



Health Information System
BUSINESS PROCESS REENGINEERING

Agenda

- (1) Philosophy of Business Process Reengineering (BPR)
- (2) Underlying Principles of BPR
- (3) Implementing BPR
- (4) Summary and Conclusion
- (5) Discussion and Q&A



THE PHYLOSOPHY OF BPR



Brief Definition

BPR is an improvement philosophy
It aims to achieve step improvements in performance
by redesigning the processes through which an
organization operates, maximizing their value-added
content and minimizing everything else.



Business Philosophy

- Total Quality Management (TQM)
- Just-In-Time (JIT)
- Simultaneous Engineering (SE)
- Fast Cycle Response (FCR)
- Business Process Reengineering (BPR)

IMPROVEMENT SCALE

PROCESS FOCUS

CUSTOMER FOCUS

ORGANIZATION

TECHNIQUES

FOCUS



Focus

TQM

Quality, Attitude to customers

JIT

Reduced inventory, raised throughput

SE

Reduced time to market, increased quality

FCR

Reduced time (time=cost)

BPR

Processes, minimize non-value added

Improvement Scale

TQM

Continuous, incremental

JIT

Continuous, incremental

SE

Radical

FCR

Radical

BPR

Radical

Organization

TQM

Common goals across functions

JIT

'Cells' and team working

SE

R&D and Production work as a single team

FCR

Processed based

BPR

Process based

Customer Focus

TQM

Internal and external satisfaction

JIT

Initiator of action 'pulls' production

SE

Internal partnerships

FCR

Quick response

BPR

'Outcomes' driven

Process Focus

TQM

Simplify, improve, measure to control

JIT

Workflow/throughput efficiency

SE

Simultaneous R&D and Production development

FCR

Eliminate time in all processes

BPR

'Ideal' or streamlined

Techniques

TQM

Process maps, benchmarking, self-assessment, SPC diagrams

JIT

Visibility, Kanban, small batches, quick set-up

SE

Program teams, CAD/CAM

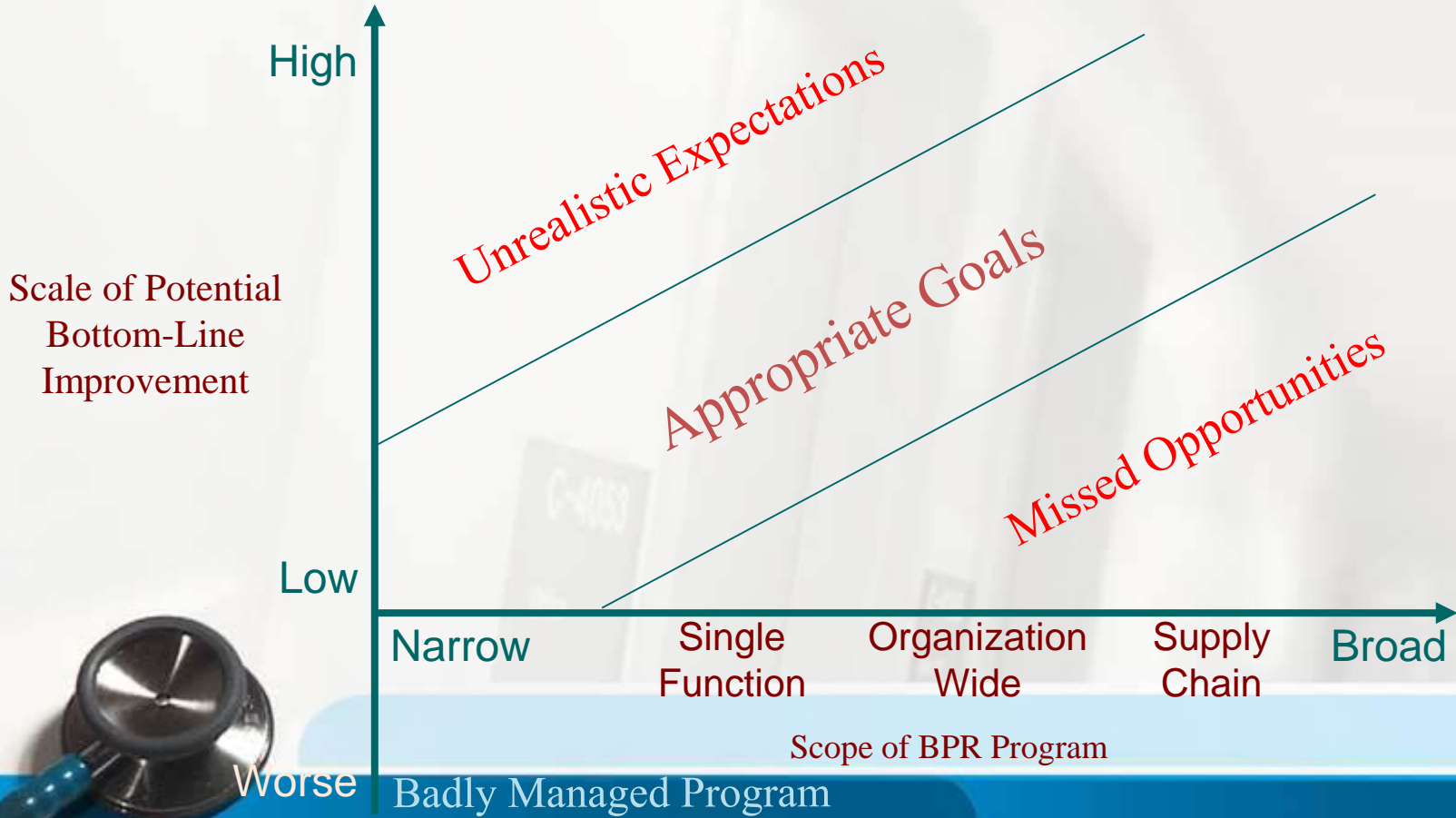
FCR

Process maps, benchmarking

BPR

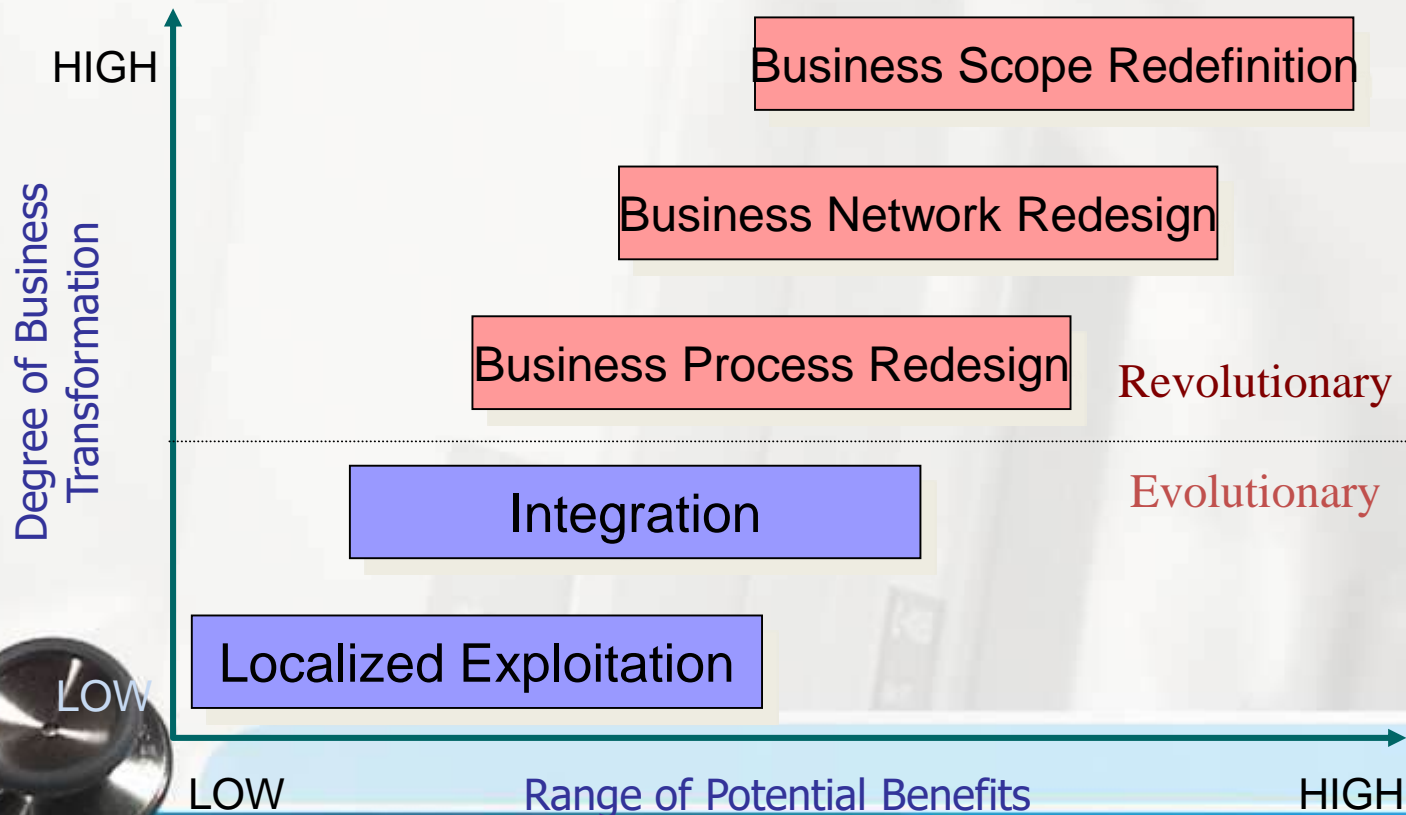
Process maps, benchmarking, self-assessment, IS/IT, creativity/out of box thinking

