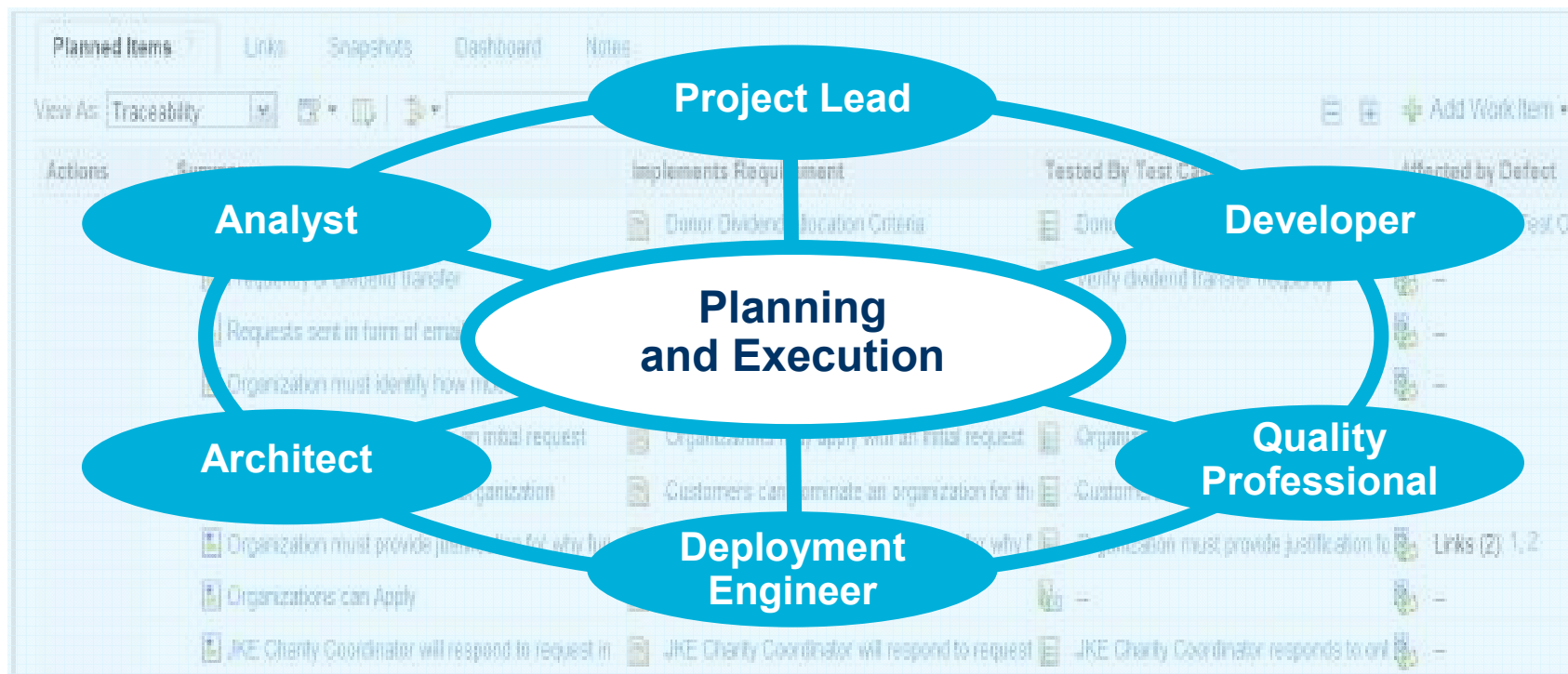
- ...*plan across the entire team?*
- ...*manually collect and report status?*
- ...*instantly see the impact of a change in project scope or resources?*
- ...**integrate planning with execution?**
- ...*plan for waterfall, iterative and agile environments?*



Real-Time Planning accelerates time to delivery



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



Requirements collections focus teams on goals for a release



View All Artifacts [?]

Page size: 20

<input type="checkbox"/>	ID	Name	Artifact Type
<input type="checkbox"/>	16	Requests sent in form of hard copy mail	Feature
<input type="checkbox"/>	29	Customers can nominate an organization for the program	Feature
<input type="checkbox"/>	39	Organization must provide justification for why funds are needed	Feature
<input type="checkbox"/>	70	Donation by Amount	Feature
<input type="checkbox"/>	76	Organizations can apply	Feature
<input type="checkbox"/>	77	Organizations may apply with an initial request	Feature
<input type="checkbox"/>	78		
<input type="checkbox"/>	79		
<input type="checkbox"/>	81		
<input type="checkbox"/>	86		
<input type="checkbox"/>	88		
<input type="checkbox"/>	99		
<input type="checkbox"/>	108		
<input type="checkbox"/>	109		

Collections focus team for:

- ✓ Reviews
- ✓ Snapshots
- ✓ Implementation

JKE Banking (Requirements) > ... > Collections >

97: Release 1 Planning [?]

Page size: 20

<input type="checkbox"/>	ID	Name	Artifact Type
<input type="checkbox"/>	32	Organization must identify how much money is desired	Feature
<input type="checkbox"/>	34	Frequency of dividend transfer	Feature
<input type="checkbox"/>	40	Allocate dividends by Percentage	User Story Elaboration
<input type="checkbox"/>	57	Dividend processing payment is a one time transaction.	Feature
<input type="checkbox"/>	58	Donor Dividend Allocation Criteria	Feature
<input type="checkbox"/>	61	Donors Deposit Money in a Pooled Assistance Fund	Feature
<input type="checkbox"/>	65	Allocate dividends by amount and frequency	User Story Elaboration
<input type="checkbox"/>	70	Requests sent in form of hard copy mail	Feature
<input type="checkbox"/>	82	Customers can nominate an organization for the program	Feature

Align planning across the business, development and test teams



The screenshot shows the Rational Change and Configuration Management (CCM) interface for 'JKE Banking (Change Management)'. The main view is the 'Release 1.0 Backlog', which contains 36 items (31 open, 5 closed) and ends in 24 days. The 'Links' tab is active, showing a table of links. A green box highlights the 'Implements Requirement Collection' and 'Tested by Test Plan' sections. Two callout boxes with checkmarks point to these sections: 'Linked to Requirement Collection' and 'Linked to Test Plan'.

Actions	Link Type	Progress
	Related Plans	
	BRM Sprint 2 (1.0) Plan	0/16
	Product Backlog	0/0
	Implements Requirement Collection	
	97: Release 1 Planning	
	Tested by Test Plan	
	3: JKE Banking Release 1	

Rankings improve clarity

Team clearly understand the goals



BRM Sprint 2 (1.0) Plan

28 items: 25 open, 3 closed | Ends in: 3 days

Plan Details

Planned Items ? Links Snapshots Dashboard Notes

View As: Ranked List

Actions	Summary	Story Points	Effective Estimate	Priority	Rank
	Search is not finding this term	--	1 hour	High	1
	Improve link colors	--	1 hour	High	2
	Login not working anymore	--	5 hours	High	3
	Donor Dividend Allocation Criteria	5 pts	--	High	4
	Implement - Donor Dividend Allocation Criteria	--	2.5 days	High	5
	Logout is not working anymore	--	3 hours	Medium	6
	Performance on first startup is bad	--	2 hours	Medium	7
	Some links are not working	--	5 hours	Medium	8
	Implement - Frequency of dividend transfer	--	1 week	Medium	9
	SWT Exception	--	1.5 days	Medium	10
	Implement - Requests sent in form of email	--	4 days	Medium	11
	Implement - Organization must identify how much money is desired	--	1.5 days	Medium	12
	Implement - Organization must provide justification for why funds are nee...	--	4 hours	Medium	13
	Implement - Organizations can Apply	--	1 day	Medium	14

Annotations:

- ✓ Rankings are better!
- ✓ Priorities are good.

