

SOSE!
ERP
Enterprise Resource Planning
Presentation

Definition Of ERP

Software solution that addresses all the needs of an enterprise with the process view of an organization to meet the organizational goals and integrate all the functions of the enterprise

What is ERP ?

- Facilitates Company-wide integrated Information Systems Covering all functional Areas.
- Performs core Corporate activities and increases customer service augmenting Corporate Image.
- Organizes & Optimizes the data input methodologies systematically.

Evolution of Business Applications

- **MIS** - **Management Information Systems**
Decision Support - No
- **IIS** - **Integrated Information Systems**
No Decision Support - No
- **EIS** - **Executive Information Systems**
Decision Support - Yes
- **CIS** - **Corporate Information Systems**
Decision Support - Yes
- **EWS** - **Enterprise Wide Systems**
Decision Support - No
Logistics are considered as a part of system

Evolution of Planning Systems

- Materials Requirement Planning (MRP)
- Manufacturing Resource Planning (MRP II)
- Enterprise Resource Planning (ERP)

Other terminologies are :

- Money Resource Planning (MRP III)
- Supply Chain Management
- Value Chain Management

Is It Only a Jargon ?

No. MRP and MRP II were there for a long time.

ERP is an enhancement over these.

It is true that Year 2000 problem accelerated the sales and acceptance of ERP.

Introduction of ERP provides you a chance to have a new look at your working.

Is It Going to be there long?

Yes and No.

ERP will be there for a long time, if you are willing to upgrade to new versions with new features as and when they are released in the market

Your ERP may still work after a long time without enhancements, if your company is not growing!

Moral : Upgrading the systems are a must!

Can We wait ?

Wait if you have :

- Good systems running.

- No immediate threat of Y2K, Euro and other known/unknown problems.

- No management commitment.

- Financial problems.

Do not wait if you have :

- Tough competition in the market.

- Multiple location operations.

- Plans to grow Globally.

- Management Commitment for change.

Why ERP ?

Profitability

You have Two Choices :

Increase in sales - Say 30%

OR

Reduce Procurement Cost - say by 5-10 %

What IT Dept. shall look into?

- Automatic Identification System
- Hardware & Networking
- Software DBMS/RDBMS
- Communication
- ERP
- Supply Chain Management
- EDI
- Intranet
- Internet

For Healthy Operations

- Integration of Systems across the Functional Departments in a Company as well as across the Enterprise as a Whole.
- Better Customer Service.
- Introduction of Latest Technologies as and when they are ready for the Industry acceptance
- Expertise database
- Avoids data redundancy

Competition In the Market!

Manufacturing Challenges.

Manufacturing Globally.

Distribution network spread.

New Product introduction.

Lower manufacturing lead time.

Focus on industry markets.

Satisfying the needs of customers.

Develop specific business methods and processes.

Integration with third party products.

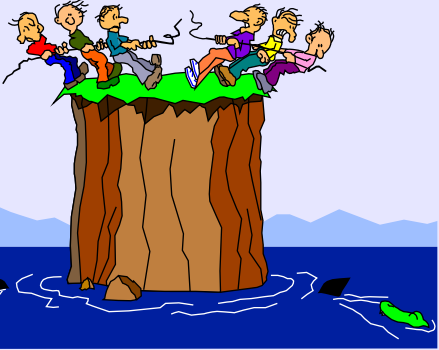
Demands on the Industry

- Better products at lower costs
- Tough competition
- Need to analyze costs / revenues on a product or customer basis
- Flexibility to respond to changing business requirements
- More informed management decision making

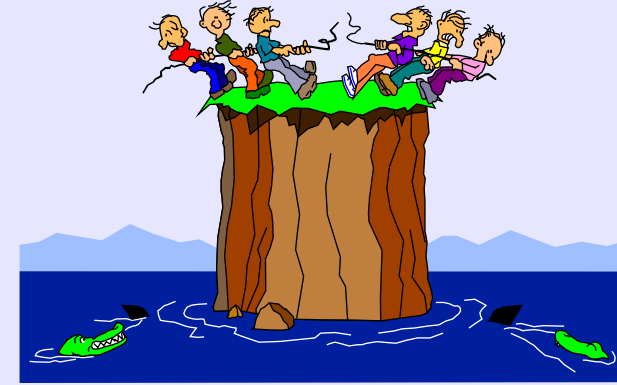
What are your Problems ?

