

# Designing a User-Centered Process Model

**Society for Technical Communication  
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**NCR Corporation**

**Mary Ann Kabel**

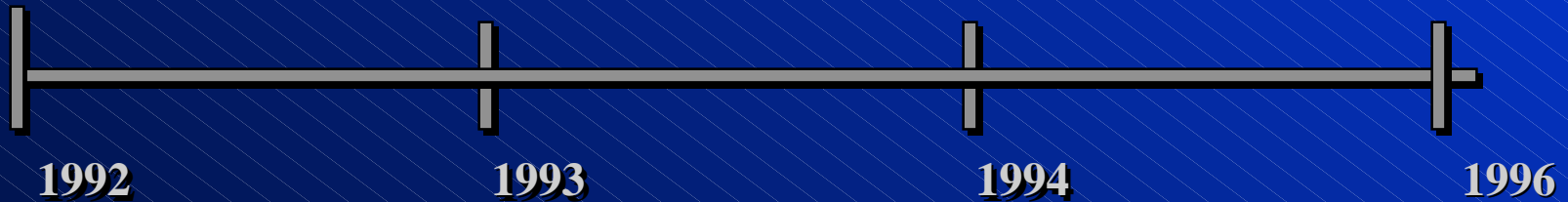
**Maria Babilon**

# Presentation Highlights

- **NCR's reasons for a performance improvement system**
- **Components of NCR's performance improvement system**
  - QIPP
  - PSS
  - Contests
  - Other Support Elements
- **Business payoffs and goals**
- **Applicability for your organization**

# Evolution of change at NCR

- Change, change, change, and change



# NCR's Core Businesses

Computer  
Systems

IP

Financial

IP

Retail

IP

Systemmedia

IP

Services

IP

Information Products is an integrated component of each of the core businesses.

