# C1040 BPM Overview

## Technical Overview

# Agile Businesses require dynamic Process change

## React Quickly to the Unexpected

Market-leading cell-phone provider suffered severe financial losses after fire in manufacturing plant. Processes were not agile enough to respond quickly

## Accomplish Long-Term Success Goals

A large Insurance company, with $5.5 billion in gross written premiums, needed to automate their new business acquisition process. They delivered it in 6 months, expect 3-4% increase in gross premiums written driving top-line growth.  To date they have recorded 52% asset reuse.*
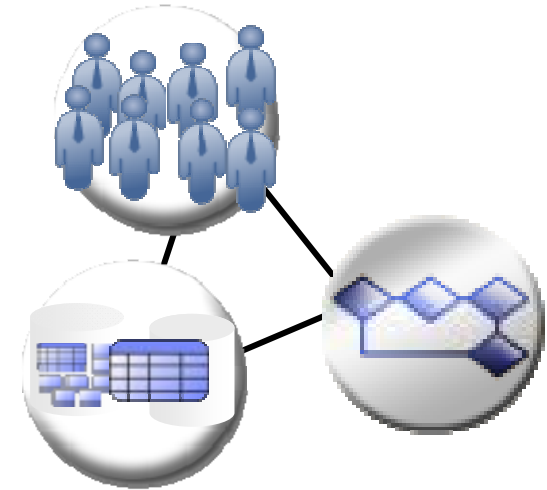
**Avoiding supply chain disruption**

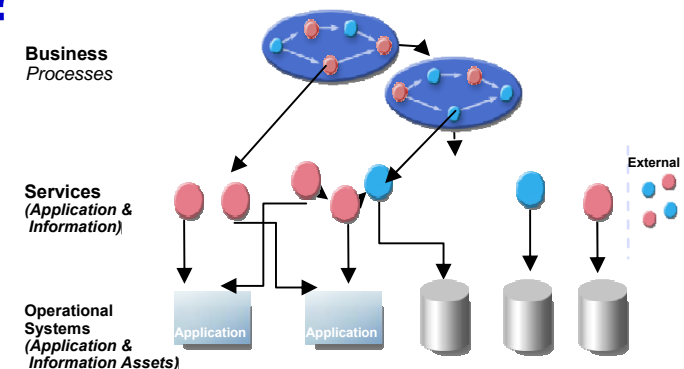**Strengthening partner relationships**

## What is Business Process Management?

BPM is a *discipline* combining software capabilities and business expertise through people, systems, and information to accelerate time between process improvements, facilitating business innovation
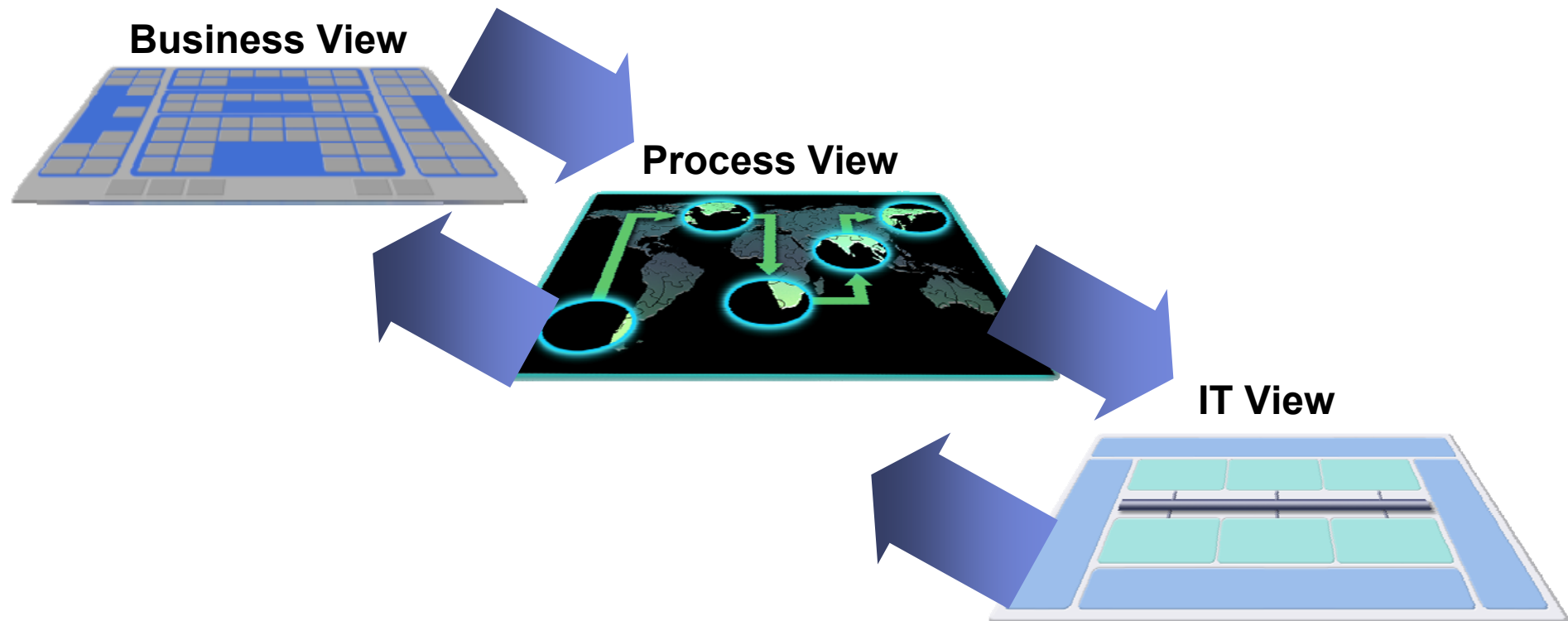
# What does BPM with SOA provide?

*BPM with SOA* provides process flexibility by improving how you design, manage, and optimize your business processes and reuse existing assets.

**Business** *Processes*

**Services** *(Application & Information)*

**External**

**Operational Systems** *(Application & Information Assets)*
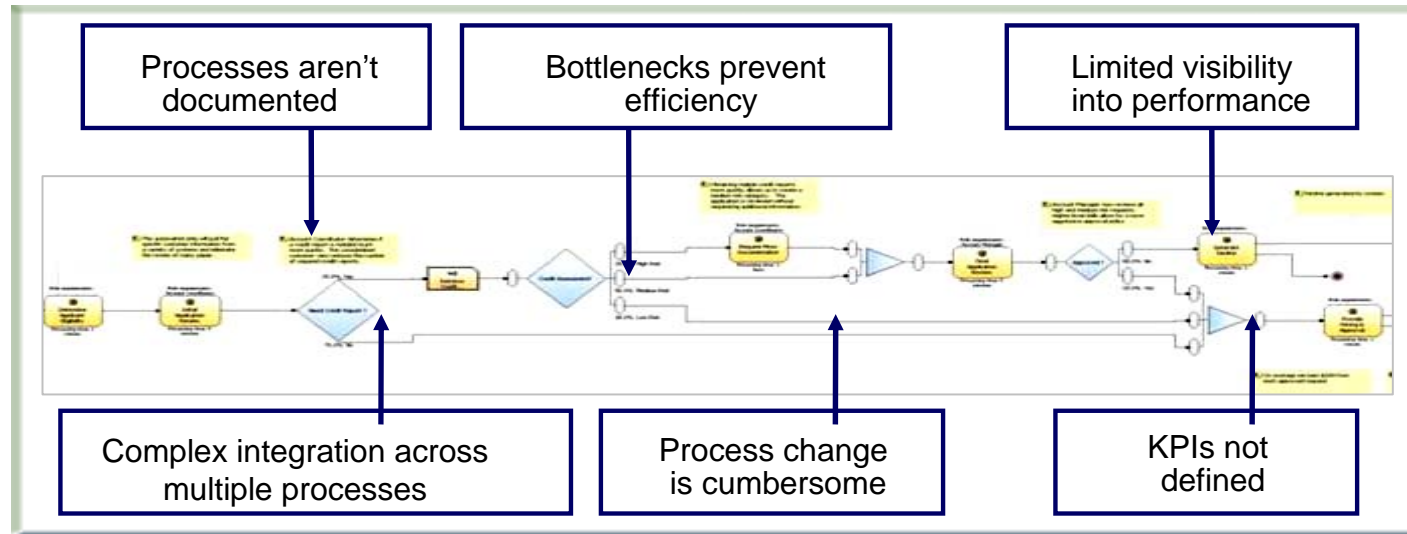
Application    Application

## BPM – Holistic Approach to Innovation and Optimization
### Globally aligning your Strategy with Business and IT Execution

