

Innovate2011

IBM Rational 软件创新论坛



Software. Everywhere.



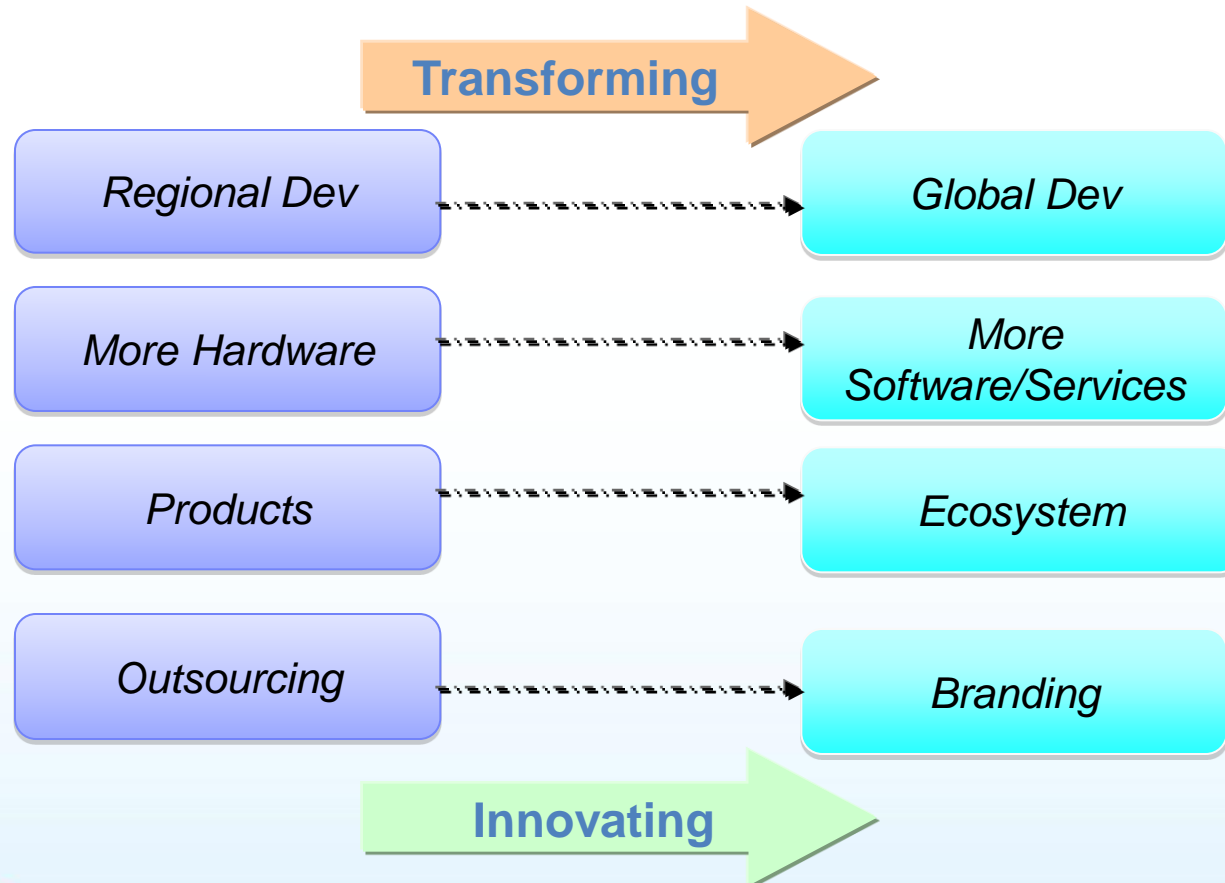
Globally Integrated Development Transformation

Matt Wang, PhD

Vice President, IBM China Development Labs
& AP North Cluster Labs

Challenges

How to catch up the society and industry changes ?



Improving Software-driven Innovation

Software and systems delivery

Integrate

*Connecting process
and information*

Software, data, and tools

Collaborate

Unifying teams

Projects, and
organizational cultures

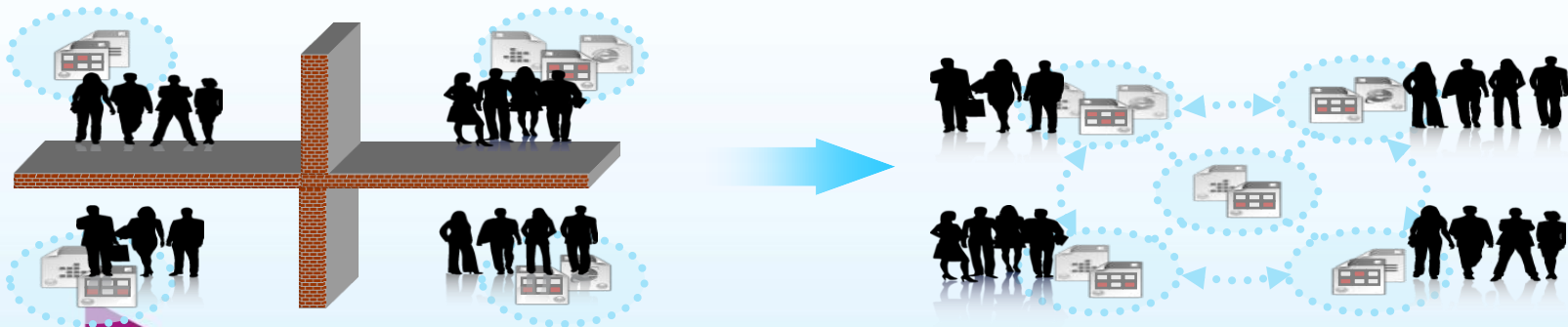
Optimize

Simplifying governance

Plans, scope,
and measures

What enables an organization like ours to be more integrated, more collaborative & more optimized?

