Business Integration in the Manufacturing Industry
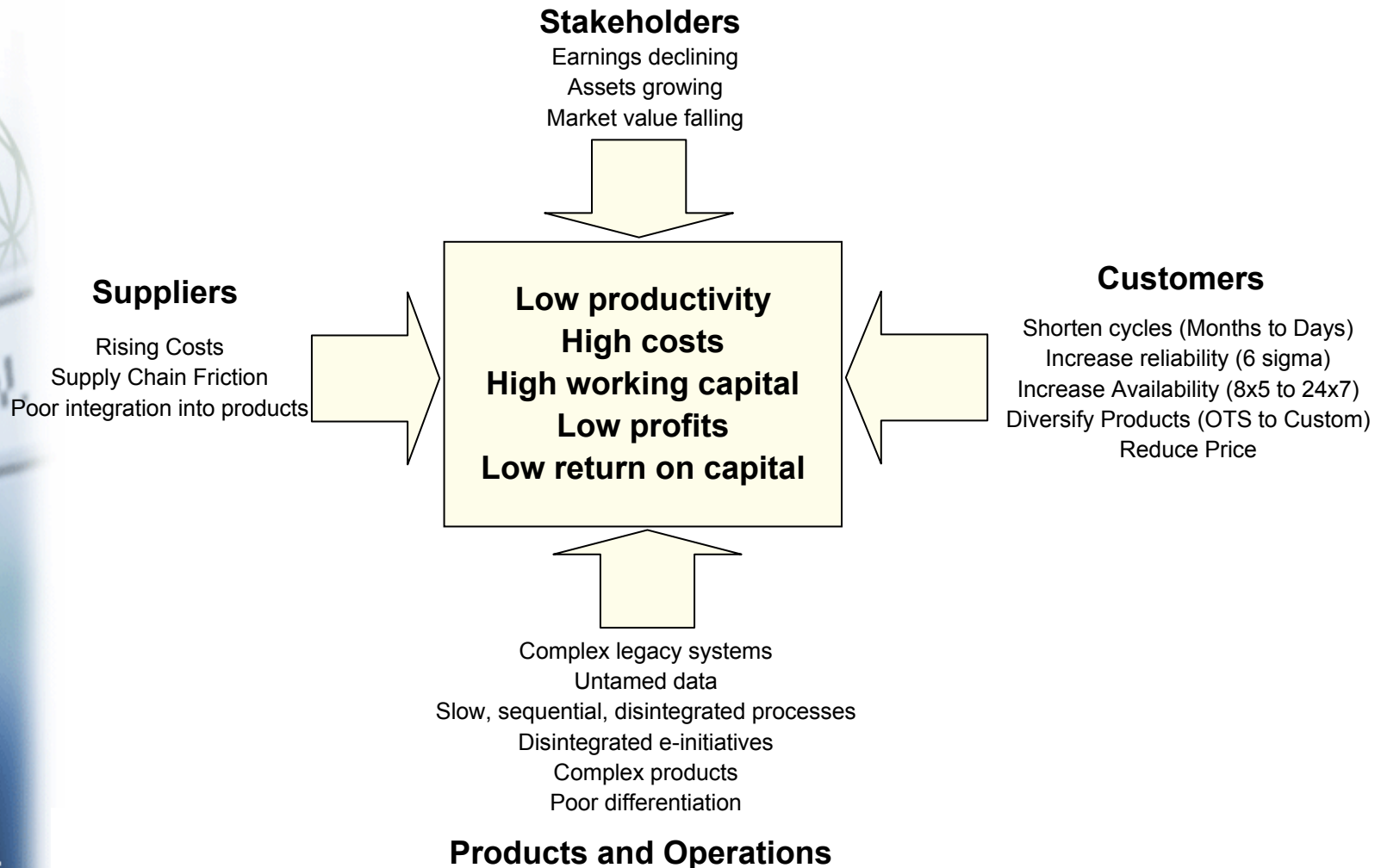
Samin Sarkar
BI Industry Sales Leader
IBM SWG EMEA

IBM Software Group
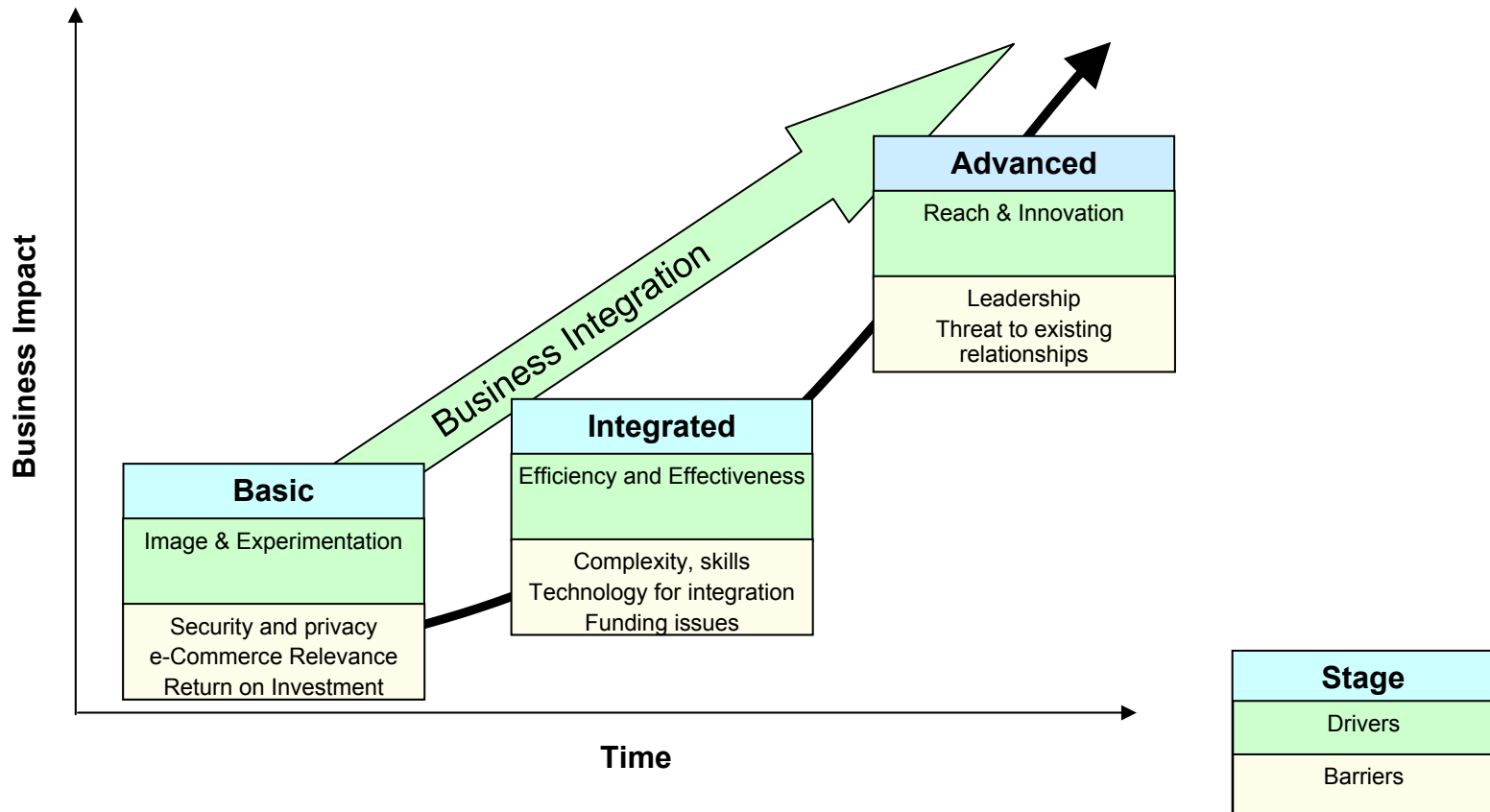
Objectives for this session