- Unable to get accurate, timely information
- Applications not complete for existing business practices
- Modifications are time consuming or not feasible

A Typical IT Story

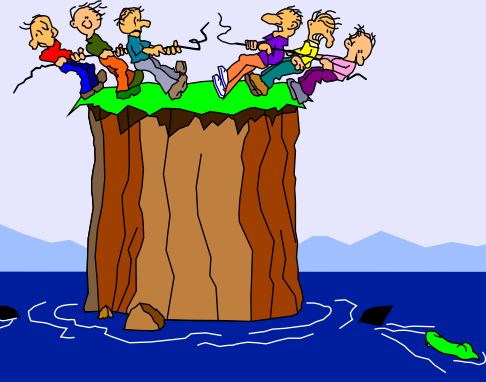


**Manufacturing
location 1**

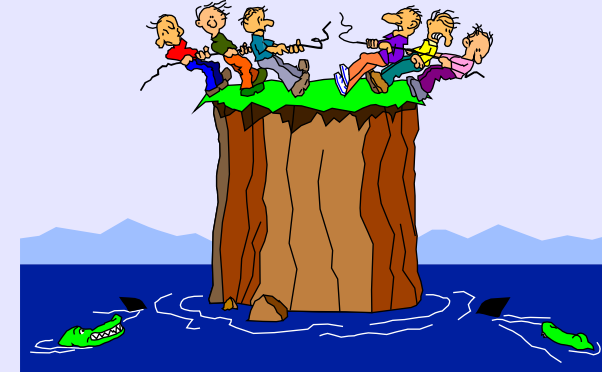


Finance

**Corporate
office**



Sales Group



**Manufacturing
location 2**

ERP - The Kick starter!

What is that ERP enables ?

Systematic Look into your Systems & procedures

Optimizing the processes

Enables you to adapt yourself to new technologies

Discipline across the functions

What does ERP integrate ?

- Database
- Applications
- Interfaces
- Tools

What drives ERP ?

- **Business**
 - **Customer Satisfaction**
 - **Business Development - new areas, products, services**
 - **Ability to face competition**
 - **Efficient processes required to push the company to top gear**
- **IT**
 - **Present Software does not meet business needs**
 - **Legacy systems difficult to maintain, Y2K Problem , Euro currency**
 - **Obsolete hardware/software difficult to maintain**

Problems Taken Care of

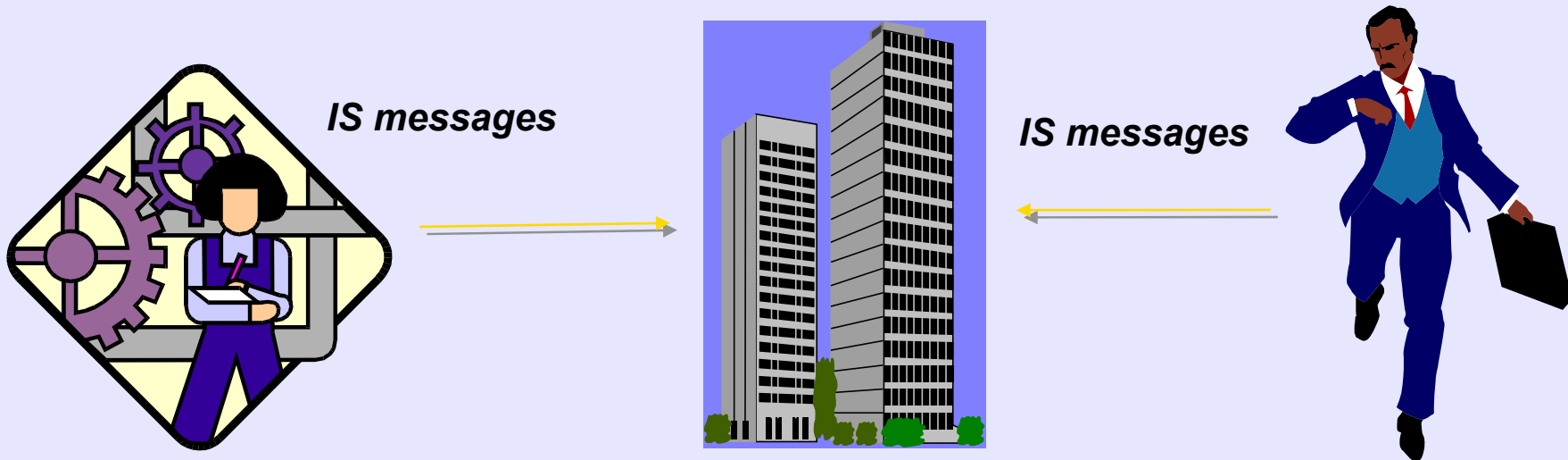
- Availability check at the time of Accepting Sales order
- On-line Material Status & Shortages
- Productivity Enhancements
- Material Planning
- Customer Service
- Cash Management
- Inventory
- Quality