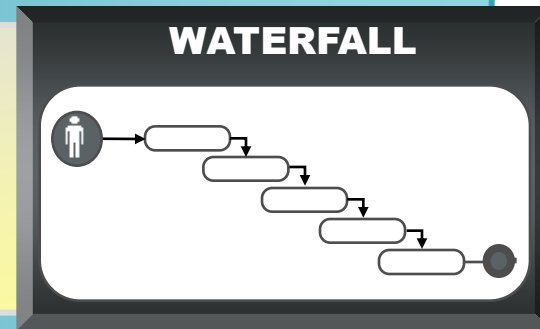
- Improve communication & collaboration
- Overcome culture difference
- Optimize process
- Provide and integrate the tools



IBM Software Development Transformation

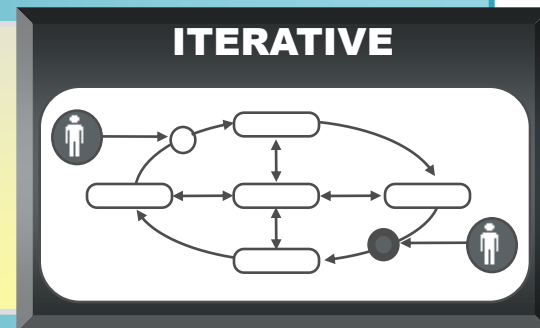
1980's

- **Waterfall development**
 - Rigid, late feedback, slow reaction to market changes



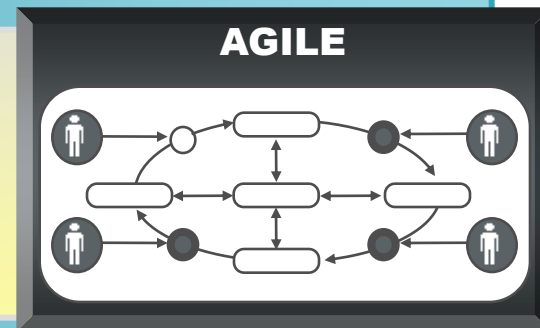
1990's

- **Iterative development**
 - Customized RUP, community source and component reuse, emphasis on consumability



Present

- **Agile / Lean development**
 - Global reach, agile practices, outside-in development, tools and not rules