- When you leave this session you will be able to:

  - ➢ Identify key drivers for business integration in the manufacturing sector

  - ➢ Understand the Websphere Business Integrator value proposition

  - ➢ Spot opportunities for business integration within your accounts

Increasing economic pressure is forcing companies to seek new levels of operational performance
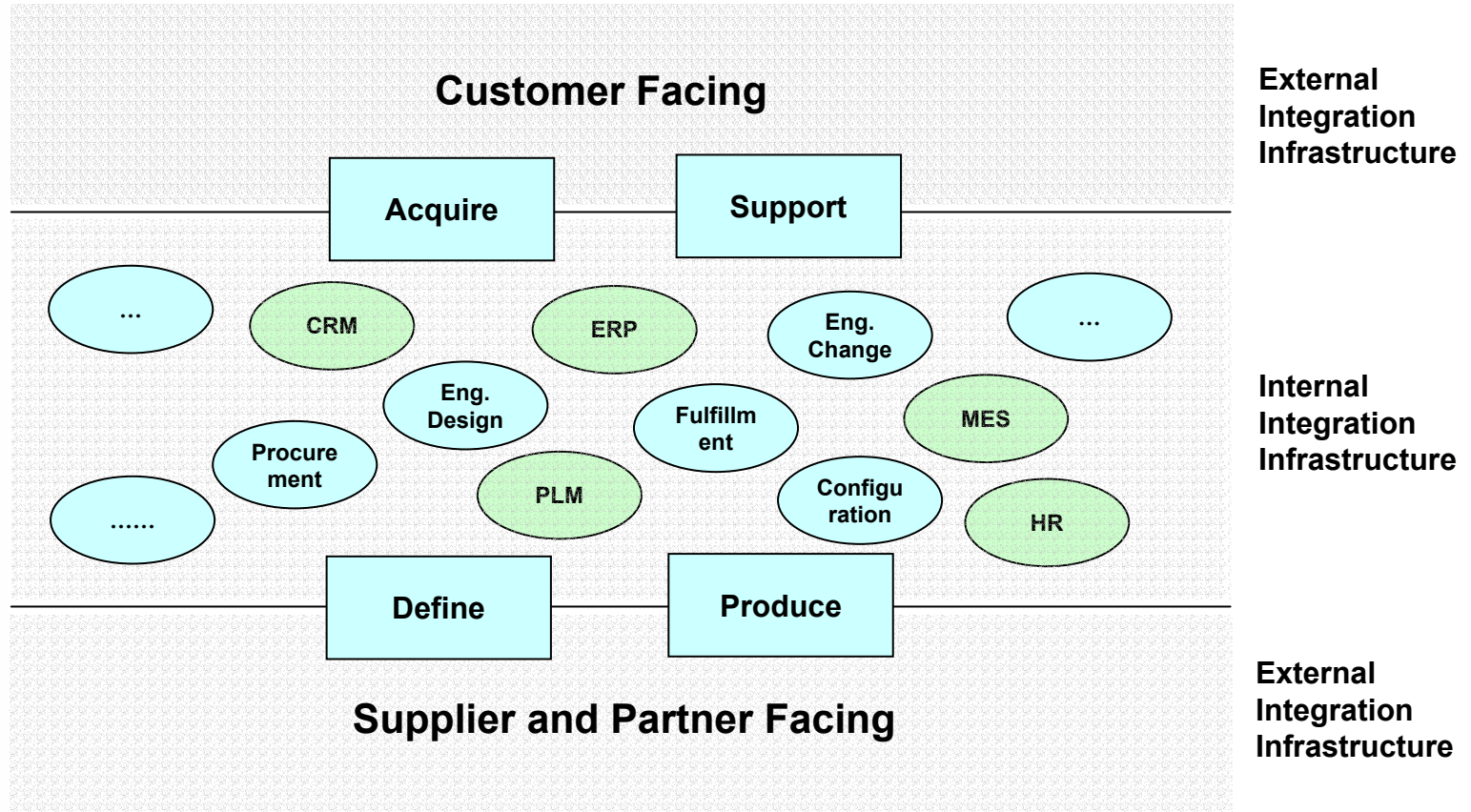
Stakeholders

Earnings declining
Assets growing
Market value falling

Suppliers

Rising Costs
Supply Chain Friction
Poor integration into products

**Low productivity
High costs
High working capital
Low profits
Low return on capital**

Customers

Shorten cycles (Months to Days)
Increase reliability (6 sigma)
Increase Availability (8x5 to 24x7)
Diversify Products (OTS to Custom)
Reduce Price

Complex legacy systems
Untamed data
Slow, sequential, disintegrated processes
Disintegrated e-initiatives
Complex products
Poor differentiation

Products and Operations

Business Integration is the single most important enabler of increased inter and intra enterprise performance

