SOA 를 위한 IT기술과 경영기술

변 종 석

SCA

목   차

Software Community Alliance
http://www.scakorea.org

The Next Application Platform

Presentation Tier	**Dynamic & Collaborative User Interfaces**
	User Interface Component Model
Business Tier	**Business Process, Rules, Events**
	Service Component Model
	Service Fabric and Binding
Data/ Resource Tier	**Business Logic Component Model**
	Persistence Services / **Federated Services**
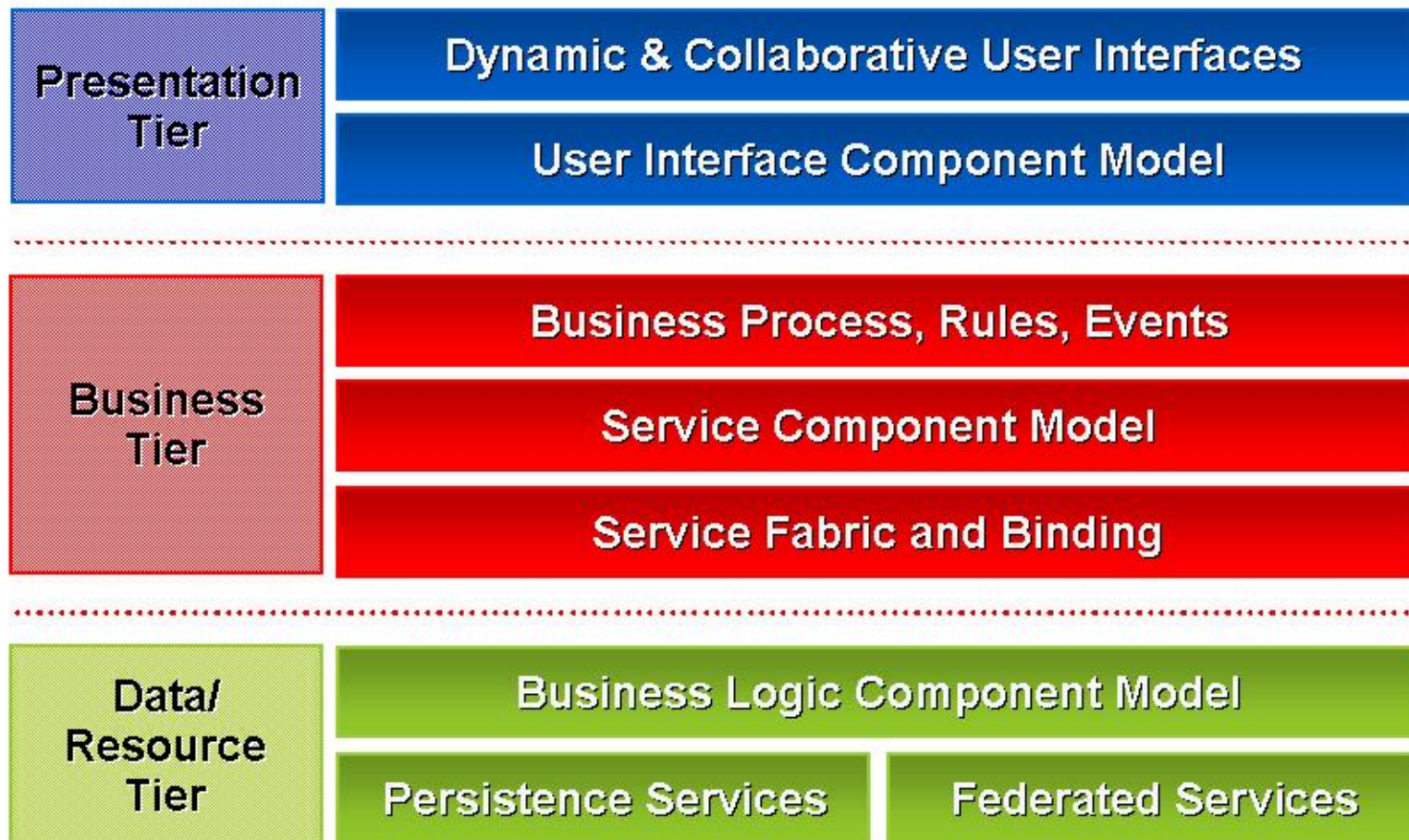
SOA

SOA Model
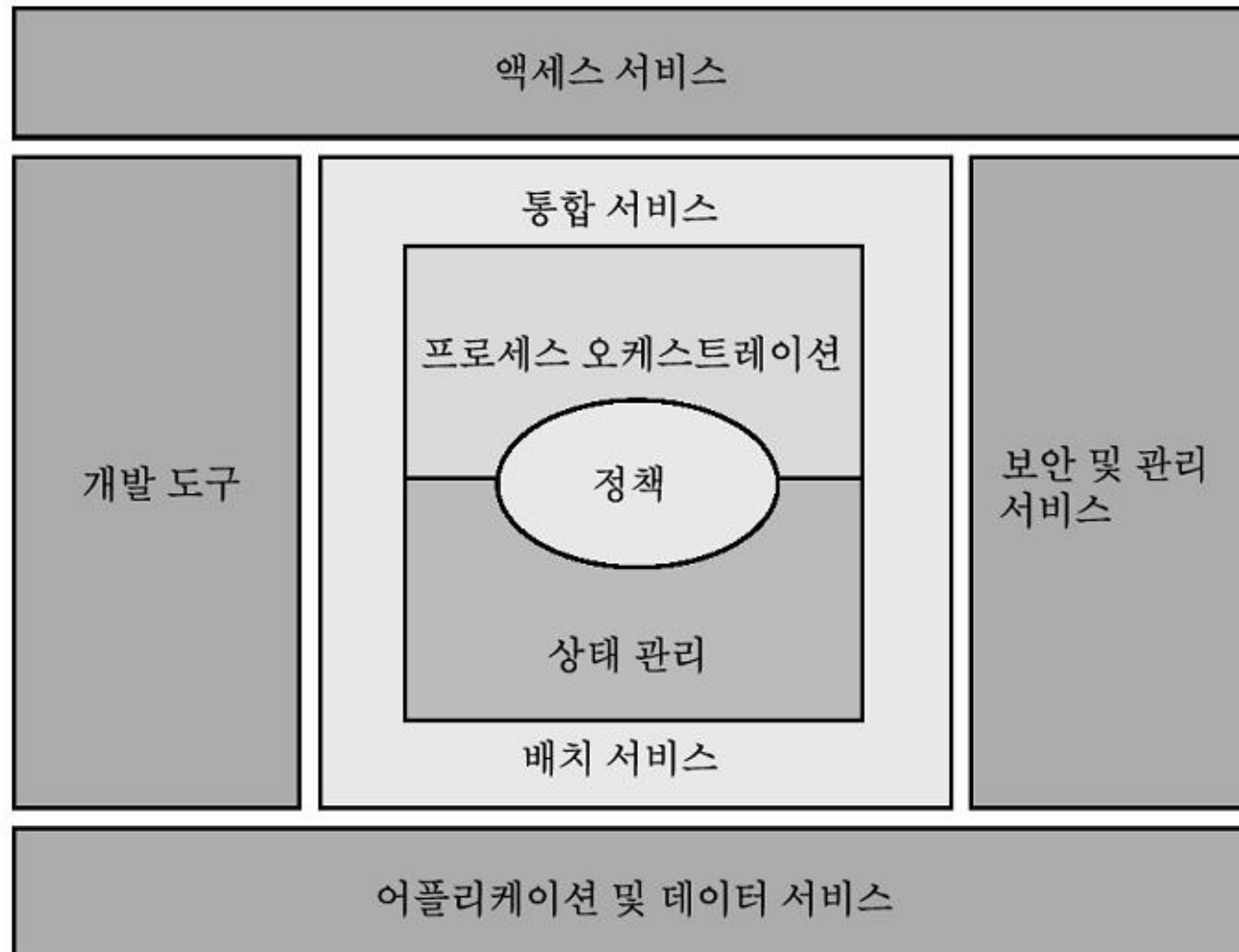
IDC 2005 SOA Platform Reference Model

SOA Level

LEVEL 5 SOA

STRATEGIC GOALS

SOA Industrialized - Able to Support Business Initiatives in a Timely and Cost-Effecitve Manner

SOA Quantatively Managed Monitoring Business Processes for Business Process Optimization

SOA Focused on Business Process Automation and Improvement

SOA Applied to Existing Projects Portfolio

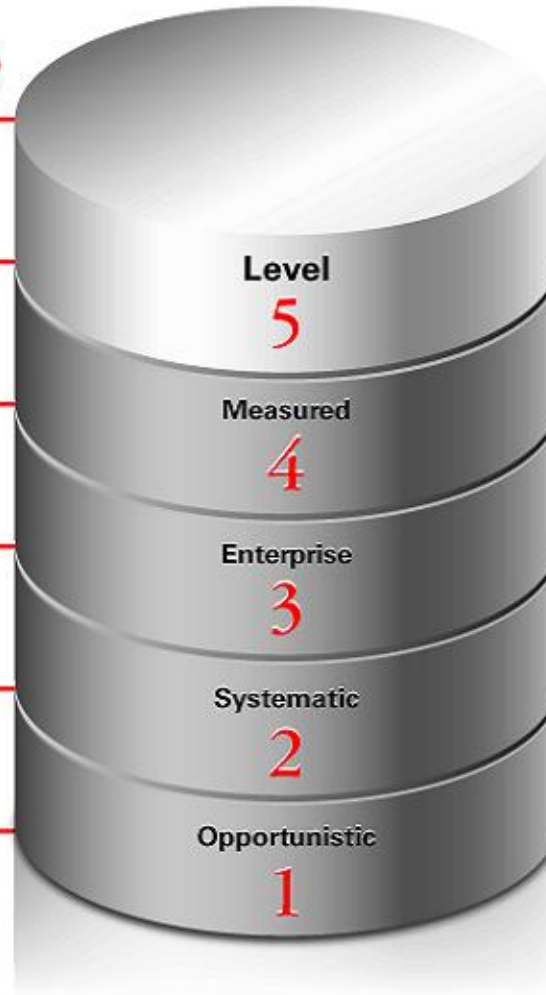SOA Focused on Simple Quick Win Projects

TACTICAL PLANS

- Deploy Event-Driven Technologies, such as CEP, to Enable Automated Self-Optimizing Applications

