



IBM Software

UK Innovate 2010

The Rational Software Conference

Smarter software for a smarter planet.



IBM Software

UK Innovate2010

The Rational Software Conference

Road to Development Intelligence

IBM Software, Rational

Per Kroll

Chief Solutions Architect

Measured Improvements and RPC

Smarter software for a smarter planet.



Managing risk requires measuring complexity and causality

Development Intelligence is the ability to have these measures

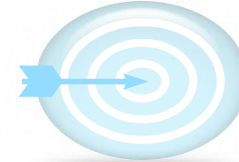
Efficiency



Quality



Innovation



Product Profitability

Agile Adoption Level

Risk Mitigation

Workforce Optimization

Technical Debt

Product Variance And Health

Security

Enterprise Alignment

DESCRIBE

What happened and where the problem is

PREDICT

What could happen if these trends continue

PRESCRIBE

How can we achieve the best outcome

Analytics Maturity



Structured Improvement Mandates a Control framework

General Manager	Value Business Objectives	Value Metrics e.g., ROI, Profit, Market Share
-----------------	---------------------------------	--

SVP's VP's Directors	Efficiency Operational Objectives	Operational Effectiveness Metrics e.g., Time to market, productivity
----------------------------	---	---

Control Best practices And tools	Control Metrics subjective	Control Metrics objective	Governance Dashboard compliance
--	----------------------------------	---------------------------------	---------------------------------------



Executive Dashboard Evolution



March 2009

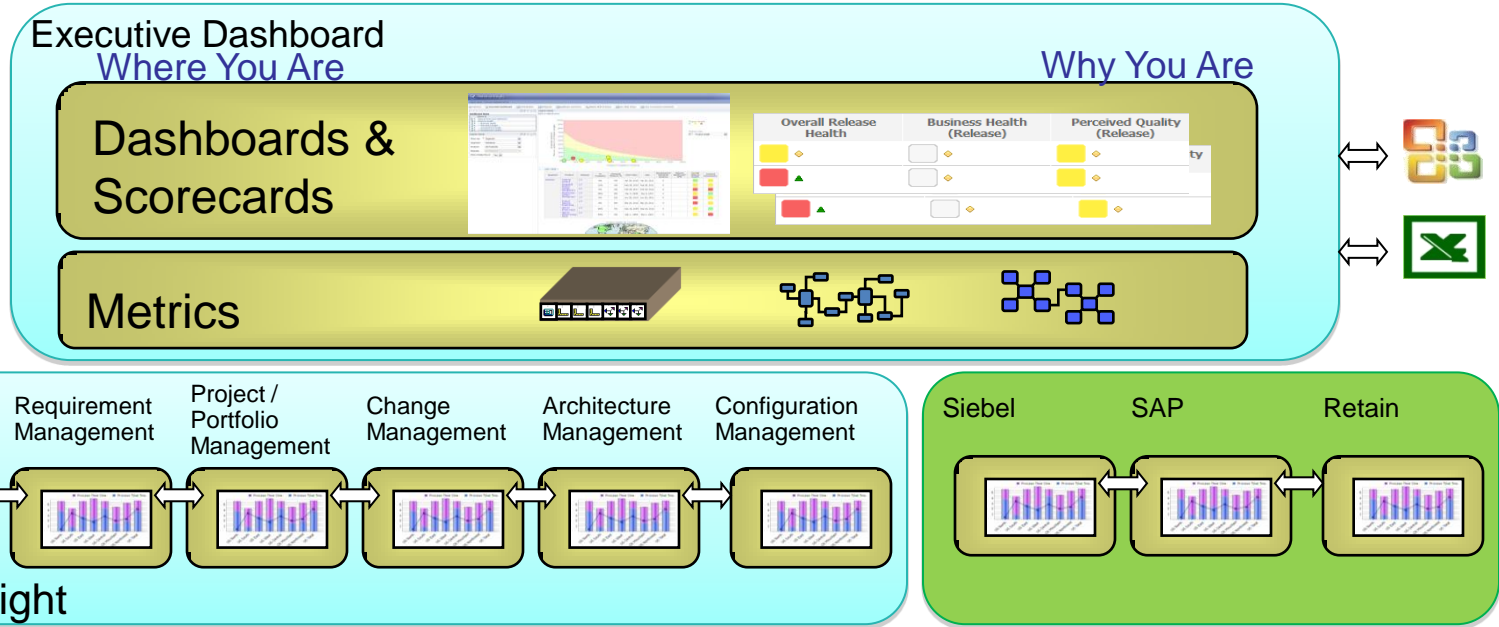
- Mapping Low Level to Business Objectives
- Define High Level Architecture / Metrics
- “Forced” Internal Adoption
- Evaluate Data Sources