Expectations for Improvement



Worse Badly Managed Program

5 Levels of IT-Business Reconfiguration



IT within the Configuration

Localized Exploitation

One part of organization, one isolated IT system

Integration

Link the islands of automation

Business Process Redesign

IT transforms the way a process is done internally

Business Network Redesign

Working together with other organization through IT

Business Scope Redefinition

IT can create new business opportunities

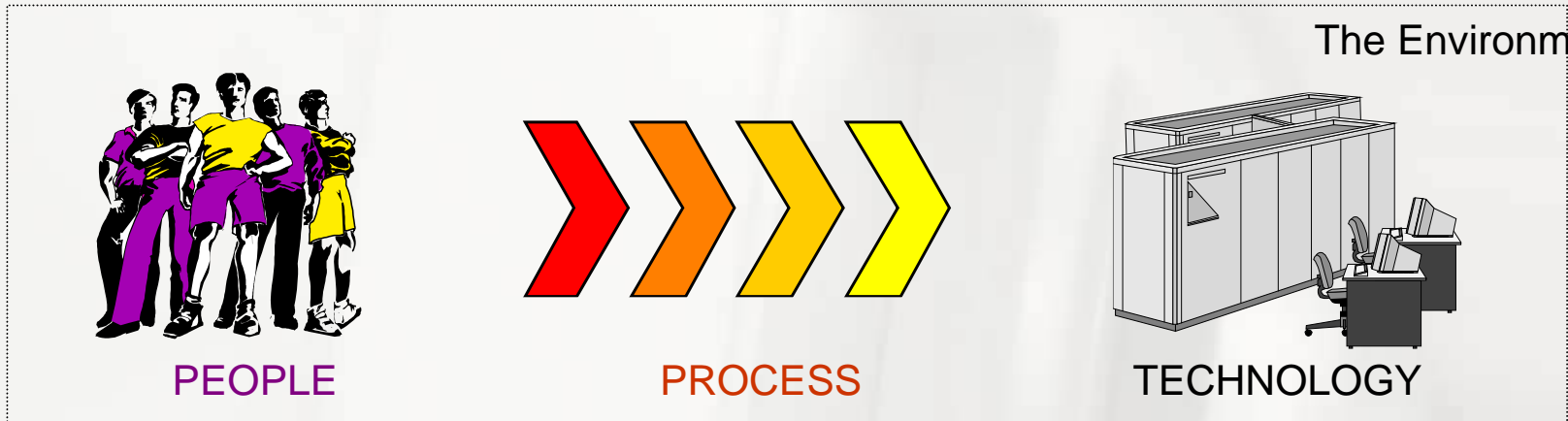
BPR Analysis Framework



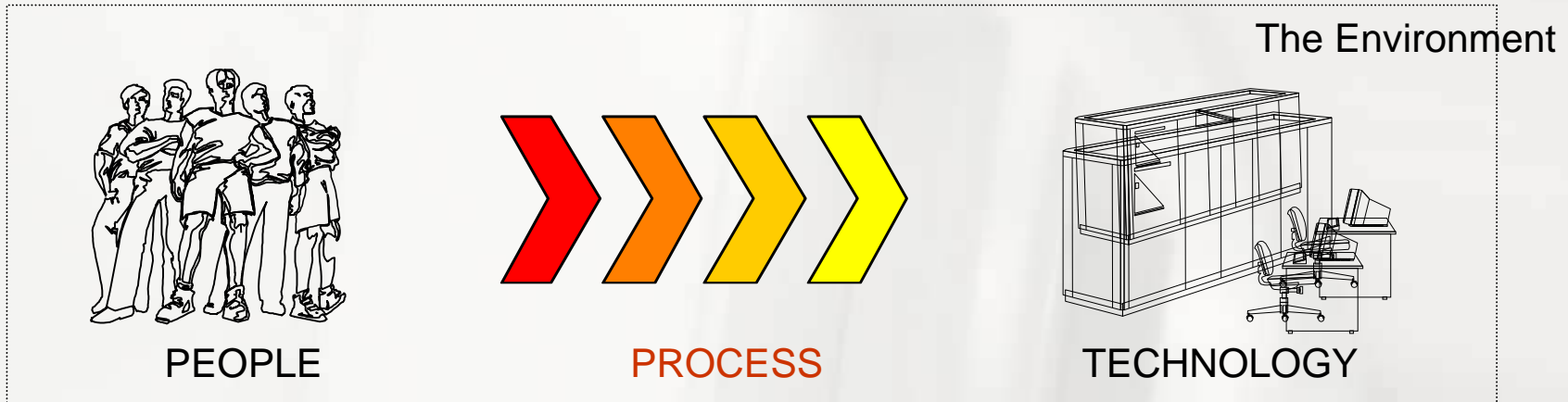
UNDERLYING PRINCIPLES OF BPR



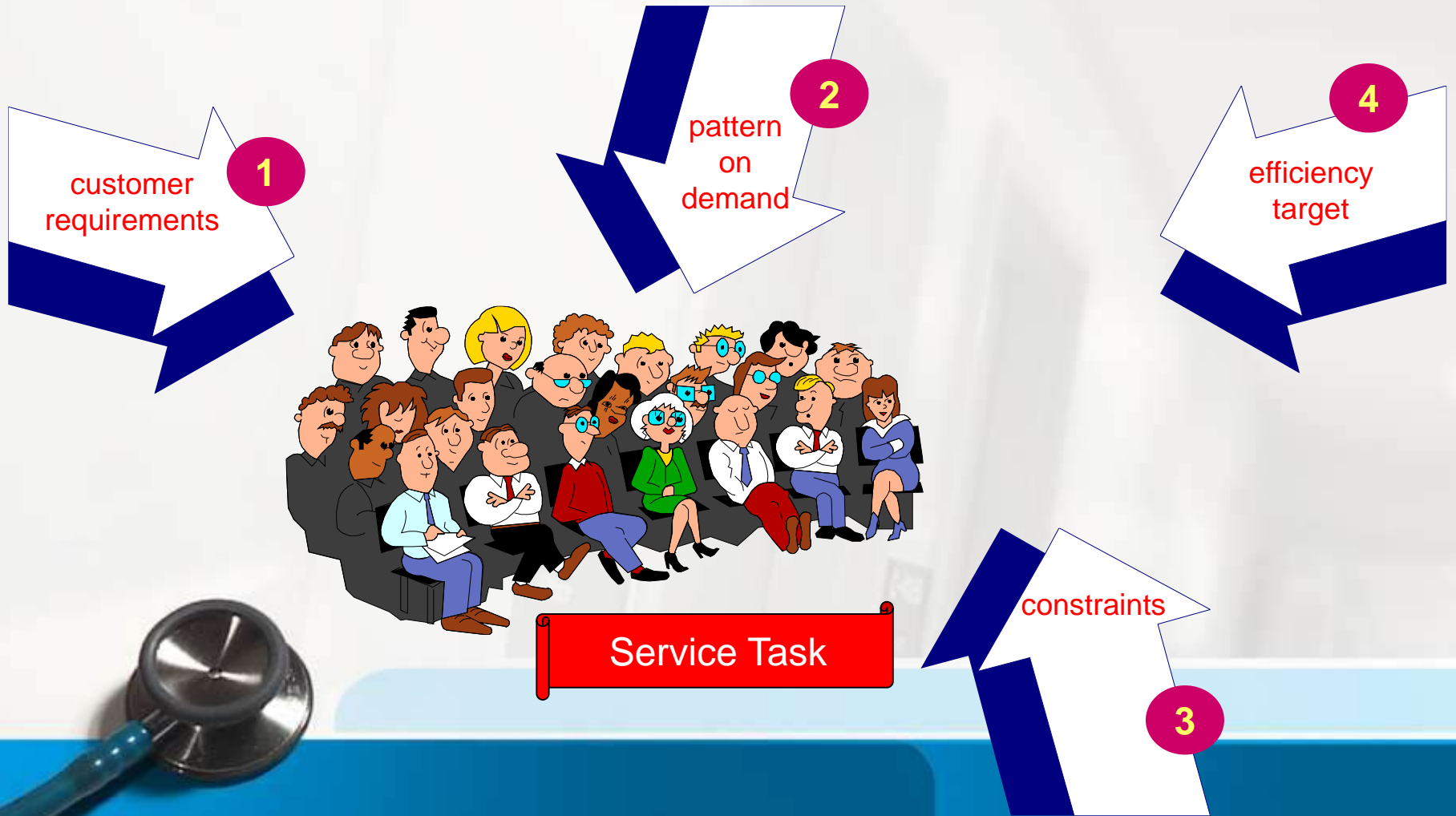
Organizational Pillars



Pillar 1: Process



The Service Task of Process



1 - Customer Requirements

Quality

Speed

Flexibility

Price

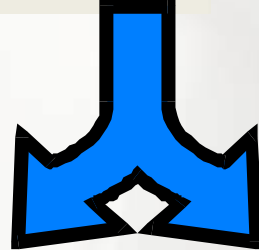
Delivery Reliability

Relationship Management



1A - Quality

Quality

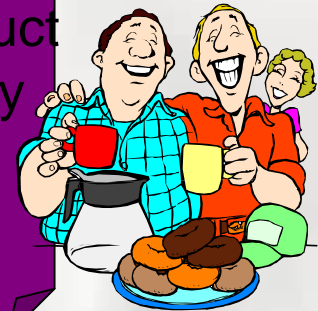


CONSISTENCY

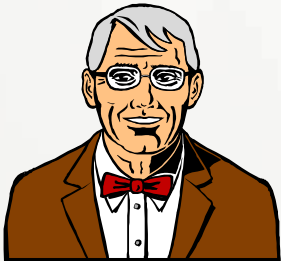
How consistently the product or service conforms to what is expected

CAPABILITY

How well the product or service actually fulfils the needs of the customer

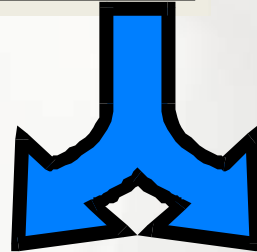


Quality



GARVIN's 8

- 1 Performance
- 2 Features
- 3 Reliability
- 4 Conformance
- 5 Durability
- 6 Serviceability
- 7 Aesthetics
- 8 Perceived quality



FITZGERALD's 12



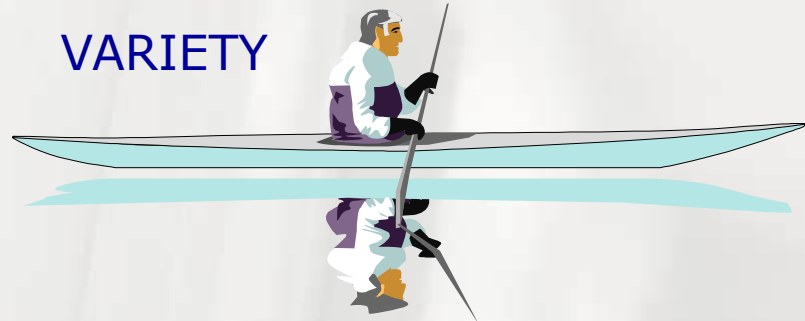
- | | |
|-------------------|-------------------|
| 1 Access | 7 Competence |
| 2 Appearance | 8 Courtesy |
| 3 Availability | 9 Friendliness |
| 4 Cleanliness | 10 Reliability |
| 5 Comfort | 11 Responsiveness |
| 6 Communicability | 12 Security |

Flexibility

DESIGN

VOLUME

VARIETY



RANGE

RESPONSE

MOBILITY

UNIFORMITY



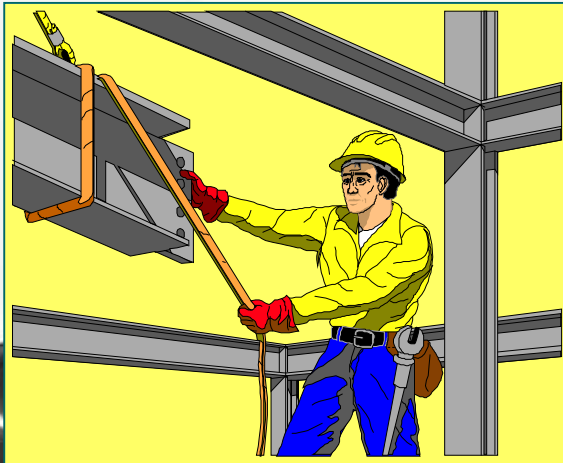
Delivery Reliability

How reliable or dependable is the delivery of the product or service ?