Subsystems of ERP

- **Logistics**
- **Bill Of Materials**
- **Sales & Marketing**
- **Master Scheduling**
- **Materials Requirement Planning**
- **Capacity Requirements Planning**
- **Purchasing**
- **Shop Floor Control**
- **Accounts Payable/Receivable**
- **HR**

Understanding ERP

Integration of Information Systems



Manufacturing

- Local purchasing, invoice verification
- Inventory management
- Internal sales, shipping and billing
- Profit/loss
- Capacity utilization

Head Quarters

- Information Systems:
- Project Mgmt
- Inventory
- Purchasing
- Sales
- Budget
- Cash Management

Marketing/Sales

- Sales, shipping and billing
- Purchasing of trading goods
- Inventory Management
- Customer service

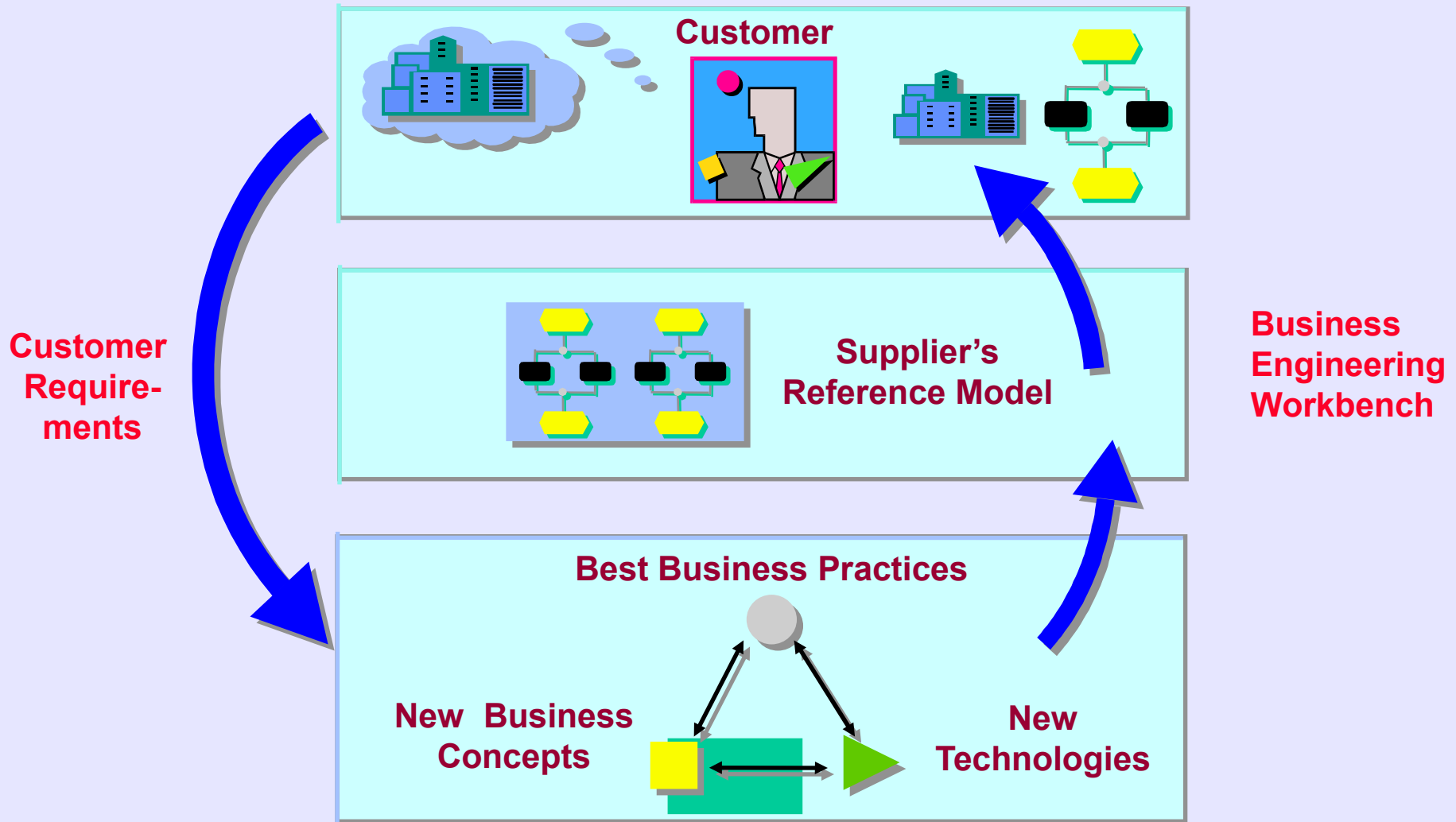
Definition of Business Intelligence

Any tools enabling people to make better decisions and thus improve their business processes

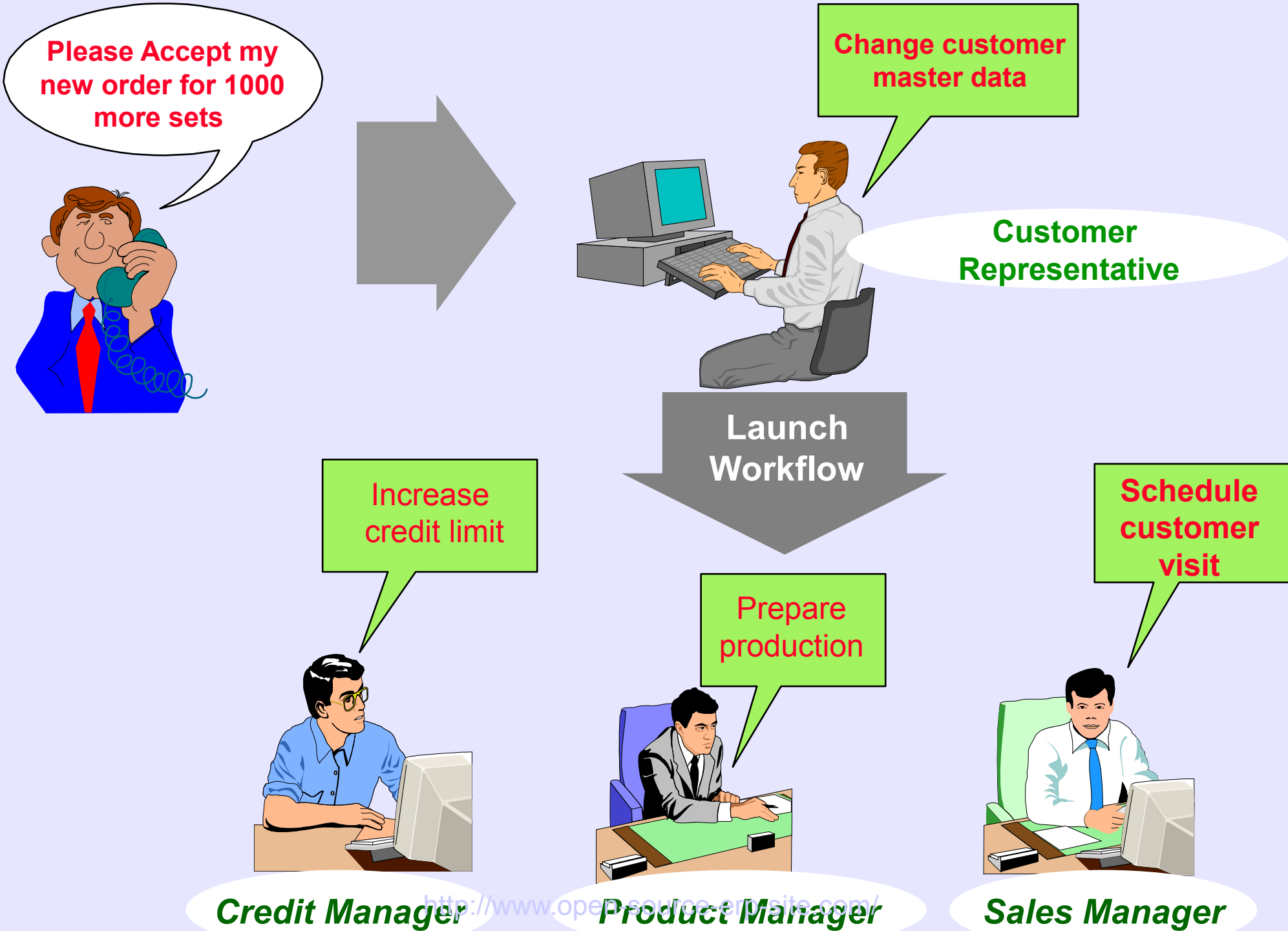
Examples:

- Decision support systems (DSS)
- Executive information systems (EIS)
- Reporting
- Data mining
- Early warning systems (robots)

Enabling Best Business Practices



Changes of Customer Information



The Integrated Supply Chain

Control

Finance

Capital

Costs

Profit/Loss

Balance sheet

*Procurement
market*

Purchasing

Production

Sales.