- Deploy BAM, BPEL and BPM to Baseline, Improve, Measure and Report on Processes
- Process Owners Driving Business Process Optimization
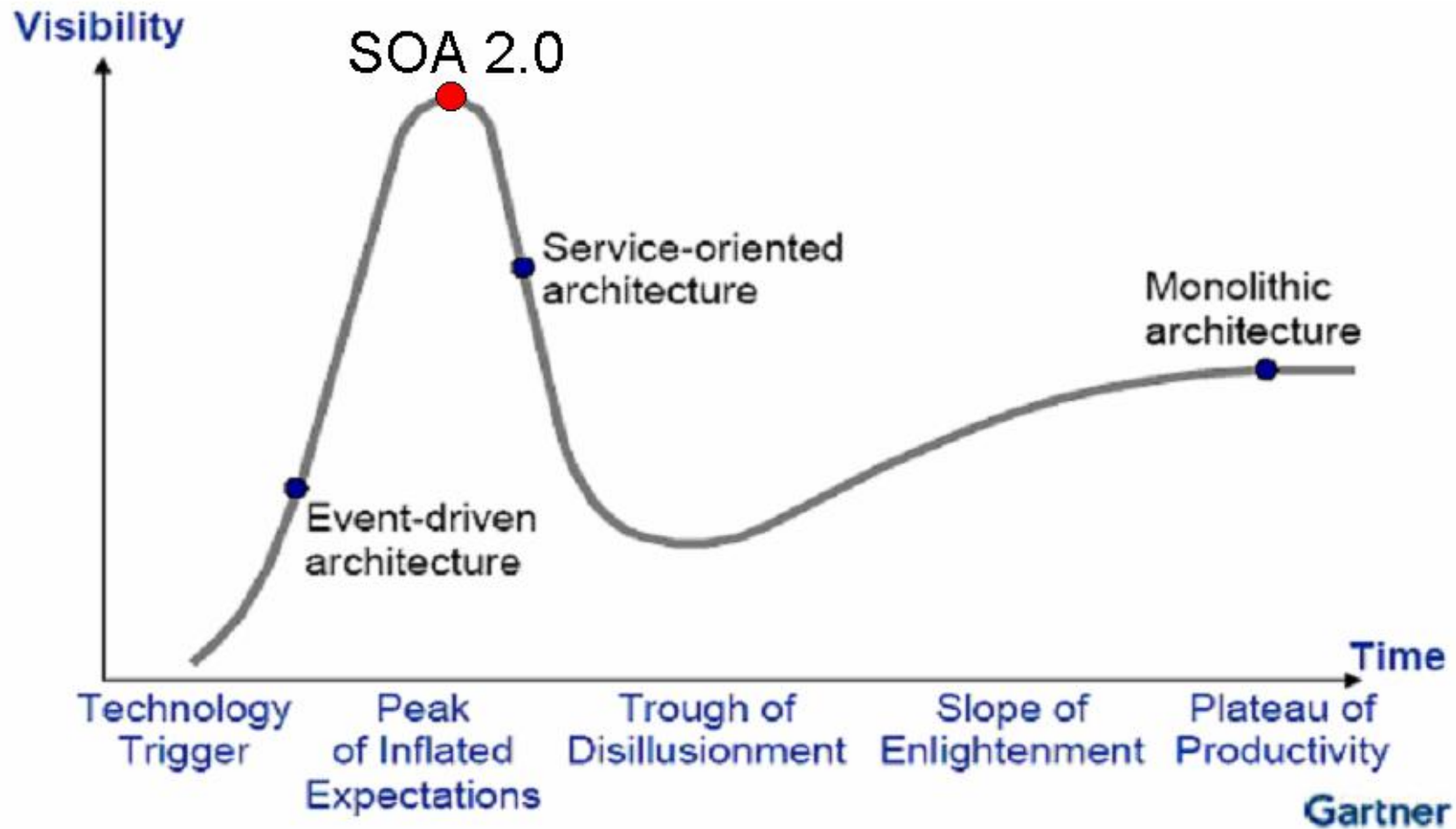- Measure and Improve Service Reuse

- Layer Orchestration and BPM onto Services
- Enterprise Architecture Group Starts Driving Enterprise SOA Adoption

- Apply SOA to Simple Integration Projects
- Deploy Service Management
- Focus on Standards
- Initial SOA Planning

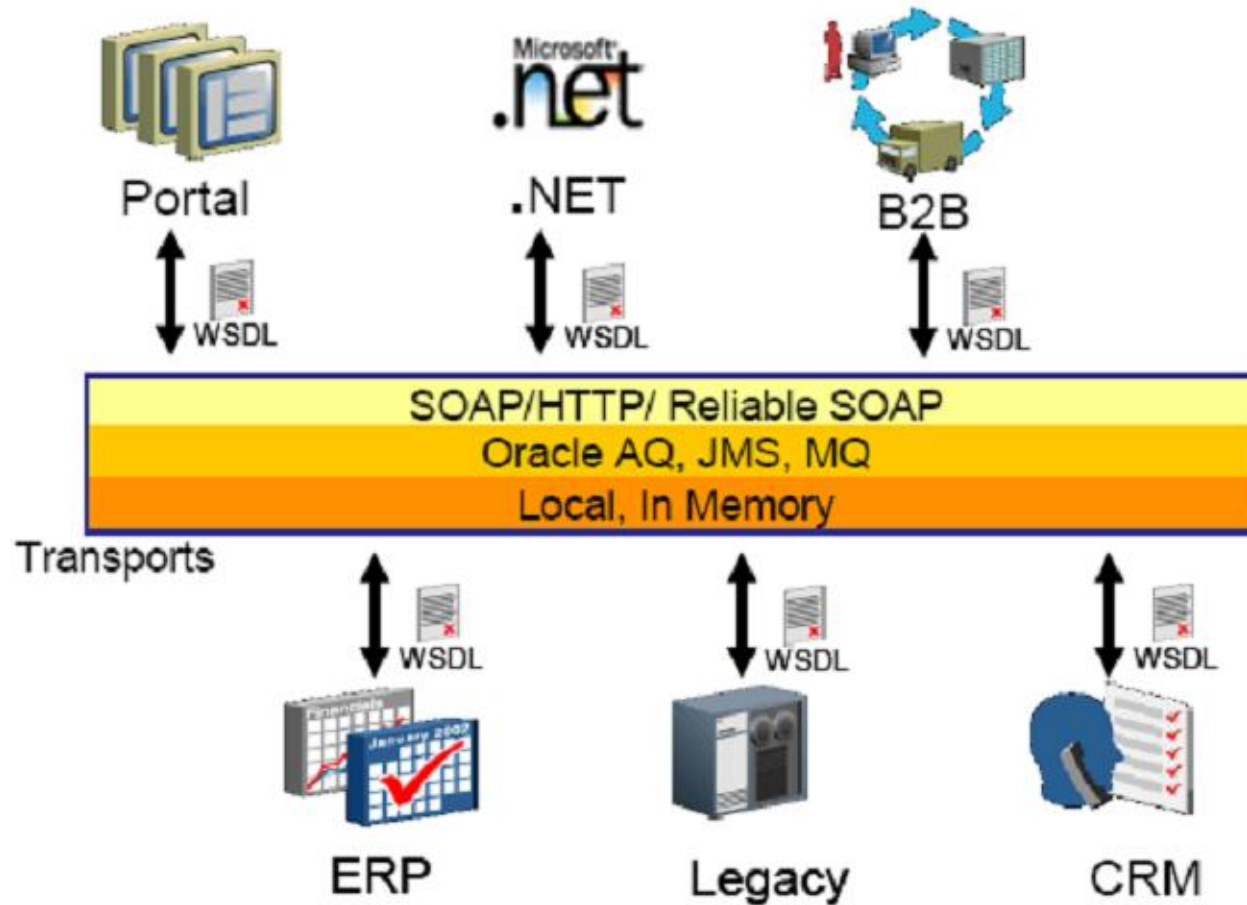- Get Experience Building, Deploying and Consuming Service

Level 5 — Measured
Level 4 — Enterprise
Level 3 — Systematic
Level 2 — Opportunistic
Level 1

