



IBM Software Group

IBM Rational CLM Solution을 이용한

# SW 품질 향상 방안

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Innovation for a smarter planet

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# IBM Rational CLM Solution

CLM

(Collaborative Lifecycle Management)

- 1 6시그마의 개요
- 2 IBM Rational CLM Solution
- 3 IBM Rational PPM Solution
- 4 IBM Rational MDD Solution
- 5 IBM Rational CCM Solution
- 6 Summary
- 7 Q&A

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## IBM Rational CLM Solution

CLM

(Collaborative Lifecycle Management)

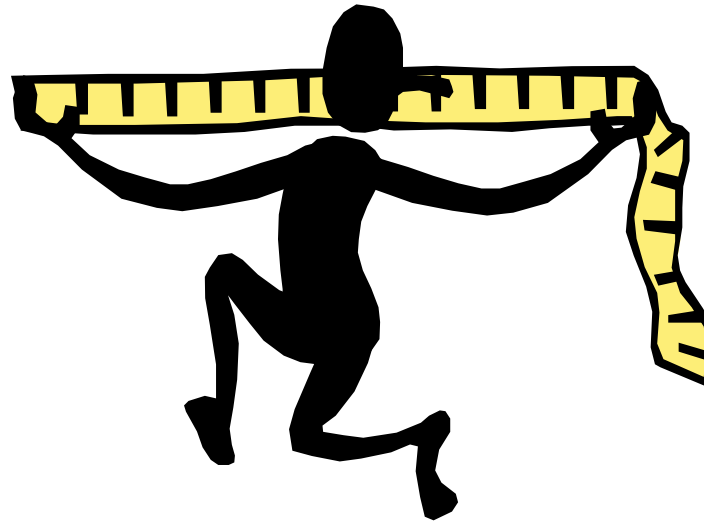
- 1 **6시그마의 개요**
- 2 IBM Rational CLM Solution
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## 6시그마 경영혁신의 성공요인

# 세상에서 가장 먼 거리??



## 6시그마 경영혁신의 성공요인

# 재닛 로빈슨(1950~)

▶ 뉴욕 타임스사  
여성최초 최고 경영자

• 세상에서 가장 먼 거리??  
→ 머리에서 손까지

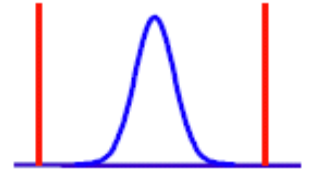
“ **최선**은 바로 지금  
**실행하는 것** ”



## 6 시그마란?

### ❖ 통계적 척도 (Statistical Metric)

- ▶ 제품 및 서비스를 만드는 과정의 능력을 측정하는 척도임.
- ▶ 통계적 의미로 볼 때 100만개 결함기회 중 3.4개의 결함을 의미



### ❖ 사업전략 (Business Strategy)

- ▶ Motorola, TI, Allied Signal, GE 등에 의해 그 성과가 입증



### ❖ 철학(Philosophy)

- ▶ 고객지향
- ▶ 데이터에 의한 의사결정
- ▶ 프로세스 중심



### ❖ 통합된 문제 해결 방법론(Problem Solving Methodology)

- ▶ 문제해결을 위해 통합된 방법과 기법들에 의해 산포를 감소하고, 결함을 최소화하는 것이 증명됨.

## 6시그마로 성공한 회사들...



### [이코노 피플] "내가 '6시그마' 최고CEO"

- 김순택 삼성 SDI 사장, 인사 총무부문까지 적용
- 김쌍수 LG전자 부회장, 임직원 승진에 자격증제
- 이구택 포스코 회장, 임원들까지도 특별교육

발행일 : 2004-07-20 B11 [경제]    기자/기고자 : 최홍섭



누가 ‘6시그마’의 진짜 챔피언 CEO(최고경영자)인가.

6시그마 운동이란, 모토로라에서 시작되어 GE에서 꽃을 피웠고, 최근 국내 기업들도 원가 절감과 생산성 향상을 위해 경영 전반에 걸쳐 경쟁적으로 도입하고 있다. 하지만 개념이 복잡하고 어려워 제대로 적용하기란 쉽지 않다. 따라서 CEO의 관심이 생명이다.

국내에서는 김순택(金淳澤) 삼성SDI 사장, 김쌍수(金雙秀) LG전자 부회장, 이구택(李龜澤) 포스코 회장을 6시그마의 ‘트리오 CEO’로 꼽는다.



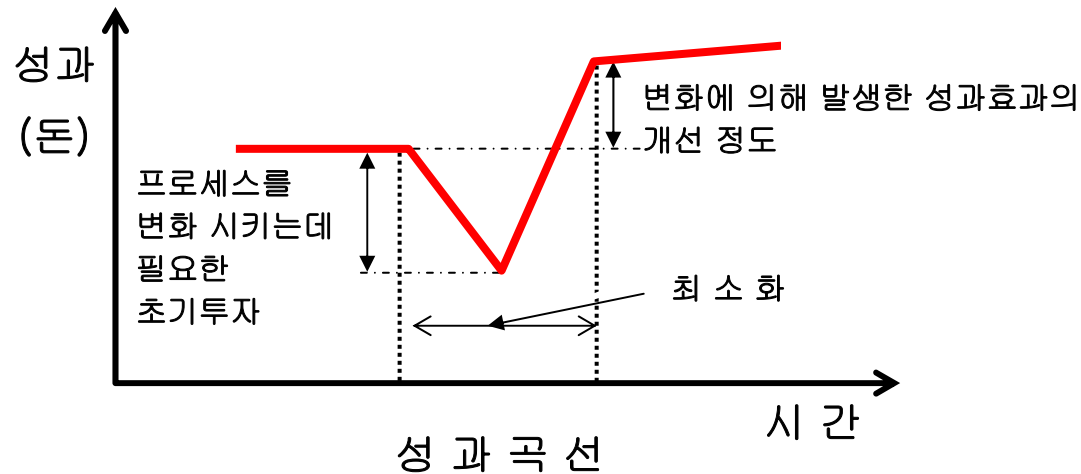
## 6시그마에서 개선의 방법

### ❖ 눈으로 보이는 개선의 중요성

- 개선 결과가 뚜렷하지 않을 경우 프로젝트 실행결과에의 효과를 측정하기가 어려움
- 이러한 개선들은 장기간에 걸쳐서 영향을 미치는 개선일 수도 있음

### ❖ 눈에 보이지 않는 개선

- 예) 고객만족지수 개선, 고객에게 비용 청구하는 경로의 개선,  
고객과의 커뮤니케이션 개선, 광고효과 개선





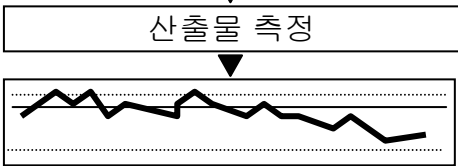
# 6시그마에서 개선의 방법

## DMAIC

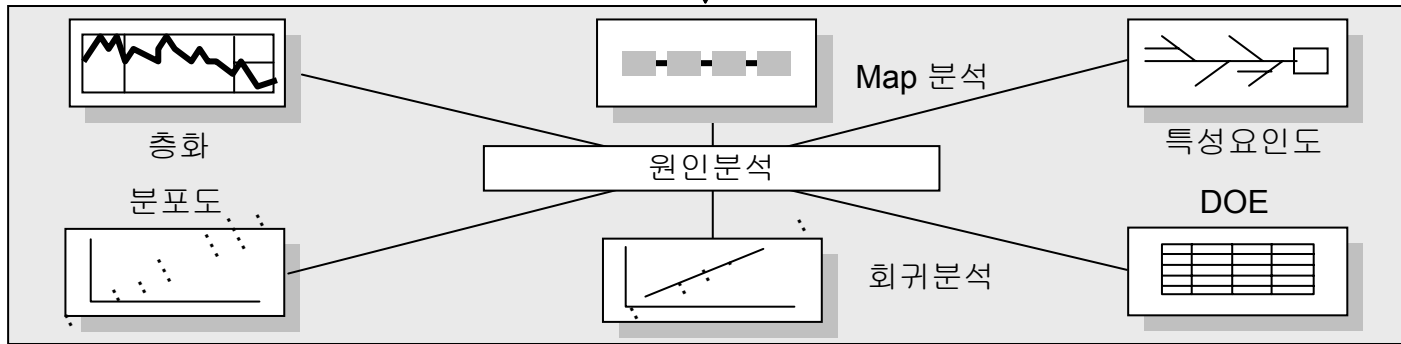
Define



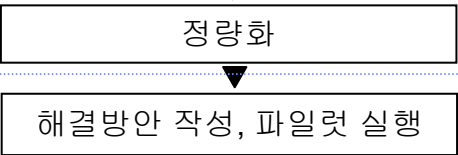
Measure



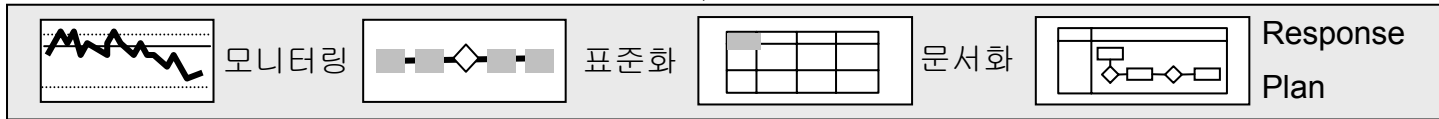
Analyze



Improve



Control



# DMAIC vs. DMADV

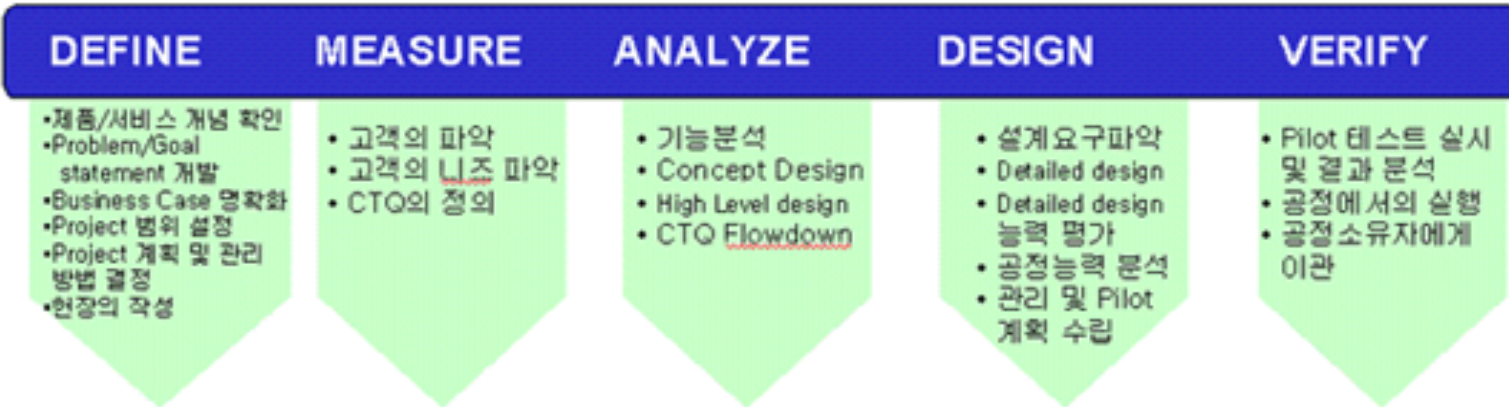
## DMAIC

기존의 제품 또는 프로세스에서 만성적인 문제를 해결  
DMAIC(Commercial), DMAIC(Product)

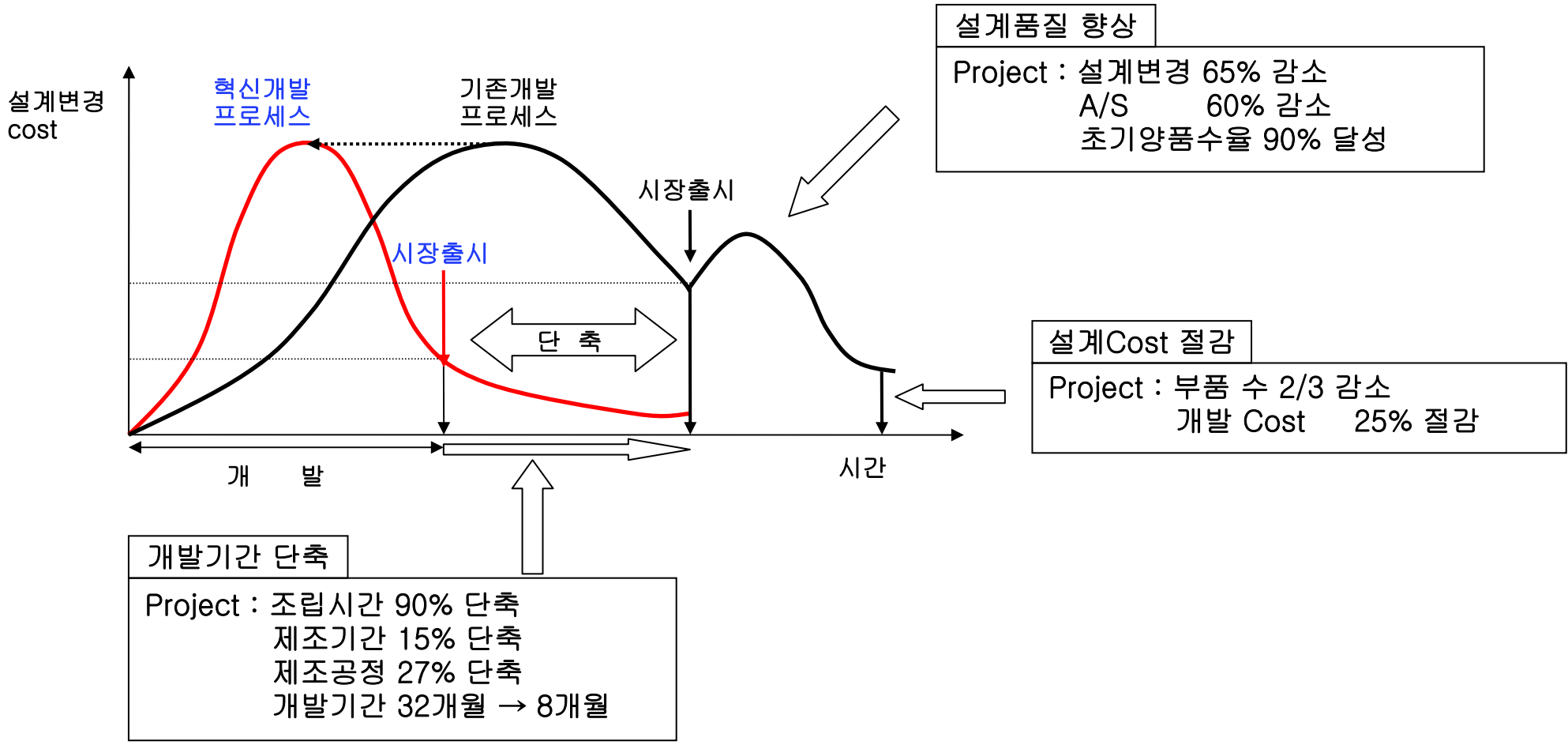


## DMADV

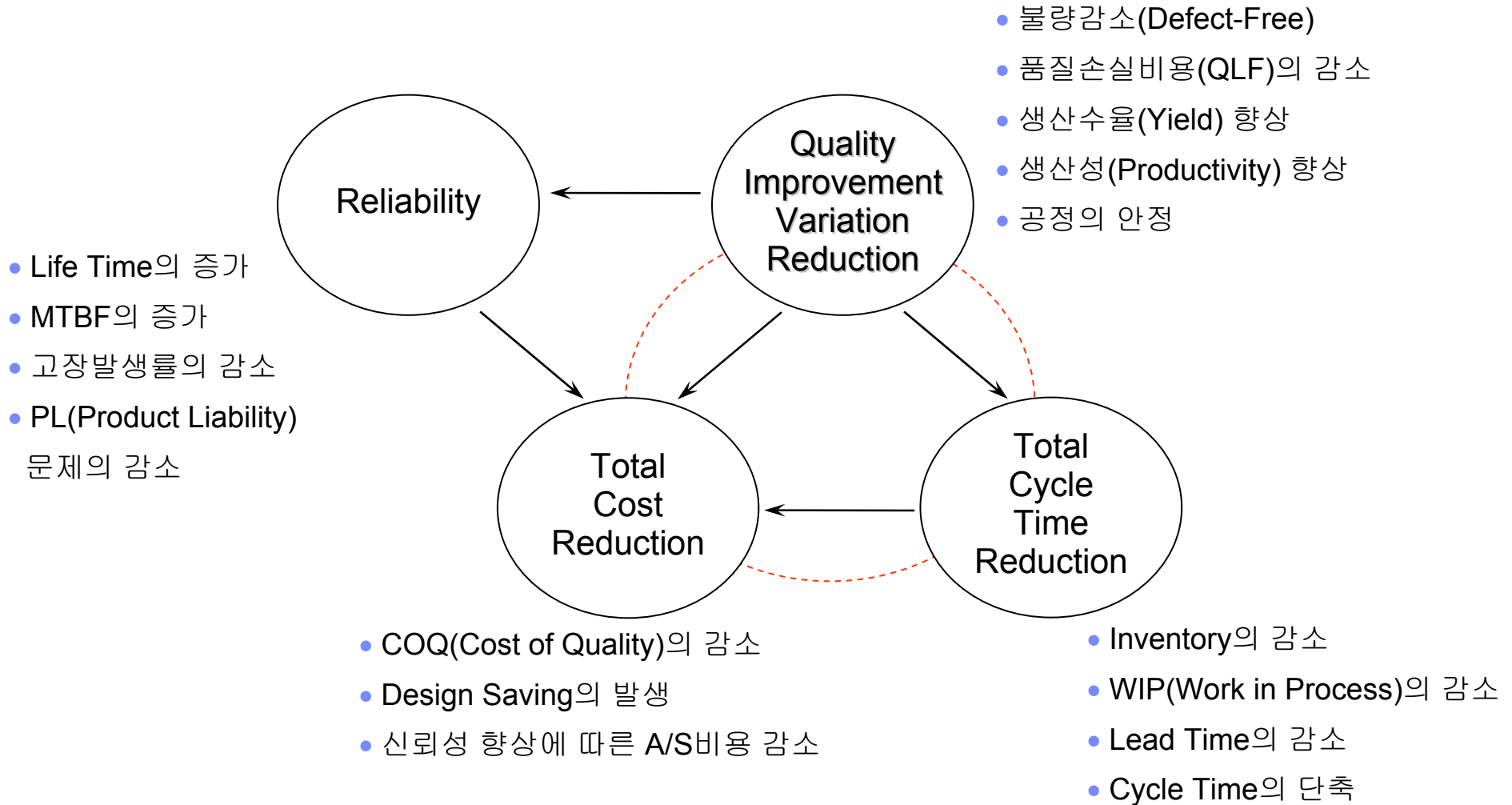
새로운 제품 또는 프로세스를 6시그마 기준에 맞게 설계(새로운 제품이나 서비스를 통한 시장확대/창출)  
DFSS(Innovation), DFSS(Commercial), DFSS(Product)



# 왜 R&D 6 Sigma를 해야 하는가?



# 6시그마 경영효과



## 6시그마 성공요인

- ❖ **최고 경영자의 끊임없는 지원과 열의**
  - GE의 경우 사업체 경영자에 대해서도 6시그마 척도를 사용하여 평가
- ❖ **품질향상을 위한 “정량적 접근방식” 및 훈련을 통한 “품질향상 정책” 수립**
- ❖ **고객의 요구를 이해하고 충족시키는 데 중점**
  - 고객의 요구 측정 및 만족도 등을 수량화하는 작업
- ❖ **올바른 프로젝트를 올바른 사람이 올바른 도구를 사용하여 수행**
  - 과거의 통계학자들이 통계도구 자체에만 국한하여 생각한 반면, 6시그마는 올바른 사람 (블랙벨트와 같이 자격을 갖춘 사람) 이 올바른 프로젝트를 수행
- ❖ **6시그마를 일상적 경영활동에 적용**
  - 특별한 일 또는 가외의 일을 수행하는 것이 아니고 매일 식사하는 것과 같은 일상생활 중 하나라고 인식. 따라서 어떤 부서에서든 일을 할 때에는 DMAIC와 같은 과정을 밟아서 일을 했으며, 회의를 할 때에도 6시그마 용어를 사용
- ❖ **금전적 이득**
  - 얼라이드시그널사는 ‘Operational Excellence’(얼라이드 시그널에서 부르는 6시그마의 명칭)를 '95년부터 '97년 4분기 사이에 실시하여 800만 달러의 비용절감효과를 보았음.
- ❖ **그 외의 다른 성공요인**
  - 사내 데이터 시스템의 구축
  - 협력업체의 도움 등



## IBM Rational CLM Solution

CLM

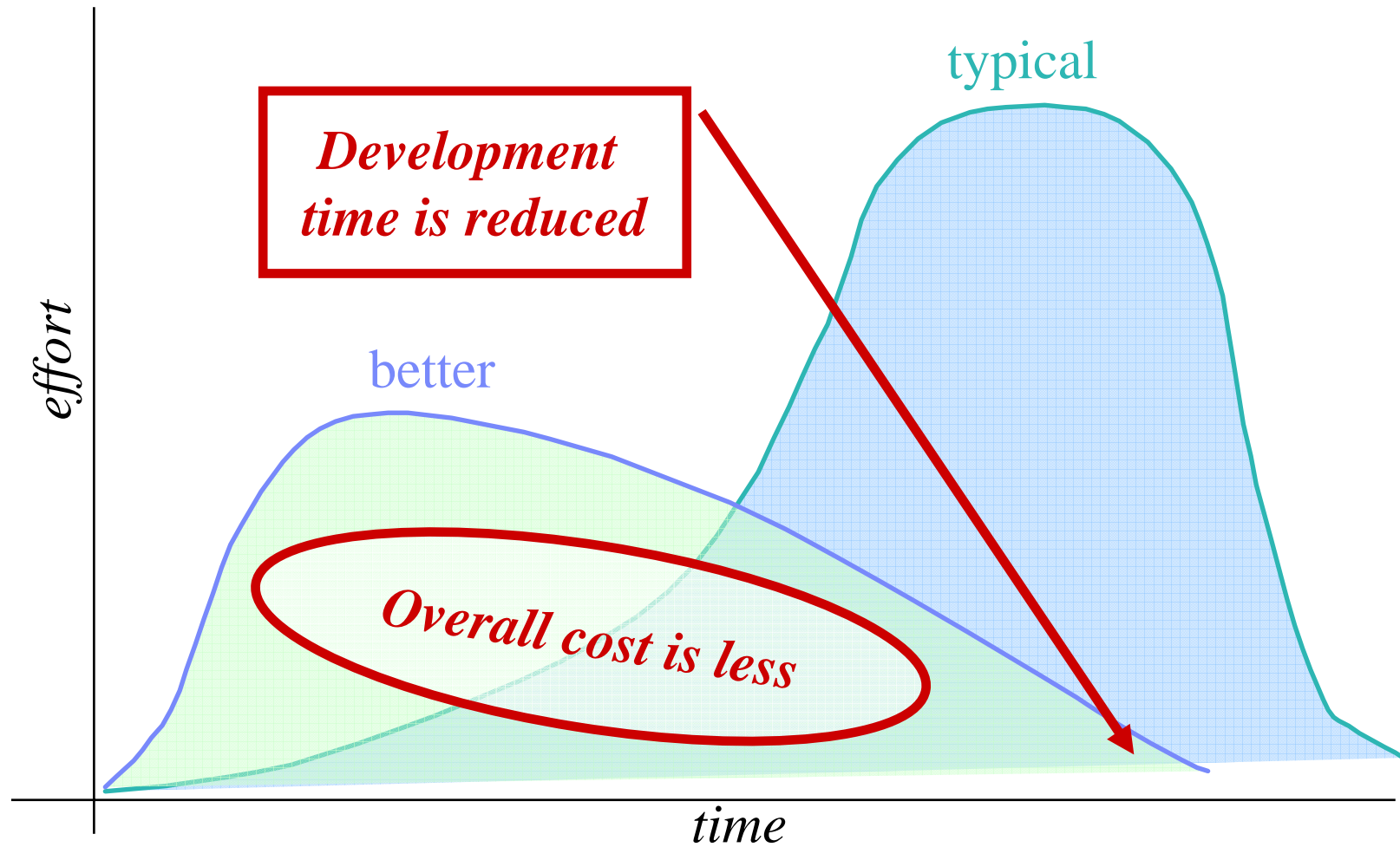
(Collaborative Lifecycle Management)

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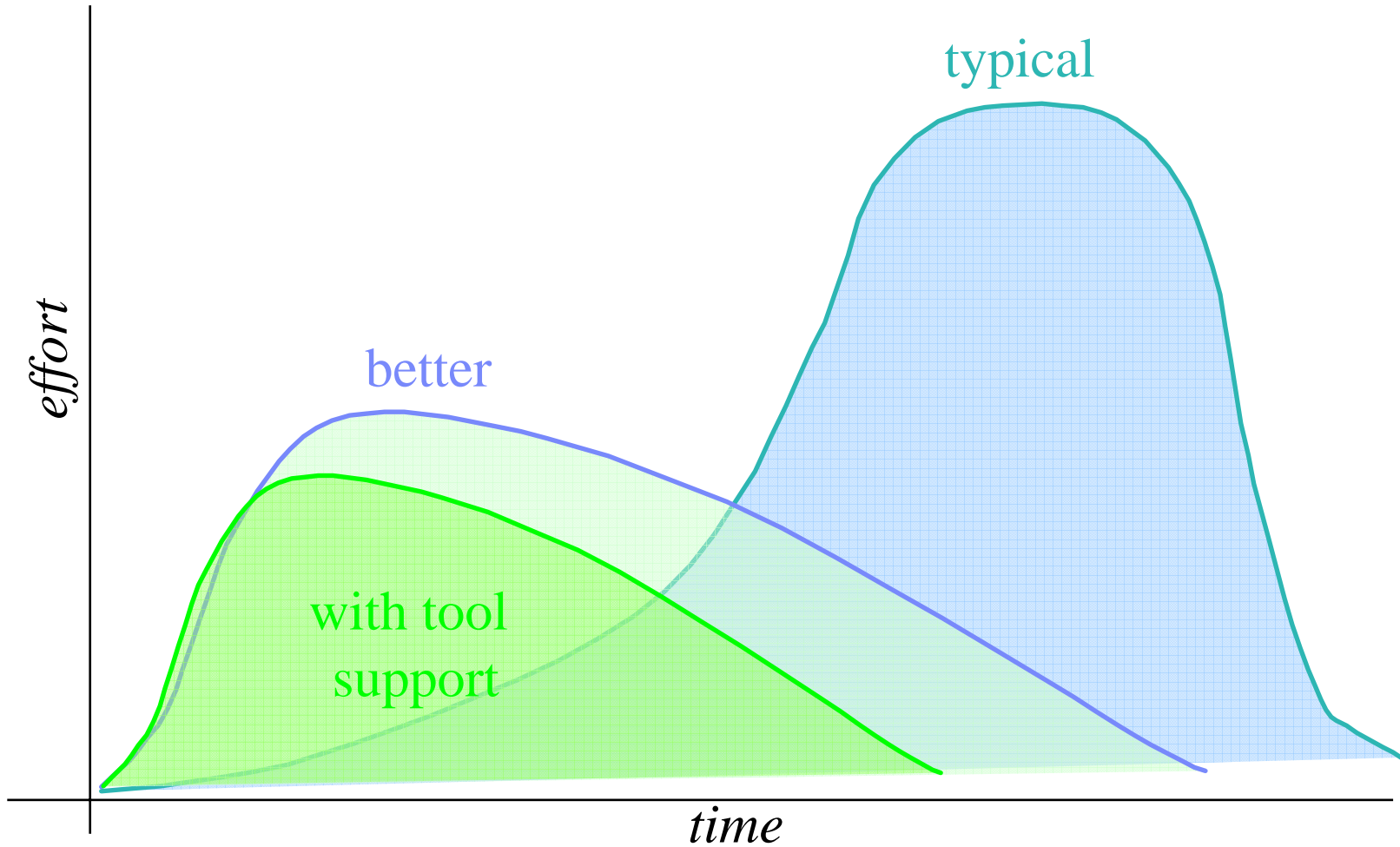
2