One plan with multiple views

Everyone sees meaningful data in the context of their work



1 BRM Sprint 2 (1.0) Plan

26 items: 23 open, 3 closed | Ends in: 3 days

Plan Details

Planned Items Links Snapshots Dashboard Notes

View As: Roadmap (3 items filtered)

Actions	Summary	Effective Estimate	Owned By
▶	Frequency of dividend transfer	--	Unassign
▶	Requests sent in form of email	--	Unassign
▼	Organization must identify how much money is desired	--	Marco
▶	Implement - Organization must identify how much money is desired	1.5 days	Marco
▼	Organizations may apply with an initial request	--	Marco
▶	Implement - Organizations may apply with an initial request	4 hours	Marco
▼	Customer must identify an Organization	--	Deb
▶	Implement - Customer must identify an Organization		
▶	Organization must identify an Organization		

2 BRM Sprint 2 (1.0) Plan

30 items: 25 open, 5 closed | Ends in: 6 days

Plan Details

Planned Items Links Snapshots Dashboard Notes

View As: Taskboard

Story	Open	In Progress
Donor Dividend Allocation Criteria	Implement - Donor Dividend Allocation Criteria	
Frequency of dividend transfer		Implement - Frequency of dividend transfer

3 BRM Sprint 2 (1.0) Plan

30 items: 25 open, 5 closed | Ends in: 0 days

Plan Details

Planned Items Links Snapshots Dashboard Notes

View As: Planned Time

Person	Closed Items	Open Items	Load
Bob	0	1	0/3 +8 h
CD	0	1	0/2 +8 h
Deb	3	5	168/3 -160 h
Marco	2	14	90/8 -84 h
Ianuj	0	0	0/3 +8 h

Plan at the right level of detail

Everyone participates in planning



- ✓ Stories decomposed into cross-discipline tasks
- ✓ Plans include all work

- ✓ Whole team sees dependencies

The screenshot shows a software planning tool interface. At the top, there are tabs for 'Planned Items', 'Links', 'Snapshots', 'Dashboard', and 'Notes'. Below these is a 'View As' dropdown set to 'Roadmap'. The main area is a table with columns for 'Actions', 'Summary', 'Effectiv', 'Owned By', and 'Rank'. A task is expanded to show sub-tasks: 'Tester design the test case and test script', 'Developer implement the requirement', and 'Analyst elaborate the requirement'. To the right, a Gantt chart shows task bars and dependencies. A green box highlights the expanded task list, and a blue box highlights the Gantt chart. Arrows from the callout boxes point to these elements.

Actions	Summary	Effectiv	Owned By	Rank
	Dividend processing payment is a one time transaction.	--	Unassignec	3
	Tester design the test case and test script	--	Tanuj	1
	Developer implement the requirement	--	Deb	2
	Analyst elaborate the requirement	--	Bob	--
	Improve link colors	5 hours	Deb	--
	Requests sent in form of email	--	Unassignec	--
	Donor Dividend Allocation Criteria	--	Unassignec	--
	SWT Exception	1.3 day	Marco	--
	Frequency of dividend transfer	--	Unassignec	--
	Donors Deposit Money Into a Pooled Assistance Fund	--	Unassignec	--
	Organization must identify how much money is desired	--	Marco	--

Plans tied to execution

Deliverables and work products show results



BRM Sprint 2 (1.0) Plan

28 items: 25 open, 3 closed | Ends in: 3 days

Plan Details

Planned Items ? Links

View As: Work Breakdown

Bob
Closed Items

Deb
Closed Items: 0 | Open Items: 9

Actions Summary Effective Estimate Progress Status Work Item Type Change Sets Attachments

Actions	Summary	Effective Estimate	Progress	Status	Work Item Type	Change Sets	Attachments
	Improve link colors	1 hour	0/1 h	New	Defect	--	--
	Donor Dividend Allocation Criteria	--	0/5 pts 0/20 h	In Progress	Story	--	Links (2...
	Implement - Donor Dividend A...	2.5 days	0/20 h	New	Task	--	--
	Update router module with ne...	--	0/0 h	In Progress	Task	Changes in P...	--
	create new service for validati...	--	0/0 h	In Progress	Task	Changes in W...	--
	Performance on first startup is bad	2 hours	0/2 h	New	Defect	--	--
	Some links are not working	5 hours	0/5 h	New	Defect	--	--
	Frequency of dividend transfer	--	0/13 pts 0/40 h	New	Story	--	--
	Requests sent in form of email	--	0/8 pts 0/32 h	New	Story	--	--
	Marco	Closed Items: 2 Open Items: 11	Progress: 12/52 -33.25 h	Estimated: 91%			
	Tanuj	Closed Items: 0 Open Items: 0	Progress: --	Estimated: --	No Work		
	Unassigned	Closed Items: 0 Open Items: 2					

✓ Change Sets & Attachments are better !

✓ Progress & Status are good indicators of execution.

Status updates

Part of everyday work activities



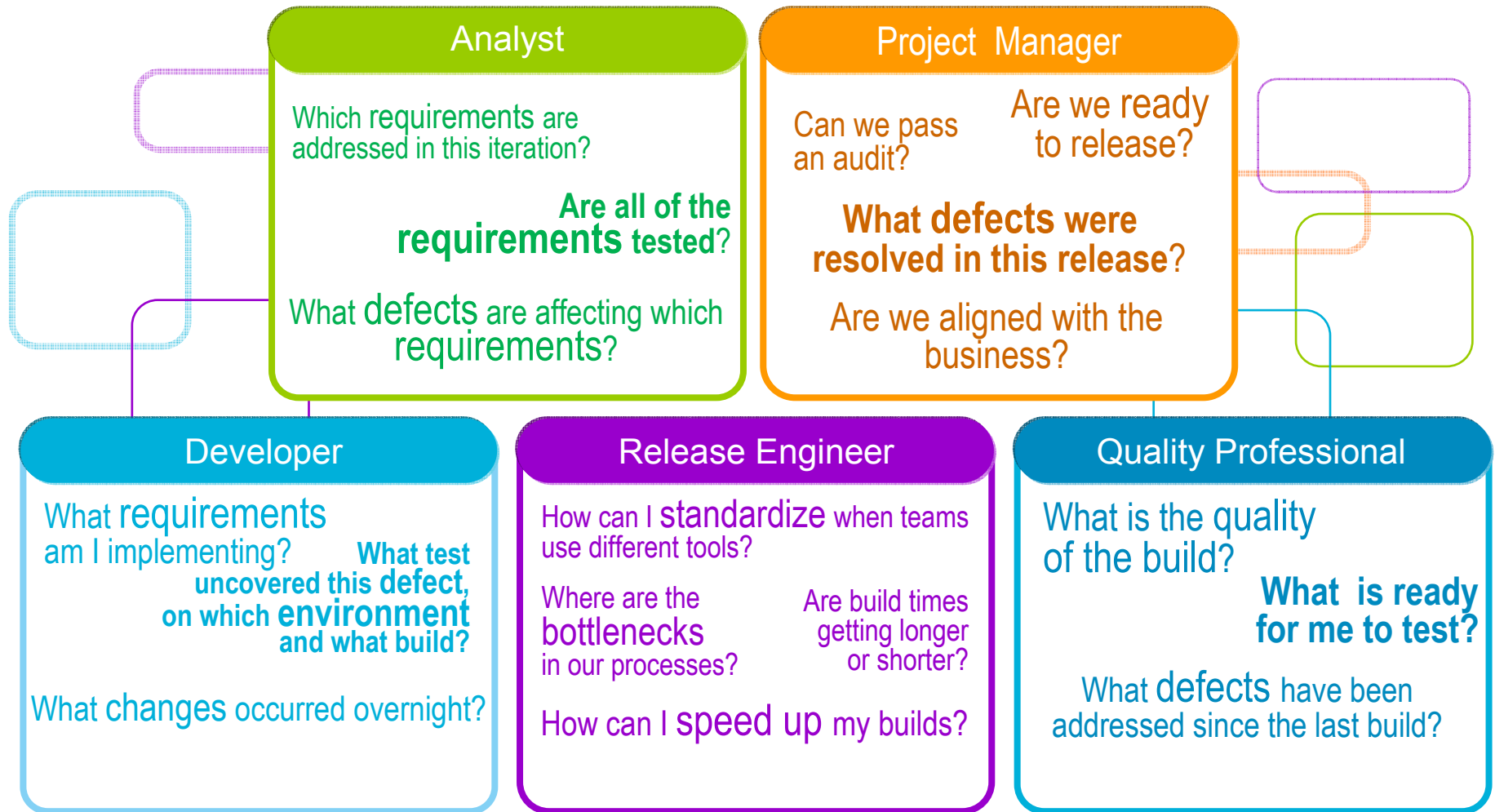
✓ In place updates to status automatically appear in the plan

The screenshot shows a project plan titled "BRM Sprint 2 (1.0) Plan" with 28 items, 28 open, and 0 closed, ending in 12 days. The view is set to "Taskboard". A task "Analyst elaborate the requirement" is highlighted with a green box, and its dropdown menu is open, showing options: 30 minutes, 1 hour, 2 hours (selected), 4 hours, 1 day, 2 days, 3 days, and 1 week. A blue arrow points from the callout box to the task.

