Oracle Industry Solutions
Natural Resources

The Natural Resources Value Chain

Mining, Growing and Harvesting

Forest Products

Processing

Agriculture Products

Processing

Lumber, Pulp & Paper

Minerals, Ores

Refining

Smelting/ Milling

Building & Construction

Manufacturing / Packaging

Business

Consumer

Fabrication

Utilities

Customers
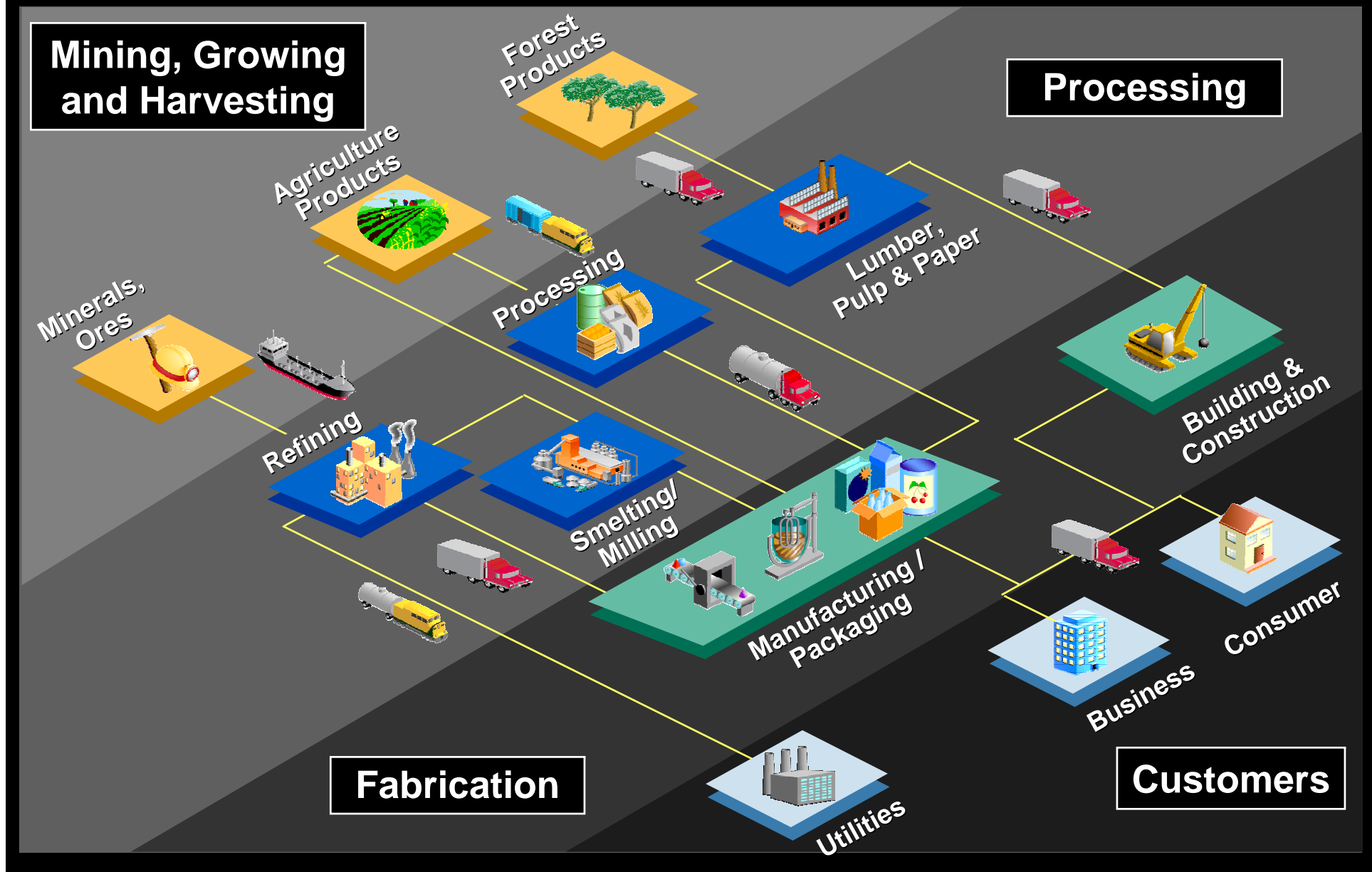
Industry Drivers

Environmental & Safety Concerns

- How do I efficiently comply with increasingly stringent environmental regulations?

- How can I continually improve asset and worker safety?

Global Competition

- How can I compete with emerging low-cost producers such as China and Russia?

- How do I address cycles of excess industry capacity and supply?

Mining, Growing, & Harvesting ▶ Processing ▶ Fabrication
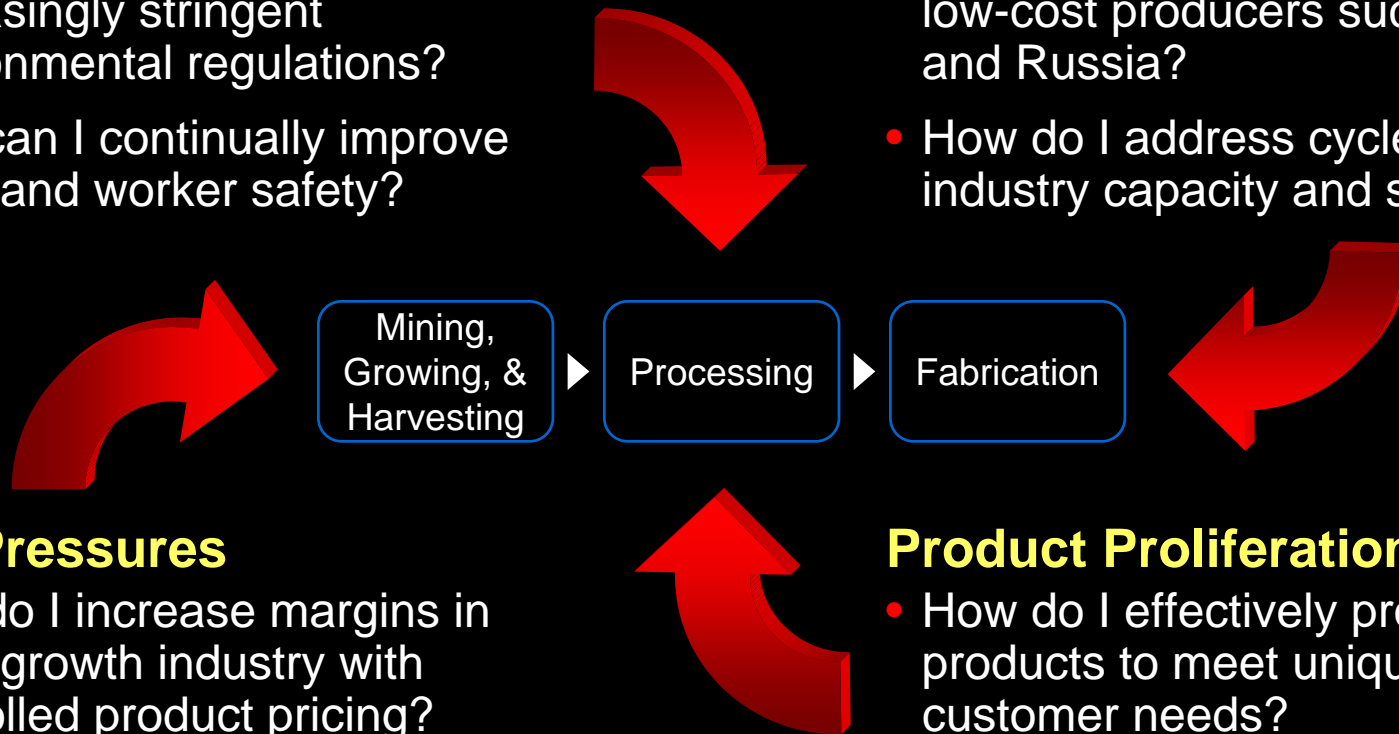
Cost Pressures

- How do I increase margins in a low-growth industry with controlled product pricing?

- How do I increase asset utilization to avoid unnecessary capital expenditures?

Product Proliferation

- How do I effectively produce products to meet unique customer needs?

- What can I do to efficiently manage my increasing number of end products?

A Need for Change
Leading Business Trends

- Connected asset lifecycle management

- Market differentiation via value-added customer service

- Decreased manufacturing cycle time & product traceability

- Increasingly specialized and proprietary products

- Strategic sourcing with procurement automation

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Oracle in Natural Resources
Did You Know?