Rational Executive Dashboard

Scorecards based on metrics

Metrics computed using Insight data warehouse artifacts

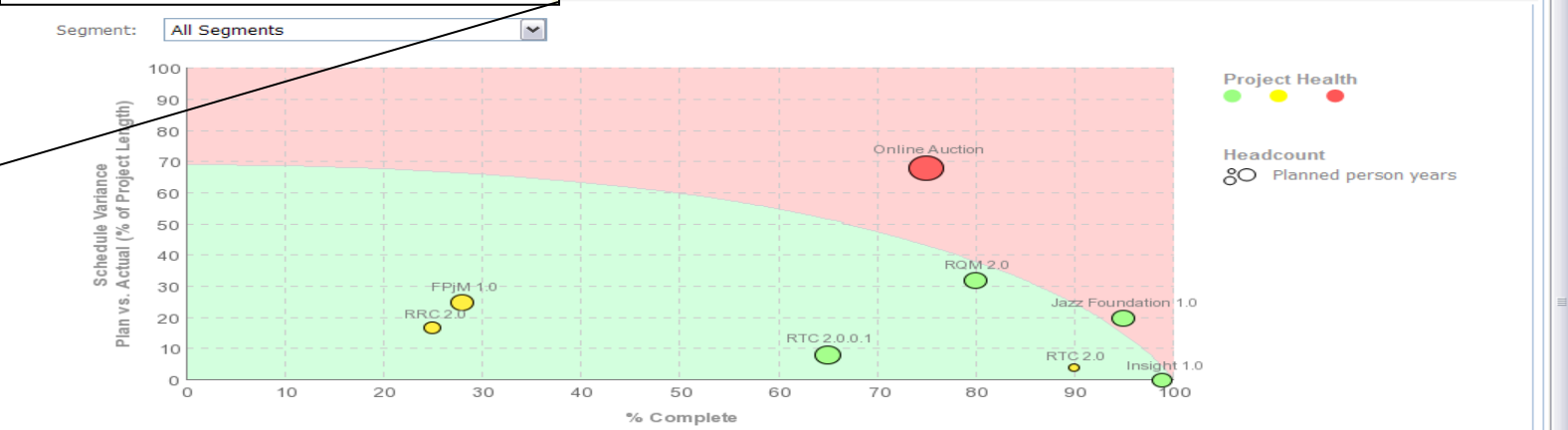


- Headcount
- Improve Project Health
- Achieve Profit Margin Objective
- Improve Market Share

Welcome Executive Dashb

Executive Dashboard

- Headcount
- Improve Project Health
- Achieve Profit Margin Objective
- Improve Market Share