SOA 2.0

SOA & IT

ESB

Portal   .NET   B2B

WSDL   WSDL   WSDL

SOAP/HTTP/ Reliable SOAP

Oracle AQ, JMS, MQ

Local, In Memory

Transports

WSDL   WSDL   WSDL

ERP   Legacy   CRM

BRE

facts → Facts can be Java based objects or XML

BPEL

BPEL Process for Business Travels
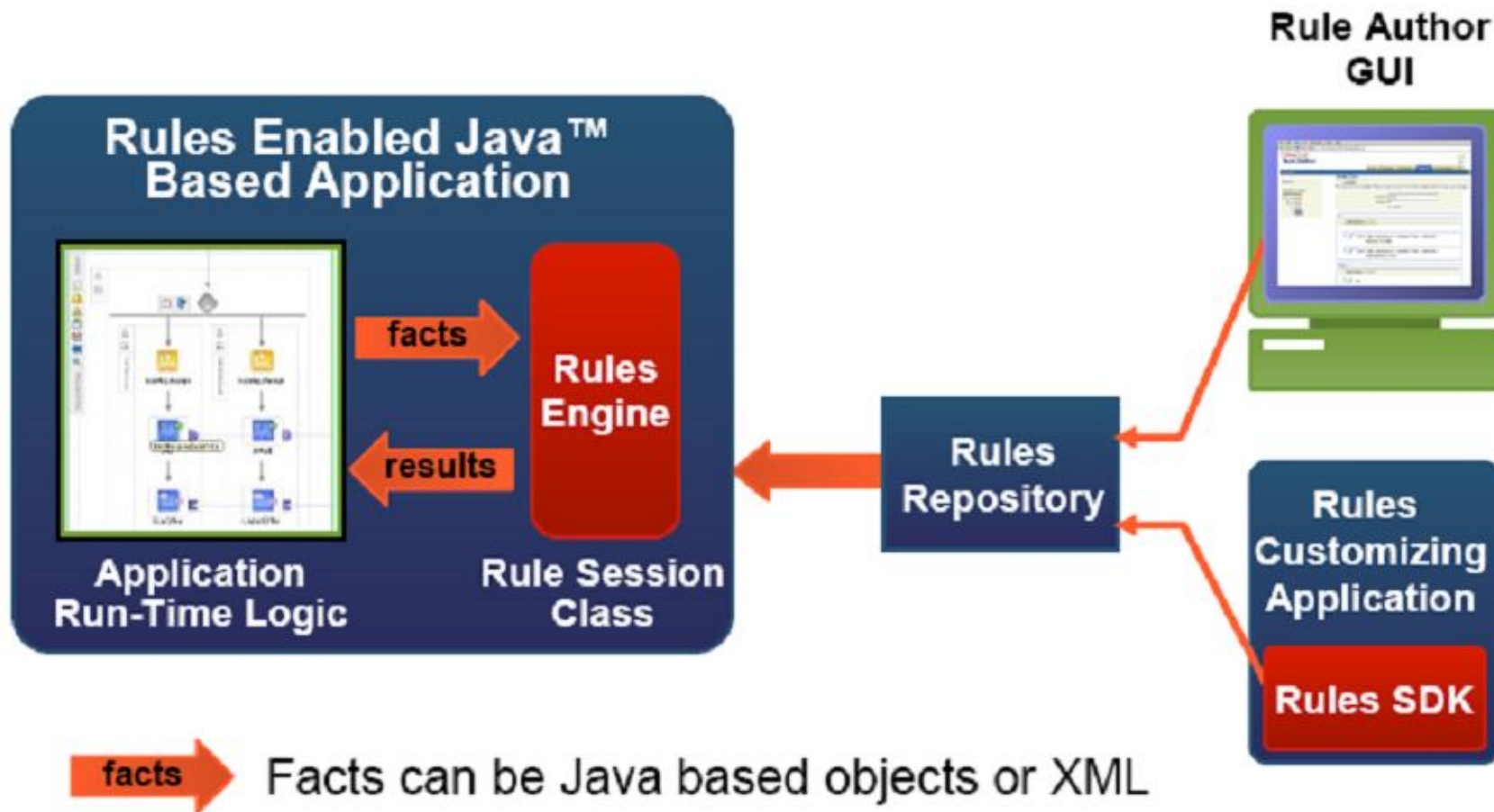
BAM

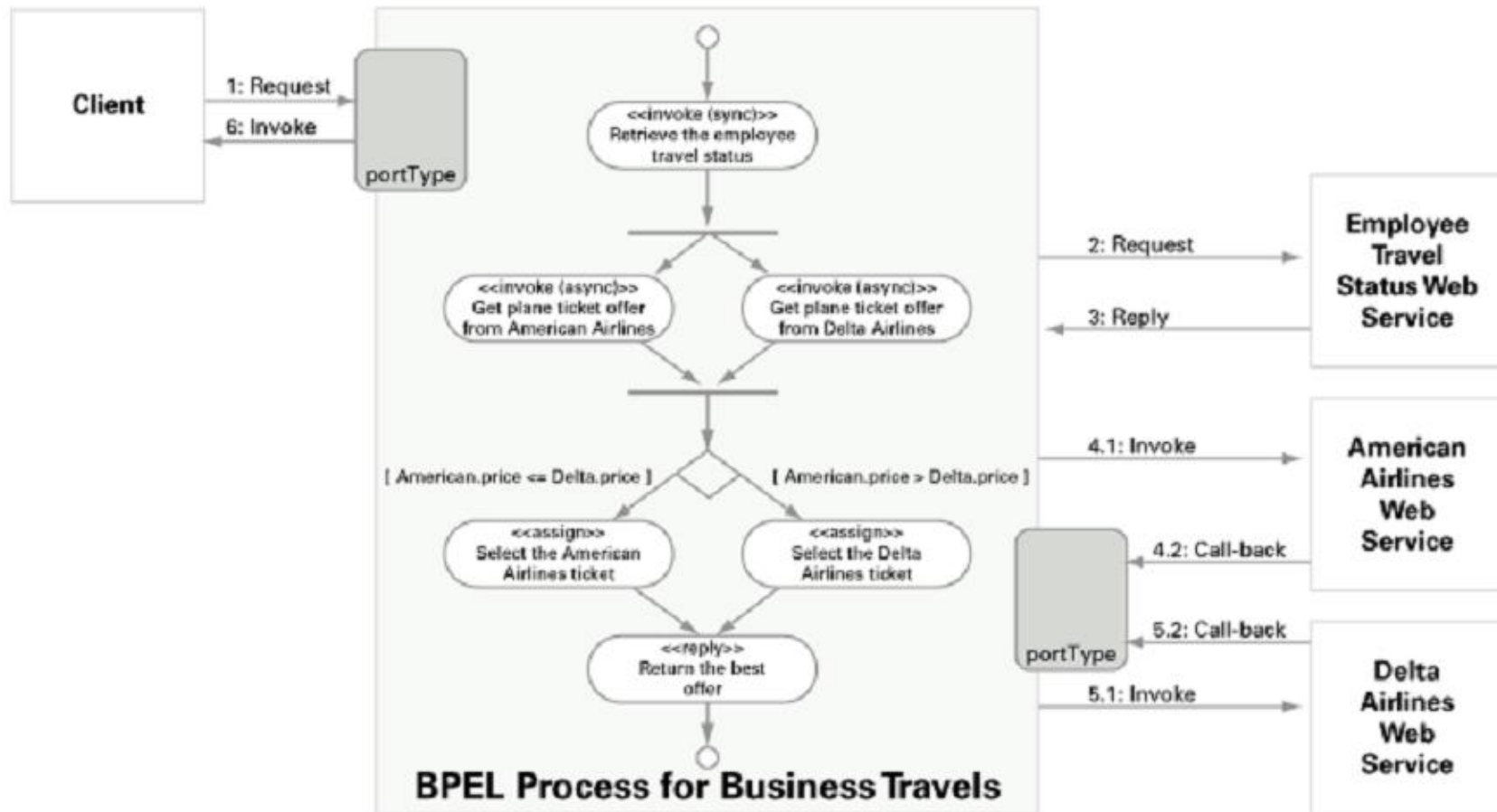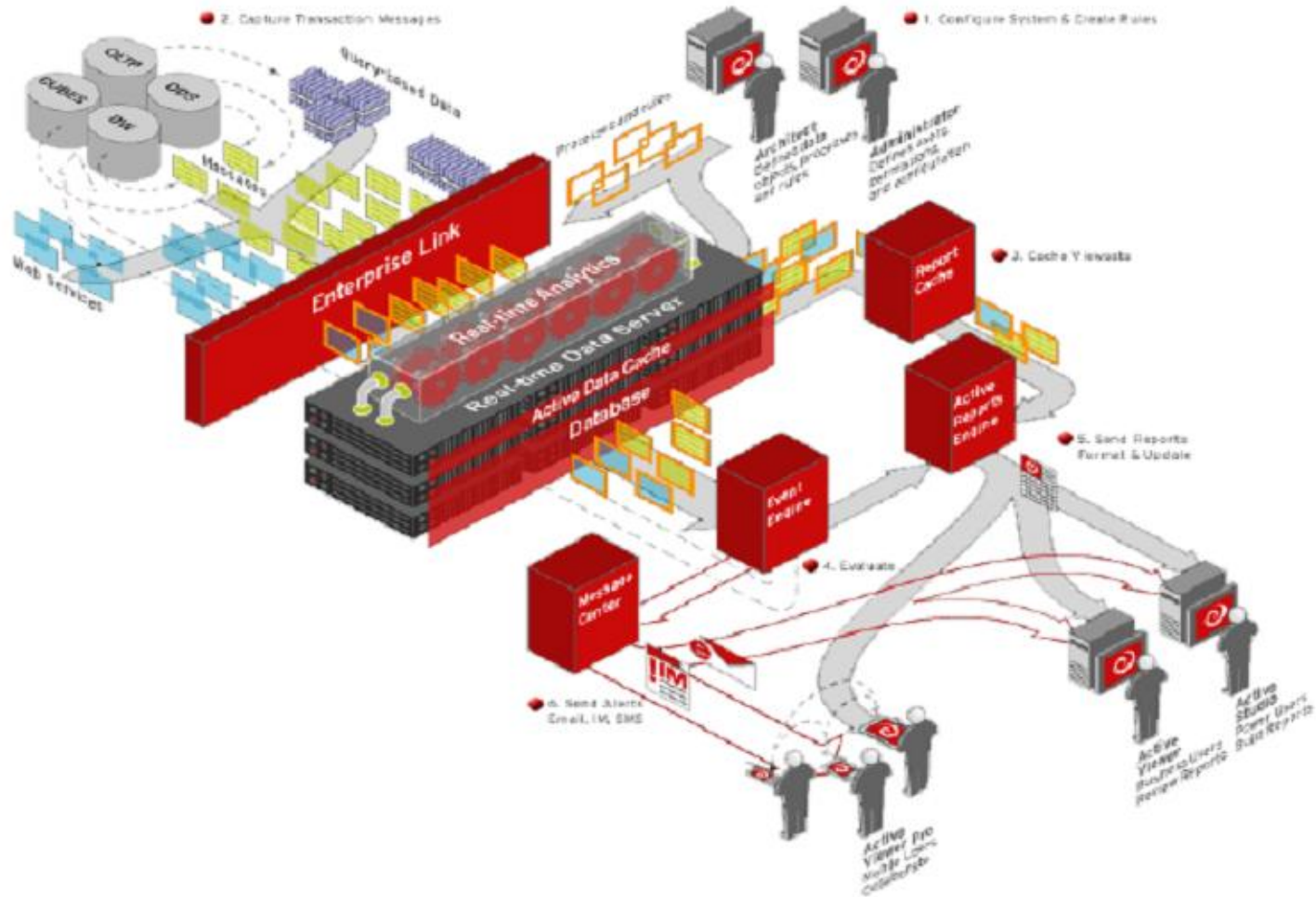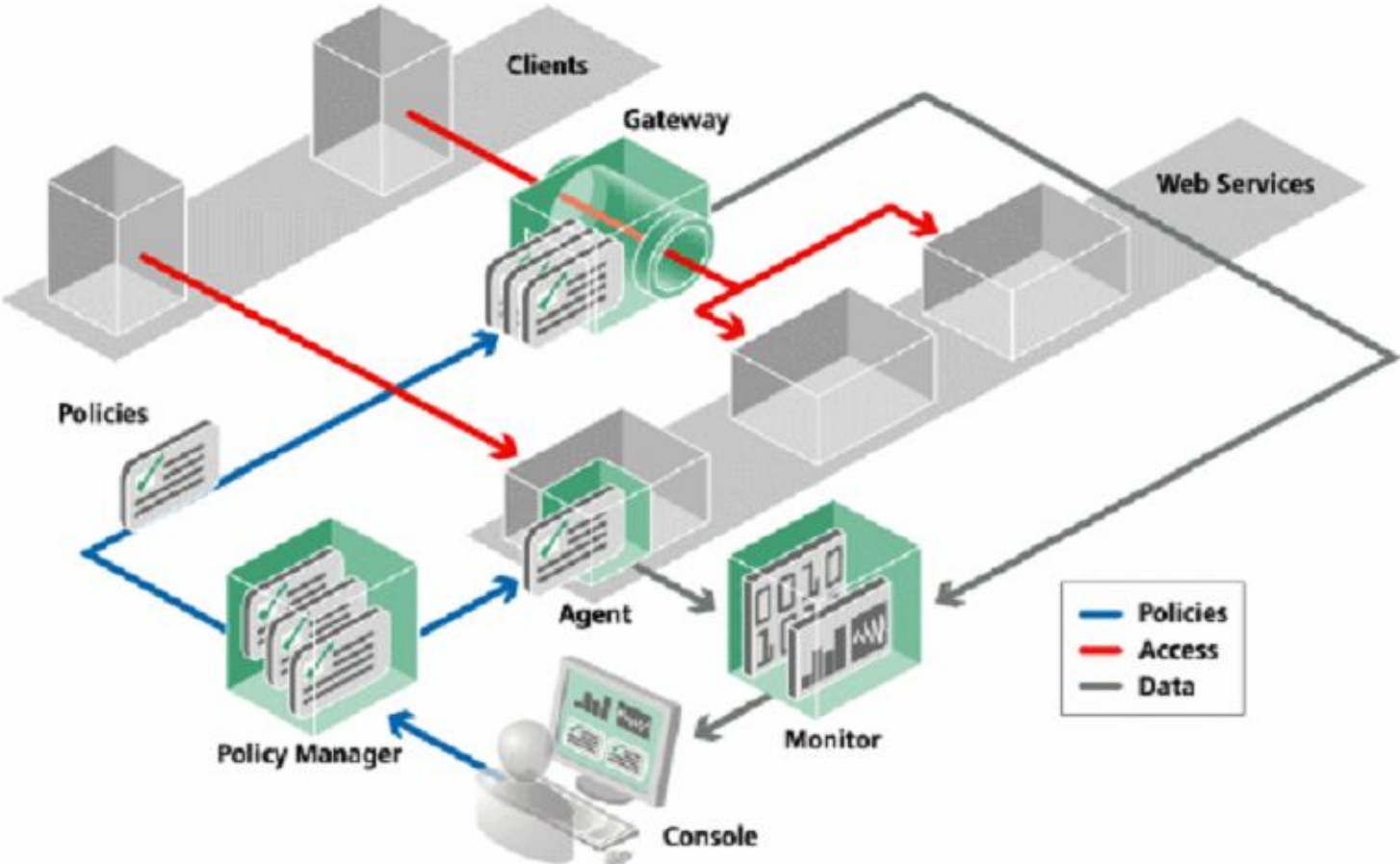# Web Service