Story	Open
Dividend processing payment is a one	Tester design the test case and test script Developer implement the requirement
Requests sent in form of email	Implement - Requests sent in form of email
Donor Dividend Allocation Criteria	Implement - Donor Dividend Allocation Criteria

Lifecycle Traceability challenges

Can your team answer...

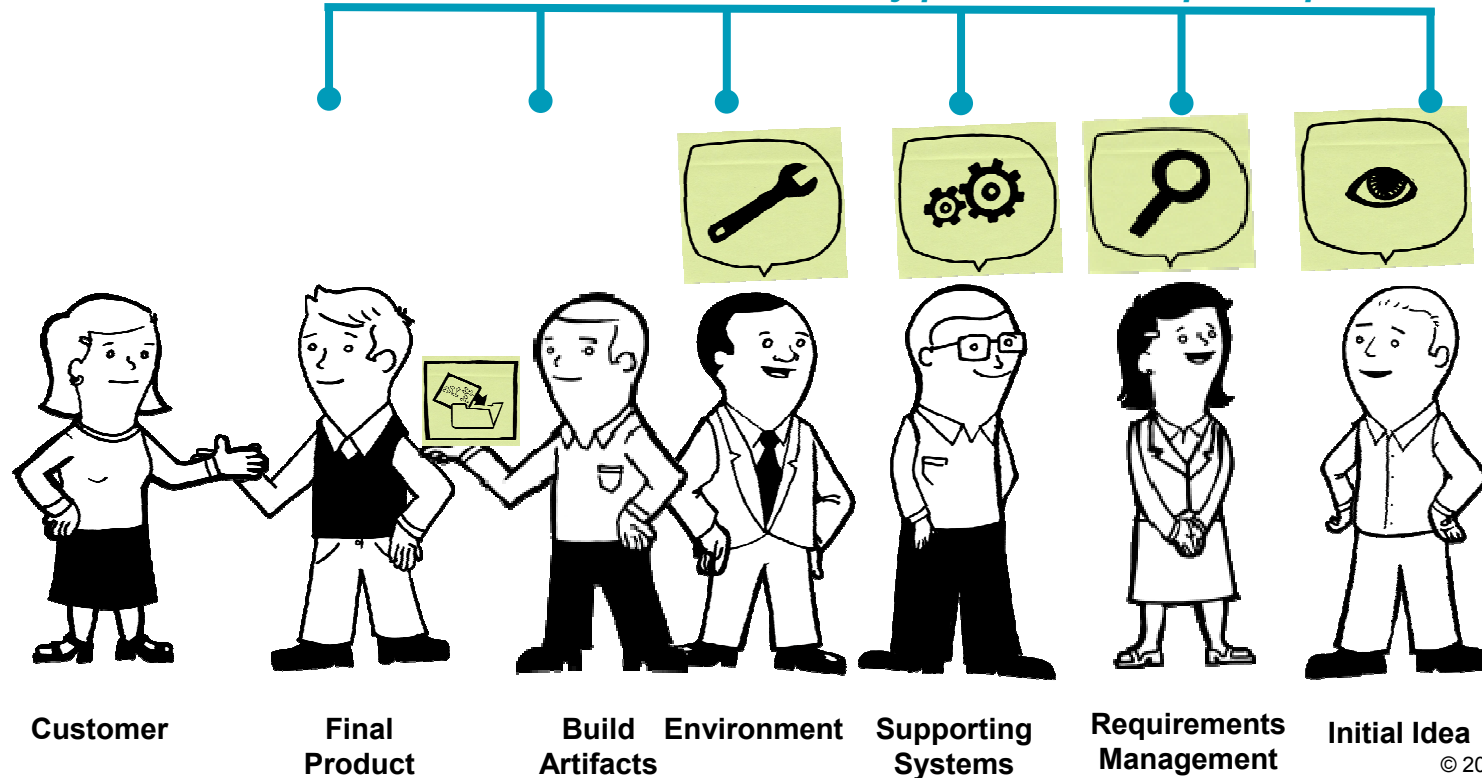


Lifecycle Traceability improves quality



- Establish **relationships** between software artifacts
- **Identify and close 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

Instant access to details from any point in development process



Team leads have visibility into coverage & completeness



- Proactively respond to gaps (in red) as they surface throughout the project
- Issues are quickly highlighted and resolved (in yellow)

BRM Sprint 2 (1.0) Plan

26 items: 23 open, 3 closed | Ends in: 3 days

Plan Details

Planned Items

View As: Traceability (17 items filtered)

Actions	Summary	Owned By	Implements Requirement	Tested By Test Case	Affected by
	Requests sent in form of email	Unassigned	Requests sent in form of email	---	--
	Frequency of dividend transfer	Unassigned	---	Verify dividend transfer frequency	--
	Organization must provide justification for why funds are nec	Marco	Organization must provide justification for why funds are ne	Organization must provide justificatio	--
	Organizations can Apply	Marco	Organizations can apply	Organizations can Apply	Links (2)
	Organization must identify how much money is desired	Marco	Organization must identify how much money is desired	Organization must identify how much	--
	Donor Dividend Allocation Criteria	Deb	Donor Dividend Allocation Criteria	Donor dividend allocation conforms t	--
	Organizations may apply with an initial request	Bob	Organizations may apply with an initial request	Organizations may apply with an initi	--
	JKE Charity Coordinator will respond to request in the web	Marco	JKE Charity Coordinator will respond to request in the web	JKE Charity Coordinator responds to	425: Rur
	Customers can Nominate an Organization	Marco	Customers can nominate an organization for the program	Customers can Nominate an Organi	--

Team leads have visibility into coverage & completeness

Tailor traceability view to highlight planning gaps



BRM Sprint 2 (1.0) Plan

26 items: 23 open, 3 closed | Ends in: 3 days

Plan Details

Planned Items

View As: Traceability

Traceability

Colors

Sorting

Filter

Colors

Colors

Colors

Link Type : value

Colors	gap	implementsRequirement:unset
Colors	gap	testedByTestCase:unset
Colors	Defect	affectedbyDefect:set

Actions	Summary	Owned By	Implements Requirement	Tested By Test Case	Affected by Defect
	Requests sent in form of email	Unassigned	Requests sent in form of email	-	-
	Frequency of dividend transfer	Unassigned	-	verify dividend transfer frequency	-
	Organization must provide justification for why funds are nee	Marco	Organization must provide justification for why fund	Organization must provide justification fo	-
	Organizations can Apply	Marco	Organizations can apply	Organizations can Apply	-
Defect	Organization must identify how much money is desired	Marco	Organization must identify how much money is dec	Organization must identify how much mi	Links (2): 1, 2
	Donor Dividend Allocation Criteria	Deb	Donor Dividend Allocation Criteria	Donor dividend allocation conforms to st	-
	Organizations may apply with an initial request	Rob	Organizations may apply with an initial request	Organizations may apply with an initial r	-
Defect	J&E Charity Coordinator will respond to request in the we	Marco	J&E Charity Coordinator will respond to request in	J&E Charity Coordinator responds to on	425 Running out of SW
	Customers can Nominate an Organization	Marco	Customers can nominate an organization he the p	Customers can Nominate an Organizati	-

Team leads can improve quality and predictability



- ✓ Creating a shared vision delivers what the stakeholders want
- ✓ Whole team buy-in improves team trust, efficiency and focus
- ✓ Everyone knows what work is needed by whom and when.
- ✓ Traceability provides insight to knowing when you are DONE!



Developers understand the requirements, test criteria and test results

Teams collaborate and clarify the details of requirements




Testers define and execute tests cases with a clear understanding of requirements

Developers have visibility into the requirement they will be implementing



For the Developer

- ✓ **Rich Hovers** provides insight at your finger tips reducing time to value.
- ✓ **Clickable links** provides valuable information on requirement

The screenshot shows a requirement management interface. A requirement card for 'Story 64' is highlighted with a green box. A rich hover window is open over it, displaying detailed information:

- Title:** 29: Customers can nominate an organization for the program
- Description:** Requirement: Customers can Nominate an Organization Brief Description Customermay nominate an organization for assistance whether a result of a catastrophic event or from some other justification. A
- Location:** JKE Banking (Requirements) > Features > Extended Functionality, Release 1
- Attributes Table:**

Type:	Feature	Format:	Text
Description:		Stability:	Medium
Origin:	Customer	Difficulty:	Medium
Status:	Draft	Business Priority:	Should
- Links:**
 - Constrained by (3): 27, 72, 84
 - References Term (3): 13, 31, 102
 - Implemented By (1): ...
 - Link To (1): 81
 - Embedded In (1): 112

Below the hover, a list of requirements is shown, including '6: Organization must identify how much money is desired', '7: Allocate dividends by amount and frequency', '10: Customers can Nominate an Organization', and '9: Donors Can Choose to Support an Organization'.