**Business View**
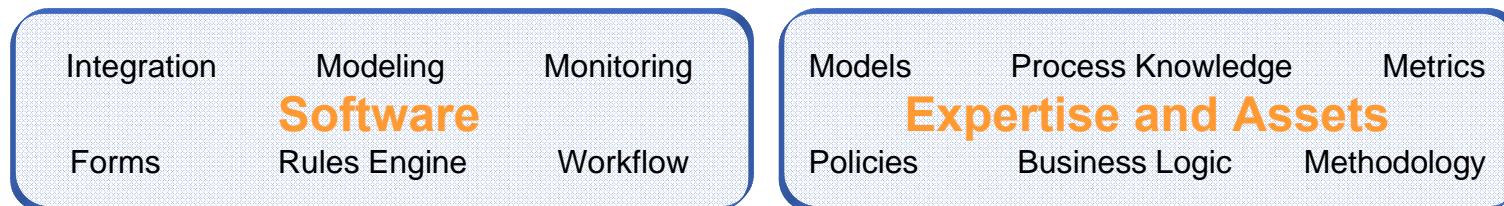
**Process View**

**IT View**

## Business Process Management is a Discipline…

BPM solves common business challenges . . .



| Processes aren't documented | Bottlenecks prevent efficiency | Limited visibility into performance |

| Complex integration across multiple processes | Process change is cumbersome | KPIs not defined |

## BPM Includes

| Integration | Modeling | Monitoring |
| **Software** | | |
| Forms | Rules Engine | Workflow |

| Models | Process Knowledge | Metrics |
| **Expertise and Assets** | | |
| Policies | Business Logic | Methodology |

*BPM governs organizational and operational activities*

# Components of a Complete SOA-based BPM Platform

**Tooling Infrastructure**

**Runtime Infrastructure**

**Business Process Modeling**

**Application / Process Assembly**

**Business Process Choreography**

**Human Tasks**

**Composite Business Applications**

**Enterprise Service Bus**

**Service Registry**

**Asset Reuse and Access**

**Business Activity Monitoring**

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IBM

# WebSphere BPM Runtime Stack
## *Based on WebSphere Application Server 6.1*

## OS

- **Windows**®
- **AIX**®
- **HP-UX**
- **Solaris**
- **Linux**®
- **i5/OS**®
- **z/OS**®

## Databases

- **DB2**®
- **Cloudscape**®
- **Oracle**
- **MS SQL Server**
- **Informix**®
- **IBM Information Integrator**

**WebSphere Business Services Fabric**

**WebSphere Process Server**

**WebSphere ESB**

**WebSphere Application Server ND**

**WebSphere Application Server**

**Composite Business Applications**

**Process Choreography**

**Service Connectivity**

**Advanced Clustering**

**Runtime Foundation**

## All with common administration reusing existing skills

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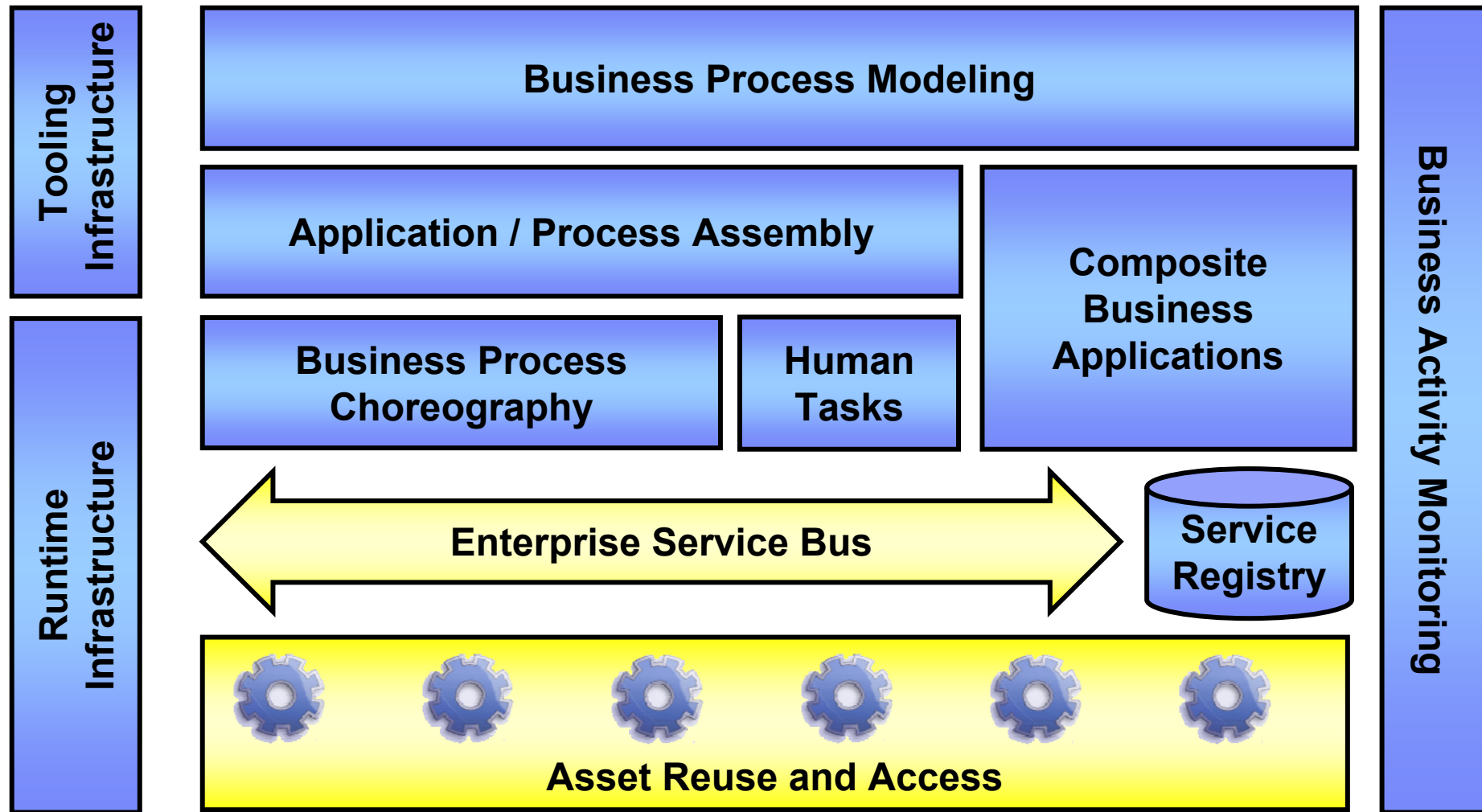**Asset Reuse and Access**