WSM

SOA & IT & 경영

EA & SOA

Governance & SOA

Business Strategy

Business Plan

Governance with SOA

Delivery With Control & Reduced Risk

SOA Roadmap

SOA Strategy

EA Strategy

Governance & SOA

Financial

People

Service Funding Model

Service Usage Fees

Platform Funding

Roles & Responsibilities

EA Group

Service & Process Owners

Portfolio

Projects

Business Services

Applications

Service Ownership

Service Lifecycle Gov

Shared Artifacts

Projects

DRIVEN BY EXECUTIVES

Capacity Planning

Enforce Service Levels

Enforce Policies

Operations

Strategic SOA Platform

Enforce Platform Decisions

Shared Foundation Srvcs

Reference Architectures

Architectural Standards

Blueprints & Patterns

Technology

Architecture

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http://www.scakorea.org

Modeling & SOA

Function — CBD

Process — BPM

Service — SOA

PI

Modeling & SOA

Core business processes

Main business process

Business process

Process steps

Create model

Please specify a model type and a name for the model.

Filter:

Model types:

Business process
Core business process
Main business process
Process steps

OK   Cancel   Help

BSC & SOA

Business Activity Monitoring

Services Optimizing

ABM/VBM

6Sigma

재무 | 프로세스

BSC

고객 | 학습/성장

CRM

KM

Customer relationship

Know-Where, Know-Who

BPM &SOA

Front-end Applications

Composite Business Function

Biz Processes/ Workflows

Business Services ("Composite")

Inquiry

Payment

Maintenance

Interapplication

Orchestration

Implementation Services

Applications

EMPACS

ALS

MSP

Profile

ST

ACBS

UCS

RM

Software Community Alliance
http://www.scakorea.org

ERP & SOA

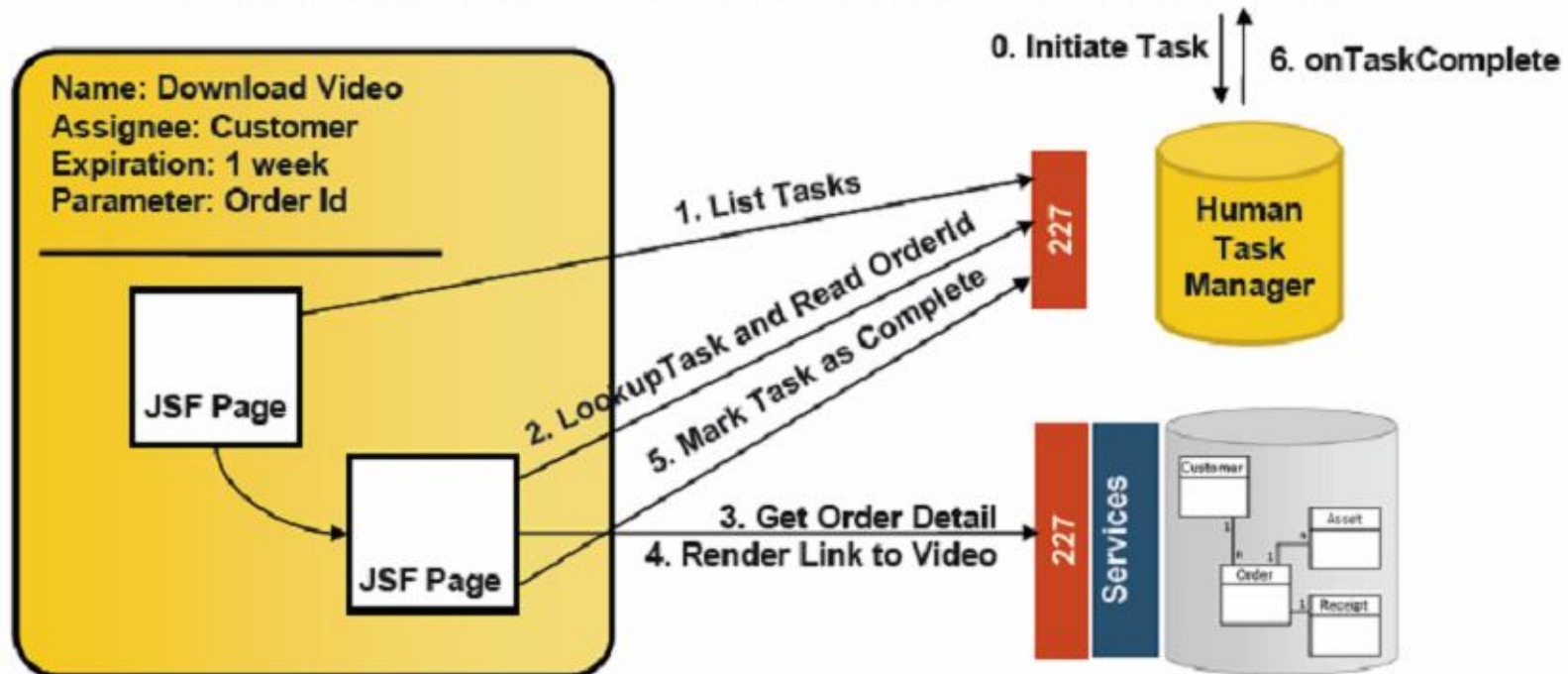| 구분	ERP	SOA
진행 주체	경영, 시스템, 프로세스 컨설턴트	경영,시스템, 프로세스 컨설턴트
목적	업무 및 데이터 표준화	End to End Service 표준화
시스템 영역	단위업무 (Functional)	프로세스(cross-Functional)
통제영역	해당 ERP에서 제공하는 단위 업무 + 추가 도입 및 개발 된 업무	ERP를 포함한 기업 내외의 모든 시스템에서 처리하는 단위업무, 조직구성원이 수행하는 시스템 외 처리 업무
구현범위	ERP Package에서 제공하는 컴포넌트	Workflow, 시스템 통합, 데이터 통합, 사용자 인터페이스 통합
사용자환경	ERP 기능	해당 업무 포털

6 Sigma & SOA

Define

BAM : Alert
BPA : Process Map & KPI

Measure

BPA : Process Map & KPI
BAM : Real Data

Analyze

BAM : Real Data
BPM : Process Statistics

Control

BPM : Management
BAM : Monitoring

Improve

BPA : Simulation
BPM : Pilot
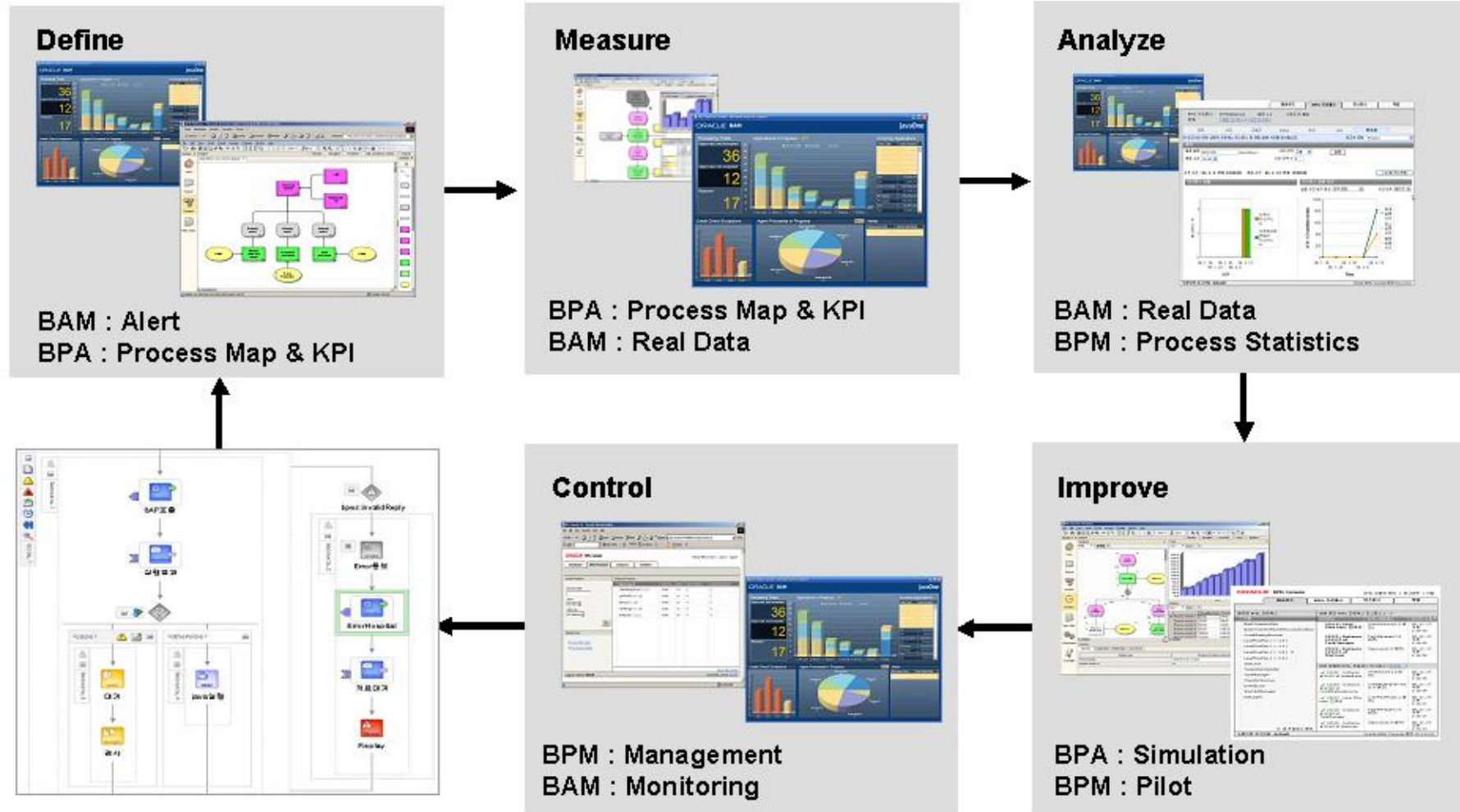
Business Process