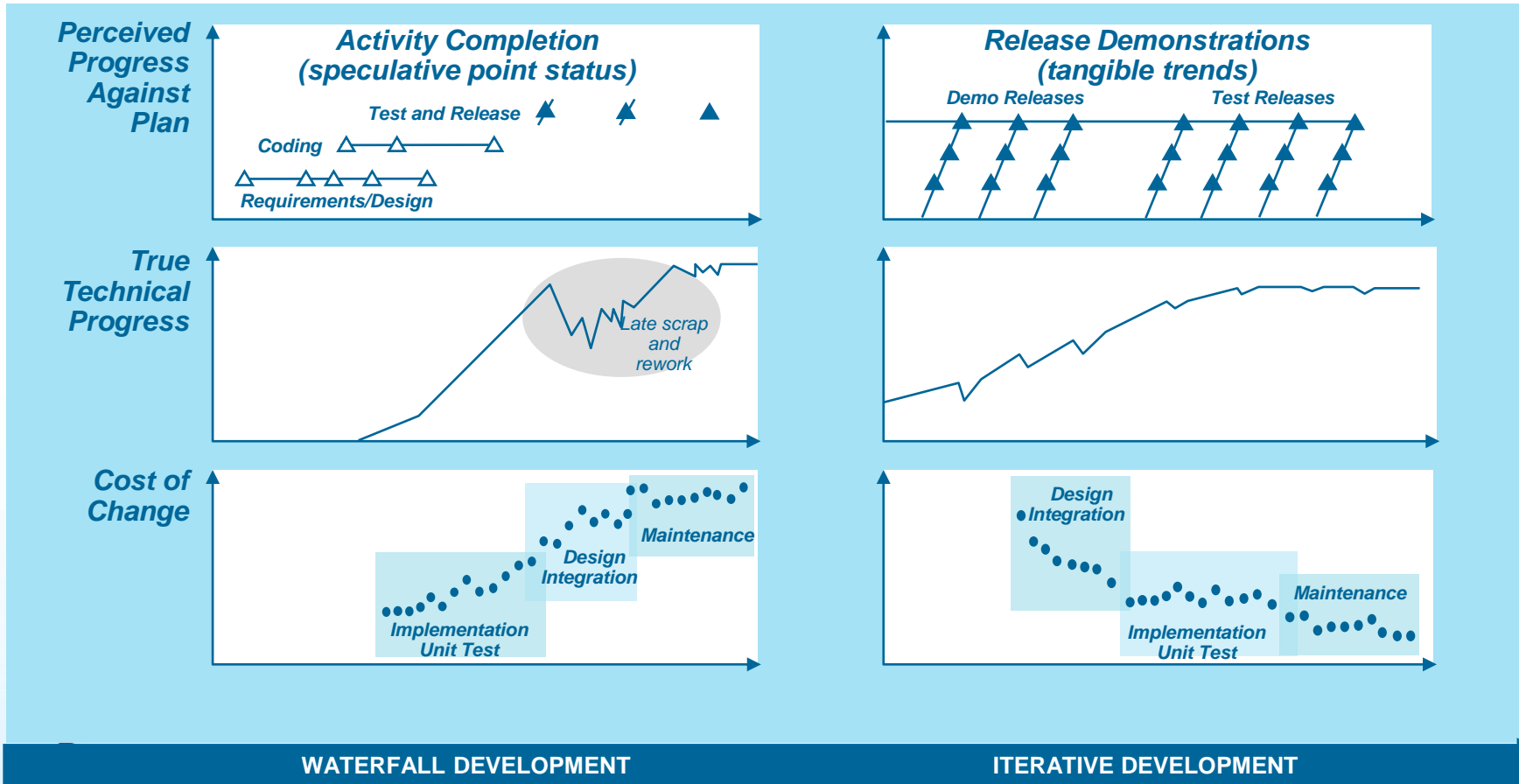


Continuous Learning and Adaptive Planning

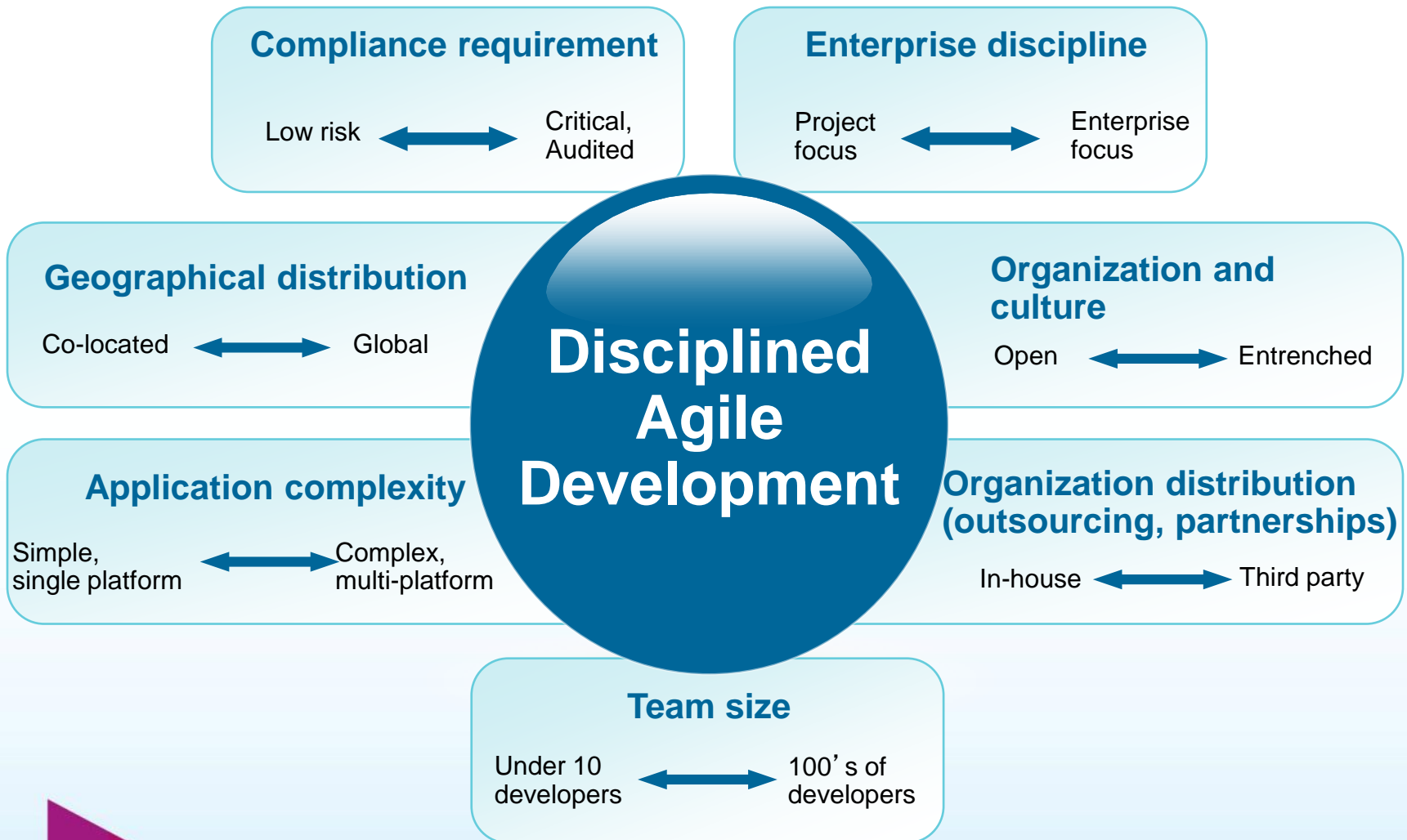
Comparison between waterfall and iterative dev

Escalating change costs over time due to late integration and custom architectures

Reduced change costs over time due to continuous integration and sound architecture



What is agility@scale™?