Business Impact
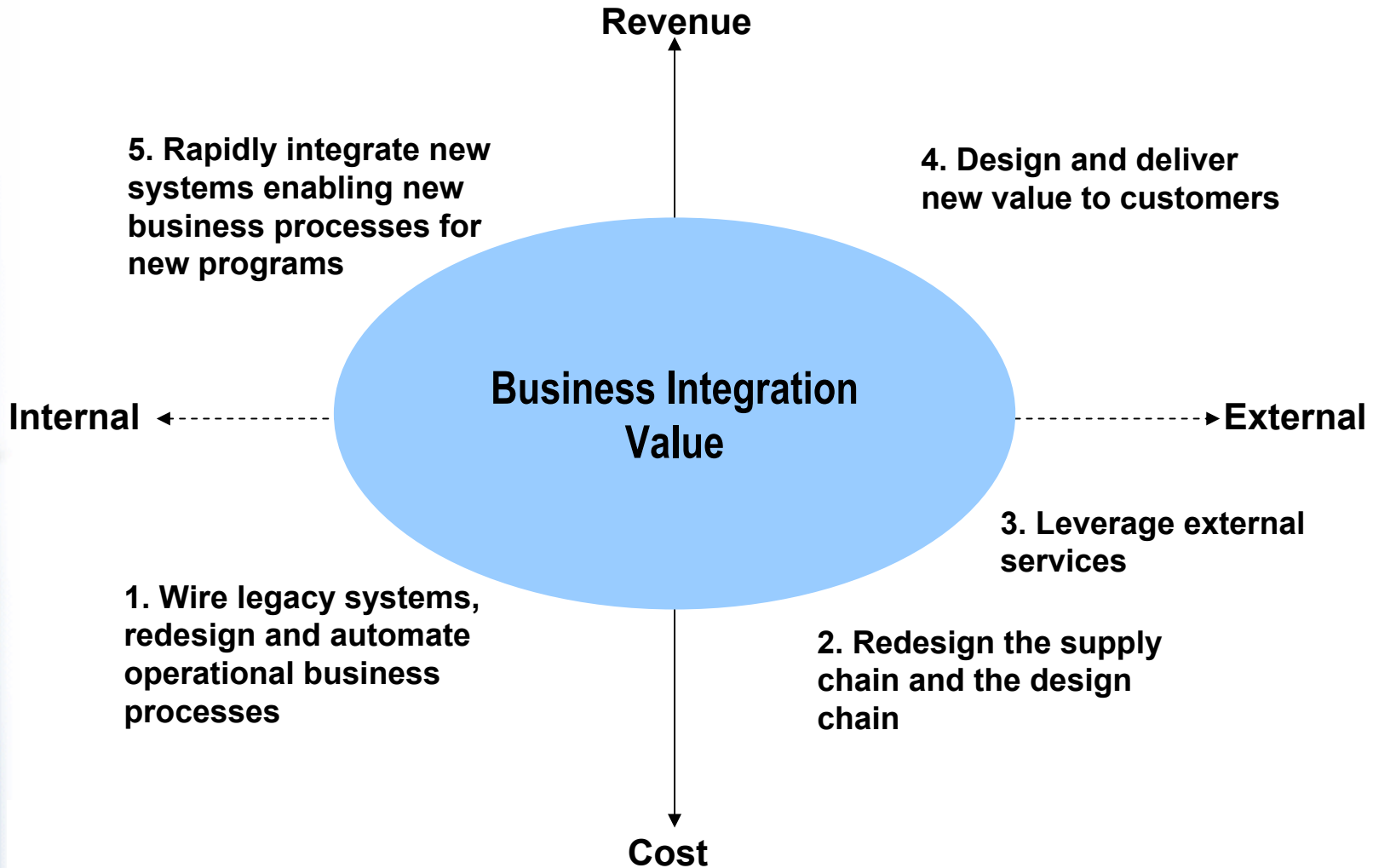
Business Integration

Time

Basic
Image & Experimentation

Security and privacy
e-Commerce Relevance
Return on Investment

Integrated
Efficiency and Effectiveness

Complexity, skills
Technology for integration
Funding issues

Advanced
Reach & Innovation

Leadership
Threat to existing
relationships

Stage
Drivers

Barriers

-business

Business Integration for Manufacturing Operations

Customer Facing

External Integration Infrastructure

Acquire

Support

...

CRM

ERP

Eng. Change

...

Eng. Design

Fulfillment

MES

Procurement

PLM

Configuration

HR

......

Internal Integration Infrastructure

Define

Produce

Supplier and Partner Facing

External Integration Infrastructure

Manufacturing - Business Integration Priorities

Revenue

5. Rapidly integrate new systems enabling new business processes for new programs

4. Design and deliver new value to customers

Internal ← - - - - - - - →

Business Integration Value

→ - - - - - - - → **External**

3. Leverage external services

1. Wire legacy systems, redesign and automate operational business processes

2. Redesign the supply chain and the design chain

Cost

Application and Systems Migration and Evolution

- Long duration Programs demand an evolving system of systems

- The tools supporting lifecycle business functions must be changed as new, applicable, best of breed tools emerge and as strategic tools age and move to new versions

- WebSphere Business Integration provides the framework for ongoing system and data migrations through phases of the Program lifecycle