**Business Activity Monitoring**
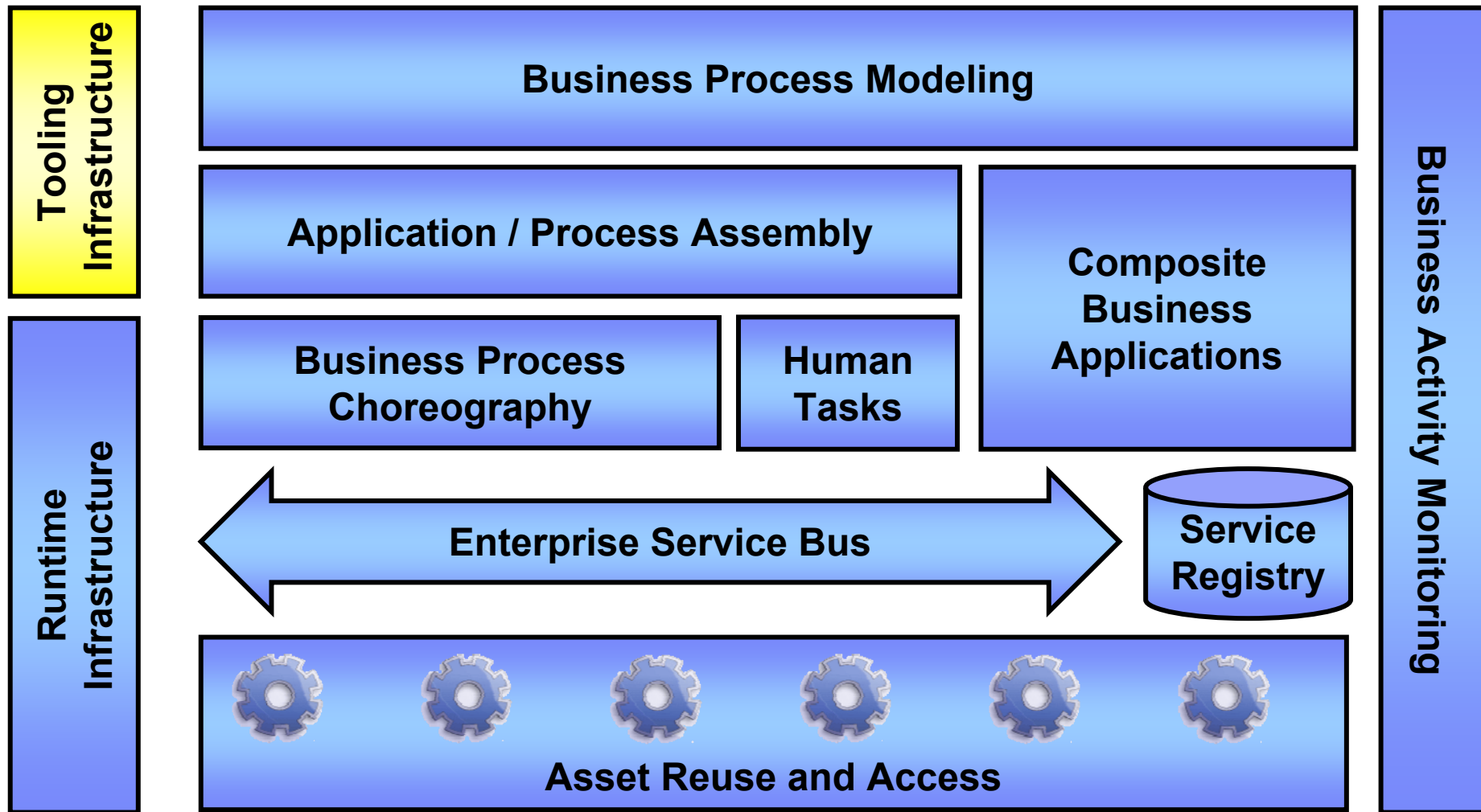
# WebSphere Tooling Portfolio
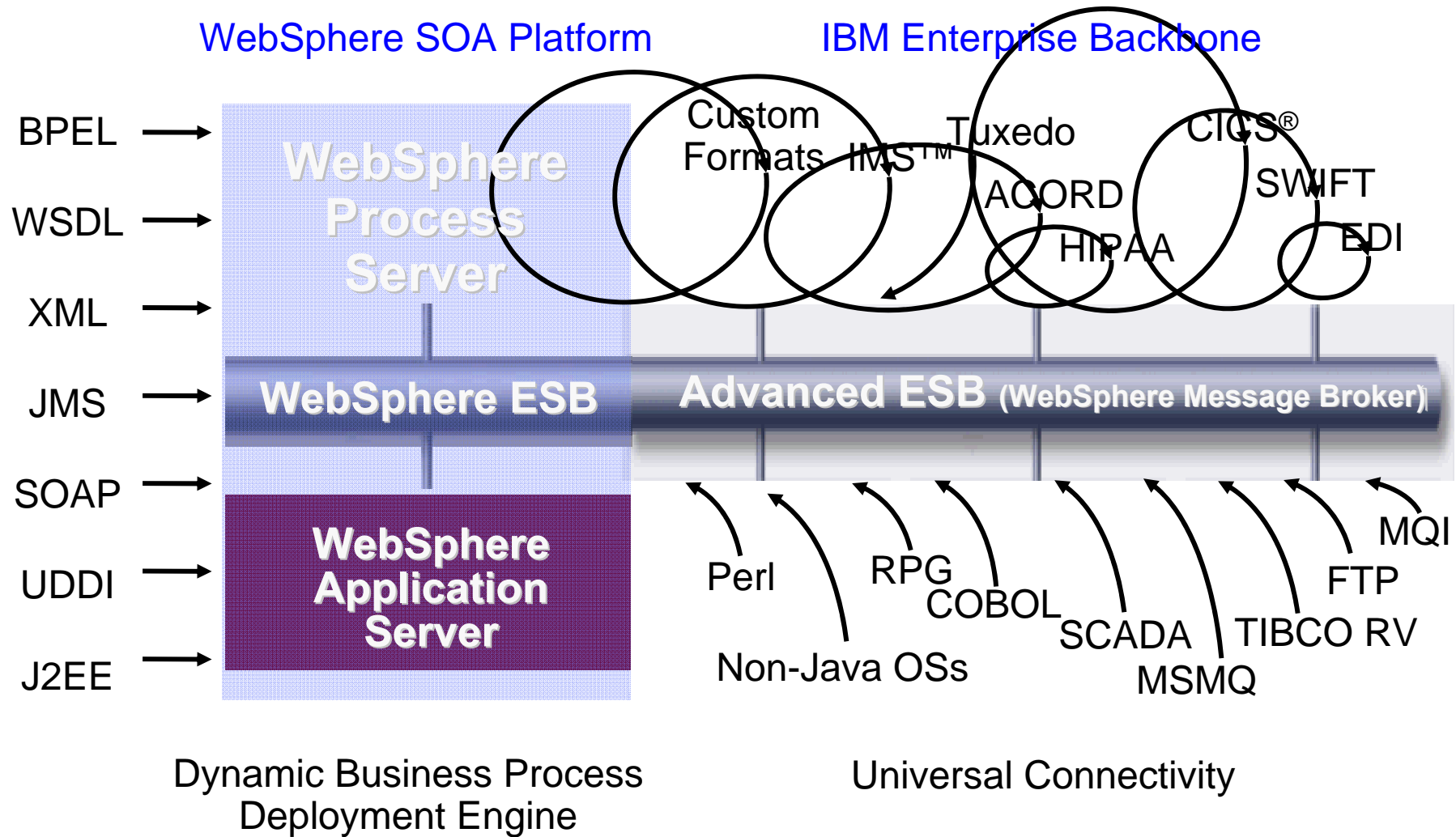## *Extensible tooling platform built on Eclipse*
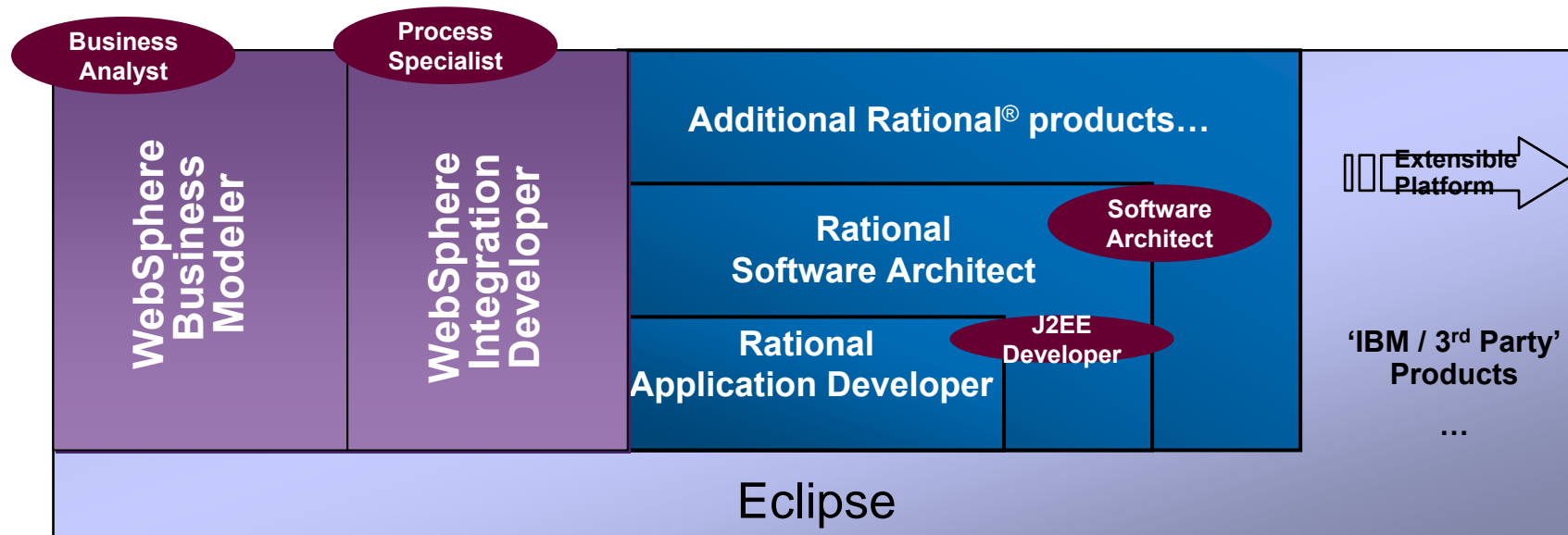


- **All IBM Software Development platform products install in a consistent and extendable way within the 'platform'**
  - ▸ **First Product installs the 'platform' as well as it's own product-specific 'installable units'**
- **Role-based tool approach, experienced as single integrated "desktop" IDE**
- **Reuse of RAD and Eclipse components ('installable units') is baked into the design**
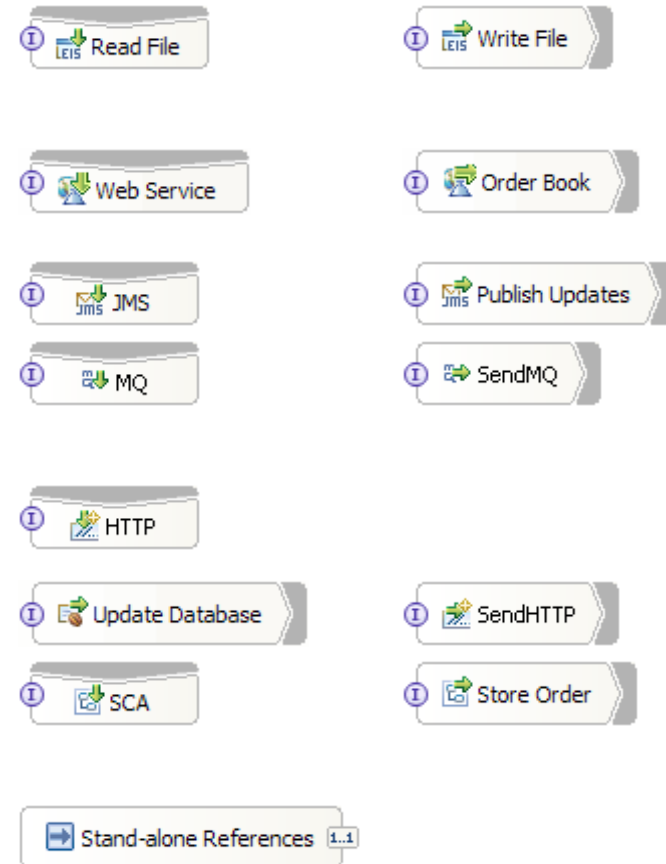
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# Unparalleled Connectivity for the Enterprise

