Collaborative ALM with Jazz:
Delivering Smarter Products Requires Smarter Software Delivery Approaches

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What makes effective software and systems delivery hard?

Complexity Challenges

- More granular software functionality in composite business applications
- Increasingly complex products including software and systems integration
- Many projects and assets including custom, outsourced and packaged

Team Challenges

- Geographically dispersed teams that often include business partners
- Effective cross-organizational visibility and synchronization, sharing becomes an imperative

Process Challenges

- Need for market experimentation *(rapid prototyping)* to discover and adapt
- Blind adherence to process insensitive to potential business trade-offs
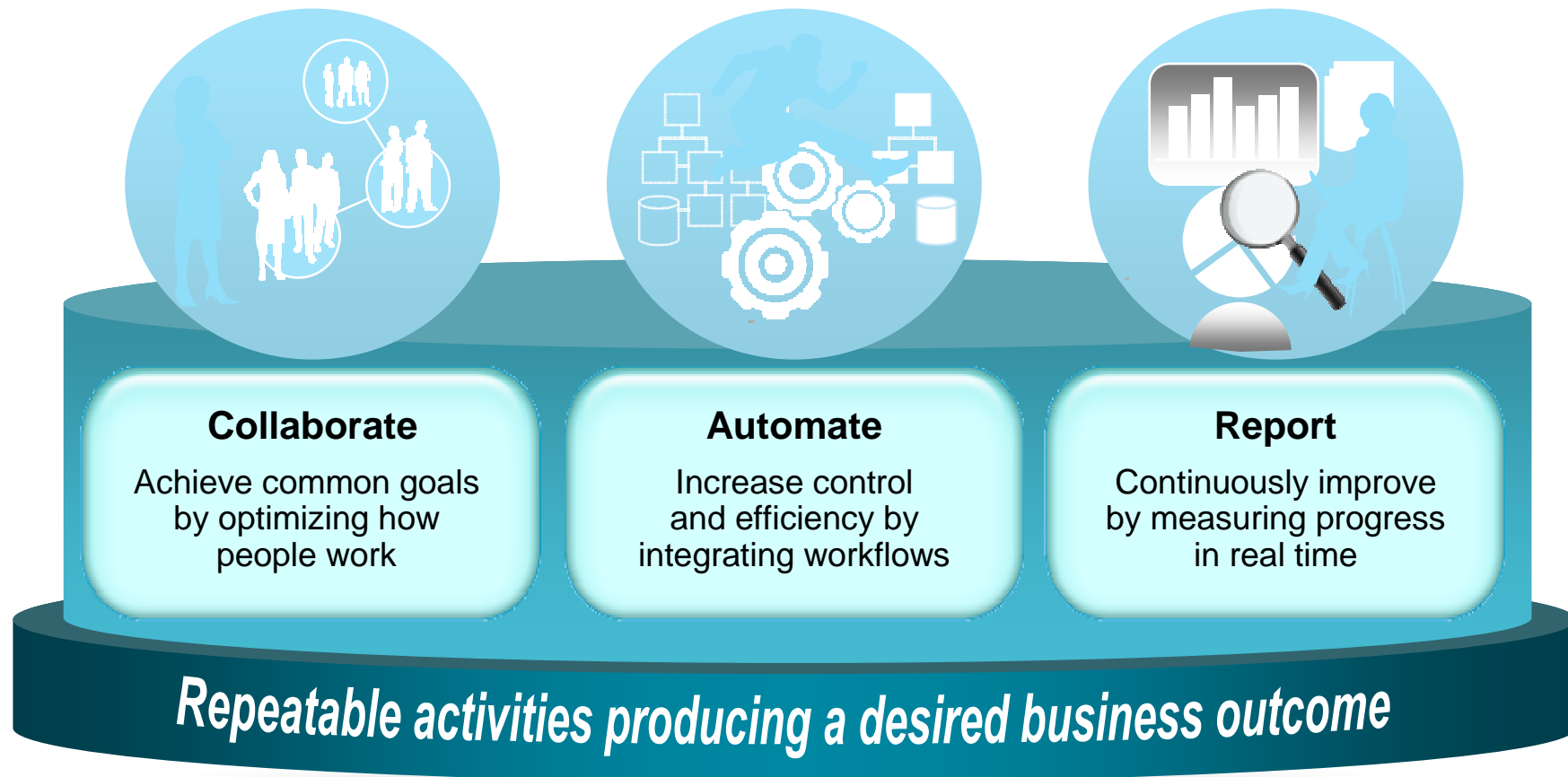- Need for agility *at scale*

Tools Challenges

- Lack of standards impacts ability to collaborate, automate and report across teams and assumptions
- Frequent asset updates and changing interdependencies

How do I control this new world to gain advantage?