# Acting early reduces cost and time

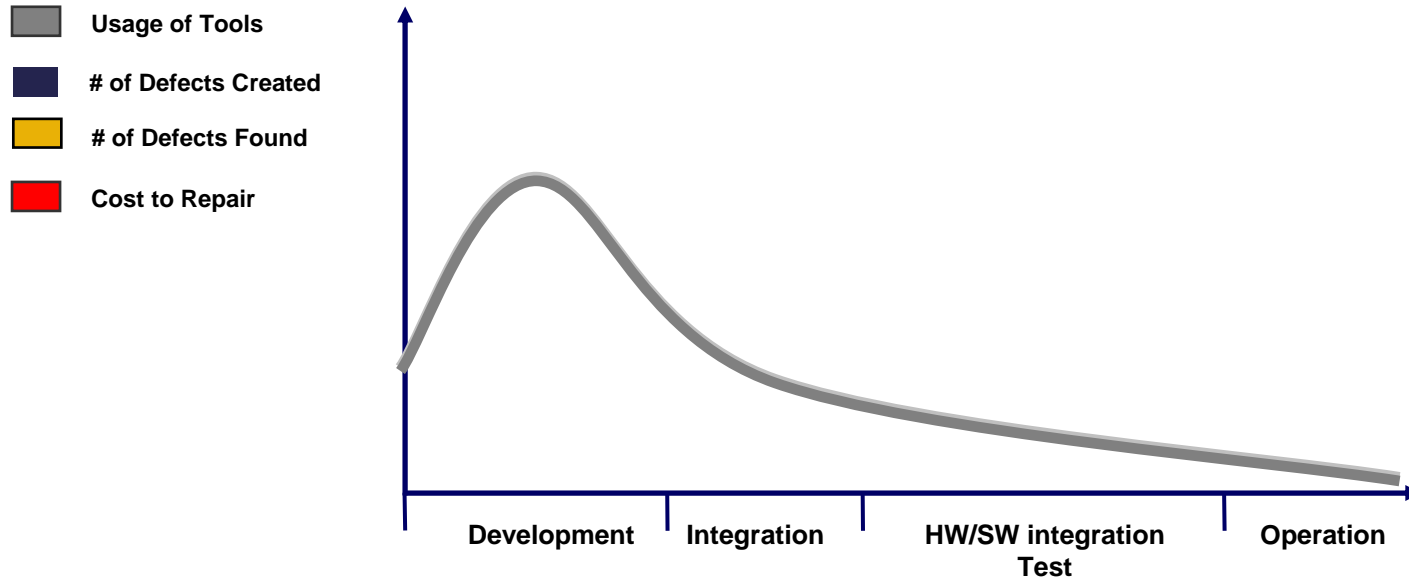


# Acting early reduces cost and time

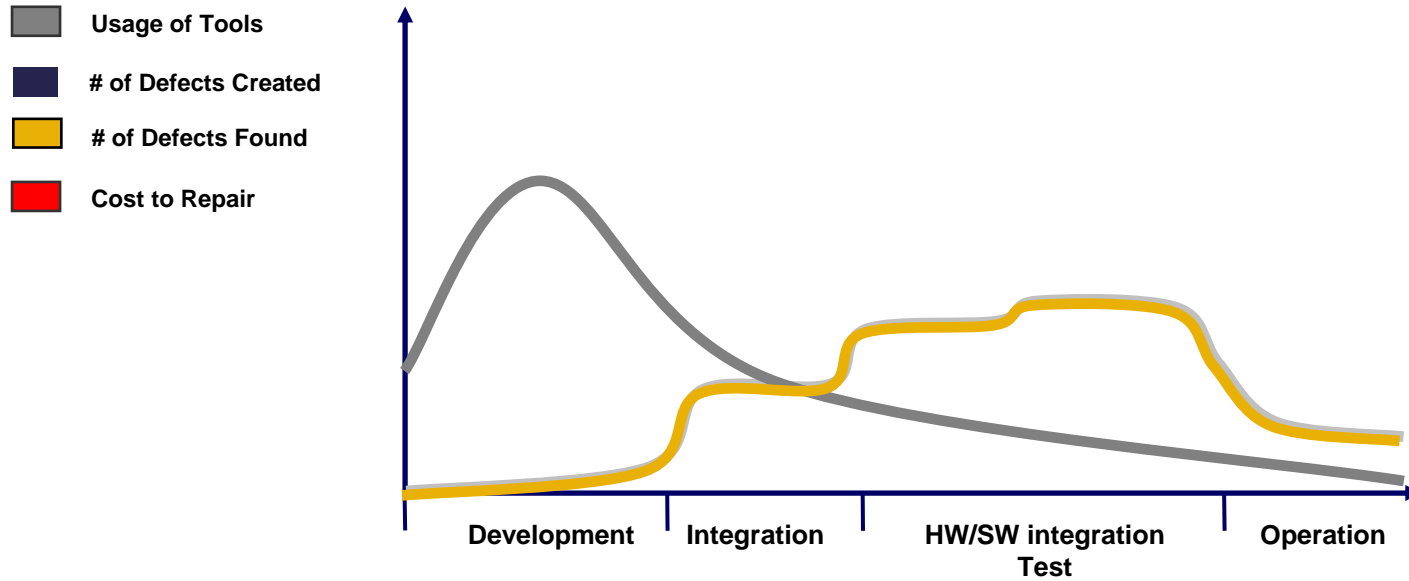




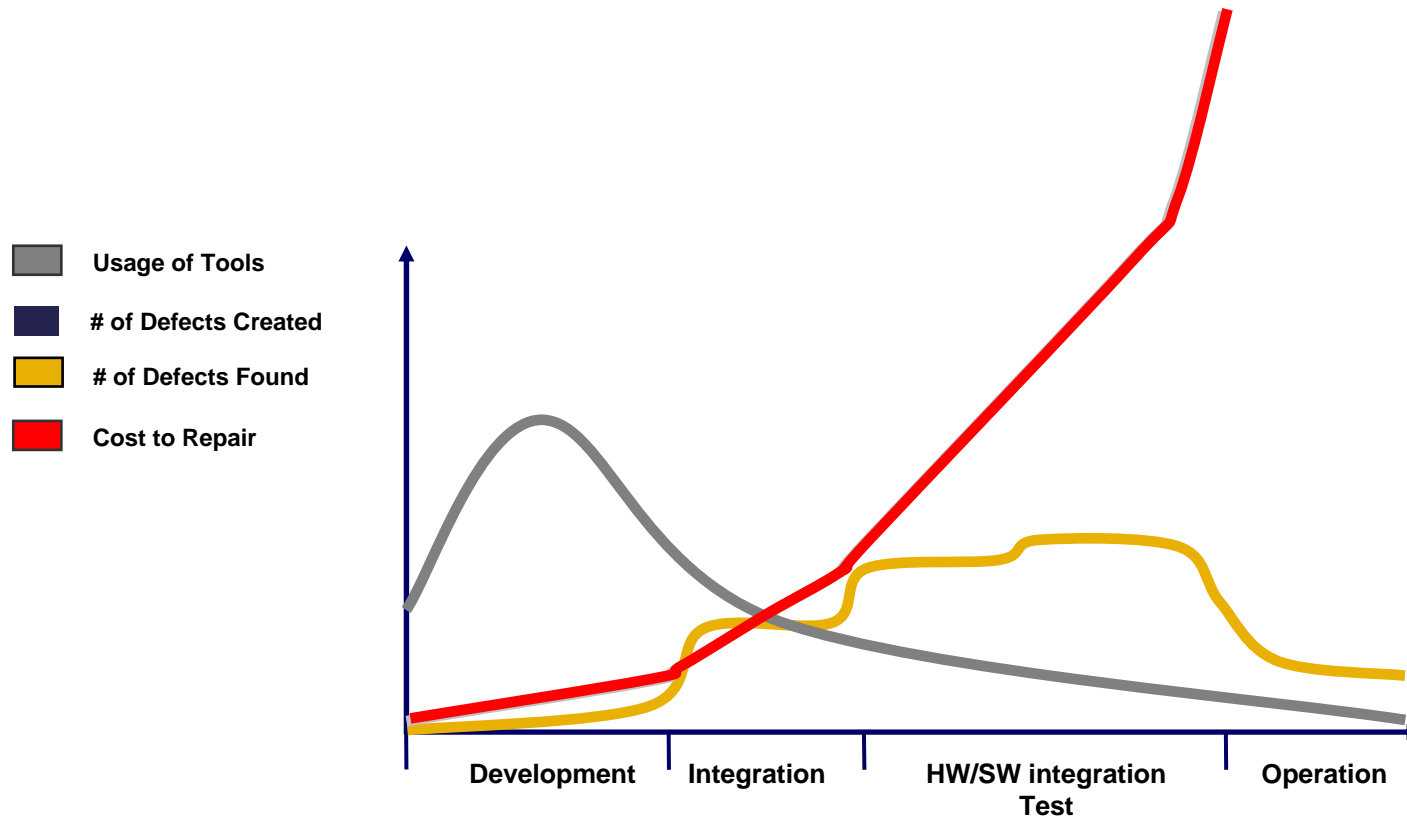
# Economics of Defects



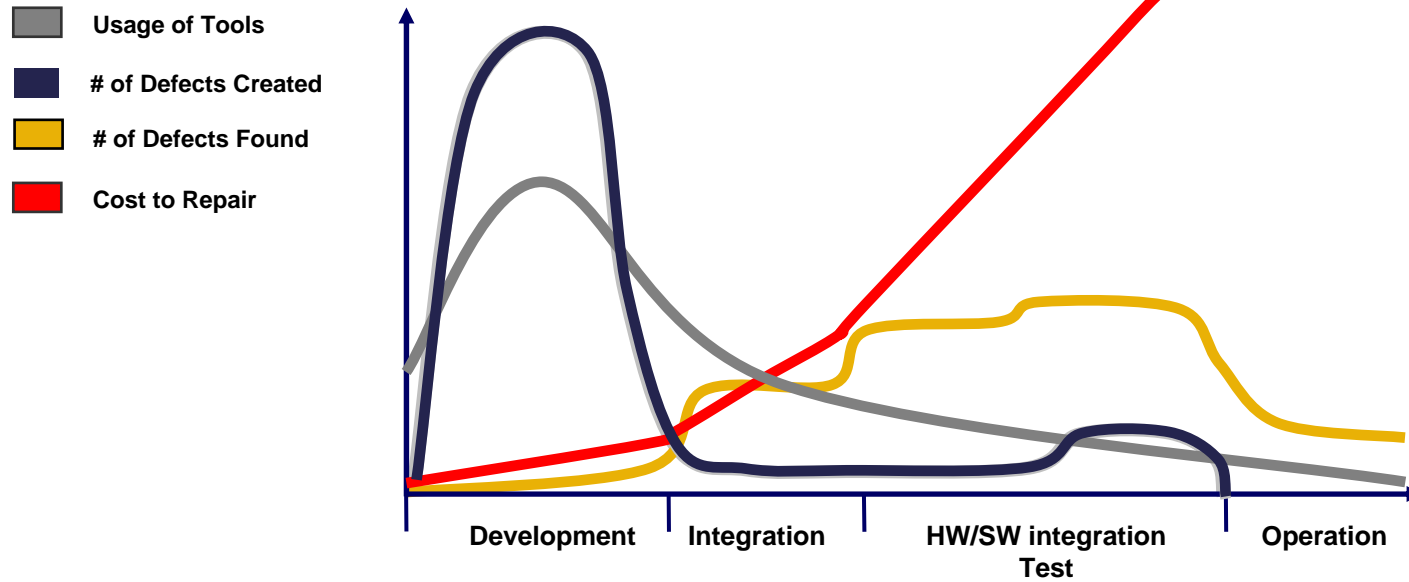
# Economics of Defects



# Economics of Defects



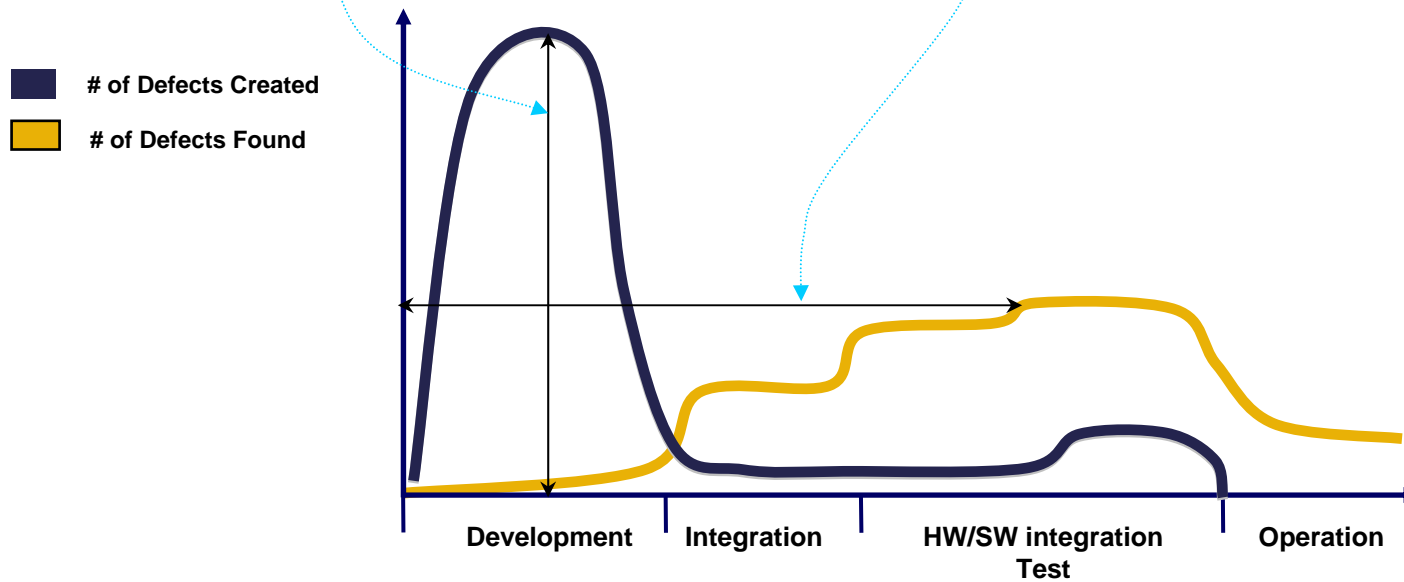
# Economics of Defects



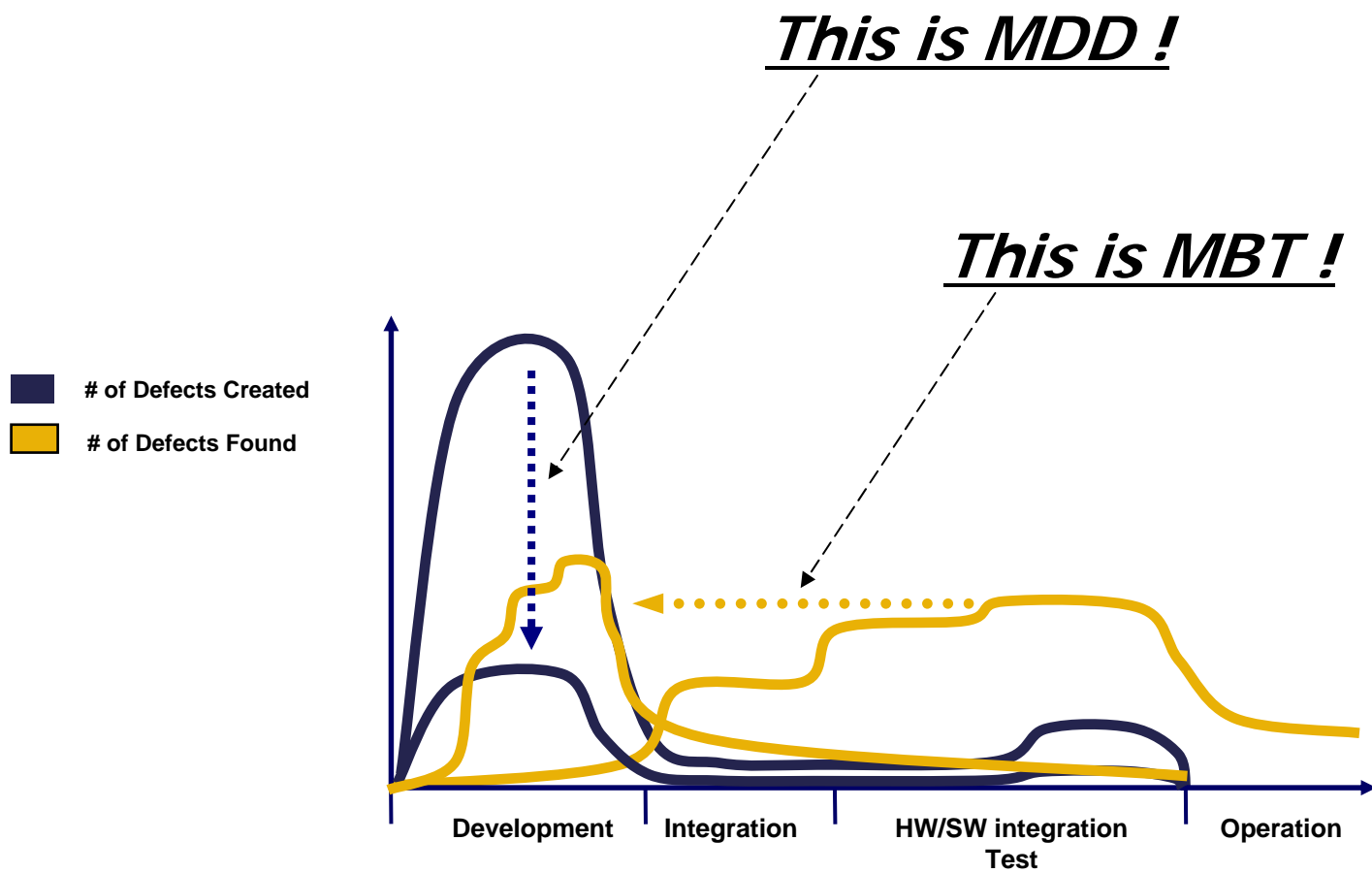
# Economics of Defects

*Too many defects being introduced !*

*Defects being detected too late !*



# Our Solution is ...



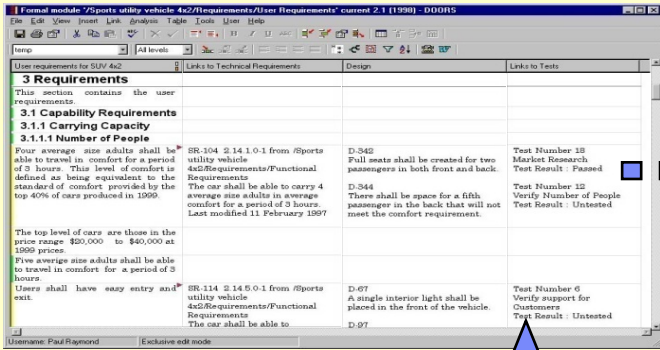
\*)MDD (Model Driven Development)

\*)MBT (Model Based Testing)



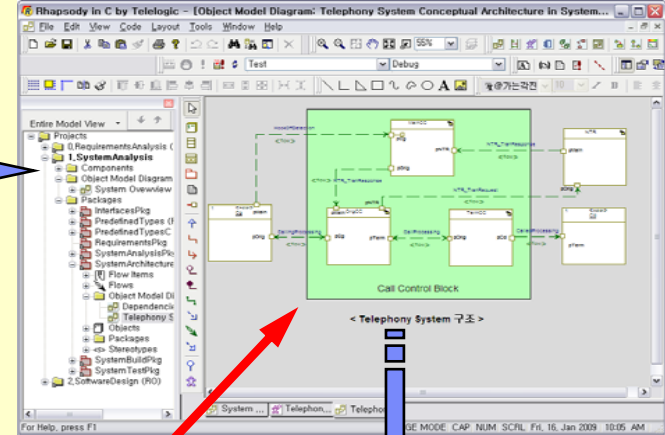
# MDD (Model Driven Development) - (Generate traceability from requirements to design)

## DOORS: Requirements Management & Traceability



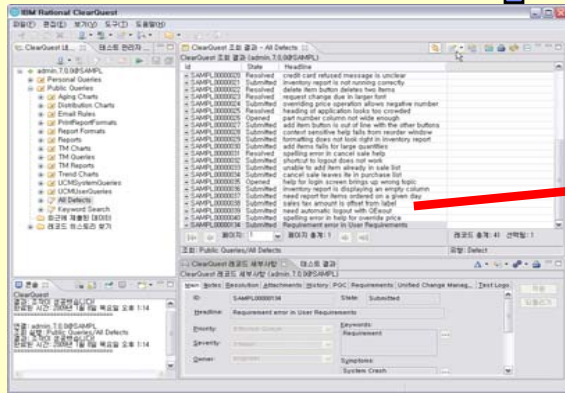
Modeling and V&V

## Rhapsody: System Analysis, Design, Development and Test

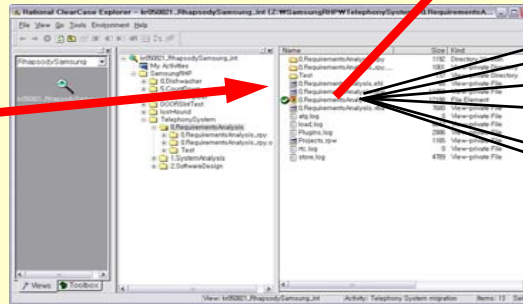


Requirement change request

## ClearQuest/Change/RTC: Defect, Enhancement Request



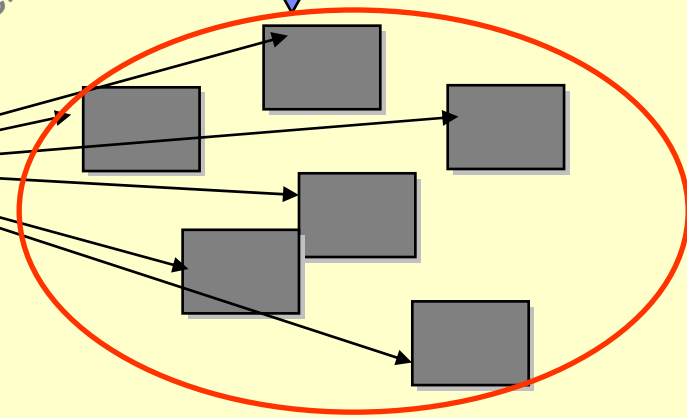
## ClearCase/Synergy/RTC: Engineering Tasks



Task Assign

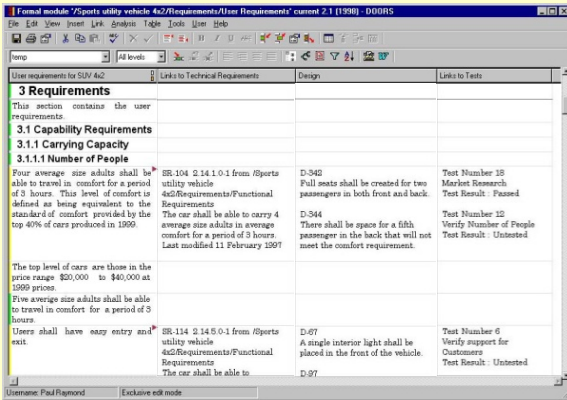
Check out

Check in

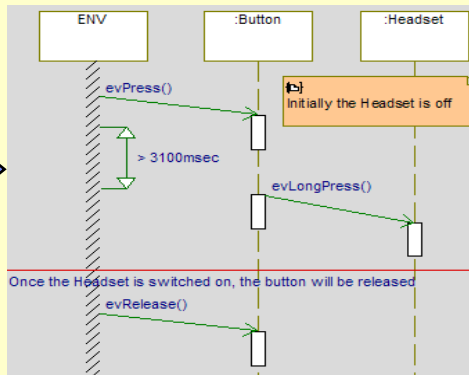


# Model Based Testing - (from Requirements to Testing)

## DOORS: Requirements Management & Traceability



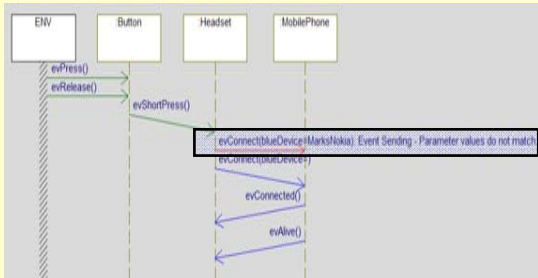
## UML Sequence Diagrams : Test Case



## Rational Quality Manager: Test Execute



## UML Sequence Diagram : Finding & Correcting Errors



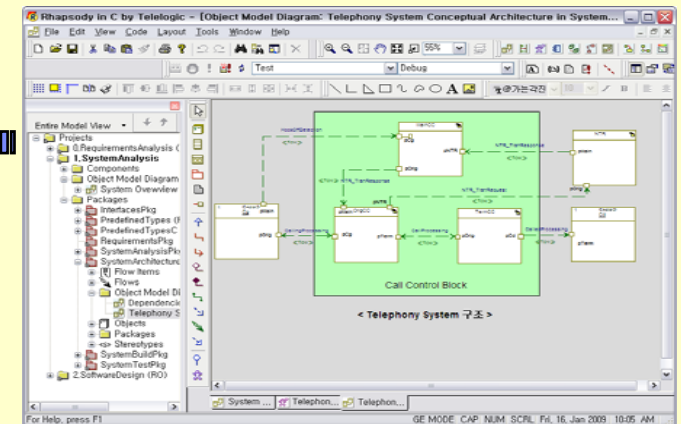
## Test Conductor : Test Result

SD	Iteration	Status	Progress
switch on FM Radio	1	PASSED	100% (5/5)
change from FM to LW	1	PASSED	100% (5/5)
tune to LW	1	PASSED	100% (3/3)
switch off LW Radio	1	PASSED	100% (3/3)
switch on LW Radio	1	FAILED	60% (3/5)
change from LW to MW	1	PASSED	100% (5/5)
tune to MW	1	PASSED	100% (3/3)
switch off MW Radio	1	PASSED	100% (3/3)
switch on MW Radio	1	FAILED	60% (3/5)
change from MW to SW	1	PASSED	100% (5/5)
tune to SW	1	PASSED	100% (3/3)
switch off SW Radio	1	PASSED	100% (3/3)
switch on SW Radio	1	FAILED	60% (3/5)
change from SW to FM	1	PASSED	100% (5/5)
tune to FM	1	PASSED	100% (3/3)
switch off FM Radio	1	PASSED	100% (3/3)
switch on FM Radio again	1	FAILED	60% (3/5)

