IBM Innovate 2012

Enterprise Delivery
Balancing Agility and Efficiency

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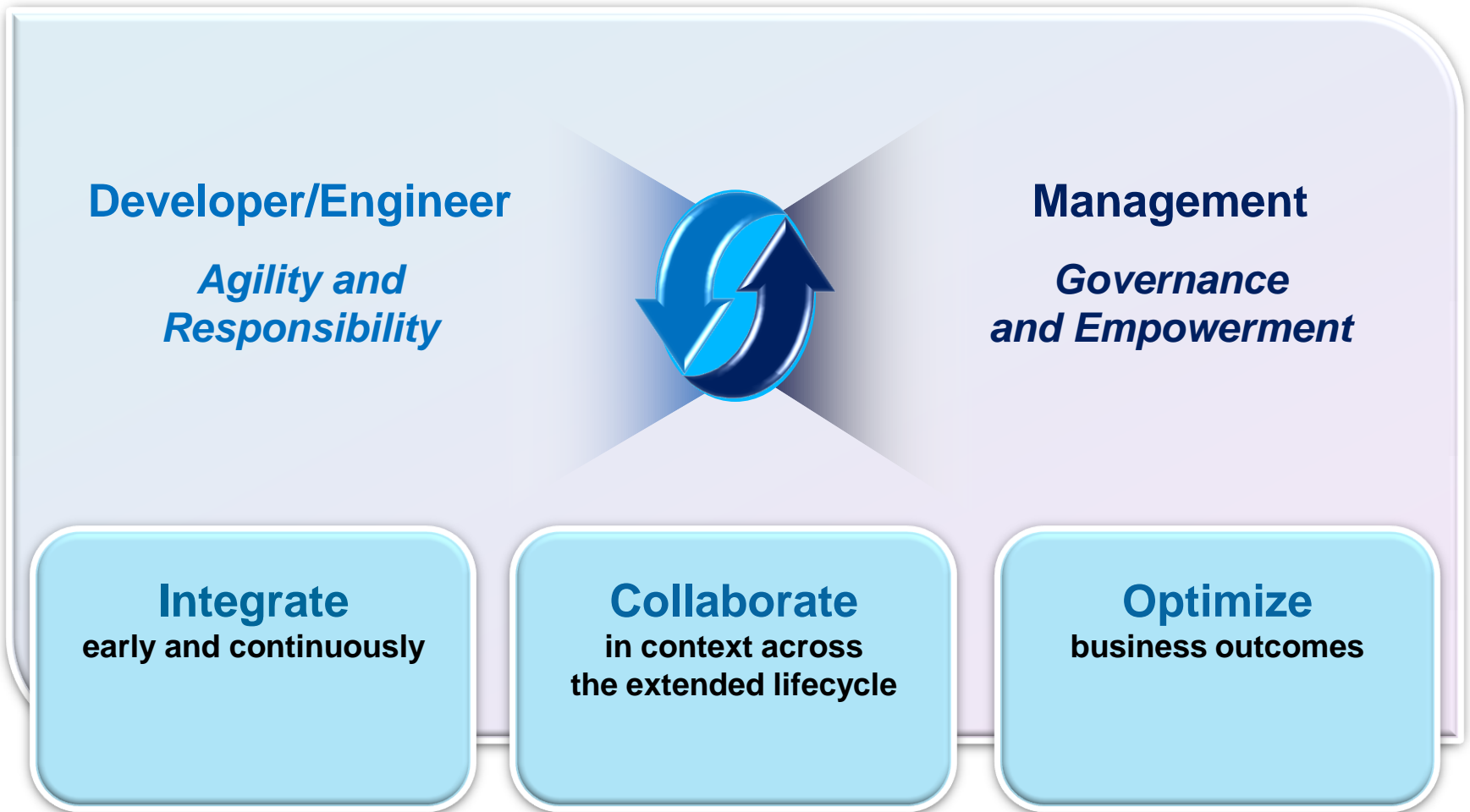
IBM Software
Innovate2012
The Premier Event for Software and Systems Innovation

Next NOW!

Accelerate delivery for better business outcomes

Developer/Engineer

Agility and Responsibility

Management

Governance and Empowerment

Integrate
early and continuously

Collaborate
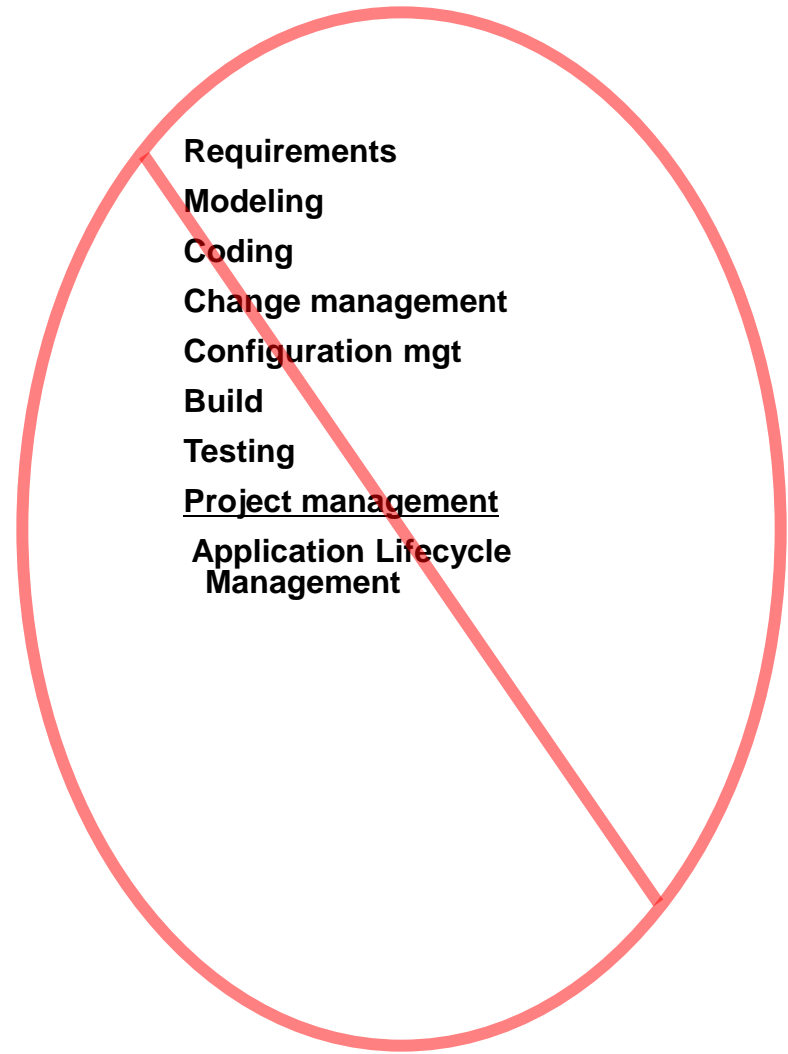**in context across the extended lifecycle**