# NCR Operating Principles



- **FOCUS**
- **ACCOUNTABILITY**
- **PROCESS IMPROVEMENTS**
- **EXPENSE-LEVEL DISCIPLINE**
- **SENSE OF URGENCY**



# Business Process: Past

Planning:  
Strategic &  
Administrative

Finance &  
Marketing

Engineering &  
Manufacturing

Human  
Resources

Training &  
Information Products

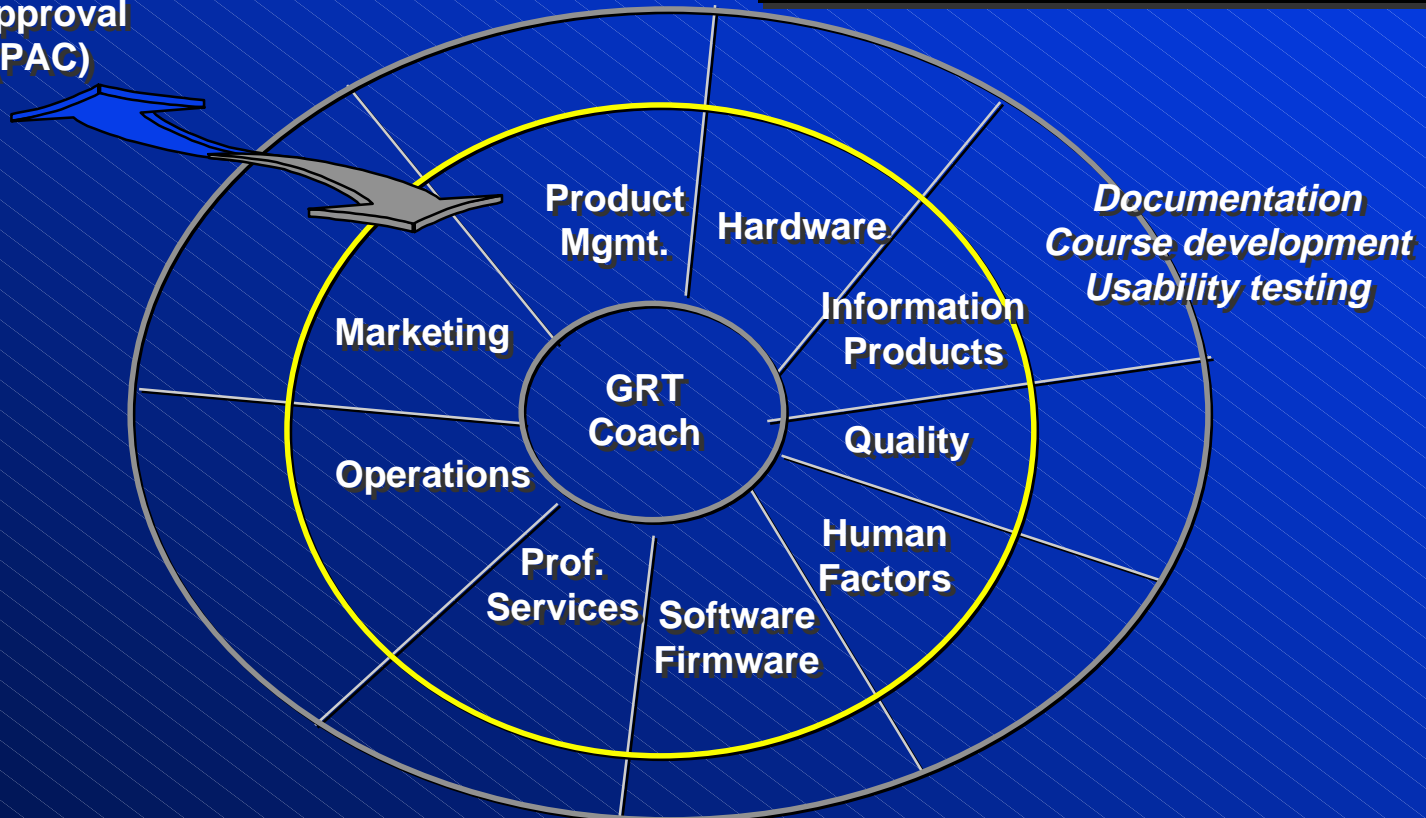
Sales &  
Distribution

Waterfall Method

# Business Process: Present

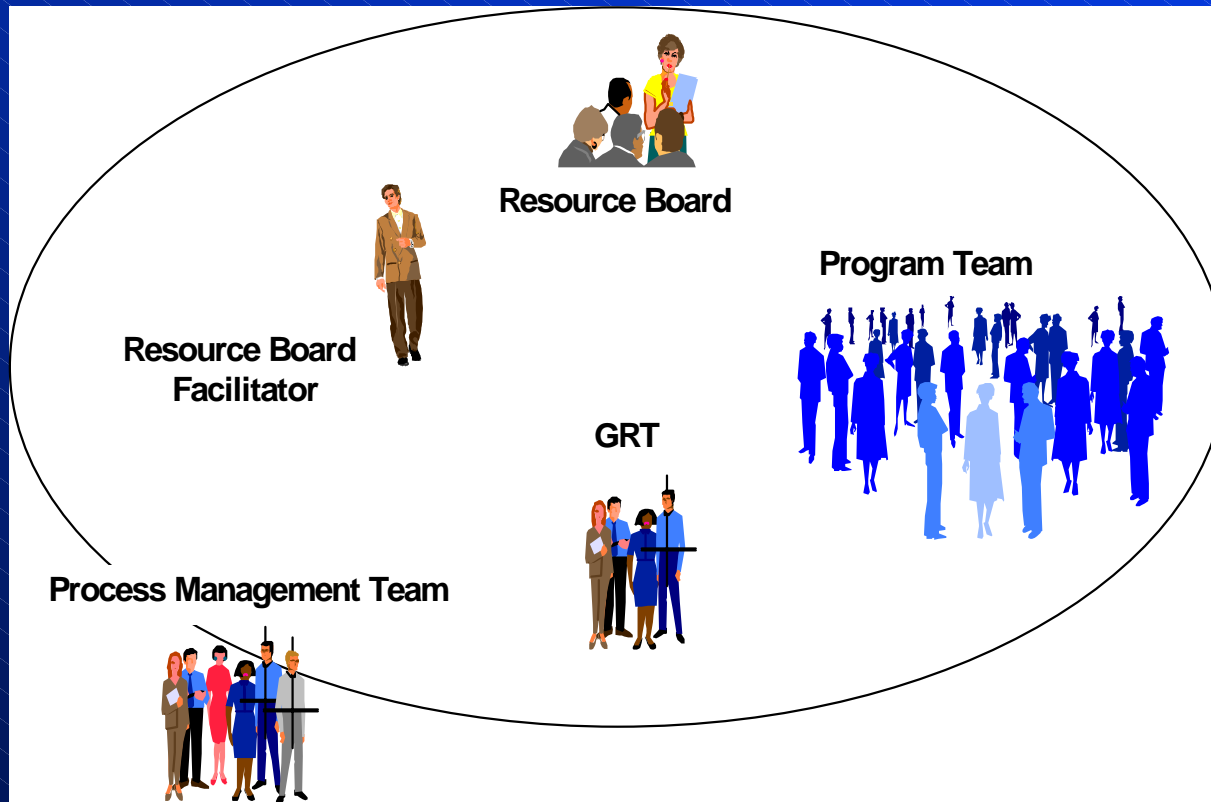
## The Global Realization Team

Program Approval  
Council (PAC)



The Program Team (Including Support Functions)

# NCR Processes: Team Approach



# Old Model vs. New Model

- **Old**

- internal focus