Real Business Process
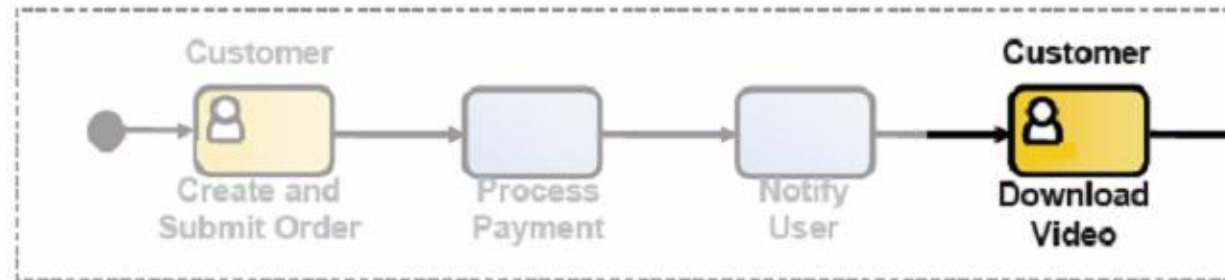
Business Value
composite applications & services

Reuse enables faster delivery

Data, application logic, interfaces

Shorter ROI

Increased flexibility

Faster response to opportunities and threats

Lower cost

Assembly and configuration, not coding

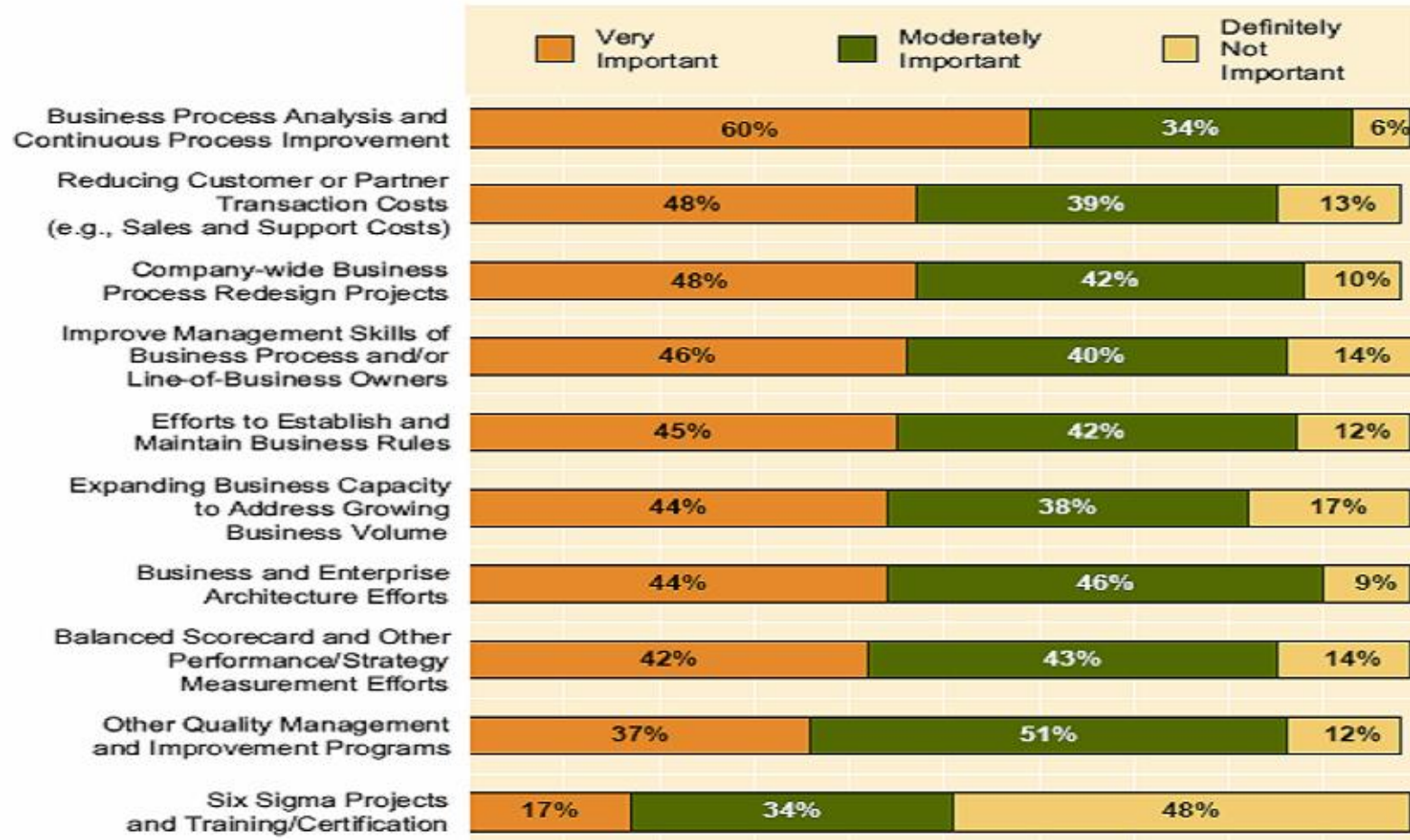Enables loose coupling
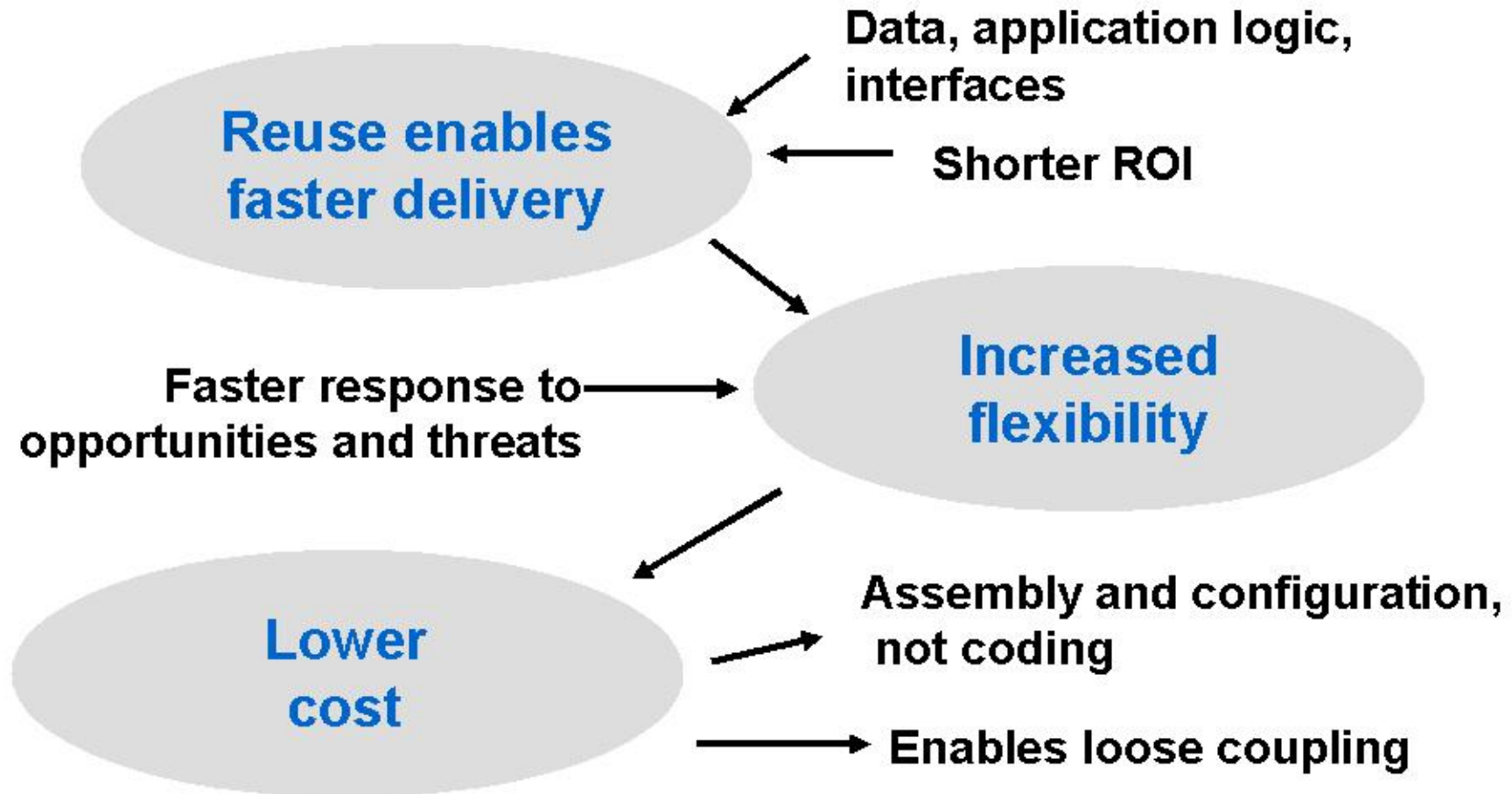
Business Process Goals

