Chapter 3

Enterprise Management Systems

Enterprise Management System

- EMS is concerned with control, monitoring and the management of IT infrastructure and applications in order to optimize IT service delivery in Company.
- EMS is wide information system designed to coordinate all the resources, information and activities needed to complete business processes.
- Enterprise – an entire company, everything, all-inclusive
- Management – The monitoring and controlling of entities
- Systems – Information Technology Infrastructure, hardware and software, data, information, and processes

Enterprise Software

- Enterprise software is any software used in large organizations (whether business or government).
- It is considered to be an essential part of a computer-based information system, and it provides business-oriented tools such as online payment processing and automated billing systems.
- Enterprise software is also referred to as enterprise application software.

Enterprise Resource Planning

- ERP is business process management software that allows an organization to use a system of integrated applications to manage the business and automate back office functions.
- ERP software integrates all facets of an operation, including product planning, development, manufacturing processes, sales and marketing.
- Some of ERP's functions include:
  - Bookkeeping & Accounting
  - Human Resource Management
  - Planning Production
  - Supply Chain management

ERP Components

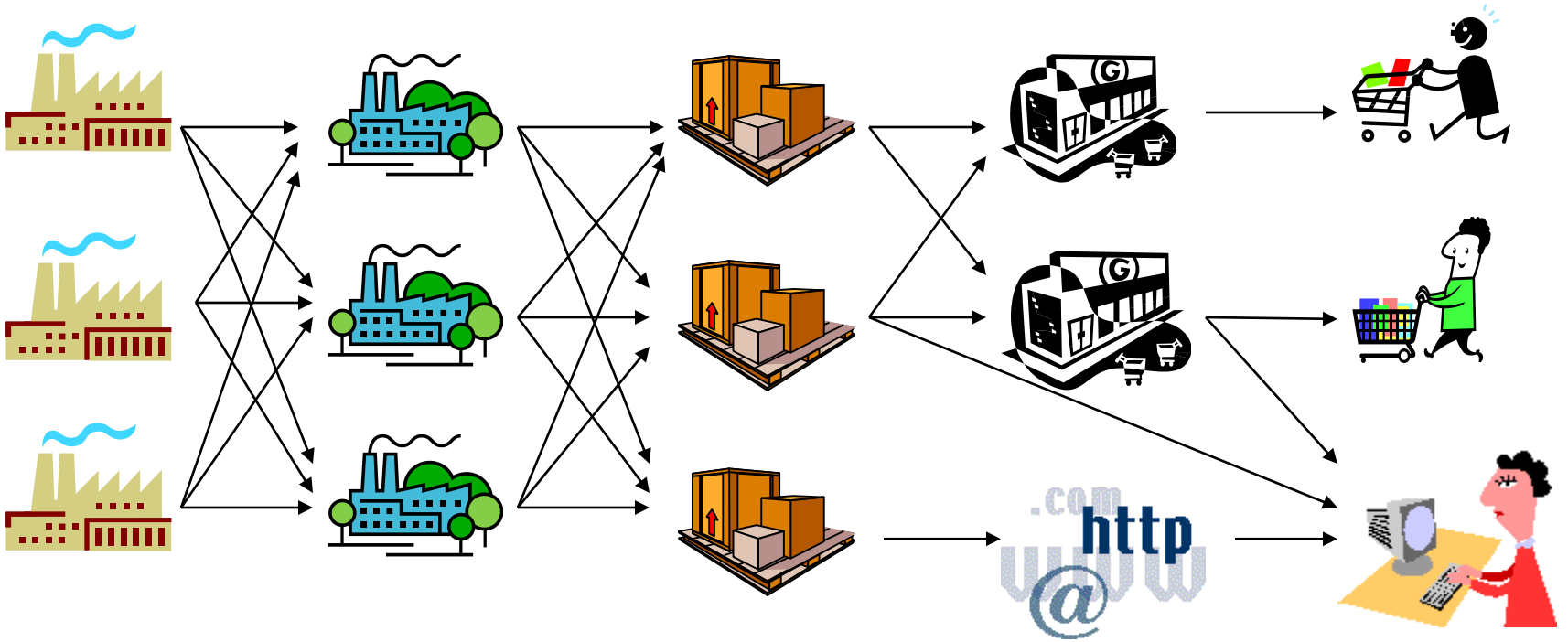
Enterprise Resource Planning Software

- It helps an organization to integrate information flows, operations and processes all resources accessible, for example, materials, work force, machine and money.
- The focus of ERP is on resource management within constraints to maximize the return on investment.
- These data are then stored in a unified database, which are the key for the success of this software solution.
- The ERP package design is built on the principle of Best Practices.
- ERP Software: SAP, Supply Chain Management, CRM

Supply Chain

- A **supply chain** is the system of organizations, people, activities, information and resources involved in moving a product or service from supplier to customer.
- Supply chain activities transform raw materials and components into a finished product that is delivered to the end customer.