## Coverage View

Detailed Coverage Summary of Radio (15/41)		
<b>Operations</b>		
not covered	nextWaveband	
not covered	preset	
not covered	return	
not covered	save	
<b>EventReceptions</b>		
not covered	evFound	
<b>Statechart: StatechartOfRadio</b>		
covered	ROOT_on	State
covered	ROOT_on_normal	State
covered	ROOT_on_normal_tuning	State
covered	ROOT_on_normal_tuning.locked	State
covered	ROOT_on_normal_tuning_tune	State
not covered	ROOT_on_normal_tuning_found	State

## Rhapsody: System Analysis, Design, Development and Test





# Our CLM(Collaborative Lifecycle Management) Solution



Manager

*“Within three months, we need to improve our build process and software lifecycle collaboration.”*



Practitioner

*“I need to become proficient in disciplined agile development practices.”*



## Collaborative Lifecycle Management

Rational  
DOORS

Rational  
Rhapsody

Rational  
Team Concert

Rational  
Quality Manager

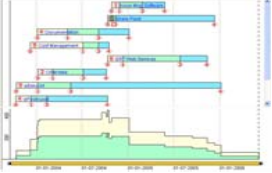
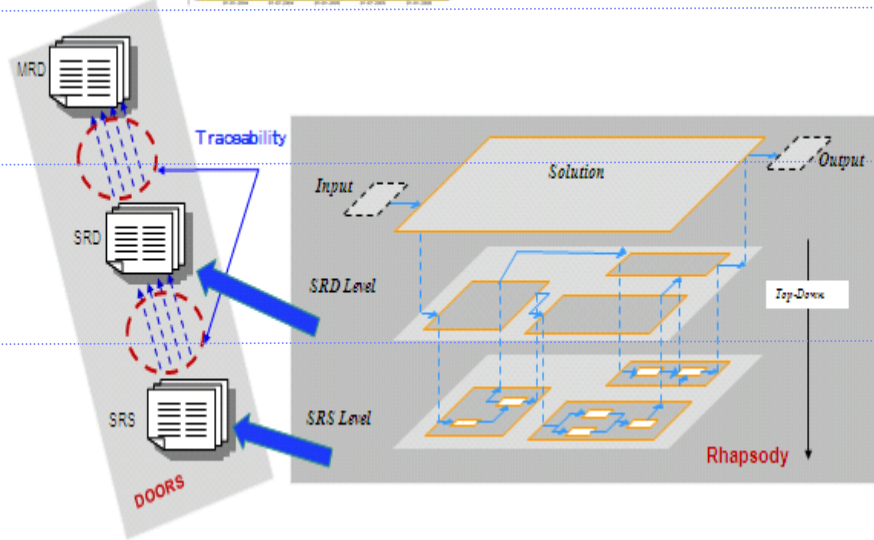
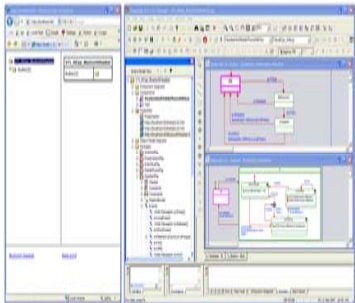




Rational  
Insight

- Iterative development
- Whole team
- Test driven development
- Continuous integration
- Test management
- User-story driven development



# 6시그마에서 개선을 위한 IBM Rational Solution

DMADV	Major role	Artifacts	Tool
<b>Define</b>	Biz Case 명세화, Project Plan		Focal Point
<b>Measure</b>	고객의 needs 파악		DOORS, Rhapsody
<b>Analyze</b>	High level Design		DOORS, Rhapsody
<b>Design</b>	Detail Design		DOORS, Rhapsody
<b>Verify</b>	Pilot Test, Project Visualization	  	Rhapsody, RQM Insight



## IBM Rational CLM Solution

CLM

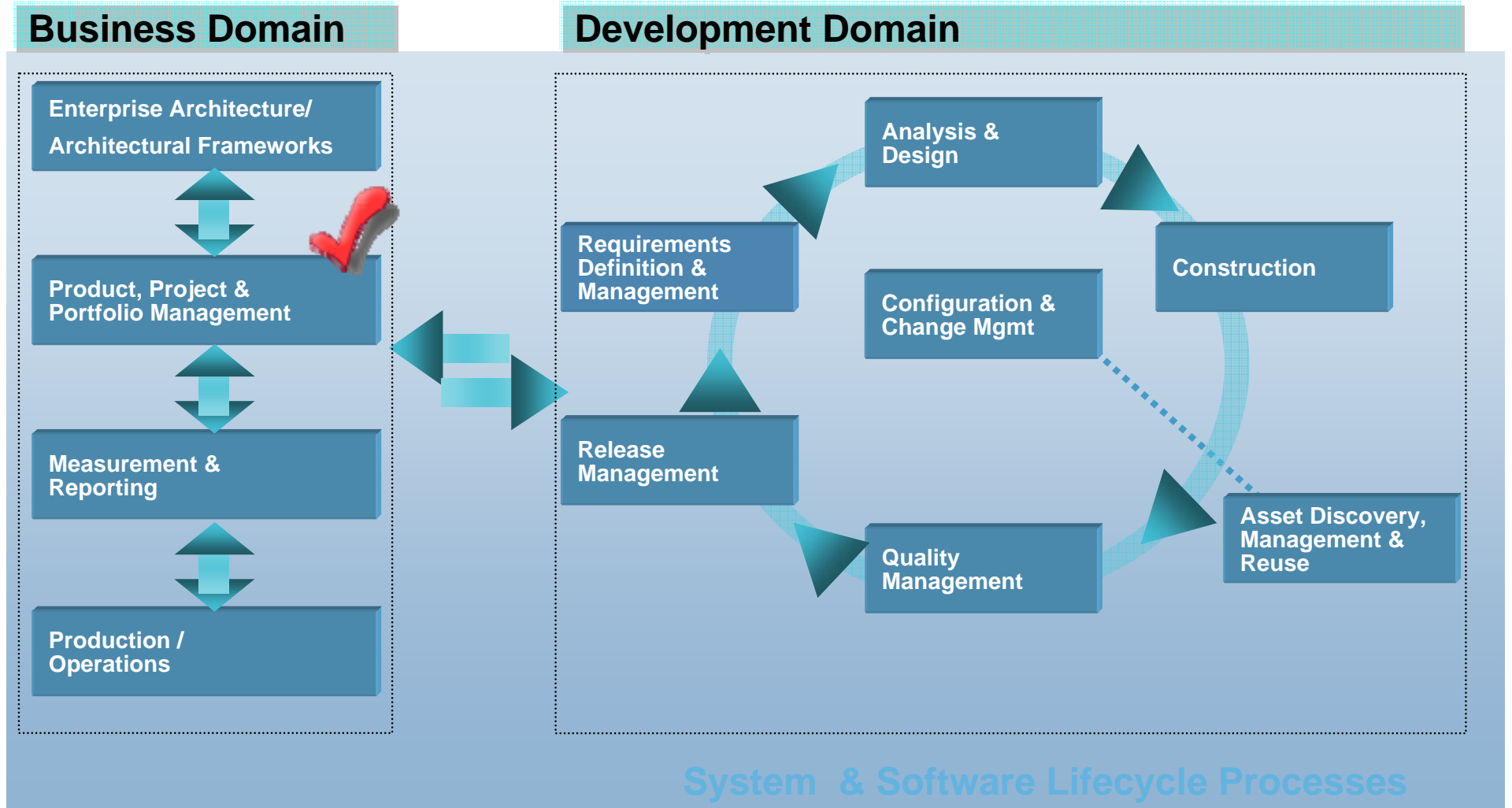
(Collaborative Lifecycle Management)

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  - 1) **Focal Point Overview**
  - 2) Insight Overview
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# 3.1

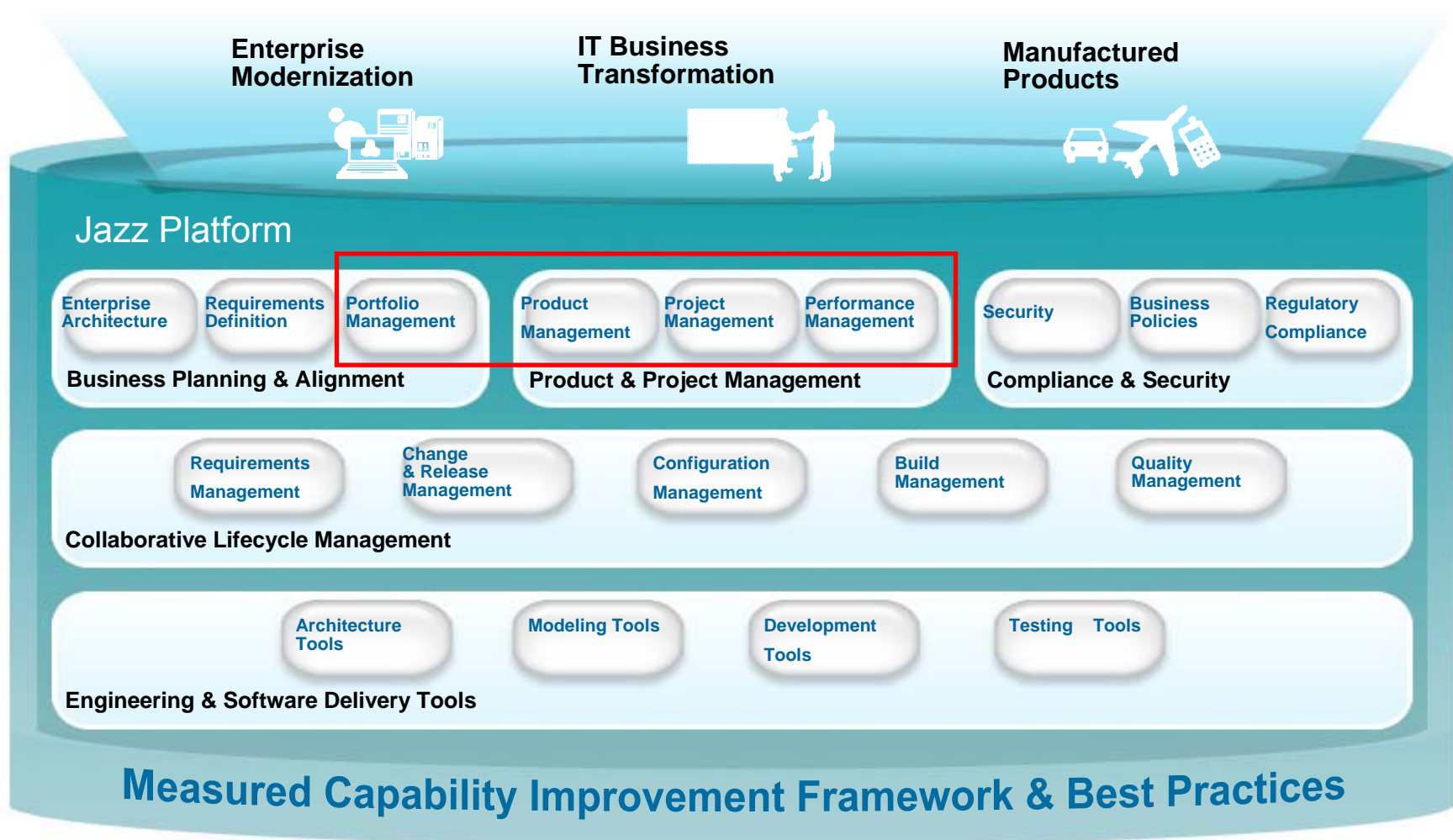


# IBM Rational Product Portfolio Overview



# The Rational PPM 솔루션

Rational Software 플랫폼에서 성공적인 비즈니스를 위한 핵심 영역



# IBM의 솔루션 모듈, 유연하게 통합될 수 있는 솔루션들



“올바른 투자 및 전략을 위한 의사결정”

“올바른 시장, 올바른 기간, 올바른 범위 및 올바른 기술 로드맵 설정”

“올바른 업무 수행”

“비즈니스 목적에 대한 성과 측정 관리”

포트폴리오 투자와 비즈니스 우선순위간 정렬

제품 성공의 예측가능성 향상

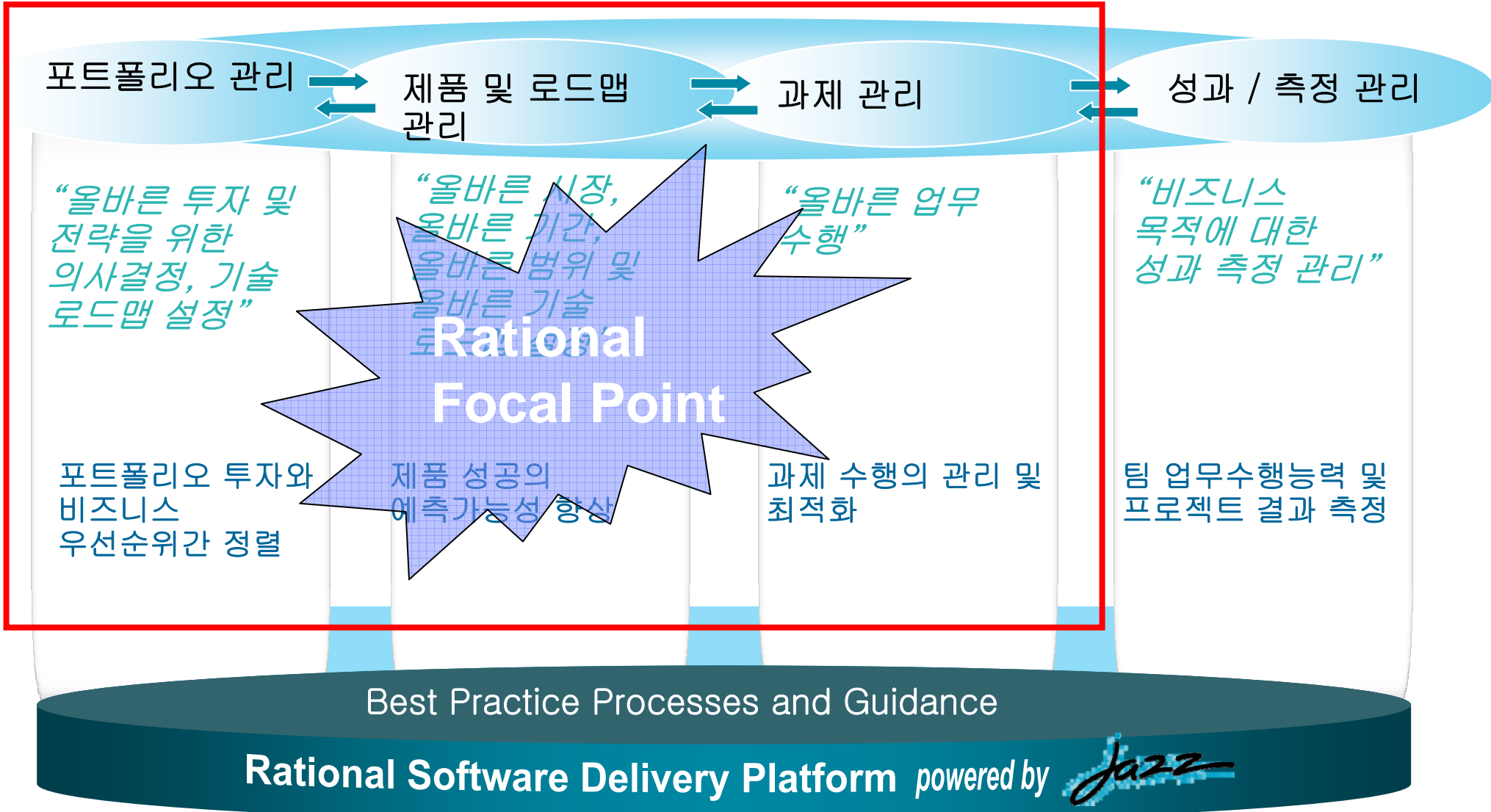
과제 수행의 관리 및 최적화

팀 업무수행능력 및 프로젝트 결과 측정

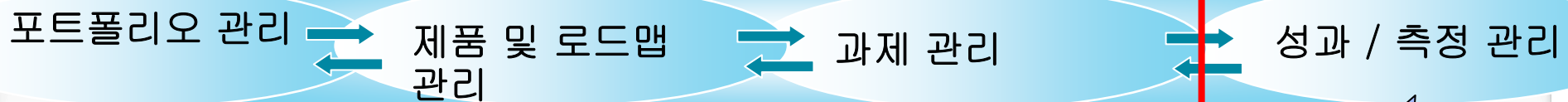
Best Practice Processes and Guidance



# IBM의 솔루션 모듈, 유연하게 통합될 수 있는 솔루션들



# IBM의 솔루션 모듈, 유연하게 통합될 수 있는 솔루션들



“올바른 투자 및 전략을 위한 의사결정, 기술 로드맵 설정”

“올바른 시장, 올바른 기간, 올바른 범위 및 올바른 기술 로드맵 설정”

“올바른 업무 수행”

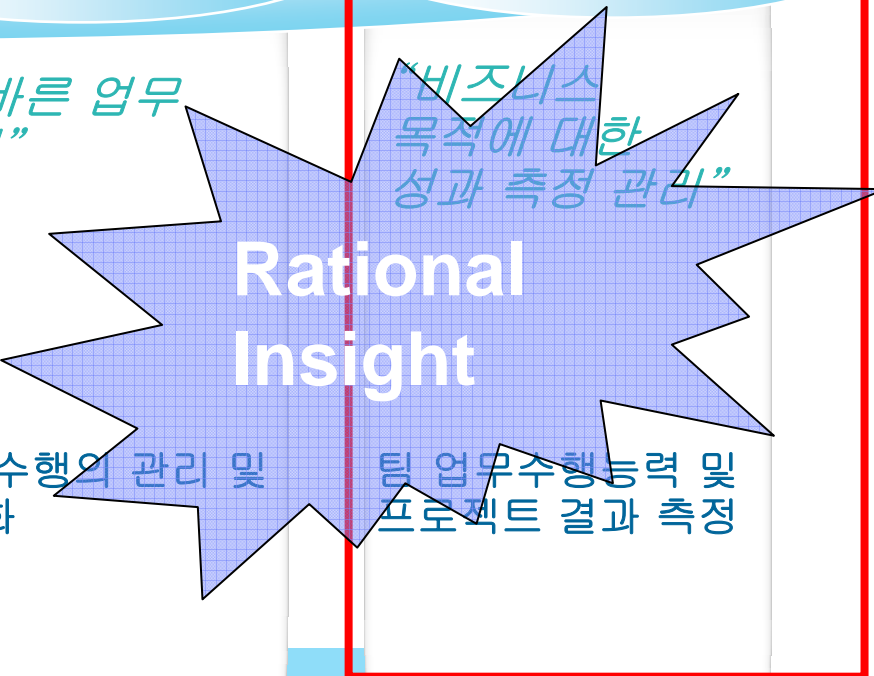
“비즈니스 목적에 대한 성과 측정 관리”

포트폴리오 투자와 비즈니스 우선순위간 정렬

제품 성공의 예측가능성 향상

과제 수행의 관리 및 최적화

팀 업무수행능력 및 프로젝트 결과 측정

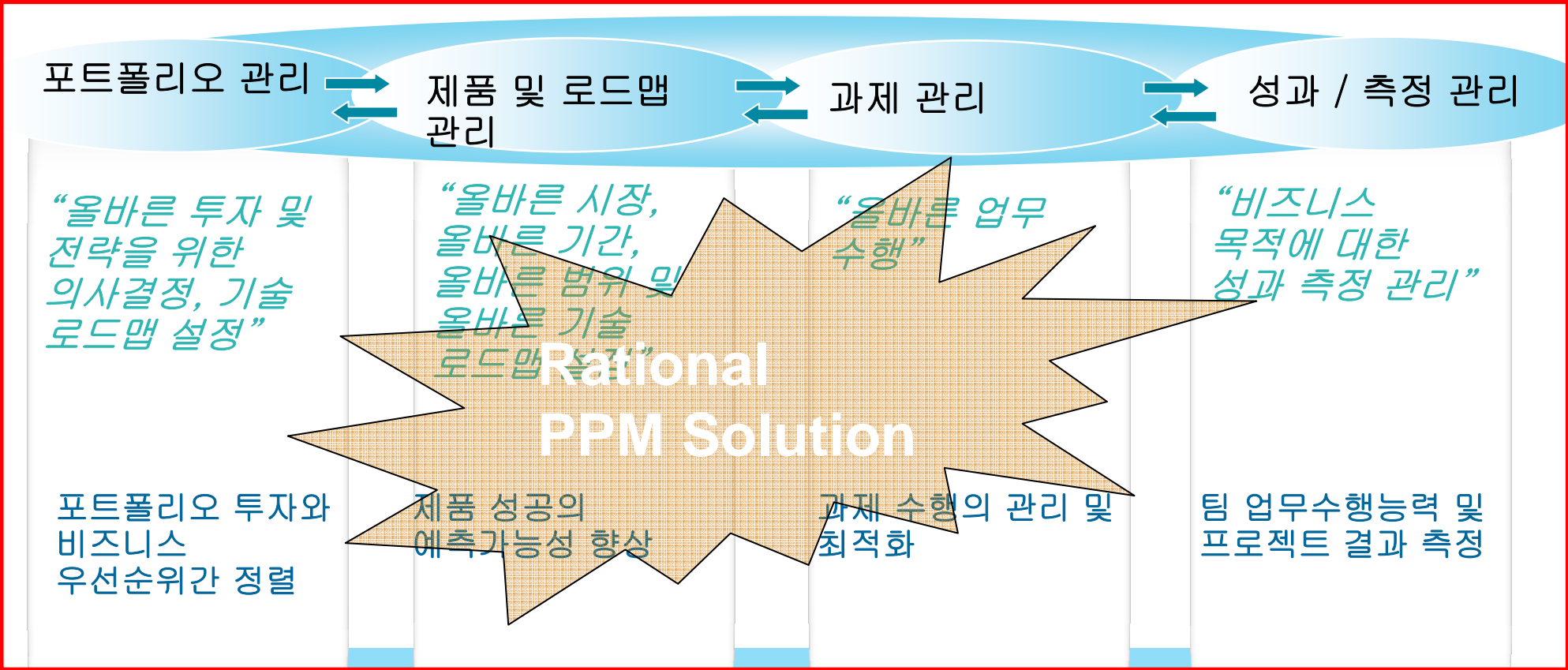


Best Practice Processes and Guidance

Rational Software Delivery Platform powered by *Jazz*



# IBM의 솔루션 모듈, 유연하게 통합될 수 있는 솔루션들

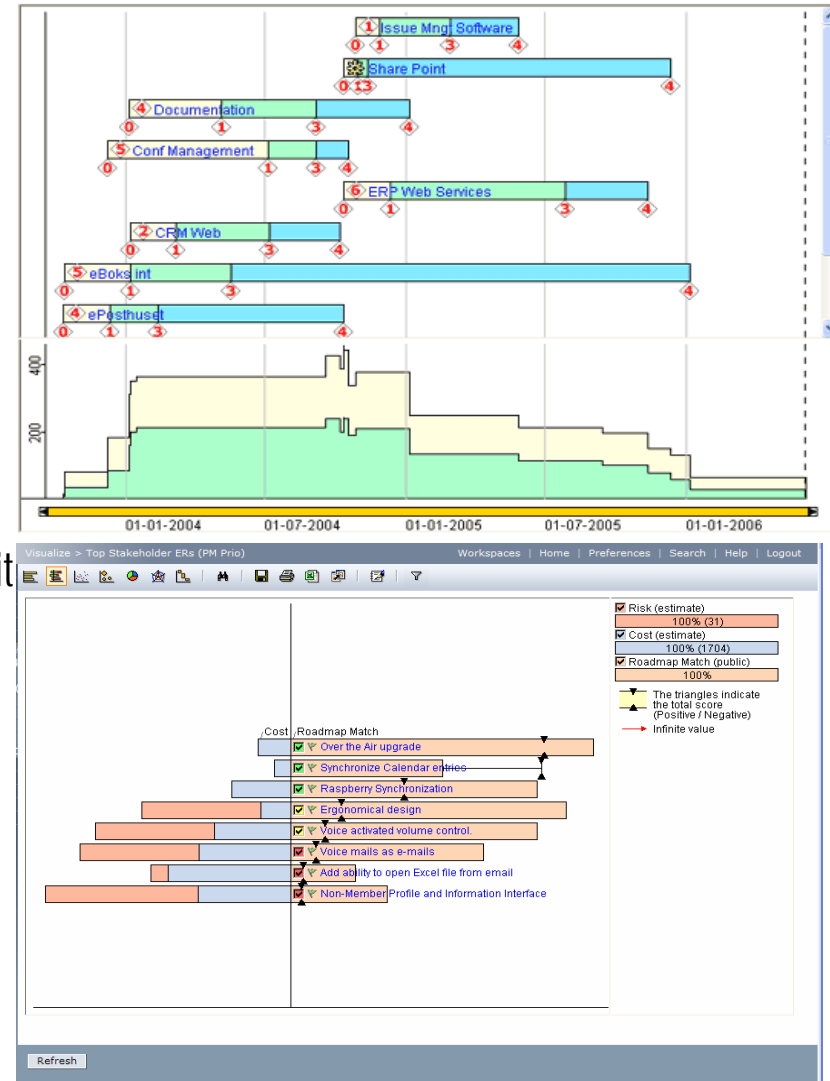


Best Practice Processes and Guidance

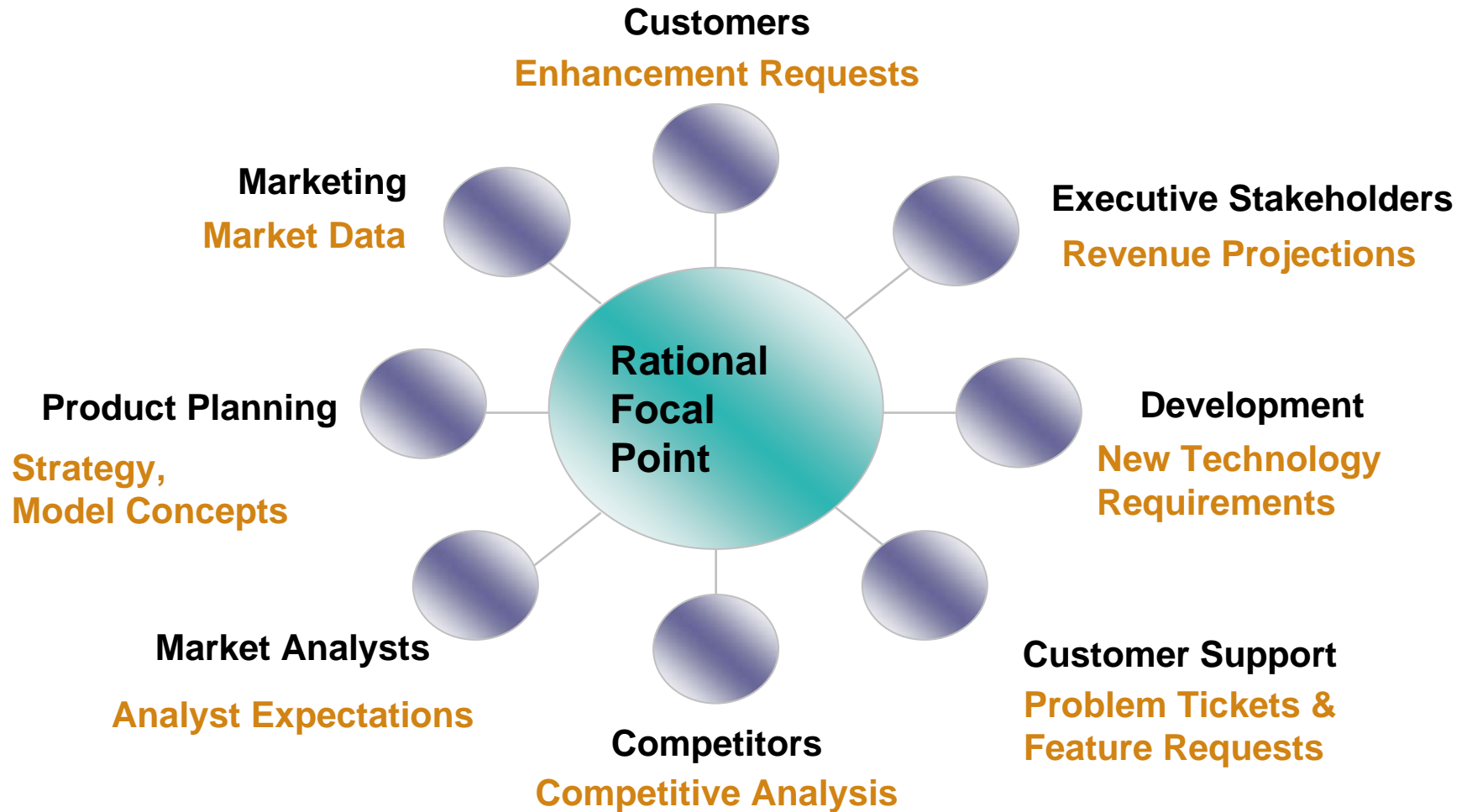
**Rational Software Delivery Platform** powered by *Jazz*