Jazz is IBM's initiative for improving collaboration across the software and systems lifecycle

COMMUNITY

Transparent collaboration and exchange of ideas



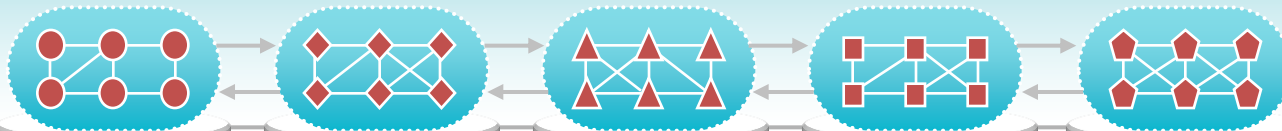
PRODUCTS

Application lifecycle tools that leverage the Jazz platform

PLATFORM



*Open Services for Lifecycle Collaboration
and
Integration Services*



Application frameworks and toolkits

Jazz products comprise the IBM Rational solution for Collaborative Lifecycle Management

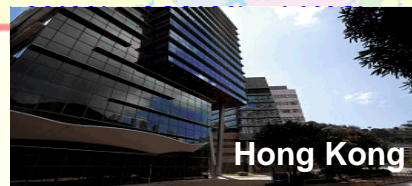
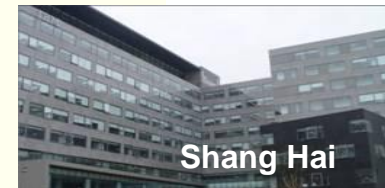


