

What is ERP and Business Process Enterprise Resource Planning -ERP



**Certified
Management
Accountants**



What is ERP?

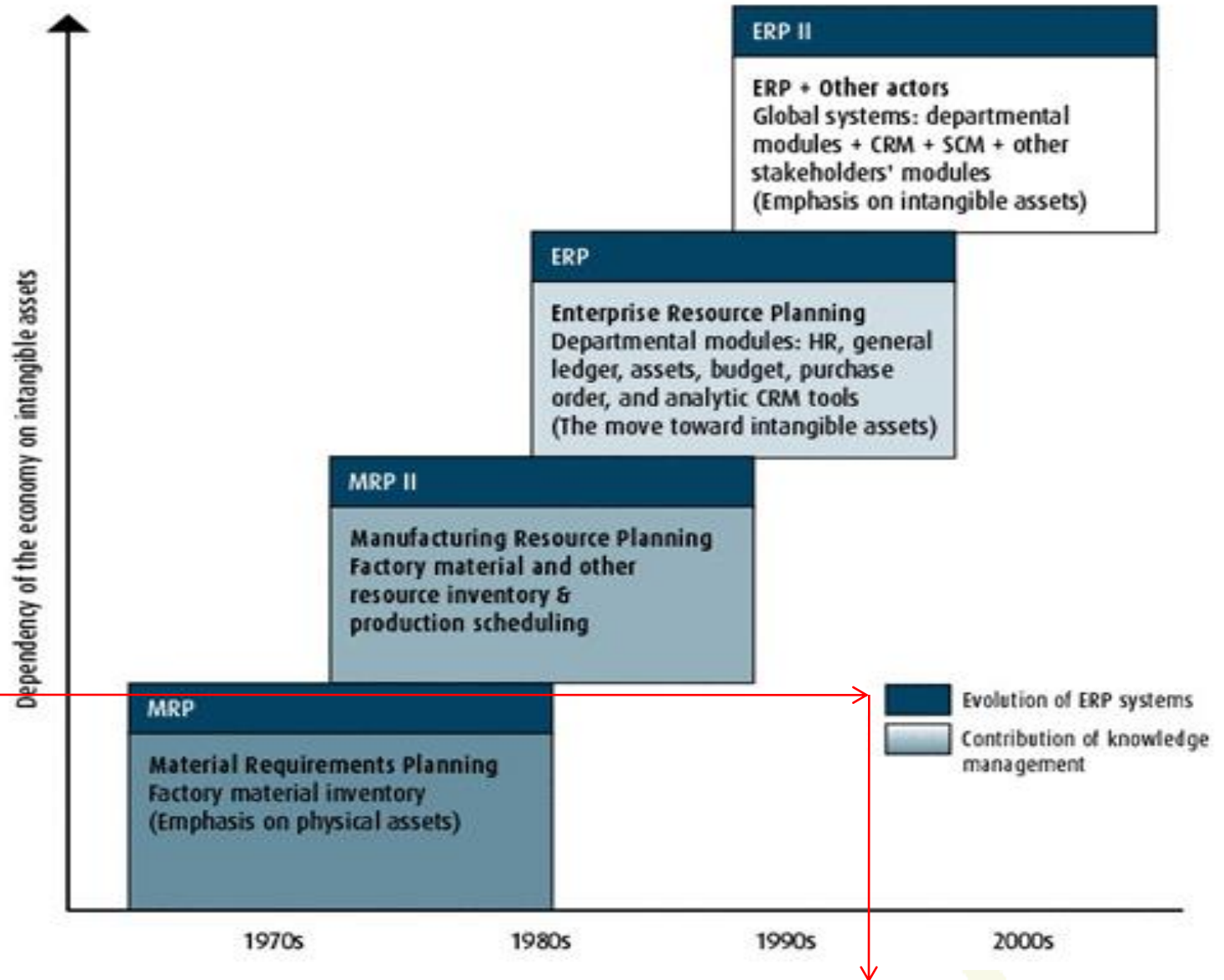
- The practice of consolidating an enterprise's planning, manufacturing, sales and marketing efforts into one management system.
- Combines all databases across departments into a single database that can be accessed by all employees.²
- ERP automates the tasks involved in performing a business process.¹