Speed

DEVELOPMENT
lead time



DELIVERY
lead time



Price

Price should not be confused with cost !
COST is a factor in considering a company's
competitive advantage,
but PRICE is a mechanism by which it can
compete and manage demand !



Relationship Management

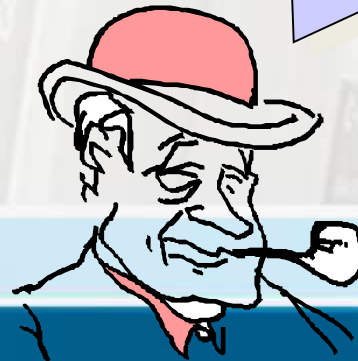
PARTNERSHIP

Companies working in partnership can sustain a customer relationship longer and more profitably than those seeking only a straight contractual agreement ...

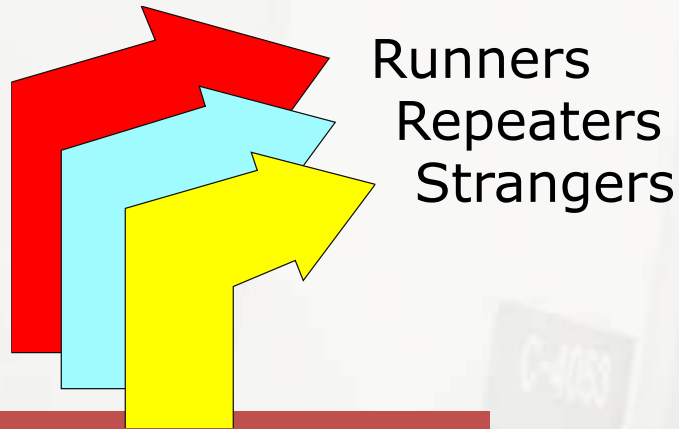


LEARNING

Companies willing and able to learn from others, including suppliers, customers and others in different industries can ensure that they do not get complacent and can maintain their competitive edge



2 - Pattern on Demand



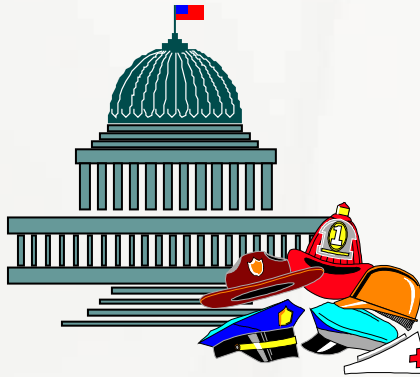
Variety and Volume



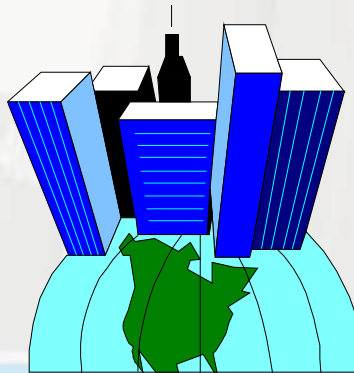
Variation in the Nature
and Level of Demand