- 14 of the top 20 paper companies run Oracle applications

- 4 of the top 7 steel companies run Oracle applications

- 4 of the top 10 coal mining companies run Oracle applications

- 4 of the top 8 metals mining companies run Oracle applications

- 4 of the top 10 gold and silver mining companies run Oracle applications

- 7 of the top 10 construction materials companies run Oracle applications

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What Oracle Customers are Achieving…

POSCO
- ✓ increased inventory turnover from 8.7 times to 12 times
- ✓ decreased sales/production planning time by 75%

HAAS
- ✓ reduced order entry time by 50%
- ✓ saves $425K annually in IT operating & maintenance costs

CORRUGATED SERVICES LP
- ✓ ensured that 60% of orders are delivered within 7 days
- ✓ reduced cycle times from weeks to hours

ALCOA
- ✓ implemented 11i at 57 sites with zero customizations
- ✓ implemented requisition-to-pay solution 20% under budget

JIGANG
- ✓ reduced workload in procurement department by 60%
- ✓ optimized flow of materials & finished goods between 29 warehouses

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What Oracle Customers are Saying…

Duferco — "With Oracle in place, our management now has a much better view of the company. We only need to enter information once and can then easily monitor and keep track of everything we do."
-- Roberto Albert, Treasurer

CORRUGATED SERVICES LP — "We initially focused on harnessing the power of Oracle's ERP applications to establish the infrastructure for our e-business solution. Immediately, we started seeing benefits from Oracle's integrated software -- from production scheduling, to purchasing, to having answers for our customers."
-- Forest Felvey, CIO

SOLID ENERGY Coals of New Zealand — "Oracle gives us the functionality we need to make better decisions about overhaul and replacement of assets, preventive maintenance, and rationalization of spare parts and rotables. By ensuring we have accurate records of maintenance and expenditure on assets, we can determine the condition of assets at any given time."
-- Warren Maslin, CFO

A Few Customers…

Oracle E-Business Suite
Built on a Unified Information Architecture

Develop

Contracts

Projects

HR

Finance

Maintain

Service

Market

Sell

Order

Plan

Procure

Make

Fulfill

E-Business Suite

Customers,

Suppliers,

Products, …

- Common data model enables a single source of truth

- Comprehensive suite of applications designed to work together

- Robust set of integration services based on open standards

- Modular deployment by business flow
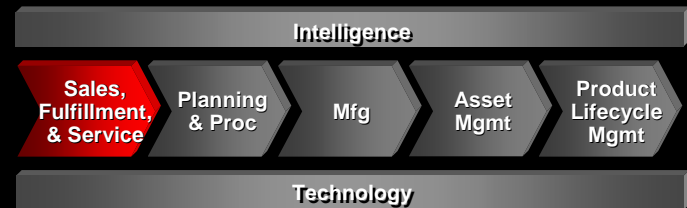
- Single global instance implementations

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Tailored to the Natural Resources Industry
Support for Key Processes

Intelligence

Sales, Fulfillment, & Service	Planning & Procurement	Manufacturing	Asset Management	Product Lifecycle Mgmt

Technology
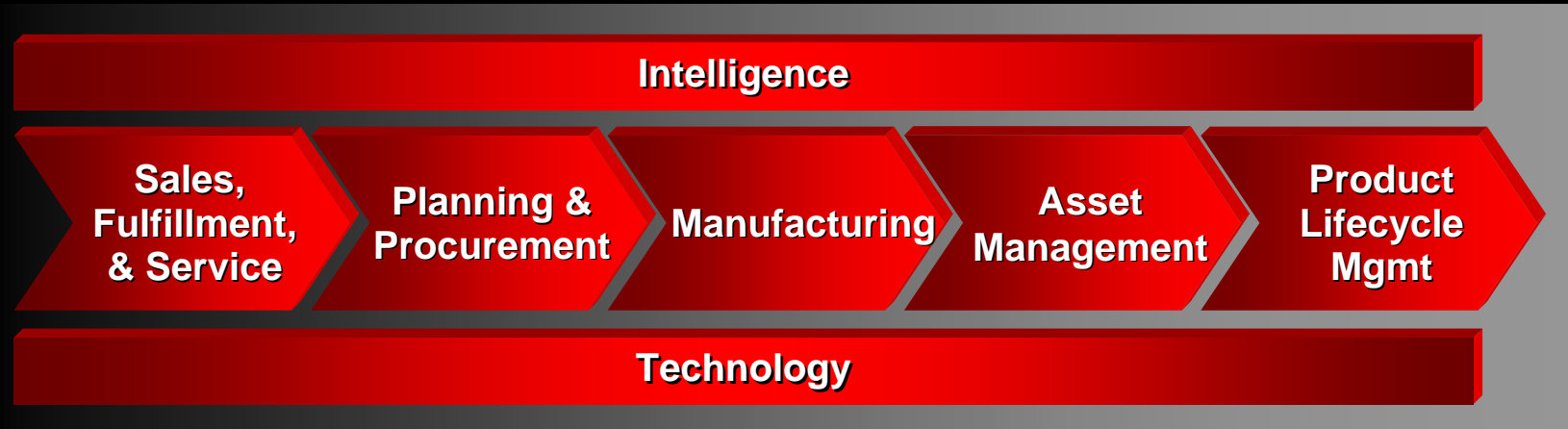
	Sales, Fulfillment, & Service	Planning & Procurement	Manufacturing	Asset Management	Product Lifecycle Mgmt
Raw Materials	✓	✓	✓	✓	✓
Mining	✓	✓		✓	
Milled Products	✓	✓	✓	✓	✓

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Oracle Natural Resources Solutions

Enable you to:

❶ **Attract and Retain Customers**

❷ **Drive Efficient Planning and Procurement**

❸ **Optimize Manufacturing Operations**

❹ **Maximize Asset Utilization**

❺ **Accelerate Product Development**

Foundation: **Common Customer Model**
Capture All Information in a Single Location

Customers,

Suppliers,

Products, …

- **Contact Information**
- **Interaction History**
- **Sales Channel Usage**
- **Pending Quotes / Orders**
- **Order & Issue History**
- **Contract Terms**
- **Shipment Status**
- **Payment / Credit History**
- **Campaign Responses**

- Leverage analytics and predictive modeling to target customers more effectively

- Route customers to the right personnel for speedy interactions
  - Enable customers to seamlessly progress from sales to order to delivery

- Increase speed and efficiency of each interaction

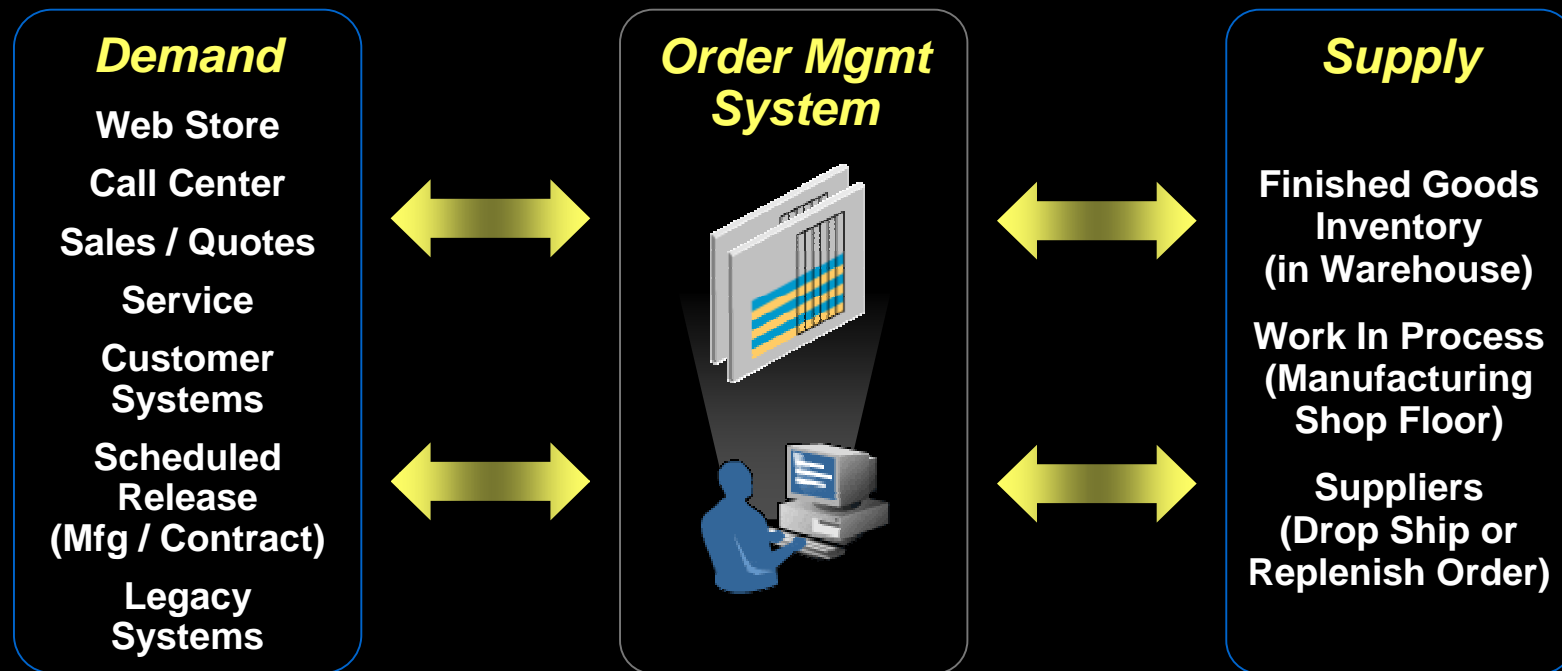# Sales Rep Effectiveness
Optimize Selling with Productivity Tools

- Automate routine tasks
  - Manage activities, contacts, calendar, etc.
  - Generate quotes, proposals, & orders
  - Flow documents for approval
  - Create sales contracts

- Deploy best-practice sales methodologies

- Manage territories and align compensation with corporate objectives
  - Automate territory assignments
  - Measure quota and performance
  - Support numerous compensation models (quota based, team compensation, etc.)