Supply Chain

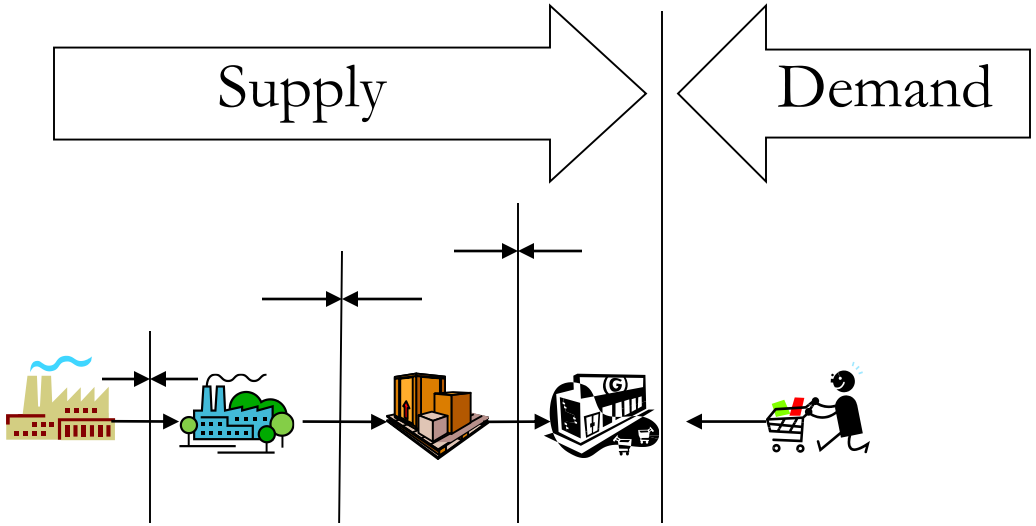


Supplier → Manufacturer → Distributor → Retailer → Customers

Supply Chain Management

Supply Chain Management is

the design and management of processes
across organizational boundaries
with the goal of matching supply and demand
in the most cost effective way.