Sources:

1. http://https://en.wikipedia.org/wiki/Enterprise_resource_planning, viewed September 19, 20012
2. CIO Enterprise Magazine,

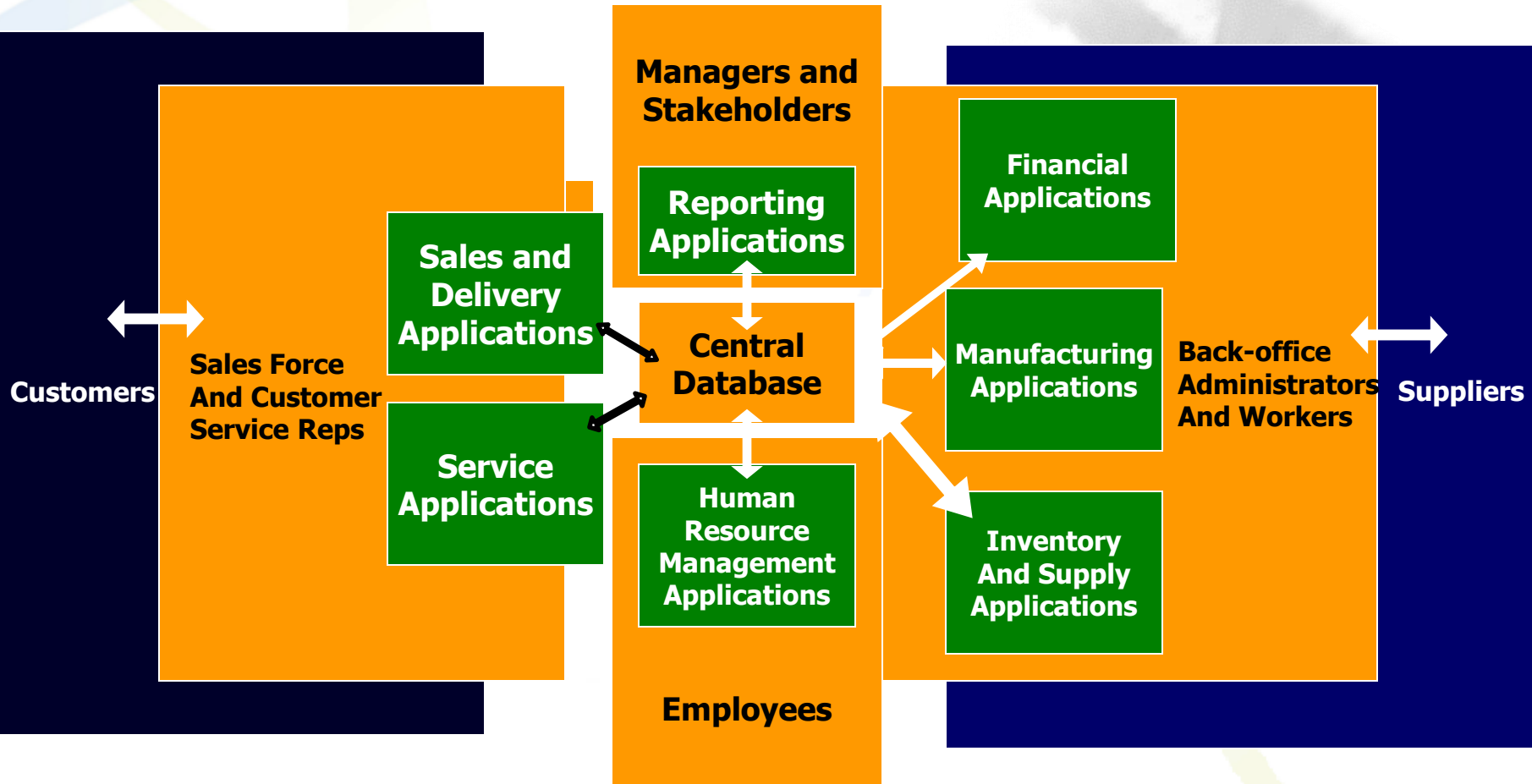
CIG with ERP Evolution from 1995

CIG start early
ERP from 1995



CIG 1995

How Do ERP Systems Work?



• Finance: modules for bookkeeping and ensure the bills are paid on time. Example

- General ledger
- Accounts receivable
- Accounts payable



• HR: software for handling personnel-related tasks for corporate managers and individual employees. Examples:

- HR administration
- Payroll
- Self-service HR

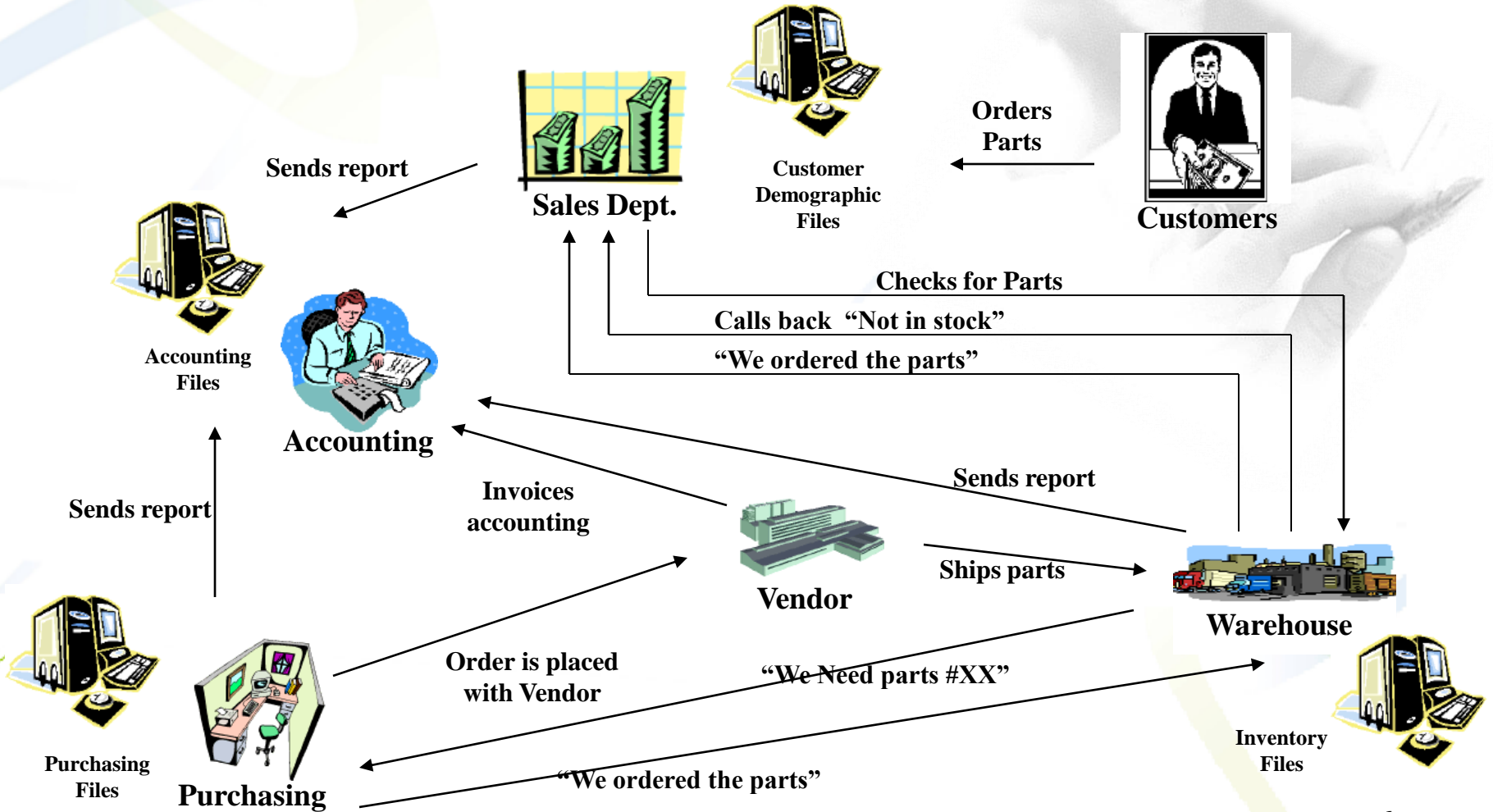


Manufacturing and Logistics: A group of applications