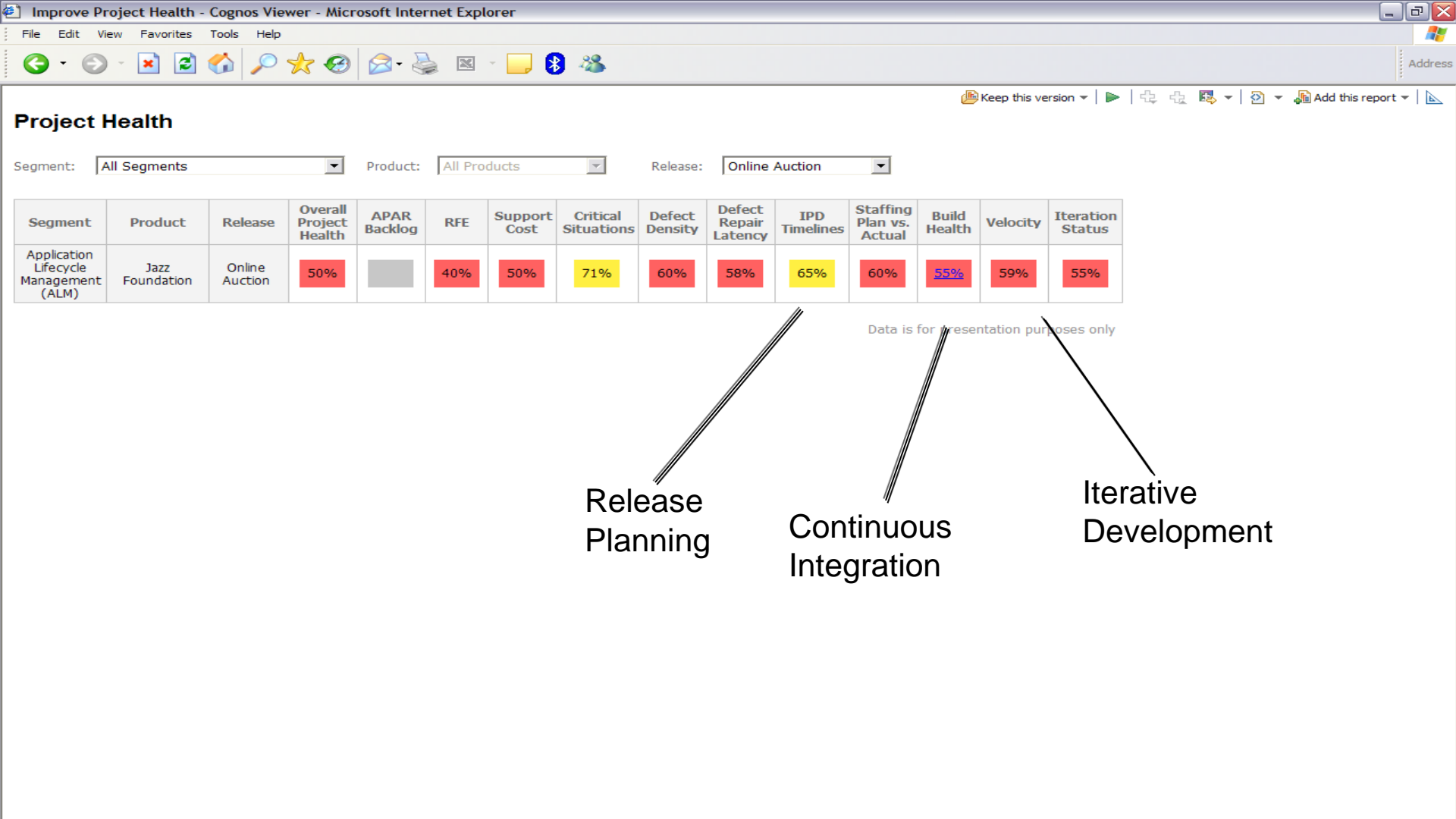


Hide Table ▼

Segment	Product	Revenue Year-To-Date (M)	Revenue % of Plan	Pipeline (M)	Release	eGA Plan	eGA Outlook	eGA Plan-Outlook	Headcount (PY)	Project Health	Overall Profit Margin	Overall Market Share
Application Lifecycle Management (ALM)	Jazz Foundation	75.7 ▼	96% ▼	87.9 ▼	Jazz Foundation 1.0	May 28, 2009	Jun 12, 2009	15 days	52 ◇	71% ◇	Green ◇	Green ▲
	RTC	115.2 ▲	99% ◇	109.6 ◇	Online Auction	Mar 31, 2009	Jul 7, 2009	98 days	118 ▼	50% ▼	Yellow ▼	Red ▼
					RTC 2.0	Jun 15, 2009	Jun 19, 2009	4 days	12 ◇	90% ◇	Green ◇	Green ▲
Governance Solution	RTC 2.0.0.1	29.1 ◇	93% ◇	84.2 ▼	FPJM 1.0	Oct 15, 2009	Nov 17, 2009	33 days	60 ◇	74% ▲	Red ◇	Green ◇
	Rational Insight				May 26, 2009	May 26, 2009	0 days	40 ◇	83% ▼	Green ▼	Red ◇	
Quality Management (QM) Solution	RQM	35.2 ▲	112% ▲	79.6 ▲	RQM 2.0	Jun 15, 2009	Jul 31, 2009	46 days	56 ◇	89% ▲	Yellow ◇	Green ▲
	RRC	28.1 ◇	83% ▲	45.1 ▼	RRC 2.0	Nov 4, 2009	Nov 24, 2009	20 days	32 ▲	85% ◇	Green ◇	Red ▼