Successful businesses will manage software and systems delivery as a robust business process

Collaborate
Achieve common goals by optimizing how people work

Automate
Increase control and efficiency by integrating workflows

Report
Continuously improve by measuring progress in real time

Repeatable activities producing a desired business outcome

Building the framework for software and systems delivery of smart products – an industry analogy
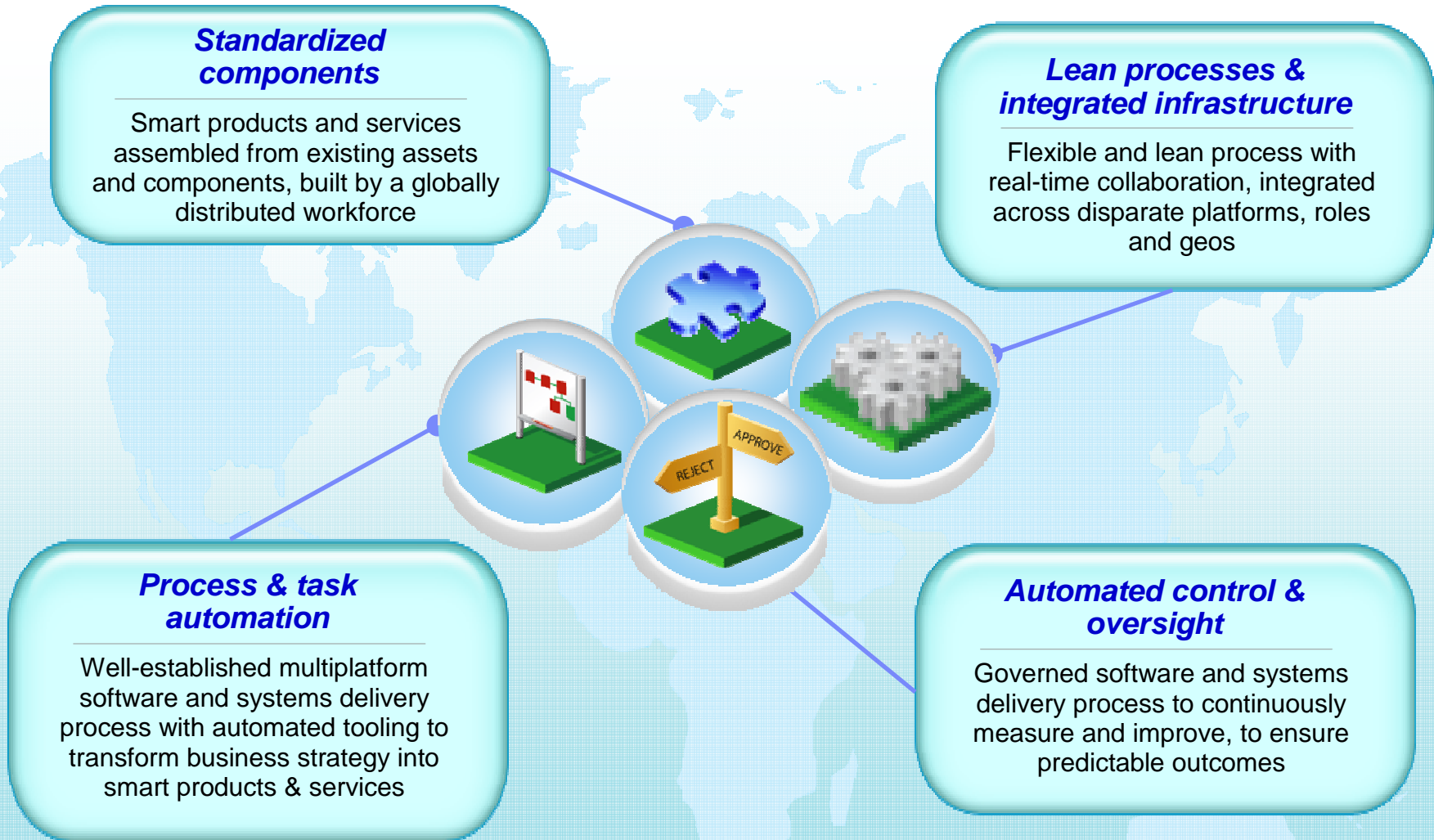
Historical Production System