Automated defect traceability reduces costs and improves quality



Testers execute tests and submit defects

- ✓ 4-clicks to submit a defect automatically linked to impacted artifacts
- ✓ Test results are recorded and linked to test cases, and associated requirements
- ✓ Test results can be linked to software builds
- ✓ Everyone has visibility into the defects, their impact, and the action taken to resolve them



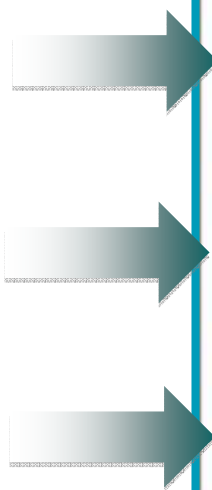
Developers can see the exact test failure without having to ask and remediate it

Actions	Summary	Owned By	Implements Requirement	Tested By	Test Case	Affected by Defect
	Requests sent in form of email	Unassigned	Requests sent in form of email			
	Frequency of dividend transfer	Unassigned			Verify dividend transfer frequency	
	Organization must provide justification for why funds are nee	Marco	Organization must provide justification for why fund		Organization must provide justification fo	
	Organizations can Apply	Marco	Organizations can apply		Organizations can Apply	
	Defect Organization must identify how much money is desired	Marco	Organization must identify how much money is des		Organization must identify how much m	Links (2): 1, 2
	Donor Dividend Allocation Criteria	Deb	Donor Dividend Allocation Criteria		Donor dividend allocation conforms to s	
	Organizations may apply with an initial request	Bill	Organizations may apply with an initial request		Organizations may apply with an initial r	
	Defect JKE Charity Coordinator will respond to request in the wa	Marco	JKE Charity Coordinator will respond to request in		JKE Charity Coordinator responds to ou	42E: Burning out of B/W
	Customers can Nominate an Organization	Marco	Customers can nominate an organization for the pl		Customers can Nominate an Organizat	

Linked data is visible on all artifacts



- All roles can view the links on their artifacts.
- Each user has their own perspective and user interface for viewing links.
- Create, delete, navigate links on artifacts
- Example: Developer sees the relationships on a defect
- Traceability links on defects are automatically created



The screenshot shows a web interface for a defect titled "Defect 300". The summary is "Failing Test Case 'Allocate Dividends to Multiple Causes'". There are tabs for "Overview", "Links", "Approvals", and "History". Below the tabs is an "Attachments" section with an "Add File" input and a "Browse..." button. The "Links" section is highlighted with a green border and contains a list of related artifacts:

- Add: Related
- Affects Test Result
 - 14: Allocate Dividends to Multiple Causes
- Affects Requirement
 - 444: Donor Chooses Multiple Organizations
- Related Test Plan
 - 12: JKE Banking Sprint 2
- Blocks Test Execution
 - 13: Allocate Dividends to Multiple Causes
- Related Test Case
 - 97: Allocate Dividends to Multiple Causes
- Affects Plan Item
 - 284: Donors Can Choose to Support Multiple Organizations

Lifecycle Queries

Answer the hard questions



✓ Provides cross-discipline visibility of issues effecting delivery

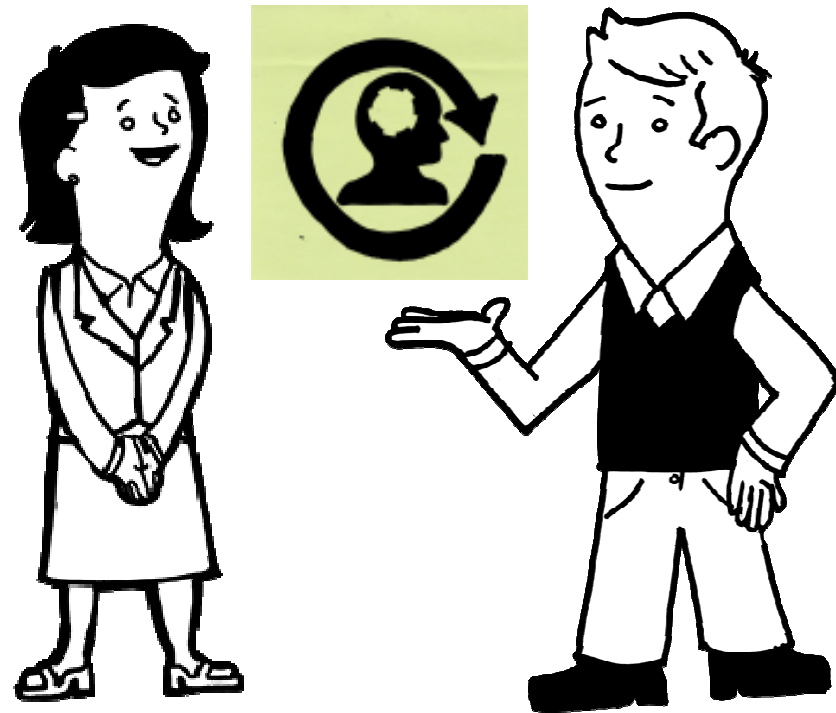
Name	Description
Predefined (34)	
Lifecycle Queries (17)	
Defects affecting Requirements	Open defects that affect requirements
Defects affecting Tests (current iteration)	Open work items in the current iteration that affect at least one test
Defects blocking Tests	Open work items that block at least one test
Defects with Test Cases ready for testing	Work items ready for testing that are associated with tests
Open Requirement Change Requests	Open change requests that track a requirement
Plan Items affected by Defects	Plan items that are affected by at least one defect
Plan Items implementing Requirements	Open work items implementing requirements
Plan Items ready for testing	Plan items ready for testing with associated tests
Plan Items tested successfully	Work items associated with tests that do not fail
Plan Items tested successfully (current iteration)	Work items in the current iteration associated with tests tests that do not fail
Plan Items with failing Tests	Open work items associated with at least one failing test
Plan Items with failing Tests (current iteration)	Open work items in the current iteration associated with at least one failing test
Plan Items with no Requirement	Plan items not associated with a Requirement
Plan Items with no Test Case	Plan items without any associated test
Plan Items with no Test Case (current iteration)	Plan items in the current iteration without any associated test
Plan Items with Tests not run	Open work items associated with tests that have not been executed
Plan Items with Tests not run (current iteration)	Open work items in the current iteration associated with tests that not been executed

Measuring and steering challenges

Can your team...



- ...provide one view of project health at multiple levels?
- **...make steering decisions based on facts rather “guesstimates”?**
- ...track desired improvements with metrics?
- ...minimize administrative overhead by relying on your environment to capture metrics?