# Focal Point Overview

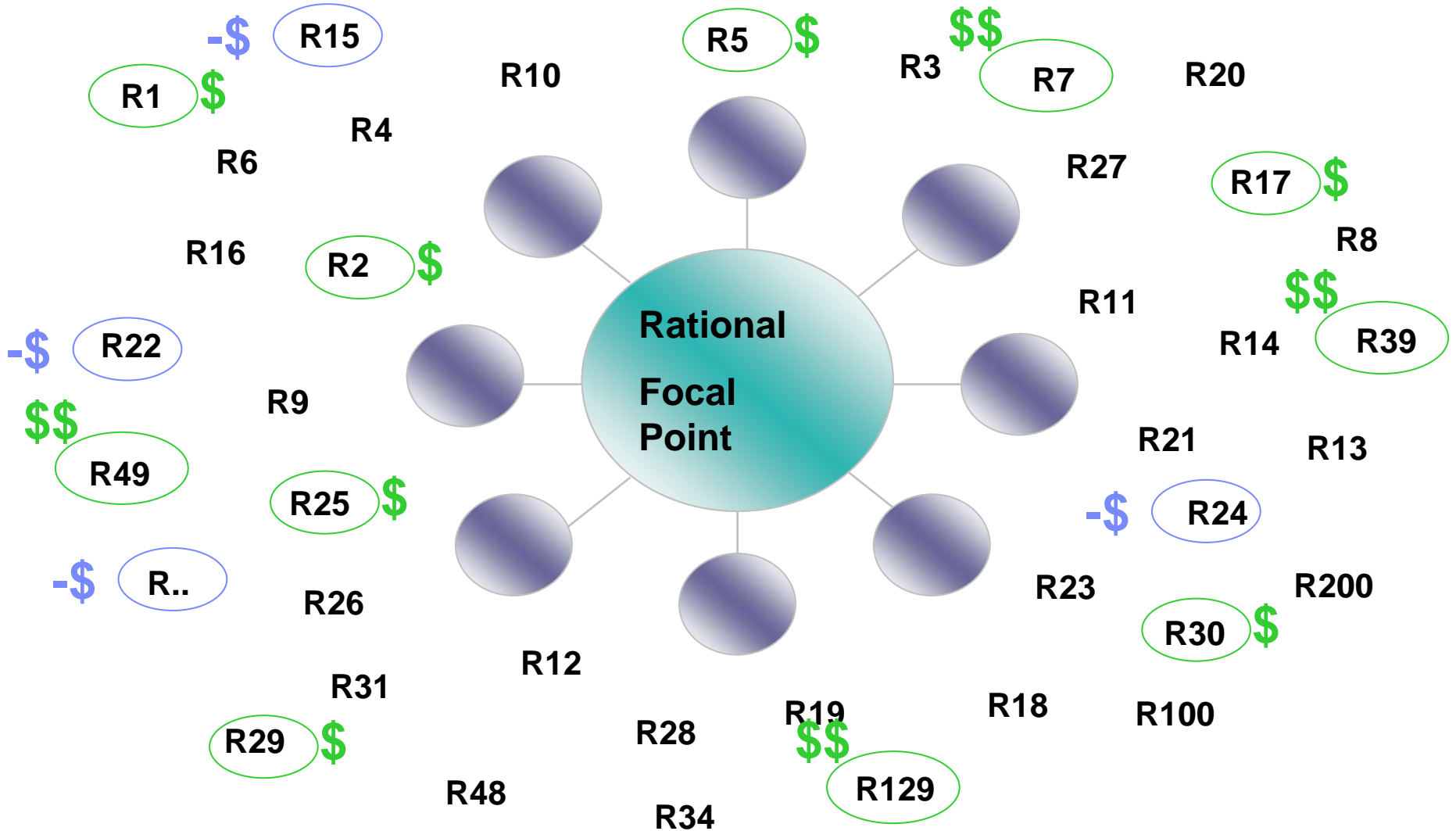
- A unique, visual management tool that automates, improves and supports e.g.
  - ▶ Product Management
  - ▶ Portfolio management
  - ▶ Requirements management
- Built-in decision and business scenario analysis support
- A collaboration platform where all stakeholders can share and edit data – centralized view
- Role-based user access – security control
- Fully Web-based product – no client installation
- Configuration is done online, while in use – low admin cost



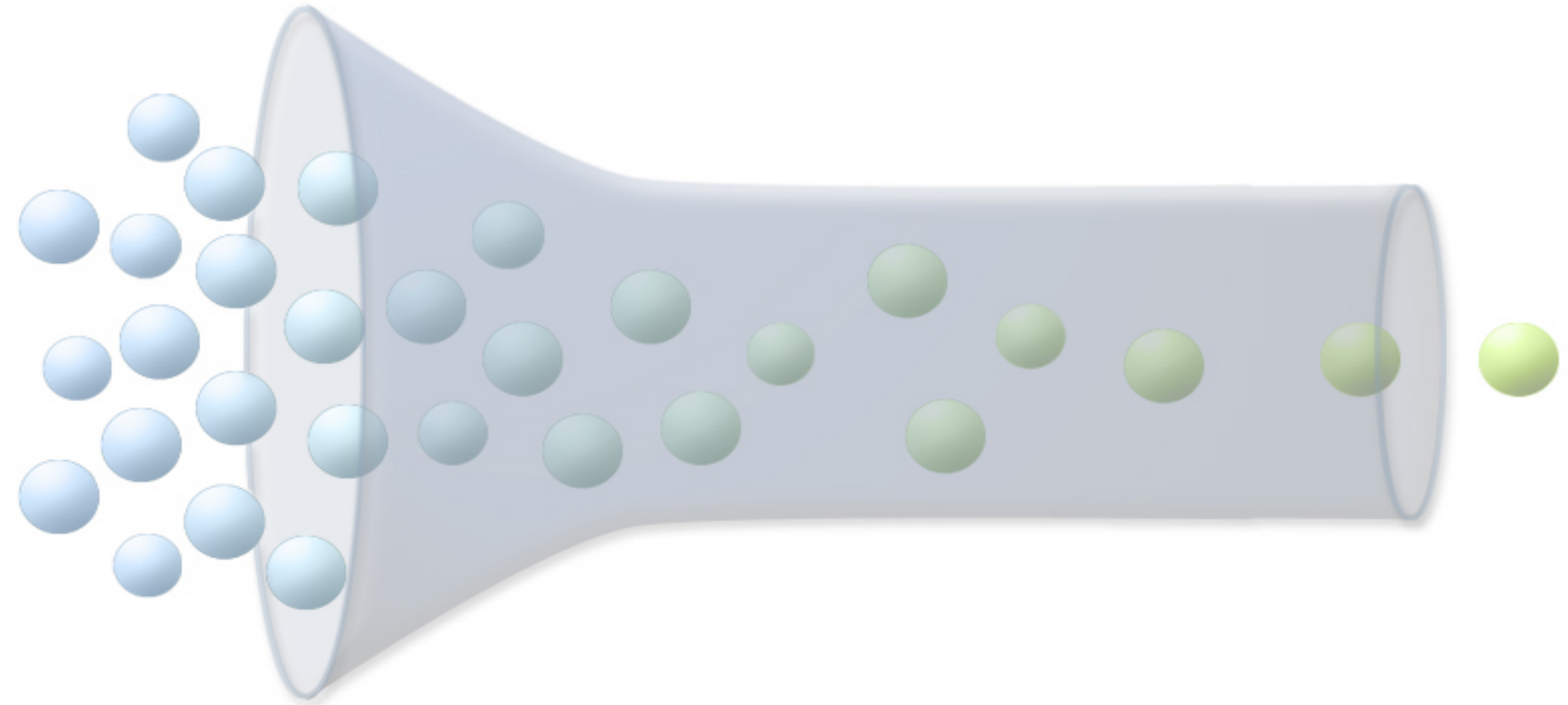
# Focal Point Provides Product Management Hub



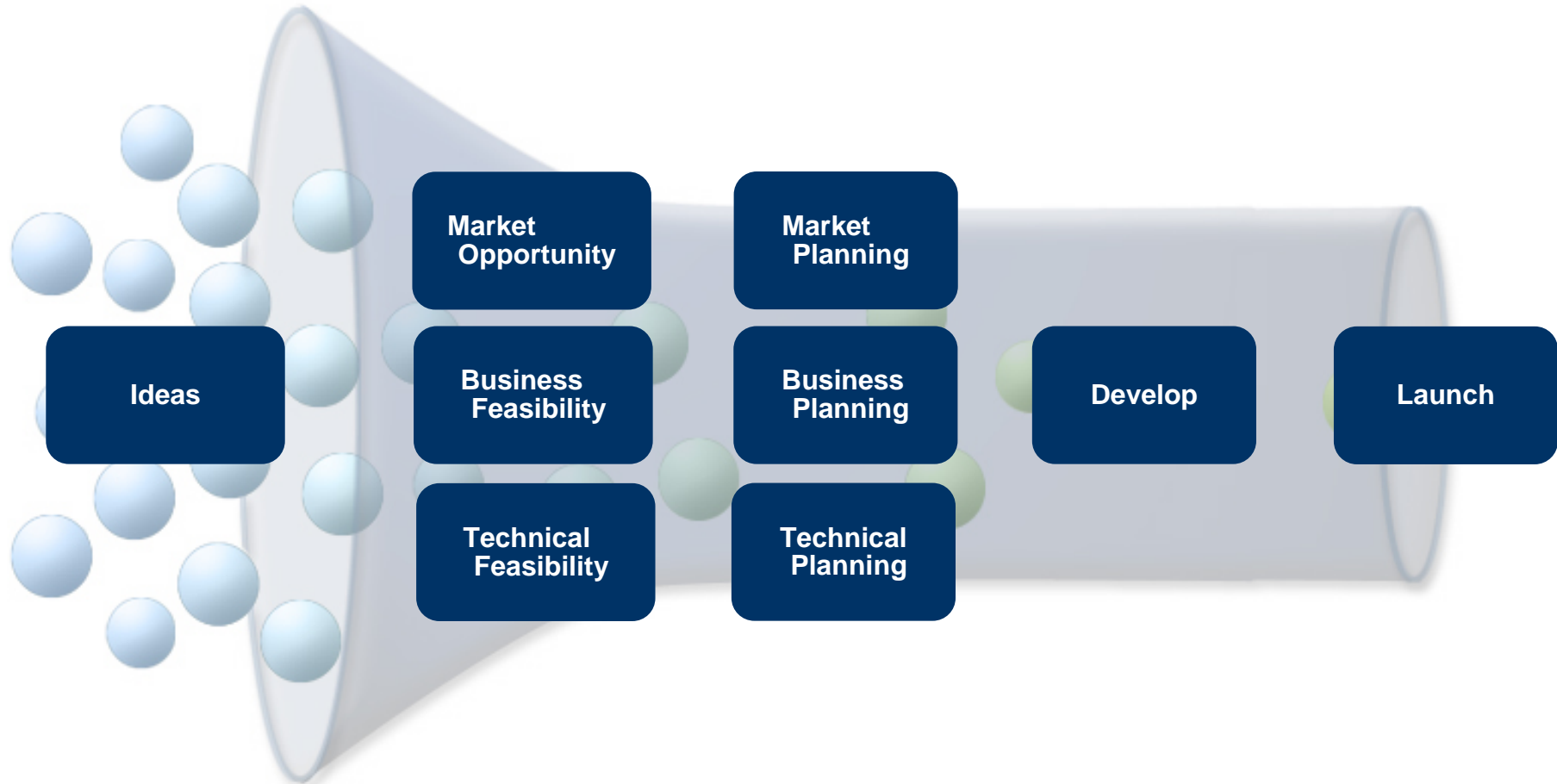
# Value-Based Selection



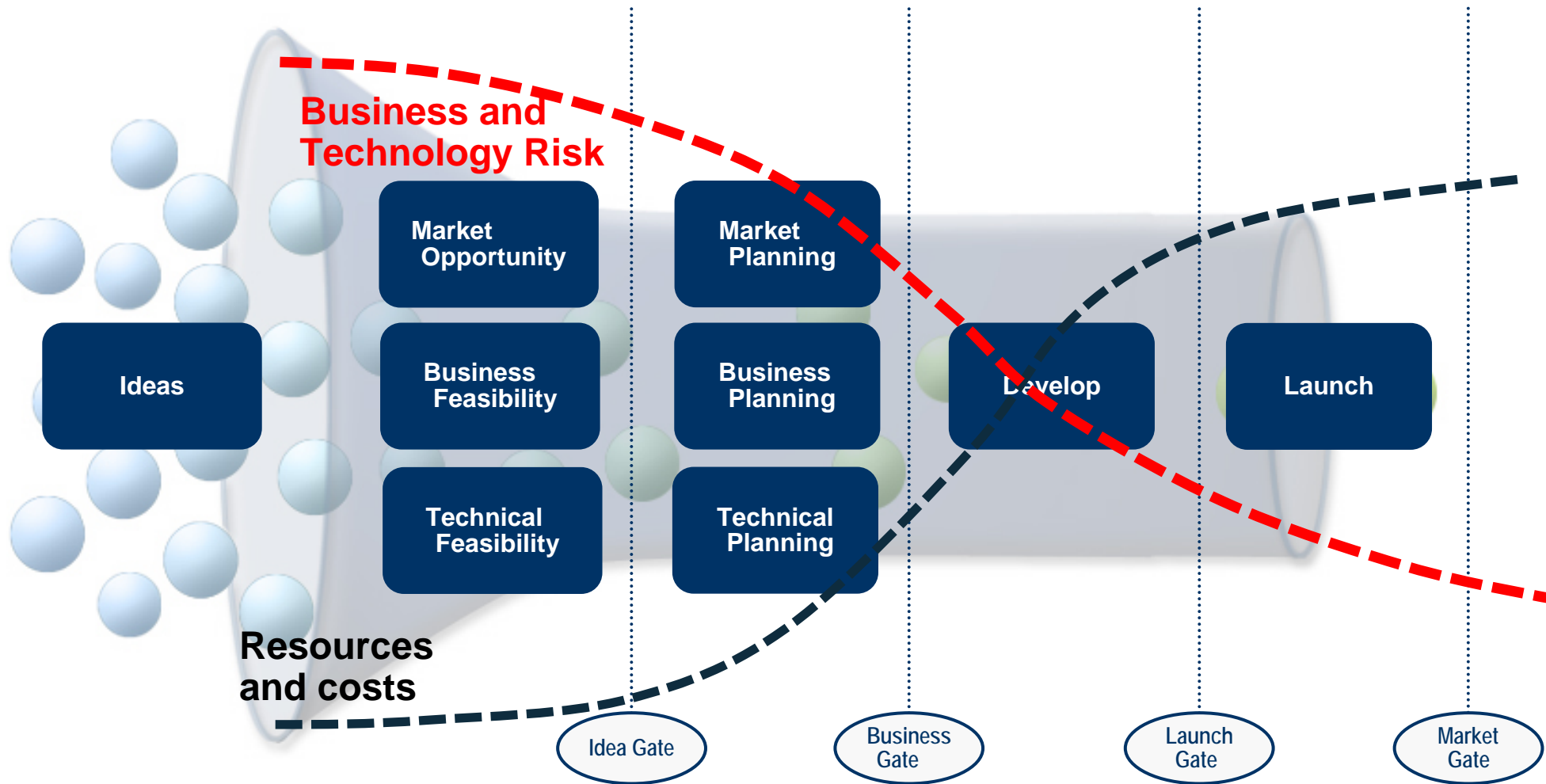
# The right products for the right markets at the right time



# Product Portfolio Management



# Product Portfolio Management



# Model Concepts with Competitors

**Telelogic Focal Point** | Display > Product Specification

ID	Model	Brand	Form Factor	Network	Screen	Weight	Dimensions	Price
034	KG800 Chocolate	LG Electronics	Slide	3G	1.5" ~ 3.0"	1.3M ~ 2M	94.4 x 58 x 16.6 mm	?
035	KG225	LG Electronics	Folder	GSM	1.5" ↓	1.3M ↓	78.4 x 45 x 16.2 mm	?
036	U400	LG Electronics	Bar	3G	1.5" ↓	1.3M ↓	102.4 x 56 x 16.6 mm	?
037	KP265	LG Electronics	Slide	GSM	3.0" ~ 4.5"	1.3M ~ 2M	102.4 x 56 x 16.5 mm	?
038	C2500	LG Electronics	Folder	3G	1.5" ↓	1.3M ↓	78.4 x 45 x 16.2 mm	?
039	U8550	LG Electronics	Slide	GSM	4.5" ↑	1.3M ~ 2M	102.4 x 56 x 16.5 mm	?
040	KF510	LG Electronics	Slide	3G	1.5" ~ 3.0"	1.3M ↓	78.4 x 45 x 16.2 mm	?
026	KC550	LG Electronics	Slide	GSM	1.5" ~ 3.0"	1.3M ↓	102.4 x 56 x 16.5 mm	?
025	KU970 Shine	LG Electronics	Bar	3G	4.5" ↑	1.3M ↓	mm	?
050	SLVR L7e	Motorola	Slide	3G	1.5" ↓	1.3M ↓		?
047	RAZR2 V8	Motorola	Slide	3G	4.5" ↑	1.3M ↓		?
048	Q 9h	Motorola	Slide	GSM	1.5" ↓	1.3M ↓		?
049	W510	Motorola	Bar	3G	4.5" ↑	2M ~ 4M		?
041	VE75	Motorola	Slide	3G	1.5" ↓	1.3M ↓		?
042	ZN5	Motorola	Bar	3G	4.5" ↑	1.3M ↓		?
045	ROKR E8	Motorola	Slide	3G	1.5" ~ 3.0"	1.3M ↓		?
046	PEBL U3	Motorola	DOP	3G	1.5" ↓	1.3M ~ 2M		?
043	A810	Motorola	Bar	GSM	1.5" ~ 3.0"	1.3M ~ 2M		?
044	Z6w	Motorola	Slide	3G	1.5" ↓	1.3M ↓		?
018	7610	Nokia	Slide	3G	1.5" ~ 3.0"	2M ~ 4M		?
019	7510	Nokia	Folder	GSM	1.5" ↓	1.3M ↓		?
020	7310	Nokia	Bar	3G	1.5" ~ 3.0"	2M ~ 4M		?
022	E71	Nokia	Bar	GSM	1.5" ↓	1.3M ↓		?

- Compare and analyze all models information with competitors in one single view
- Capture competitive SWOT and other intelligence and link to specific products to analyze competitive position
- Create configurable forms to capture information such as a product specifications, specific competitors and so on

**Telelogic Focal Point** | Product Specification

KT610 KT610 (GSM)

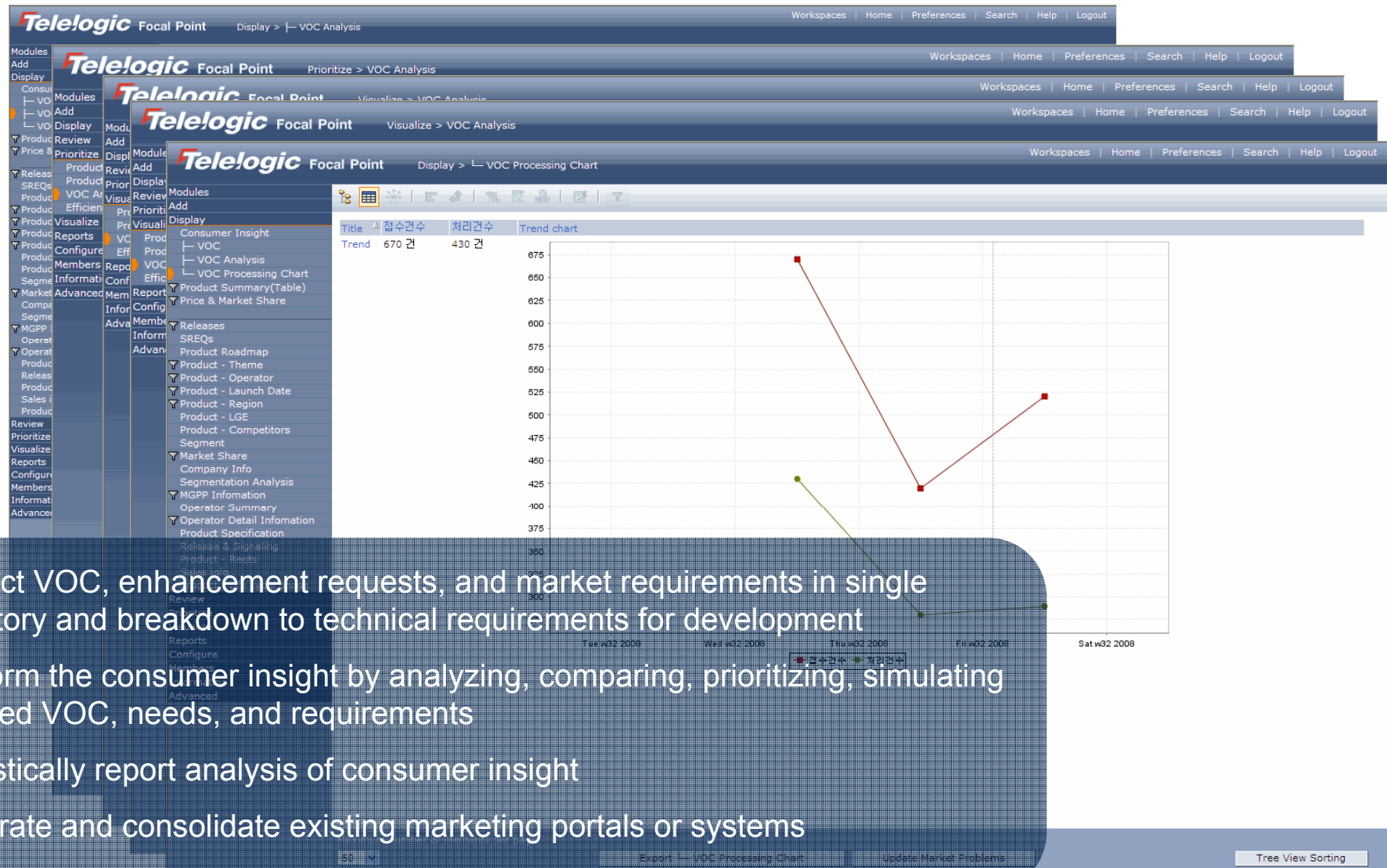
OS Symbian OS v9.2, 560 rel. 3.1  
 Messaging SMS, MMS, Email, Push Email, Instant Messaging  
 Browser WAP 2.0/xHTML, HTML  
 Games Yes  
 Colors Black  
 Camera 2 MP, 1600x1200 pixels; video; secondary VGA videocal camera  
 - Built-in GPS receiver  
 - Java MIDP 2.0  
 - MP3 player  
 - Voice command/dial  
 - Document viewer  
 - Photo/video editor  
 - Integrated handsfree

KG275 KG275 (3G)

Indispensable business tool with advanced voice features, PC connectivity, compatibility with selected Office applications. QWERTY keyboard, touch screen, 3G, MP3 player, 2 megapixel camera with autozoom, flash and video recording, push email, WLAN, LED indicator for new email, MMS, supports



# Capture Product Ideas and Consumer Insight Analysis



- Collect VOC, enhancement requests, and market requirements in single repository and breakdown to technical requirements for development
- Perform the consumer insight by analyzing, comparing, prioritizing, simulating collected VOC, needs, and requirements
- Statistically report analysis of consumer insight
- Integrate and consolidate existing marketing portals or systems



# Centralized View of Market & Competitors

The screenshot displays the Focal Point software interface, which provides a centralized view of market and competitor information. The main window shows a 'Target Quarter' roadmap with a grid of product models across quarters from 2007 to 2010. The 'Cost Grade' section is divided into Premium, Best, Good, and Lower categories, each with associated product models and their respective market share values.

The right-hand pane shows detailed information for the 'KF750 Secret' product, including its ID (001), title, product name, and a comprehensive description of its features such as messaging, browser, games, camera, and video capabilities. It also lists the launch date (2008-05-05), company logo (LG Electronics), and network type (GSM).

At the bottom right, a bar chart compares market share percentages for various brands: LG (approx. 20%), Samsung (approx. 25%), Nokia (approx. 35%), Motorola (approx. 10%), and Ericsson (approx. 5%).