- Primary Value = IT Cost Savings + Strategic Capability
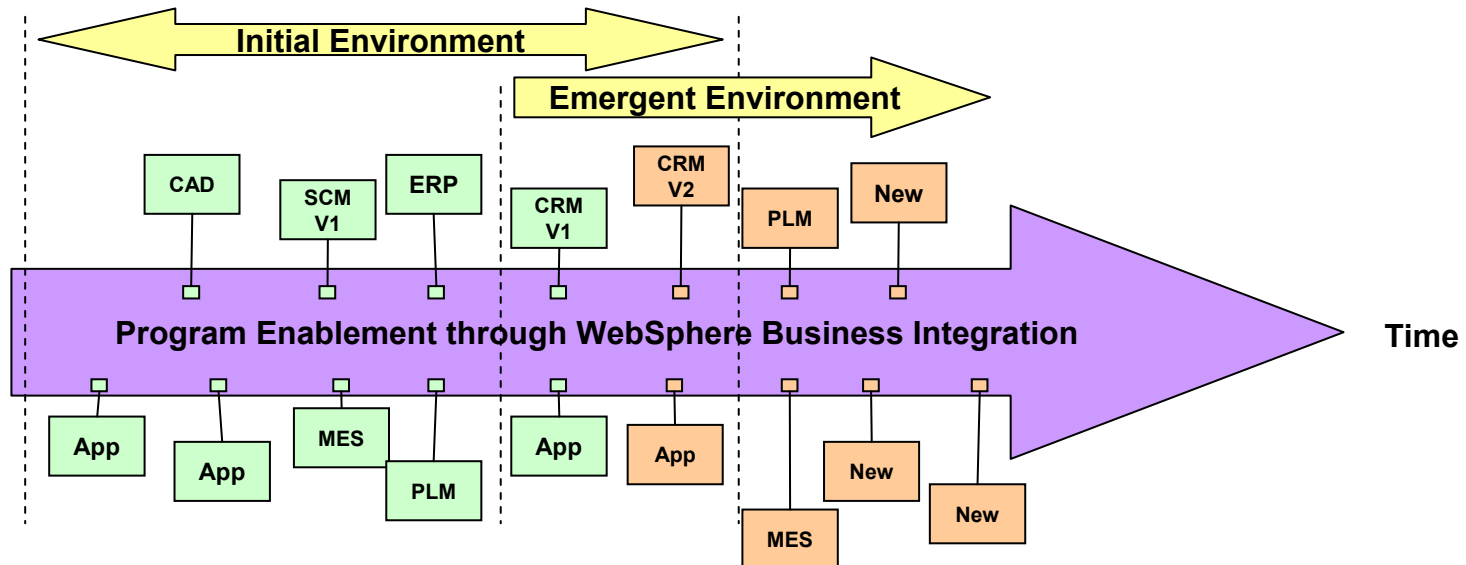
WebSphere Business Integration Industry Collaborations

Chemical

Order Create

Order Response

Manufacturing

RosettaNet Partner Interface Processes (PIP)

Manufacturing (Electronics, Automotive, & Industrial)

Trading Partner Order Management

Vendor Manager

Regen Process Mgr

Supply Plan Input Regen

Supply Plan Deployment Regen

Supply Plan Input Net Change

Shipments to Date

Return Status

Return Delivery Status

Return Billing Status

Price List Manager

Available to Promise

ATP to Sales Order

Order Billing Status

Order Delivery Status

....

Financial Services

Customer Mgmt.

Portfolio Mgmt.

Underwriting

Claims

Trading

Distribution

Agreement Admin

Retail

UCCNet Item Synchronization

UCCNet Message Manager

New Item Manager

Workflow Manager

Insurance

Homeowner First Loss: eClaim

Traditional Life Policy Addition

Personal Articles Coverage Quote

Partial Withdrawal Surrender Quote - Life

Telco

Billing Inquiry

Billing Management

Customer Account Manager

Product Catalog

Order Handling

Service Order Management

Problem Handling

Customer Service Configuration and Activation

Product Development and Retirement

Resource Provisioning and Allocation

WebSphere software

IBM

*e*business software

Using Websphere Business Integrator to Sell Business Integration

IBM Software Group

Today's Business Environment:
Unifying Enterprise Data

- Overcome corporate organizational barriers to information by gaining a unified view of data, company-wide:

  - Customers, Products, Vendors, Employees

- Improve data integrity: updates or changes in one application are automatically reflected in all applications

Benefits:
- **Deliver to customer expectations for service, responsiveness**
- **Gain competitiveness with better decision making**

Invoicing, Billing, Contracts
IBM

Sales Force Automation. E-Commerce
BAAN

Customer Relationship Management
SIEBEL
•SALES •MARKETING •SERVICE

Websphere Business Integrator

SAP Procurement, Supply Chain Mgt

MetaSolv SOFTWARE
i2
Clarify
Enterprise Resource

Financials. HR
ORACLE
PEOPLESoft

Today's Business Environment: Integrating Enterprise Processes

- Overcome barriers of 'stovepipe' operations by integrating business processes across the company:
  - ➢ Gain an enterprise-wide view of processes
- Achieve meaningful insight to process performance:
  - ➢ Optimize operations for efficiency and responsiveness

Benefits:
- ■ **Diminish costs of operational inefficiencies**
- ■ **Gain competitive edge with agile processes**

Front Office Processes

Back Office Processes

Websphere Business Integrator
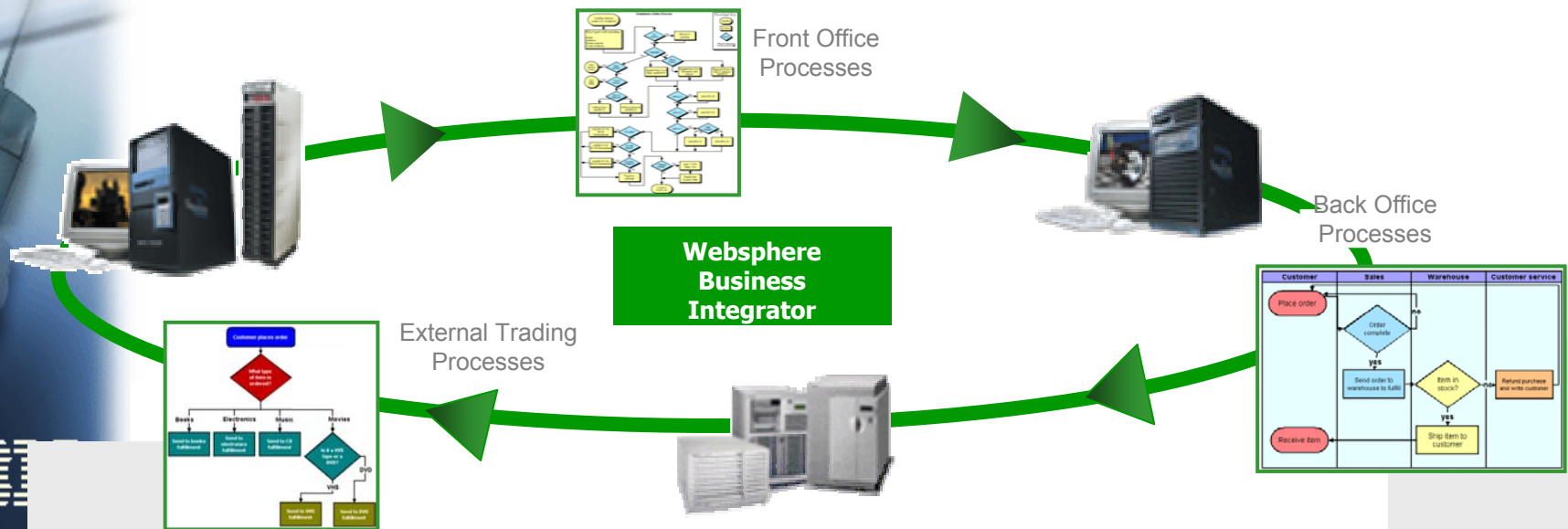
External Trading Processes