- Manage customer info, contacts, opportunities, leads and forecasts
  - Synchronize with disconnected, mobile users

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Link Multi-Channel Demand with Supply
Enable Real-Time Order Validation

Demand

Web Store

Call Center

Sales / Quotes

Service

Customer Systems

Scheduled Release (Mfg / Contract)

Legacy Systems

Order Mgmt System

Supply

Finished Goods Inventory (in Warehouse)

Work In Process (Manufacturing Shop Floor)

Suppliers (Drop Ship or Replenish Order)

- Embedded collaboration points throughout order management flow to enable demand analysis
- Seamless communication with suppliers, customers, and carriers/partners
- Optimized flows to ensure order accuracy and on-time deliveries

Order Status & Tracking
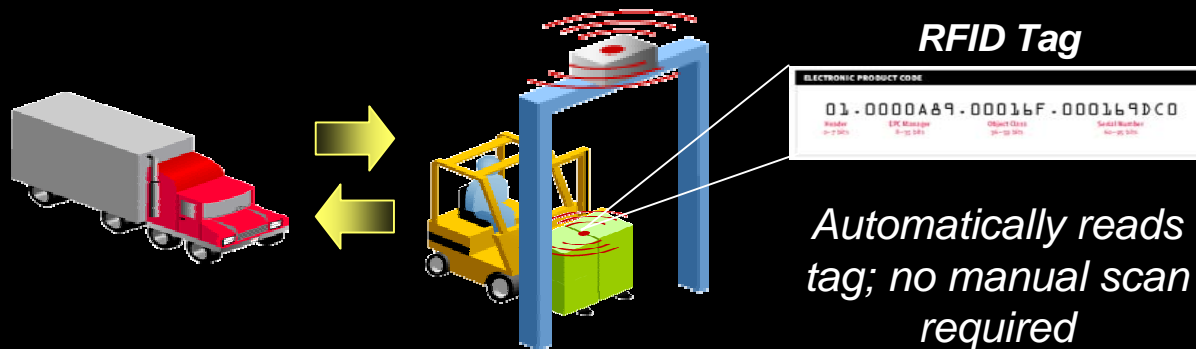## *Provide Self-Service Access to Anyone, Anywhere*

- Enable Browser-Based Order Information Portal for Real-Time Access

- Provide Secure, Intuitive Access to Customers, Trading Partners, and Employees

- Review Sales Order and Delivery Info
  - Customer info
  - Order lines / details
  - Shipping status
  - Billing and payment data

ORACLE'

RFID Transactions
Enable Real-Time Status, Reduce Data Capture Costs

RFID Tag

ELECTRONIC PRODUCT CODE

01.0000A89.00016F.000169DC0

Automatically reads tag; no manual scan required

Physical movement of tagged material triggers automatic transaction processing (e.g. update order status to "received")

- **Warehouse management support for order fulfillment tasks**
  - Shipment against external and internal orders inbound & outbound shipments
  - Automatic receipts from ASNs and internal orders

- **Application systems automatically updated with location status so employees & customers have access to real-time order status**

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Automated Customer Service Processes
Efficiently React to Customer Issues

Gather Customer Info

- Identify customer & products
- Verify entitlements and value
- Log issue, initiate product return or service request

Resolve

- Leverage knowledge base to fulfill customer issue
- Send replacement equipment or summarize service delivery

Monitor Service Delivery

- Review & manage exceptions
- Modify service execution
- Capture feedback via surveys

Identify & Verify ▶ **Analyze** ▶ **Resolve Issue** ▶ **Close & Bill** ▶ **Monitor Performance** ▶

Analyze

- Identify and research issue using scripting, knowledge base, and customer/product info
- Leverage service history to discover resolution

Close-Out

- Price service activity
- Auto process entitlements
- Send invoice & collect payments
- Identify up-sell opportunities

✓ **Provide differentiated service based on customer and product profile**
✓ **Integrate with web self-service for enhanced functionality**

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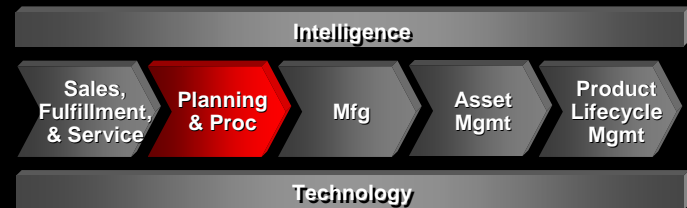
Oracle Natural Resources Solutions

Intelligence

Sales, Fulfillment, & Service | **Planning & Proc** | Mfg | Asset Mgmt | Product Lifecycle Mgmt

Technology

Enable you to:

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Collaborative Planning and Scheduling
Develop Accurate, Constraint-Based Plans

Your Company

| Marketing | Sales | R&D | Plant 1 | Plant 2 | Plant 3 |

Promotions | Forecasts | New Products / Formulations | Schedules | Recipes | Equipment

Planning Engine

Consensus Plan

Web-based Interface

Suppliers

Orders
Schedules
Specifications
Requirements
etc.

Customers
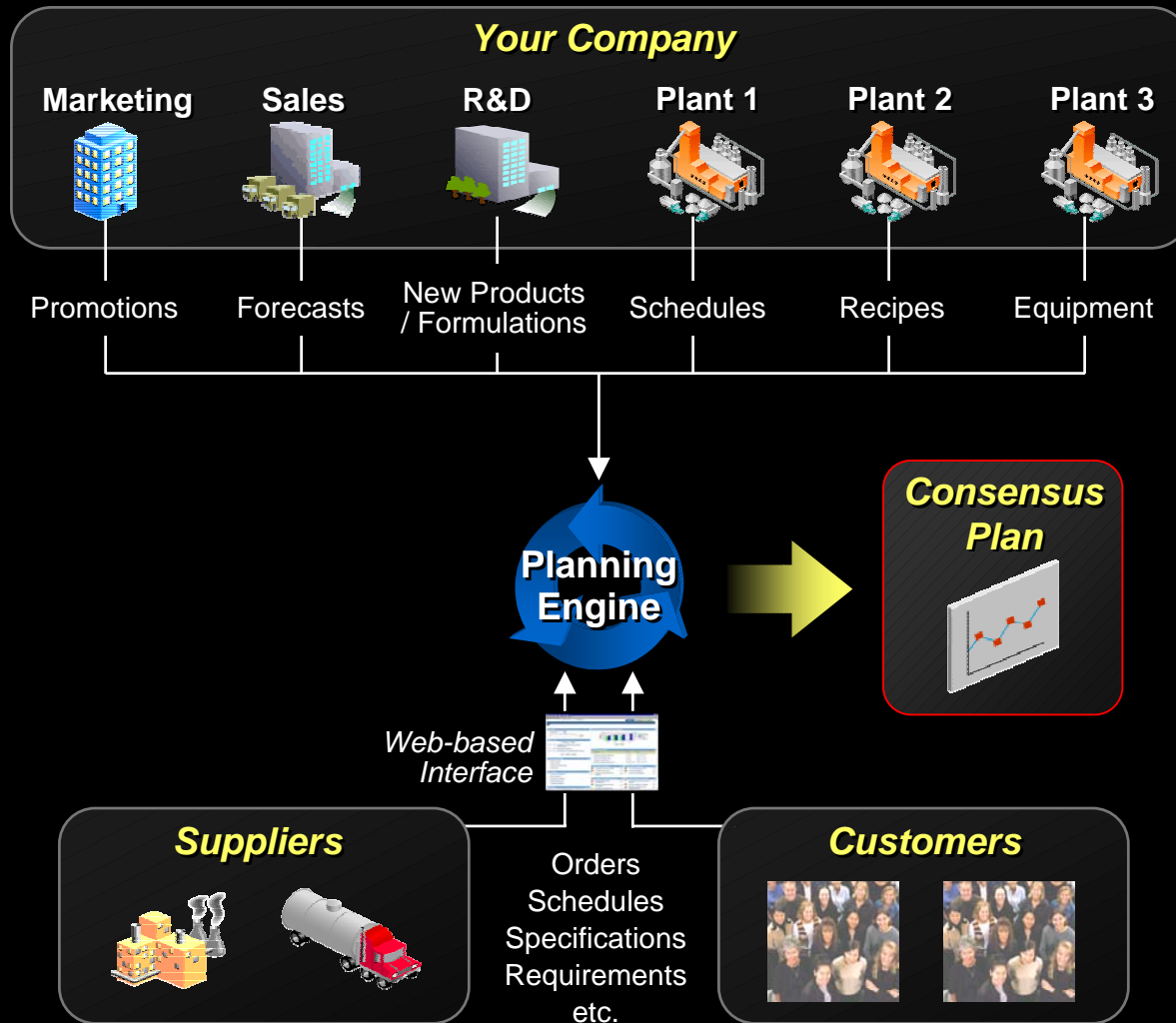
- Collaborate and plan with trading partners