for planning production, taking orders and delivering products to the customer.

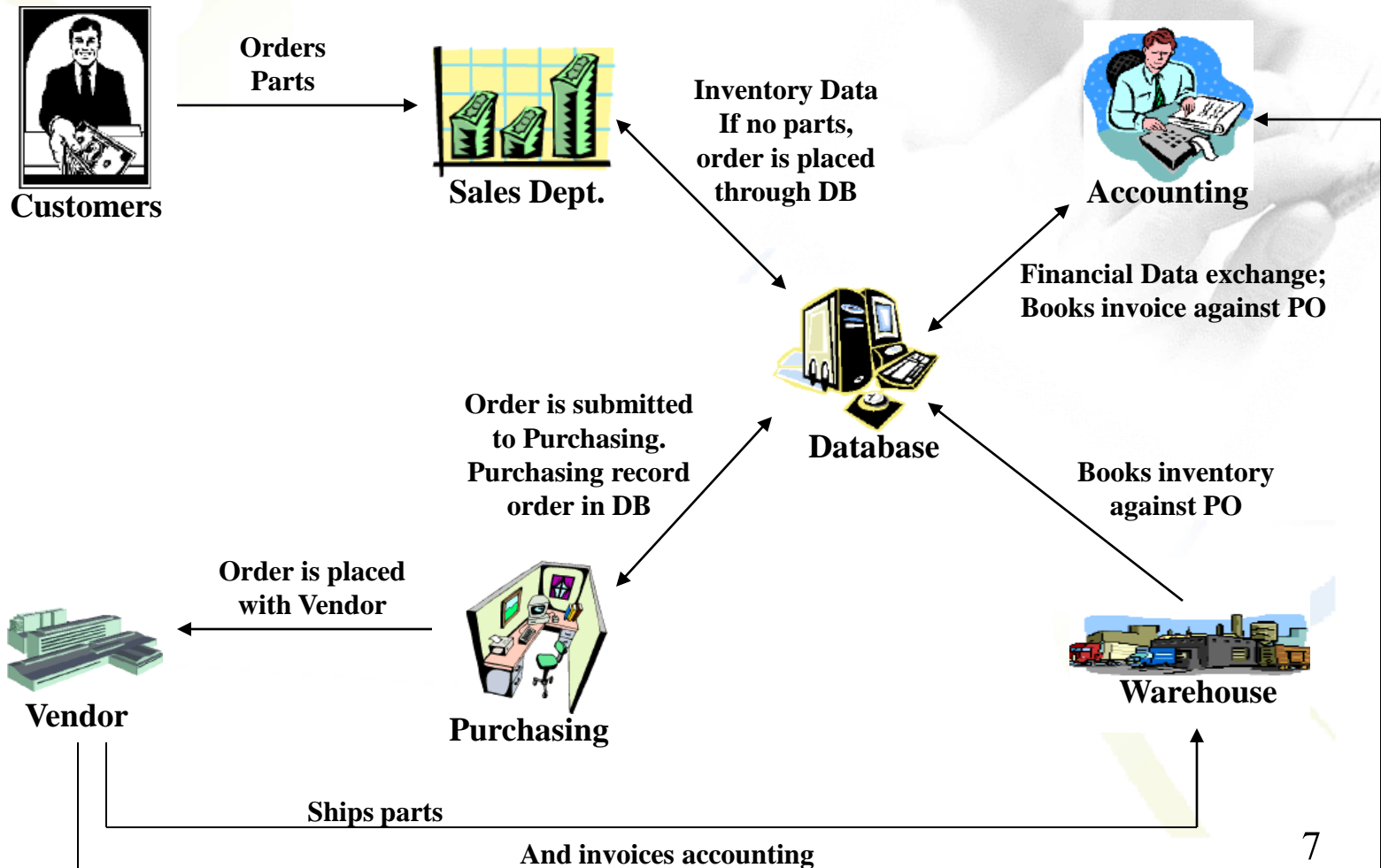
Examples:

- Production planning
- Materials management
- Order entry and processing
- Warehouse management

An ERP Example: Before ERP

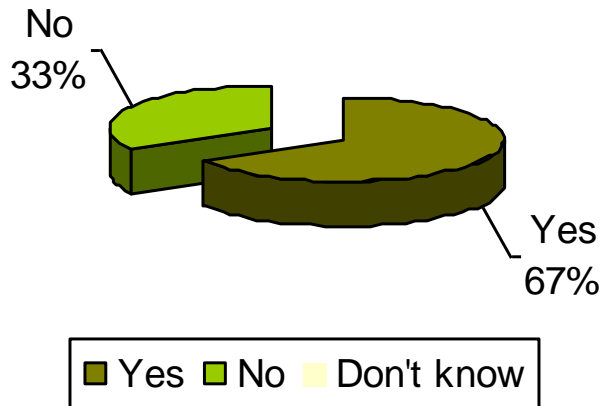


An ERP Example: After ERP



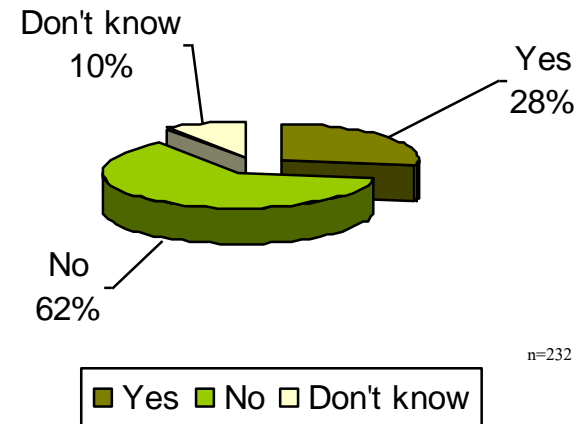
ERP Investments

Have ERP today?



Source: [CIG](#) Research Survey of 686 companies with annual revenues ranging 2016

Will install next year?



Why ERP?

3 Major Reasons:

- To integrate financial data.
- To standardize manufacturing processes.
- To standardize HR information.

ERP Project and Time

- Real transformational ERP efforts will usually run between 1 to 3 years, on average.
- Short implementations (3 to 6 months):
 - small companies,
 - implementation limited to a small area of the company, or
 - the company only used the financial pieces of the ERP system.
- The important thing is not to focus on how long it will take but to understand why you need ERP and how you will use it to improve your business.

Total Cost of Ownership of ERP

Total cost of ownership (TCO) is a model developed by **CIG** Group to analyze the direct and indirect costs of owning and using hardware and software. TCO essentially helps a company determine whether it wins or loses from specific technology implementations.