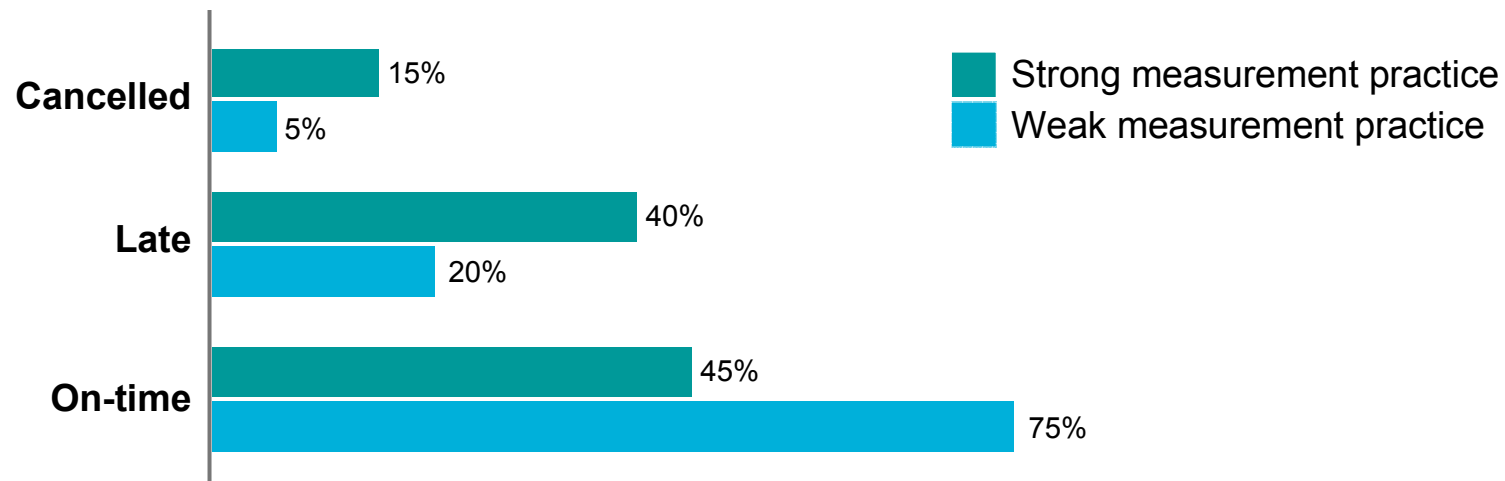


Development Intelligence improves predictability



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

Measurement Practices Impact Project Success



Sources: Capers Jones, Measurement, Metrics and Industry Leadership, Copyright © 2002-2007 by Capers Jones LLC
 Capers Jones, [Software Engineering Best Practices](#), Copyright © 2010 McGraw-Hill

Use dashboards to provide that one view of project health



JKE Banking (Change Management)* ?

Overview | Time to Value (Schedule) | Product Value | Product Cost | Product Quality | Reports | Stabilization +

Story Status Current Iteration

Shows the status of all stories planned for the current iteration

Status	Count
Testing	2
Implementing	17
Invalid	2
Done	17
Ready to Test	6
New	14
Ready to Implement	1

Burndown Current Iteration

Shows the remaining amount of estimated work in hours of work items planned for the current iteration.

1,935

Stories Open/Closed/In Progress

Shows the number of stories which are open, in progress, done during the iteration.

63

Current Stories (80)

- 150501: Improve Web UI error reporting
- 154382: Completion (M14) of foundation support for migrating RRC 2.x to 3.0, and JTS consolidation
- 155918: Provide TVT testcases and testcase updates to TVT team
- 154263: [Continuation] Create server diagnostics tests and reports that make various checks
- 155024: Track the fixing of hangs occurring on shutdown of the CLM server
- 155398: [Repository - M14] Performance, quality and robustness enhancements
- 156051: Improvements and fixes for CLM migration automation
- 154829: [Repository - M14] Address high severity defects, Reduce backlog
- 155033: Explore servlet dispatching enablement as a backup option
- 155488: [Repository M14] Serviceability and Consumability Improvements.

Page 1 of 6

Burndown

2,776

Stories Open, Closed, In Progress

67

Dashboard customization

Ensures the team has steering data from all disciplines



All JKE Banking (Change Management) Dashboards >

JKE Banking (Change Management) ?

Overview Planning **Development** Testing Requirements Reports

Select Catalog: ? **Change and Configuration Management (/ccm)**

Select Category

- All
- Build
- Feeds
- General
- Help

Applications

- Change and Configuration Management (/ccm)**
- Quality Management (/qm)
- Rational Jazz Team Server (vhost0049.dc1.on.ca.compute.ihos)
- Requirements Management (/rm)

✓ Easy to add viewlets to assist steering to completion

Burndown

+ Add Widget ✓ Added

The 'Burndown' viewlet shows the number of estimated hours required to complete work items that ...

✓ Mashup dashboards with information across silos

Dashboard details

Easily answer steering questions

✓ Click thru on the viewlet to drill into information



The screenshot shows a dashboard with a bar chart titled "Open Work Items for Current Sprint (34) Severity". The chart has five categories: Blocker (1), Critical, Major, Normal, and Minor. A hand cursor is pointing at the "Blocker" bar, which has a callout box that says "Blocker: 1". A blue arrow points from this callout to a detailed view of item "40".

The detailed view for item "40" is titled "Open for Current Iteration (3)". It includes a table with the following data:

Type	Id	Summary	Owned By	Status	Priority	Severity
Item icon	40	Credit increase request is registered against the wrong account	Unassigned	New	High	Blocker

Below the table, there are several fields for item details:

- Summary: Credit increase request is registered against the wrong account
- State: New
- Resolution: (empty)
- Filed Against: JKE/Web UI
- Severity: Blocker
- Found In: Sprint 2 Development
- Owned By: Unassigned
- Priority: Unassigned

At the bottom, there is a list of users: Al, Bob, Build, Deb, Marco, miuke914, Rebecca, Sally, Tanuj, More...

✓ Take corrective action in-place

Personal dashboards



✓ Mini-dashboards:
available on any page

Bob's Requirements Dashboard

General | Development

My Tasks

ID	Summary	Artifact	State
5	Improve loan calculation algorithm		
23	Search is not finding this term		
6	Review TestCase: Donors Can Choose to Support an Organization	6: Review TestCase: Donors Can Choose to Support an Organization	none

Reviews in All Projects (0 of 0)

Recent Changes in All Projects (100)

- JKE Enterprise Diagram (122) Yesterday
- Allocating Dividends to a Cause (121) Yesterday
- Organization or customer response required (120) Yesterday
- Internalization (118n) (119) Yesterday
- Promote JKE Corporate Image (118) Yesterday

✓ Customized by
the practitioner

Mini Dashboard

Plan Items with failing... (0)
No work items found.

Re... in JKE Banking

- JKE Charity Coordinator will respond to request in the website triggering. (117) 3 hours ago
- Donors will receive confirmation and receipt (115) 3 hours ago
- Organizations may apply with an initial request (114) 3 hours ago
- Organizations can apply (112) 3 hours ago
- Requests sent in form of email (110) 3 hours ago
- Donation by Amount (107) 3 hours ago
- Organization must provide justification for why funds are needed (94) 3 hours ago
- Dividend allocation by percentage (83) 3 hours ago
- Customers can nominate an organization for the program (82) 3 hours ago
- Requests sent in form of hard copy mail (70) 3 hours ago

Page 1 of 2 | Next

Needs triage (8)

- 74: Allocate Dividends To Multiple Causes
- 70: Donor Dividend Allocation Criteria
- 67: Donation by amount

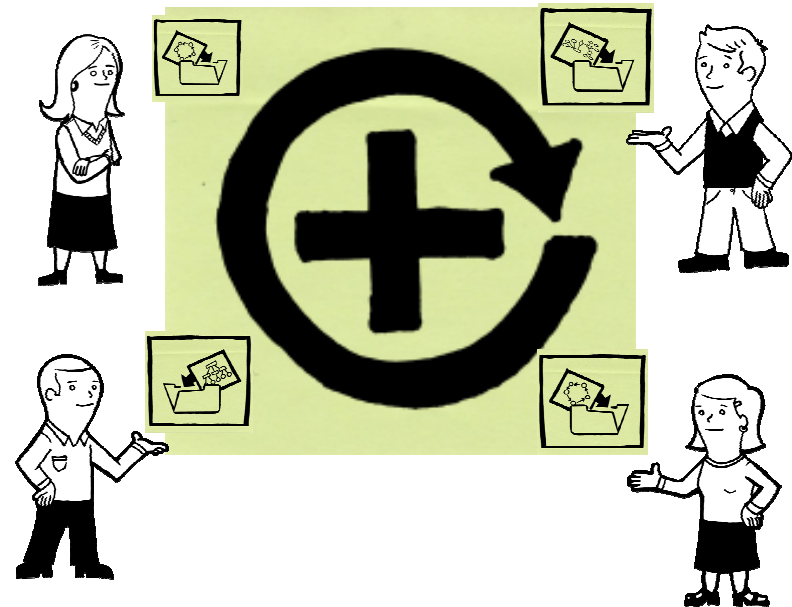
Page 1 of 3

Continuous improvement challenges

Can your team...