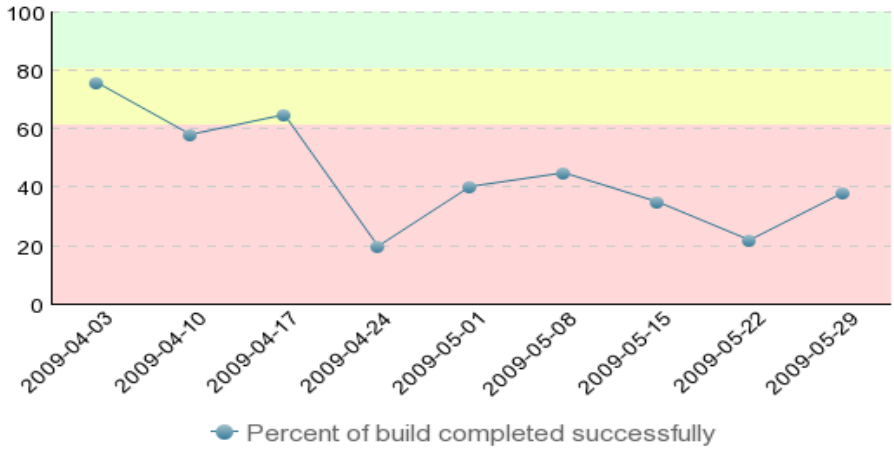
Project Health by Country





Build Health

(%)



Data is for presentation purposes only

Executive Dashboard Evolution



January 2010

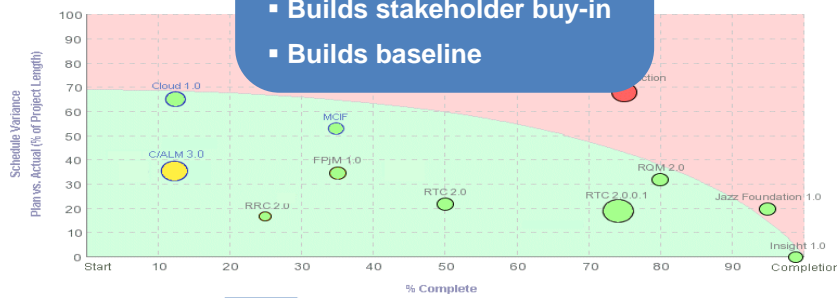
- Automate Existing Operations
- Refined Data Collection
- Repeatable Processes
- Built in memory for Customer Reuse
- Mapping Low Level to Business Objectives
- Define High Level Architecture / Metrics
- “Forced” Internal Adoption
- Evaluate Data Sources



Automate Existing Operations

- Why do this?**
- Non-disruptive
 - Design validation
 - Builds stakeholder buy-in
 - Builds baseline

Rational <xx> Development Scorecard - <month> 2009																		
Portfolio Dates as of MAY		Maintaining Release Dates			Improving Customer Satisfaction			Extending Our Reach			Achieving Business Results		Controlling Expenses		Overall Status			
Planning	Product	Plan e GA	Current e GA	Dev Phase	Plans Published	A PAR Y/E Booking Goal	A PAR Current Booking	A PAR 3 Month Arrivals Avg	RFE 30 Day	Support Enable	Sales Enable	Green Thread	Alternate Packaging	Pipeline		Revenue	HC	HC Delt
SHIPPED SINCE LAST MOR																		
IN PROCESS																		
Totals																		



Cognos Viewer - Executive Dashboard Portal - Microsoft Internet Explorer

Rational Insight

Dashboard Items

- Rational Executive Dashboard
- Improve Health
- Business Health
- Perceived Quality
- Development Health
- Development Quality