- Create one plan that includes multiple plants

- Model complex constraints that respect plant-level capabilities

- Support complex, multi-level processes

- Rapidly rerun or reprioritize plans

Collaborative Planning and Scheduling
Optimize Inventory to Meet Demand

Enterprise Level

Region Level

Plant Level
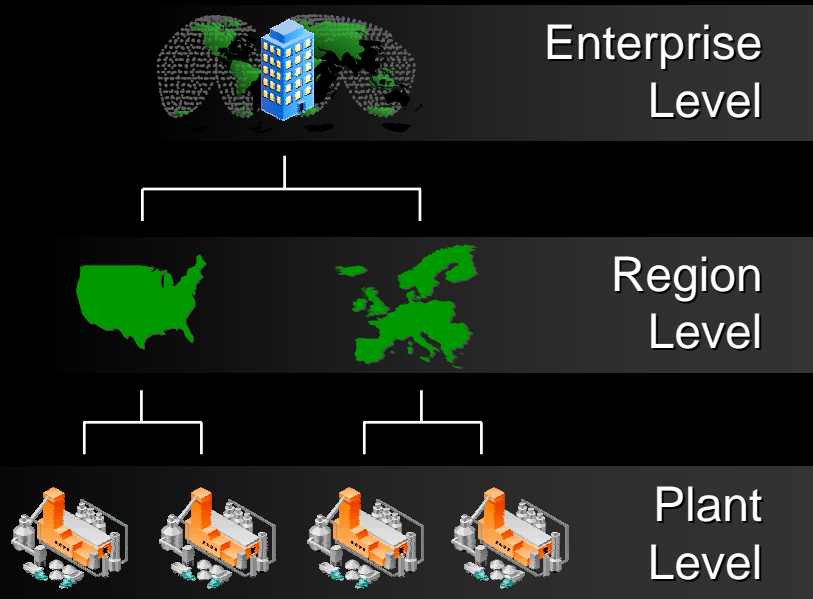
- Leverage current enterprise-wide inventory and quality information
- Perform drag & drop rescheduling and "what-if" simulations
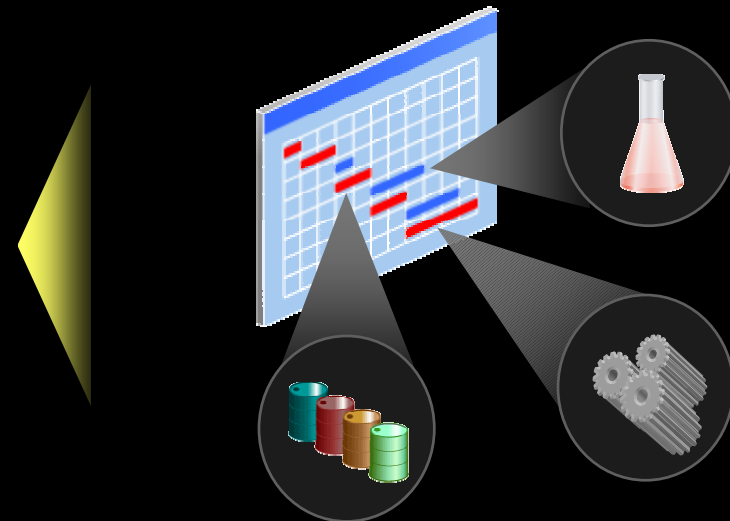
- Optimize inventory and resources across the supply chain in one step
- Automatically monitor shelf-life and issue materials based on FIFO or FEFO

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Integrated Procure-to-Pay Workflow
Dramatically Cut All Supply Management Costs

Demand Collection

Direct Materials

Indirect & MRO

Designed Equipment

Services

Reduce Spend on Goods and Services

Spend Analysis

Category Management

Online Sourcing

Streamline Procurement Processes

Approval Routing

Touchless Buying

Automated Payment

Budget-Based Procurement

Contract Management

Supplier Performance

Enforce Policy Compliance

Supplier Collaboration

Supplier Portal

Supplier Network

Orders

Logistics

Settlement

Profile Management

Support Any Negotiation Type, Securely
Flexible Methods Address Your Sourcing Strategy

	RFQ / RFP / RFI / Quote	Auction / Bid	Offer / Counter Offer
Good or Service	Complex, Engineer to Order	Well-Defined Attributes	Indirect Items
Example	Equipment, Specialty Ingredients	Commodity Ingredients, MRO Parts	Paper & Pens, Office Equipment
Duration	Days or Weeks	Hours	Varies
Focus	Meet Need for Many Attributes	Best Terms: Price, Delivery	Negotiate Best Price

- Multi-round negotiations with partial bid, minimum, increment, and auto-extend
- Role-specific and document-level access authorities

- Multi-attribute bidding
- Real-time bid monitoring
- Threaded discussions

Automated Procure-to-Pay Execution
Enforce Sourcing and Financial Control

Supplier eCatalogs Negotiated Contracts

Electronic Content from Approved Sources

Agreed-Upon Pricing and Valid T's & C's

Workflow Enablement

Requestor

Create Requisition

APPROVED

Review / Approve

Create & Route PO

Receive Goods or Services

Pay Supplier

Automated Checking of Available Funds

Budget
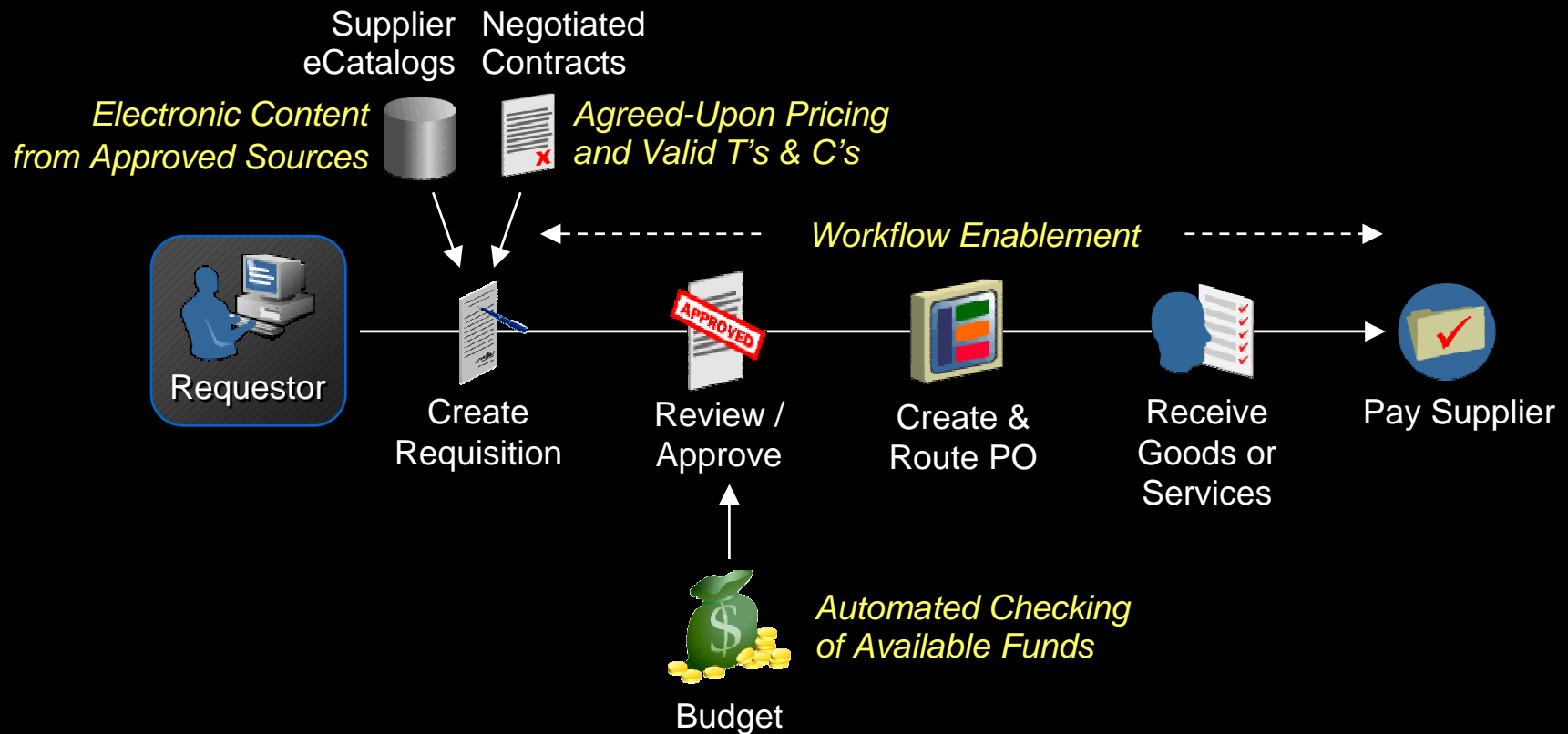
Manage Services Procurement
Control and Automate Services Spend