▶ Standard work processes not adaptable to change

▶ Skills specialization lowers innovation

▶ Rigid architectures hinder flexibility

▶ Manual oversight and control

▶ Costs to react to marketplace are high

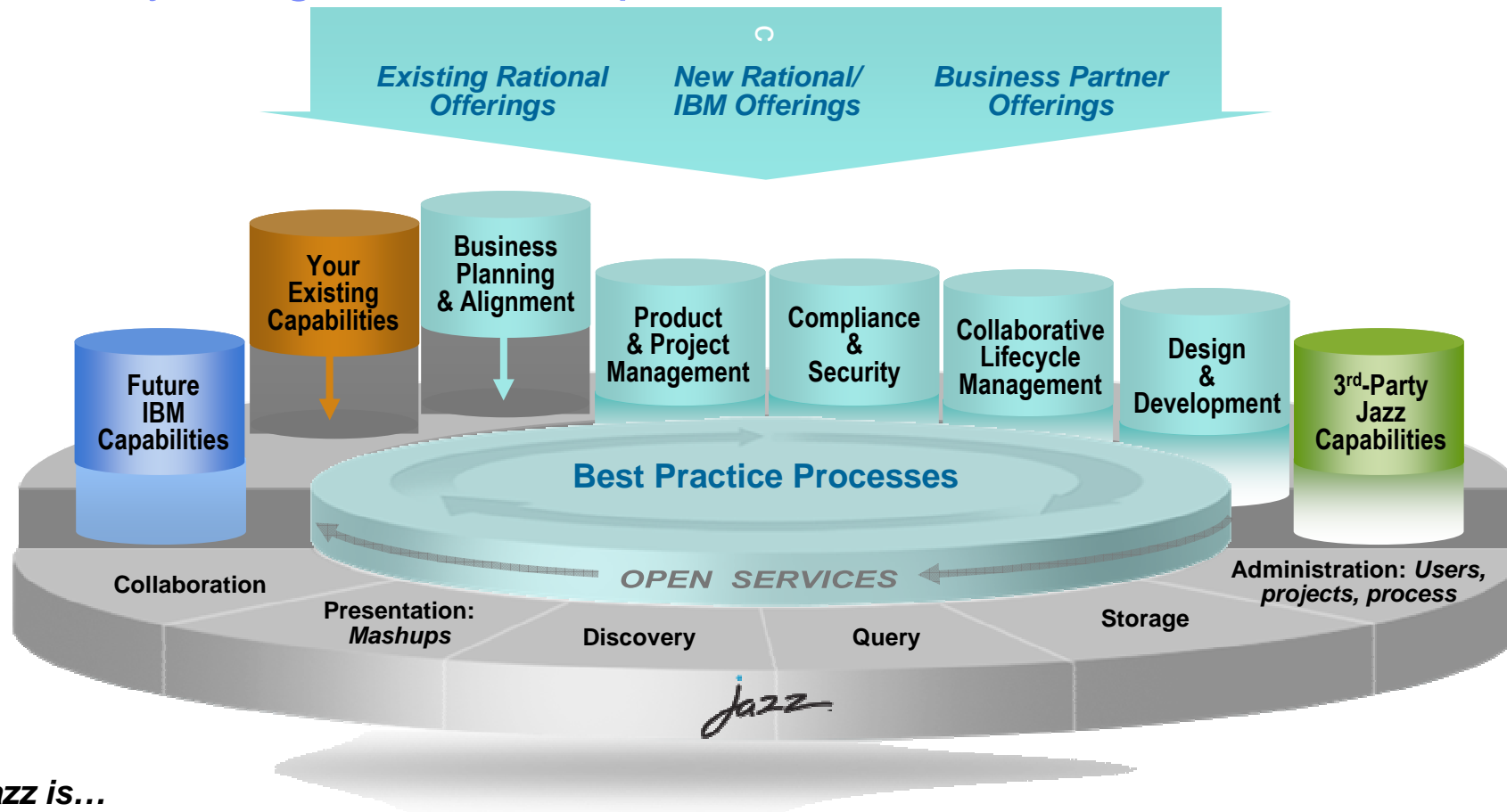## Modern Production System

▶ Lean processes and real-time collaboration

▶ Disciplined, team-based communities of practice and individual creativity

▶ Technology Innovation

▶ Process and task automation

▶ Standardization of components

▶ Automated oversight and control

Modern smart product delivery characteristics

Standardized components

Smart products and services assembled from existing assets and components, built by a globally distributed workforce

Lean processes & integrated infrastructure

Flexible and lean process with real-time collaboration, integrated across disparate platforms, roles and geos

Process & task automation