Optimize
business outcomes

ALM Algebra
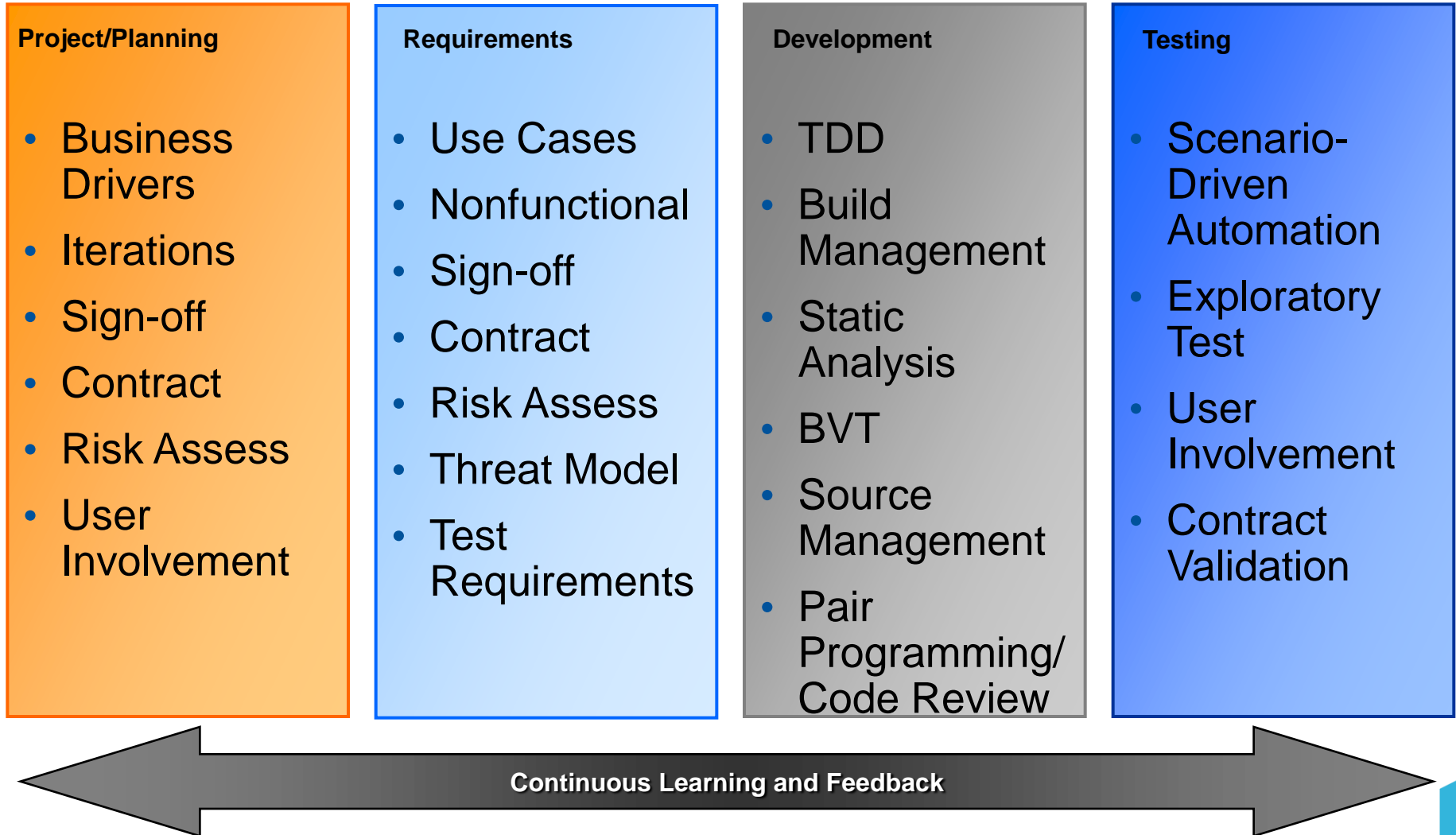
A software project can still fail if:

▸ Project managers expertly manage schedules

▸ Analysts diligently capture business requirements

▸ Developers write quality code

▸ Testers run thousands of tests

But these activities do not

correspond to each other,

or to the needs of the

business

Requirements

Modeling

Coding

Change management

Configuration mgt

Build

Testing

Project management

Application Lifecycle Management

Next NOW!