Machines

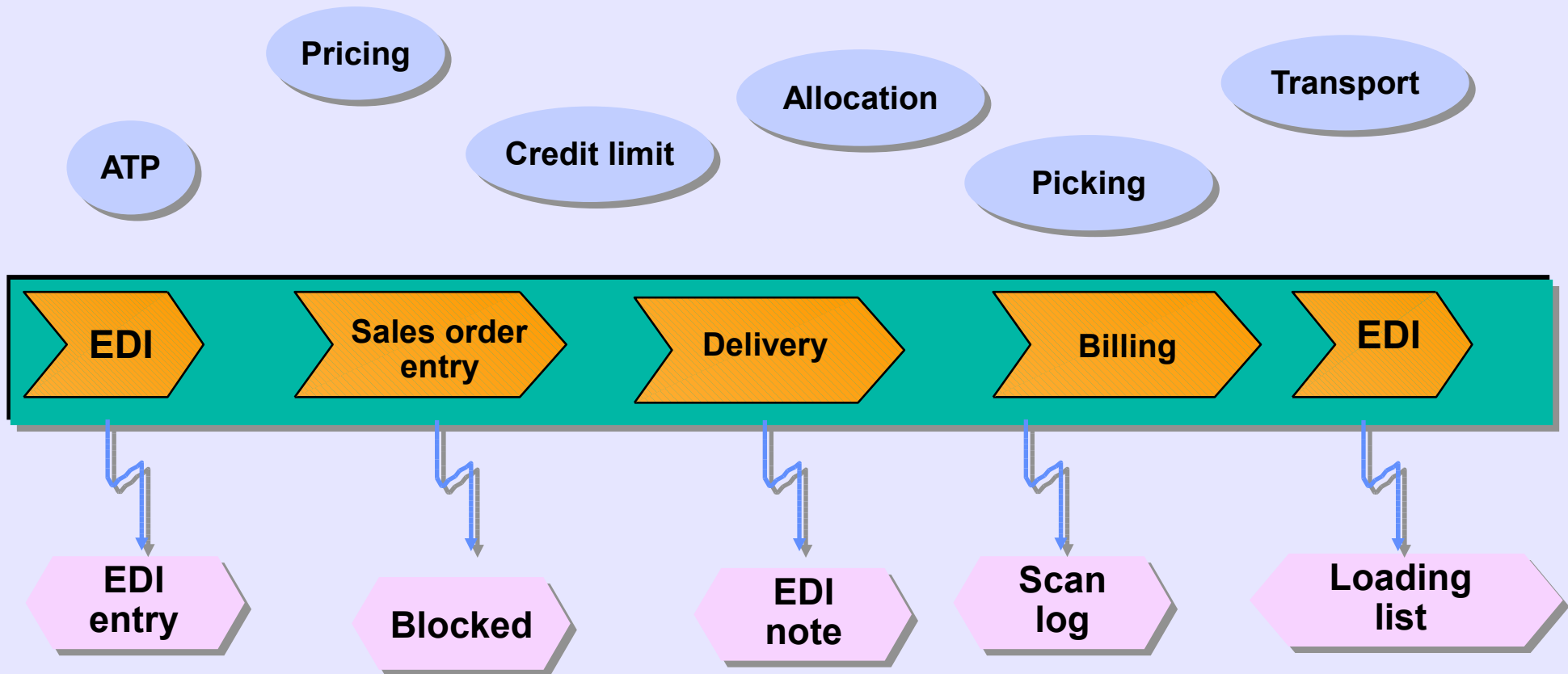
Operating resources

Human resources

Managing Resources

Process Automation and Lead Time

Standard functions



**Workflow for
exception handling, Trigger for mail, transactions,
EDI**

Go Ahead with ERP

- **Business Process Re-Engineering (BPR)** is an in-depth study of existing systems/processes is required before ERP is considered.
- This study brings out deficiencies of the existing system/process.
- This study is called BPR
- BPR attempts to re-structure and re-organize the human resources, functional areas, Man-Machine interfaces in the organization.
- Hence BPR attempts to maximize productivity