Ranking of Business Process Goals and Initiatives

The 2005 Delphi Report – BPM Market Milestone Report

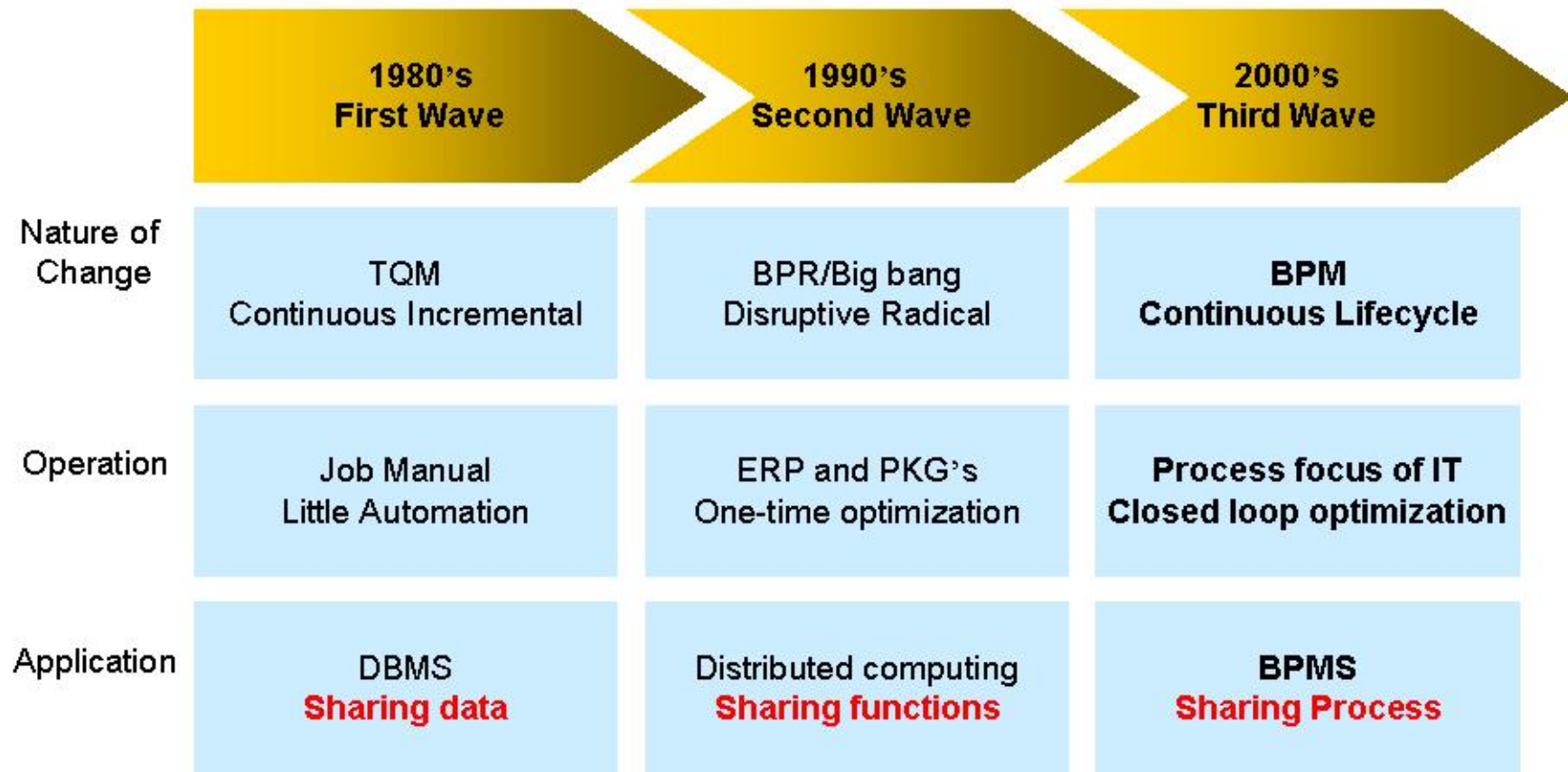|	Very Important	Moderately Important	Definitely Not Important
Business Process Analysis and Continuous Process Improvement	60%	34%	6%
Reducing Customer or Partner Transaction Costs (e.g., Sales and Support Costs)	48%	39%	13%
Company-wide Business Process Redesign Projects	48%	42%	10%
Improve Management Skills of Business Process and/or Line-of-Business Owners	46%	40%	14%
Efforts to Establish and Maintain Business Rules	45%	42%	12%
Expanding Business Capacity to Address Growing Business Volume	44%	38%	17%
Business and Enterprise Architecture Efforts	44%	46%	9%
Balanced Scorecard and Other Performance/Strategy Measurement Efforts	42%	43%	14%
Other Quality Management and Improvement Programs	37%	51%	12%
Six Sigma Projects and Training/Certification	17%	34%	48%

Business Process Users
Key Users & Stakeholders
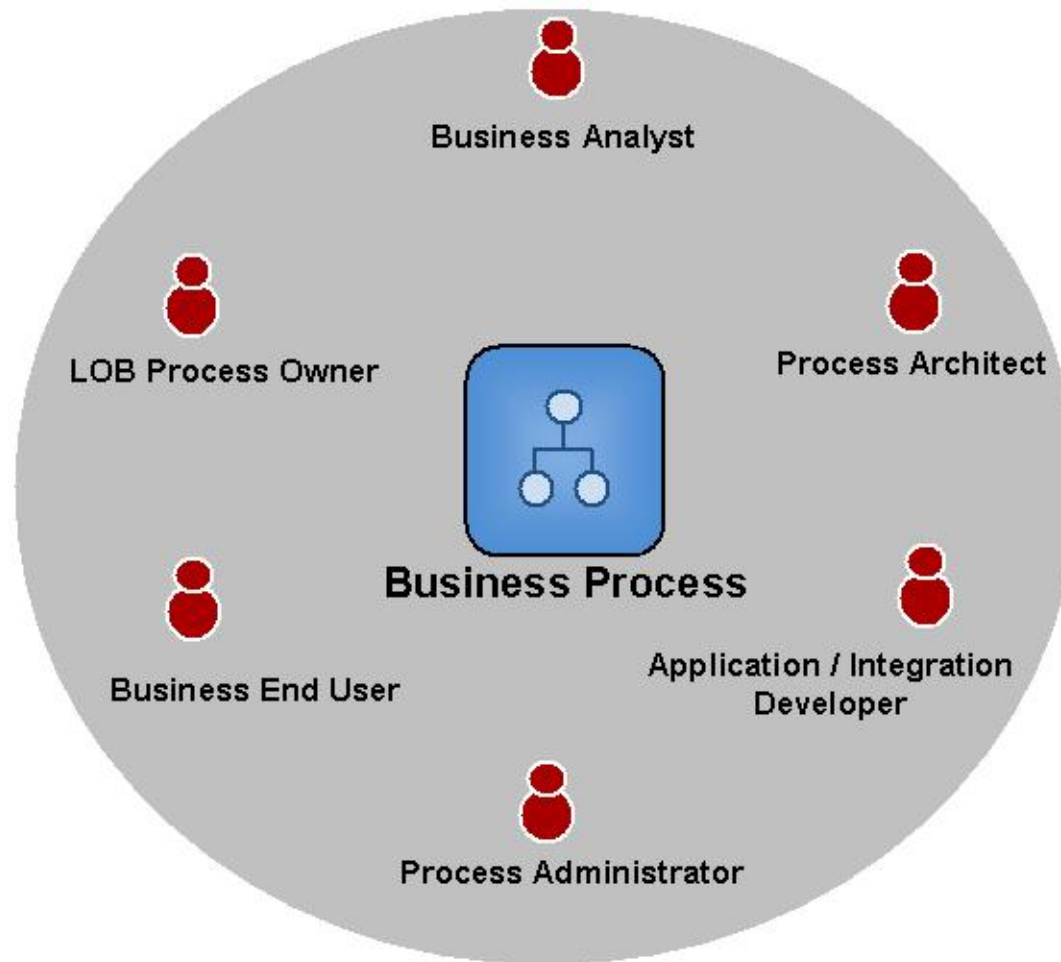
Process Management
History

	1980's First Wave	1990's Second Wave	2000's Third Wave
Nature of Change	TQM Continuous Incremental	BPR/Big bang Disruptive Radical	**BPM Continuous Lifecycle**
Operation	Job Manual Little Automation	ERP and PKG's One-time optimization	**Process focus of IT Closed loop optimization**
Application	DBMS **Sharing data**	Distributed computing **Sharing functions**	**BPMS Sharing Process**

Howard Smith (BPM –The 3rd Wave)

Business Process Lifecycle
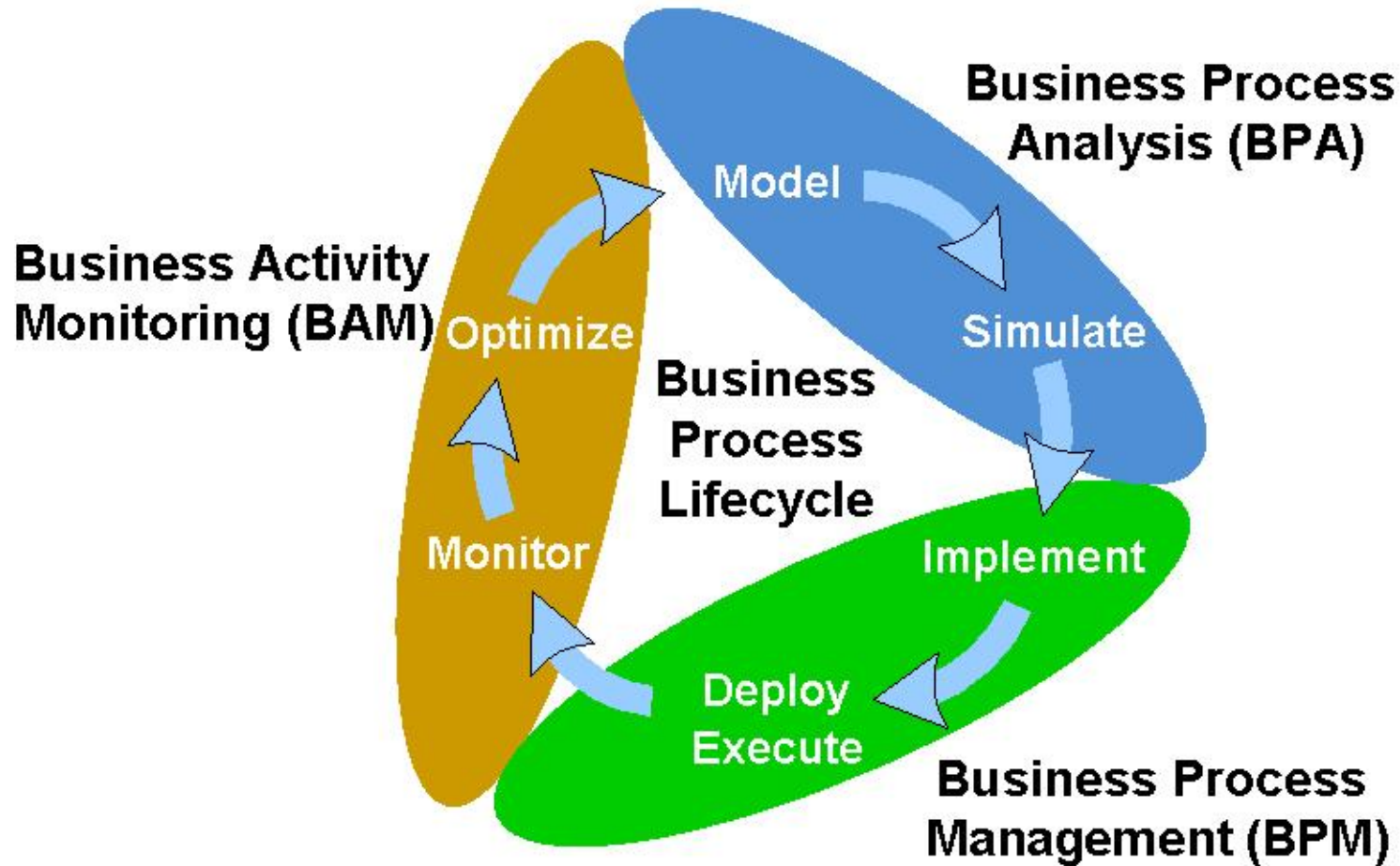
Business Process Lifecycle
Modeling