CIG R&D study among 63 companies surveyed showed that:

- the average TCO was 1.0L.E million
(the highest was 300.00 L.E million and lowest was 400.00 k L.E),
- the average TCO per user was L.E 10.5
- It also found that:
 - it took 8 months after the system was in to see any benefits,
 - but that the median annual savings from the system was 1.6 L.E million per year

Hidden Costs of ERP

- Training
 - Integration and testing
 - Data conversion
 - Data analysis
 - Consultants
 - Replacing best and brightest staff after implementation
 - Implementation teams can never stop
 - Waiting for ROI
- Post-ERP depression

Benefits of ERP Systems

- Improving integration, flexibility
- Fewer errors
- Improved speed and efficiency
- More complete access to information
- Lower total costs in the complete supply chain
- Shorten throughput times
- Sustained involvement and commitment of the top management

Benefits of ERP Systems (cont'd)

- Reduce stock to a minimum
- Enlarge product assortment
- Improve product quality
- Provide more reliable delivery dates and higher service to the customer
- Efficiently coordinate global demand, supply and production

Best Practices and what ERP holds for the Future



ERP Implementation

- Biggest IT project that most companies ever handle,
- Changes the entire company,
- Has repercussions in all departments and divisions of the organization.
- It is essential that all the key players understand the scope of the project.
- This is an **IT-Related** Project.

Best Practices of ERP Implementation

- A Business Strategy aligned with Business Processes
- Top-Down Project Support and commitment
- Change Management
- Extensive Education and Training
- Data Clean up and Data Integrity
- Implementation is viewed as an ongoing process

Best Practices of ERP Implementation

- A Business Strategy aligned with Business Processes
 - Business strategy that will give you a competitive advantage
 - Analyze and map your current business processes
 - Develop your objectives
 - Evaluate your business strategy and ERP plan before you commit to software acquisition and installation.

Best Practices of ERP Implementation

- Top-Down Project Support and commitment
 - CEO
 - support implementation costs
 - champion the project, and
 - demand full integration and cooperation.
 - Most knowledgeable and valuable staff

Best Practices of ERP Implementation

- **Change Management**

- Changes in business procedures, responsibilities, work load.
- As a result, ERP implementations are times of high stress, long hours, and uncertainty.
- Mid-level managers must
 - facilitate continual feedback from employees,
 - provide honest answers to their questions, and
 - help resolve their problems.

Best Practices of ERP Implementation

- Extensive Education and Training
 - General education about the ERP system for everyone.
 - Massive amount of end users training before and during implementation.
 - Follow-up training after the implementation.
 - 10 to 15% of total ERP implementation budget for training will give an organization an 80% chance of a successful implementation.

Best Practices of ERP Implementation

- Data Clean up and Data Integrity
 - Clean-up data before cut-over.¹
 - “Near enough is no longer good enough.”²
 - To command trust, the data in the system must be sufficiently available and accurate.³
 - Eliminate the old systems, including all informal systems.³

Best Practices of ERP Implementation

- Implementation is viewed as an ongoing process
 - Ongoing need for training and software support after implementation.
 - Ongoing need to keep in contact with all system users and monitor the use of the new system.
 - Ongoing process of learning and adaptation that continually evolves over time.