Well-established multiplatform software and systems delivery process with automated tooling to transform business strategy into smart products & services

Automated control & oversight

Governed software and systems delivery process to continuously measure and improve, to ensure predictable outcomes

…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 · Product & Project Management · Compliance & Security · Collaborative Lifecycle Management · Design & Development · 3rd-Party Jazz Capabilities

Best Practice Processes

Collaboration · Presentation: *Mashups* · Discovery · OPEN SERVICES · Query · Storage · Administration: *Users, projects, process*

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

…orchestrated in a workflow to dramatically improve the process of software delivery
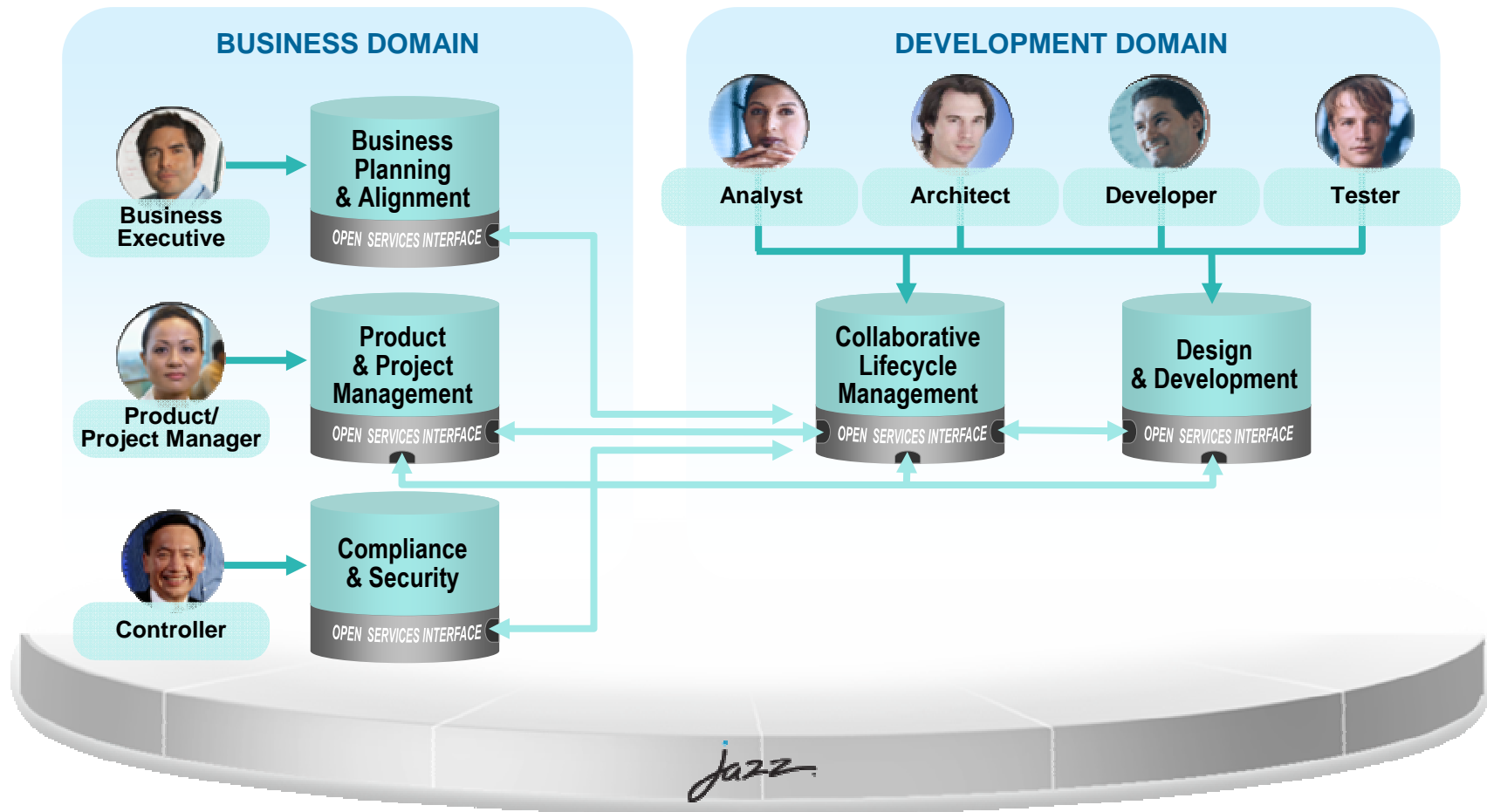
Business planning & alignment, product & project management