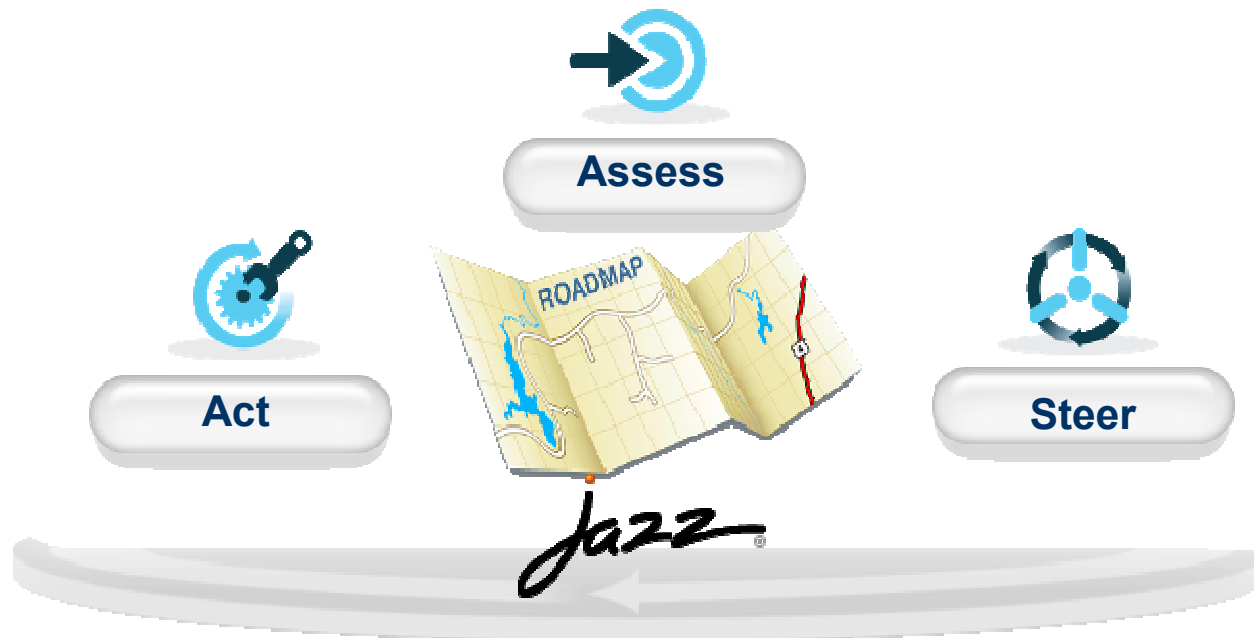
- ...leverage out-of-the-box templates that support traditional and agile workflows?
- ...change process “on the fly” as part of a continuous feedback loop?
- ...allow team leads to determine how strict or lax the “rules of the road” should be?
- ...modify process enforcement over the life of a project, to encourage early-stage experimentation and end-game stability?



Continuous Improvement reduces cost



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



Team retrospectives help identify areas of improvement



- Tracking Retrospectives help team members to collaborate on improvements
 - Ranking of process improvements help to focus on where the team feels the biggest pain

The screenshot shows the 'Retrospectives' section in the Rational CCM interface. A table lists several items, with item 31, 'Retrospective for Sprint 1', highlighted. The details for this item are shown in a pop-up window:

31: Retrospective for Sprint 1			
Status:	Done		
Details			
Filed Against:	JKE	Planned For:	Sprint 1
Project Area:	JKE Banking (Change Management)	Resolution Date:	March 26, 2011 5:44 PM
Owned By:	Marco	Resolved By:	Marco
Quick Information			

The screenshot shows a discussion thread with four comments:

- Tanuj** (Sep 1, 2011 1:22 PM): I have some concerns about late-in-the-cycle deliveries causing code churn. We had some challenges with the retesting required late in the sprint.
- Tanuj** (Sep 1, 2011 1:24 PM): Should've also mentioned that it's been hard to find information on the right build for the fix and to understand where to find the latest good build.
- Deb** (Sep 1, 2011 1:42 PM): @tanuj - I don't think we've had a lot of disruptive changes at the end of the sprint. Let's talk about this more in depth at the meeting tomorrow. I do agree @tanuj that tracking down build status has been too hard.
- Bob** (Sep 1, 2011 1:45 PM): In the meeting, I'd like us to discuss some issues where requirements were not well understood and that required some things to be reworked during this sprint (which may contribute to @tanuj's impressions in comment 1). Hopefully, as a team we can come up with some ideas on reducing this confusion.

Team collaborates on actions



Project Dashboards | Work Items | Plans | Source Control | Builds | Reports

Task 76

Summary: * Determine the best use of requirements review process to ensure dev & test are clear on requirements.

Overview | Links | Approvals | History

Details

Type: Task | Priority: High | Planned For: Sprint 2

Filed Against: JKE/BRM | Project Area: JKE Banking (Change Management) | Team Area: Business Recovery Matters

Creation Date: Sep 1, 2011 4:08 PM | Created By: Marco | Owned By: Bob

Tags: retrospective

Description: ...the team's retrospective meeting, we concluded it would be useful to institute a more formal review process for requirements to ... the information needed to accurately implement any requirements. ... providing the team with a demo of your proposal.

✓ Team tracks the work of implementing an improvement

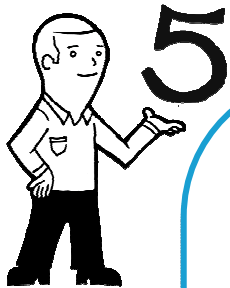
Transparency improves collaboration



✓ Continually make the right things easy to find

The screenshot shows the 'JKE Banking (Change Management)' dashboard. At the top, there's a navigation bar with 'Project Dashboards', 'Work Items', 'Plans', 'Source Control', 'Builds', and 'Reports'. Below this, there's a sub-navigation bar with 'Overview', 'Planning', 'Development', 'Testing', 'Requirements', 'Reports', 'Stabilization', and 'Builds'. The 'Builds' menu item is highlighted with a green box. The main content area is divided into three sections: 'Current Builds', 'Our Builds', and 'Build Health'. 'Current Builds' and 'Our Builds' both show a list of successful builds with details like 'jke.production.vs P20110831-1400' and '3 hours ago'. 'Build Health' shows a line graph of 'Number of Tests' over time, with a peak of 46 tests.

Five Imperatives for Effective Application Lifecycle Management to improve organizational productivity



Maximize product value with **In-Context Collaboration**



Accelerate time to delivery with **Real-Time Planning**



Improve quality with **Lifecycle Traceability**



Achieve predictability with **Development Intelligence**



Reduce costs with **Continuous Improvement**

Learn more at [ALM Everywhere](#)