3 - Constraints



Government
Regulatory



Company Policy



Limited
Finance

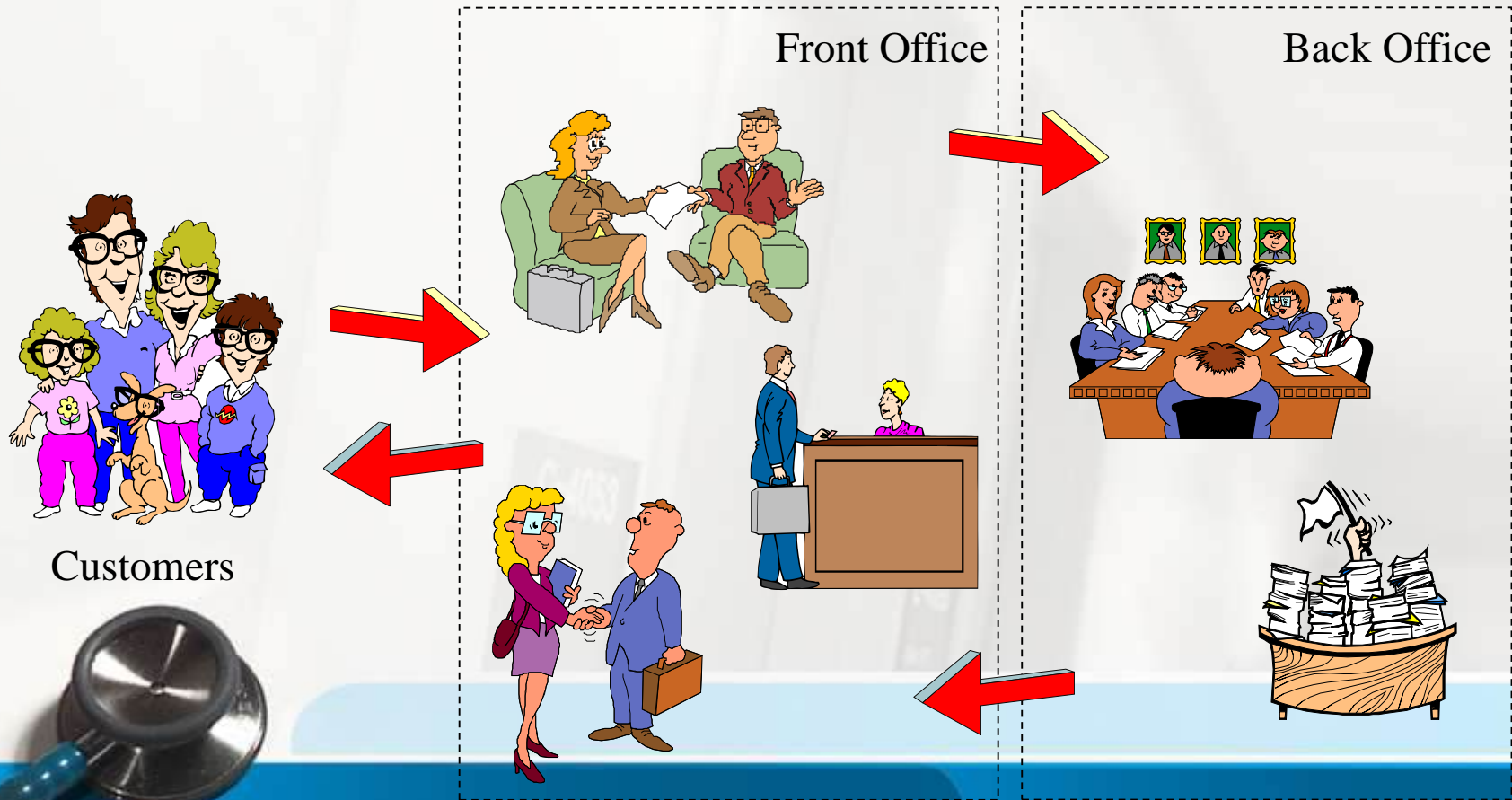


4 - Efficiency Target

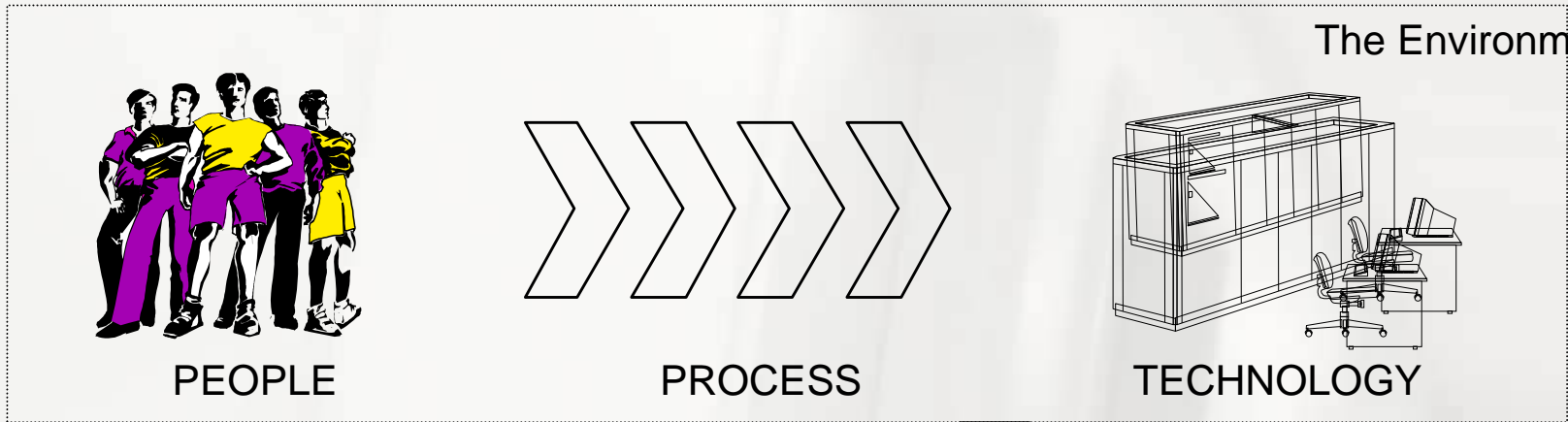
The organization should set efficiency targets. These efficiency targets will impact the amount and type of resources that can be utilized by the process, including people, machines, computers, facilities, financial resources, and so on.