- Collect competitors' information and Win/Loss reports and link to new requirements, customers, and competitors
- Define market segments and associate with key qualities and personas so you can focus products to meet what is valued
- Create and manage customer segmentation maps



# Visibility to Entire Product Portfolio

- View the entire product portfolio, analyze specific product lines, or drill-down to details of a single product
- Include competitor products for easy analysis and comparison
- Easily accessible through any desktop's web browser

The screenshot displays the Telelogic Focal Point interface. The main window shows a 'Life Cycle Phase' matrix with columns for Concept, Under Development, Introduced, Growth, and Maturity. The rows list various companies and their products, such as LG Electronics (KF750 Secret, KF600, KT610, etc.), Samsung Electronics (i8510, i900, etc.), Nokia (N7610, N7310, etc.), Motorola (W510, SLVR L7e, etc.), and Others (O2 XDA, Apple iPhone, etc.). A detailed view of the LG KF750 Secret is shown on the right, including a product image and specifications like 'Messaging SMS, EMS, MMS, Email', 'Camera 5 MP, 2592 x 1944 pixels', and 'Launch Date 5/5/08'.



# Product Planning

The screenshot displays the Telelogic Focal Point interface. On the left, a navigation pane lists various modules like Consumer Insight, Release, and Market Share. The main area shows a hierarchical diagram of product variants (e.g., LGT, KX850, KX710). Below this, a detailed view for a customer (Korea) is shown, including contact information, market segment, and a list of requirements (e.g., SREQQ001: GMS notification, SREQQ002: Online Upgrade). A line chart at the bottom shows 'Product Revenue' from 2004 to 2007, with a total revenue of \$73,000.

This section shows financial data and a forecasted cash flow. It includes a table for 'Net Present Value' comparing 'Actual' and 'Scale' values for Max NPV, Min NPV, and Mean. Below this is a 'Forecasted Cash Flow' bar chart showing values from 'CF Today' to 'CF Year 4' for Mn Levels, Max Levels, and Mean. Two tables provide 'Operational Expenses' and 'Capital Expenses' across five time periods (OpEx Today to OpEx Year 4 and CpEx Today to CpEx Year 4). A 'Cost / Benefit Ratio for Max's' table shows an Actual ratio of 0.01 and a Scaled ratio of 1.

- Establish product cost estimates, constraints, volumes, and cost benefits value
- Identify and link operator requirements to include in product
- Re-prioritize requirements and see immediate impact on resources



# Product Roadmap Analysis



# Manage Product Information and Measure Performance

**Telelogic Focal Point** | Display > Sales info

Workspaces | Home | Preferences | Search | Help | Logout

Modules: Add, Display

Consumer Insight: VOC, VOC Analysis, VOC Processing Chart, Product Summary(Table), Price & Market Share

Releases: SREQs, Product Roadmap, Product - Theme, Product - Operator, Product - Launch Date, Product - Region, Product - LG, Product - Competitors, Segment

Market Share: Company Info, Segmentation Analysis, MGPP Information, Operator Summary, Operator Detail Information, Product Specification, Release & Signaling, Product - Reqs, Sales info, Product - Life cycle phase

Review: Prioritize, Visualize, Reports, Configure, Members, Information, Advanced

**Products (2/19)**

- KF750 Secret
- KU915Vu
- KU990 Viewty
- KE850 Prada
- KU970 Shine
- KC550
- KF600
- KT610
- KO275
- KP100
- KF240
- KS360
- KO800 Chocolate
- KO225
- U400
- KP265
- C2500
- U8550
- KF510

**KF750 Secret**

Title: KF750 Secret

Product Name: KF750 Secret (GSM)

Image:

Description: Messaging SMS, EMS, MMS, Email, Browser WAP 2.0/xHTML, HTML, Games & downloadable, Colors Black, Camera 5 MP, 2520 x 1944 pixels, autofocus, face detection, video (VGA 30fps, QVGA 120fps), flash, secondary videocall camera, Carbon fiber battery cover, Java MIDP 2.0, MP3/WMA/AAC/AAC+ player, MPEG4/DivX(up to 640x480) player, FM radio, Document viewer (txt, pdf, doc, ppt, xls), T9, Organizer, Voice memo, Built-in handsfree

Company Name: LG Electronics

Form factor: DOP

Network Type: GSM

Total Sold Quantity: 15,000 ea

Sales Info: 8,700,000 Won

Sales Price	유럽	북미	중남미	아시아	중국	한국
Q1 of 2008	250,000	320,000	120,000	530,000	420,000	310,000
Q2 of 2008	320,000	420,000	130,000	610,000	450,000	320,000
Q3 of 2008	360,000	450,000	160,000	620,000	510,000	410,000
Q4 of 2008	420,000	480,000	210,000	680,000	520,000	420,000

Add ... a Product | Add ... an ER | Delete

- Capture and manage the changes of product and market information during its lifecycles
- Measure product performance such as price erosion
- Attach documents or embed charts to add clarity to the text

Workspaces | Home | Preferences | Search | Help | Logout

Higher than \$00\$

Company Name	Unit Price	Market Share
LG Electronics	520 USD	26 %

Price and Market share info

History for Unit Price

History for Unit Price

Maximum number of elements per page: 50

Export Price & Market Share | Update Products | Tree View Sorting



# Role-Based Dashboards with Adequate Access Controls

Focal Point™
Workspaces | Home | Preferences | Search | Help | Logout

Add  
Display  
Review  
Prioritize  
Visualize  
Information

Welcome to LGE Portfolio Management System Reset sorting

LG Electronics

**Global Top 3 By 2010**

LG Electronics pursues its 21st century vision of becoming a true global digital leader who can make its customers worldwide happy through its innovative digital products and services.

LG Electronics sets its mid-term and long-term vision anew to rank among the top 3 electronics, information, and telecommunication firms in the world by 2010.

**Product Release Information** Reset sorting

Title	Product	Kick off	Melt-in	FLD	Development	Release	Status
CU915-V	CU915Vu						Started
CU915-X	CU915Vu						Approved
L343X	L343i						Started
Prada,K Series	KE850 Prada						Completed
Viewty-9	KU990 Viewty						Approved

**Product Life Cycle Phase**

Life Cycle Phase	Quantity	Share
<input type="checkbox"/> Concept	1	1,9%
<input type="checkbox"/> Under Development	0	0,0%
<input type="checkbox"/> Introduced	20	37,0%
<input type="checkbox"/> Growth	13	24,1%
<input type="checkbox"/> Maturity	16	29,6%
<input type="checkbox"/> Decline	4	7,4%
<input checked="" type="checkbox"/> Terminate	0	0,0%
<b>Sum: 54</b>		

Add  
Display  
Review  
Prioritize  
Visualize  
Information

- Configure role-based dashboards so all users see their valuable information upon login
- Dashboards are interactive and support drill-down to details for any content



# Event Signal and Stage Gate Reviews

Focal Point™ Display > Release & Signaling

Workspaces | Home | Preferences | Search | Help | Logout

Add  
Display

- Releases
  - SREQs
  - Product Roadmap
  - Product - Theme
  - Product - Operator
  - Product - Launch Date
  - Product - Region
  - Product - LGE
  - Product - Competitors
  - Segment
- Market Share
  - Company Info
  - Segmentation Analysis
  - MGPP Information
  - Operator Summary
  - Operator Detail Information
  - Product Specification
  - Release & Signaling
  - Product - Reqs
  - Sales info
  - Product - Life cycle phase
- Review
  - Prioritize
  - Visualize
  - Information

Title	Version	Product	Planned Start Date	Actual Start Date	Kick off	Planned Melt In Date	Actual Melt In Date	Melt-in	Planned Feature Lockdown Date	Actual Feature Lockdown Date	FLD	Planned Development Date	Actual Development Date	Development	Planned Release Date	Actual Release Date	Release	Status
CU915-V	5.10.0	CU915Vu	2006-12-01	2006-12-20	🟡	2007-05-21	2007-04-30	🟢	2007-09-20	-	🟢	2007-10-10	-	🟢	2007-12-30	-	🟢	Started
CU915-X	8.0.0	CU915Vu	2005-03-19	2005-01-10	🟢	2005-05-24	2005-03-15	🟢	2005-06-04	2005-03-25	🟢	2005-06-15	2005-04-20	🟢	2005-07-29	2005-05-20	🟢	Approved
L343X	3.1.0	L343i	2006-06-17	2006-06-20	🟢	2006-09-21	2006-10-02	🟡	2006-11-11	-	🟢	2006-12-25	-	🟢	2007-01-20	-	🟢	Started
Prada,K Series	3.1.0	KE850 Prada	2005-12-20	2005-12-28	🟢	2006-04-29	2006-05-10	🟢	2006-05-14	2006-05-30	🟢	2006-08-14	2006-09-15	🔴	2006-12-06	2006-12-31	🔴	Complete
Viewty-9	3.5.0	KU990 Viewty	2005-07-15	2005-06-01	🟢	2005-08-24	2005-07-15	🟢	2005-10-02	2005-08-30	🟢	2005-11-14	2005-10-30	🟢	2006-01-12	-	🟢	Approved

Maximum number of elements per page: 50

Export Release & Signaling | Update Releases

- Display the status of product development whether they are progressed to meet business strategies
- Notify the non-compliance of product status via emails
- Manage and control the status of requirements in the product

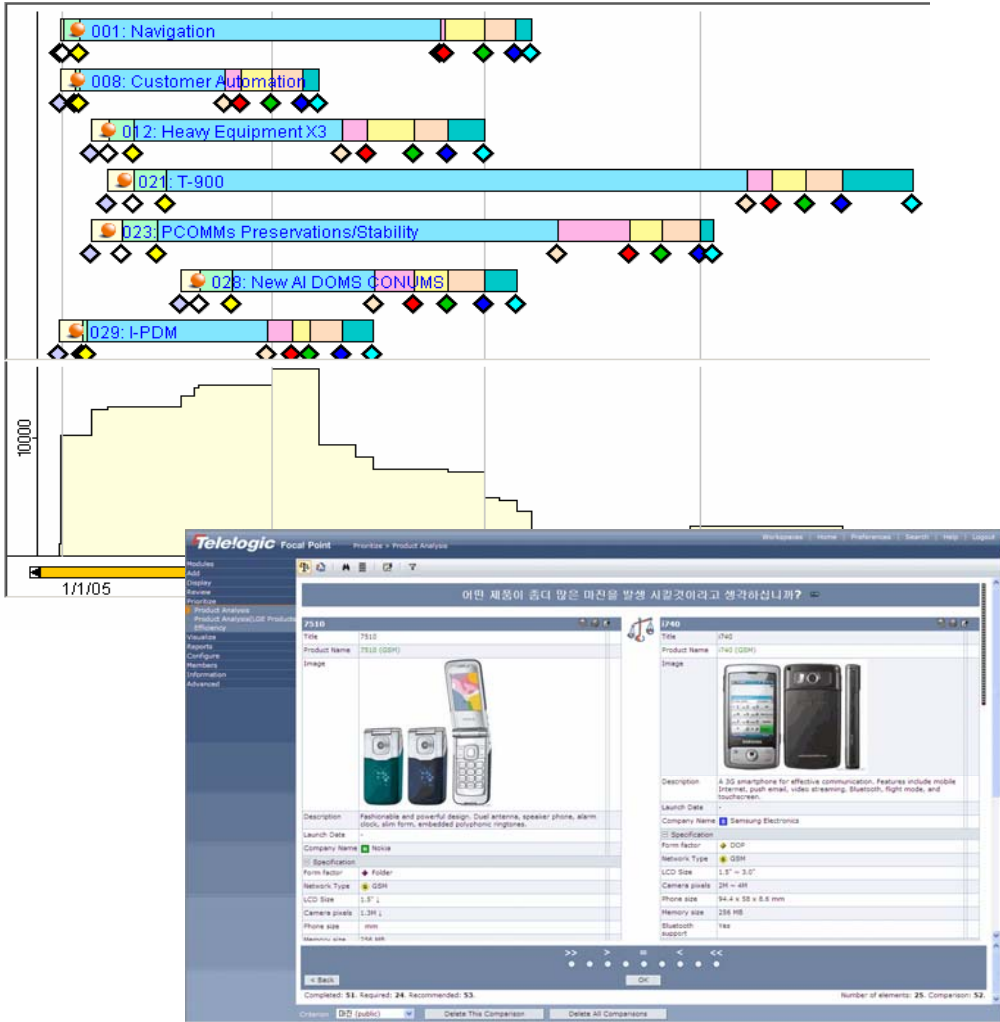




# Focal Point Focus on Product Portfolio Management

The *right* products for the *right* market at the *right* time

- ❑ **Improve Consumer Insight Analysis**
  - Collect, analyze, simulate ideas and features, and link to product requirements
- ❑ **Manage Value-based Portfolio**
  - Understand customer/market value when making decisions about products
- ❑ **Manage Products & their Performance**
  - View and manage 'real-time' the product information and performance



## IBM Rational CLM Solution

CLM

(Collaborative Lifecycle Management)

- 1 6시그마의 개요
- 2 IBM Rational CLM Solution
- 3 IBM Rational PPM Solution
  - 1) Focal Point Overview
  - 2) **Insight Overview**
- 4 IBM Rational MDD Solution
- 5 IBM Rational CCM Solution
- 6 Summary
- 7 Q&A

# 3.2



# IBM Rational Insight - 업무 역할별 정보의 최적화

## 측정하지 않고서는 성장 할 수 없다..!

- 비즈니스의 관리 항목들과 기업의 목표 전략에 맞추어 비용과 리스크를 줄이고 기업의 전반적 투명성 향상
- 측정과 지속적인 프로세스 향상으로 비즈니스의 혁신과 비용을 감소
- 관련 조직 전체 그리고 지역적 분산 개발 환경에서의 프로젝트 통찰력 향상

### 실시간 정보 활용

관리자의 의사결정 능력 향상



CxO

라이프 사이클 결과물의 품질 및 정확도 향상



Process Lead

프로젝트 레벨에서의 정확하고 향상된 의사결정



Project Manager



# Rational Insight를 이용한 소프트웨어 성과 및 측정 관리

개발 라이프 사이클 전반에 걸친 성과 및 예측 관리로 생산성 향상 및 품질 향상...

- 측정 프로세스 및 대시보드 제공
  - ▶ 검증된 측정방법 제공
  - ▶ 대시보드와 모델 기반의 실시간 정보의 활용
  
- 문제점 분석을 통한 의사결정의 알림
  - ▶ 자동 분석에 의해 핵심 문제에 대해 사용자가 특정 행동을 취할 수 있도록 경고 발생
  
- 연관 데이터를 통한 실시간 반응
  - ▶ 자동으로 데이터 수집 및 분석을 통한 개발 라이프 사이클 전반에 걸쳐 10-15%의 생산성 향상
  
- 다양한 데이터 활용
  - ▶ Rational 제품의 데이터는 물론 다른 제품의 Database의 데이터 까지 활용



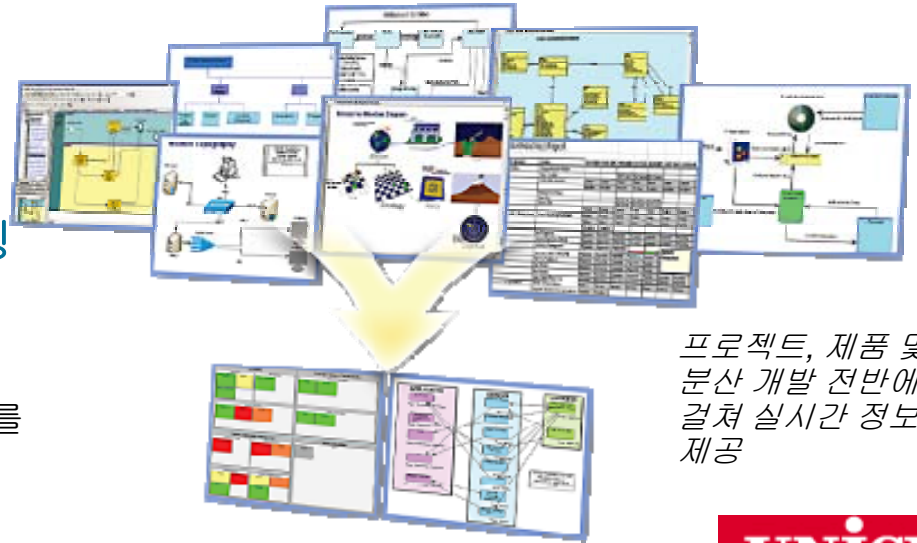
Rational Insight

# 왜 IBM Rational Insight 인가?

자동화된 프로젝트 및 프로세스 측정은 팀 생산성을 15% 이상 향상 시킨다

## ■ 프로젝트와 프로세스의 성과 분석과 모니터링

- ▶ 분산 개발 환경에서의 협업 및 비즈니스 목표에 기반한 운영
- ▶ 오픈 RESTful 과 Jazz 기반의 데이터 통합 아키텍처를 활용한 자동화 측정방법 활용
- ▶ 업계 최고 사례 기반의 표준 라이브러리와 대시보드 제공으로 다양한 형태의 데이터 활용 및 리포트



프로젝트, 제품 및 분산 개발 전반에 걸쳐 실시간 정보 제공



## ■ 지속적인 측정과 프로세스 향상으로 비즈니스의 혁신 과 비용의 감소

## ■ 최고의 비즈니스 인텔리전스 플랫폼인 IBM Cognos의 엔진 내장

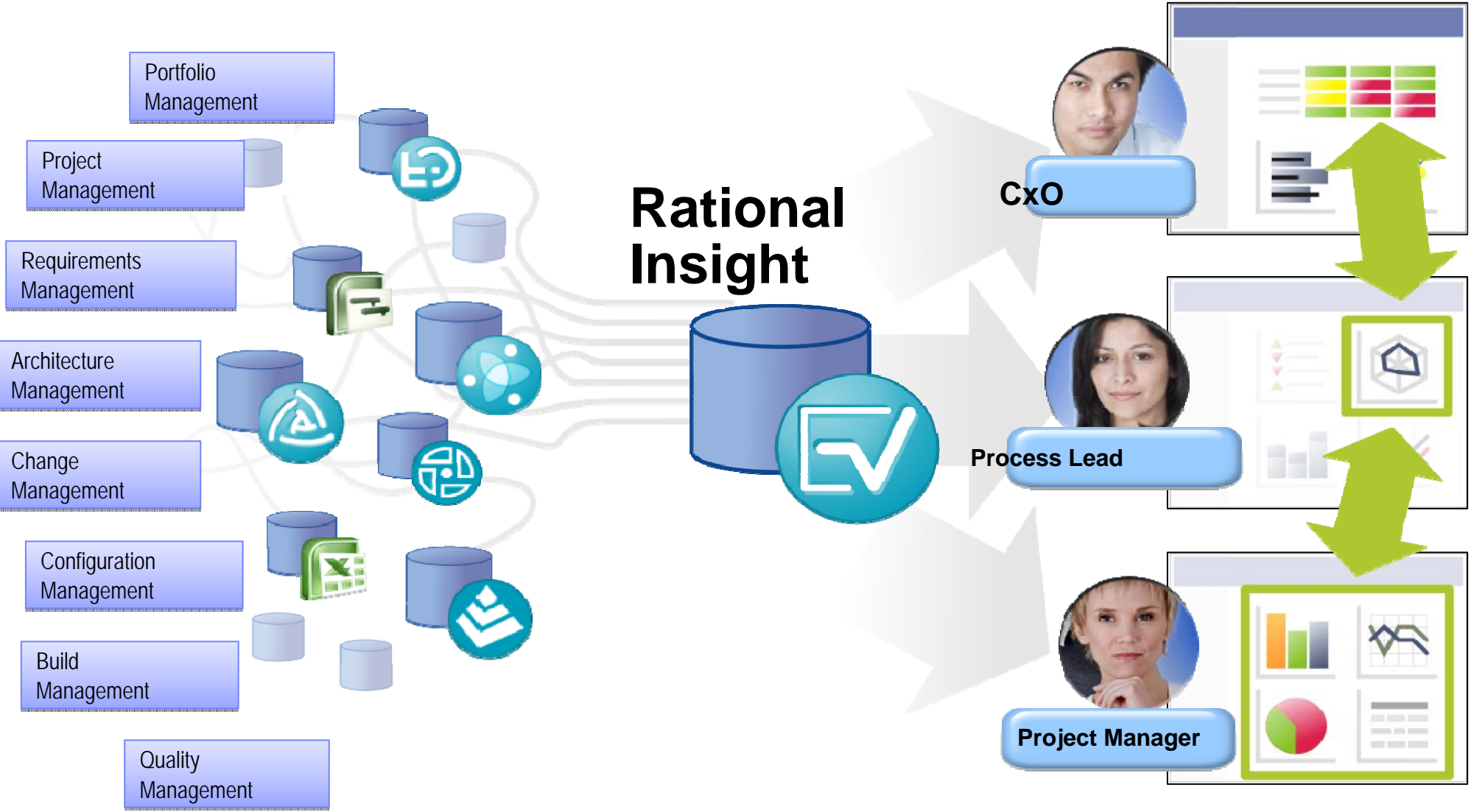
“Until now we were gathering metrics by manual methods. Rational Insight simplifies the presentation... Overall great tool to have for optimizing project efforts and giving management a birds eye view of the project performance at all stages.”



“Through the automation and dashboard capabilities in Insight, our team is saving over 40 hours a month on our reporting activities. We also can offer new capabilities such as “on-demand” dashboards which would have been very labor intensive to do without Insight”



# 비즈니스 목표에 근거한 분산 개발 환경에서의 협업



# 프로젝트 대시보드: 결함관리 예제화면

상세한 지표관리 및 리포트 생성을 위해서 Rational Insight와 연동하여 다양한 리포트 및 대시보드를 활용 할 수 있습니다.

프로젝트 선택

The screenshot displays the Rational Insight Cognos Viewer interface. On the left, a navigation pane shows the 'Project Level Dashboard' with a list of metrics: '이름', '생산성', '요구사항', '이해 당사자(stakeholder) 요구사항', '품질', '결함 발견', '결함 방지', 'Project Detail', and 'Project Summary'. The main area contains four dashboards:

- 결함 대시보드 (Defect Dashboard):** A line chart titled '결함 수/KSLOC' showing defect counts over time for categories: Critical, Major, Average, Minor, and Enhancement. The x-axis ranges from 08/11/01 to 09/02/14.
- 결함 백로그 (Defect Backlog):** A line chart showing the number of defects over time, categorized by status: Open, New, and Closed. The x-axis ranges from 08/11/01 to 09/02/14.
- 테스트 실행 상태 (Test Execution Status):** A stacked area chart titled '실행된 테스트 수' showing the number of tests executed over time. The x-axis ranges from 1/01 to 2/14.
- 요구사항의 테스트 적용 범위 (Test Coverage of Requirements):** A pie chart showing test coverage: Covered (93%) and Not covered (7%).

측정 항목 리스트

지표 결과 값



# 프로젝트 대시보드: 요구관리 예제 화면

상세한 지표관리 및 리포트 생성을 위해서 Rational Insight와 연동하여 다양한 리포트 및 대시보드를 활용 할 수 있습니다.

프로젝트 선택

The screenshot shows the Rational Insight interface for a project named 'Smarter Planet Online Auction'. The dashboard includes several key components:

- Header:** 'Rational Insight' logo and navigation icons.
- Project Selection:** A sidebar on the left titled '프로그램 프로젝트 선택기' (Program Project Selector) with dropdowns for '프로그램: Smarter Planet' and '프로젝트: Online Auction'. Below it is a '프로젝트 레벨 대시보드' (Project Level Dashboard) menu.
- Main Dashboard:**
  - 이해 당사자(stakeholder) 요구사항 대시보드:** The central focus, containing:
    - 개선사항 요청 백로그 (Improvement Request Backlog):** A stacked bar chart showing the number of requests from 08/11/01 to 09/02/14, categorized by priority: High (red), Medium (yellow), and Low (blue).
    - 요구사항 변경 (Requirement Change):** A line chart showing the total number of changes over time, categorized by type: Feature (blue), Supple... (red), Term (green), and Usecase (yellow).
    - 요구사항별 결함 (Requirement-based Defects):** A bar chart showing the number of defects for a single requirement, with a value of 100.
    - 상태별 요구사항 분배 (Requirement Distribution by Status):** A large area chart showing the distribution of requirements across different states over time.

측정 항목 리스트

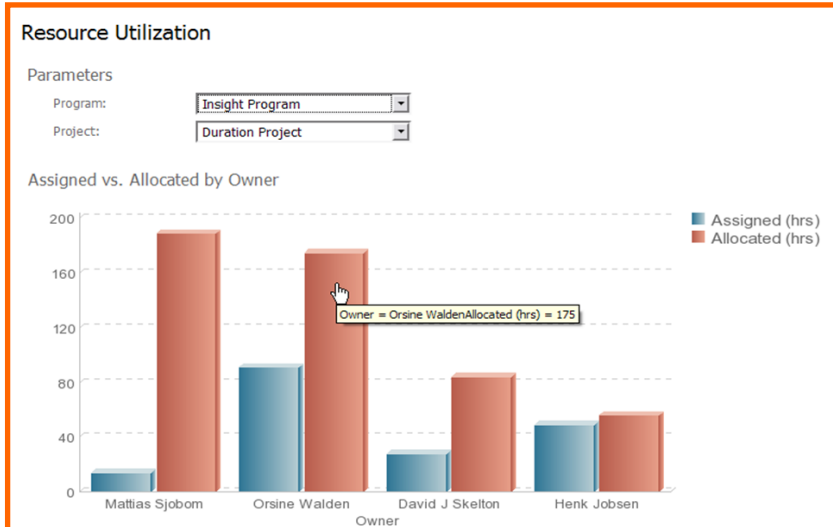
지표 결과 값





# 프로젝트 대시보드: 상세현황 및 리소스 활용 관리 예제화면

상세한 지표관리 및 리포트 생성을 위해서 Rational Insight와 연동하여 다양한 리포트 및 대시보드를 활용 할 수 있습니다.