WebSphere SOA Platform

IBM Enterprise Backbone

BPEL

WSDL

XML

JMS

SOAP

UDDI

J2EE

**WebSphere Process Server**

**WebSphere ESB**

**WebSphere Application Server**

**Advanced ESB** (WebSphere Message Broker)

Custom Formats

IMS™

Tuxedo

CICS®

ACORD

SWIFT

HIPAA

EDI

Perl

RPG

COBOL

SCADA

MSMQ

TIBCO RV

FTP

MQI

Non-Java OSs

Dynamic Business Process
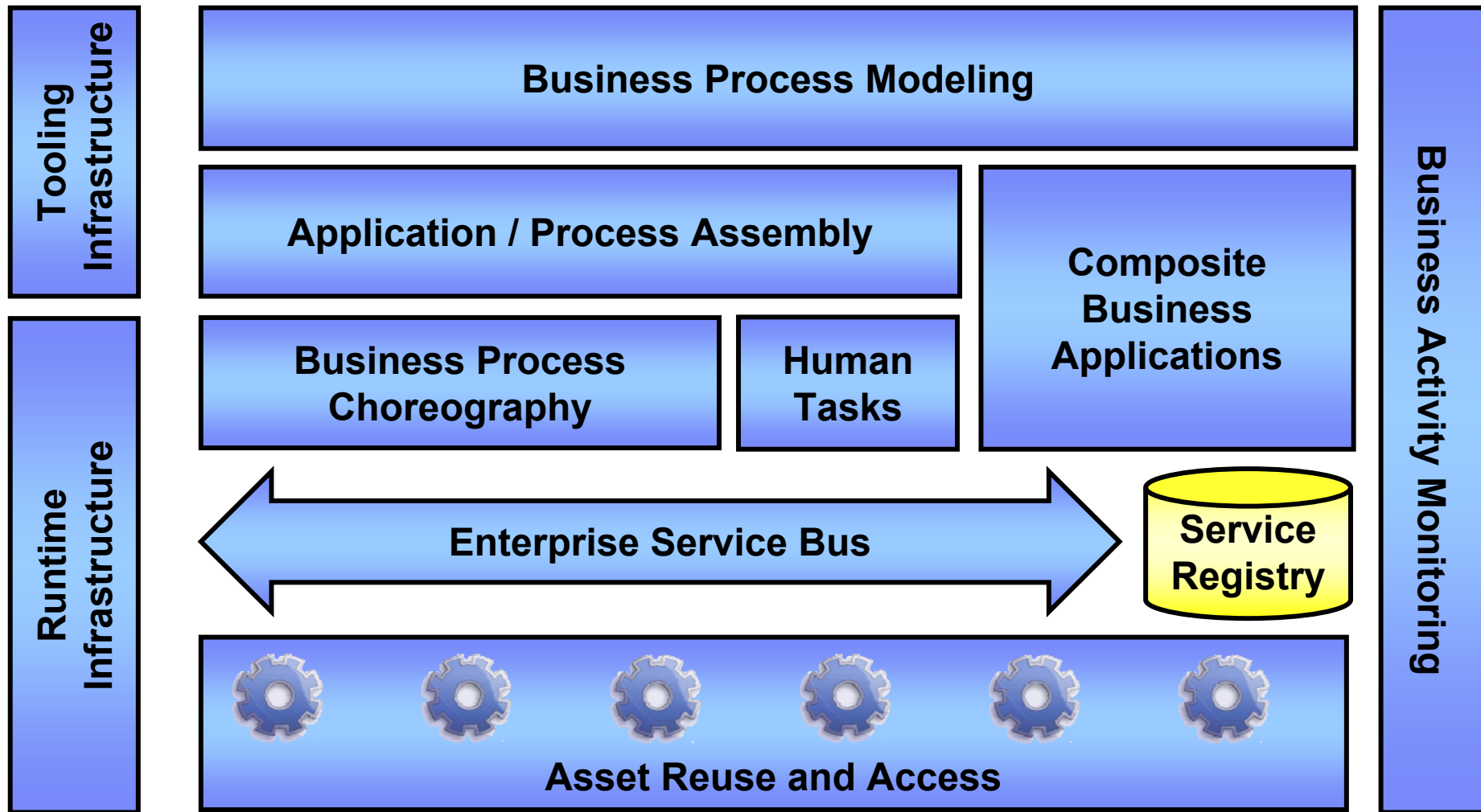Deployment Engine

Universal Connectivity

# Reusing existing Assets
## *Rich Capability to access Existing Assets*

- **Adapters**
  - ▸ **Technology Adapters (Database, Flat File, …)**
  - ▸ **Application Adapters (SAP, Siebel, …)**
- **Web Services**
  - ▸ **SOAP over HTTP, SOAP over JMS**
- **Messaging**
  - ▸ **JMS or WebSphere MQ**
  - ▸ **Point-to-Point and Publish/Subscribe**
  - ▸ **WebSphere, WebSphere MQ, WebSphere MQ JMS, 3rd party JMS**
- **HTTP**
  - ▸ **XML over HTTP connection**
- **EJB (Session Beans)**
- **SCA**
  - ▸ **Connect modules to each other without exposing the interface outside of WebSphere Process Server**
- **Standalone Reference**
  - ▸ **Enables an SCA API Client to call a Module**

Read File        Write File

Web Service      Order Book

JMS              Publish Updates

MQ               SendMQ

HTTP

Update Database  SendHTTP

SCA              Store Order

Stand-alone References 1..1

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# WebSphere Service Registry and Repository
## *Provides Value throughout the SOA Lifecycle*

### WebSphere Service Registry and Repository



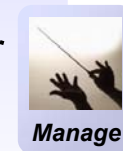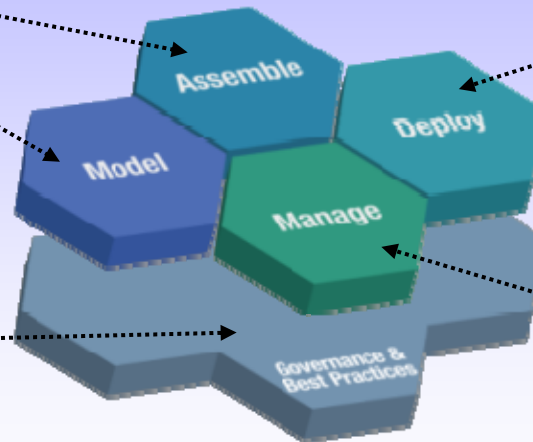| *Publish* | *Find* | *Enrich* | *Manage* | *Govern* |
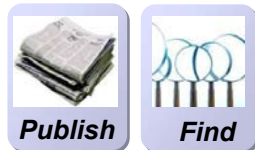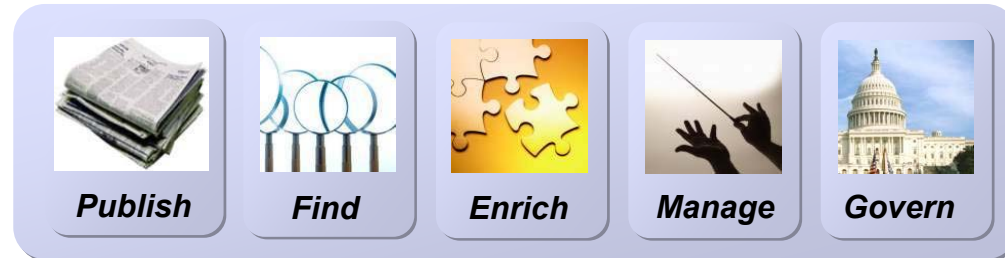
**Encourage Reuse**
Find and reuse services for building blocks for new composite applications.