Today's Business Environment:
Extending Business Beyond the Firewall
E-Business & Collaborative Commerce

- Support external relationships by presenting a coherent and consistent face of your company

- Optimize processes between internal and external transactions:
  - eliminate costs, improve efficiency

- Establish more effective ways of doing business with trading partners and customers electronically

Benefits:
- **Leverage benefits of Online Exchanges**
- **Cut costs in B2B Transactions**
- **Find new business opportunities**
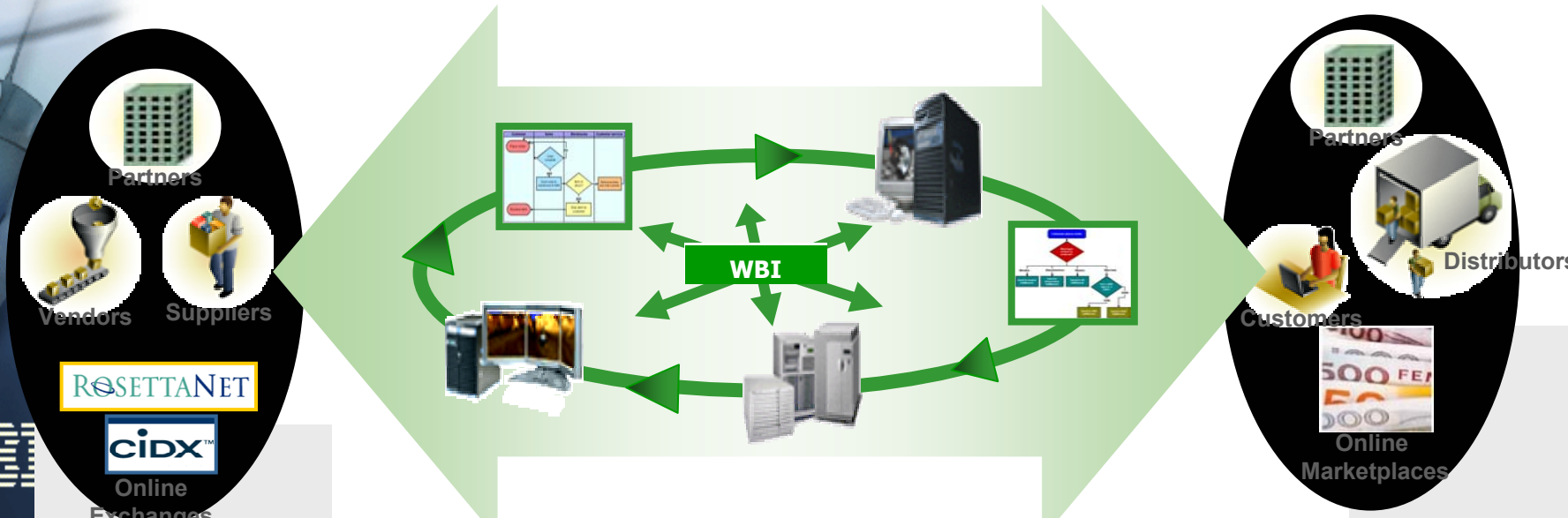
WBI Saves Time and Money - IT

- IT side of the story: IBM WBI benefits customer implementation and ongoing system management
  - Source: Gartner Group

	Customer Savings (vs. Do-It-Yourself Integration)	Customer Savings (vs. IBM WBI Competitors)
Time to Implement Integration Software	45% fewer hours	9% fewer hours than competitors
Cost of Implementing Enterprise Software	55% less cost	18% less cost than competitors
Cost of Upgrading Enterprise Software	79% less cost per year	6% less cost per year than competitors
Cost of Maintaining Integration Software	33% less cost per year	4% less cost per year than competitors

WBI Saves Time and Money - Process

- Process side of the story: IBM WBI delivers significant business value
  - improving efficiency,
  - eliminating costs,
  - supporting revenue-generating activities

- Examples:
  - Integrated Nortel Networks' 19 complex order processes of parent and subsidiary companies into one

  - Shortened Whirlpool's new product development and rollout process by 66% from 30 to 10 days
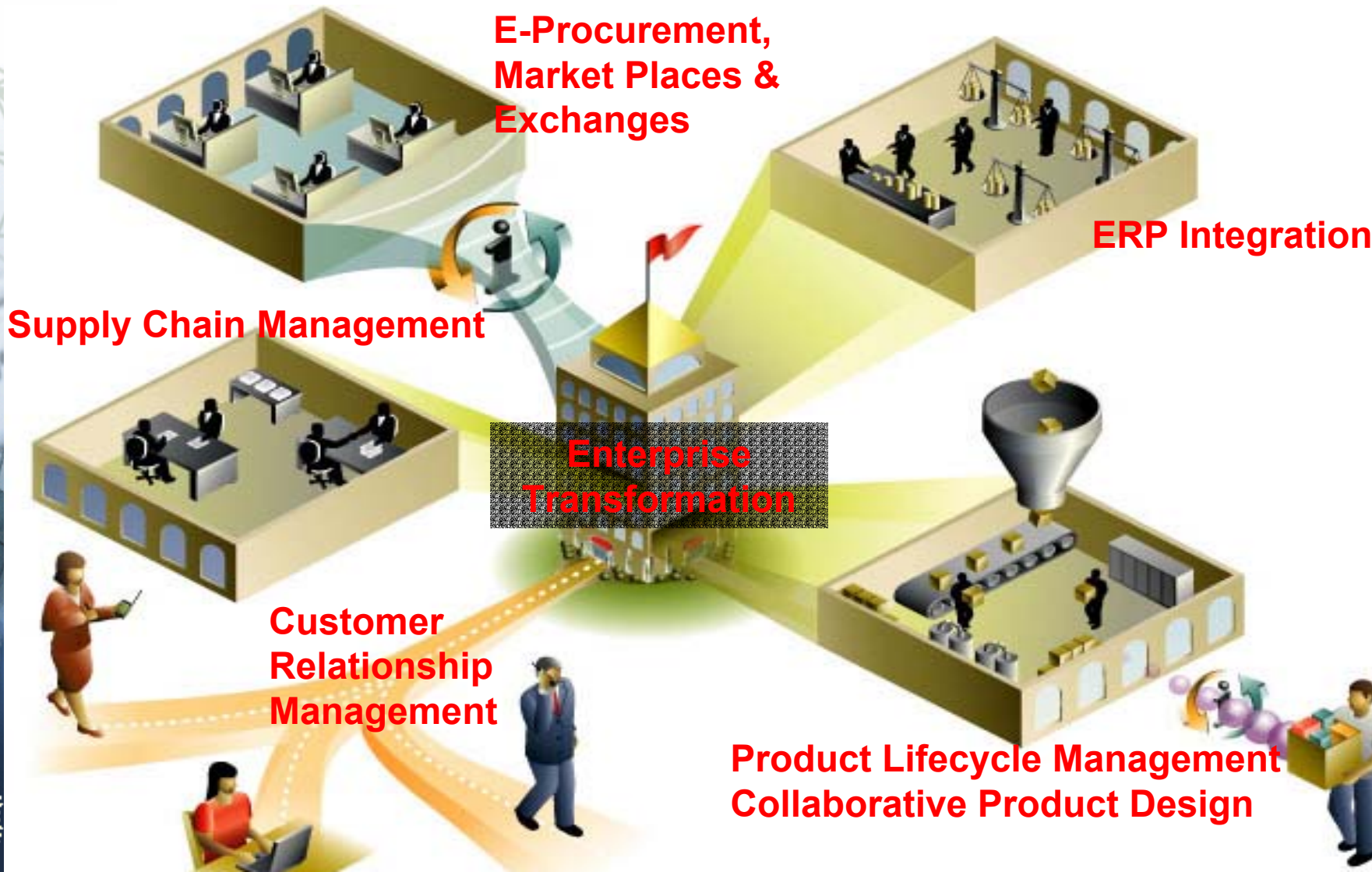
  - Reduced the time Ingersoll Rand needed to process orders by 90%