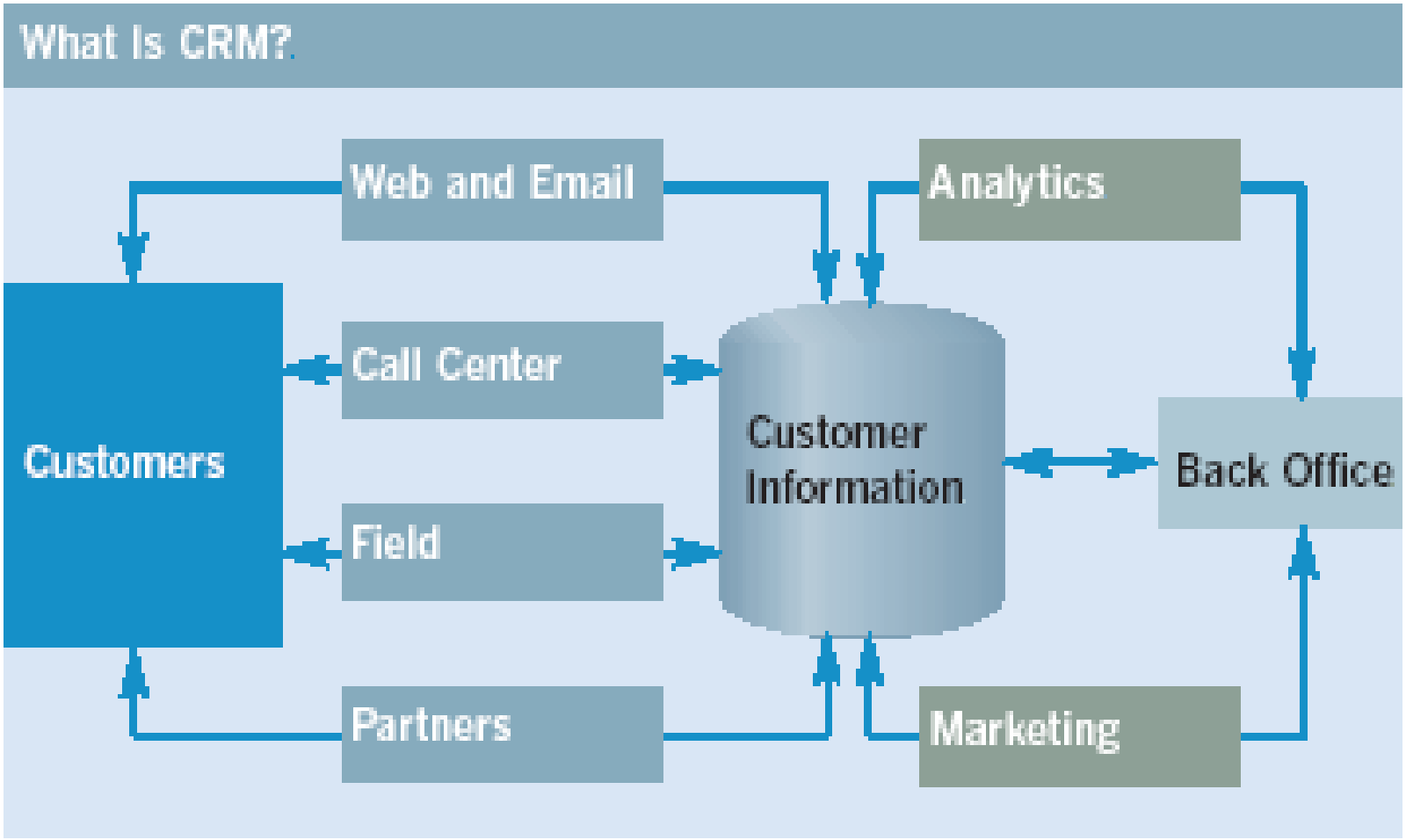


Matching Supply and Demand

Customer Relationship Management

- Customer Relationship Management is a strategy for managing all your company's interactions with current and prospective customers.
- CRM formation of *bonds* between a company and its customers.
- CRM enables your company to increase productivity, close more business, and improve customer satisfaction and retention.

Model of Customer Relationship Management



CRM Strategies

Customer Retention Marketing Techniques

- Customization: Changing the product according to user preferences
- Customer co-production: Allows the customer to interactively create the product
- Customer service tools include:
  - Frequently asked questions
  - Real-time customer service chat systems
  - Automated response systems

Benefits of using CRM

- Centralized customer interaction
- Improved customer support and satisfaction
- High rate of customer retention
- Increase in revenue
- Improve your products/services
- Measure and optimize your performance
- Boost new business

Enterprise Information Management

- Enterprise information management (EIM) is a set of business processes, disciplines and practices used to manage the information created from an organization's data.
- EIM initiatives seek to build efficient and agile data management operations with capabilities for information creation, capture, distribution and consumption.
- The goal is to provide and preserve information as a business asset that remains secure, easily accessible, meaningful, accurate and timely.

Enterprise IT Management

- **EITM** is a strategy conceived and developed by Computer Associates International which details how organizations can transform the management of IT in order to maximize business value.
- Strategy for increasing the business relevance of the IT function, EITM considers the need for IT organizations to start operating as a service-based business.
- Ensuring investments are prioritized according to business strategy and that operational efficiencies can be more quickly realized and costs reduced when IT processes are integrated and automated.

Role of IT in Enterprise Management

- Enterprise IT Management was developed in response to a growing need by IT organizations to gain more value from investments made in IT capabilities, infrastructure and resources.
- EITM proposes a set of capabilities that enable IT to better govern, manage and secure the IT services delivered to the business.
- IT/IS as asset, “strategic weapon”, “nervous system” (strategic level) Vs tool, commodity (operational level)

Enterprise Information Systems

- Enterprise information system (EIS) is a system that serves an entire enterprise or at least two functional departments in:
  - Business intelligence (BI)
  - Enterprise resource planning (ERP)
  - Knowledge management (KM)
  - Partner relationship management (PLM)
  - Business process management (BPM)
  - Customer relationship management (CRM)