Process within Organization



Pillar 2: People



Main Aspects



Culture



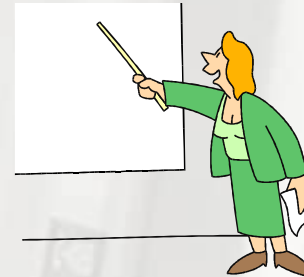
Recruitment and Selection



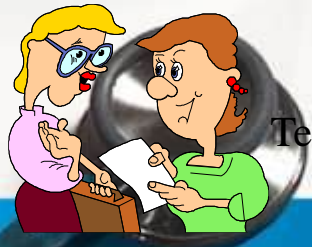
Pay and Rewards



Behavior, Skills, and Development



Training and Development



Teamwork



Empowerment

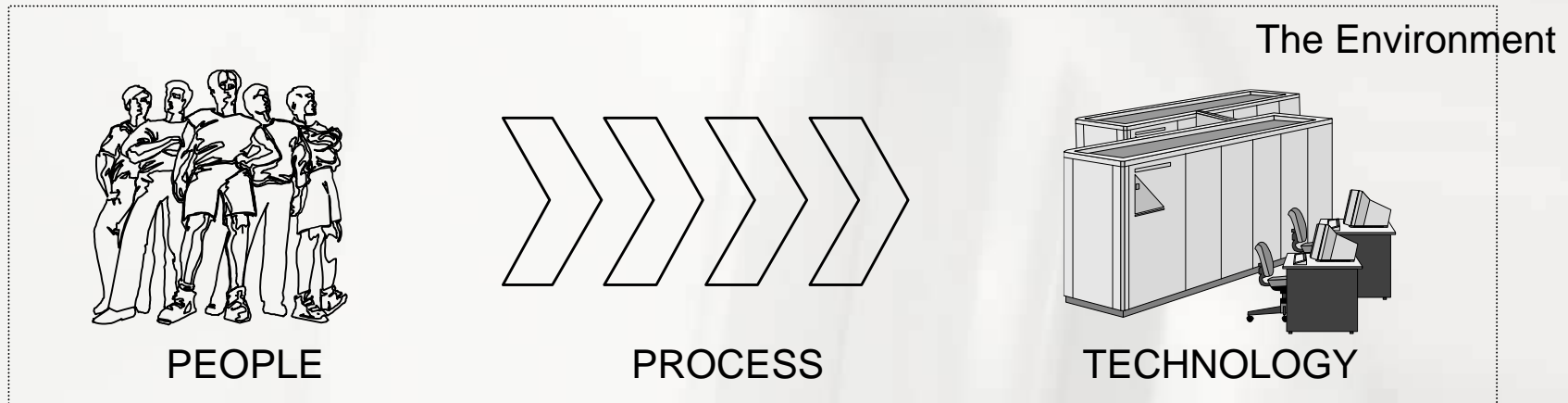


Job Description

Ultimate Goal



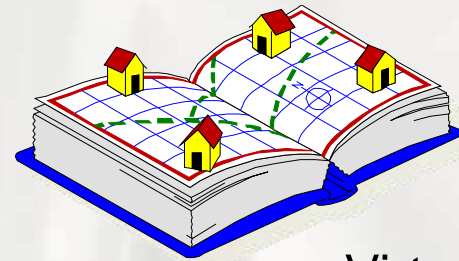