IBM

What Customers Want From Business Integration

Business Process Management Landscape

E-Procurement, Market Places & Exchanges

ERP Integration

Supply Chain Management

Enterprise Transformation

Customer Relationship Management

Product Lifecycle Management Collaborative Product Design

The Market For Business Integration in Industry

Process Integration

Application Integration

OSS / BSS integration
Flow-through Provisioning
Supply Chain Management
Marketplaces & Exchanges
e-Procurement
Straight Through Processing / T+1
On-Line Wealth Management

Process Integration

Application Integration

Major Play –
Product Lifecycle Management

- Initiatives: Product Lifecycle Management, Collaborative Product Design
- Focus Industries: Industrial, High Tech, Automotive, Aerospace
- Customer Pains
  - Un-coordinated and fragmented design processes
  - No enterprise visibility into parts, assembly and logistics
  - Disparate IT environments
  - Manual steps for interfacing with partner processes yield errors, waste
- Integration Challenges:
  - Driving costs out of cross-functional processes
  - Streamlining design-through-manufacture processes
  - Coordinating structured and unstructured data

Major Play – Product Lifecycle Management (Con'td)

- IBM WBI Solution solves pains by providing:
  - Single view of available parts across enterprise
  - Elimination of errors from manual reconciliation of design documents, manufacturing plans, bills of materials;
  - Automation of communication between design, inventory, manufacturing, logistics and partners
- Power Sponsors:
  - VP of Integration
  - VP Product Development and Design Management
  - VP Customer Services / Distribution / Logistics
  - COO, CFO
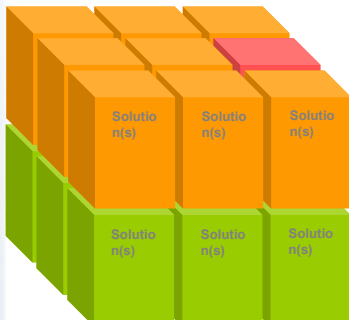
Success Story

THERMO KING

Business Challenge

- Reduce costs of maintaining interfaces between product design (Windchill), manufacture (Oracle), order, and maintenance (SAP, mainframe) systems

- Create single view of items for use across enterprise– eliminating costs of errors from inconsistent information

- Build flexible infrastructure: demonstrate ability to accommodate future process improvements as pilot for parent Ingersoll Rand

Solution

- Replaced prior integration that increased technical complexity, cost

- Employed application and technology connectors, and Item Manager collaboration to unify item data for use by all systems

Business Value

- Provided consistent, single view of item information across all systems

- Improved productivity of design-through-delivery processes

- Eliminated costs of maintaining interfaces and enterprise systems

Major Play – Buy and Supply

- Initiatives: e-Procurement, Collaborative Procurement
- Focus Industries: Chemical, Petroleum, Pharmaceutical, Consumer Packaged Goods
- Customer Pains
  - Eroding bottom line due to procurement costs, detracting from competitive advantages in R&D
  - Managing procurement processes and demand forecasts challenged by disconnected IT environments, heterogeneous customer data
  - Connecting to Online Exchanges is imperative, but requires conformance to industry standard processes and data
- Integration Challenges:
  - Bridging EDI migration from VAN to IP-based connections
  - Gaining access to Exchanges: On Ramping
  - Conforming to industry process and data standards
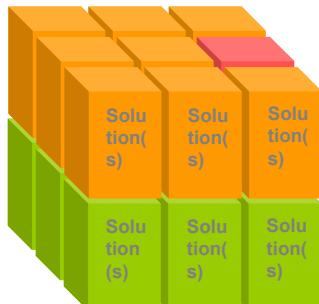
Major Play –
Buy and Supply Cont'd

- IBM WBI Solution solves pains by providing ways to:
    - Help buyers and sellers integrate processes with each other easily, affordably, quickly, replace EDI
    - Integrate procurement and distribution systems and processes in conformance with industry standards
    - Enable networks of trading partners, and on-ramps to online Exchanges and Marketplaces
- Power Sponsors:
    - VP of Integration
    - VP of Procurement
    - VP Strategic Alliances
    - COO, CFO
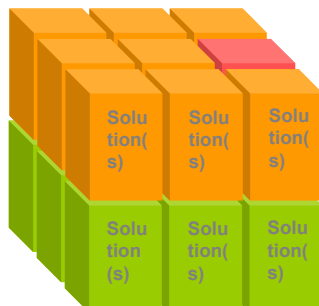
Success Story

Business Challenge

Required access to Online Chemicals Exchange Elemica and development of e-commerce