Role of IS in Enterprise Management

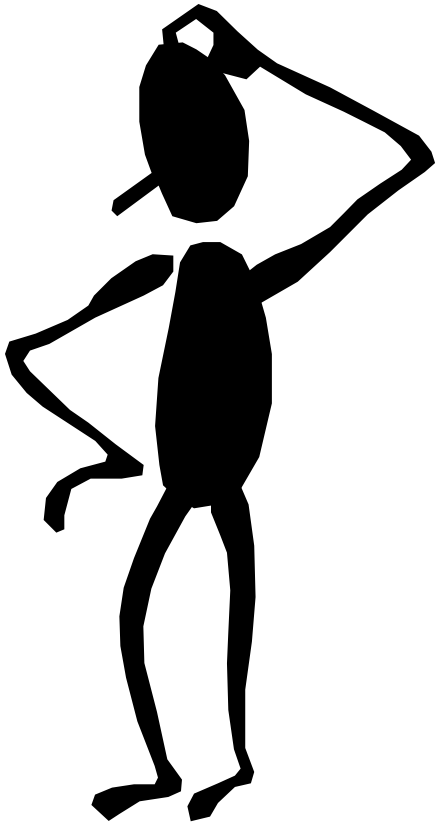
- Help to unify the firm's structure and organization: One organization
- Management: Firm wide knowledge-based management processes
- Technology: Unified platform
- Business: More efficient operations & customer-driven business processes
- Supporting the major business functions: sales and marketing, manufacturing and production, finance and accounting, and human resources

Role of IS and IT in Enterprise Management

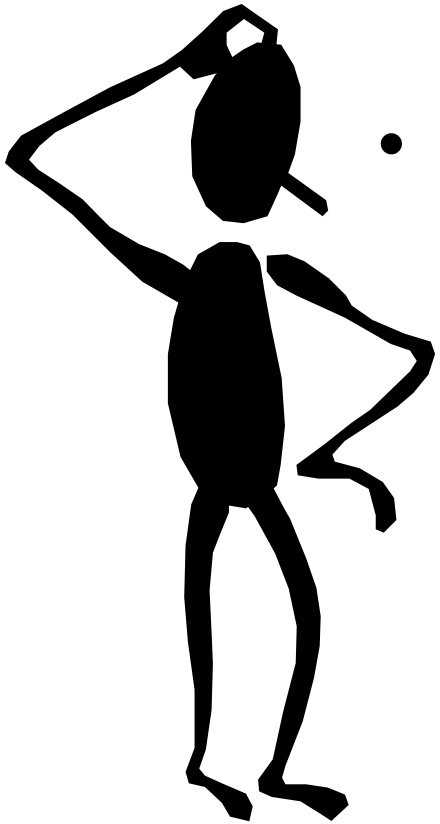
- Reduce Costs/ Improve Productivity
- Improve Customer Satisfaction/ Loyalty
- Create Competitive Advantage
- Generate growth
- Streamline Supply Chain
- Global Expansion

What do Enterprise Engineers do?

- Identify and Integrate best and most successful ways to change an enterprise



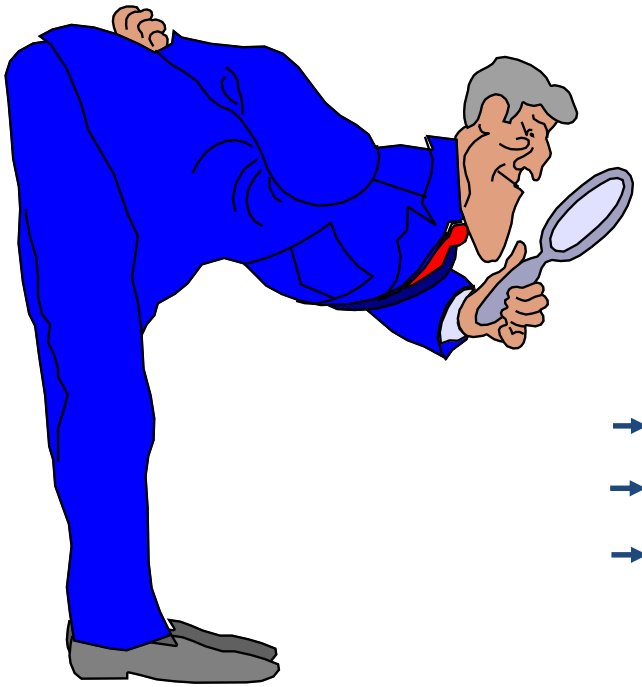
What do Enterprise Engineers do?