- **Streamline business by empowering faster, better-informed decisions**

- **Reduce costs by prioritizing IT investments to support business goals**

- **Improve risk management of organizational transformation**

- **Turn strategy into execution and measure the results**

  - **Enterprise architecture**
  - **Business process management**
  - **Portfolio management**
  - **Requirements definition & management**

Enterprise planning helped a UK company recover £10M in costs by optimizing IT landscapes & processes

A global insurance company saved $10.5M in the first year by better aligning IT resources to business processes
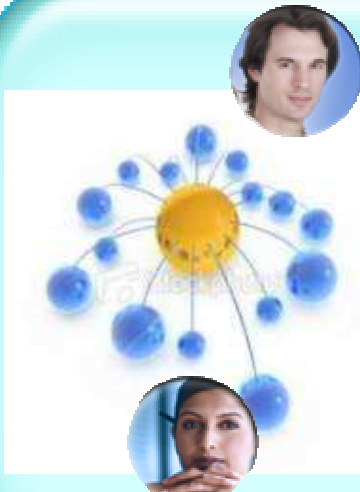
"By enhancing our decision making, [IBM Rational] has helped us choose the products and features that deliver the greatest customer and business value. This has improved our productivity and reduced costs because we are developing the right products for our markets."

Tobias Chyssler, Product Management
ABB Process Automation

Leverage existing assets

- Discover and leverage existing data and assets for reuse

- Search, select, relate and deploy assets

- Enforce policy and best practices

- Manage model dependencies

- Trace assets to versioned artifacts

  - **Data discovery**
  - **Knowledge management**
  - **Asset registries & repositories**

…more than $50K in cost savings and increased search capabilities with up to 10% time savings when searching for intellectual capital.

Understand impact of change across 100's (in future, 1,000's) of assets to reduce time-consuming errors resulting from consumers not being aware of asset changes

"[We] saved time and money by prioritizing applications for reuse, and by identifying areas where spend is not aligned to the IT roadmap."

Chief Information Officer
Large Financial Organization

Software and systems assembly optimization

- Collaborate across teams to deliver quality software and systems

- Apply lean processes with disciplined teams in centers of excellence to ensure flexibility

- Facilitate globally distributed software and systems development

- Mitigate risk with comprehensive quality management

- Enhance developer productivity through task and process automation across the lifecycle

- **Requirements definition & management**
- **Project & product management**
- **Architecture, design & construction**
- **Change management & governance**
- **Build management**
- **Quality management**

Major US airline standardized software development process across the organization and did more with fewer resources.

Improved staff efficiency and achieved ROI in less than three months

"We've seen a 30% productivity gain on our global projects. The ability to easily suspend and resume work, along with advanced SCM features, helps team members juggle multiple tasks and priorities without missing a beat."

Alain Bergeron
VP Consulting Services, CGI

Application infrastructure and deployment

- Manage differentiated services and products for improved customer satisfaction and retention

- Integrate service delivery across organizational boundaries and all stages of the lifecycle, helping improve time-to-market and reduce cost and risk

- Provides the visibility, control and automation needed to deliver a dynamic infrastructure that adapts to changing business requirements

- **Product deployment**
- **Application foundation**
- **Connectivity & application integration**
- **Portals**

Built a shared enterprise IT infrastructure to allow company to grow with agility…provided a solid framework for integrating the systems of acquired companies.