Wanted flexibility to adopt new business processes with better agility & speed

Needed interface with strategic and legacy systems

Had to Improve internal I/S productivity and extend existing application life cycles

Solution

Pre-built functionality to packaged applications

Common business object model

Easy-to-build legacy system connectors

Architecture to support future business direction

Business Value

Strong business process management

No surprises along the way

Adherence to industry standard data formats

Success Story

Business Challenge

- **Respond better to increasing competitive pressures in the home appliance market**

- **Improve flexibility of operational processes and of IT infrastructure to accommodate evolving business strategy**

- **Reduce the product development and rollout cycle to more quickly meet distributor and customer demand**

Solution

- **Integrated Trilogy's product development system with SAP to link demand information with production processes**

- **Replaced point-to-point integration infrastructure with a flexible, inclusive integration platform**

Business Value

- **Reduced product rollout cycle 66% from 30 to 10 days**

- **Minimized IT costs of maintaining integration infrastructure**

- **Provided groundwork for future e-business initiatives to build an appliances exchange**

Major Play – Service After Sale

- Initiatives: Product/Service Maintenance, Flow Through Provisioning, Integrated Service Delivery

- Focus Industries: Industrial, Communications

- Customer Pains:

  - Managing customer satisfaction, maintenance contracts, service level agreements

  - Increasing market share within consumer and business segments; minimizing churn with tailored service offerings to meet specific customer needs

  - Seamless integration of upstream and downstream partner processes in the maintenance of products and services to customer base

- Integration Challenge:

  - Tying operational systems to business systems to unify customer account and service information

  - Improving customer service consistency across all customer touch points

  - Collecting relevant customer data

Solution(s) Solution(s) Solution(s)
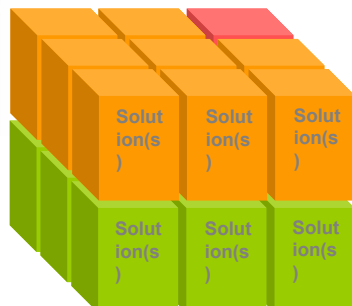
Solution(s) Solution(s) Solution(s)

Major Play - Service After Sale (Con'td)

- Pain that IBM WBI Solution solves:
  - Presenting consistent customer information from back end systems to all customer touch points…
  - maintaining product and service records consistently over time, to meet contractual or service agreements…
  - enabling real-time customer transactions with lower operational costs and greater customer satisfaction…
- Power Sponsors:
  - VP of Integration
  - VP of Customer Operations
  - VP of Sales & Marketing
  - CFO, CEO
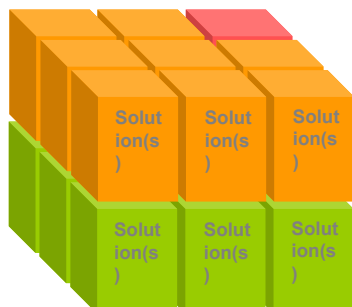
Success Story

Business Challenge

- **Increase number of customers while maintaining customer service levels**

- **Develop new services in advance of competition in newly deregulated German market**

Solution

- **Integrated customer service systems Mannesmann and Scopus with back office systems**

- **Enabled distributed call centers to share customer data in real-time, to quickly address customer requests**

- **Integration infrastructure enabled online service billing for improved customer service**

Business Value

- **Increased customer service productivity, responsiveness**

- **Improved ability to proactively develop and sell additional services**

- **Better information access improved competitive advantage**
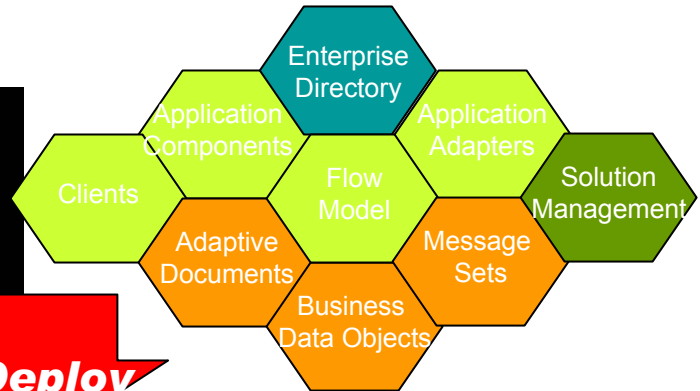
Industry Focus - Plans 2002

- Worldwide Business Integration Industry Team: Industrial, Distribution, Financial Services, Communications
- 40 Industry experts with specialized business process knowledge
- Direct sales support