ALM is about connecting the disciplines

Project/Planning

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

Requirements

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

Development

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

Testing

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

Continuous Learning and Feedback

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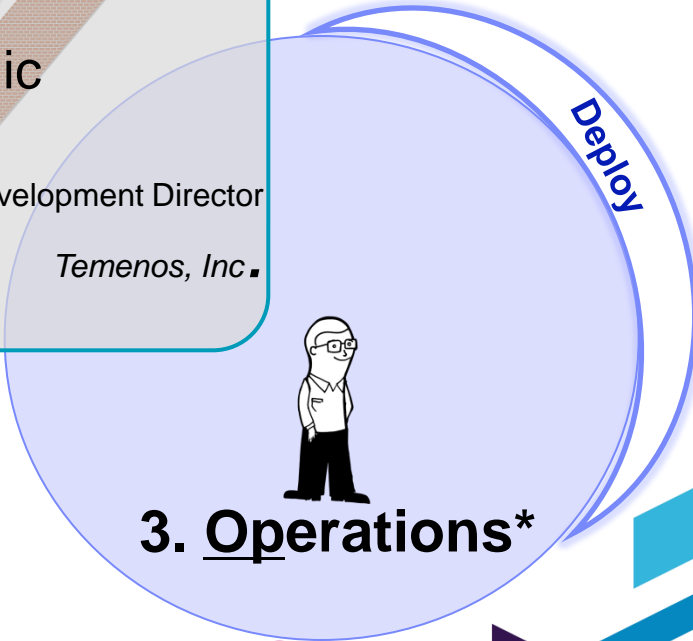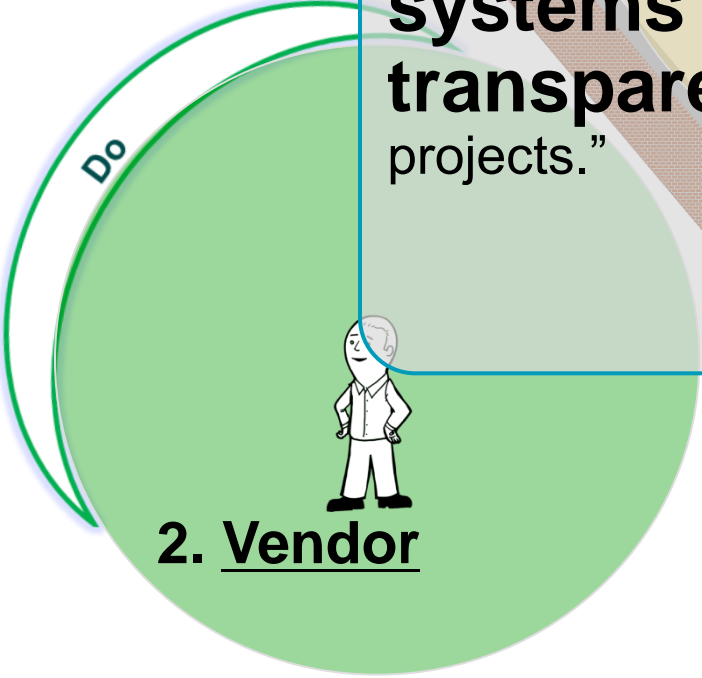
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Next NOW!