- centralized decision making
- product focus
- unit function
- disciplinary focus
- single tasks
- inflexible
- linear

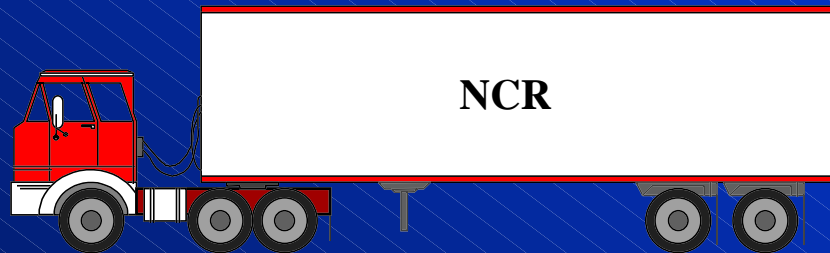
- **New**

- customer focus
- decentralized decision making
- process focus
- cross functions
- interdisciplinary focus
- multiple tasks
- flexible
- iterative

# Challenge

## How to move NCR

- from independent support functions of documentation and training
- to cross functional information product development



# NCR Information Products

- **Types**
  - Training materials
  - Manuals and guides
  - Sales and marketing collaterals
  - Performance support systems
- **Formats**
  - Print
  - Other media and multimedia
  - Computer-based