**Enhance Connectivity**
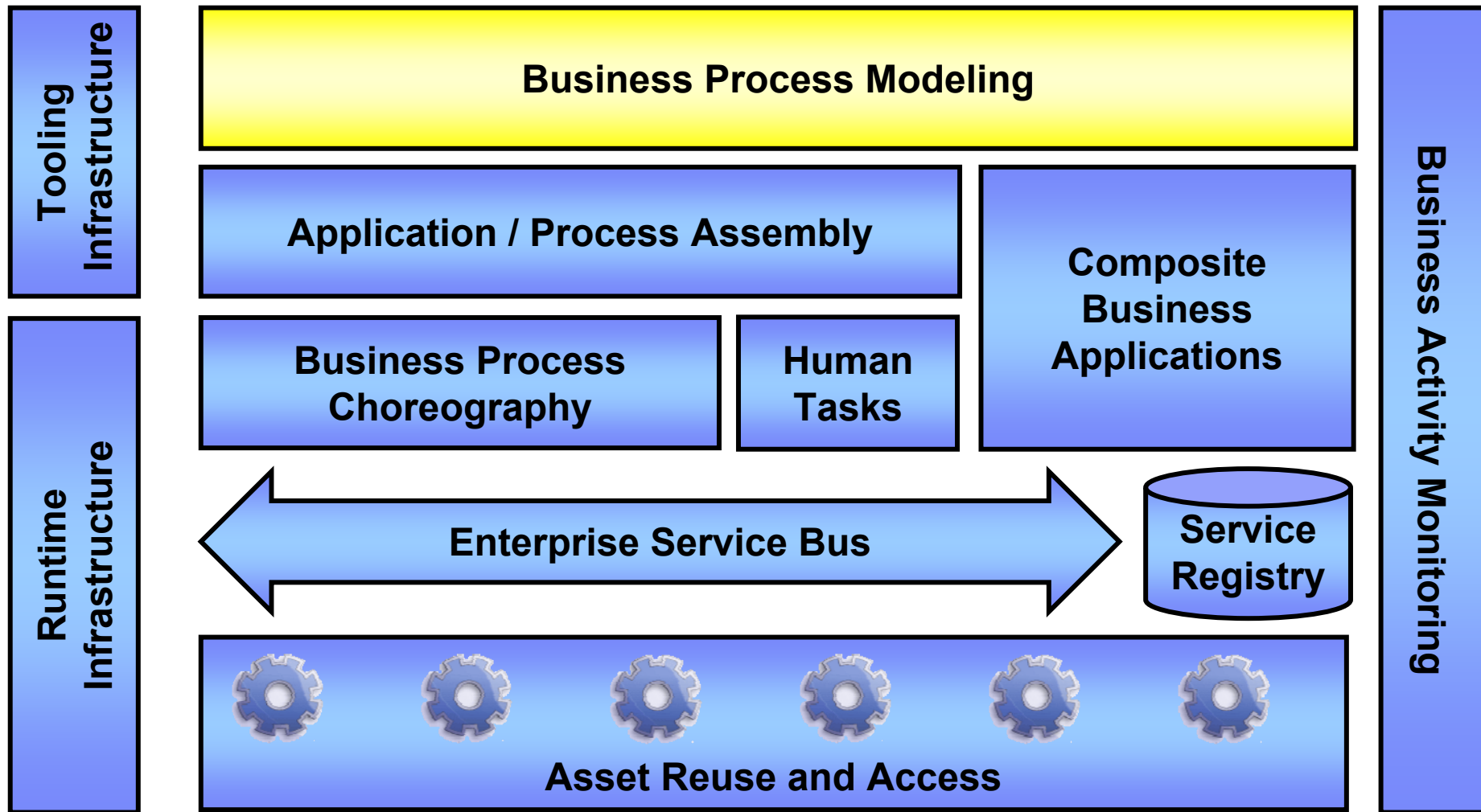Enable dynamic and efficient interactions between services at runtime.
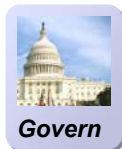
**Enable Governance**
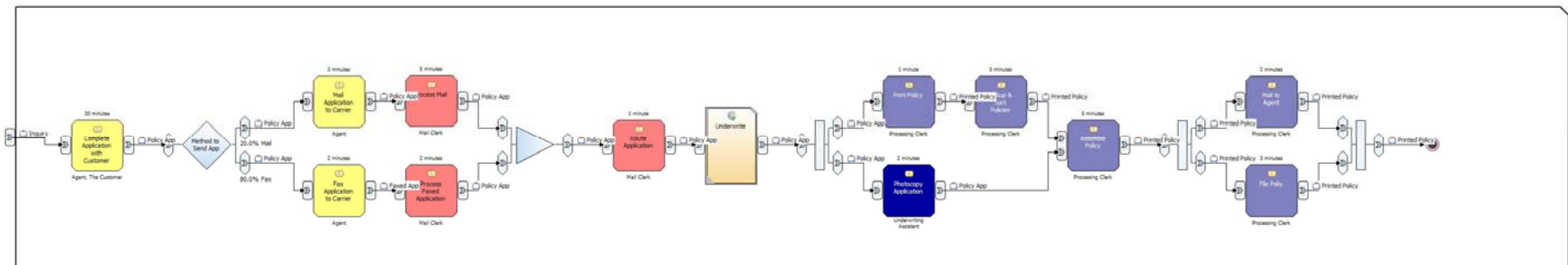Govern services throughout the service lifecycle

**Help optimize service performance**
Enable enforcement of policies. Impact analysis

# Components of a Complete SOA-based BPM Platform

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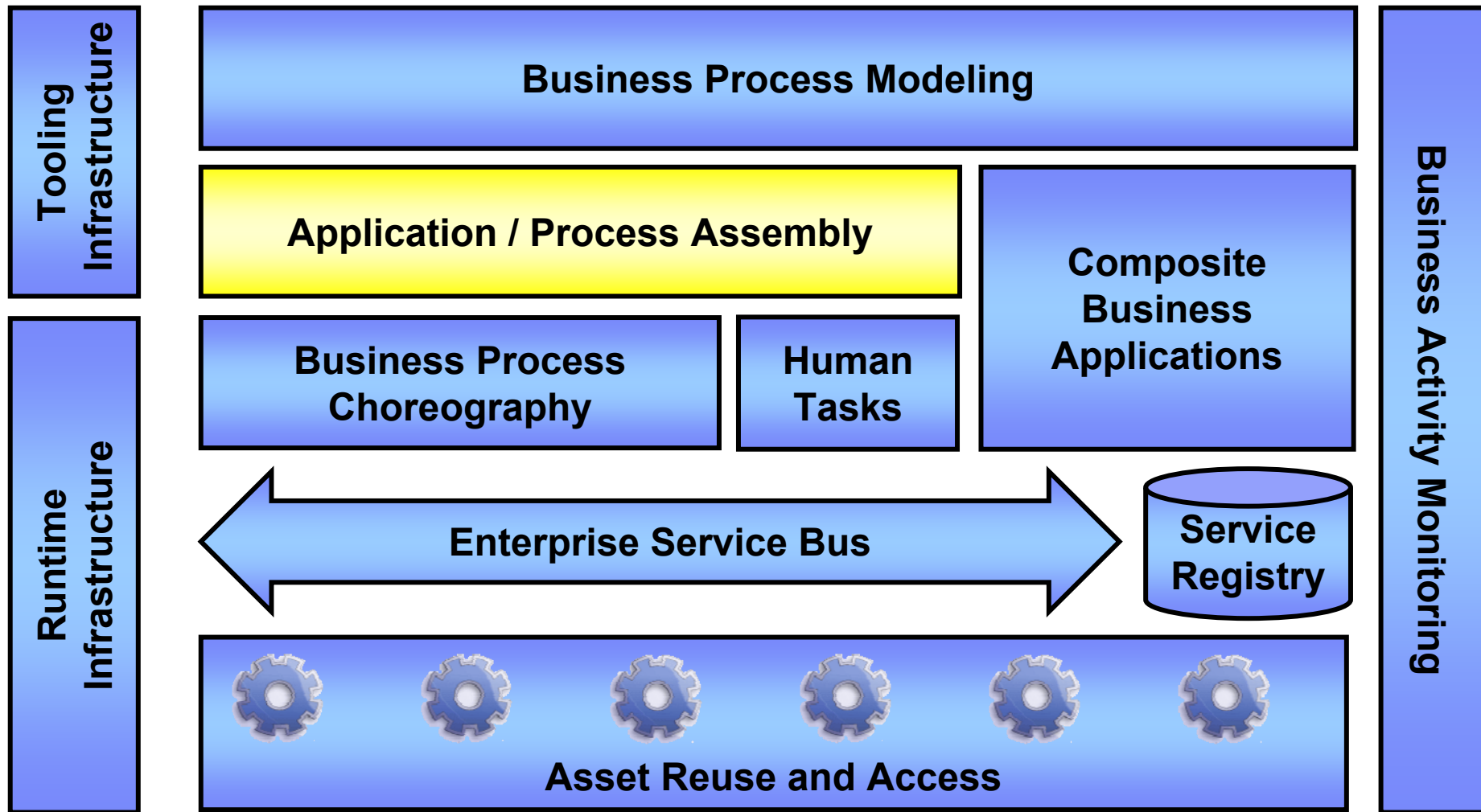
**Business Activity Monitoring**