Which is easier said than done …

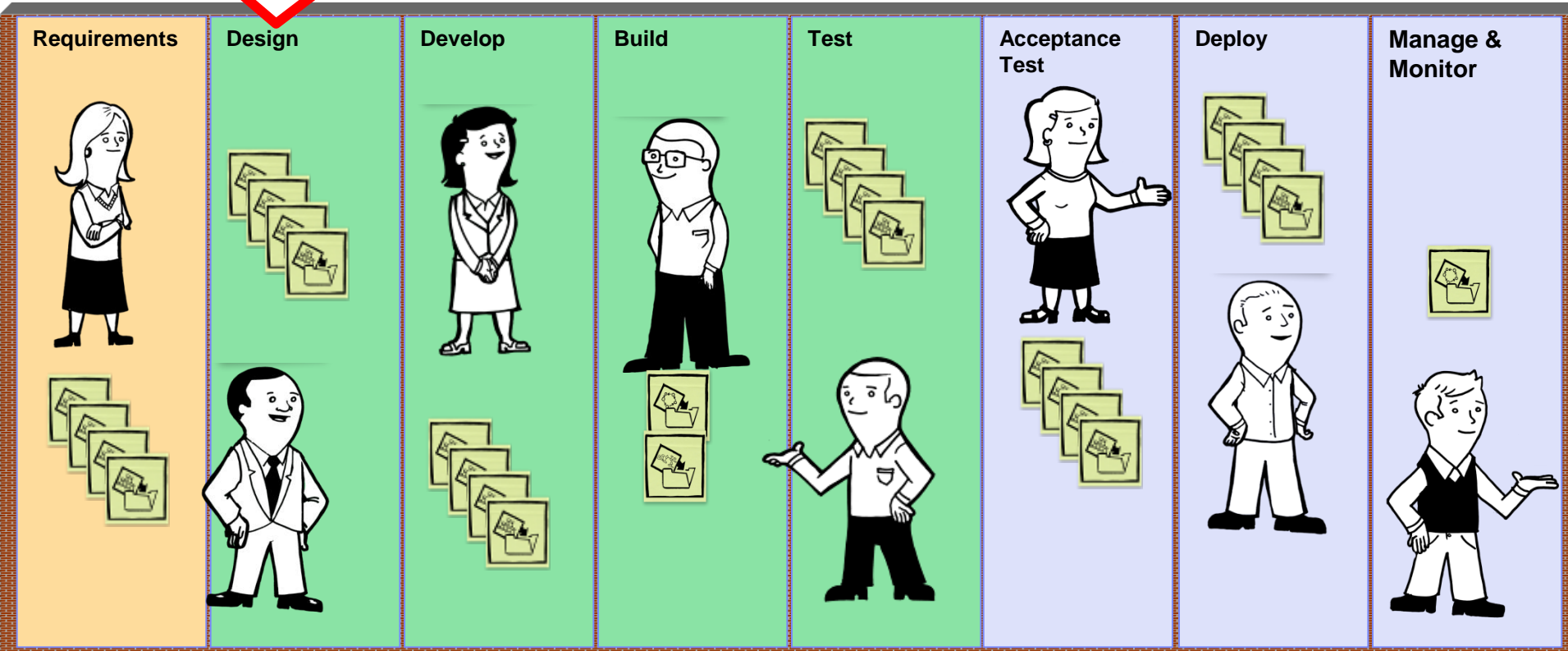**Decide**

People
Best practices
Data
Tools

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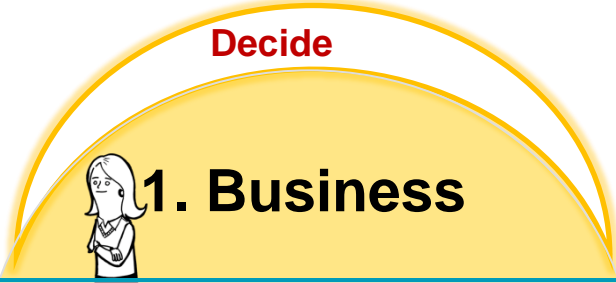
"At some point, you take a step back, and you realize you have an awful lot of **siloed systems** that are **limiting transparency** across strategic projects."

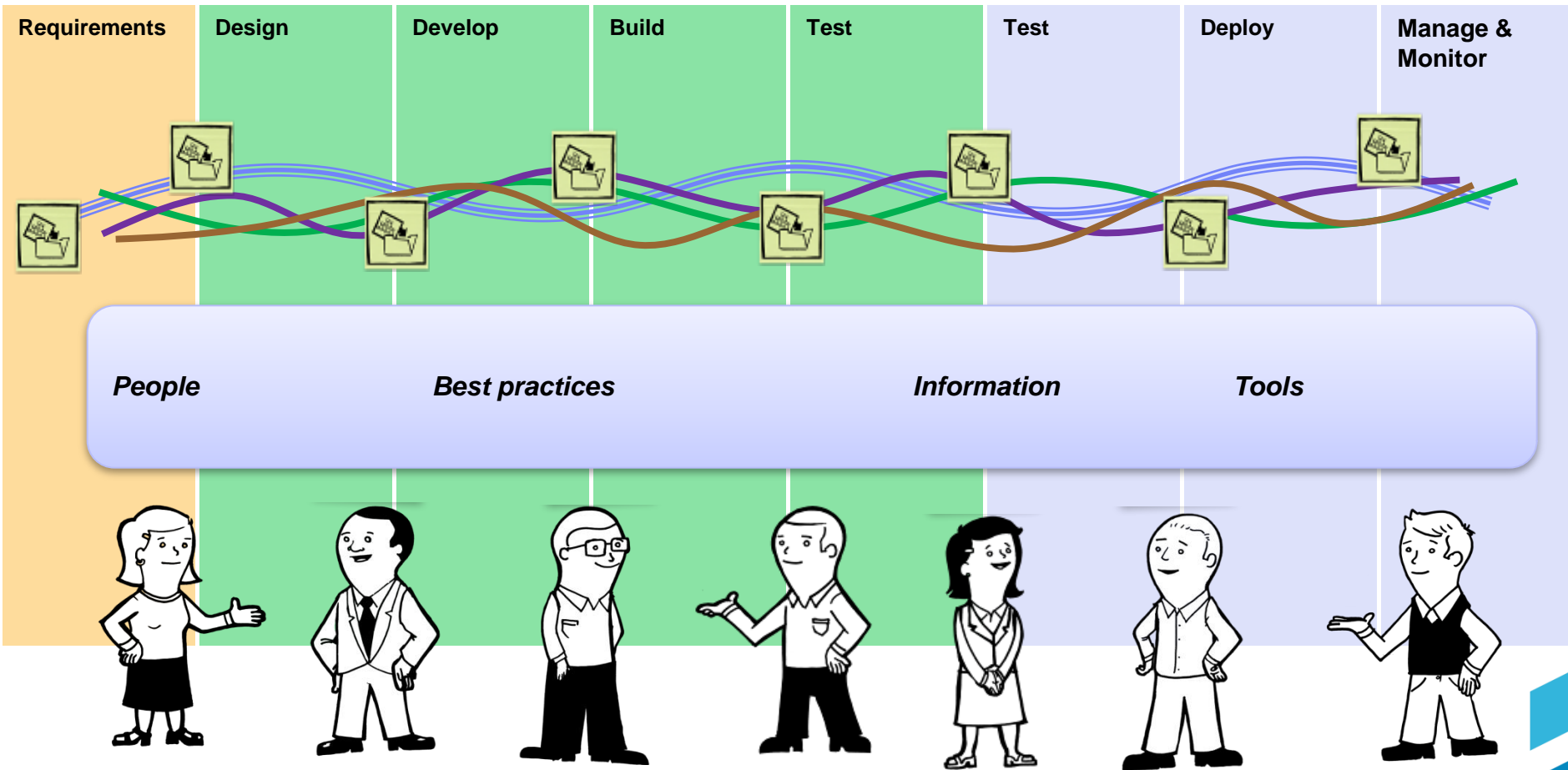- Development Director

Temenos, Inc.

Do

Deploy

2. Vendor

3. Operations*

Next NOW!

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Most often, We're good at going deep in each discipline

The challenge is coordinating across the disciplines…

| Requirements | Design | Develop | Build | Test | Test | Deploy | Manage & Monitor |

People   Best practices   Information   Tools

Next NOW!