A new level of collaboration via Web 2.0 and reduced total cost of ownership by 40%

"It has never been so easy to develop integrated quality software, it's really become a widespread team effort…"

Funatic on Rational Application Developer for WebSphere

Operations

- Continuously improve throughout the software and systems delivery process with automated control and oversight

- Assess real-time project health

- Measure & report progress against project and business objectives

- Protect sensitive company, customer and employee data, meet regulatory and corporate compliance requirements, and defend against the high cost of a data breach through web security and compliance

- Collaborate to mitigate business risk and increase customer satisfaction.

- **Application health**
- **Performance management**
- **Security & compliance**
- **Service management**
- **Performance optimization**
- **Monitoring & measurement**

Automated measurement saves 10% of resources and delivers the real story

A global bank: reduced audit cycle time from 500 to 20 hours

"Organizations exercising world-class performance management practices enjoy 2.4 times market returns of typical companies"

BusinessWeek Study:
The Payoff of Pervasive Performance Management

Confidently deliver incremental improvement
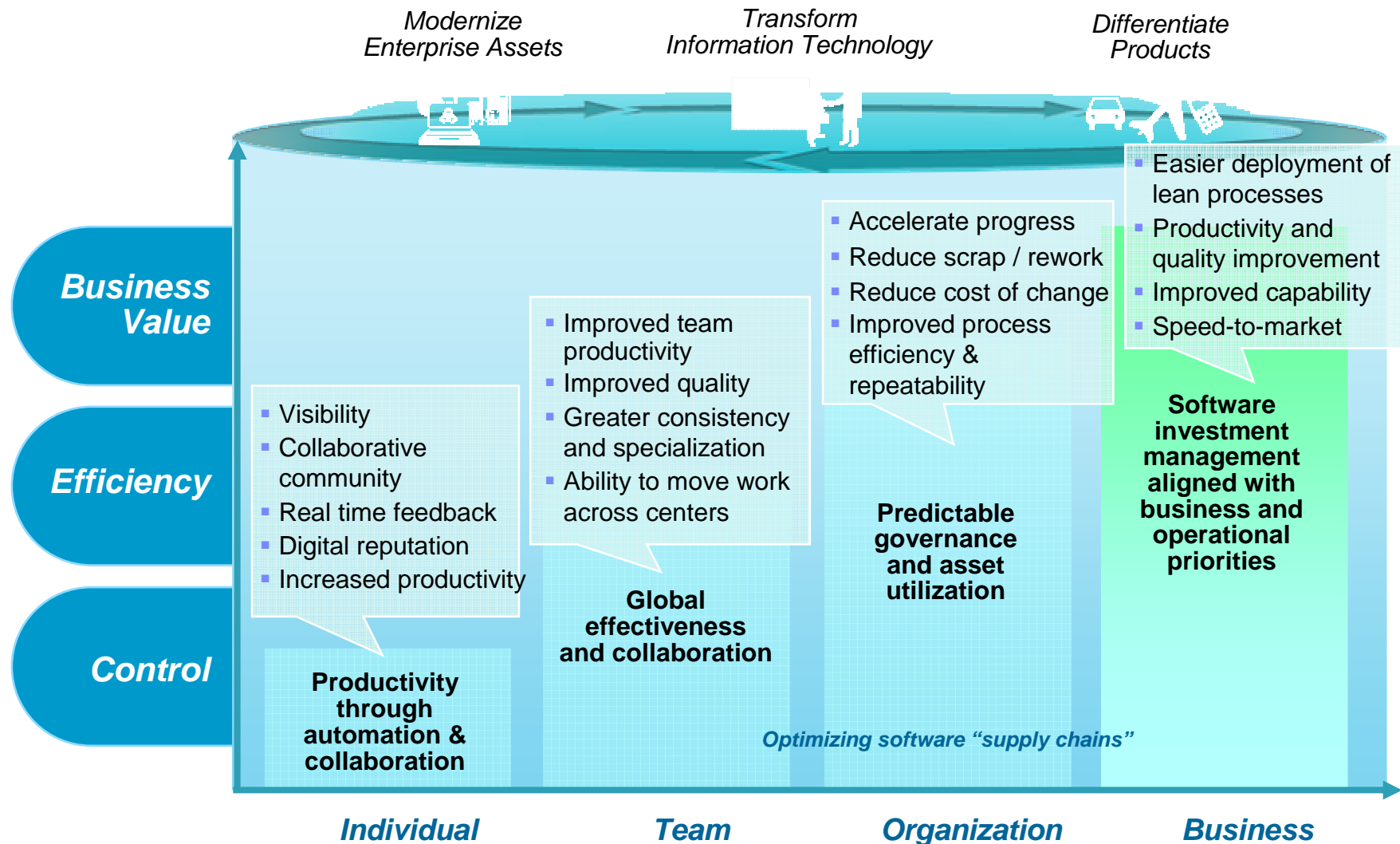*Drive necessary change at lower cost with a proven, repeatable approach*