Pillar 3: Technology



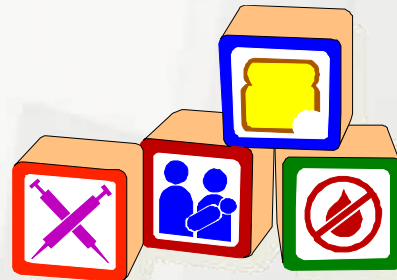
Additional Technologies to Watch



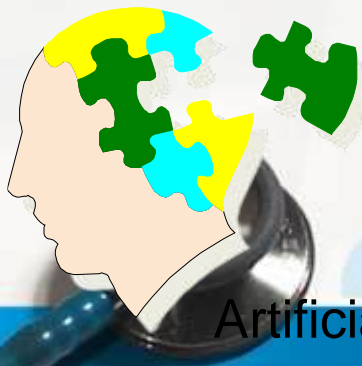
Workflow Automation



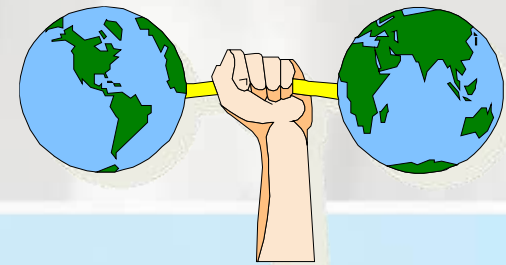
Virtual Reality



Multimedia



Artificial Intelligence

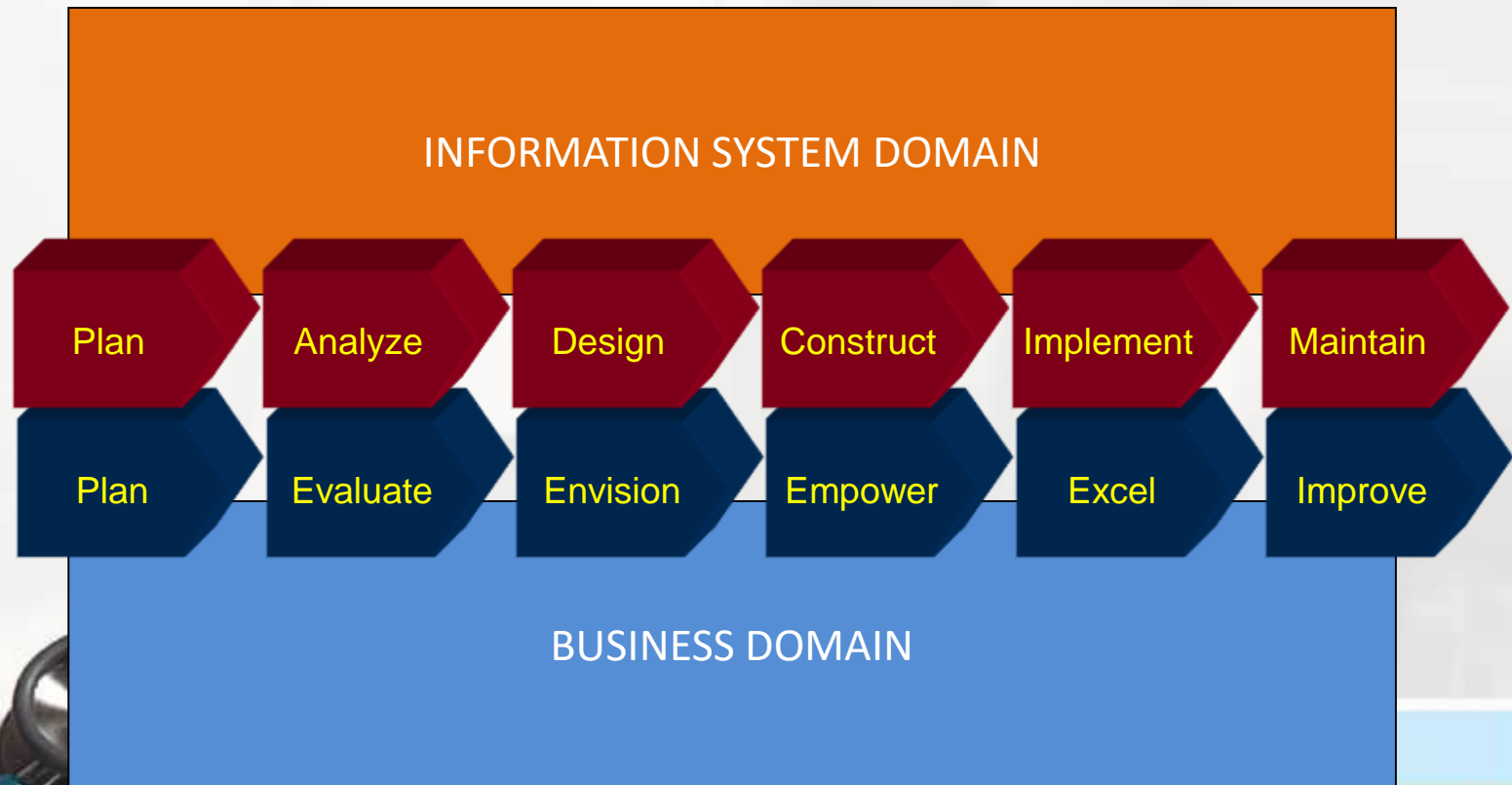


Communication

IMPLEMENTING BPR



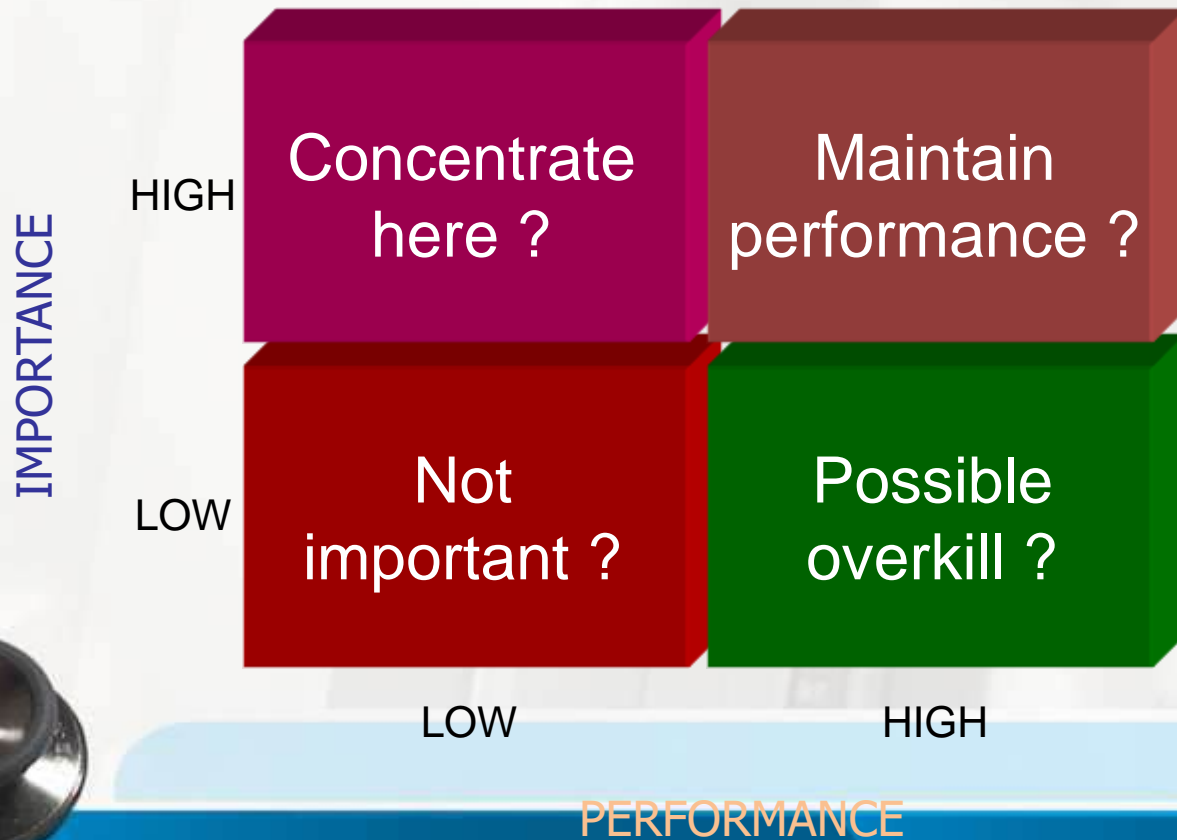