Collaborative Lifecycle Management can improve productivity

CLM manages the flow of:

People

Process

Information

Decide

1. Business

Develop

Deploy

2. Vendor

3. Operations*
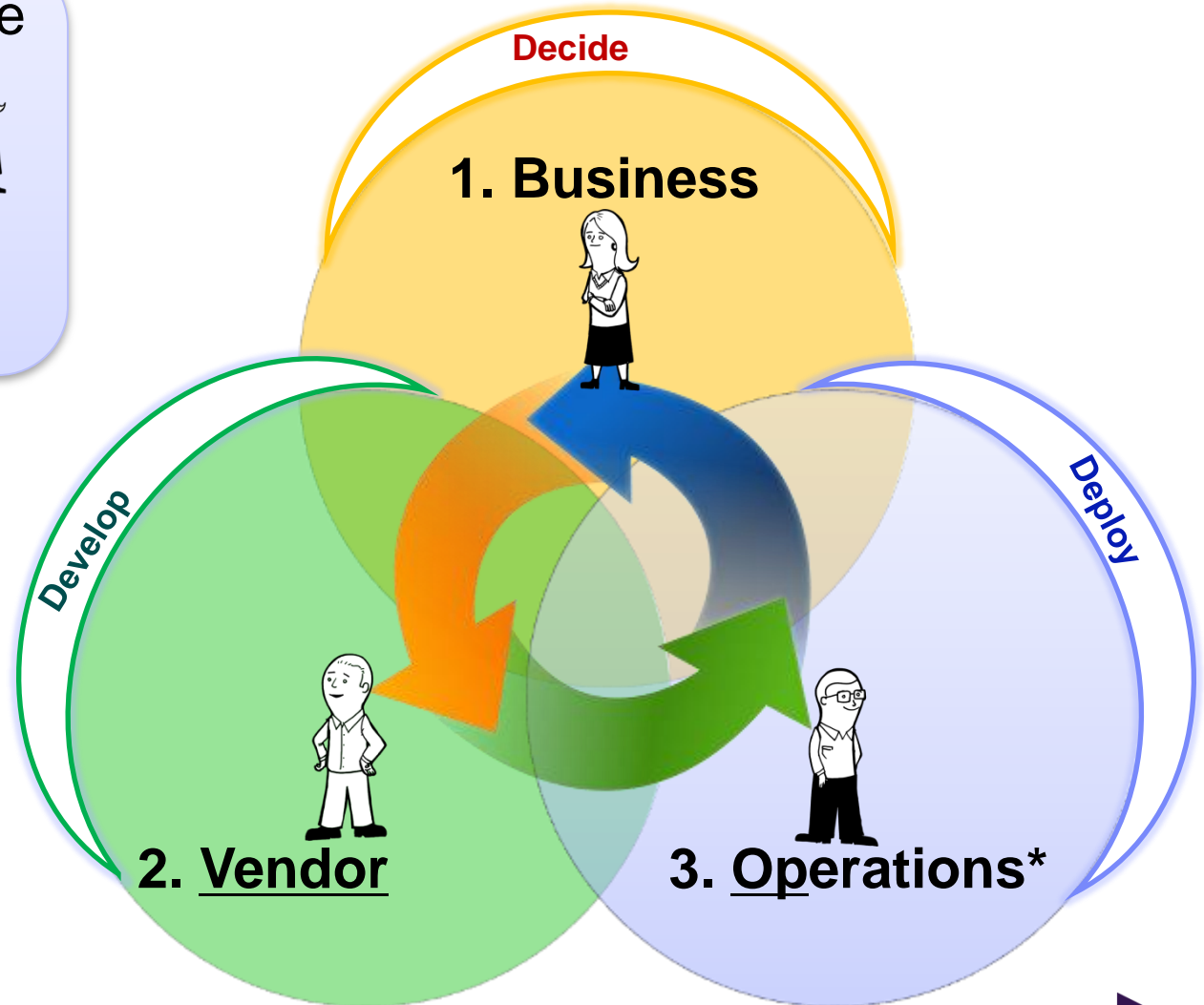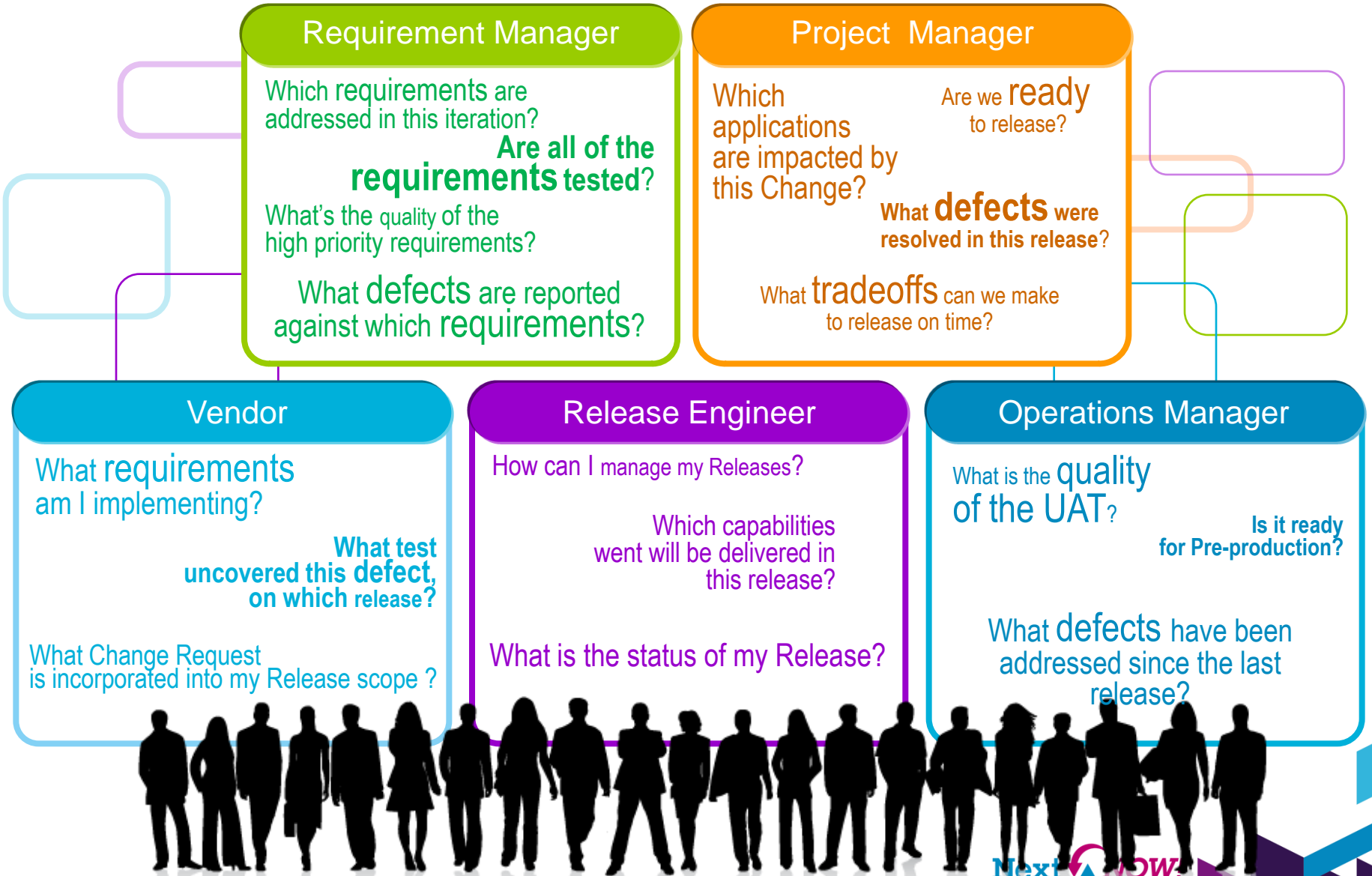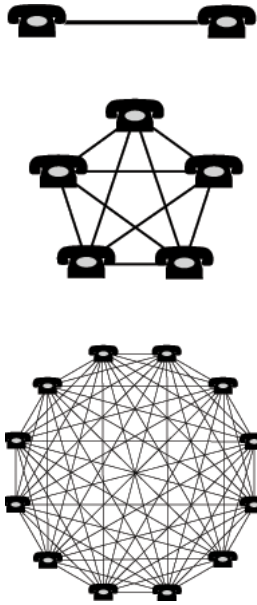
Next NOW!