- **Reach goals and maximize value with improvement roadmap**
  - ▸ Identify customer business challenge and align to operational objectives
  - ▸ Apply proven best practice to achieve objectives

- **Drive continuous and measurable improvement**
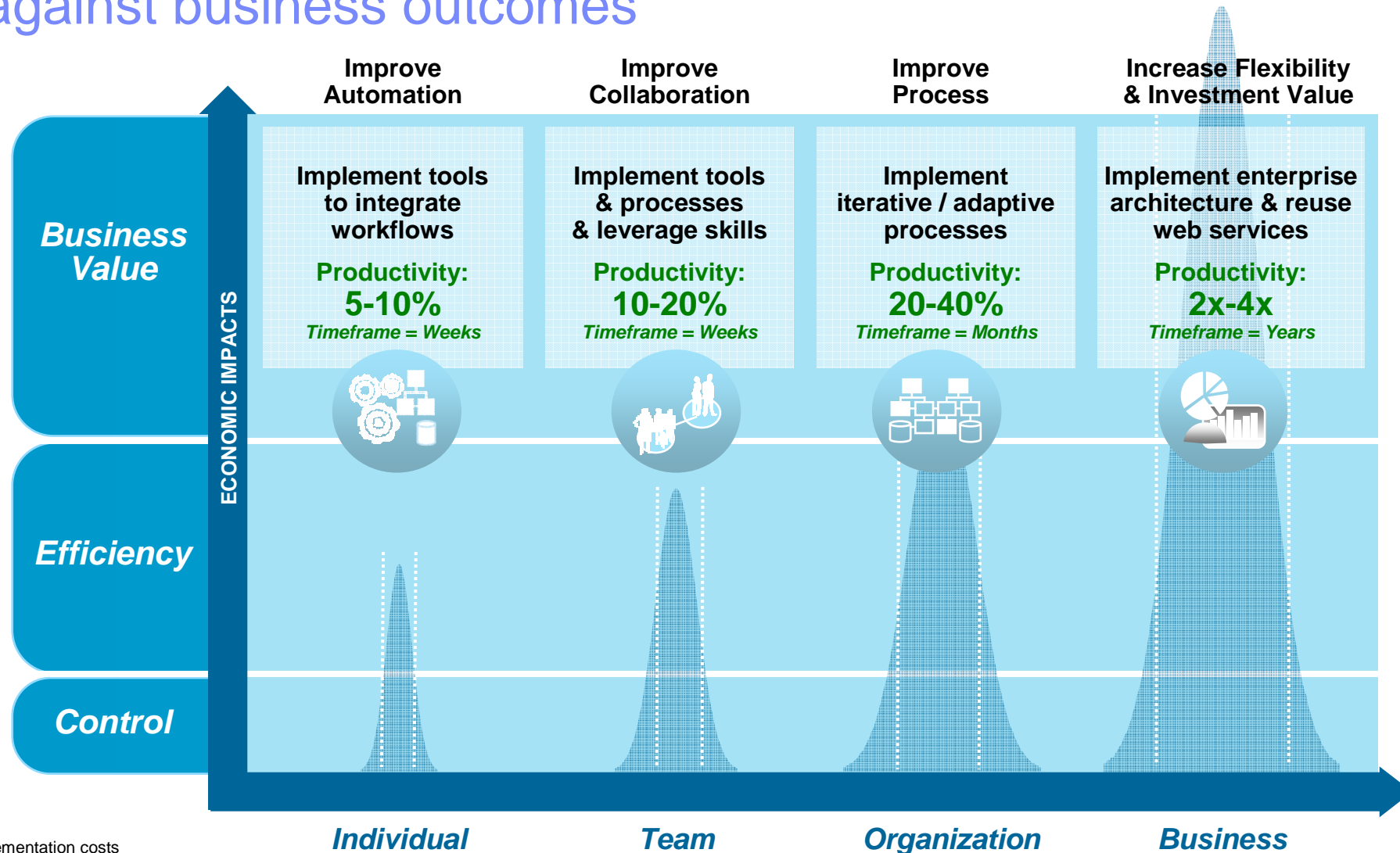 - ▸ End-to-end lifecycle framework drives 15-25% productivity improvement of selected priorities