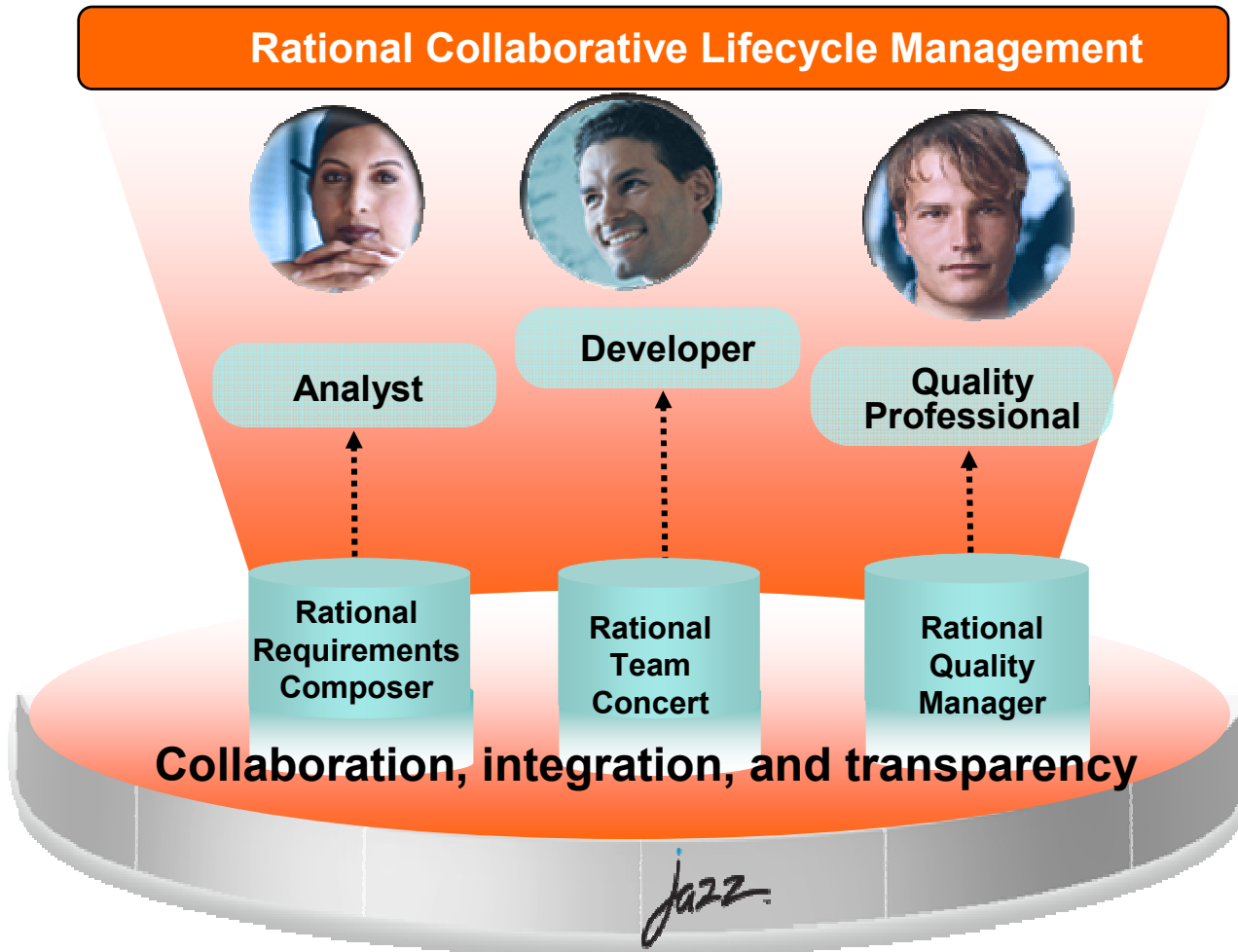
Agenda



- 1** The defining challenge
- 2** ALM imperatives
- 3** IBM Rational and Collaborative Lifecycle Management

Collaborative Lifecycle Management Accelerator for IT Agility

Deliver greater value through integration



- ✓ Reduce Cost
- ✓ Reduce Time to Delivery
- ✓ Increase Value
- ✓ Improve Quality
- ✓ Improve Predictability



IBM Rational is a recognized leader in ALM

“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.”

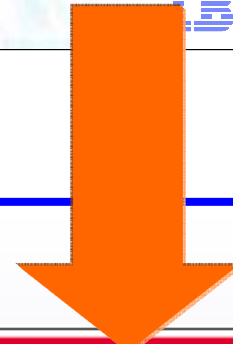
“ALM is what **enables sustainable agile practices**. ALM creates a management framework providing consistent, auditable records of the decisions and activities of agile teams.”

Duggan, Jim & Murphy, Thomas E., “MarketScope for Application Lifecycle Management,” Gartner, Inc., 11 November 2010 ID Number: G00208572 , pp2,6

IBM earns “Strong Positive” — the highest possible rating

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

IBM Rational is a recognized leader in ALM



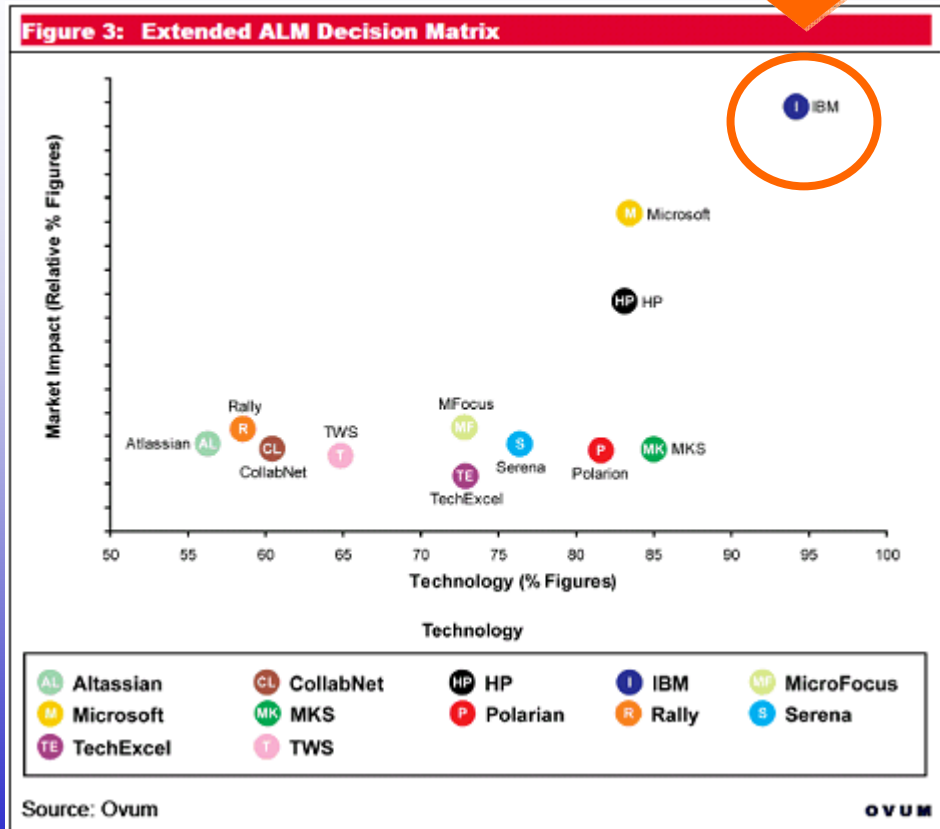
Ovum Decision Matrix: Selecting an ALM Vendor

Reference Code: OI00068-002 Publication Date: March 2011

Authors: Chandranshu Singh, Tony Baer, Michael Azoff

Report Highlights

- "IBM has the broadest and arguably the **deepest portfolio among all vendors profiled in this report.**"
- IBM's Technology Score: **94.3%**
- IBM's Market Impact score: **10/10**
 - The highest score!
 - All other vendors were ranked relative to IBM
- "Furthermore, the vendor has ensured that it stays ahead of the pack by having **a good grasp of market demand and meeting it through tool support.**"



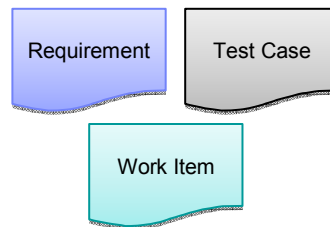
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Jazz Architecture Overcomes Past Limitations

OPEN CHOICE AND RICH INTEGRATION

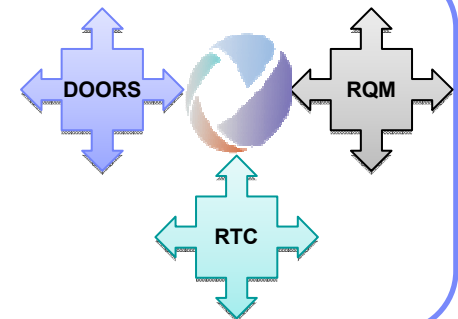
Everything is a resource!

“I can link any resource to any other resource, regardless of where the resource lives!”



Standard interfaces

“Each tool can evolve independently without breaking integrations!”



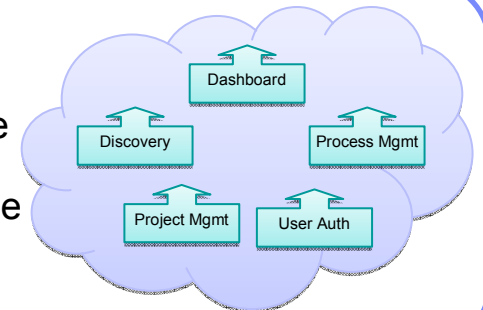
Domain specific standards for the lifecycle

“Each domain can create standards without having to wait on the others or get the whole industry to agree!”



Vendor agnostic

“Each vendor can evolve their tool to exploit the services that are valuable to customers like me!”