What do 'I' want to know

Can the team get answer these questions with minimum effort in least possible time…

Requirement Manager

Which requirements are addressed in this iteration?

Are all of the requirements tested?

What's the quality of the high priority requirements?

What defects are reported against which requirements?

Project Manager

Which applications are impacted by this Change?

Are we ready to release?

What defects were resolved in this release?

What tradeoffs can we make to release on time?

Vendor

What requirements am I implementing?

What test uncovered this defect, on which release?

What Change Request is incorporated into my Release scope ?

Release Engineer

How can I manage my Releases?

Which capabilities went will be delivered in this release?

What is the status of my Release?

Operations Manager

What is the quality of the UAT?

Is it ready for Pre-production?

What defects have been addressed since the last release?

Next NOW.

The Integration Problem

Over time, the costs of the current set of integrations goes up, as does the cost of making changes.

Point-to-point integrations don't scale.

"Ecosystems" lock you in.

- **Integrations consume more and more of the IT budget:** 76% of software project delays are caused by integration activities

- **End-user productivity suffers:** Either stuck with the wrong tool, stuck doing manual integration, or both

- **More limited ability to respond to change:** Constrained by exhausted IT budget and lower productivity

Next NOW!

Leveraging the power of linked data through OSLC

- Growing industry impact

  - Integrate over 40 tools natively and through 3rd-party adapters

  - Foundation for major interoperability projects

  - Deepening and expanding scope

Eclipse Lyo
Enabling tool integration with OSLC

*Now available: OSLC4J & test suite for CM and Core*

ALM

Change Management

Automation

Linked Lifecycle Data (OSLC)

Requirements Management

Monitoring

Quality Management

PLM

DevOps

- Lyo makes OSLC integrations easier

  - SDK, Test suites, Reference implementations

W3C® WORLD WIDE WEB *consortium*

LINKED DATA PLATFORM WORKING GROUP

- Standardizing part of the OSLC Core specification

  - Co-submitters: DERI, EMC, IBM, Oracle, Red Hat, SemanticWeb.com, Tasktop

Open Services for Lifecycle Collaboration
Lifecycle integration inspired by the web
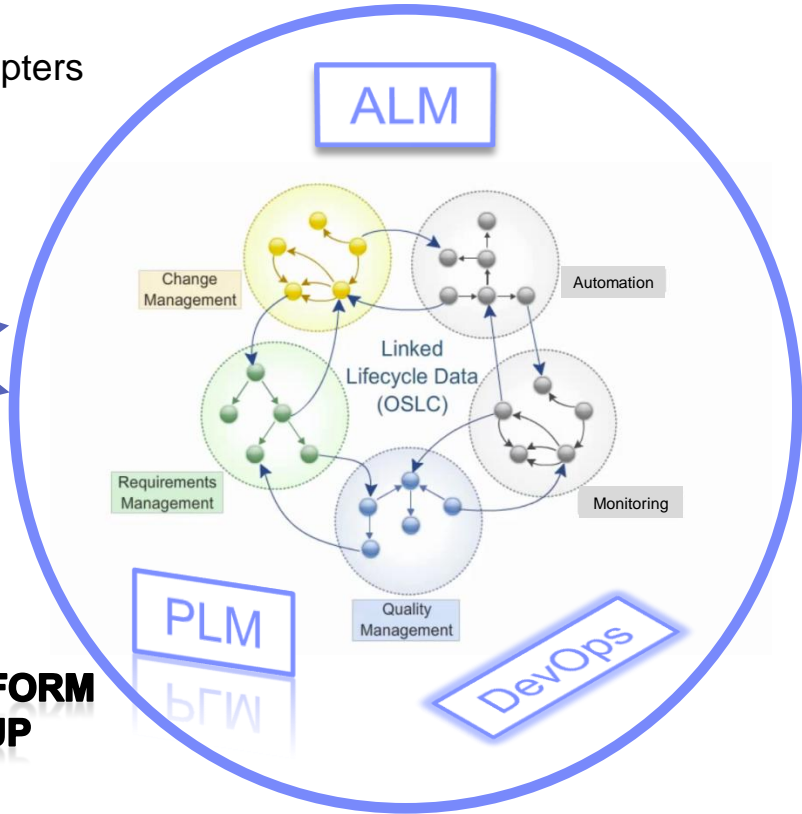
- OSLC Steering Committee