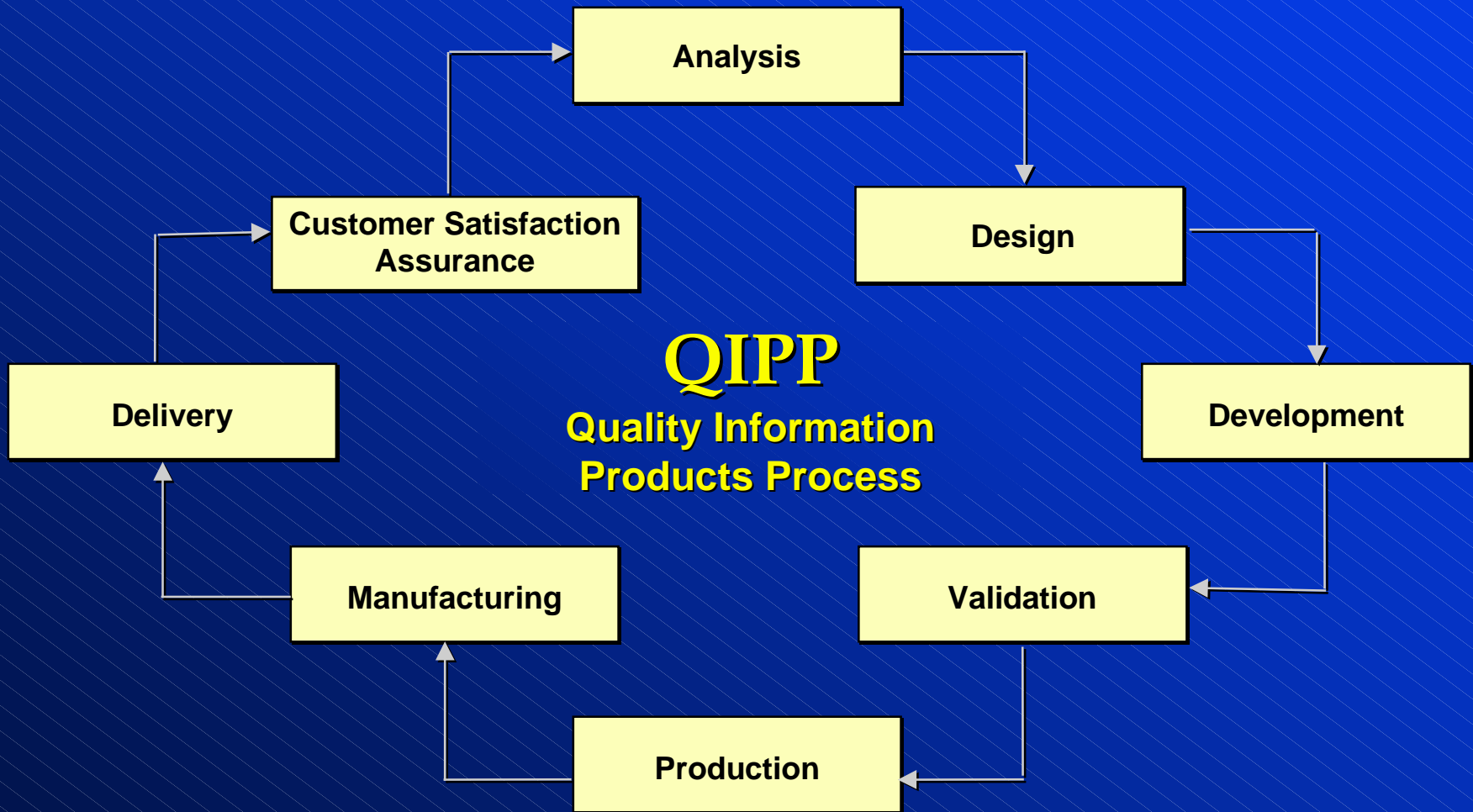
# Performance Improvement Process System: the Components

- **QIPP Quality Information Products Process**
  - User Centered Design
- **Performance Support System**
  - Procedural guides
  - Job aids
  - Expert advice
  - Tutorials
- **Motivation and Incentive Programs**
  - Information Products Contest
  - Customer Satisfaction Assurance Contest
- **Support Elements**

# QIPP: Quality Information Products Process

- Combines quality documentation process and the process of developing training
- Customer focus
- Continuous improvement
- Integrated with the Global Realization Process
- Customize for specific projects
- Meets ISO 9000 requirements

# NCR's QIPP Model



# Principles Driving NCR's Performance Improvement System

- Integrated and iterative design
- Allows customization
- Consistent visual conventions, language, and navigation
- Focus on users
- Definition of user

# User Centered Design Affects Content

- **Establish and maintain a work context**
  - Reflect natural work situations
- **Structure work processes**
- **Provide support resources without breaking the task context**
- **Reinforce and link activity to business strategy**

# User Centered Design Requires Feedback

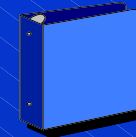
- Contextual feedback
- On-line mentoring
- Evidence of work progression
- Provide options, next steps, and resources

# **NCR's QIPP Performance Support System**

- **An integrated set of tools, references, examples and information that an IP developer can access when needed.**
- **GUI provides access to all PSS subsystems and functions**
- **Project folder manager allows user to group and organize outputs of process work activities**
- **On-line process guide**
- **Tools and examples for QIPP work activities**