China Development Labs Overview

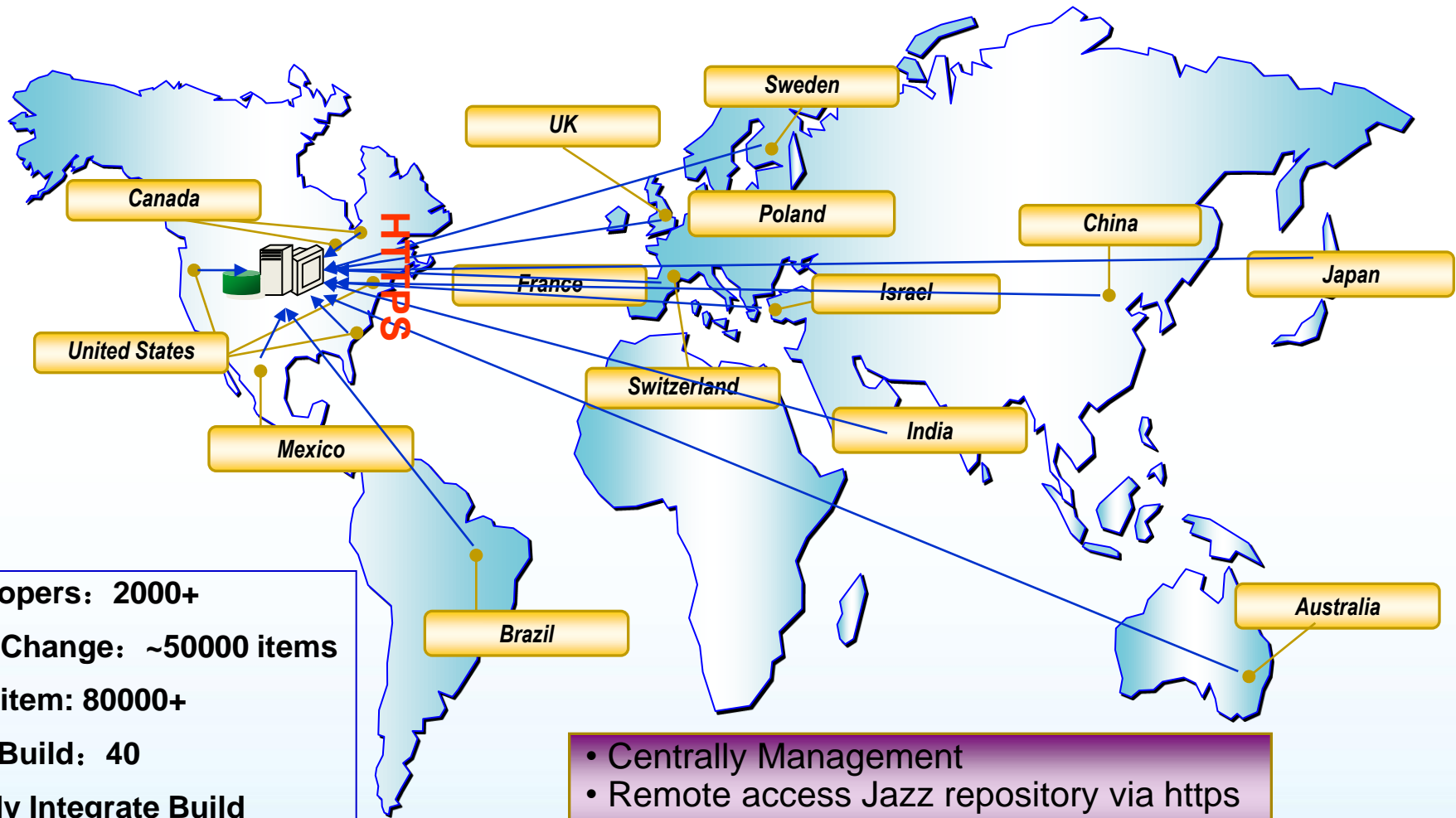
China Talents
International Management

China Innovation
Global Solutions

- ❖ Founded in 1999
- ❖ Over 5000 employees
- ❖ One of WW top software development lab
- ❖ With all 5 software Brands
- ❖ Emerging Technology Institute
- ❖ Industry Solutions Lab
- ❖ Vendor CoE



A Global Development Team

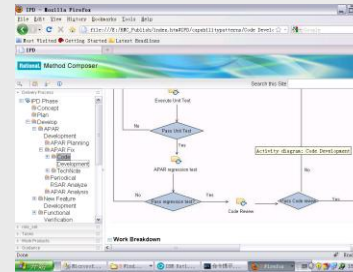


Development Framework at CDL

Process Definition

Development Process

QM Process



Process & Platform Adoption



Dev Solution

QM Solution

Industry Solution

Process Automation

Measurement & Development Analytics

Rational Insight



Feedback & Optimization



Rational Method Composer manages processes centrally in CDL

Rational Method Composer

Development Process > Develop > Iteration [1..n] > Escalation Development

Activity: Escalation Development

Work Breakdown Structure

Workflow

```
graph LR; Start(( )) --> D1{ }; D1 -- "Product Issue" --> CD[Code Development]; CD --> D2{ }; D2 --> D3{ }; D3 -- "Need Tech Note" --> TNW[Tech Note Writing]; D3 --> D4{ }; D4 -- "Test Fix Needed" --> MTF[Make Test Fix]; D4 --> End(( )); TNW --> End2(( )); MTF --> End2;
```