- **Check results and iterate as needed**
  - ▸ Progress checkpoints and data analysis determines results and improvements still needed

MCIF

Phase 1 — **Establish business and operational objectives**

Phase 2 — **Prioritize practices and define roadmap**

Phase 3 — **Accelerate adoption with tools and services**

Phase 4 — **Report, analyze and act on results**

Start next incremental improvement

Benefits of an integrated approach to product delivery

*Modernize
Enterprise Assets*

*Transform
Information Technology*

*Differentiate
Products*

**Business
Value**

Efficiency

Control

- Easier deployment of lean processes
- Productivity and quality improvement
- Improved capability
- Speed-to-market

- Accelerate progress
- Reduce scrap / rework
- Reduce cost of change
- Improved process efficiency & repeatability

- Improved team productivity
- Improved quality
- Greater consistency and specialization
- Ability to move work across centers

- Visibility
- Collaborative community
- Real time feedback
- Digital reputation
- Increased productivity

Software investment management aligned with business and operational priorities

Predictable governance and asset utilization

Global effectiveness and collaboration

Productivity through automation & collaboration

Optimizing software "supply chains"

Individual   *Team*   *Organization*   *Business*

Achieve continuous improvement by measuring cost against business outcomes

ECONOMIC IMPACTS

Business Value

Improve Automation	Improve Collaboration	Improve Process	Increase Flexibility & Investment Value
Implement tools to integrate workflows	**Implement tools & processes & leverage skills**	**Implement iterative / adaptive processes**	**Implement enterprise architecture & reuse web services**
Productivity: 5-10%	**Productivity: 10-20%**	**Productivity: 20-40%**	**Productivity: 2x-4x**
Timeframe = Weeks	*Timeframe = Weeks*	*Timeframe = Months*	*Timeframe = Years*

Efficiency

Control

Individual   **Team**   **Organization**   **Business**

Implementation costs
are per person per year

Global financial institution leverages IBM innovation to improve productivity and streamline delivery process

Objectives

- Transform to a standardized repeatable delivery process with predictable results
- Increase productivity

Vision

- Provide the ability for corporate and institutional customers to use secure, online solution for accessing a broad range of banking services to meet the customers' desire to deal with banks offering
- Provide a highly configurable business process management solution to address the competitive threats from other major banks

Solution

- IBM application assembly optimization concepts and processes, methods and tools were used to propose a standardized delivery process
- SOA Technology Assembly Centre (TAC) capability pattern around Service Development was implemented to estimate the work and recommend a standard work breakdown structure
- Application Factory platform on Rational Team Concert was leveraged to deliver the solution in a collaborative development environment

Benefits

- **Improved productivity**
  - 10% productivity improvement achieved by delivering through TAC model
- **Predictable result**
  - No schedule variance and very small effort variance (-1.89%)
- **New service delivery model**
  - High level of accuracy in lowest level of WBS helps in accurately monitoring progress on day-to-day basis and in taking the corrective actions, which results in forecasting accurate schedule
- **Higher quality**
  - Small defect injection rate (4.39%) indicates higher quality of delivery

Learn more at:

- **IBM Rational software**
- **Rational launch announcements**
- **Rational Software Delivery Platform**
- **Jazz.net**
- **Accelerate change & delivery**
- **Deliver enduring quality**

- **Enable enterprise modernization**
- **Ensure Web security & compliance**
- **Improve project success**
- **Manage architecture**
- **Manage evolving requirements**
- **Small & midsized business**

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- **Rational trial downloads**
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