Filter

Show by: Segment

Segment: All Segments

Product: All Products

Release: All Releases

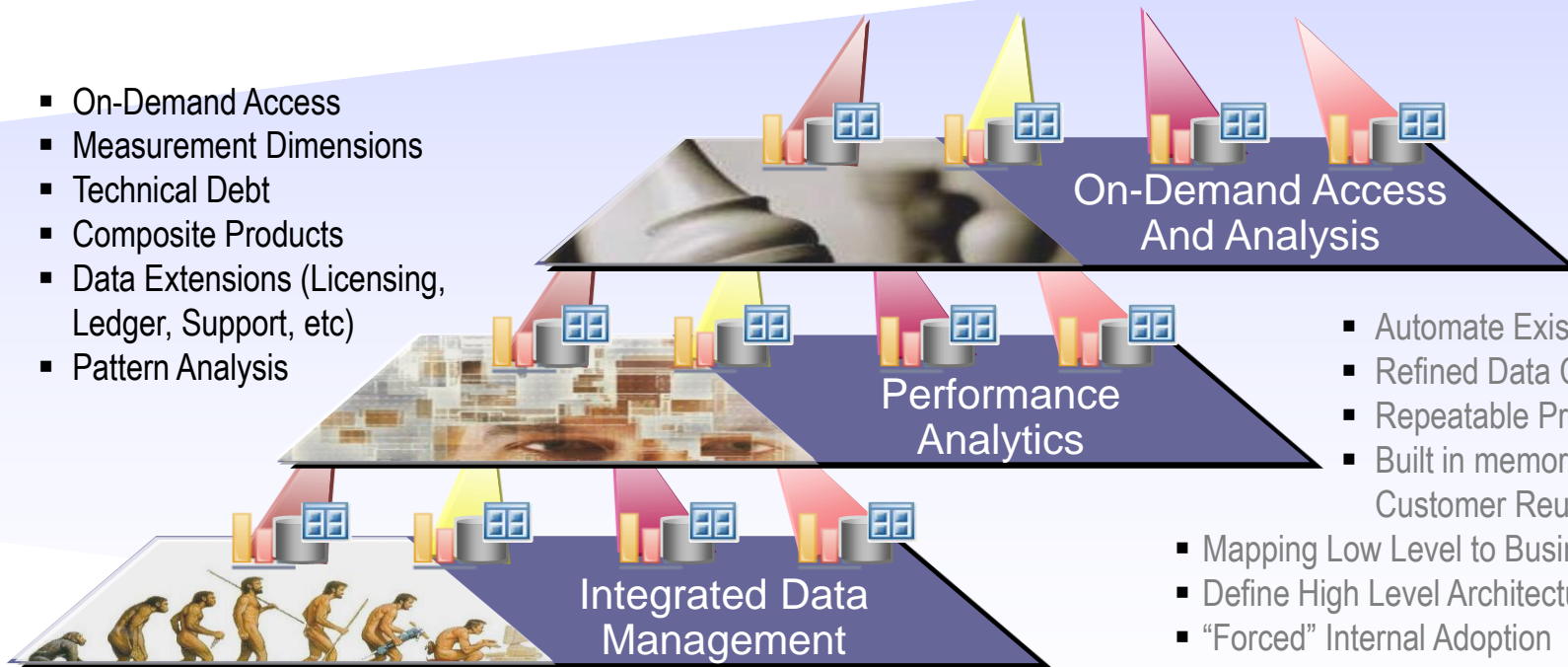
Show Empty Rows: Yes

Project Health: Green (Good), Yellow (Warning), Red (Critical)

Segment	Product	Revenue Year-To-Date (M)	Revenue % of Plan	Pipeline (M)
Application Lifecycle Management (ALM)	Jazz Foundation	75.7 ▼	96% ▼	87.9 ▼
	RTC	115.2 ▲	99% ◆	109.6 ◆

Executive Dashboard Evolution

- On-Demand Access
- Measurement Dimensions
- Technical Debt
- Composite Products
- Data Extensions (Licensing, Ledger, Support, etc)
- Pattern Analysis



- Automate Existing Operations
- Refined Data Collection
- Repeatable Processes
- Built in memory for Customer Reuse

- Mapping Low Level to Business Objectives
- Define High Level Architecture / Metrics
- “Forced” Internal Adoption
- Evaluate Data Sources

2011, H1



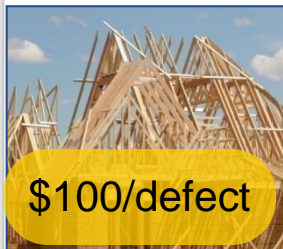
Increasing Accountability of Software: Technical Debt

What is the cost of quality



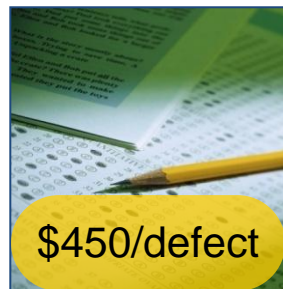
\$25/defect

During the coding phase



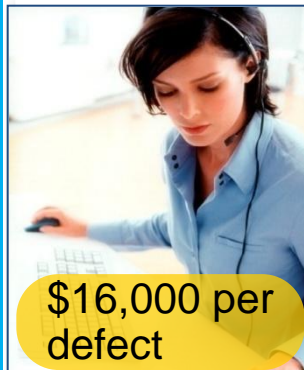
\$100/defect

During the build phase



\$450/defect

During the QA/Testing phase



\$16,000 per defect

Once released as a product (APAR)