Ms. Rosenfeld → Person in charge of the process

Worldwide process design

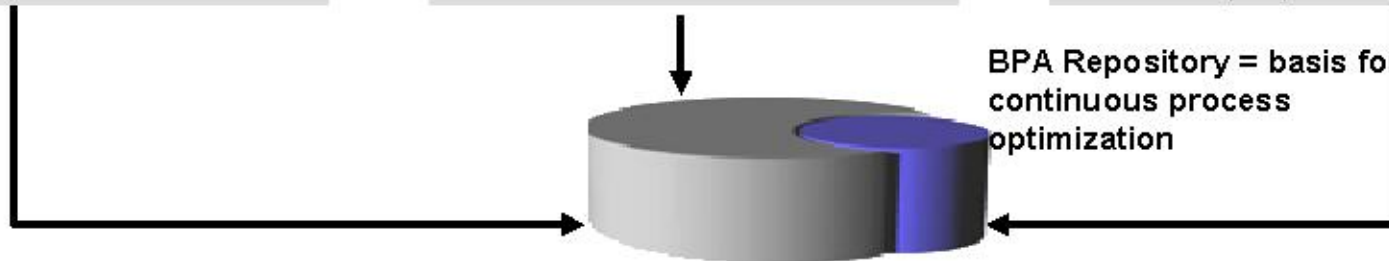**Ms. Meyer → Project manager**

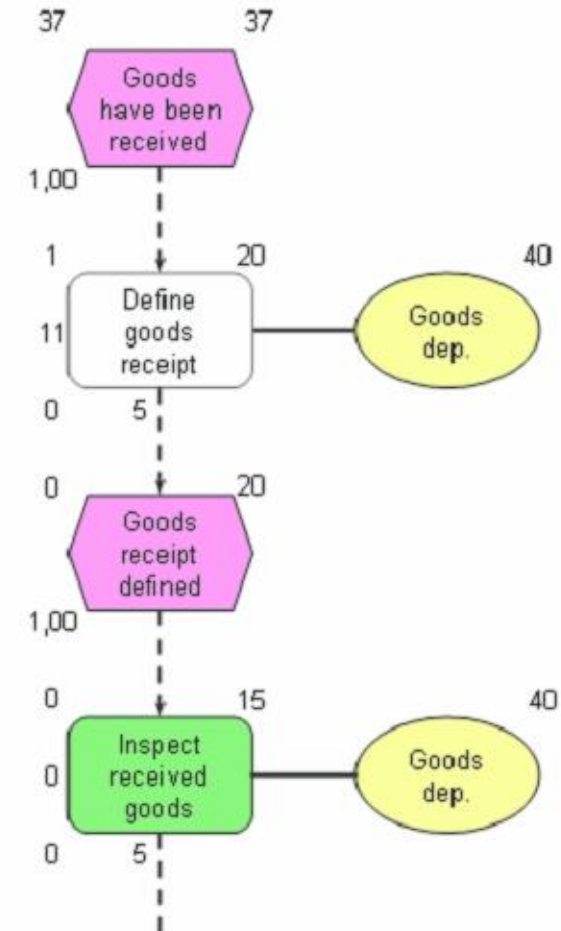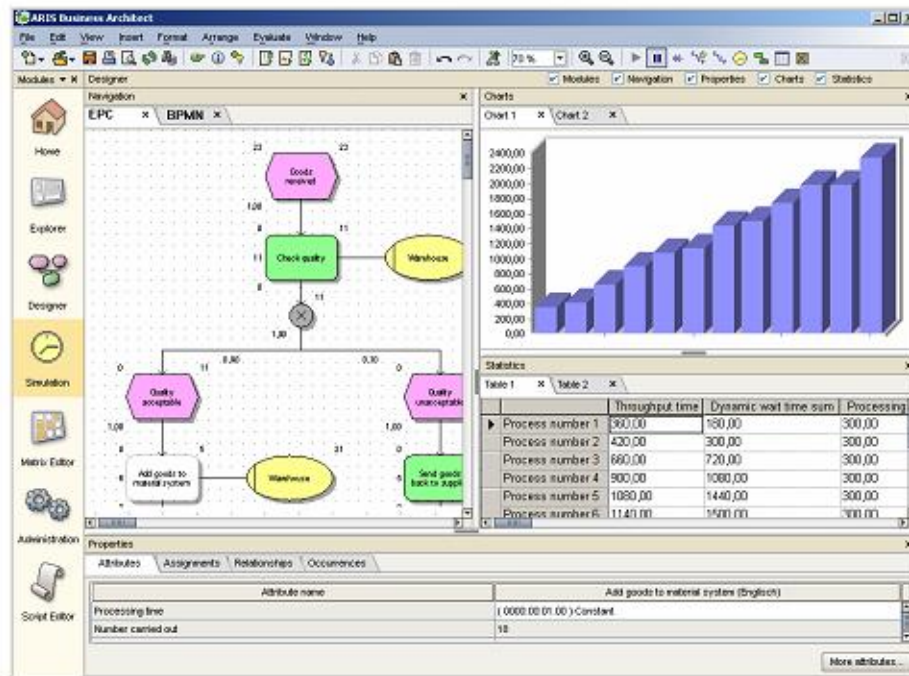Analysis, optimization, and administration

Technical departments → Staff in charge

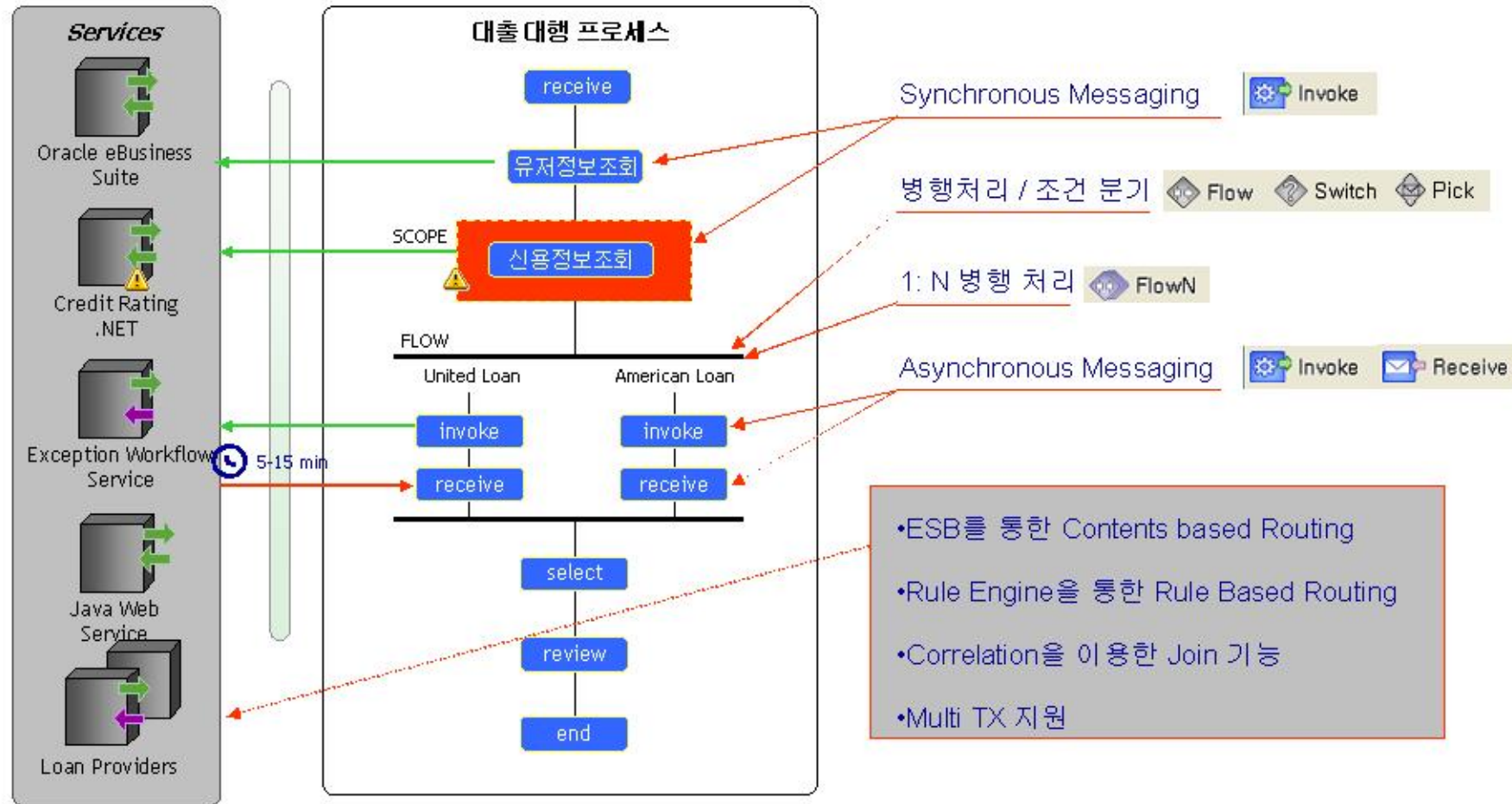Worldwide communication of process knowledge to all employees