  - Founding members: Accenture, Creative Intellect, EADS, IBM, Siemens, Tasktop

Next NOW!

… and then we need a way to go beyond simply linking data

Dashboards & reports

Traceability & impact analysis

Authentication

End-to-end process

Security

…
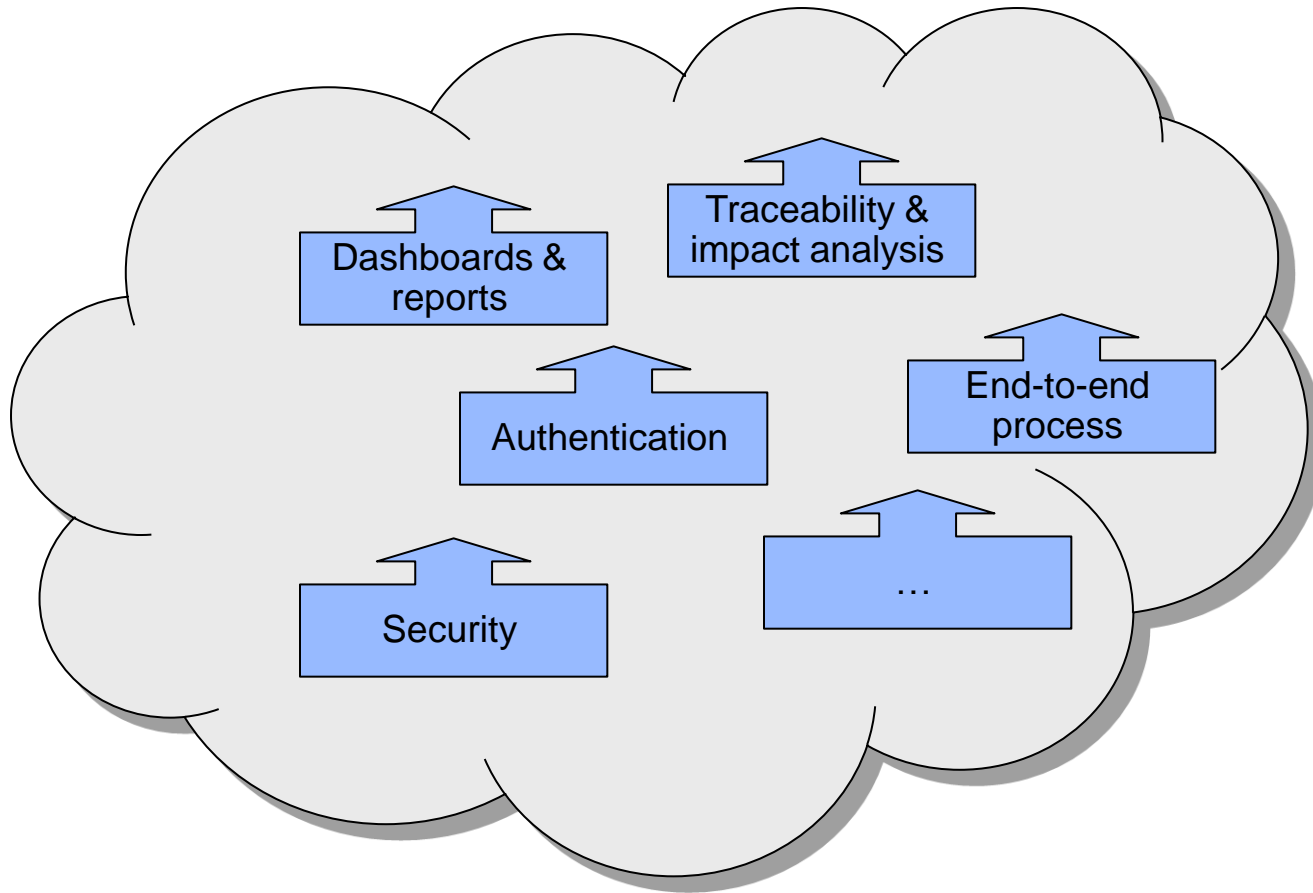
Some services don't belong in any one tool ➡ *Improving tool<->tool integration is necessary, but not sufficient*

✓ Open choice and rich integration

Uniform Resource Identifiers

"I can link virtually any resource to virtually any other resource, regardless of where the resource lives!"

Requirement

Test Case

Work Item

Standard Interfaces

"Each tool can evolve independently without breaking integrations!"

In-house tool

DOORS

JIRA

RTC

HPQC

Open Standards for the Lifecycle

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

Open Services for Lifecycle Collaboration
open community. open interfaces. open possibilities

Integration Services

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

Dashboards & reports

Traceability & impact analysis

Universal configuration mgt

End-to-end process

Security

...

✓ Evolutionary and incremental adoption

Next NOW!