Goals	Key Enabling Capabilities
Standardize services procurement	• Guide ordering of services using configurable Smart Forms
Enforce sourcing policies	• Search supplier catalogs or "punch-out" to supplier sites • Purchase against contracts or P-cards
Manage spend to budgeted levels	• Track PO status and approve supplier time cards • Proactively monitor expenses and budget
Reduce admin costs	• Perform work electronically (e.g. self-billing to reduce invoicing costs)
Improve supplier performance	• Maintain supplier performance repository • Collaborate w/ suppliers on price, delivery & performance

Oracle Natural Resources Solutions

Intelligence

| Sales, Fulfillment, & Service | Planning & Proc | Mfg | Asset Mgmt | Product Lifecycle Mgmt |

Technology

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ORACLE®

Comprehensive Process Mfg Solution

Integrated Intelligence

Cost Analysis

Productivity

Planning

- Planned Orders
- Schedule Changes
- Material Substitutes
- Resources Substitutes

Mixed Mode

Discrete

Flow

CTO
ETO
MTS

Process

Lot-Based

Real-Time WIP Visibility

Model Shop Floor

Subcontractors

Suppliers

Sample *Analyze* *Adjust* **Quality: cGMP / 21 CFR Part 11**

Lot / Serial Genealogy Tracking, Electronic Signatures

Product Lifecycle Mgmt

Warehousing / Transportation

Asset Maintenance

Service

- Demand Schedules
- Sequencing
- Configured Order

MES APIs, Direct Access

- Production Status
- Material Availability
- Mfg Capacity
- Schedules/Changes
- Ship Notices
- Invoices/Payments

Partner Collaboration

Customer

Enterprise Shop Floor

Subcontractors

Suppliers

Quality-Driven Inventory Attributes
Classify Inventory with Precision

Company — ABC Aluminum

Plants — Dallas, Portland, Crestwood, etc.

Materials — Raw Materials, Coils, etc.

Warehouse — Raw Materials, Finished Products, etc.

Location — Area, Rack, Siding, etc.

Lot — Traceable Quantity of Material

Sublot — Slab, Pallet, Serial No, etc.

Grade — Grade A,B,C w/in a Spec

Product Attributes
- Shelf life
- Retest interval
- Potency
- Dual units of measure
- User-defined classifications
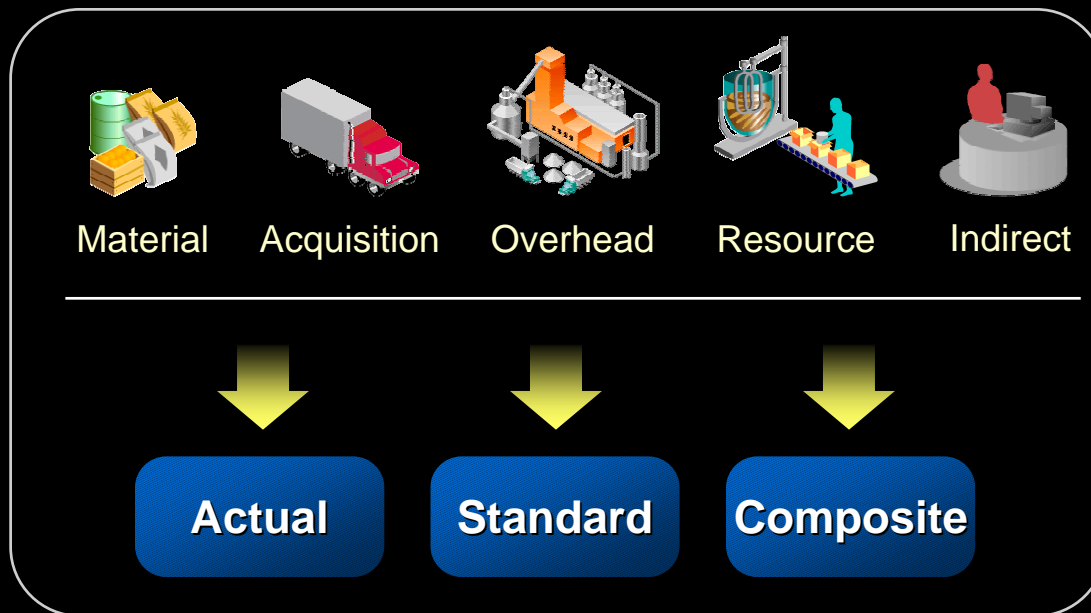
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Multi-Level Material/Resource Trackability
Comply with Stringent Regulatory Requirements

Supplier	Ingredients & Resources	Intermediate or Bulk Products	Finished Product	Consumers

Where Used →

- Improve Recall Responsiveness / Cost
- Trace Materials Enterprise-Wide to Analyze Vendor Quality
- Support ISO 9000 Quality Requirements

Support Multiple Costing Methods
Analyze and Control Product Costs

Material   Acquisition   Overhead   Resource   Indirect

Actual   **Standard**   **Composite**

| Cost Development | Monitoring & Analysis | Allocation | Valuation |

- Measure direct and indirect labor costs
- Capture resource and utility costs
- Include all material costs, (e.g. direct, contract)
- Avoid loss leaders
- Evaluate / compare costs by method
  - Standard vs actual
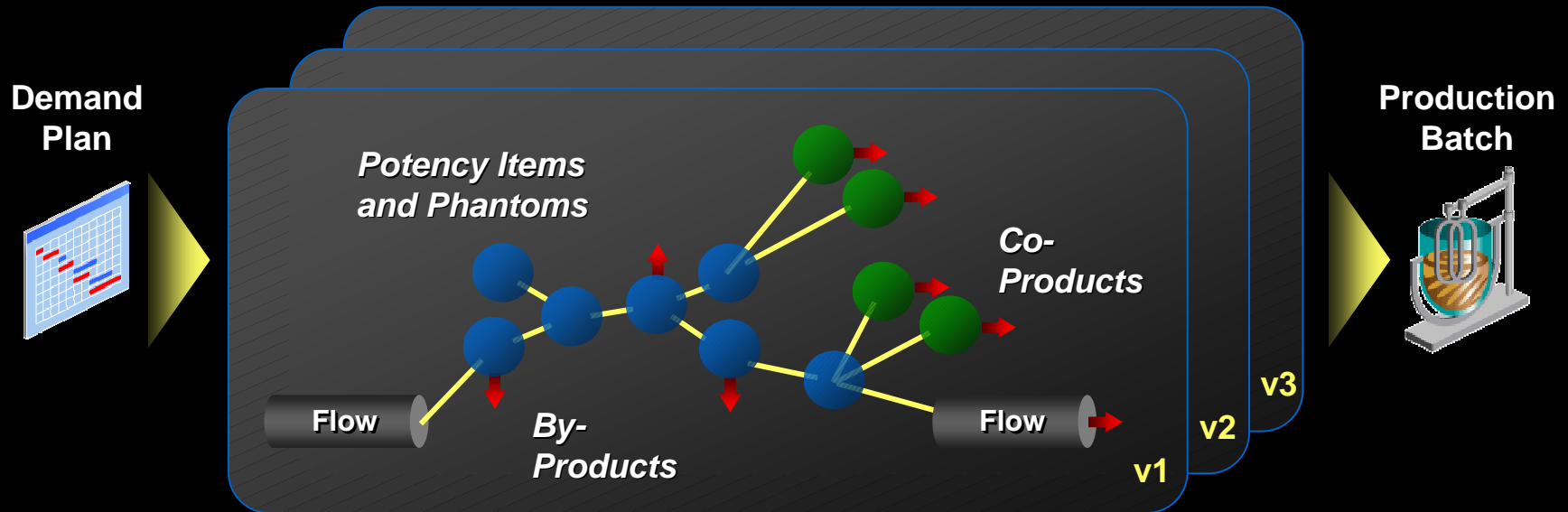 - Weighted avg vs budget
  - Composite vs standard

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Model Complex Process Flows
Accommodate Material and Process Variability

Demand Plan

Potency Items and Phantoms

Co-Products

Flow

By-Products

Flow

v1

v2

v3

Production Batch

- Specify multiple recipes for different conditions, preferences or planning needs

- Plan production batches to minimize co- and by-products on a daily basis

- Support fixed and linear scaling (e.g., catalysts / starter cultures, waste)

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Oracle Natural Resources Solutions

Enable you to:

❶ **Attract and Retain Customers**

❷ **Drive Efficient Planning and Procurement**

❸ **Optimize Manufacturing Operations**

❹ **Maximize Asset Utilization**

❺ **Accelerate Product Development**

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Integrated Asset Lifecycle Management

Information Challenges

- Asset Locations
- Current Condition / Status
- Potential Productivity Loss
- Current Asset Value
- Lifecycle Expectation
- Anticipated Total Costs

Support for Equipment and Facilities

Adv Collaboration Tools

Project Management

←——— **Portfolio Management *** ———→

| Plan | Develop / Build | Commission | Operate & Maintain | Retire / Repurpose |

Asset Maintenance

←——— **Asset Hub** ———→
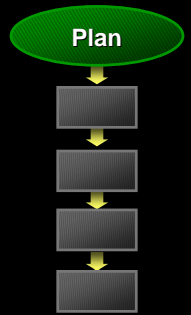
Financial Management

Solution Capabilities

- Assess Current Condition
- Quantify Asset Values
- Manage Usage
- Remediate via Corrective Action
- Report Financial Status

* Coming in a future release

Plan for Asset Construction
Leverage Historic Project Information

Project Plans

- Schedules, Costs & Budgets
- Prior Acquisition Strategy
- Docs, Specs, Requirements
- Issues and Changes
- Resources / Expertise

Global Project Repository

Roles

Program Managers

Team Members

Business Executives

- **Plan Key Aspects of Project**
  - Aggregate all sources of demand
  - Align projects to resources and objectives
  - Create work plan and deliverables
  - Generate budget for resources and work plans
  - Evaluate key performance indicators

- **Consistent Project Information**
  - Information entered once via multiple methods
  - Operational & accounting views by role
  - Attribute-based searches for historic data

- **Secure, Role-Based Access**
  - Functions secured by role on each project
  - Multi-method access (e.g., portal and productivity tools such as MS Project, Excel)

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Develop / Build Assets
Project Manage All Asset Activities
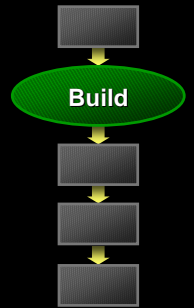
- **Integrate Sourcing, RFx and Bid Processing**
  - Automate paper-based processes
  - Release POs and subcontract agreements

- **Optimize Workforce Deployment**
  - Integrate skills repository with project requirements

- **Collaborate on Design Changes**
  - Provide access to real-time information
  - Work collaboratively with all participants

- **Capture and Manage Project Costs**
  - Incorporate actual or standard costs, overhead, adjustments

- **Effectively Manage Issues and Changes**
  - Driven by flexible and integrated workflow
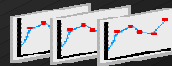
Multiple Maintenance Strategies
Extend Life of Facilities and Equipment

Commission

Maintain

Condition Based

Condition Monitoring
Temp, Flow Rate, Wear, Vibration, Calibration

→

System Identification of Limit Violations
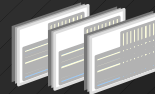
→

Workflow-Driven System Action
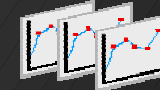- Notify Asset Owner
- Generate Work Order

Preventive

Planned Usage
Planned Calendar Events, Production Forecast

→

Maintenance Schedules
- Auto-Creates Work
- Seasonal & Alternative Strategies

→

Maintenance Forecast
- Real-Time, Recommended Forecast Based on Plans, Estimates, and Actual Usage
- Dynamic Plan Adjustments

Actual Usage
APIs to Monitoring Systems / Multiple Meters

→

Estimated Life
Run to Failure, Planned breakdowns
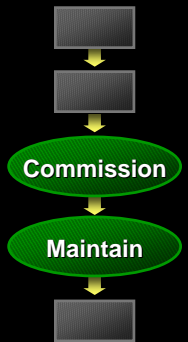
→

Reactive

Maintenance Request
Equipment Failure, Inspection Readings

→

Unplanned Maint Scheduling
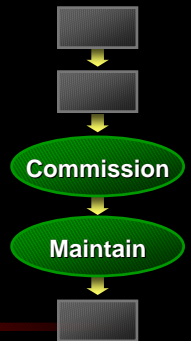- Auto or Manual Work Request Approval

→

Operator Initiated WO Req / Approval
- Notify Asset Owner
- Generate Work Order

Define & Track Standard Procedures
Comply with Regulatory and Safety Requirements

Structured Definition

- **Define SOPs and Required Documentation**
  - Procedures (e.g., safety, hazardous material)
  - Dependent task planning (e.g., Tag out)
  - Specifications / drawings
  - Special handling
- **Manage Work Order Execution**
  - Automatically create audit trail and electronic history
- **Skills Selection**
  - Search and select by technician certifications or competencies

Benefits

- **Equip Technicians to Perform Quality Work, on Time and Within Guidelines**
  - Minimize time to locate required documentation
  - Reduce incident rate
  - Decrease work order errors
  - Ensure optimal repair work
- **Monitor & Audit Compliance**
  - Avoid fines and reduce non-compliance risk
- **Assign Qualified or Certified Technicians to Tasks**

Efficiently Retire or Repurpose Assets

Retire

Disposal Process

Inactivate asset ➡ Update fixed asset status to "Retirement," but allow continued inspections to be logged and tracked

Flag asset as end-of-life ➡ Prevent further postings of further inspections or maintenance

Create disposal work order or project ➡ Track work completion and internal / subcontract expenses at desired level in appropriate GL accounts

Sell, decommission, or dismantle asset ➡ Determine residual value from fixed assets for write-off or sale / auction

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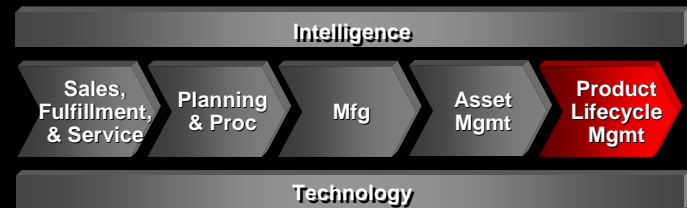
Oracle Natural Resources Solutions

Sales, Fulfillment, & Service — Planning & Proc — Mfg — Asset Mgmt — Product Lifecycle Mgmt

Intelligence

Technology

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Recipe and Formula Development
Accelerate Innovation

Business Process

Test Data

Document Mgmt

Electronic Digital Records

Process Mfg

Recipe & Knowledge Repository

Secure Access

Workflow Driven SOPs

Formulate

Validate

Approve & Release

Schedule

Produce

Test & Maintain

Concept

Retire

Web-Based Access

Requirements
Specifications
Recipes / Formulae
Schedules
Defects
Orders

Web-Based Access

Internal

Engineering

Marketing

All Other Depts

External

Customers

Suppliers

Partners

Process Improvement

Automated Revision and Status Control
Streamline the Release of New and Revised Formulas

Lab Formula

1 Formula automatically generates recipe and assigns default status

Lab Recipe (v1)
✓ Approved for Lab Use

Engineer

2 Submit approval request (Initiate ERES Workflow)

Approvers

R&D   Buyer   Mfg

Edit / approve version controlled production recipes **3**

- Manage formulas, recipes, routings, and operations

- Automatically track revisions and versions

- Control recipe approval prior to production launch

Plant 1: Recipe (v2)
✓ Approved for General Use

Manage R&D Projects
Enable Real-Time Communication and Updates

Project Manager

Work Plan

v.1 v.2 v.3

Revise Plan

Publish Revised Plan

Communicate Progress

Team Member

- **Assign Task Responsibilities**

- **Provide Visibility into Current Info**
  - Latest published work plan
  - All assigned tasks & overall schedule
  - Impact of changes, dependencies
  - Attached documents

- **Update Anytime, Anywhere**
  - All required information
  - Multi-row update for all tasks
  - Provide estimates (e.g. percent complete, estimate to complete)
  - Raise issues, initiate changes
  - Respond to reminder notifications

Integrated Throughout

Entire Offering…

Business Intelligence

and

Corporate Governance

Deliver Daily Business Intelligence
Real-Time Access to Complete Business Information

What are the project schedule and budget impacts of **design changes**?

How can I best adjust to **planning exceptions**?