Re-engineering

- Study the current system & Processes
- Design and develop new systems
- Define Process, organization structure, procedures
- Develop/Customize the software
- Train people
- Implement new system

ERP without Re-engineering

- **Advantages**

- No visible changes in Functionality
- Users find it more acceptable
- Can be completed within time frame.
- Cost can be with in your control
- Impact on Organization will be moderate

- **Disadvantages**

- Best Business practices would have been ignored
- Stability of the system is known only in long run
- May not achieve Corporate wide systems integration
- New technologies have to be studied your self
- Some functionality may be lost

Re-Engineering -a part Life with ERP!

- Re-engineer process before going for ERP
- Re-engineer during implementation of ERP
- Re-engineer after implementing ERP
- Continuous re-engineering through ERP

If It is a Big Change, don't do it!

If the Modifications are small and important to the business, you may customize and implement.

If the proposed changes are more, discuss with all concerned . Else you may be going towards a dead-end!

The USA Principle

- Understand, Simplify, Automate

**Understand
Existing
Practices**

Diagramming
Story-boarding
Brain storming

**Simplify
Processes
by
Eliminating waste**

Eliminating
Combining
Rearranging

**Automate
the
Process**

EDI
ERP

ERP Selection

- Check whether all functional aspects of your Business are covered
- Check whether all the business functions and processes are integrated
- Check whether all latest IT trends are covered
- Check whether the vendor has customizing & implementing capabilities
- Check the Service options available
- Check your purse & calculate ROI

do not start without Management commitment
Prepare Base for ERP

allocate sufficient funds

Identify Core Project Team

Select specialists from all functional areas

Evaluate and select ERP package

Evaluate Implementation Partner

Make an Implementation Plan

Present plan to Management Committee for sanctions

Present plan to Employee groups for feedback/acceptability

Plan for User Training

Plan for Future upgrades

Define Requirements

- Determine the hardware required
- Analyze the existing Processes
- Fine tune the processes to be in line with those of ERP defined
- Analyze effect of system changes.
- Prototype and present
- Refine the prototype & freeze the specifications

ERP Implementation

- Commitment from Management
- Form a task force with personnel from all functional Areas
- Take care of Hardware requirements
- Step-by-step rather than big-bang introduction
- Be patient. ERP implementation takes Time.

ERP Involves

- **Project Planning**
- **Business & Operational Analysis, including Gap Analysis**
- **Business Process Re-engineering (BPR)**
- **Installation & Configuration**
- **Project Team Training**
- **Business Requirements Mapping to Software**
- **Module Configuration**
- **System Modification and Interfaces**
- **Data Conversion**
- **Custom Documentation**
- **End User Training**
- **Conference Room Pilot**
- **Acceptance Testing**
- **Production**
- **Post-Implementation Audit/Support**

Implementation Approach

Phase	Tasks	Deliverables
<p>Detailed Discussions</p>	<ul style="list-style-type: none"> ■ Project Initialization ■ Evaluation of current processes, business practices, requirements ■ Set-Up Project Organization 	<ul style="list-style-type: none"> ■ Accepted norms & Conditions ■ Project Organization Chart ■ Identify Work Teams
<p>Design & Customization</p>	<ul style="list-style-type: none"> ■ Map Organization ■ Map Business Processes ■ Define Functions and Processes ■ ERP S/w Configuration ■ Build ERP System Modifications 	<ul style="list-style-type: none"> ■ Organization Structure ■ Design Specification ■ Process Flow Diagrams ■ Function Model ■ Configuration Recording ■ Systems Modification
<p>Implementation/ Prepare to Go Live</p>	<ul style="list-style-type: none"> ■ Create Go-Live Plan & Documentation ■ Integrate Applications ■ Test the ERP Customization ■ Train Users 	<ul style="list-style-type: none"> ■ Testing Environment report ■ Customization Test Report ■ Implementation Report
<p>Production/ Go Live</p>	<ul style="list-style-type: none"> ■ Run Trial Production ■ Maintain systems 	<ul style="list-style-type: none"> ■ Reconciliation Reports ■ Conversion Plan Execution

Advantages Of ERP



Advantages Of ERP Package

- **Highly Graphics based User Interface.**
- **Zero Down time/ planned down time.**
- **Readymade solutions for most of the Problems.**
- **Only Customization required.**
- **Integration of all functions ensured.**
- **ROI earlier than the software developed in-house.**
- **Easy enterprise wide information sharing.**
- **Suppliers and Customers can be on-line communication.**
- **Knowledge transfer between industries guarantees innovation.**
- **Automatic adaptation to new technology.**

Decide Make Or Buy !