ERP Implementation Phases

4 Major Phases:

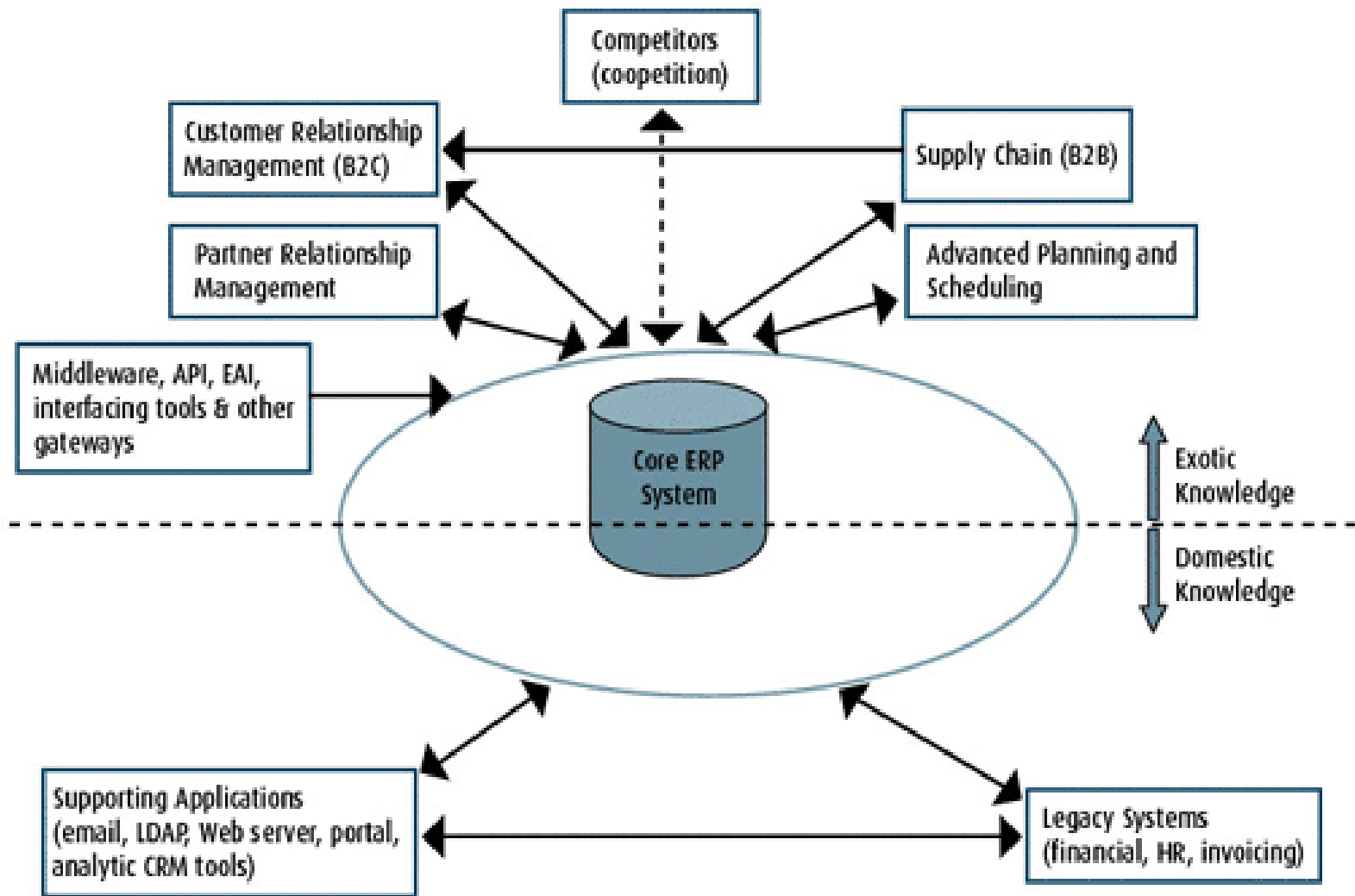
- Concept/initiation
- Development
- Implementation
- Closeout/Operation and maintenance