# Business Process Modeling

- **Simple to use, business tools for business users**

- **Different modes for different users**
  - **Start simple, room for growth**

- **Precise modeling of the things which matter**
  - **Model the things which affect performance**
    - **Processes, tasks, costs, times, resources, information, organizational structure**
  - **Model the things which measure performance**
    - **Model and define the business metrics to be used in Manage**
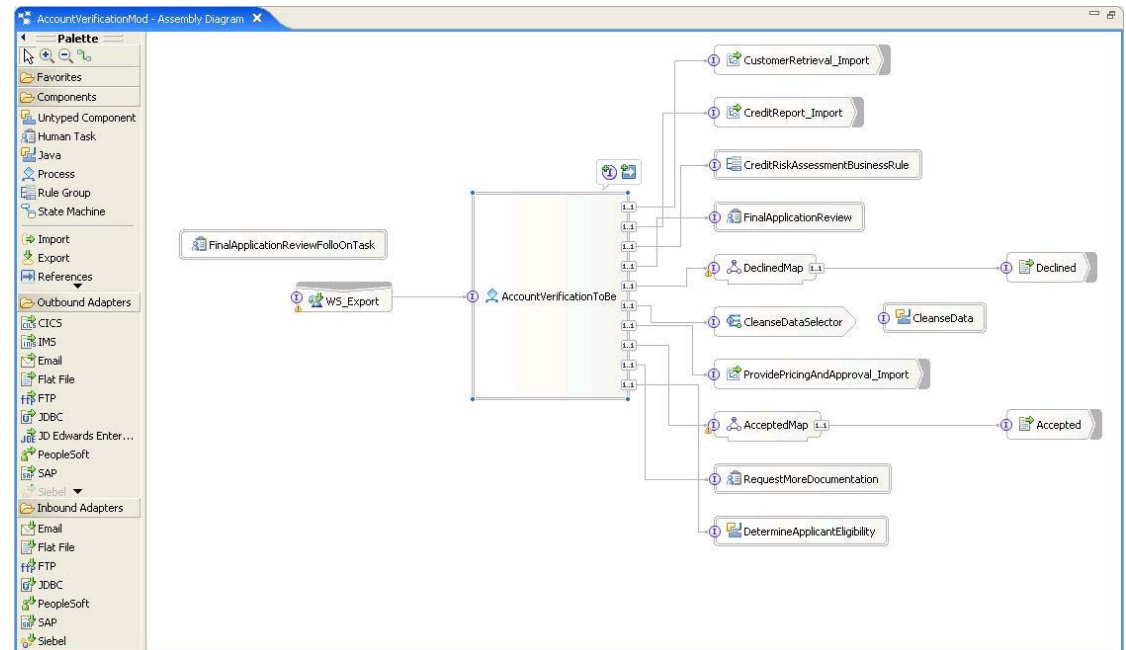
- **Very comprehensive Reporting and Documentation Capabilities**

# Components of a Complete SOA-based BPM Platform

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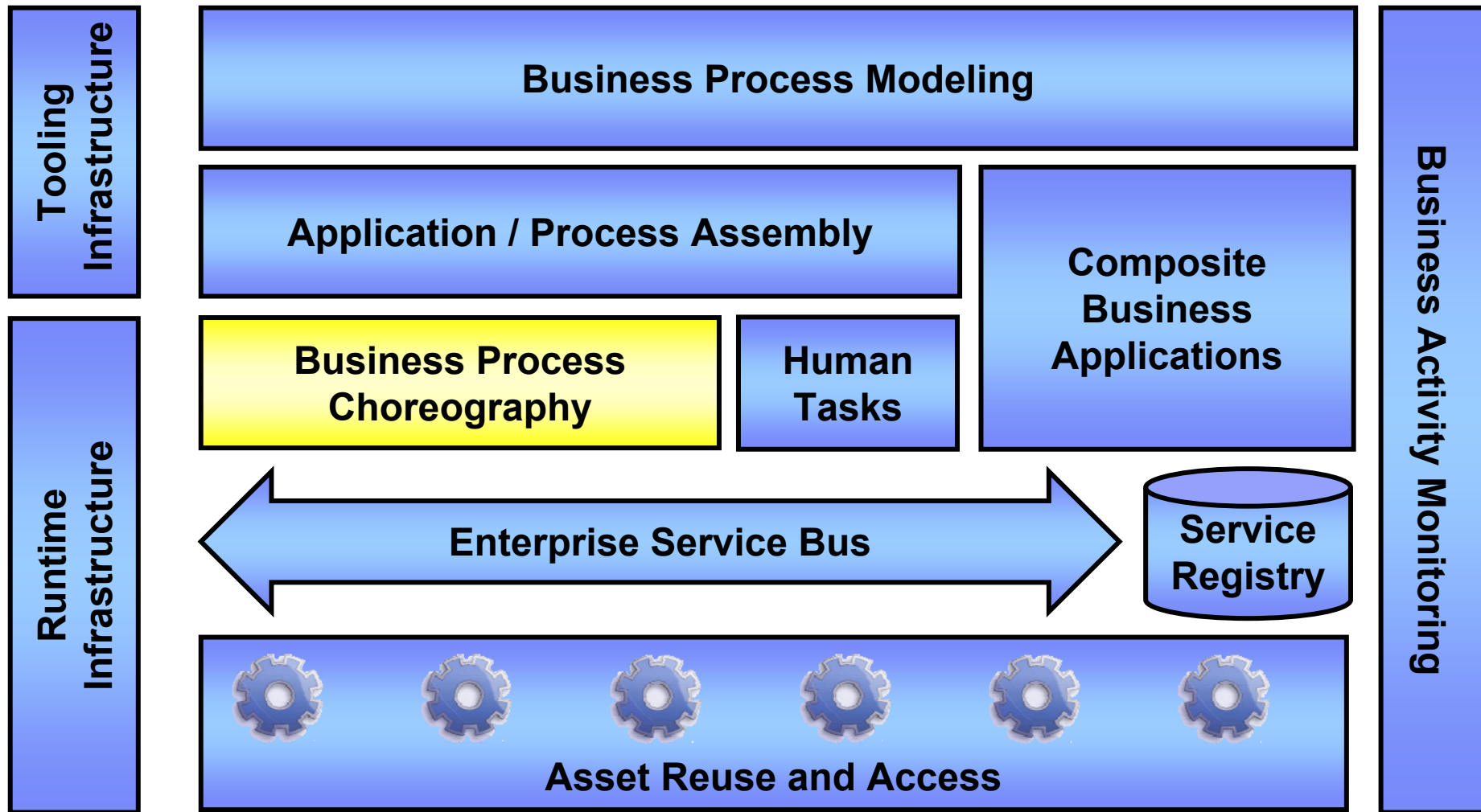
**Business Activity Monitoring**

## Assembly of Services instead of Coding
### *WebSphere Integration Developer 6.1*

- **Easy-to-use tool for assembling business processes**
  - **WebSphere Process Server**
  - **WebSphere ESB**
  - **WebSphere Adapters**
- **User-friendly authoring environment based on Eclipse**
  - **Visual Editors minimize writing Code**
- **Quickly discover, reuse and assemble services components**
  - **Enterprise Metadata Discovery**
  - **WebSphere Service Registry & Repository**

# Components of a Complete SOA-based BPM Platform

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## Power your Business Processes with a flexible SOA Engine
### *WebSphere Process Server 6.1*

- **Simple and flexible execution of standards-based business processes**

- **Orchestrates a business' assets – people, processes and information services – to form highly optimized and effective processes**

- **Process automation, advanced human workflow, business rules, S2S and B2B capabilities on a common platform**
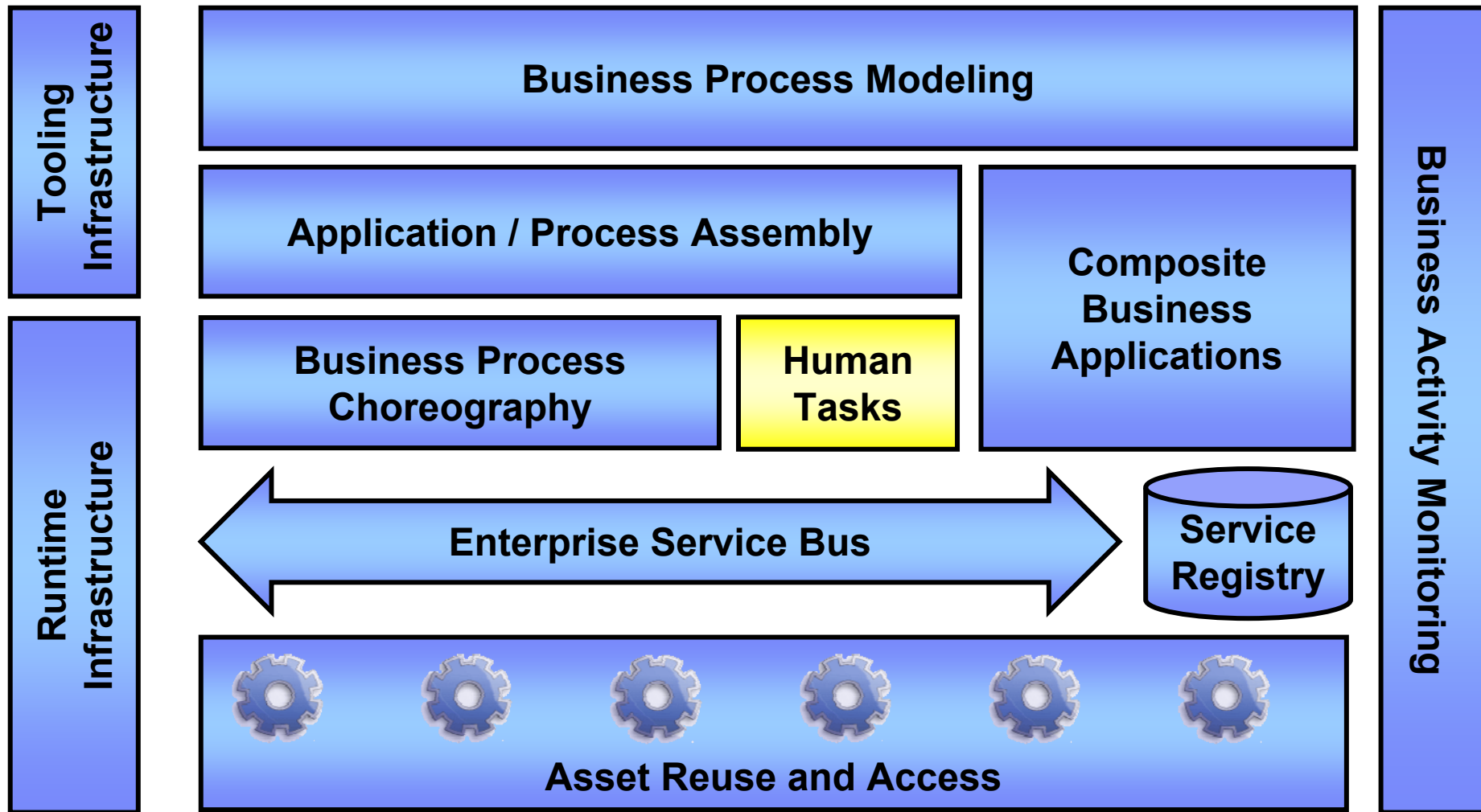
- **Modify processes in real-time**