리소스 관리 차트 및 표

프로젝트 기본 현황

로그인
시작
정보

---

#### Project Detail

기본 항목으로 돌아가기

Labor Cost

Cost	First Baseline	Current	Actual	Till date
	N/A	2376000		2640000

Schedule and Effort

Schedule

Start	2008. 11. 02	2008. 11. 01	2008. 11. 01	-0.37%
Finish	2009. 08. 02	2009. 08. 01	2009. 09. 01	10.99%
Duration	273	273	304	11.36%

Effort

Effort	1427820	1425600	1584000	10.94%
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#### Requests by State and Type

State	Assigned	Closed	Resolved	Submitted	Total(State)
Defect	156	102	80	42	380
Enhancement	38	39	22	7	106
summarytask	1	17	0	1	19
changerequest	0	13	0	1	14
task	0	6	0	0	6

---

#### Top 5 Risks by Probability Cost

Rank	위험성 ID	이름	우선순위	Occurred Date	(ko) PROBABILITY_COST	소유자 이름
1	4	Summary 1	4		9418.00	Info not available
2	17	Summary 4	5		7476.00	Info not available
3	1	Summary 5	2		6113.00	Info not available
4	2	Summary 5	0		5422.20	Info not available
5	33	Summary 5	1		3858.40	Info not available

### Resource Utilization

Parameters  
 Year: **2009** Quarter: **Quarter** Month: **Month** Week: **Week**

Organization	City	Year	Quarter	Month	Availability (hours)	Allocated (hours)	Assigned (hours)	Actual (hours)	Allocation/Availability	Assigned/Allocation	Actual/Assigned
Info not available	Info not available	2009	1Q	January,2009	0	1,147	185	0	0.00%	16.13%	0.00%
				February,2009	0	900	0	0	0.00%	0.00%	0.00%
				March,2009	0	1,188	198	275	0.00%	16.67%	139.02%
		2009	2Q	April,2009	0	990	0	8	0.00%	0.00%	0.00%
				May,2009	0	945	0	0	0.00%	0.00%	0.00%
				June,2009	0	990	0	0	0.00%	0.00%	0.00%
		2009	3Q	July,2009	0	1,035	0	0	0.00%	0.00%	0.00%
				August,2009	0	945	0	0	0.00%	0.00%	0.00%
				September,2009	0	758	146	0	0.00%	19.26%	0.00%
		2009	4Q	October,2009	0	915	541	329	0.00%	59.13%	60.81%
				November,2009	0	273	182	125	0.00%	66.67%	68.68%

About This Report  
 This report shows detailed information about how resources are being used. Available time is the total number of resource hours available from the people who met the specified criteria. Allocated time is the total number of hours the resources are allocated to projects. Assigned time is the total number of hours the resources are assigned to tasks. Actual time is the total number of hours actually worked. Ratios are calculated using these numbers to show how well the resources are being used. Lower ratios might indicate unused or under-used resources. Ratios close to one indicate that people's time is being fully used, with little spare capacity. Ratios greater than one indicate over-allocation.



# 제품 개발 현황 예제화면

## Deliver performance and predictability with integrated lifecycle intelligence

### Market Share

Segment:  Product:  Release:

Data is for presentation purposes only

Segment	Product	Release	Overall Market Share	Develop Transparently						Extend Our Reach				Operating Collaboratively	
				Plans	Beta	Milestones	Defects	Work Items	Content Commentable	Support Enabled	Sales Enabled	Green Threads	Alt Packaging	Energized Community	Engaging Conversation
Application Lifecycle Management (ALM)	Jazz Foundation	Jazz Foundation 1.0	Green	Green	Red	Green	Green	Green	Red	Green	Green	Green	Grey	Green	Green
		Online Auction	Red	Red	Red	Red	Red	Green	Green	Yellow	Red	Red	Green	Red	
	RTC	RTC 2.0	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
		RTC 2.0.0.1	Green	Green	Red	Green	Green	Green	Green	Red	Green	Green	Green	Green	Green
Governance Solution	Focal Point for Project Management	FPJM 1.0	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
		Rational Insight	Insight 1.0	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red
Quality Management (QM) Solution	RQM	RQM 2.0	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
	RRC	RRC 2.0	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red

제품 마켓쉐어 현황

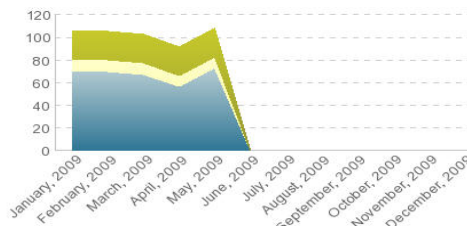
### Headcount

Country: Brazil

Headcount: Actual

Show:

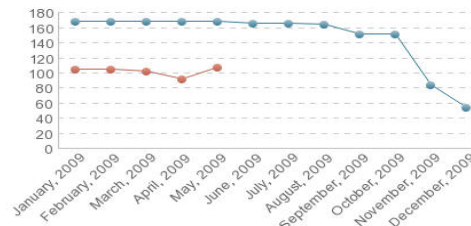
Person Months



Development Management Support

Headcount: Plan vs. Actual

Person Months



Planned Actual

### Release Information

Segment	Product	Release	Plan eGA	Outlook eGA	% Complete	Schedule Variance %	Actual Headcount YTD	Headcount YTD Variance %	Overall Project Health
Application Lifecycle Management (ALM)	Jazz Foundation	Online Auction	Mar 31, 2009	Jul 7, 2009	75%	68%	363	26%	80%
	RTC	RTC 2.0.0.1	Sep 22, 2009	Sep 30, 2009	65%	8%	128	42%	86%
Quality Management (QM) Solution	RRC	RRC 2.0	Nov 4, 2009	Nov 24, 2009	25%	17%	24	37%	85%

지역별 제품 개발 진행 현황

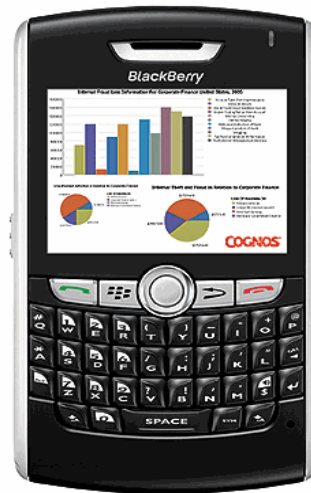


# 역할별 다양한 형태의 리포트 활용 예제화면

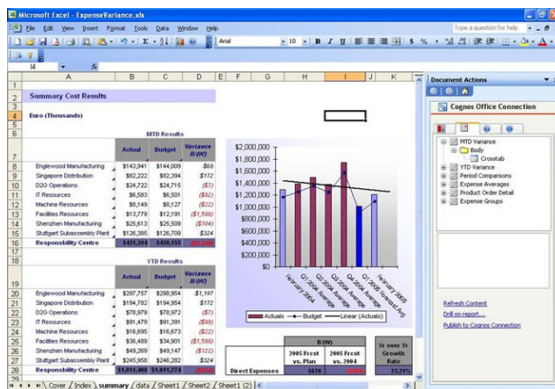


View dashboards and reports online...

View reports on mobile devices...



Search for reports using standard paradigms...



Embed charts and reports in spreadsheets / presentations...



Easily create and customize graphical dashboards...



## IBM Rational CLM Solution

CLM

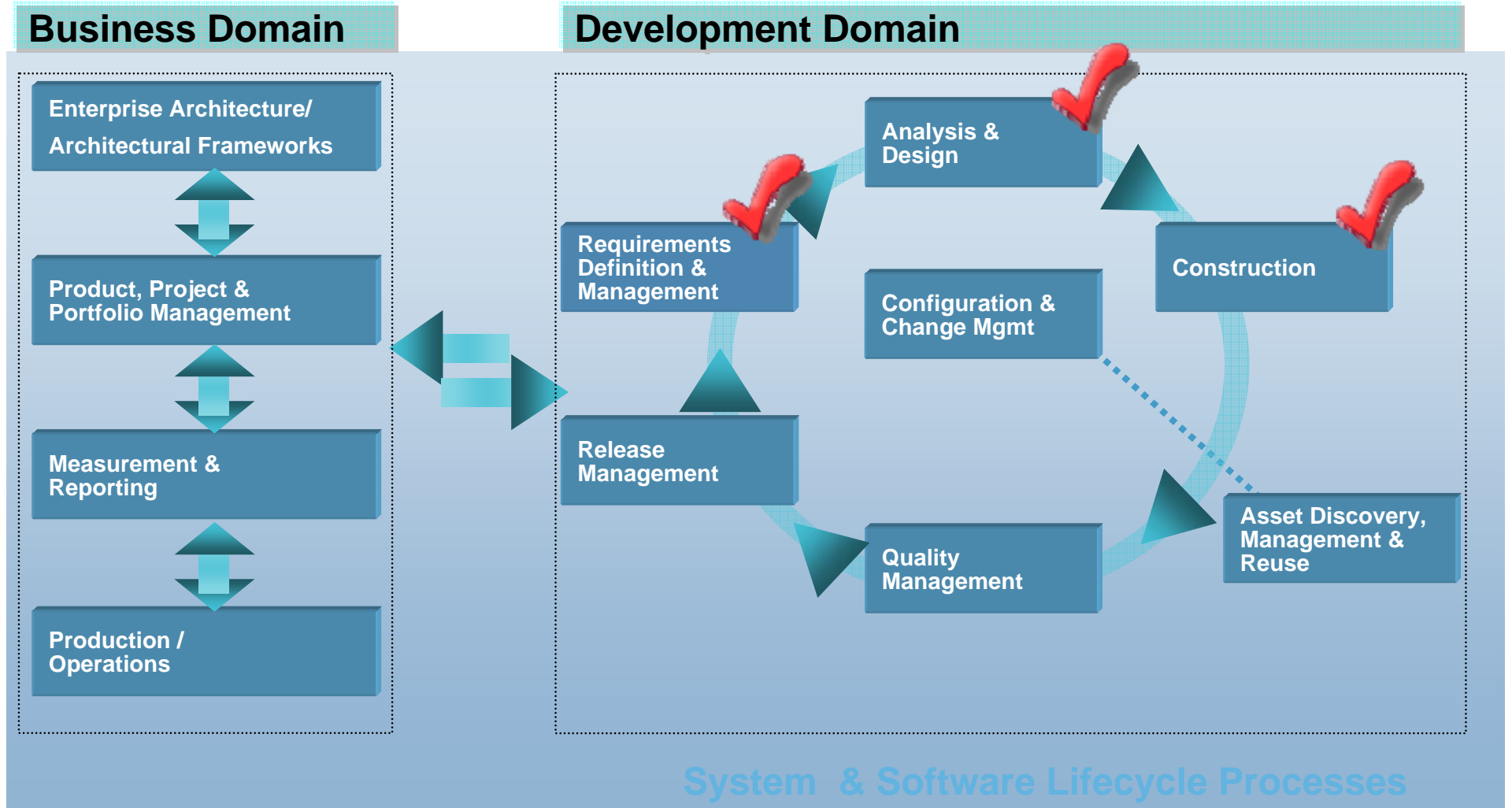
(Collaborative Lifecycle Management)

- 1 6시그마의 개요
- 2 IBM Rational CLM Solution
- 3 IBM Rational PPM Solution
- 4 IBM Rational MDD Solution
  - 1) **DOORS Overview**
  - 2) Rhapsody Overview
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# 4.1

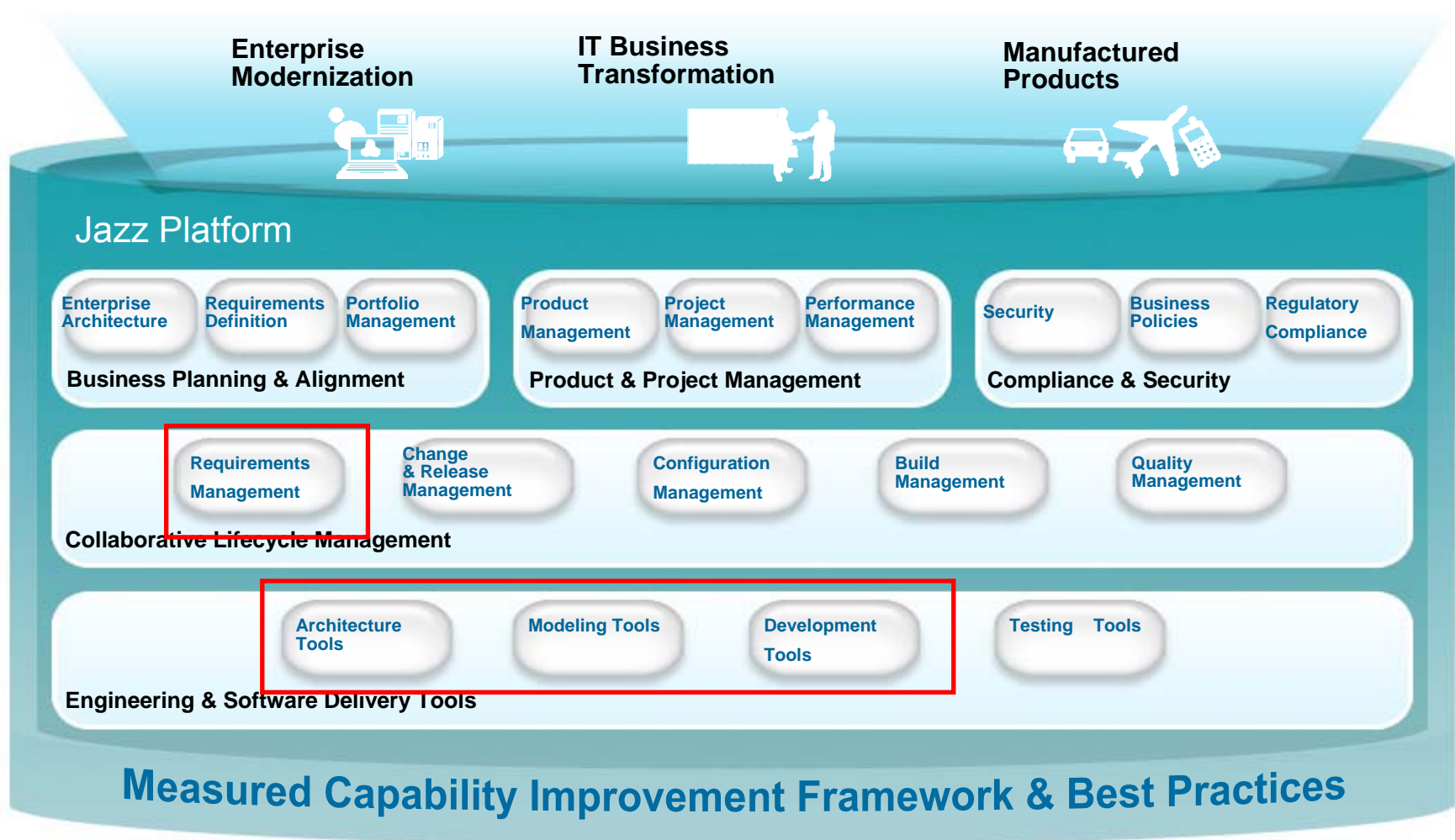


# IBM Rational Product Portfolio Overview



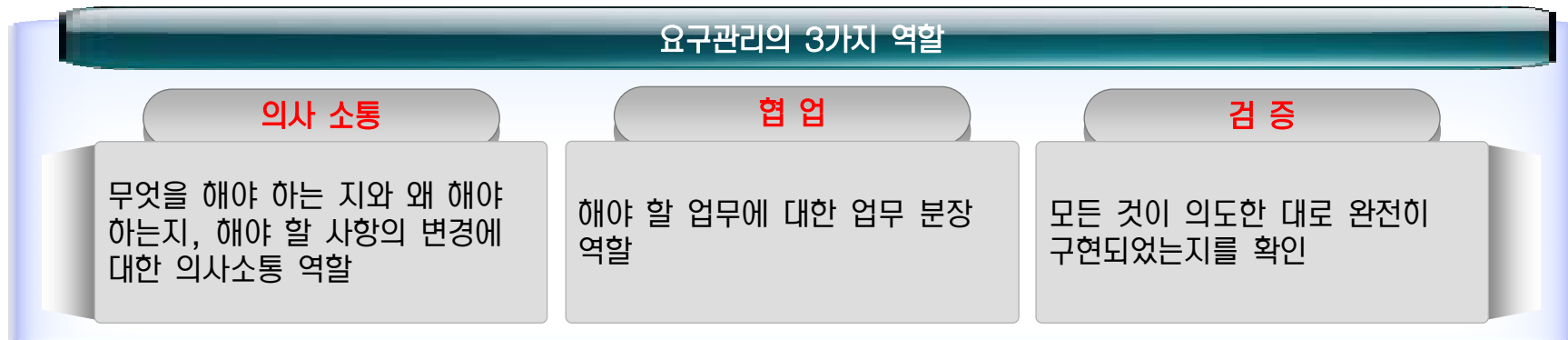
# The Rational MDD솔루션

Rational Software 플랫폼에서 성공적인 비즈니스를 위한 핵심 영역



## 요구사항 관리란?

- “요구사항 관리의 목적은 ...프로젝트에 있어서 고객과의 공통 이해를 수립하기 위함이다.....고객과의 합의는... 프로젝트를 계획하고 관리하기 위한 근거가 되는 것이다. - 카네기 멜론 대학의 SEI의 CMM(Capability Maturity Model)



- 궁극적으로 요구사항 관리는 고객 만족에 관한 것이다. - 현재 우리가 올바른(Right) 제품을 만들고 있는가를 확인하는 과정
  - ▶ 우리가 만들어야 하는 제품을 명확히 함(Definition)
  - ▶ 매 단계마다 우리가 의도하는 방향으로 가고 있는지 확인(Traceability)
  - ▶ 궁극적으로 우리가 의도했던 대로 만들어 졌는지 확인(Conformance)



# 왜 요구사항 관리 ?

## 요구사항 에러에 따른 재작업

- 뒤늦게 발견된 에러를 수정하는 비용이 요구사항 분석단계에 발견해서 수정하는 비용보다 약 **200배** 더 소요<sup>1</sup>
- 개발 예산의 **40%이상**이 잘못된 요구사항에 의해 낭비<sup>2</sup>

## 프로젝트 영향

- 프로젝트의 **41%**는 기대한 비즈니스 가치와 ROI를 제공하는데 실패<sup>3</sup>
- 프로젝트의 **49%**는 초기예산을 초과<sup>3</sup>
- 단지 **28%**만 계획된 비용과 기간내 성공<sup>4</sup>

## 프로젝트 지연

- **6개월의 지연은 5년간 발생하는 ROI의 33%에 해당하는 비용을 발생**<sup>5</sup>

요구사항관련 이슈는 과도한 재작업, 납기 지연, 낮은 품질과 프로젝트의 실패를 야기.



“우리의 연구결과에 따르면 불완전한 요구사항 수집, 관리 및 분석작업에 기인한 개발 실패사례가 80%가 넘는 것으로 나타났습니다.”

IDC, November 2007

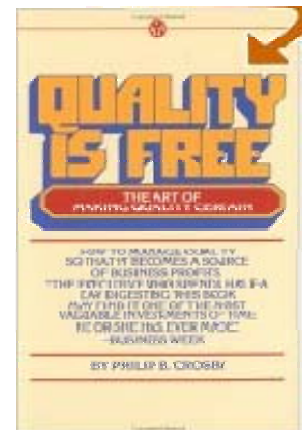
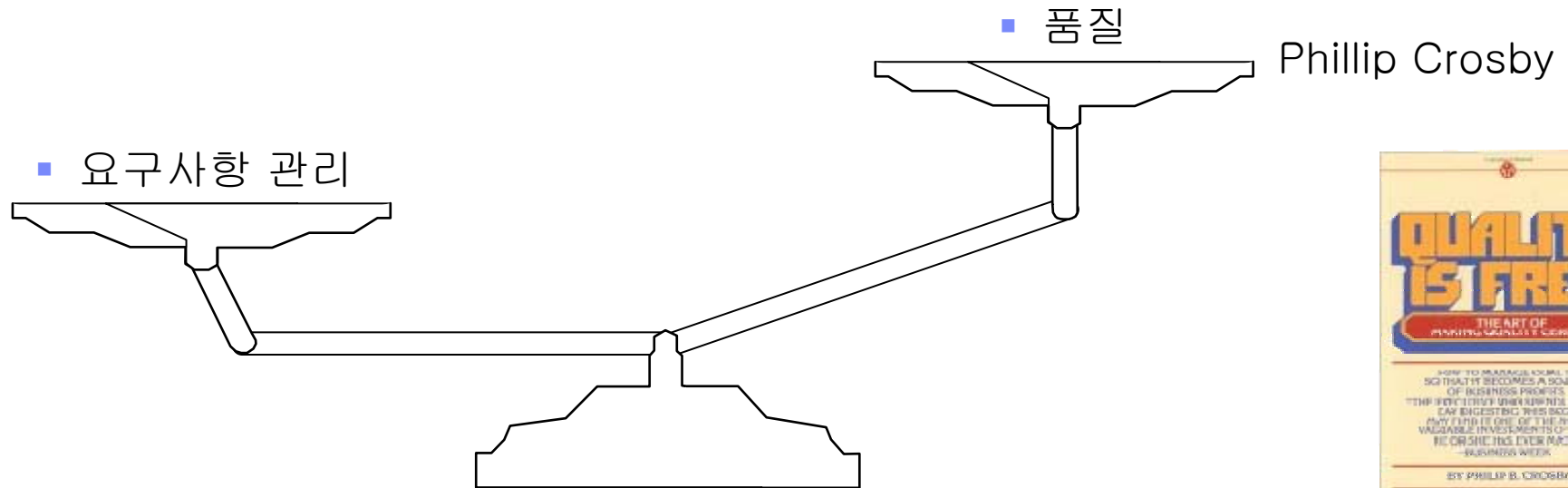
Sources: 1) Leffingwell & Widrig, "Managing Software Requirements," Addison Wesley, 1999 2) IAG Consulting, 2008 3) Dynamic Market Limited, 2007 4) Standish Group, 2001 5) Don Reinertsen, McKinsey, 1983





## 요구사항과 품질

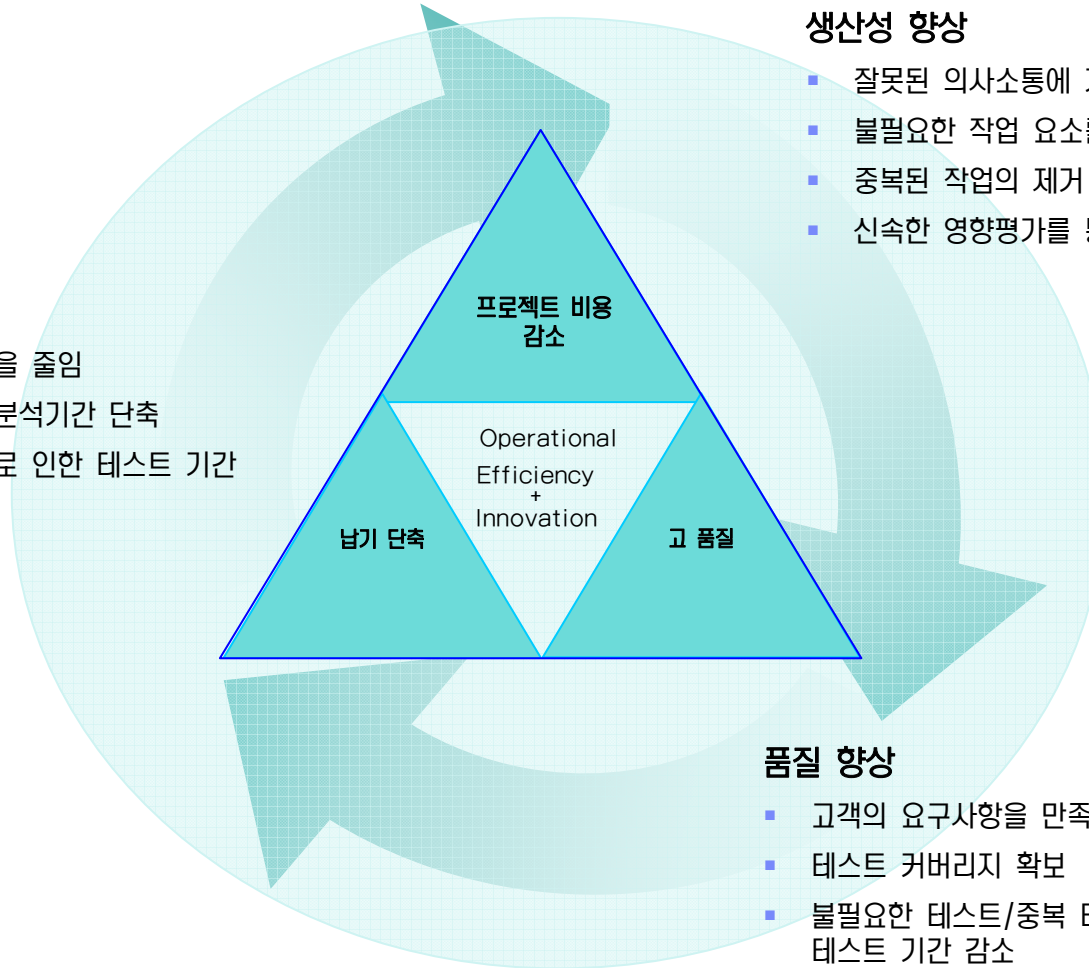
- 품질이란 고객의 요구사항에 잘 부합되는 정도(Conformance to requirements).
- 요구사항관리를 잘 하면 품질은 저절로 따라오는 것이다. – Phillip Crosby
- 제품의 품질은 사양서를 확정할 때 이미 결정된다.
- 요구사항 관리는 단순 문서화 작업이 아니라 품질을 높이는 작업이다.