How are supplier deliveries impacting my **on-time delivery** capability?
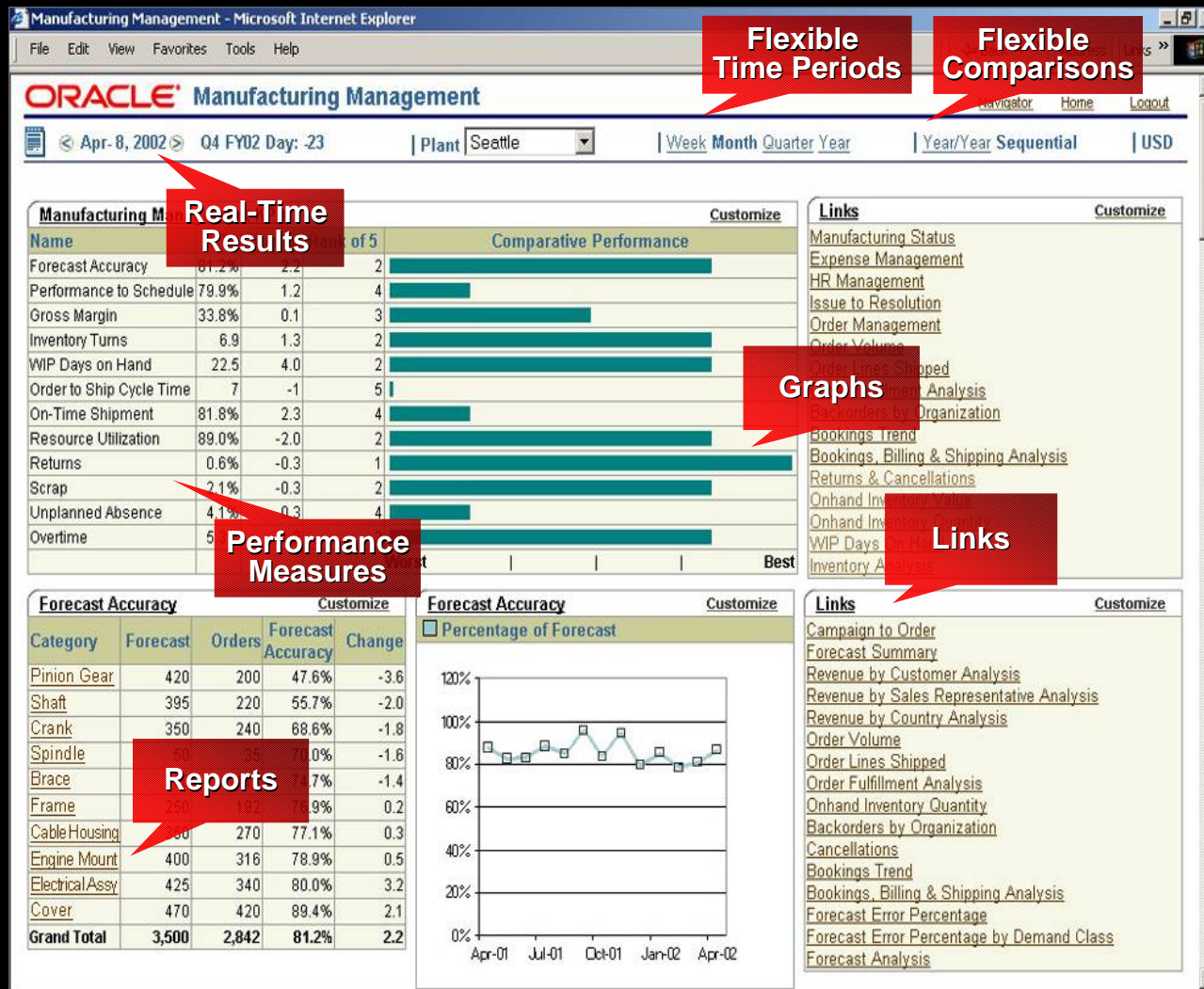
Which carrier can accommodate last-minute **shipment changes**?

How should I allocate **production resources** to meet variable demand?

Manage By…
- *Objective*: Set institutional targets
- *Fact*: Provide performance-based metrics
- *Exception*: Continuously evaluate performance

Business Intelligence:
Timely, Accurate, Relevant

- **Daily updates on key performance indicators**

- **Actionable info on cost savings and incremental revenue opportunities**

- **Role-based views:**
  - Mkt & Sales
  - Order Mgmt
  - Planning
  - Purchasing
  - Mfg & Maintenance
  - Logistics
  - Service
  - Product Mgmt

Corporate Governance

A heightened business focus on accuracy in reporting to investors brought on by recent fraudulent practices of several major corporations

Sarbanes Oxley Act (SOX)

- Senior mgmt personal liability for financial result accuracy

- Senior mgmt and outside auditor attestation to the effectiveness of internal controls

- Accelerated SEC filing deadlines

For all U.S. companies and companies issuing securities in the U.S.

EU Anti-Fraud Directive (Mar 2004)

- Collective Board liability for financial result accuracy

- Senior mgmt and outside auditor attestation to the effectiveness of internal controls

- Select Corporate Governance Code

For all E.U. companies and companies issuing securities in Europe

*Oracle Helps Drive Compliance
through Visibility, Control, and Efficiency*

Corporate Governance:
Visibility, Control, Efficiency

Visibility

- Identify issues early
- Enable real-time information access & performance mgmt
- Consolidate global financials
- Unify corporate reporting
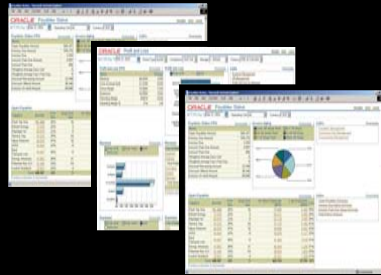
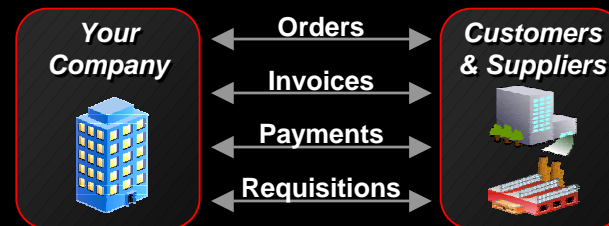*Provide Single Source of the Truth*

Control

- Integrate and centralize business operations
- Document processes and support compliance
- View, test and certify internal controls
- Manage corporate communications

Centrally Manage Policies and Procedures

Efficiency

- Consolidate and reconcile information rapidly
- Automate business processes and broaden use of self-service
- Simplify IT infrastructure
- Leverage best practices from different groups / regions

Automate Processes and Extend to Customers & Suppliers

Your Company

Orders
Invoices
Payments
Requisitions

Customers & Suppliers

All Built on Leading Technology

Database Server

Application Server

ORACLE®

Oracle Natural Resources Solutions

Account sales productivity tools, self-service order status and tracking, comprehensive customer service

Attract and Retain Customers

Collaborative planning & scheduling, automated procure-to-pay workflow including services procurement

Drive Efficient Planning and Procurement

Computer-aided formulation and process modeling, multi-level material and resource tracking

Optimize Manufacturing Operations

Flexible maintenance offering with repair scheduling, self-service work requests, and safety compliance

Maximize Asset Utilization

Integrated recipe and formula development with revision / status control, collaborative project mgmt

Accelerate Product Development

…Integrated Business Intelligence & Corporate Governance

Footprint: Natural Resources

	Attract and Retain Customers	**Drive Efficient Planning and Procurement**	**Optimize Manufacturing Operations**	**Maximize Asset Utilization**	**Accelerate Product Development**
Drivers / Challenges	• Renewed emphasis on innovating value-added services • Market-driven prices for raw materials and products • Commodity products • Lack of visibility into customer requirements • Field failures	• Globalization and competition driving companies to look to produce for the lowest total cost • Supply and demand volatility • Poor visibility into total purchasing spend	• Need to maximize profitability by producing and delivering the right product a the right time • Recipe instability and repeatability • Tracking materials through continuous processes	• High asset utilization needed for profitability • Need to increase fixed asset base to remain efficient • Unplanned / excessive asset downtime • Accidents and downtime caused by improper maintenance	• High demand for specialized and proprietary products • Industry consolidation and re-alignment • Product / BOM proliferation • Lengthy test and approval cycles

Oracle Enablers	*Marketing & Sales*
	  Marketing
	  Quoting, Proposals
	  TeleSales, Field Sales
	Order Fulfillment
	  Order Management
	  Advanced Pricing
	  Warehouse Mgmt
	  Transportation Mgmt
	Service
	  TeleService, iSupport
	  Interaction Center
		Planning
		  Collab Planning
		  Adv SC Planning
		  Demand Planning
		  Inv Optimization
		Procurement
		  Sourcing
		  PO Contracts
		  iProcurement
		  Purchasing
		  Services Procurement
		  iSupplier Portal
			Manufacturing
			  Mfg Scheduling
			  Process Mfg
			  - Recipe Mgmt
			  - Prod Scheduling
			  - Process Execution
			  - Cost Management
			  - Quality Management
			  - Inventory Mgmt
			  - Order Fulfillment
			  - Regulatory Mgmt
				Asset Management
				  Enterprise Asset Mgmt
				  Self-Svc Work Reqs
				  Field Service
				  Inventory Mgmt
				  Sourcing
				  Property Mgr (Fin)
				  Fixed Assets (Fin)
				  Project Management
				  Project Collaboration
					Product Lifecycle Mgmt
					  Adv Product Catalog
					  Recipe Development
					  (Process Mfg)
					  Sourcing
					  Project Management
					  Project Collaboration
					  Proj Resource Mgmt

Enterprise Infrastructure: Financials, Human Resources, Customer Data Management

Performance Management: E-Business Intelligence, Balanced Scorecard, Enterprise Planning & Budgeting