- **Industry-specific solutions**
- **Design partnership**
- **Industry technical standardization**
- **Reusable collateral**
- **Market leadership positioning**
- **Innovative initiatives**
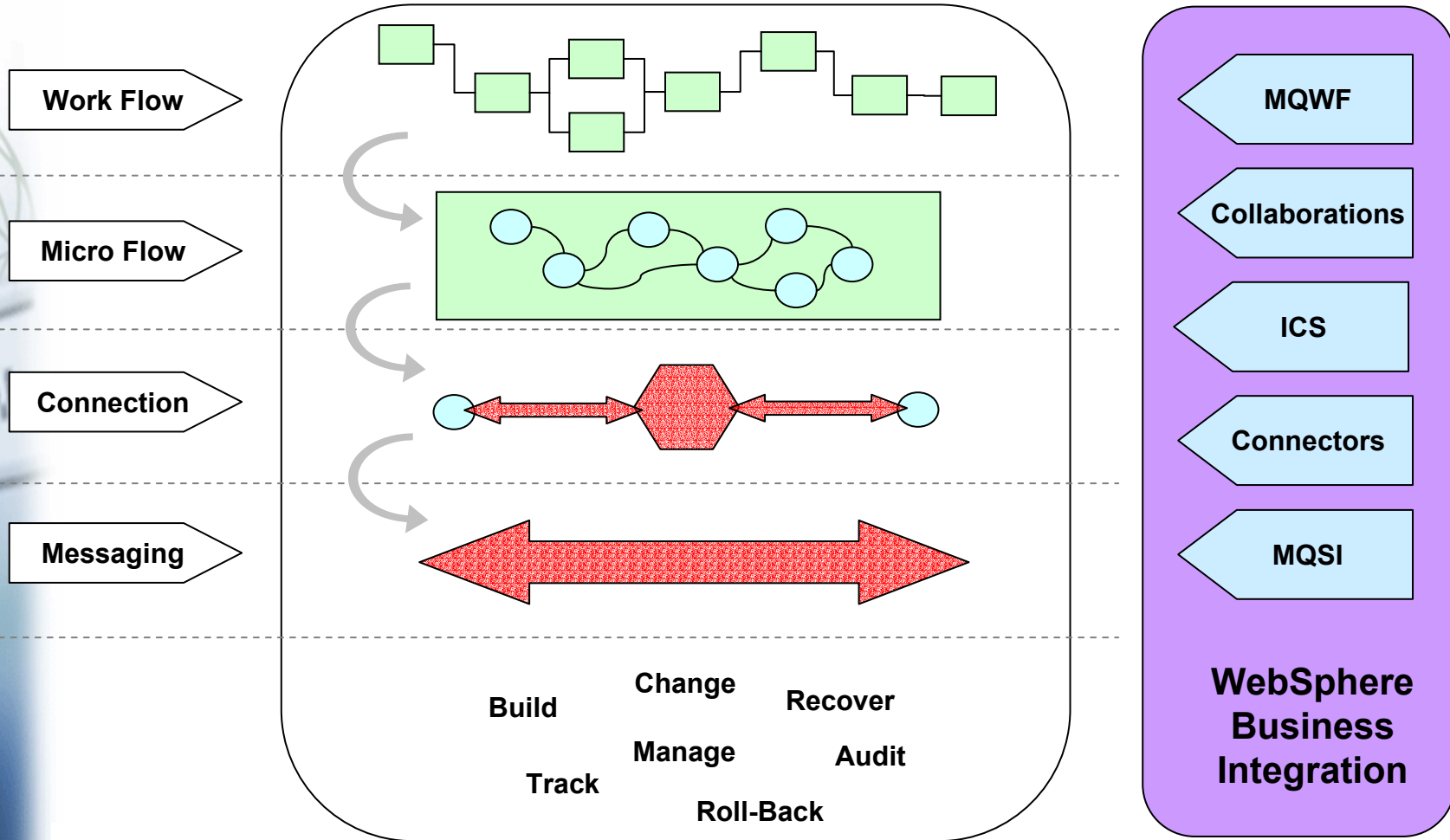
Deploy

WebSphere Business Integration

Enterprise Directory

Application Components

Application Adapters

Solution Management

Clients

Flow Model

Adaptive Documents

Message Sets

Business Data Objects

Any Questions?

Layers of Integration

Work Flow

Micro Flow

Connection

Messaging

Build

Change

Recover

Manage

Audit

Track

Roll-Back

MQWF

Collaborations
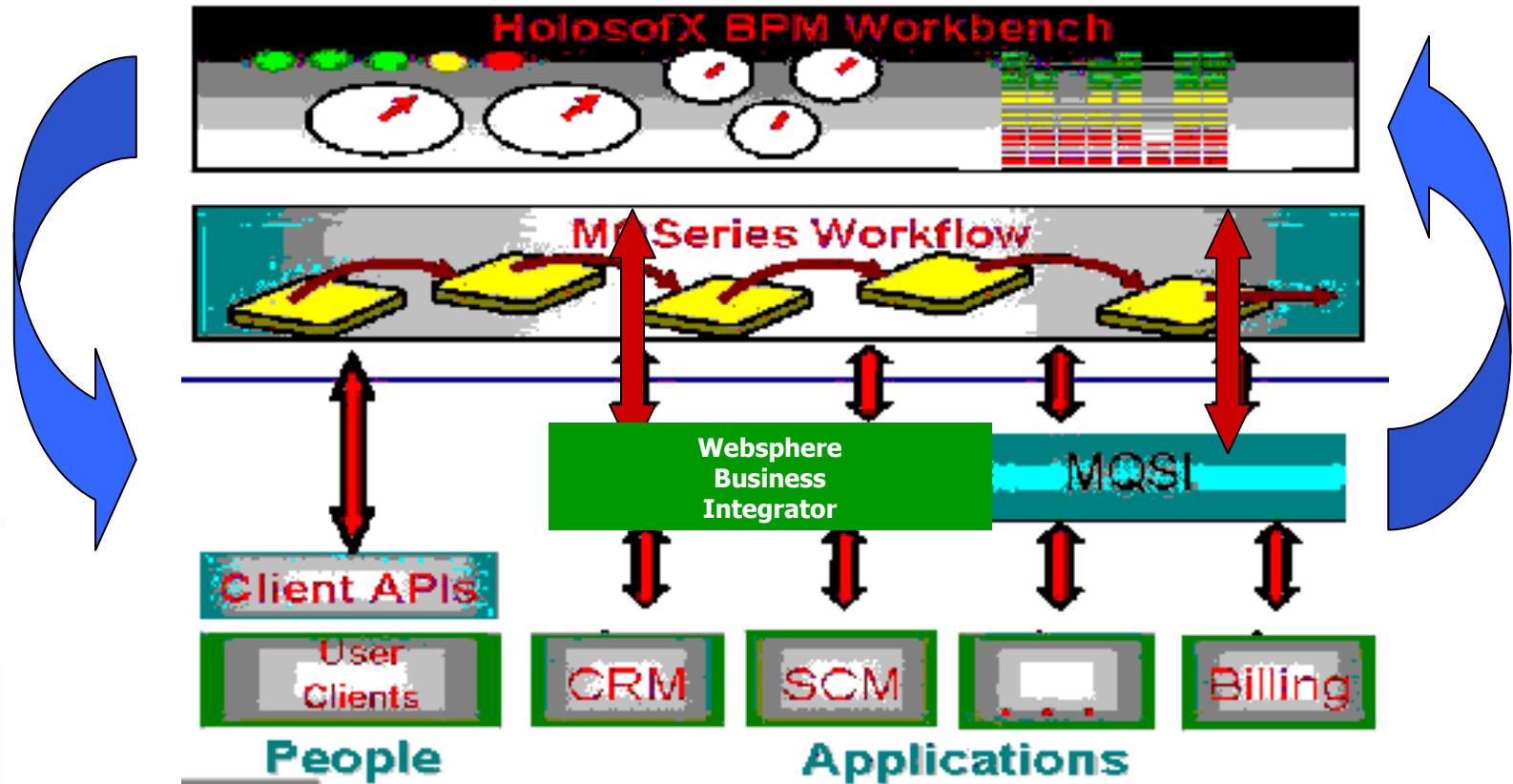
ICS

Connectors

MQSI

WebSphere Business Integration

WBI - Total Business Process Solution

- Top-Down Modeling
- Simulation
- Instrumentation
- Feedback