# 요구사항 관리가 주는 가치 (I)

## 개발 기간 단축

- 요구사항 오류에 따른 재작업을 줄임
- 요구사항의 재사용으로 인한 분석기간 단축
- 요구사항 기반 테스트 방식으로 인한 테스트 기간 감소
- 효과적인 변경관리



## 생산성 향상

- 잘못된 의사소통에 기인한 낭비되는 요소(시간, 비용) 감소
- 불필요한 작업 요소를 줄여줌.
- 중복된 작업의 제거
- 신속한 영향평가를 통한 효과적인 변경 통제

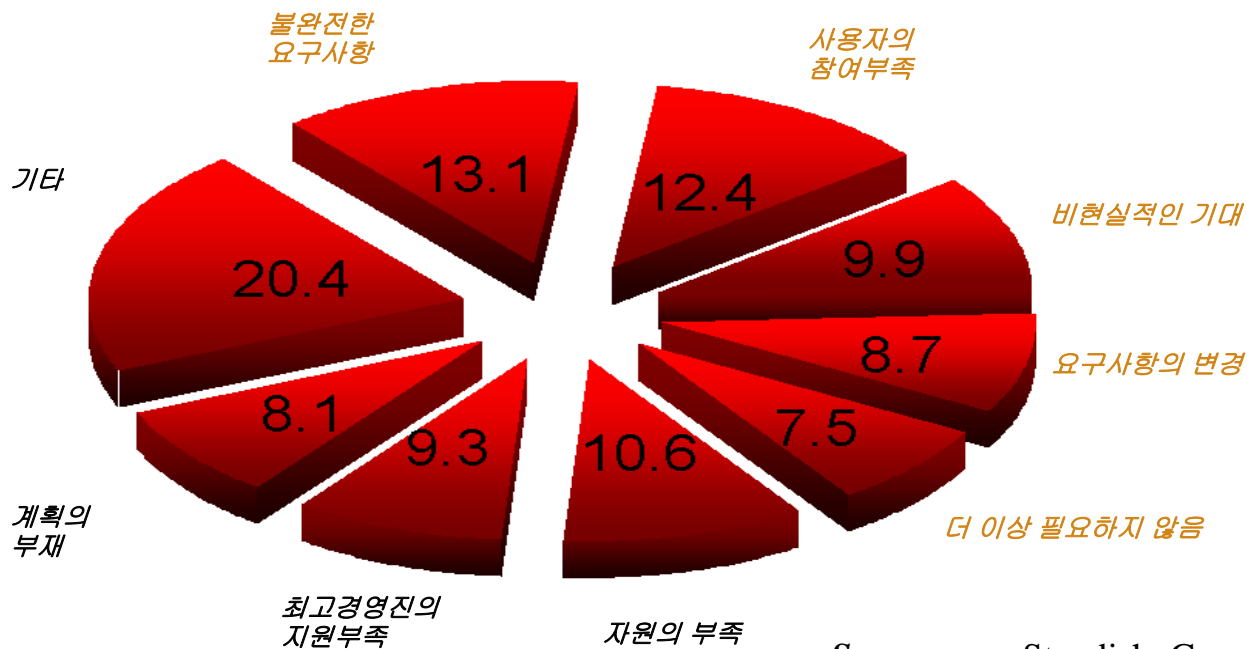
## 품질 향상

- 고객의 요구사항을 만족하는 고품질 제품 delivery
- 테스트 커버리지 확보
- 불필요한 테스트/중복 테스트/누락된 테스트의 식별을 통한 테스트 기간 감소



## 요구사항 관리가 주는 가치 (II)

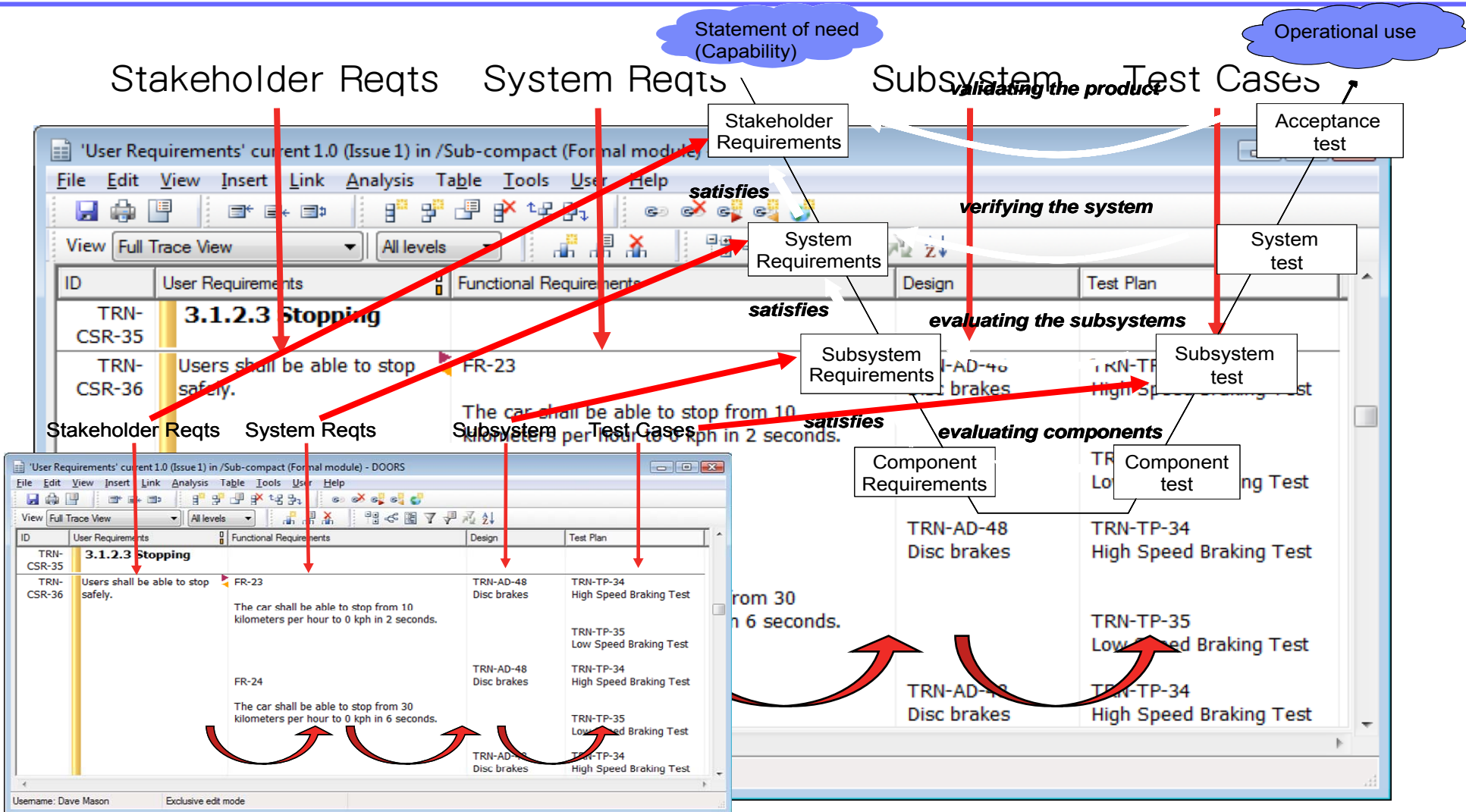
# 프로젝트의 성공 확률을 높여 줍니다.



Sources: Standish Group & Scientific American



# DOORS란?



“전체 수명주기의 산출물들간의 개별 요구사항 추적성 도구”



## IBM Rational CLM Solution

CLM

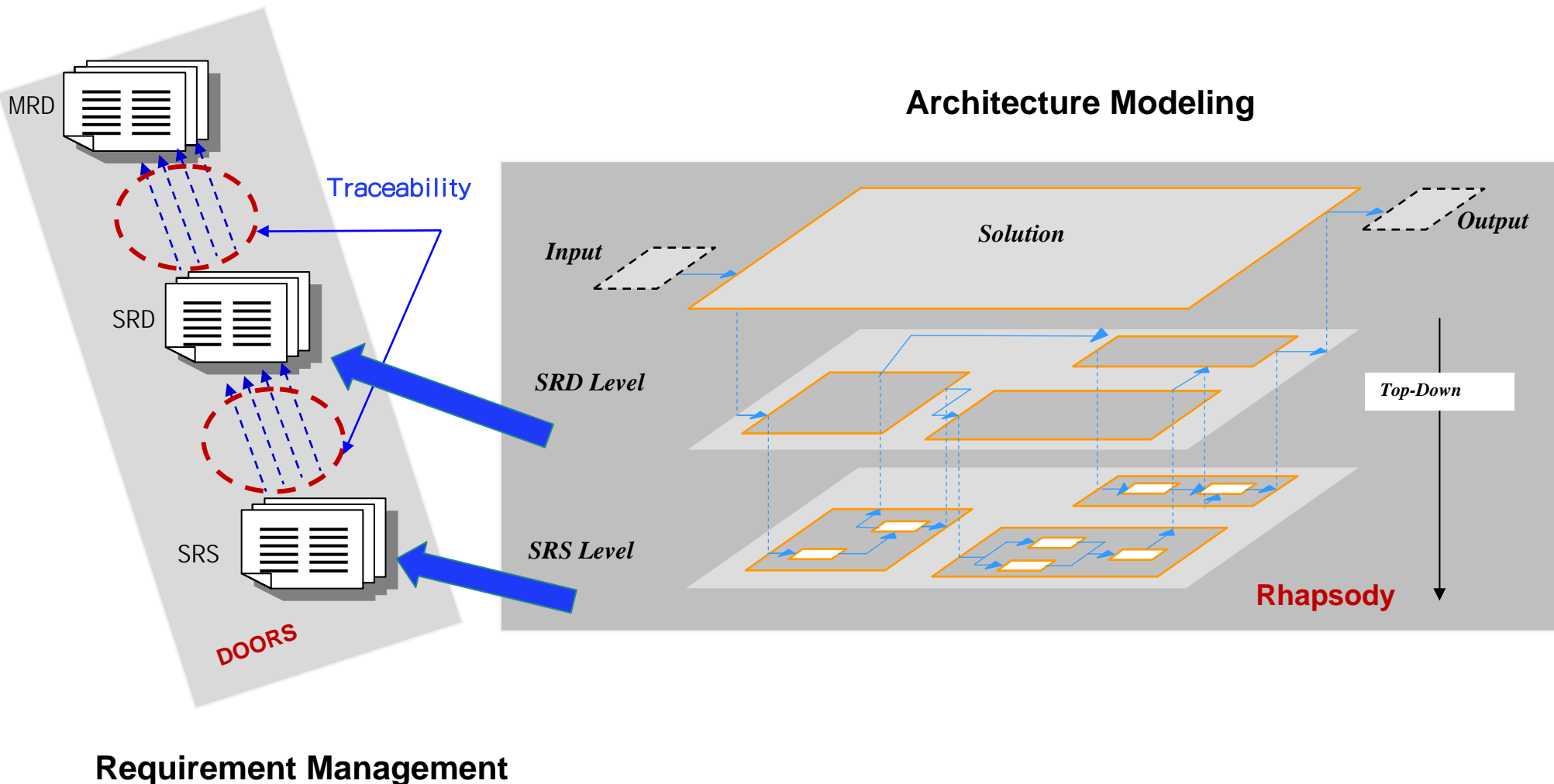
(Collaborative Lifecycle Management)

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# 4.2

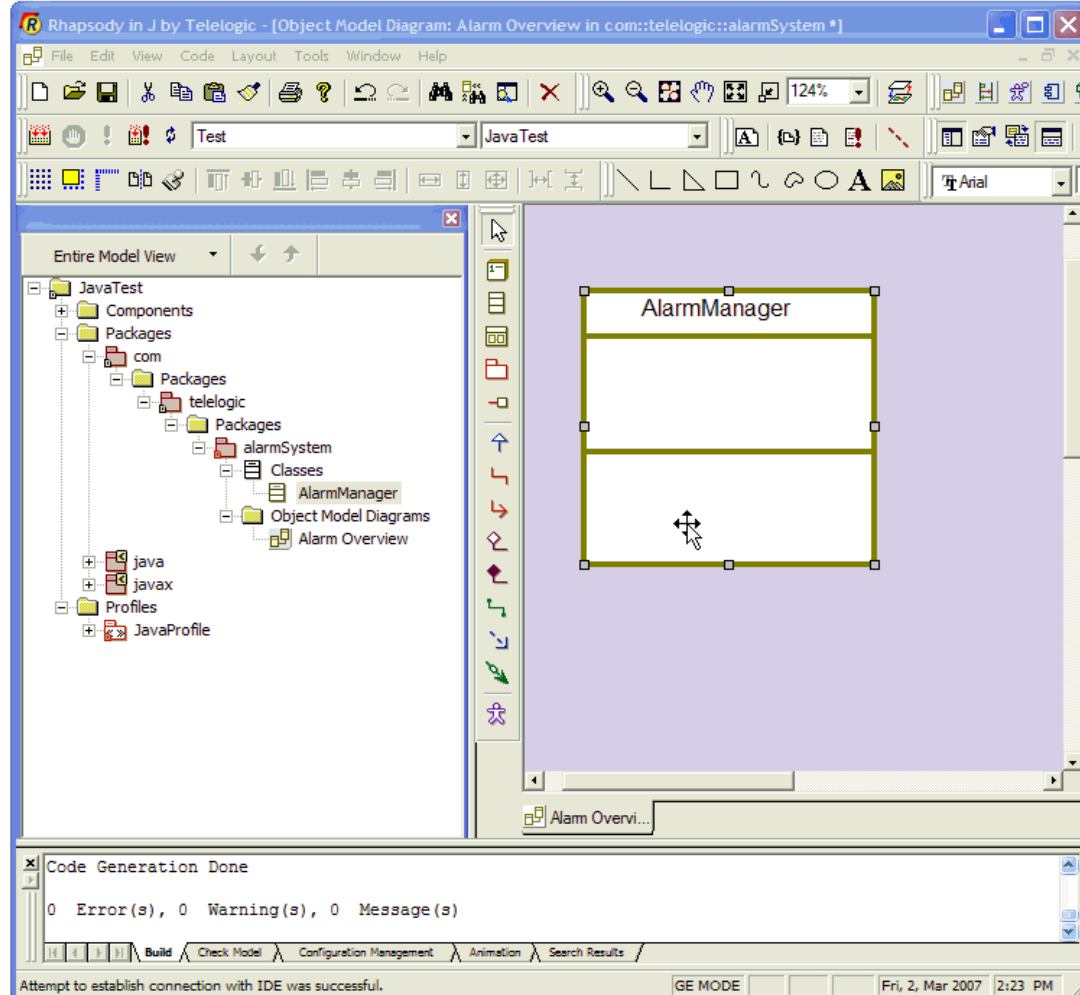
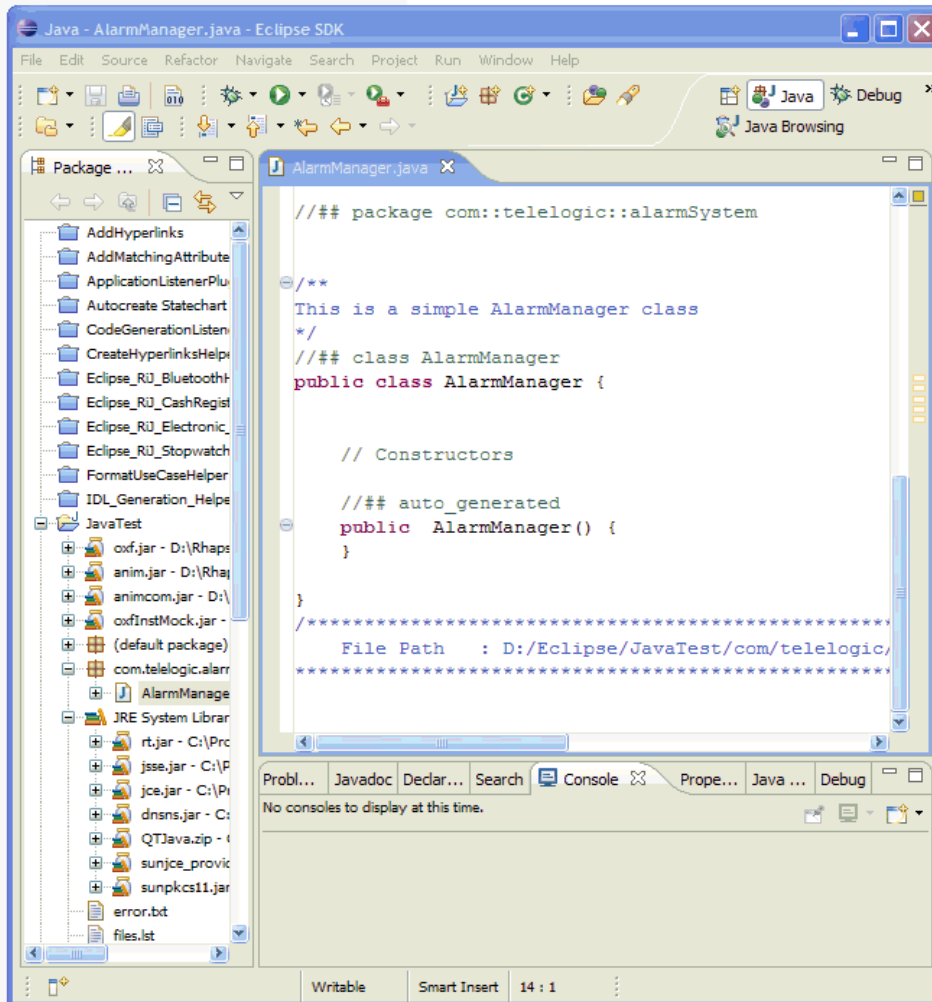


# Requirements based Development



## Hand Coding and Modeling Co-Existence : Dynamic Model Code Associativity

- Change one view, the others change automatically!



# Design Level Debugging with Rapid Gui's

- Virtual prototype / Panel graphics support
  - Ideal communications aid for design reviews and general sharing of information.

The screenshot displays the IBM Rational software interface for design level debugging. It is divided into several key components:

- Browser (Left):** Shows a local intranet view of the project structure, including a folder named 'V71\_RiCpp\_BluetoothHeadset' and a sub-folder 'Builder[0]'. Below the browser, there are two small graphical panels labeled 'Bluetooth Headset' and 'Nokia 6210'.
- Model Explorer (Middle-Left):** A tree view showing the project's model structure, including packages like 'AnalysisPkg', 'PresentationPkg', 'InterfacePkg', 'MobilePhonePkg', and 'HeadsetPkg'. It also lists various events such as 'evPress()', 'evLongPress()', and 'evRelease()'.
- Statechart Editor (Right):** Two statechart diagrams are visible. The top one, titled 'Statechart of : Button - Builder[0]->itsHeadset->itsButton', shows states like 'idle', 'debounce', and 'pressed' with transitions triggered by events like 'evPress' and 'evRelease'. The bottom one, titled 'Statechart of : Headset - Builder[0]->itsHeadset', shows a more complex statechart with states like 'off', 'disconnected', 'connected', and 'connecting', along with transitions and guards.
- Bottom Panel:** Contains a 'Call Stack' and an 'Event Queue' for debugging. The status bar at the bottom indicates 'GE MODE' and the date/time 'Fri, 2, Mar 2007 11:35 AM'.





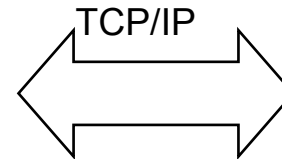
# Model V&V

Host나 Target 시스템과 TCP/IP 통신을 통해 Animation message 교환 – 디버깅 기능 제공

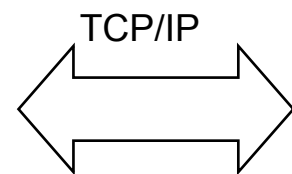
The screenshot shows the Rational Rhapsody IDE with the following components:

- Entire Model View:** A tree view showing the project structure including classes like Button, Gui, Stopwatch, and Timer, along with their instances and relationships.
- Sequence Diagram:** A diagram titled "Animated Normal operation" showing interactions between Timer and Gui objects. Messages include Constructor, reset(), show(b = true), and play(minutes = 0, b = true, seconds = 1).
- Statechart of Timer:** A statechart with states 'off' and 'on'. Transitions include 'evHeld' from off to on, 'evPress' from on to off, and 'tm(600)/tick()' from on to a state 'tic?'. A 'running' state is also indicated.
- Statechart of Button:** A statechart with states 'idle', 'pressed', and 'held'. Transitions include 'evPress' from idle to pressed, 'evRelease/itsTimer.gen(new evPress());' from pressed to idle, and 'evRelease' from pressed to held.
- Features of Stopwatch[0]->itsTimer[0]:** A table showing attributes for the stopwatch instance.

Name	Value	Type
minutes	0	int
seconds	0	int



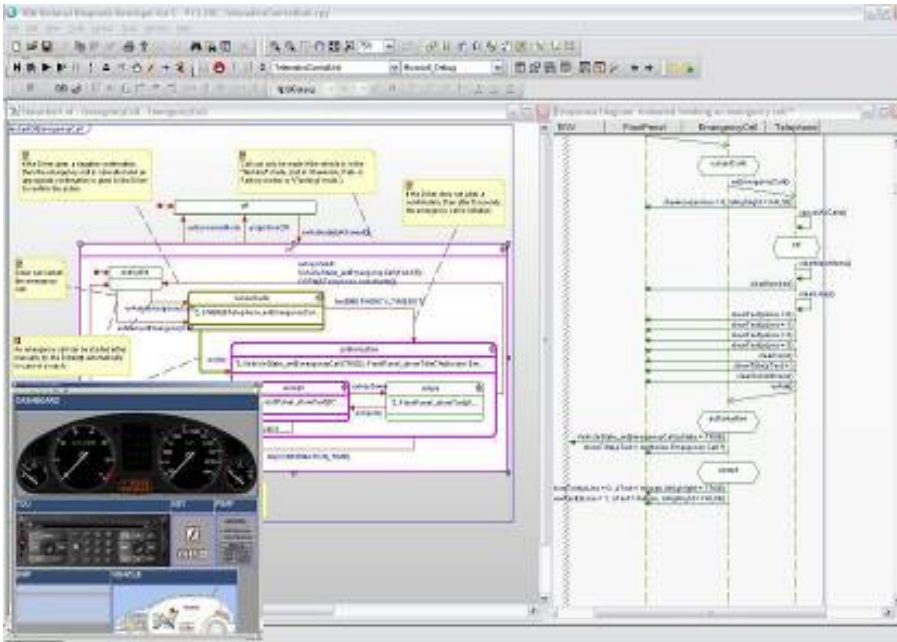
Host Based



Target system



# Rational Rhapsody® 개요



## Rhapsody란?

- 요구사항분석, 모델링, reverse engineering, 모델기반 테스트, 타겟팅을 수행할 수 있는 UML2 기반 통합 개발 환경 툴
- 다양한 요구사항 툴과 연동, 요구사항과 모델요소간 연결 및 추적성 관리
- 다양한 개발언어 (C, C++, Java) 지원
- 다양한 profile 지원(Android, SysML, UML Testing Profile, ...)

**"Using Rhapsody software improves the quality of the application software that is integral to the series hydraulic hybrid system development process."**

*Steve Zielinski, Eaton chief engineer for software*

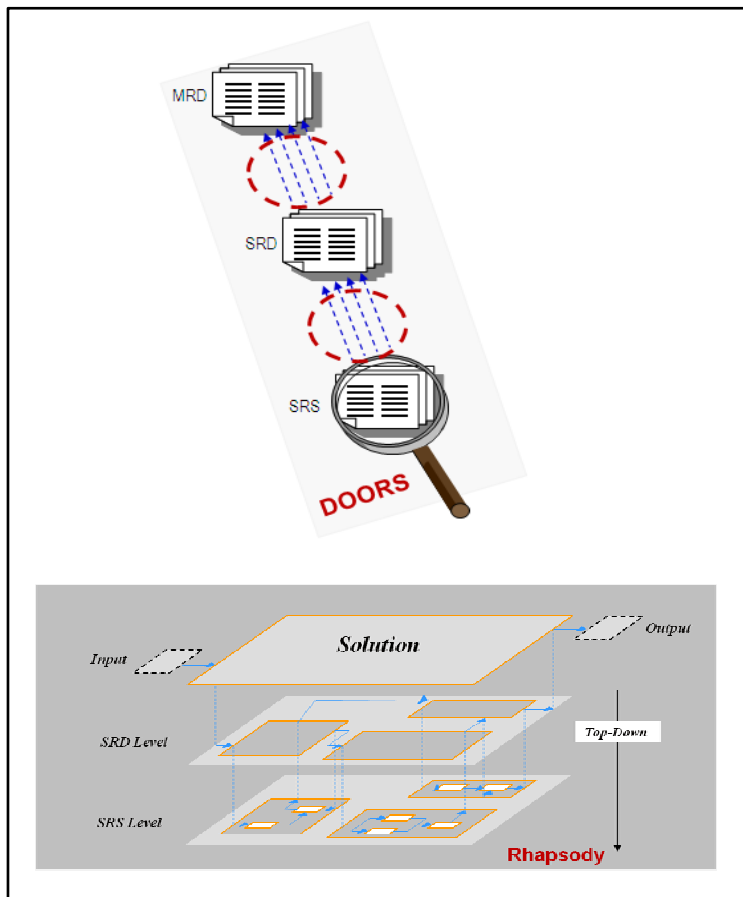
## 도입 효과

- 효율적인 협업과 정확한 의사소통 을 통해 요구사항에 맞는 올바른 제품 생산 도움
- 디자인 단계부터 지속적인 테스트를 함으로써 문제점을 개발 초기에 발견, 수정하고, 품질을 향상
- 코드 및 문서 자동 생성을 통해 개발 시간을 단축
- Reverse를 통해 기존 코드 재사용 극대화

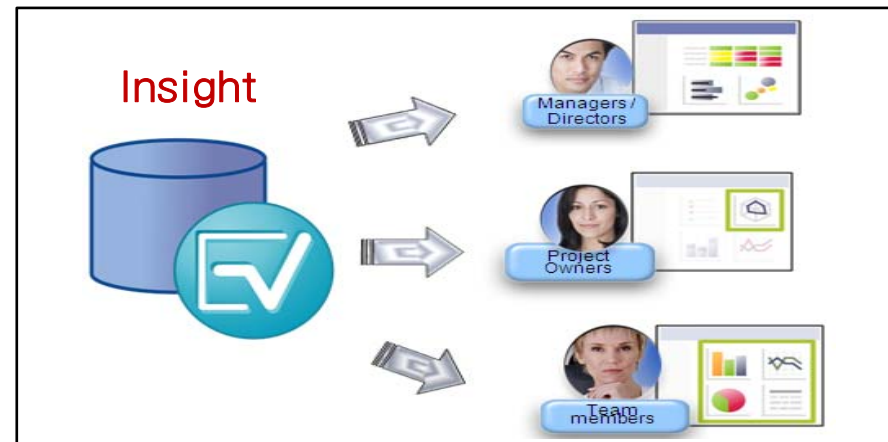


# MDD Solution based on Artifacts

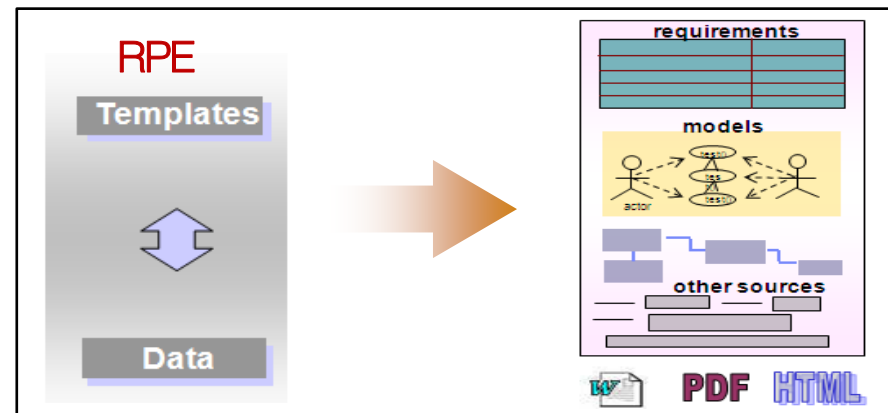
## Data Source



## Dashboard



## Automatic Report Generation



## IBM Rational CLM Solution

CLM

(Collaborative Lifecycle Management)

- 1 6시그마의 개요
- 2 IBM Rational CLM Solution
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# Enhanced collaborating with Rational Team Concert

**Team Progress**

Progress: 32/74 | +11 h Estimated: 100%

Progress: 32/56 | +14.75 h Estimated: 100%

**What work has been completed?**

**What work is in progress?**

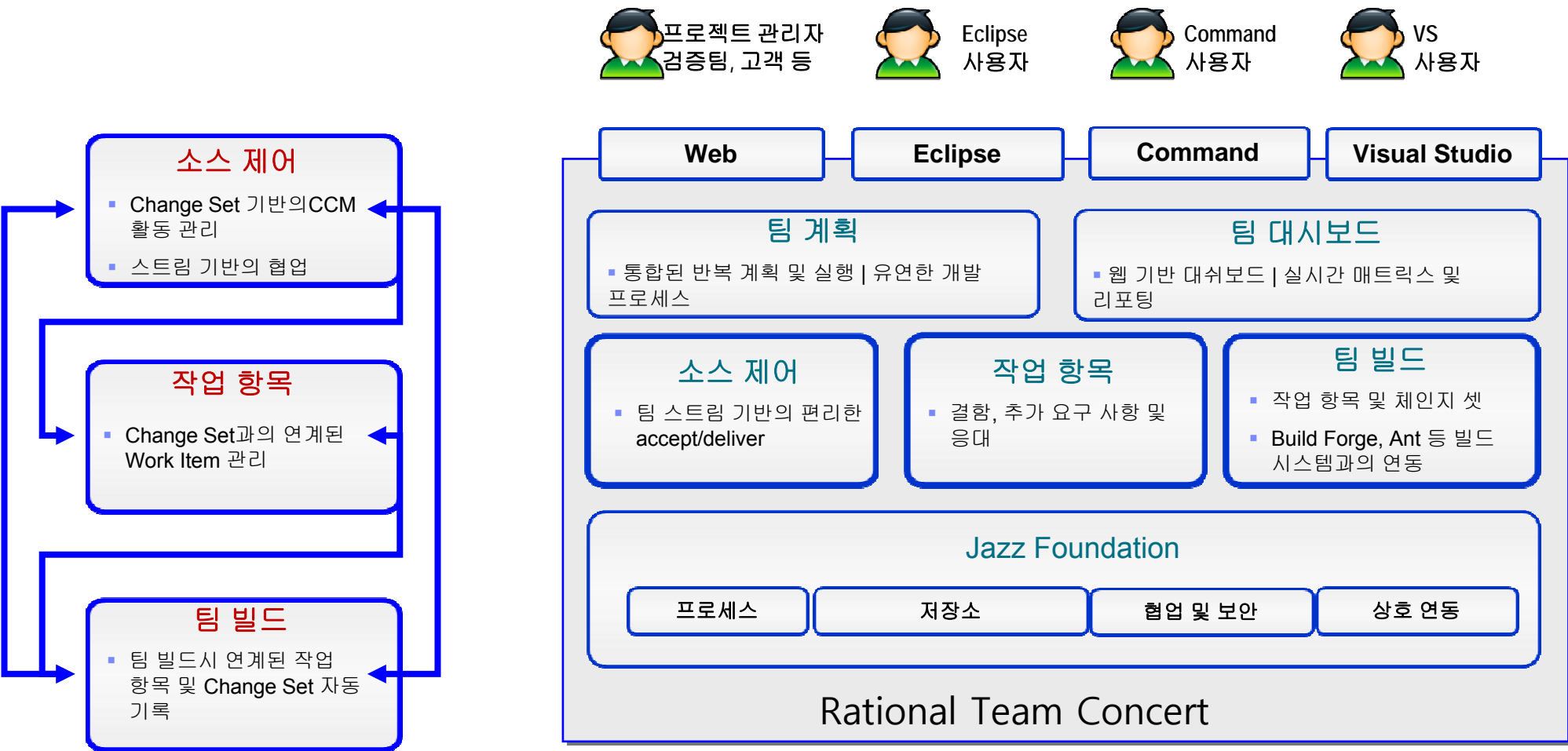
**What work still needs to be completed?**

**Web-based Project Dashboards**

- Build individual responsibility.
- See real-time status. Gain cross-team awareness.
- Expose resource utilizations (overloaded, under used, ...)
- Improve productivity with cross-team coordination
- Learn at every iteration how to plan and estimate better

# RTC를 통한 통합 협업 기능 제공

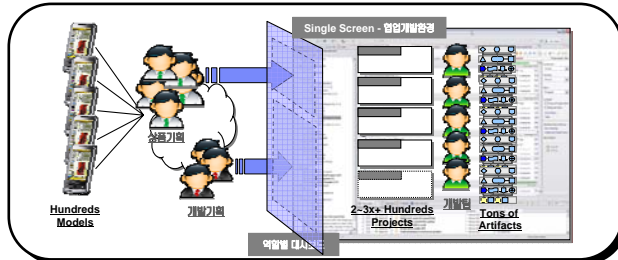
- RTC는 팀개발에 필요한 소스제어, 작업항목 관리 뿐 아니라 팀 계획, 팀 대시보드, 팀 빌드를 통해 팀의 의사소통에 필요한 정보를 적시적소에서 확인할 수 있습니다.