The Generic Methodology



Plan: The Scope



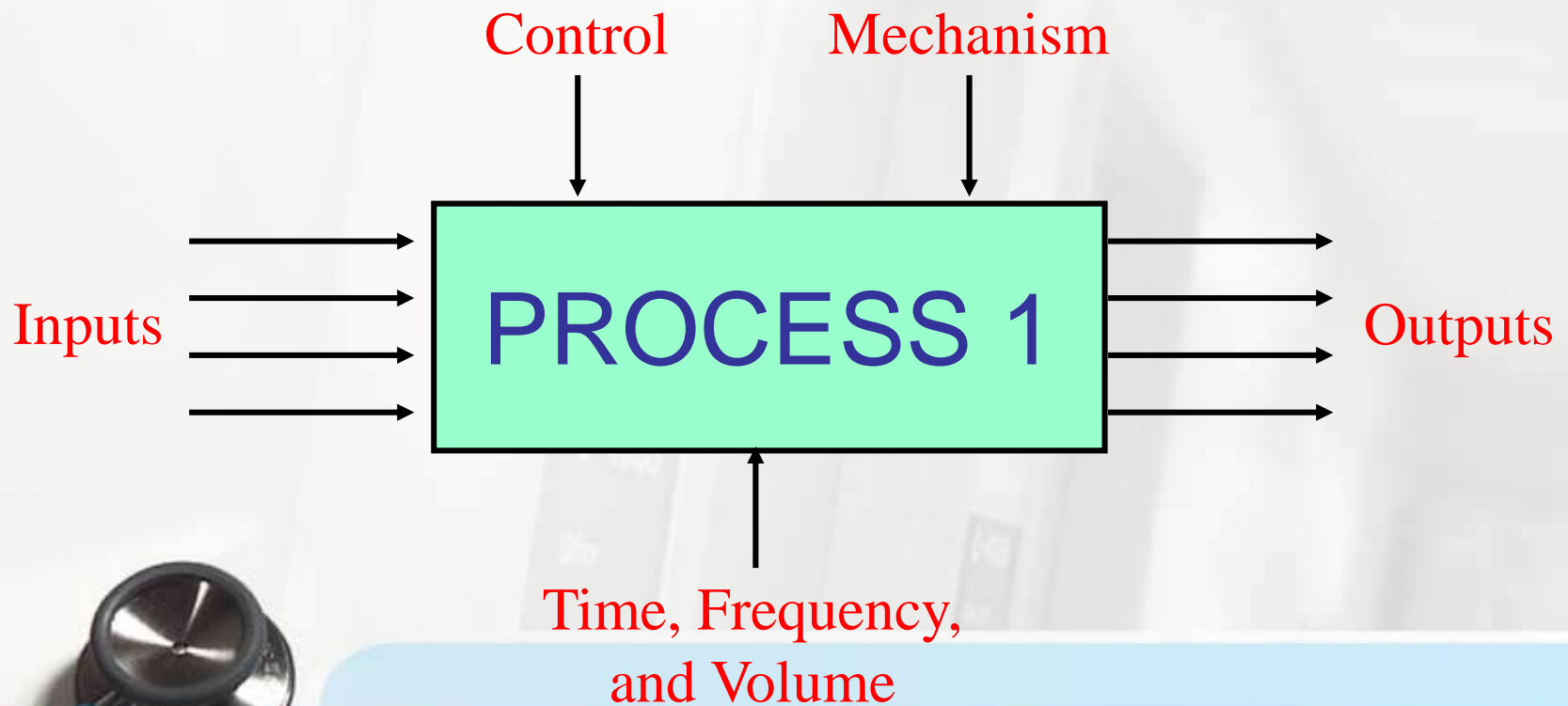
Plan: The Priorities



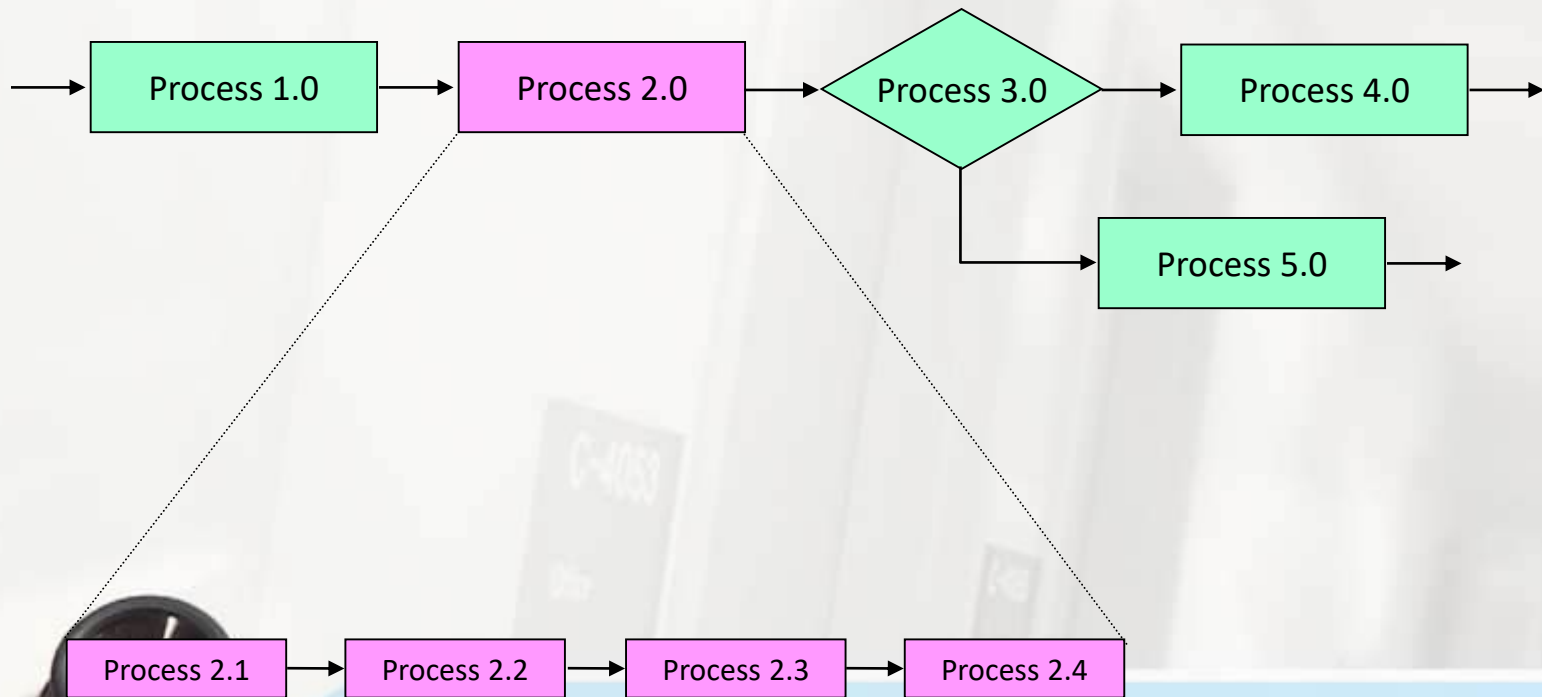
Plan: Multi Input Channels



Analysis: Process Anatomy



Analysis: Process Mapping



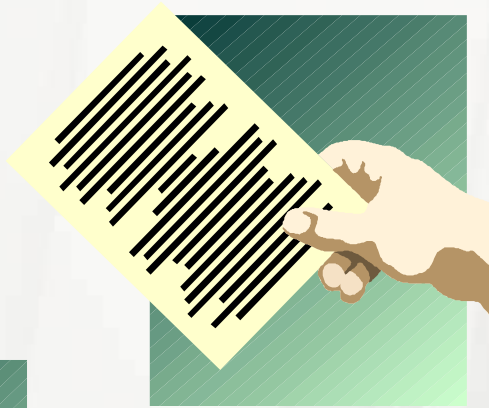
Analysis: Non-Value Added Activity



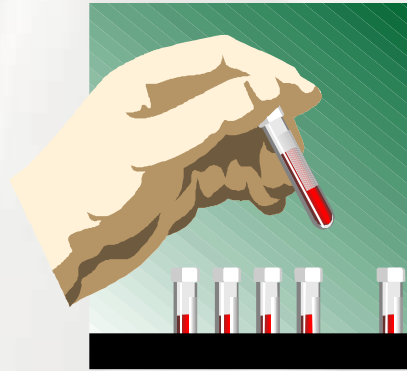
EFFICIENCY
EFFECTIVENESS
INTERNAL CONTROL