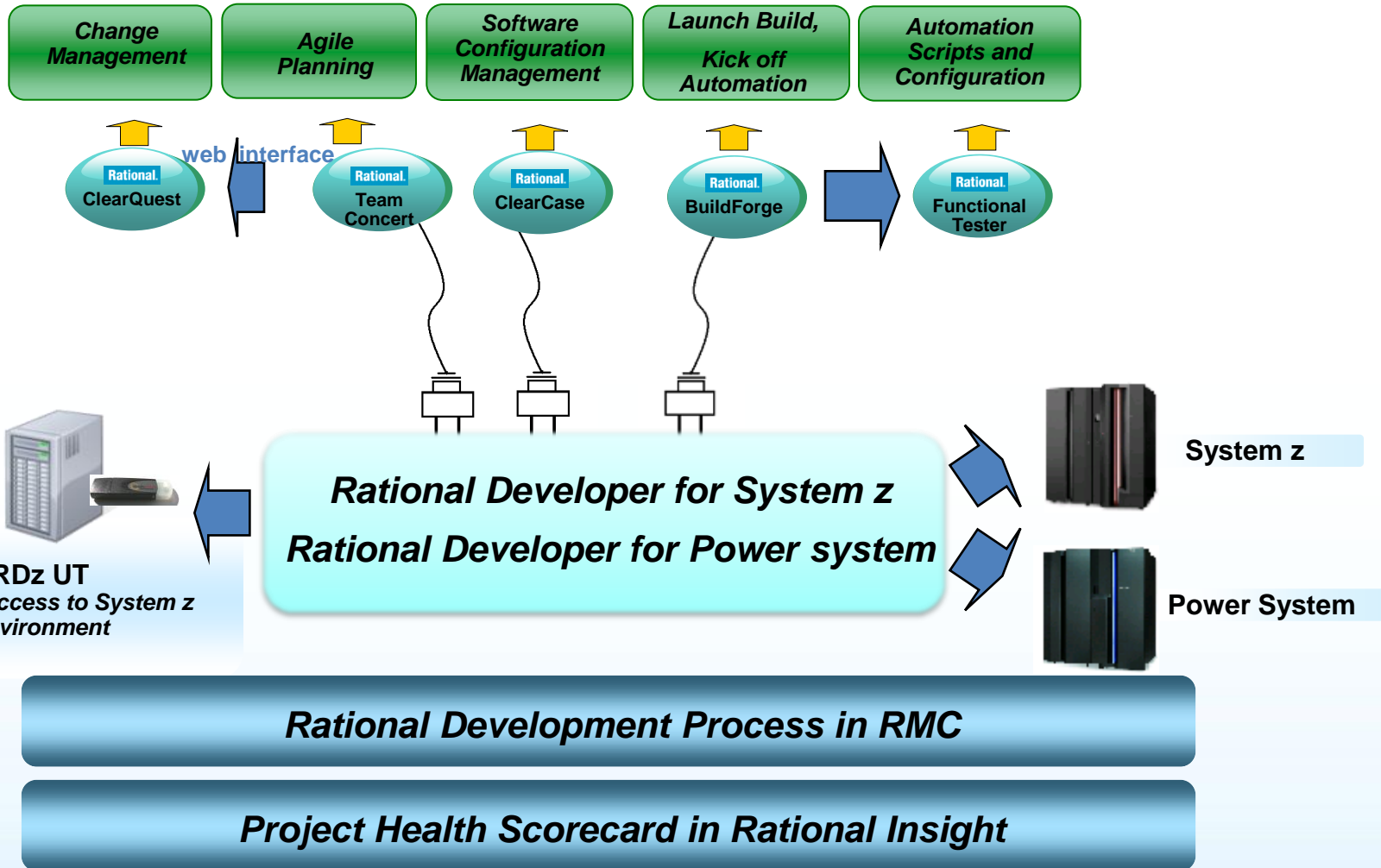
Work Breakdown

Expand All Sections Collapse All Sections

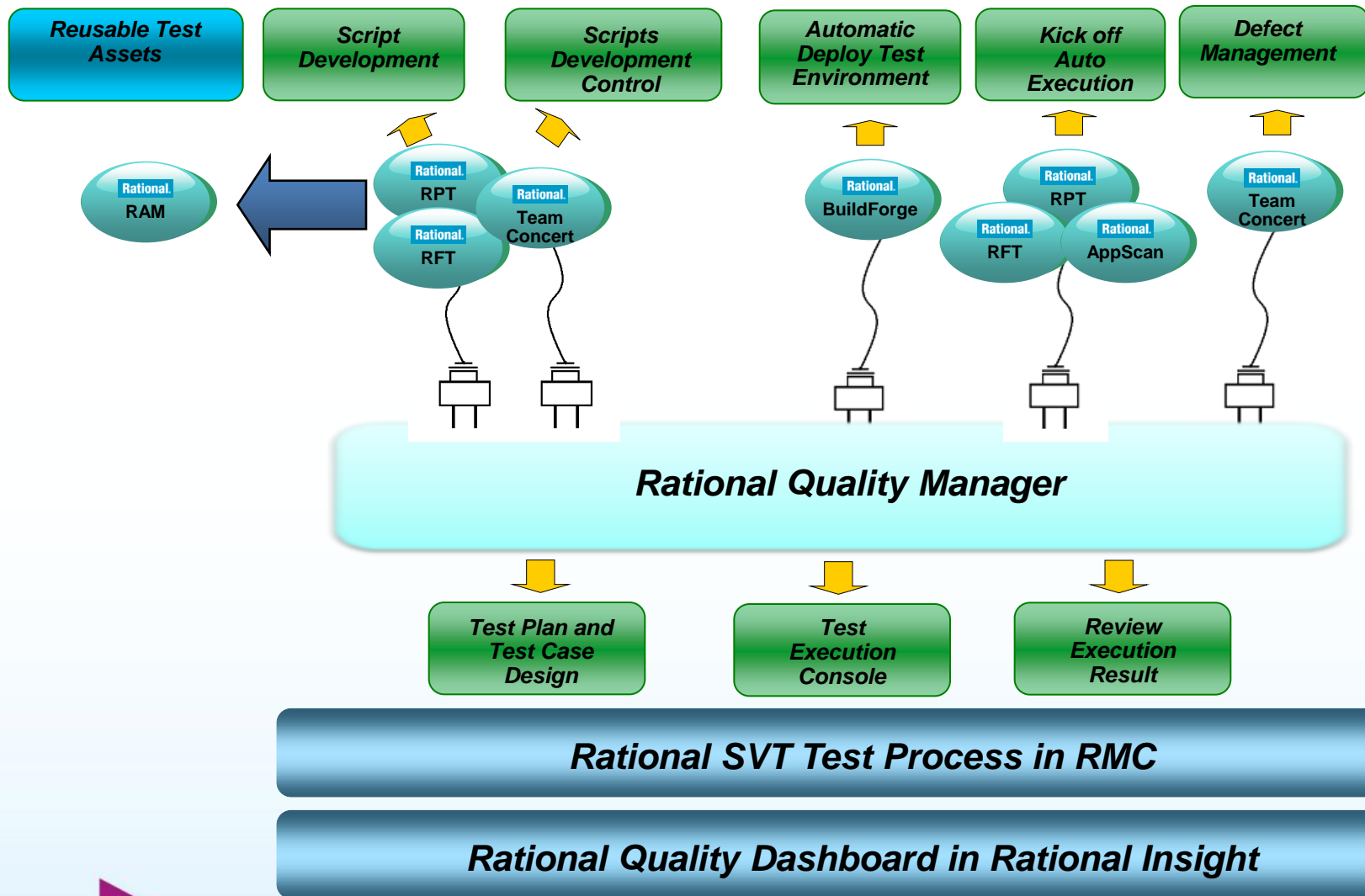
Breakdown Element	Planned
Code Development	✓
Tech Note Writing	✓
Make Test Fix	✓