\$158,000 per defect

Proactive Situation (PROACTIVE)

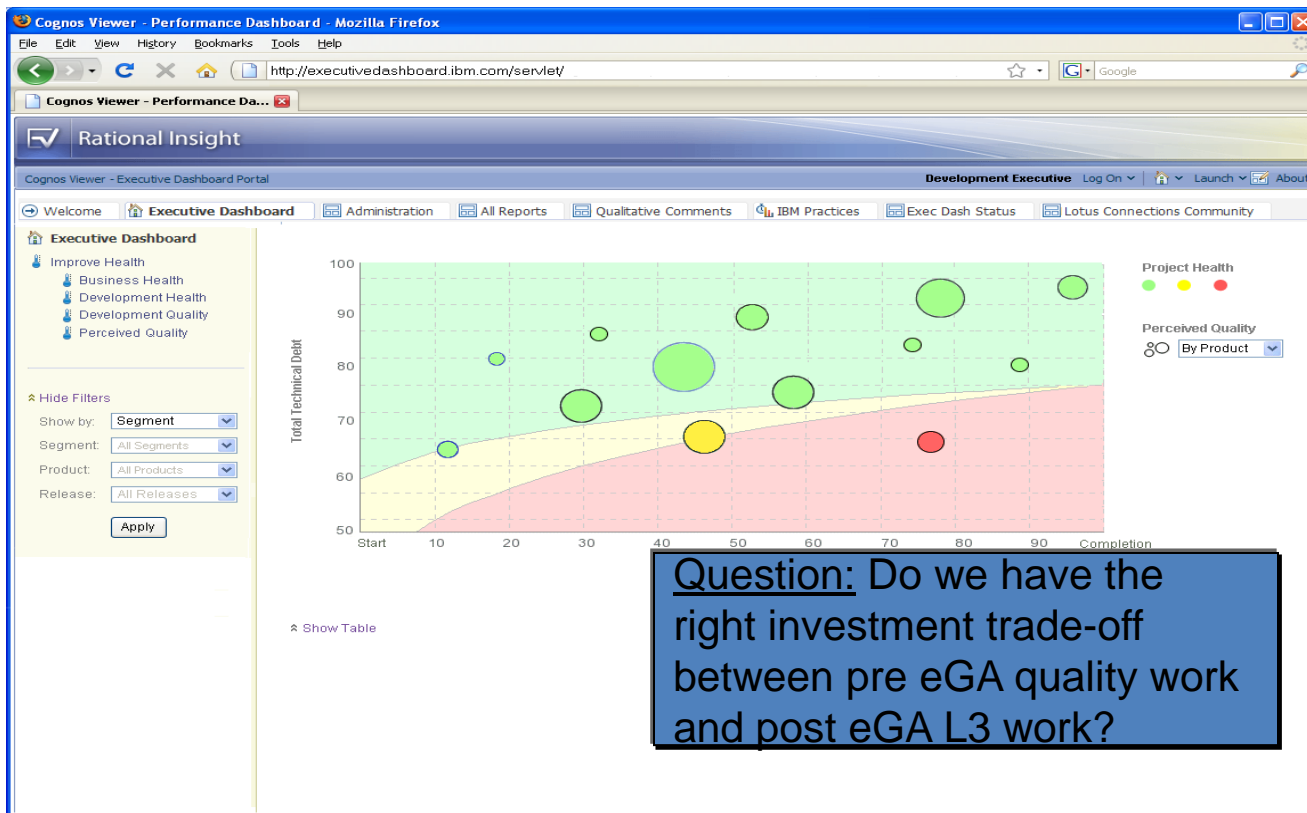


\$241,000 per defect

Product has a critical situation (CRIT)