Conclusion

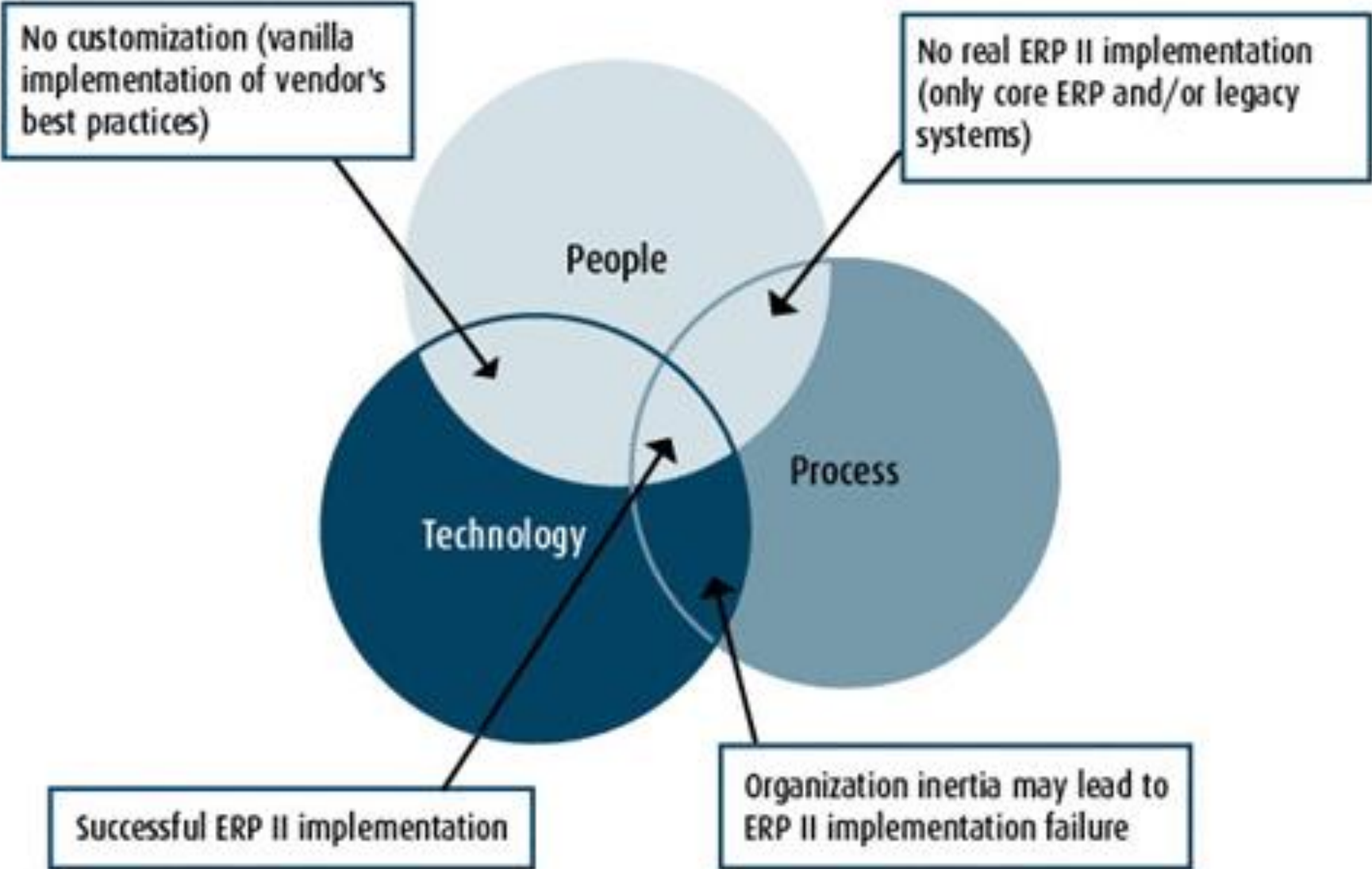
- The benefits of a properly selected and implemented ERP system can be significant.
 - An average, 25 to 30% reduction on inventory costs; 25% reduction on raw material costs.
 - Lead-time for customers, production time, and production costs can be reduced.
- BUT cost of implementing can be quite high and risks are great.

The Future of ERP

ERP II Architecture



ERP II: A Revolutionary Change



Conclusion

- To achieve competitive advantage in the global economy, organizations are extending their ERP system beyond the firm.
- Future growth of the industry lies in adding extensions.
- Integration, scalability and flexibility issues.

End

Thank You

Please read our profile and ERP benefits