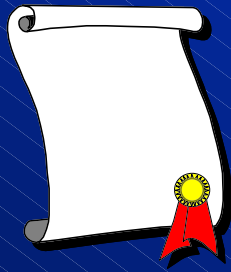
# QIPP- PSS Support Elements

- On-line help in the PSS
- QIPP-PSS Reference Guide
- QIPP-PSS Developer's Kit
- The Knowledge Center (TKC)
- QIPP-PSS Support Team
- Training for on-line help development
- User Group
- Web site



# NCR Contests

Two separate but related annual contests



1. Information Products (IP) Contest

2. Customer Satisfaction Assurance (CSA) Contest

# Incentive and Motivation System: NCR Contests

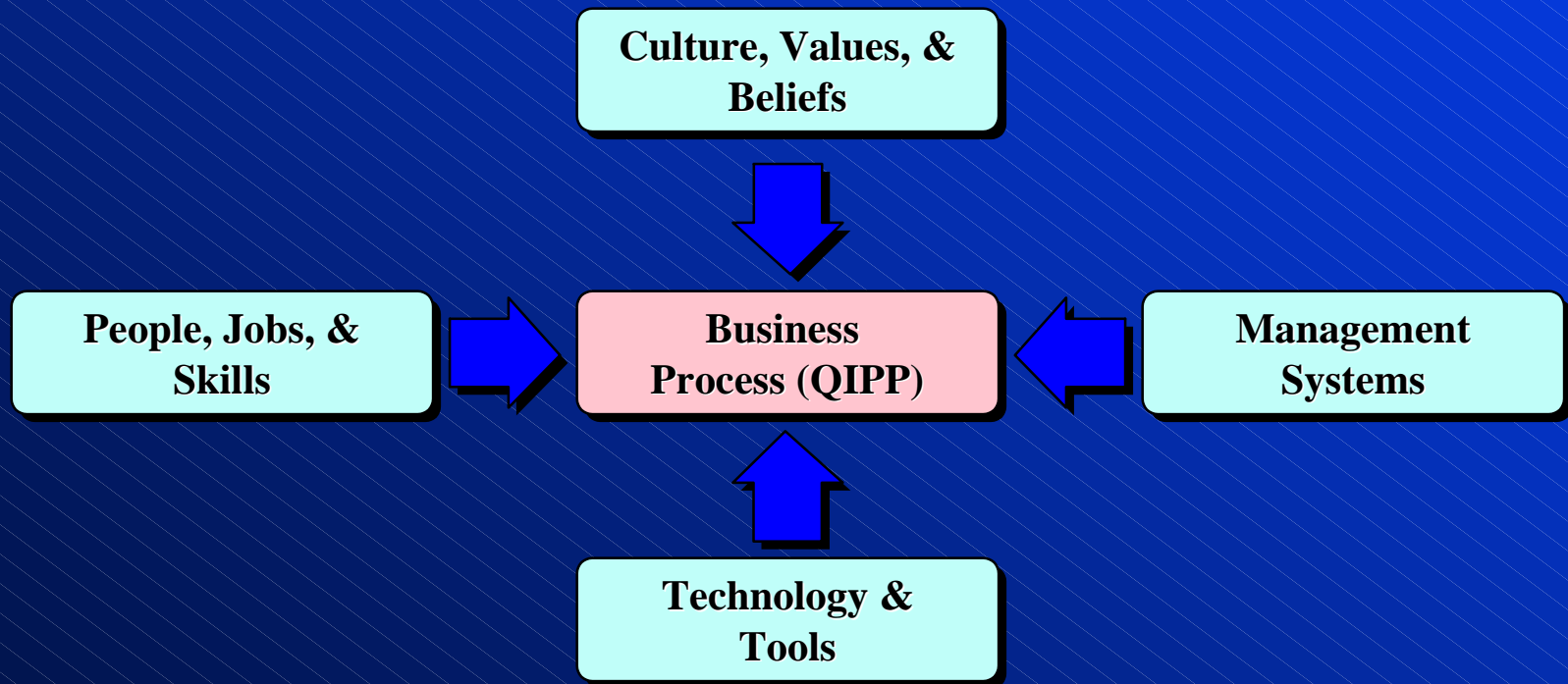
- Annual contests open to all NCR associates
- Means to recognize and celebrate excellence
- Compete against criteria not against co-workers
- Non-threatening
- Judges: University professors
- Feedback to all entrants