Also available for

IBM @server zSeries

**z/OS & i5/OS**

- **Enhanced human-centric BPM capabilities**

- **Improved consumability and usability**

- **Extended reach of process solutions**

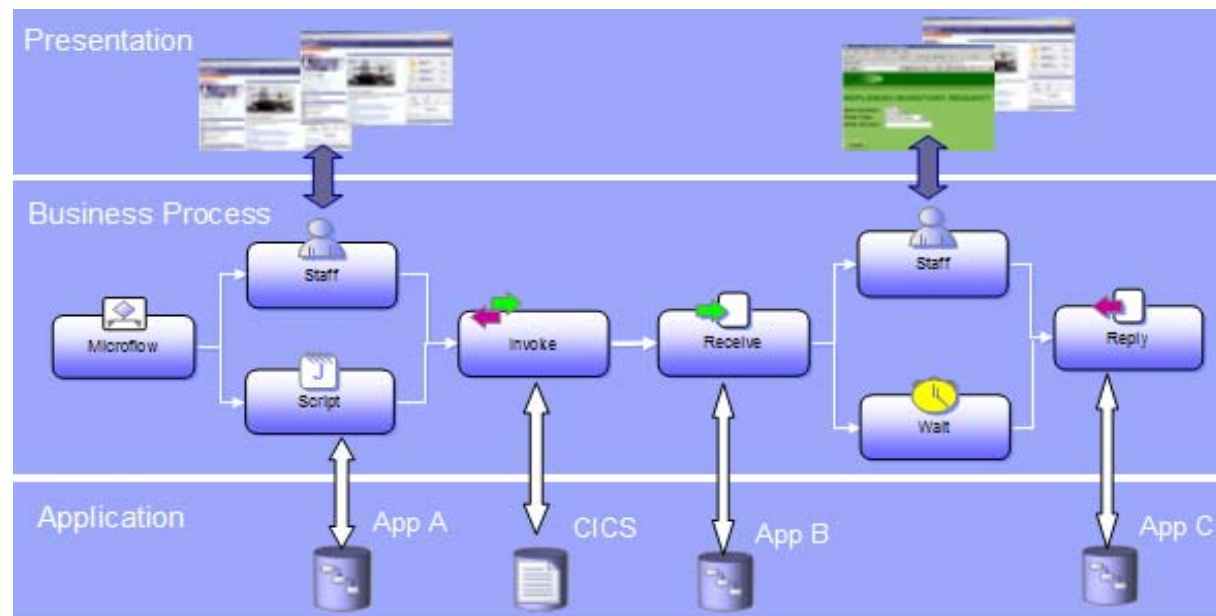- **Expanded platform and infrastructure currency**

## Components of a Complete SOA-based BPM Platform

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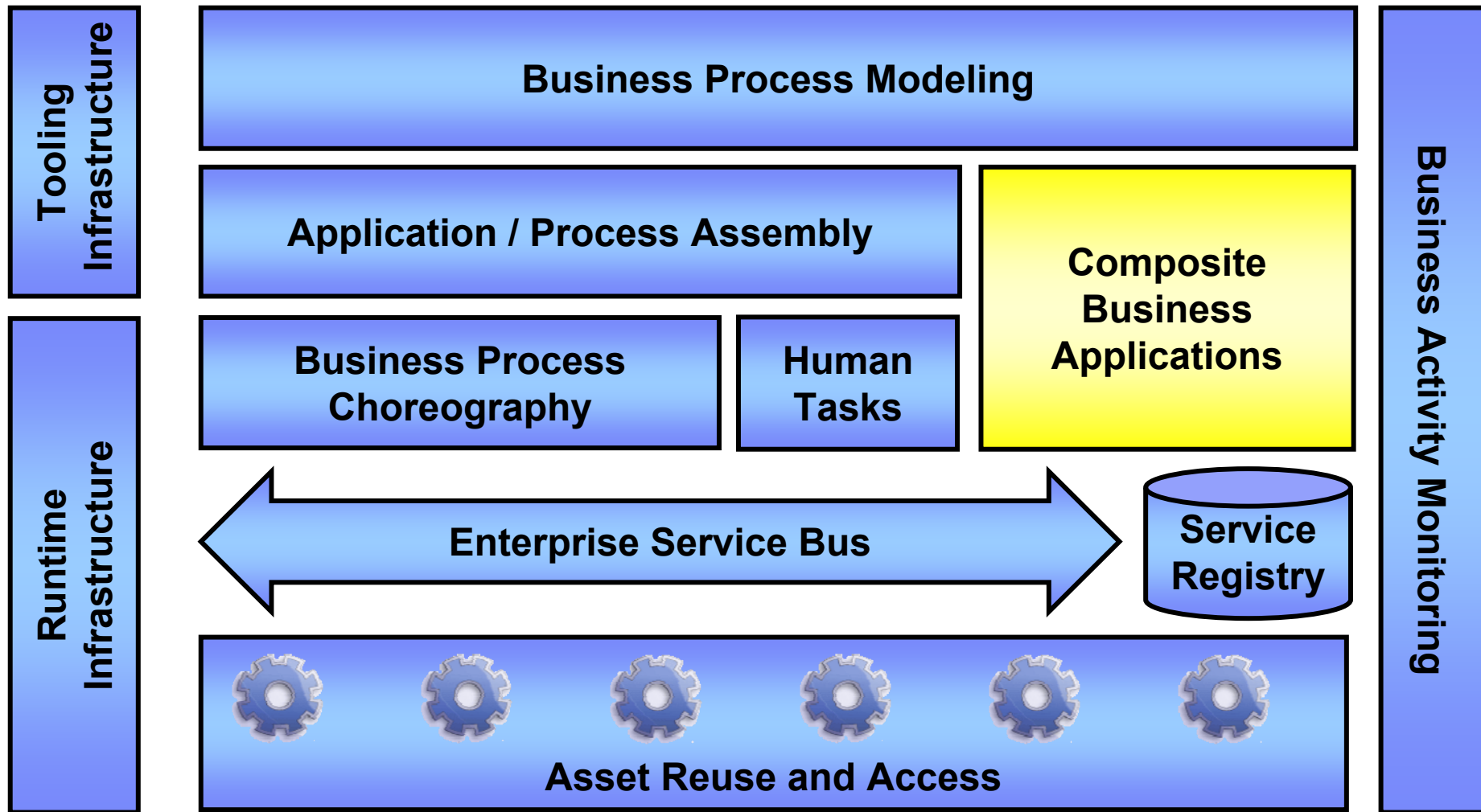
**Business Activity Monitoring**

# Human Workflow for BPM
## *Key Factor for Business Success*

- **Human workflow is about assigning the right work to the right people at the right time, with the information they need, presented for immediate action**