**Project Development takes time .
Reinventing the wheel.**

**Ready made Projects.
Needs only customization**

**Process specific to your industry
are implemented**

Best Business practices followed

Documentation may not be present

Documentation is part of system

**EDI implementation modifications
to be taken care of**

EDI Compatible. Universally accepted

**Enterprise implementation is
difficult as each unit follows
different S/W option**

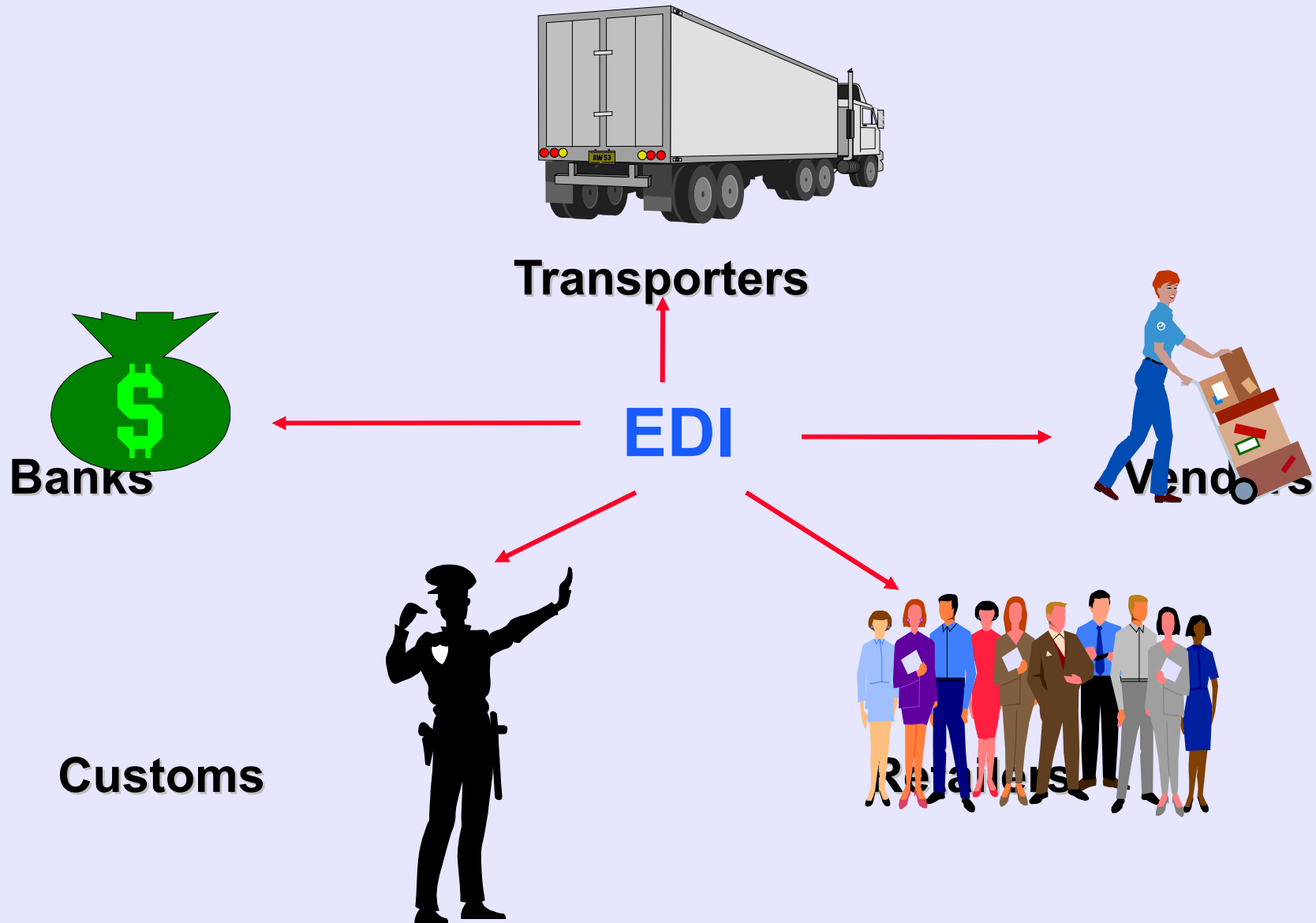
**The package itself is designed as
Enterprise Package.**