BPA Repository = basis for continuous process optimization

Business Process Lifecycle
Simulation

Business Process Lifecycle
Implement

Services

Oracle eBusiness Suite

Credit Rating .NET

Exception Workflow Service

Java Web Service

Loan Providers

5-15 min

대출 대행 프로세스

receive

유저정보조회

SCOPE

신용정보조회

FLOW

United Loan | American Loan

invoke | invoke

receive | receive

select

review

end

Synchronous Messaging — Invoke

병행처리 / 조건 분기 — Flow — Switch — Pick

1 : N 병행 처리 — FlowN

Asynchronous Messaging — Invoke — Receive

- ESB를 통한 Contents based Routing
- Rule Engine을 통한 Rule Based Routing
- Correlation을 이용한 Join 기능
- Multi TX 지원

Business Process Lifecycle
Deploy & Execute

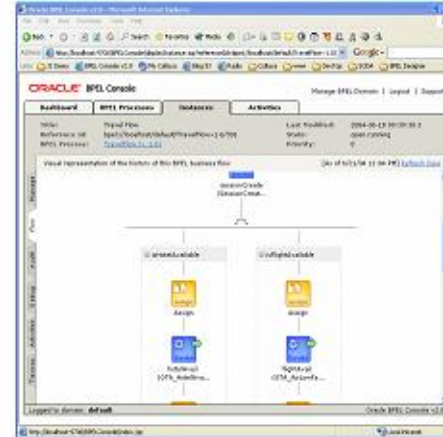| Deploy	Processes	Instances	Performance

- **JDeveloper**에서 버전별로 **Deploy** 하며 그전에 기본적인 테스팅과 디버깅을 수행한다.
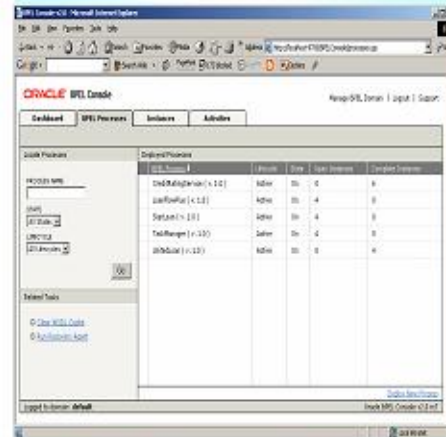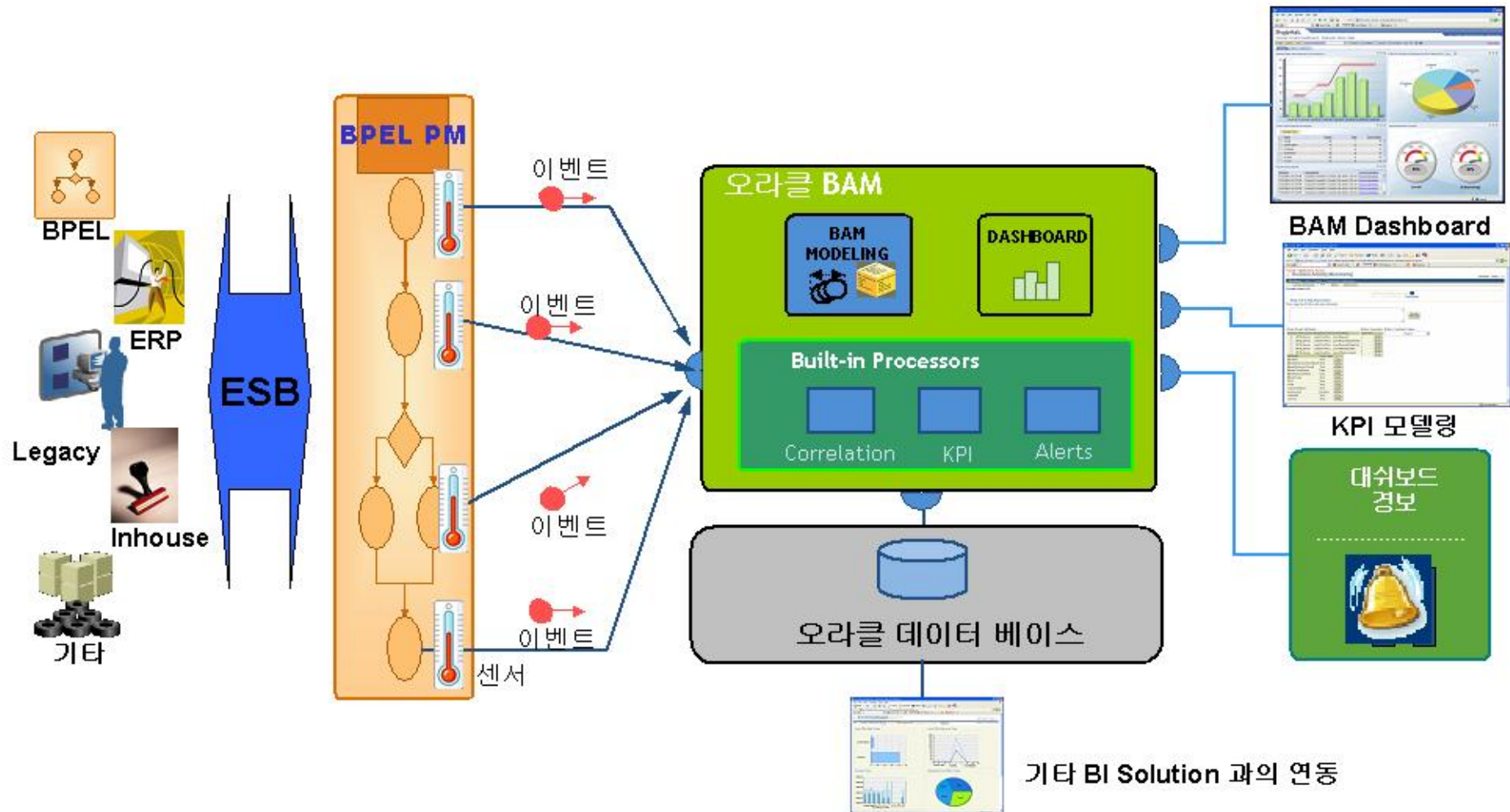
- **BPEL** 콘솔에서 배치된 프로세스들의 상황을 파악할 수 있고, 개별 프로세스를 테스트한다.

- 배치된 프로세스의 흐름을 추적하고 현재 활성화된 인스턴스의 상태를 확인한다. 또한, **BPEL Designer**와 연동되어 디버깅을 수행한다.
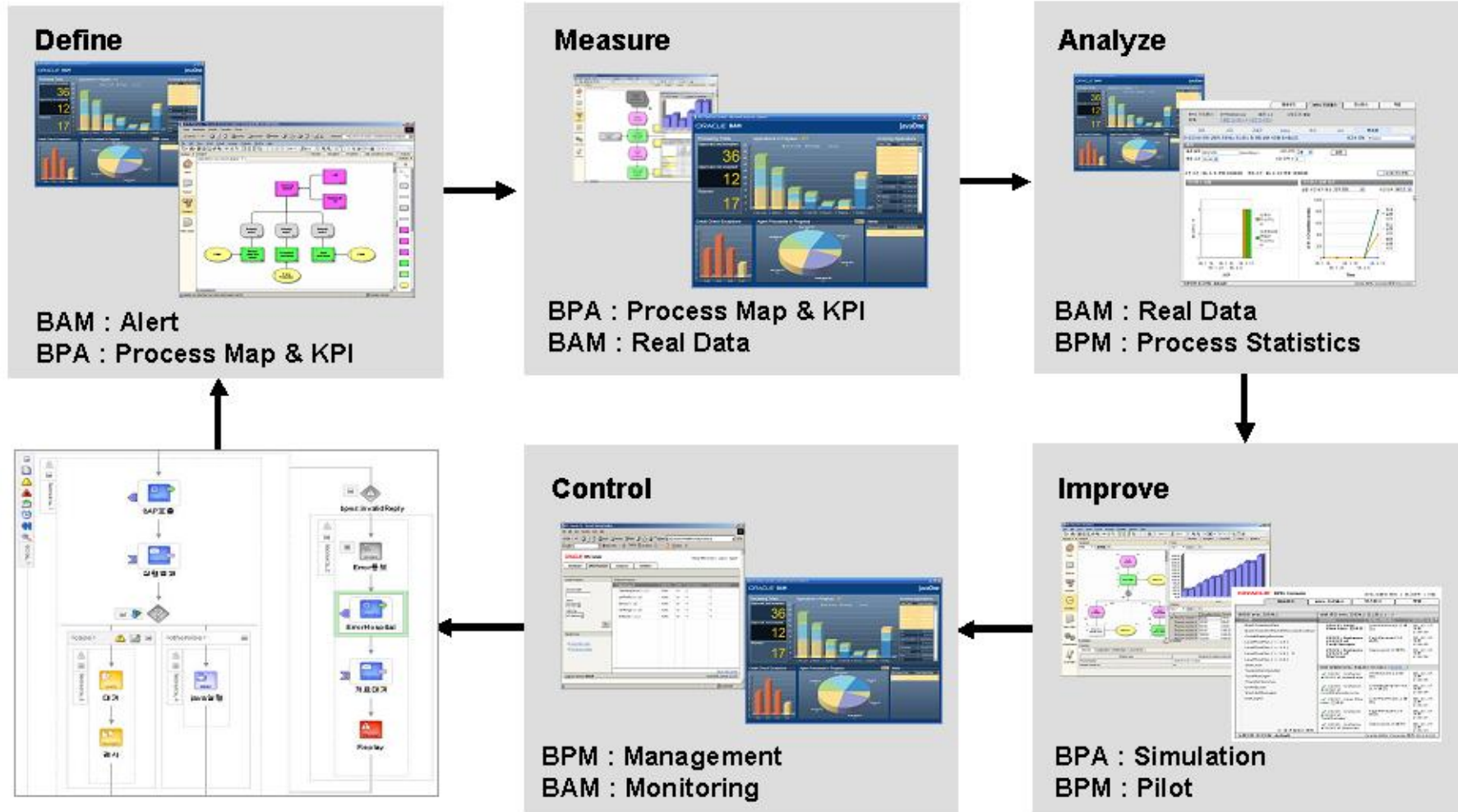
- **BPEL** 콘솔에서 직접 프로세스를 실행할 수 있으며 **Performance** 테스트까지 수행한다.

Business Process Lifecycle
Monitoring

Business Process Lifecycle
Optimizing

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BAM : Alert
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Measure

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감사합니다...