# 변화와 생산성 향상의 중심에 선 RTC의 주요 가치 요약

**Value 1**

과제 관리 및  
팀원 활동 **가시성**

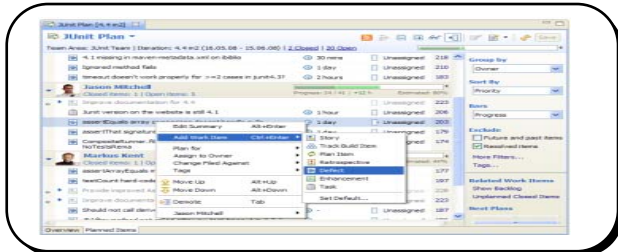


**실시간 프로젝트 현황 분석**

- 실시간 Web Dash board에 따른 프로젝트 현황 파악
- 일관된 View를 통한 효율적 의사결정 및 소통에 기여

**Value 2**

프로젝트 계획 수립  
및 리소스 관리의  
**민첩성**

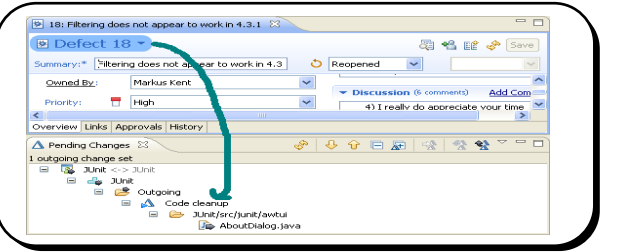


**개발 계획 수립과 리소스 관리**

- 내/외적 환경변화에 따른 프로젝트 계획 변화의 민첩성 확보
- 적재 적소 리소스 분배를 통한 작업의 효율성 강화

**Value 3**

협업 개발환경을  
통한 소스/빌드 관리  
**통합성**

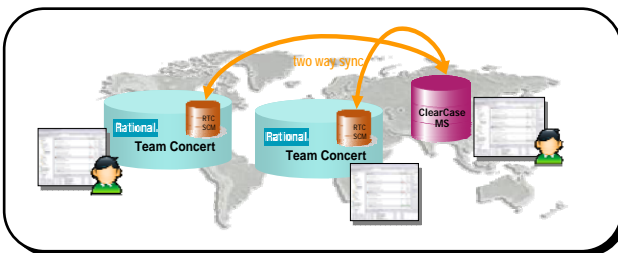


**통합된CCM 과 Build**

- Single Screen을 통한 개발 업무 집중도 극대화
- 새로운 프로젝트 합류 시 직관적이고 빠른 과제 수행 개시

**Value 4**

개방형 표준에 의한  
개발 환경 융합의  
**확장성**



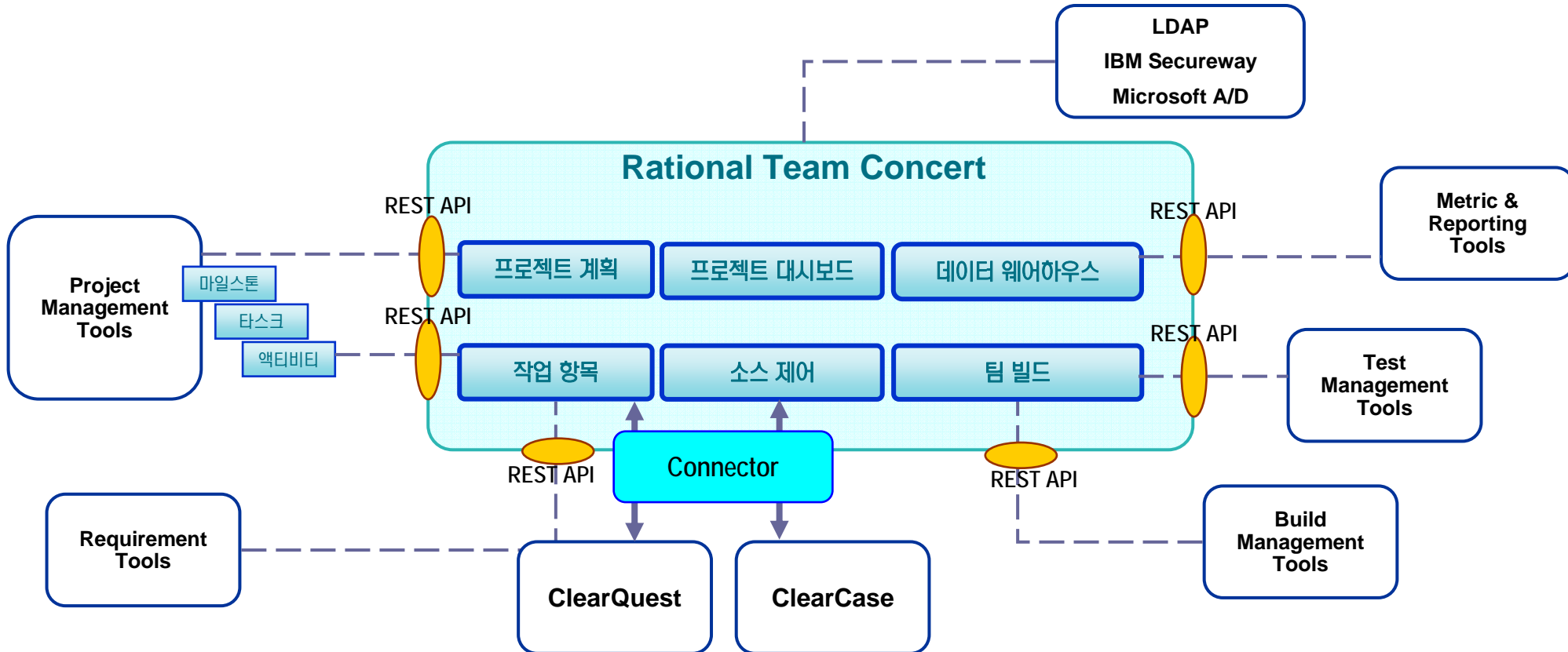
**오픈 표준 라이프사이클 플랫폼**

- 기존 시스템과의 연동 용이성
- 시스템 확장성을 고려한 표준 플랫폼 및 아키텍처



# 타 시스템 연계 여부

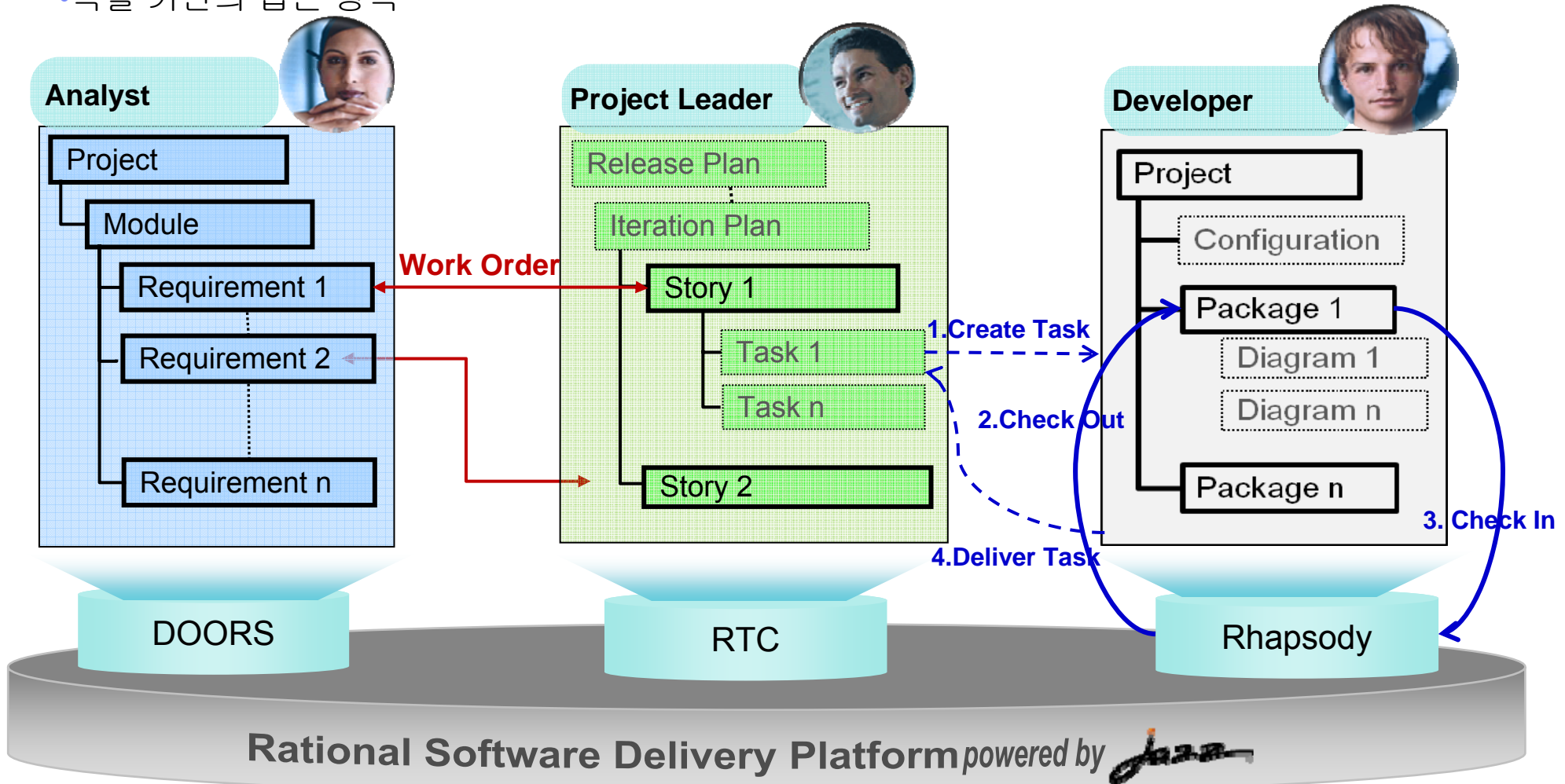
- RTC는 Extension을 통해 기간 시스템과 연동할 수 있는 Extensible API들을 제공합니다. 이는 Web을 통한 REST중심의 연동방식, Connector를 통한 데이터 연동 방식, LDAP을 이용한 계정 연동 방식을 포함합니다.
- Requirements Management Tool 연계
- Rational Quality Manager(테스트관리) Tool 연계





# Requirements based Development Workflow

- 요구사항 기반의 시스템/소프트웨어 설계 및 검증
- 요구사항 기반으로 생성된 Task를 통한 협업(Collaboration)
- 역할 기반의 접근 방식

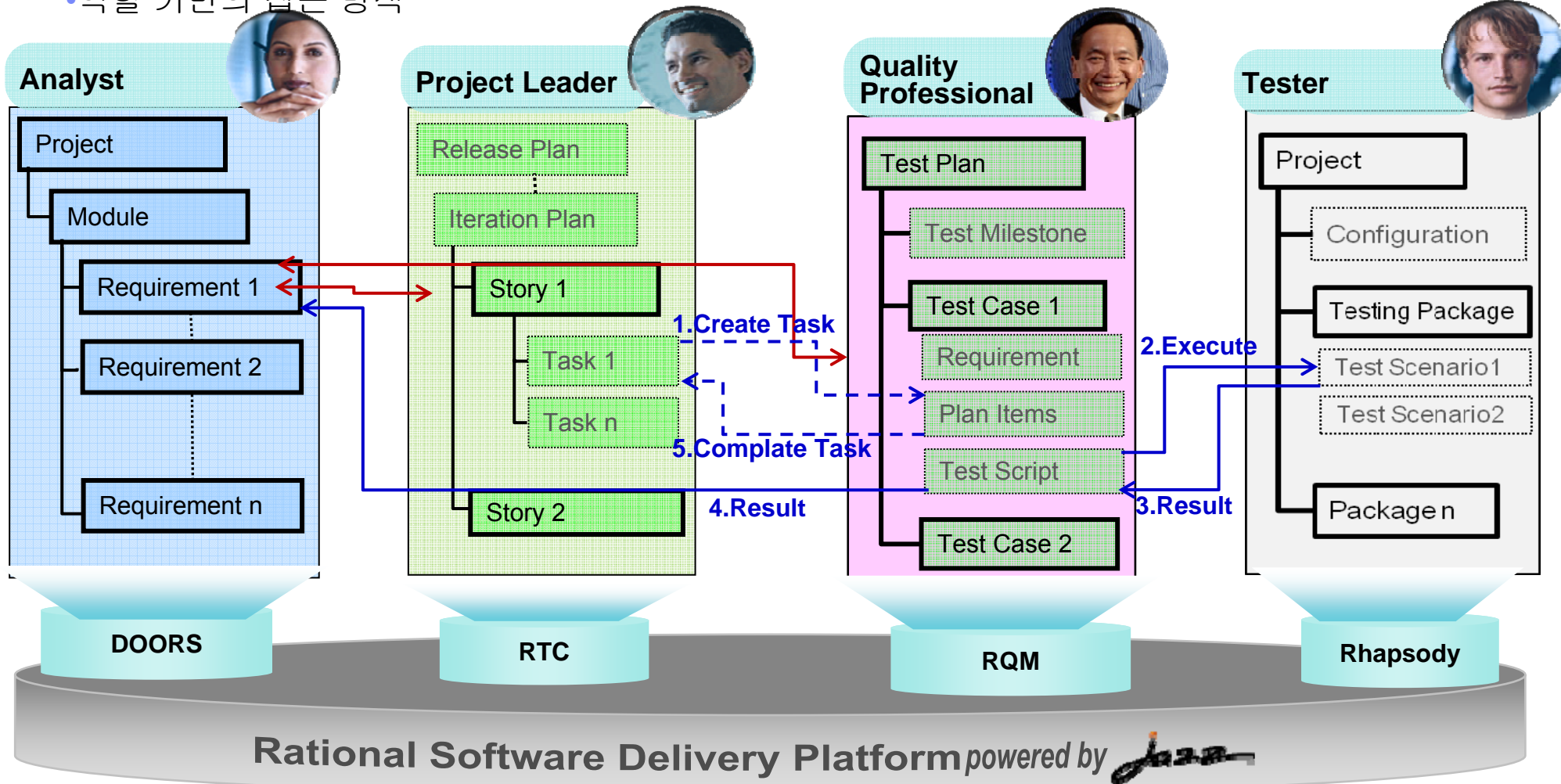


Rational Software Delivery Platform powered by



# Requirements based Test Workflow

- 요구사항 기반의 UML Test Scenario 작성 및 Quality Manager를 통한 실행
- 요구사항 기반으로 생성된 Task를 통한 협업(Collaboration)
- 역할 기반의 접근 방식



## IBM Rational CLM Solution

CLM

(Collaborative Lifecycle Management)

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# Our CLM(Collaborative Lifecycle Management) Solution



Manager

*“Within three months, we need to improve our build process and software lifecycle collaboration.”*



Practitioner

*“I need to become proficient in disciplined agile development practices.”*



## Collaborative Lifecycle Management

Rational  
DOORS

Rational  
Rhapsody

Rational  
Team Concert

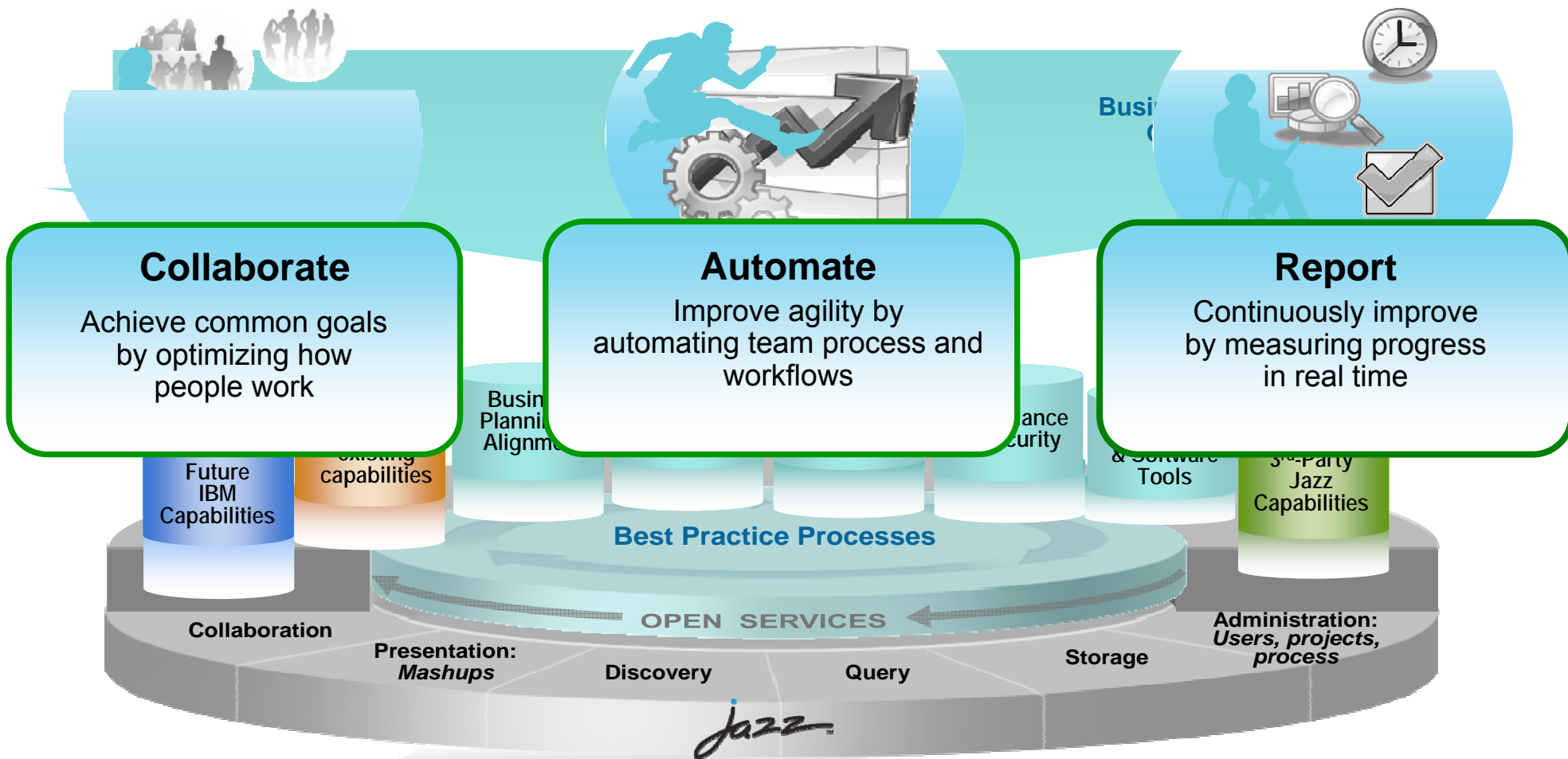
Rational  
Quality Manager

Rational  
Insight

- Iterative development
- Whole team
- Test driven development
- Continuous integration
- Test management
- User-story driven development



# Jazz is a platform for transforming software delivery



## Why collaborate?



*Deliver transparency of teams and projects for continuous, context-sensitive collaboration*

- ▶ Accelerate project and team onboarding
- ▶ Build team cohesion
- ▶ Leverage talent across and beyond the enterprise
- ▶ Enable flexible resourcing models

**Speed  
time-to-  
market**



## Why automate?



*Automate non-creative tasks with automated processes and workflows*

- ▶ Make it easy to "do the right thing"
- ▶ Reduce tedious and time-consuming manual tasks
- ▶ Minimize non-productive wait times
- ▶ Minimize administrative busywork

**Improve quality**



## Why report?



*Deliver real-time insight into programs, projects and resource utilization.*

- ▶ Identify and resolve problems earlier in the software lifecycle
- ▶ Get fact-based metrics -- not estimates -- to improve decision making
- ▶ Leverage metrics for continuous individual and team capability improvement

**Reduce  
Cost**



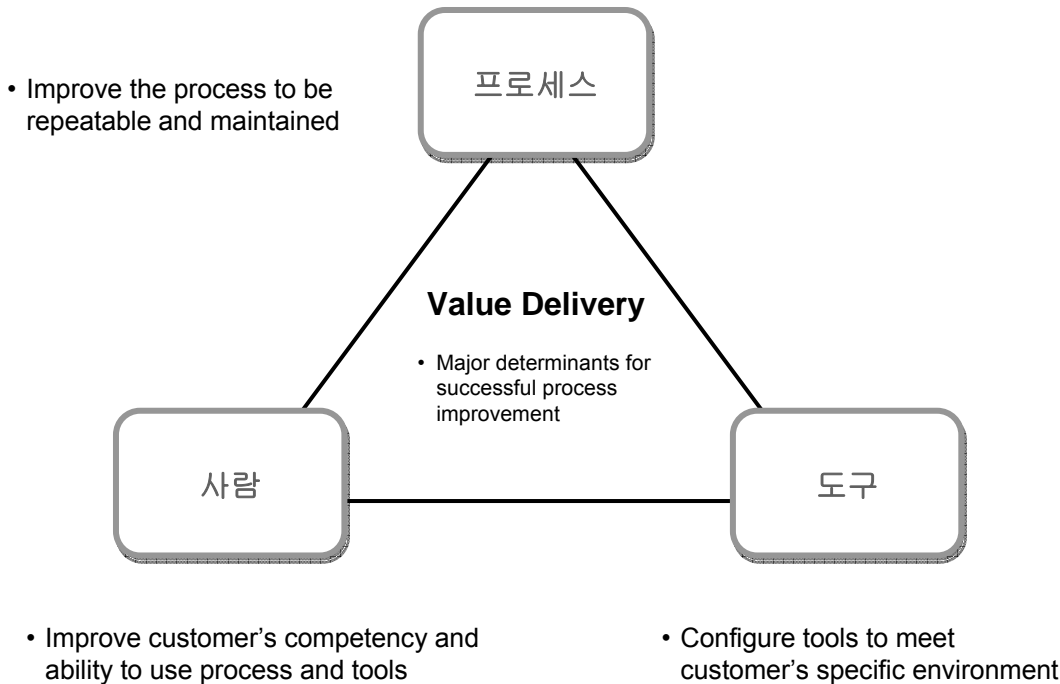


# IBM의 Value

- 고객이 IBM과 공동으로 Project를 진행할 때 시스템/SW 품질의 3대요소인 프로세스, 인력, 도구 등을 균형 있게 개선함으로써 고객의 이슈인 Architecture, 개발자 성숙도, 개발 프로세스를 체계적으로 개선함.

## ■ 시스템/소프트웨어 품질 3대 요소

## ■ IBM의 Value 및 목표



- 고객의 Issue 및 Needs 파악
- 사용 가능한 도구 환경 구축
- 관련 프로세스 정립 및 도구에 반영
- 지식 및 전문 스킬 이전
- 도구 도입/구축 리스크 감소
- IBM 도구의 가치 및 ROI 극대화



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## Learn more at:

- [IBM Rational software](#)
- [IBM Rational Software Delivery Platform](#)
- [Process and portfolio management](#)
- [Change and release management](#)
- [Quality management](#)
- [Architecture management](#)
- [Rational trial downloads](#)
- [Leading Innovation Web site](#)
- [developerWorks Rational](#)
- [IBM Rational TV](#)
- [IBM Business Partners](#)
- [IBM Rational Case Studies](#)

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