Flexibly integrated into a process based on client needs

Existing Rational Offerings **New Rational/ IBM Offerings** **Business Partner Offerings**

Future IBM Capabilities

Your existing capabilities

Business Planning & Alignment

Portfolio, Product & Project Management

Compliance & Security

Collaborative Lifecycle Management

Design & Development

3rd-Party Jazz Capabilities

Best Practice Processes

OPEN SERVICES

Collaboration

Presentation: *Mashups*

Discovery

Query

Storage

Administration: *Users, projects, process*

Jazz™

Jazz is…

- A scalable, extensible team collaboration platform
- A community at Jazz.net, where you can see Jazz-based products being built
- An integration architecture, enabling mashups and non-Jazz based products to participate

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Next NOW!

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

Gartner: Five Principal benefits of ALM

What do you get from ALM implementations?	
Agility	Through the collaboration and application of "just enough" processes
Predictability	Through better estimation, better communication and more repeatable processes
Auditability	Traceability of work back to a business need,
Quality	Through more-effective management of requirements, design and quality processes
Productivity	Through the continuous improvement of processes and practices, and more effective utilization of resources

Gartner, "MarketScope for Application Life Cycle Management, Research Note G00162941, December 2008, p. 2.

Five Imperatives for
<u>Effective</u> Application Lifecycle Management
to improve organizational productivity

Maximize <u>product value</u> with **In-Context Collaboration**

Accelerate <u>time to delivery</u> with **Real-Time Planning**

Improve <u>quality</u> with **Lifecycle Traceability**

Achieve <u>predictability</u> with **Development Intelligence**

Reduce <u>costs</u> with **Continuous Improvement**
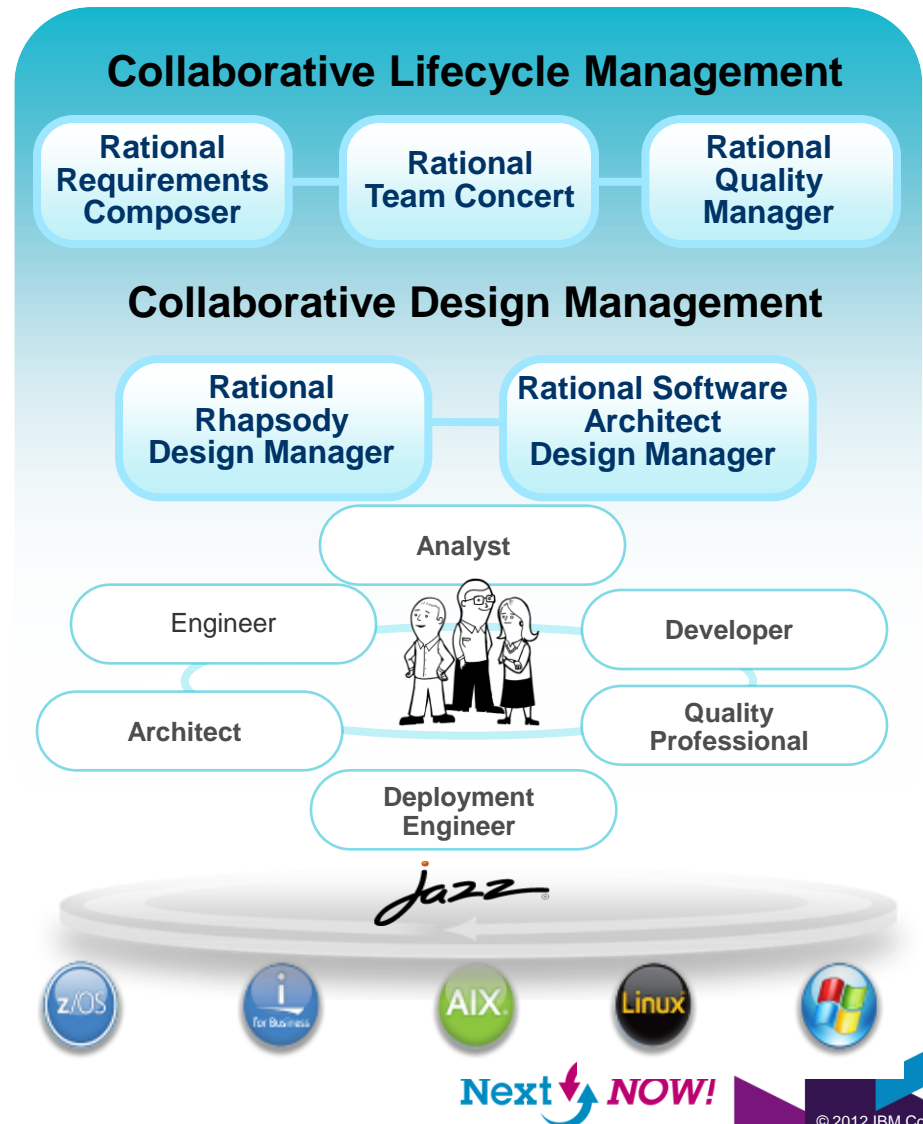
Learn more at <u>ALM Everywhere</u>

Next NOW!

Core Application Lifecycle Management offerings

Reduce the costs of inefficient, multiplatform software development with integrated ALM solutions!

- Optimize your team's productivity through the 5 ALM Imperatives

- Collaborate across teams and create deep integrations across the lifecycle

- Extend as your needs evolve with role-based licensing

- Unify your infrastructure and protect your current investments with a single, open, extensible platform

IBM Rational ALM Solutions
Get Up and Running Quickly

Collaborative Lifecycle Management

| Rational Requirements Composer | Rational Team Concert | Rational Quality Manager |

Collaborative Design Management

| Rational Rhapsody Design Manager | Rational Software Architect Design Manager |

Analyst

Engineer

Developer

Architect

Quality Professional

Deployment Engineer

jazz

z/OS | i for Business | AIX | Linux

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