Back to top

Development Platform in CDL



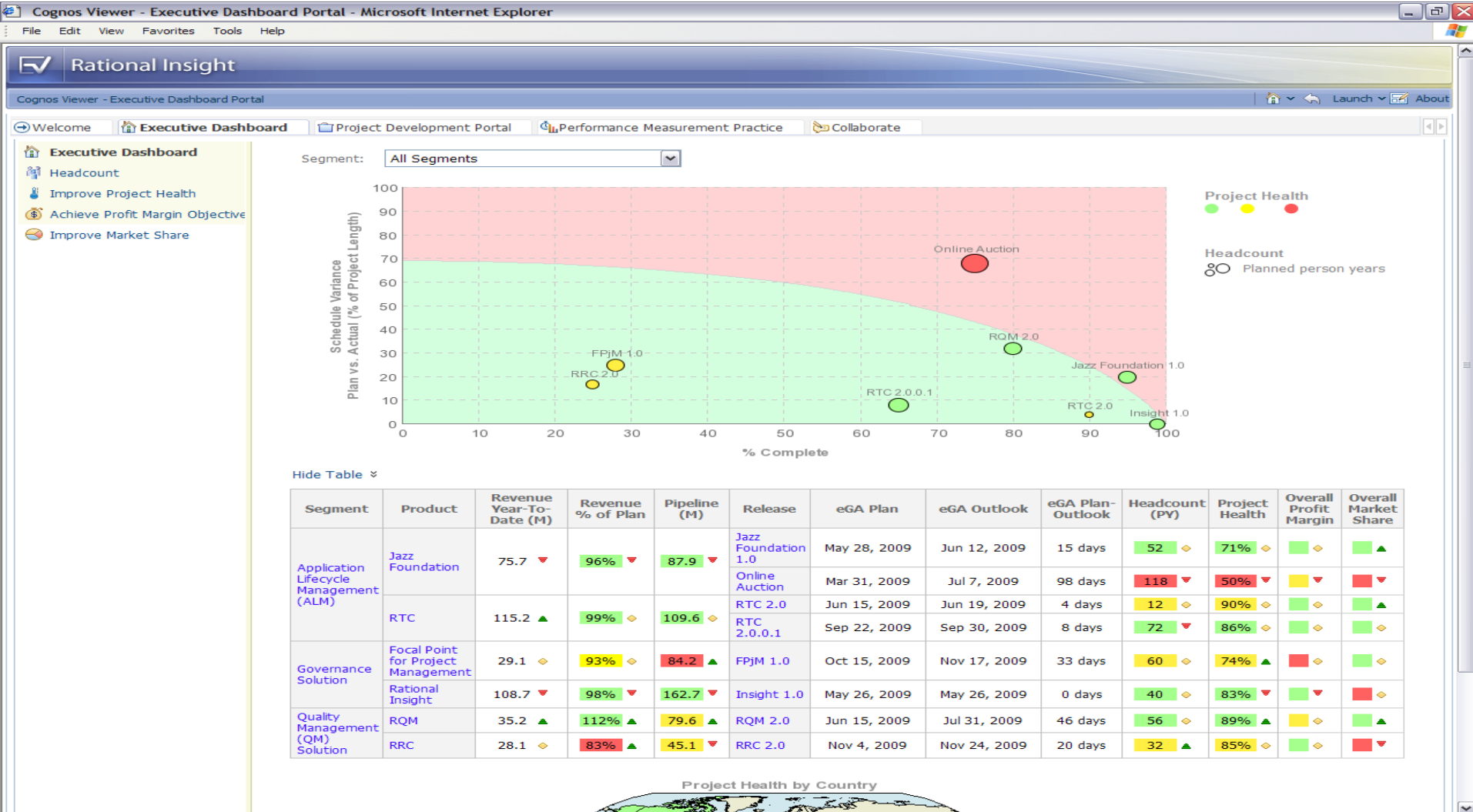
Testing Platform in CDL



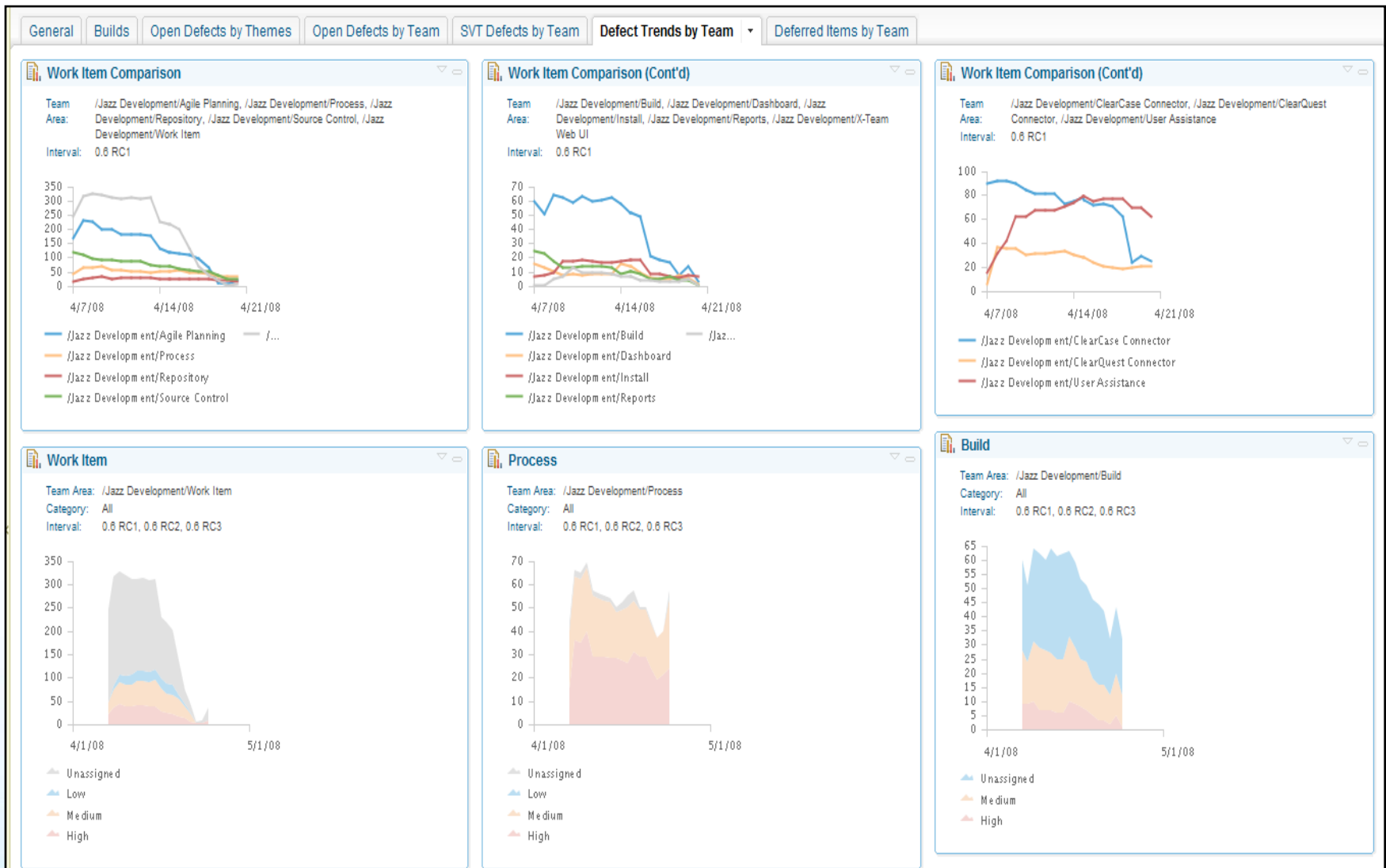
Example of In-process Metrics

Requirements	Change Management	Test	Customer Feedback	Iterative Development
Use Cases Analyzed	Defects by Priority	Test Cases Passed	Customer Defects Entered by Feature	Iteration Completion by Team and Place
Use Cases Designed	Defects by Use Case	Test Cases Failed	Customer Defects Fixed by Iteration	Team and Individual Velocity
Use Case Traced to Tests	Defects by Team	Total Test Cases	Percentage of Defect Escapes	Project Cost Variance
Use Case Volatility	Defects by Feature	Code Coverage by Feature	Number of customers Providing Feedback	Work Item Completion Percentage
Requirements Traced to Use Case	Defects Status per Release	Escapes	Customer work Items per Iteration	Project Schedule Variance
Requirements Analyzed	Defect by Age	API Tests vs GUI Tests	Enhancement Request Aging	Releasability Index
Requirements Traced to Tests	Defects by Design Artifact	Glide Path	Defect Aging	
	Project Cost and Schedule Variance			

Executive Dashboard snapshot



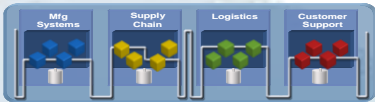
Evidence Based Management



Rational Software Delivery Platform powered by Jazz



Mainframe



Distributed



Embedded

Software Type

SDP

Cloud Ready

Process and Project Management

Change and Release Management

Quality Management

Collaboration

Req. Management

Arch. & Construction

Solves :
 Complexity Challenge
 Process Challenge
 Team Challenge
 Tools Challenge



Software Delivery Platform powered by Jazz

Foundation Technology

Pre-Eclipse

Eclipse

Jazz

Individual Tools

Application lifecycle management

Collaboration lifecycle management

Innovate2011 IBM 開發者大會



www.ibm.com/software/rational

© Copyright IBM Corporation 2011. All rights reserved. The information contained in these materials is provided for informational purposes only, and is provided AS IS without warranty of any kind, express or implied. IBM shall not be responsible for any damages arising out of the use of, or otherwise related to, these materials. Nothing contained in these materials is intended to, nor shall have the effect of, creating any warranties or representations from IBM or its suppliers or licensors, or altering the terms and conditions of the applicable license agreement governing the use of IBM software. References in these materials to IBM products, programs, or services do not imply that they will be available in all countries in which IBM operates. Product release dates and/or capabilities referenced in these materials may change at any time at IBM's sole discretion based on market opportunities or other factors, and are not intended to be a commitment to future product or feature availability in any way. IBM, the IBM logo, Rational, the Rational logo, Telelogic, the Telelogic logo, and other IBM products and services are trademarks of the International Business Machines Corporation, in the United States, other countries or both. Other company, product, or service names may be trademarks or service marks of others.