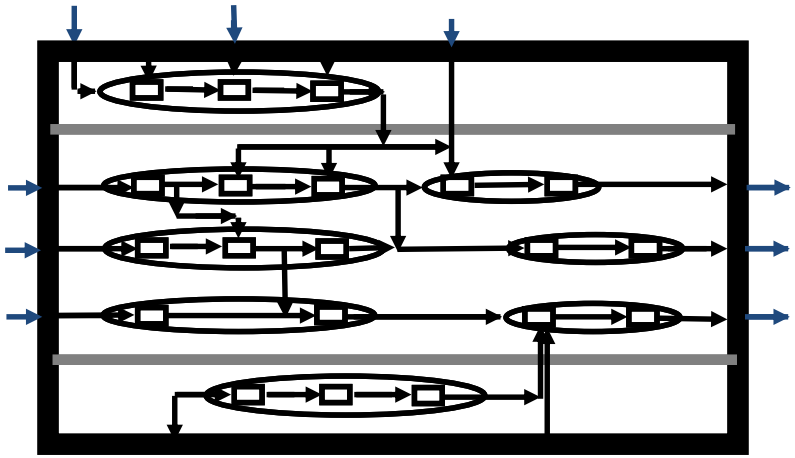


- Two aspects
  - Understand new mechanisms
    - New ways of organizing work
    - New Corporate Architectures must be understood
  - Understand methods that can change an enterprise

Two questions Enterprise Engineers always ask

- What should the enterprise be?
- How do we get there from here?





Enterprise Engineering

- Enterprise Engineering is integrated set of disciplines for building or changing an enterprise, its processes, and systems.
- It integrates the most powerful change methods and makes them succeed.
- The goal is a human-technological partnership of maximum efficiency in which learning takes place at every level.

Goal of the Enterprise Engineer

- Identify and integrate the most valuable and successful ways to change an enterprise, and to take them into a professional discipline with a teachable methodology and measures of effectiveness.

Need for Enterprise Integration

- Integration of markets
- Integration between suppliers and manufacturers
- Integration between several development and manufacturing sites
- Integration of design and manufacturing
- Integration of multi-vendor hardware and software components

Basic principles for integration

- Provide the vision, right information, resources, and responsibility
- Empowered people
- A comprehensive and effective communication networks
- Freely shared information

Two major issues of Enterprise Integration

- How to motivate employee
- Communication issue

Types of Integration

- Loose Integration versus Full Integration
- Horizontal Integration versus Vertical Integration
- Intra-Enterprise Integration versus Inter-enterprise Integration
- System Integration, Application Integration, and Business Integration

Loose Integration versus Full Integration

- Loose Integration - If two systems can merely exchange information with one another with no guarantee that they will interpret this information the same way

- Full integration - Two systems are fully integrated if and only if
  - the specificities of any one of these systems are only known to the system itself and not by the other one,
  - the two systems both contribute to a common task, and
  - the two systems share the same definition of each concept they exchange

Horizontal Integration versus Vertical Integration

- Horizontal Integration - concerning physical and logical integration of business processes from product demand to product shipment, regardless of the organizational boundaries.

  Concerning the technological flow
- Vertical Integration - concerns integration between the various management levels of the enterprise, i.e. decision-making integration, where a management level defines the set of constraints for its lower management levels, which in turn send feedback information to their upper management level, and so on.

  Concerning the decision flow

Intra-Enterprise Integration versus Inter-Enterprise Integration

Intra-Enterprise Integration - the integration of the business processes internal to a given enterprise. (Full integration)

Inter-Enterprise Integration - the integration of business processes of a given enterprise with business processes of other enterprises, or even sharing some parts of business processes by different cooperative enterprises. (Loose integration)

System Integration, Application Integration, and Business Integration

- Physical System Integration - concerning System communication
- Application Integration - concerning Interoperability of applications
- Business integration - concerning Business process coordination