# **NCR Contests: Motivational Principles**

- **Avoids prescription**
- **Reinforces use of system**
- **Bench marking tool (internal)**
- **Vehicle for planned change**
- **System use becomes part of work culture**
- **Logical extension of QIPP process**

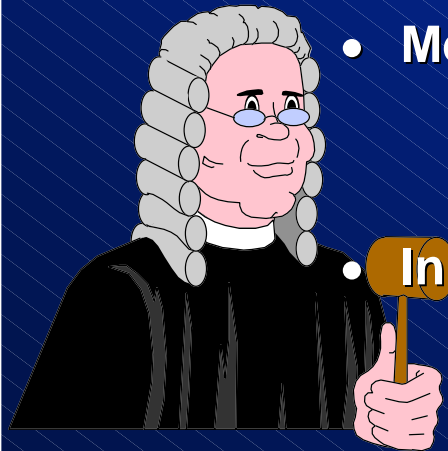
# Reengineering Model

- The Quality Information Products and Customer Satisfaction Assurance Contests support all elements of the model



# NCR IP Contest: Awards Criteria

- Distinction
- Excellence
- Merit
- Innovative
- Highest rating in four of four categories
- High rating in four of four categories with only minor flaws
- High rating in three of four categories but serious flaws in one
- Use of new or emerging technologies or processes



# Information Products (IP) Contest

## Judging Categories

- Analysis
- Design
- Development
- Validation

# NCR CSA Contest Awards Criteria

- Distinction
- Excellence
- Merit
- High rating in 5 of 5 categories and positive response to information product
- High rating in 4 of 5 categories and valid action plans to improve the product or process
- High ratings in 3 of 5 categories and valid action plan to improve the product or process



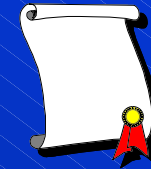
# Customer Satisfaction Assurance Contest (CSA)

## Judging Categories:

- Project planning
- Study design and development
- Data collection and analysis
- Gathering customer responses
- Reports

# QIPP Support Elements

- QIPP Training
- QIPP User Guide
- QIPP Job Aids Book
- QIPP User Group
- Skills Development Seminars
- Sponsored Projects
- Information Products Journal
- University Relations
- Web site - <http://ipdrd.daytonoh.ncr.com>



# Business Payoffs

- Information products become an integral part of business process
- Moves training and document development to strategic level
- Sets expectations and impacts everyday behavior
- Pressure to improve from peers, not management
- Fights complacency with rising expectations
- Critical involvement: the university creates intellectual tension
- Focuses on and celebrates best practices

# Tomorrow's Goals

- Reduce time and effort to enter contests
- Reduce cycle time when using QIPP
  - Rapid prototyping
- Emphasize performance objectives over learning objectives
- Integrate analysis and evaluation and make evaluation drive the process
- Utilize more performance technology

# Change Users' Understandings through NCR's QIPP Model

- Iterative vs. linear
- Systemic vs. systematic
- Outcome vs. process
- Heuristic vs. algorithmic

# Change is Constant

We are never done

- New and emerging technologies
- IT / PT / HRD are evolving fields
- Dynamics of business environments

# Implementation Issues

- 1. Are there elements of the NCR Performance Improvement Process System applicable to your unit? Why or why not?**
  - Quality information products process model (QIPP)
  - QIPP performance support system (QIPP - PSS)
  - Incentive contests
  - Support elements (training, seminars, support groups, IP journal, university relations)
- 2. Are there barriers in your organization that would prevent implementing the whole or parts of the NCR system?**
- 3. What would be the critical elements of an action plan for implementing a similar system in your place of work?**

**From NCR Corporation**

**Thank you for attending!**

**We welcome questions anytime during the conference**