Corporate Governance: Internal Controls Manager, Financials, Tutor, iLearning

IT Infrastructure: Database Server, Applications Server, Systems Management, Development Tools

Services: Consulting, IT Outsourcing, Education, Support

Oracle's Natural Resources Capabilities

Evolution of Oracle Applications in Natural Resources

Base Differentiators…

- Product Development for Process Manufacturing
- Project Management
- Inventory Optimization
- Dual Unit of Measure
- Shelf-Life & Status Control
- Shift Level Reporting
- Workflow-Enabled Quality Management
- Lot Traceability
- Skills Database
- Asset Maintenance
- MES Integration APIs

New in 11i.9…

- Advanced Product Catalog
- Product Data Management via Process Parameters
- Collaborative Sourcing
- Enhanced Blanket Orders and Releases
- Validation Procedures
- Quality-Driven Lot Usage and Production Control
- Production Batch Record Keeping System
- Integrated Process Quality Workbench
- Integrated Maintenance and Production Planning
- Self-Service Work Requests

New in 11i.10…

- Procurement Contracts
- Retroactive Pricing in Purchasing
- Multiple Drum Receipt with Automatic Lot Numbering
- Mass Quality Control Result Entry
- Business Account Planning
- Integrated Sales Contracts
- Reserve Manufacturing to Sales Orders
- Transportation Management
- RFID-Based Transactions

Lower Total Cost of Ownership (TCO)

Run on a Single Global Instance
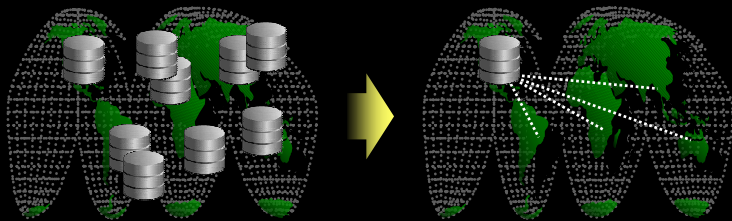
Consolidate Data Centers
and Databases

E-Business On Demand

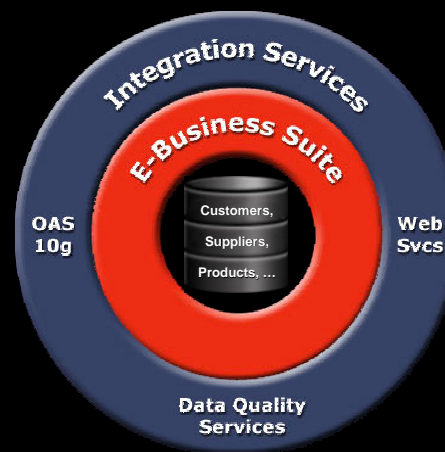| Roles:	Needs:	You Manage:	Oracle Manages:
App Admin	Availability		50% Lower Cost
DB/AS Admin	Security		50% Better Svc
Sys Admin	Performance		Core Competence
HW Admin	Change		Predictable Cost
	Problems		

Low Cost Linux Hardware

- 3x Faster, 5x Cheaper
- Easy to Automate en Mass
- Highly Reliable

Oracle's Experience with Linux

Production Midtiers	100% Linux
Production DB	RAC Cluster (Unix)
Demo Environments	100% Linux
Development	100% Linux
Outsourced Customers	70% Linux

Standardized Open Integration Platform

Integration Services

E-Business Suite

OAS 10g

Customers, Suppliers, Products, ...

Web Svcs

Data Quality Services

- Business Events Infrastructure
- Industry Standard Protocols
- Centralized Integration Repository

Simplify B2B Integration,
Application Connectivity,
and Process Management

Lower Total Cost of Ownership
Run on a Single Global Instance

Support Global Operations

- 30 Languages

- Multiple Currencies

- Customers in 100+ Countries

- All Languages Installable in Same Unicode Instance

- Support for Statutory and Customary Local Requirements

Customer
Case Studies

posco

- World's largest steel manufacturer - based in Korea
  - 50 plants for 76,000 hot and cold-rolled steel products

- Live on 11*i* -- single global instance
  - 7,500 users for Manufacturing, Order Management, Planning, iProcurement, Purchasing, CRM, Costing, Financials, HR
  - 30,000 transactional orders/day, 50,000 work orders/day
  - Over 1 million daily inventory and WIP transactions
  - Saves $120M annually with Oracle solution
  - Reduced customer inventory days by 20%, from 30 to 24
  - Increased on-time deliveries from 83% to 95%
  - Shortened new product development cycle by 63%

✓ **Increased inventory turnover from 8.7 times to 12 times**
✓ **Reduced delivery lead times 53%, from 30 days to 14 days**
✓ **Decreased sales/production planning time by 75%**

- $23B world's leading producer of aluminum
  - Includes discrete and process manufacturing, mining and utility operations
  - 39 countries, 350 manufacturing plants, 127K employees

- Live on 11*i* at 57 sites
  - Discrete & Process Manufacturing, Order Mgmt, Configurator, iProcurement, Supply Chain Planning, Financials, HR, Enterprise Asset Mgmt, Project Costing
  - No customizations, 96 days for initial implementations
  - Design partner for Enterprise Asset Management
  - 10K users performing 55K concurrent requests per day

- Requisition-to-pay business flow
  - Purchasing, Inventory, Project Costing, Financials (AP, GL)
  - 12-week deployment completed at 47 sites (single instance) in 6 months; 200 planned for next year
  - Also implementing order-to-cash business flow (25 sites live), Enterprise Asset Management (7 sites live) and Human Resources

ORACLE

- **Realized Business Benefits**
  - Implemented requisition-to-pay solution 20% below projected cost
  - Eliminated 43 legacy requisition-to-pay and finance systems
  - Reduced accounts payable transaction processing costs by 89%
  - Increased use of online procurement tool by 295%
  - Drastically reduced req-to-pay cycle times
  - Converted more than 10,000 monthly paper check payments to electronic
  - Enabled acquired company to be integrated in 120 days

- **Expected Business Benefits**
  - 25% inventory reduction
  - 15% productivity increase
  - 5% material cost savings
  - 15% cycle time reduction
  - 20% improvement in customer service

✓ **11i live at 57 sites with no customizations**
✓ **Req-to-Pay solution was implemented 20% under budget**

John I. Haas

- Premier producer of hops products used in beer brewing
  - Maintains global network of farms and plants; based in Washington, DC

- Live on 11*i* Order Management, Process Mfg, Financials, On Demand
  - Cut implementation time by 50%, cut cost by 31%
  - Implementing iProcurement, Advanced SC Planning, Internet Expenses, iStore, Financials, Financials & Sales Analyzer, E-Business Intelligence

"The Oracle solution's tight integration gives us immediate, real-time access to our orders, sales status and inventory and production levels and helps us plan to hit that very specific production target exactly."

– Alexander Barth, EVP of Supply Chain Mgmt

✓ **Reduced order entry time by 50%**

✓ **Saves $425K annually in IT operating & maintenance costs**

✓ **Cut monthly closing time by 25%**

CORRUGATED SERVICES LP

- $200M+ supplier of medium and liner paper for corrugated box manufacturers
  - 280 employees produce 900 tons per day of linerboard

- Live on Oracle 11*i*
  - Process Manufacturing, Order Management, Purchasing, Business Intelligence, Financials, iStore
  - Web-enabled orders processed for high-speed delivery
  - Measuring on-time deliveries, managing its warehouse, and processing orders with high efficiency

We're building an entirely automated process with Oracle. When we take an order, instead of processing it and shipping it in two to six weeks, it now happens in a matter of hours. In a commodity business like ours, it's customer service like this that distinguishes us from our competition. It's the kind of thing that completely accelerates our lead over everyone else."   -- Forest Felvey, CEO

✓ **Ensured that 60% of orders are delivered within 7 days**

✓ **Reduced order cycle times from weeks to hours while reducing errors**

- Fast growing natural resources company based in New Zealand
  - Core business in mining, marketing, and distributing over 3.3 million tons of coal annually
  - $100M+ revenues. 500+ employees

- Live on 11*i*
  - Balanced Scorecard, Financials and Sales Analyzer, Financials, Maintenance Management, Projects, Order Mgmt, Purchasing, iProcurement

"The new Oracle tools give Solid Energy the functionality we need to make better decisions about overhaul and replacement of assets, preventive maintenance routines, and rationalization of spare parts and rotables. By ensuring we have accurate records of maintenance and expenditure on assets, we can determine the condition of assets at any given time and identify a poorly designed plant so it can be redesigned."

-- Warren Maslin, Chief Financial Officer

✓ **Decreased costs by improving asset maintenance & productivity**

✓ **Provides managers easy access to comprehensive information**

Oracle Natural Resources Solutions

Attract and Retain Customers

Drive Efficient Planning and Procurement

Optimize Manufacturing Operations

Maximize Asset Utillization

Accelerate Product Development

ORACLE®
Information Age Applications