- **Human Workflow is required for important business scenarios**

  - **Exception handling for automated process steps**

  - **Manual review and approvals**

  - **Legal regulations, compliance and policy fulfillment (Sarbanes-Oxley, HIPAA, ISO 9000…)**
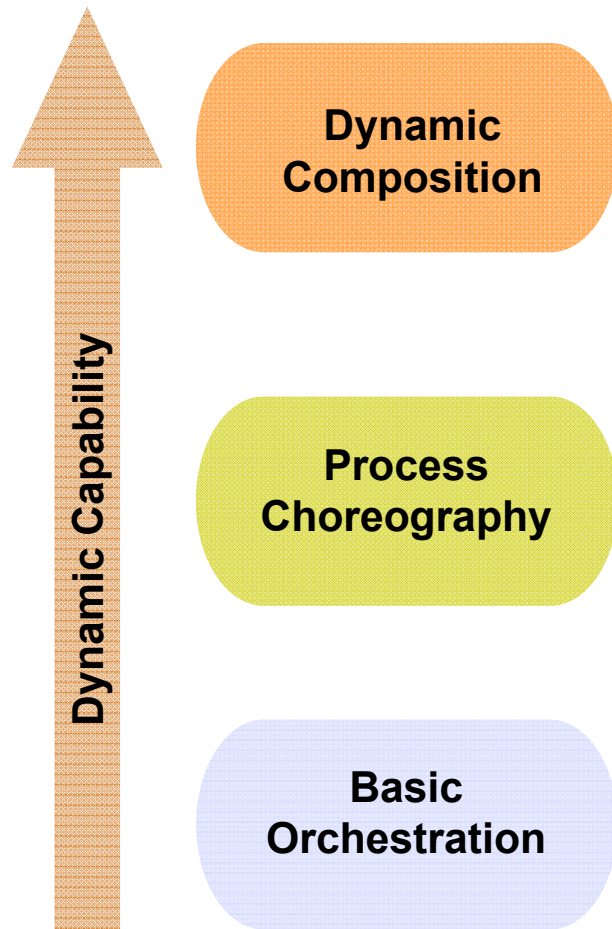
  - **...and many more**

## Components of a Complete SOA-based BPM Platform



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# Composite Business Applications
## *Enabling dynamic Process Change*

**Dynamic Capability** ↑

**Dynamic Composition**

**Process Choreography**

**Basic Orchestration**

- **Adaptive & Dynamic Processes**
  - ▸ **Dynamic business process change**
  - ▸ **Assembly and delivery of Composite Business Applications based on business context**
  - ▸ **Policy-driven to enabled faster change and easier maintenance**
  - ▸ **Flexibility across multiple constituents, channels and service levels**

- **SOA-Based Process Choreography**
  - ▸ **Process driven choreography of services**
  - ▸ **Process automation with associated business logic encapsulated within the business process**
  - ▸ **Improved flexibility and manageability with your SOA**

- **Basic Orchestration**
  - ▸ **Easier integration and connectivity**
  - ▸ **Standardized components and Web services**
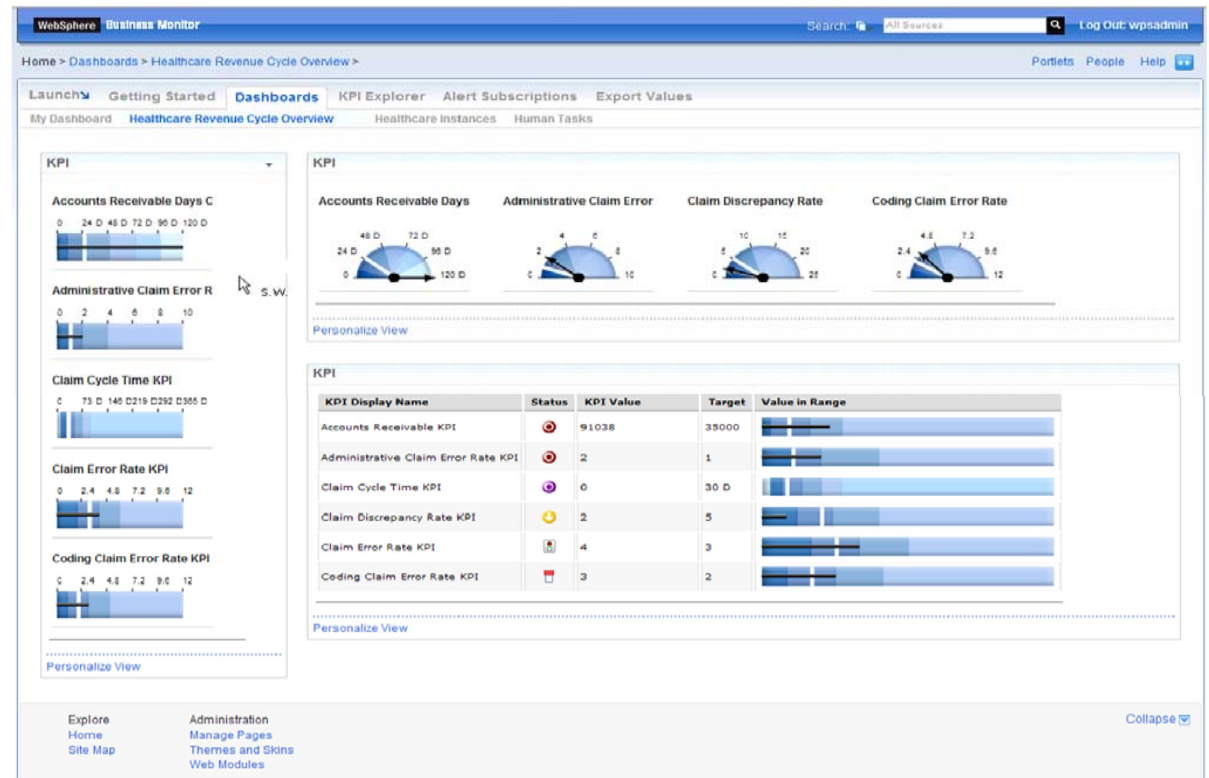  - ▸ **Based on well accepted technical standards**

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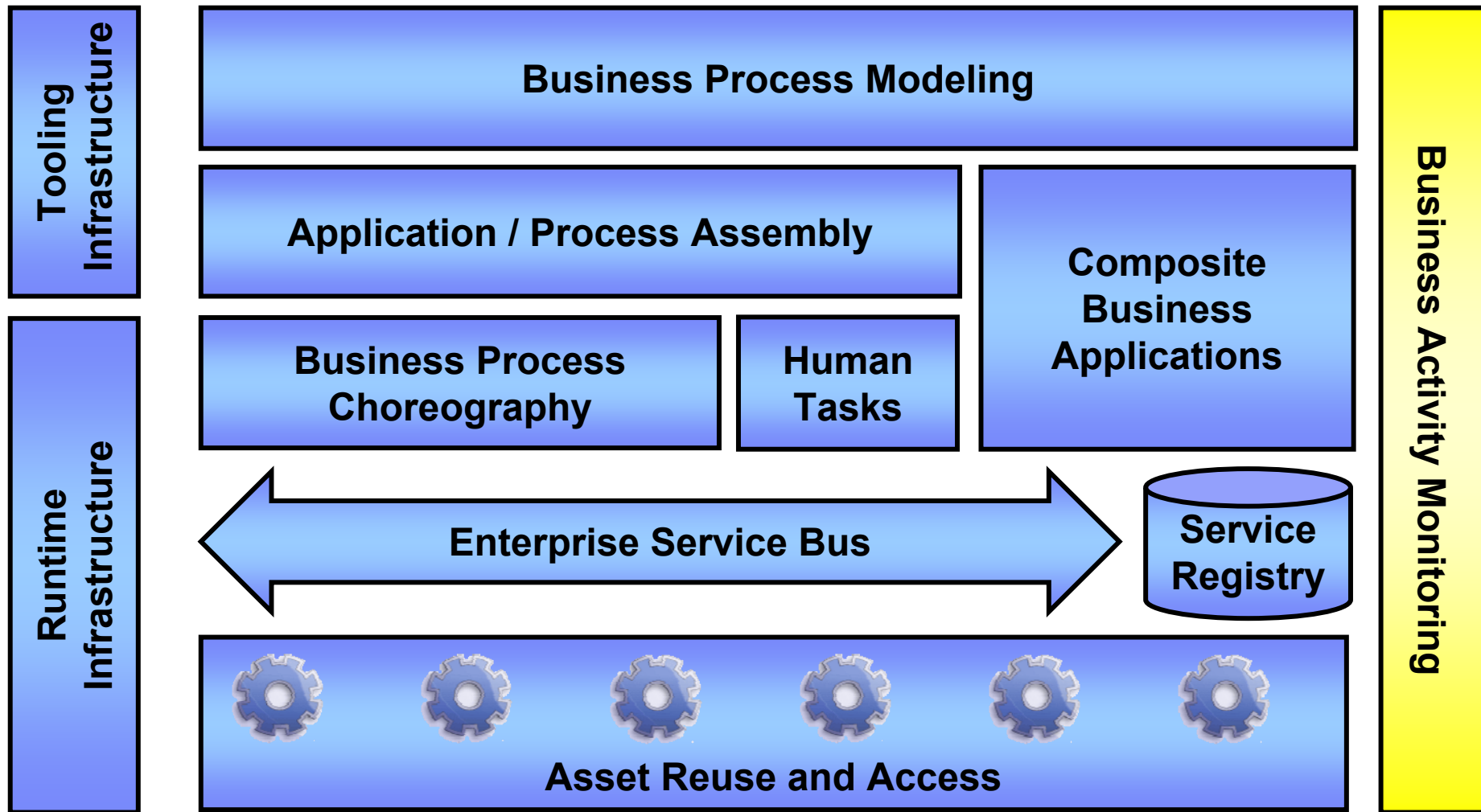
## Business Activity Monitoring for better Business Decisions
### *WebSphere Business Monitor 6.1*

- Create high productivity role based Dashboards

- Monitor Business Process Performance

- Manage In-Flight Business Processes

- Gather Business Intelligence from Collected Data

- Detect Business Situations and Take Action

# Questions