Technical Debt



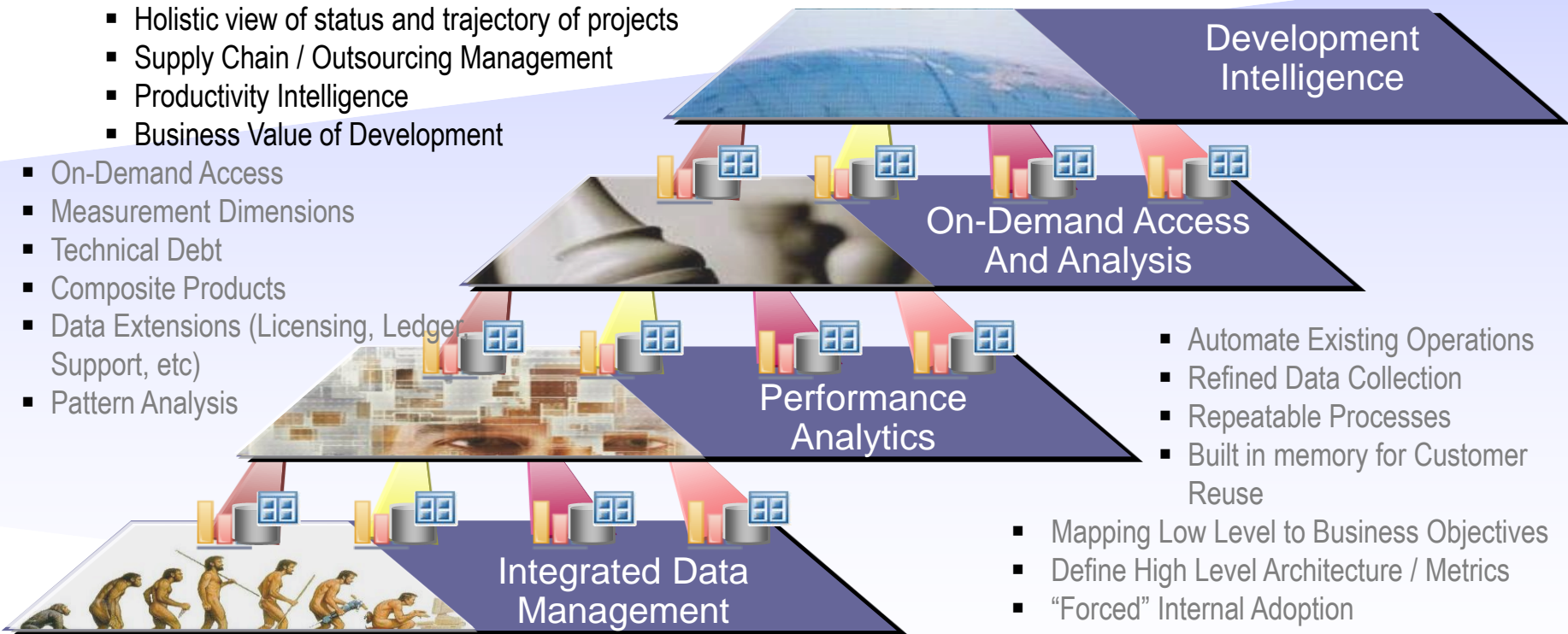
Metrics – Rational 2006 - Present

Metric	Goal	2006 Measurement	2009 Measurement
On Time Delivery	65%	47%	100%
Defect Backlog	3 Months	9+ Months	3.5 months
Enhancements Triage	85%	3%	100%
Enhancements into Release	15%	1%	21%
Customer Sat Index	91%	88%	96%
Beta Defects Fixed Before GA (High severity)	50%	3%	94%
Agile / Iterative Projects	25%	5%	78%

Note: Goals are either internal IBM statistics or industry benchmarks.

Executive Dashboard Evolution

- Holistic view of status and trajectory of projects
- Supply Chain / Outsourcing Management
- Productivity Intelligence
- Business Value of Development
- On-Demand Access
- Measurement Dimensions
- Technical Debt
- Composite Products
- Data Extensions (Licensing, Ledger Support, etc)
- Pattern Analysis