**Latest Developments to be studied
as and when they are introduced.**

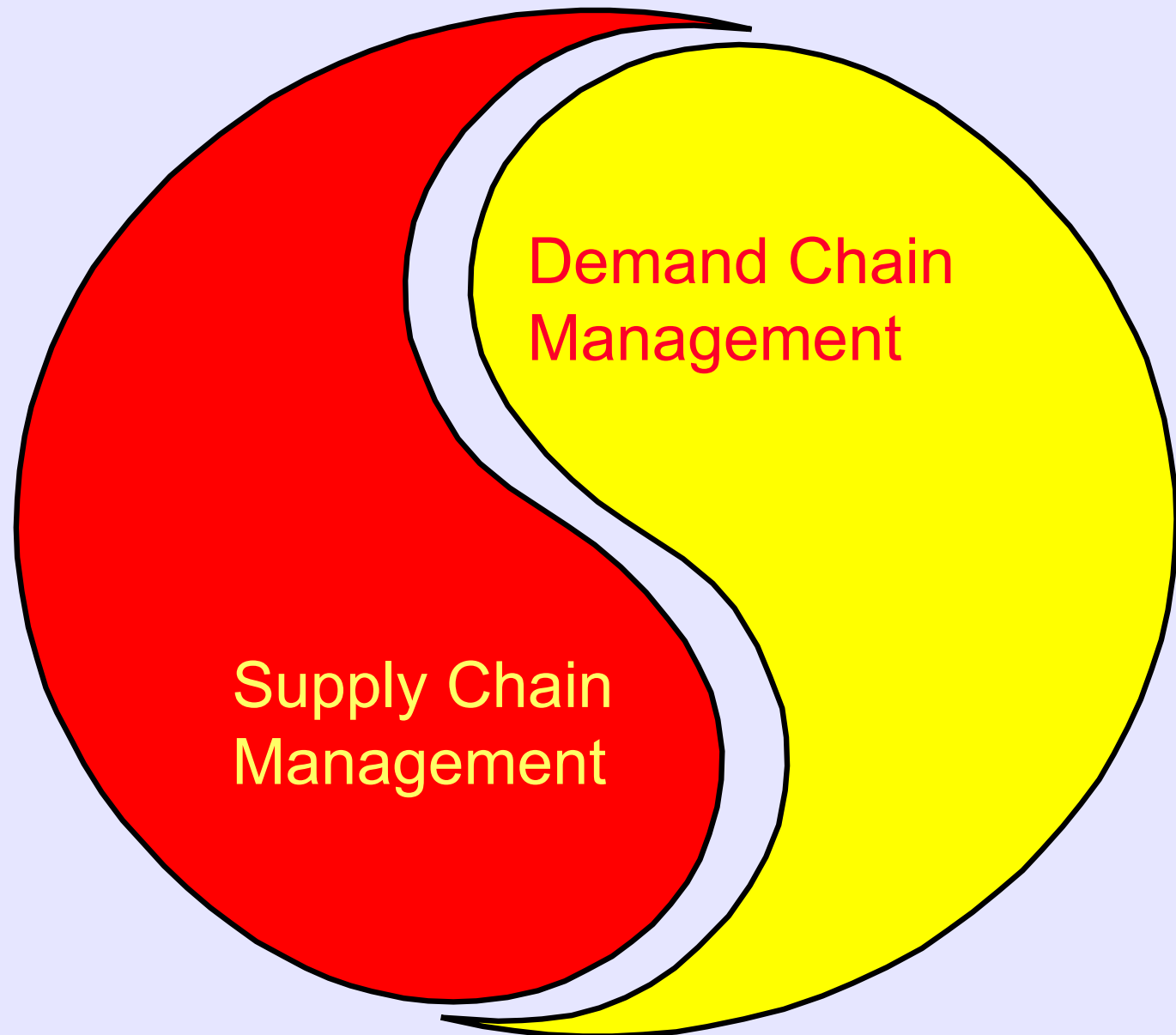
**Constant Updates on Technology
and Processes assured**

Embrace New Technologies

Electronic Data Interchange



Value Chain Management



Summary

- Optimum utilization of resources
- Customer satisfaction
- Seamless integration between Functions
- Reduced overheads & inventory
- Timely responsiveness
- Market share & image enhancement
- Faster design to manufacturability
- Keep up with technology changes
- Only way for integrated systems for a client with multiple locations