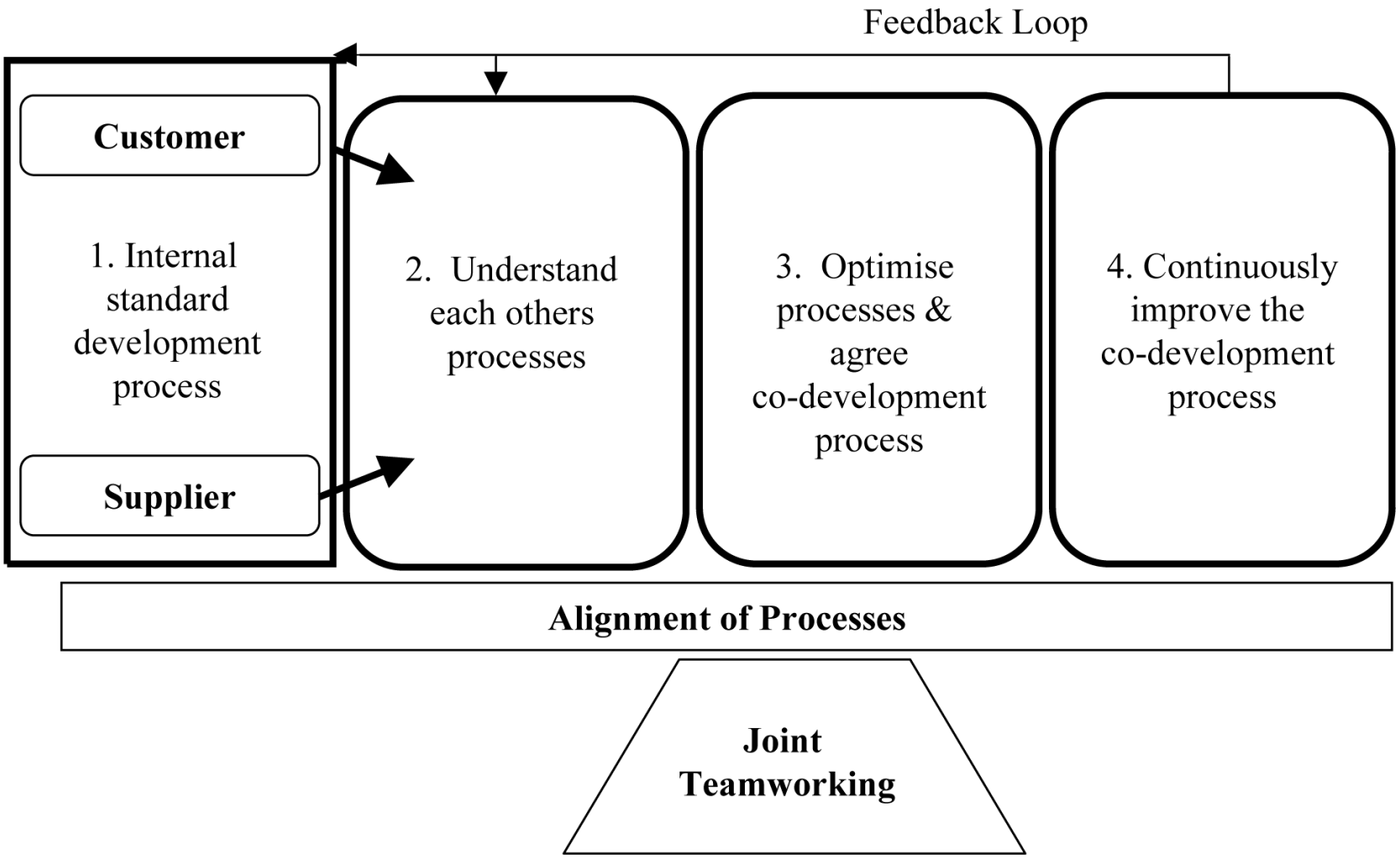
Alignment Process

- Developing a common understanding among the key stakeholders of the purpose and goals of the project and the means and methods of accomplishing those goals is called the **Alignment Process**.
- It is important to accomplish this alignment during the initiation phase.
- Project managers usually conduct a start-up meeting that is sometimes called a kickoff meeting.

Alignment Process (Continued)

- The agenda and duration of the start-up meeting depends on the complexity level of the project.
- Projects with a limited scope and short duration may engage in a session start-up meeting over lunch.
- A medium-complexity project will require more-hour meeting while a high-complexity project cannot achieve alignment in a single meeting. Alignment can require several days of activities.

Alignment Process



Objective of Alignment Process

- The purpose of the alignment process is to develop a common understanding of the purpose, agree on the means and methods, and establish trust.
- The components of the alignment process are discussions of the purpose, goals, participant roles, methods of tracking progress and costs, methods of managing change, and building trust.
- The effects of a lack of trust are delays caused by fact checking or missing information that was not shared because the person's discretion was not trusted to handle sensitive information.

Final Words

"Doing your best is not enough."

W. Edwards Deming

You must know what to do, how to do it and be willing to pay the price to do it.