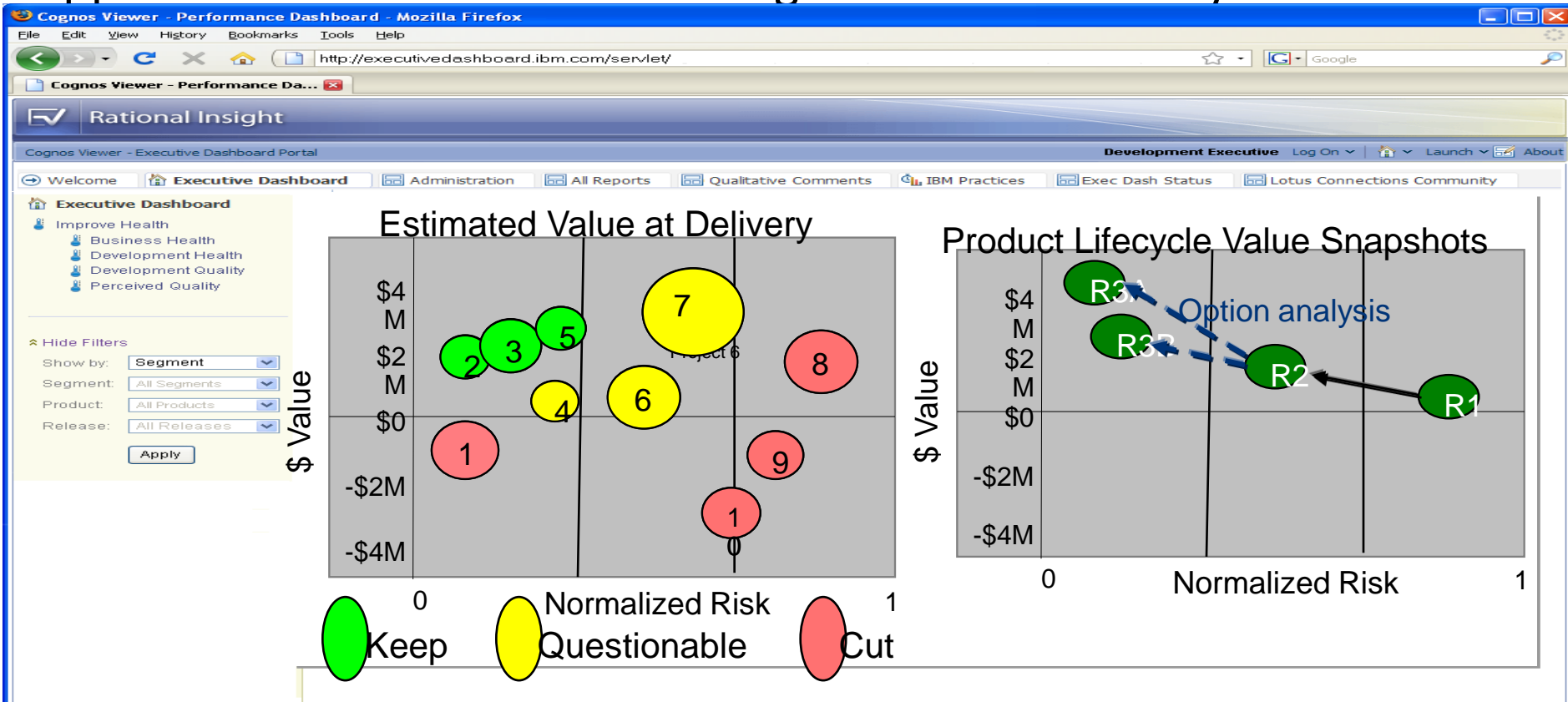


- Automate Existing Operations
- Refined Data Collection
- Repeatable Processes
- Built in memory for Customer Reuse
- Mapping Low Level to Business Objectives
- Define High Level Architecture / Metrics
- “Forced” Internal Adoption
- Evaluate Data Sources

Not Fast Enough



Support Investment Decision Through the Product Lifecycle





Register by February 26 and Save.

Innovate2010

The Rational Software Conference

June 6-10 Orlando, Florida

Let's **build** a smarter planet.



Rational Executive Dashboard: Where can I learn more?

- Executive Dashboard on Jazz.net: <http://jazz.net/projects/rational-insight/exec-dashboard/>
- Measured Improvement and Executive Dashboard thought leader paper: http://www.ibm.com/common/ssi/fcgi-bin/ssialias?infotype=SA&subtype=WH&appname=SWGE_RA_RA_USEN&htmlfid=RAW14149USEN&attachment=RAW14149USEN.PDF
- Contact Krista Meyer (Development Manager) at kdmeyer@us.ibm.com



IBM Software

UK Innovate 2010

The Rational Software Conference



Smarter software for a smarter planet.