EVOLUTIONARY AND INCREMENTAL ADOPTION



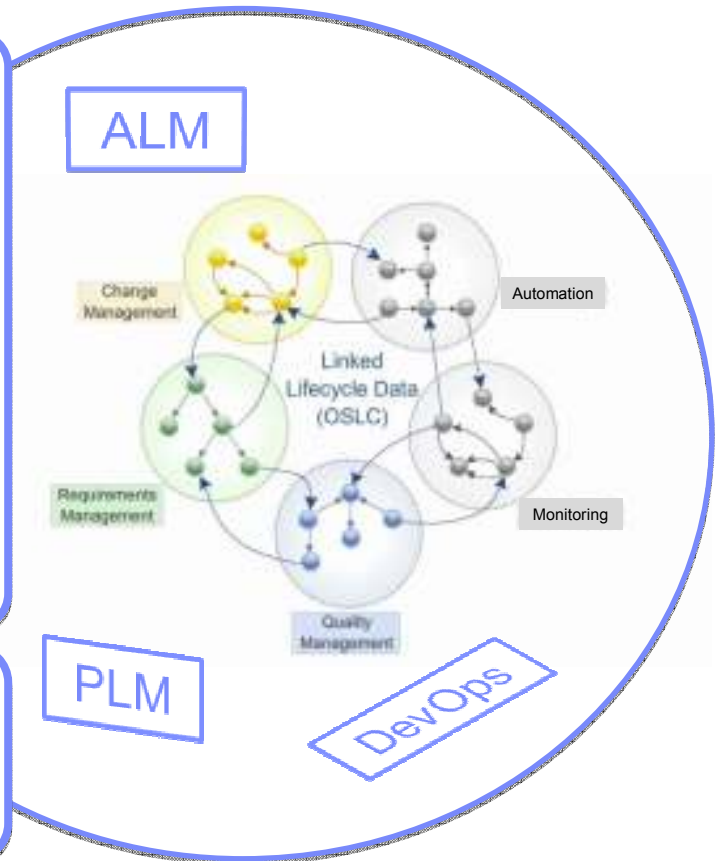
Open Services for Lifecycle Collaboration (OSLC)

Working to standardize the way software lifecycle tools share data



Open Services for Lifecycle Collaboration
Lifecycle integration inspired by the web

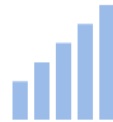
- Community Driven @ open-services.net
 - 400+ registered community members
 - Workgroup members from 34+ [organizations](#)
- Wide range of interests, expertise, & [participation](#)
- Open specifications for numerous disciplines
- Defined by scenarios – solution oriented
- Implementations from IBM, BPs, and Others
- Based on [W3C](#) Linked Data



Inspired by the web



Free to use and share



Changing the industry

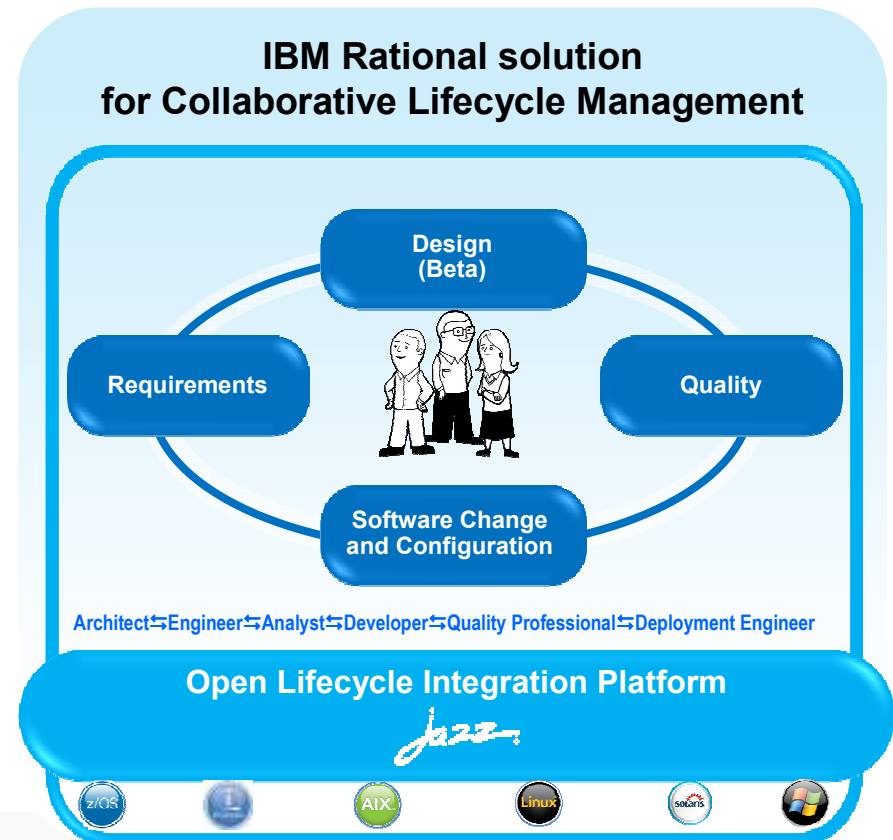


GET INVOLVED AND CONTRIBUTE!

Integrated and effective Application Lifecycle Management

Enhanced and expanded for broader focus on the five imperatives for effective ALM

- Centralized administration, evaluation and roll-out capabilities for faster, easier, incremental deployments
- Incremental, flexible upgrade allows each role on a team to upgrade at their own pace
- Integrated software design for broader collaboration and traceability
- Optimized support for Mobile, SAP and IBM WebSphere Application Server



NEW

- IBM Solution for Collaborative Lifecycle Management
 - Comprised of Rational Requirements Composer v4.0, Rational Team Concert v4.0, and Rational Quality Manager v4.0
 - [New Rational Software Architect integration through Rational Software Architect Design Manager](#)

“Once fully implemented, we expect to reduce friction, provide value to customers in each delivery stream, reduce rework by improving end-to-end collaboration and planning consistency, and reduce compliance efforts by automating key process tasks and deliverables.”

– Stephan Pauletto, Engagement Manager, IMS Health

Danske Bank Group

Adopts agile development practices and reduces time to market

The need:

Danske Bank Group wanted to deliver new services faster. It sought to reduce time to market from approximately 14 months to nine months and increase IT development efficiency by 10 percent.

The solution:

The bank adopted agile development methods supported by IBM Rational Team Concert software to improve the quality of deliveries and to achieve work processes that come more naturally to employees.

The benefit:

- Reduces time to market and improves quality through an iterative development model and processes
- Increases efficiency, team collaboration and transparency across geographically distributed teams
- Supports flexible agile development methods that are customized to meet the needs of the company

“IBM Rational Team Concert is the backbone of Danske Bank’s agile development process and is adjusted to the special needs of the bank”

—Peter Rasmussen, senior vice president, IT development processes and tools, Danske Bank Group

Solution components:

- IBM Rational Team Concert™



BRZ, Main IT Service Provider for the Government of Austria

Leverages Collaborative Lifecycle Management to extend the value of their heritage solutions

Business challenges:

- Extending the value of existing solutions using a Service Oriented Architecture
- Modernization of the Austrian Federal tax applications, "E-Finanz programm"

Solution:

- Rational Team Concert and Rational Quality Manager along with other Rational products were deployed in a Pilot-Project

Benefits:

- End-to-end management of E-Finanz development activities
 - Successful Rational JAZZ pilot evaluation project

"[We] evaluated the Rational JAZZ platform...solution satisfies the requirements...for end-to-end management of our development activities."

– PhD Wolfgang Bauer, Head of Financial Applications at Bundesrechenzentrum GmbH, (Federal Computing Centre of Austria)



Solution components:

Requirements management

- IBM Rational Requirements Composer

Team Collaboration

- IBM Rational Team Concert

Test Automation

- IBM Rational Functional Tester
- IBM Rational Web Services Tester

The IBM Rational Software Development Organization

Reduced headcount per project by more than 50% Collaborative Lifecycle Management (CLM) and agility@scale practices

Business challenge:

- Teams in silos with own culture, processes, tools including “home grown” & acquired
- Little collaboration between teams, across domains like development, testing & support

Solution:

- Rational Requirements Composer, Rational Team Concert, Rational Quality Manager – *our turnkey solution for collaborative lifecycle management*

Benefits:

- Recognized & met geographic, organizational & infrastructure challenges
- Dramatic improvements in development organization efficiency, costs & quality
- Improved customer satisfaction

Measurable results:

Metric	2006 Measurement	2008 Measurement	2009 Measurement
On Time Delivery	47%	82%	100%
Defect Backlog	9+ Months	4.5 Months	3.5 months
Beta Defects Fixed Before GA	3%	88%	94%
Customer Calls	-135,000	-24%	-16%
Customer Defects Arrival	-5,900	-22%	-20%
Lab Advocates	177	240	255
Lab Advocate Companies	203	251	269
Design Partners	25	74	91
Beta Programs	9	26	33
Transparent Products	0	1	7
Ship Readiness	5.4	7.3	7.6

“We have evolved from using agile development in ~5% of projects in 2007 to 80% in 2010. We are doing more with less, facilitating faster processes, launching higher quality releases, getting to market faster, releasing products that better reflect real customer needs, and getting better at predicting based on our ability to proactively adjust and steer our course.”

Read the Case Study in this [ebook](#) (registration required)

QUESTIONS

www.ibm.com/software/rational



www.ibm.com/software/rational

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