Design: Systematic Method

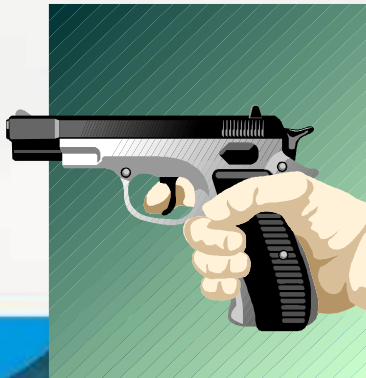
SIMPLIFY



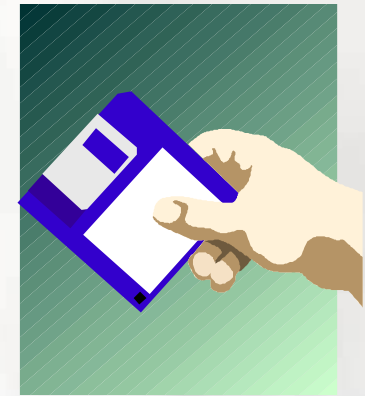
INTEGRATE



ELIMINATE



AUTOMATE



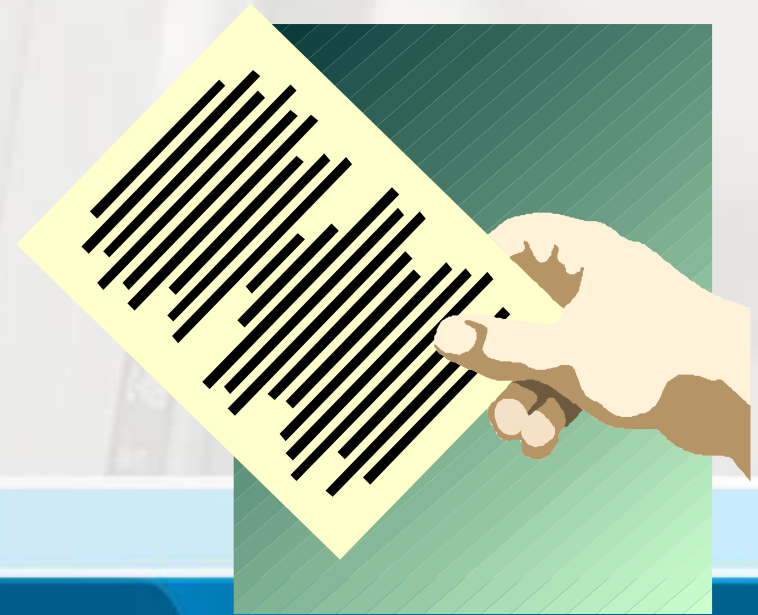
Design: Eliminate

- Over Production
- Waiting Time
- Transport
- Processing
- Inventory
- Defects/Failures
- Duplication
- Reformatting
- Inspection
- Reconciling



Design: Simplify

- Forms
- Procedures
- Communication
- Technology
- Problem Areas
- Flows
- Processes



Design: Integrate

- Jobs
- Teams
- Customers
- Suppliers



Design: Automate

- Dirty
- Difficult
- Dangerous
- Boring
- Data Capture
- Data Transfer
- Data Analysis



Analysis-Design Interface

Gain a high level understanding of the existing processes

Benchmarking, brainstorming, fantasizing

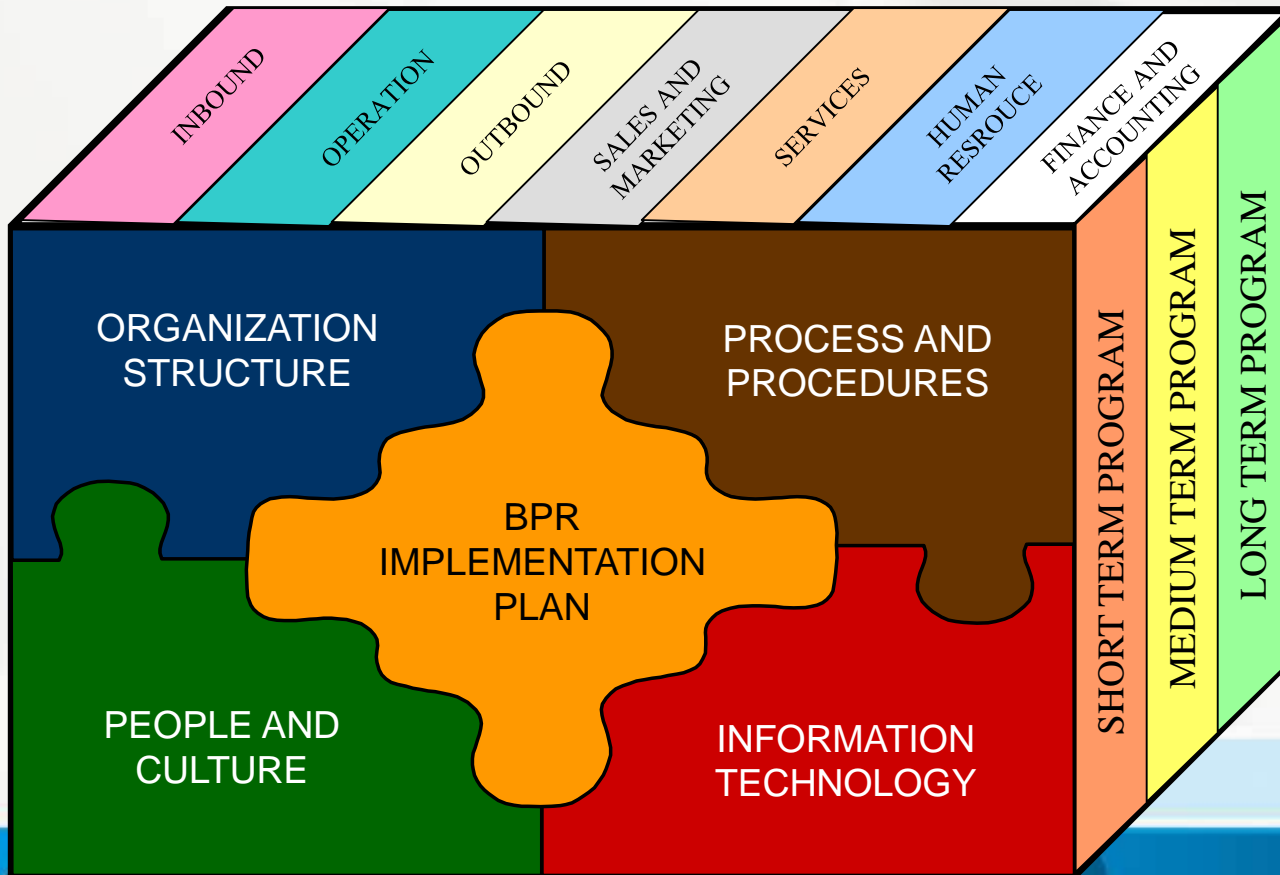
Designing the improved business process

Validate with the process owners and management

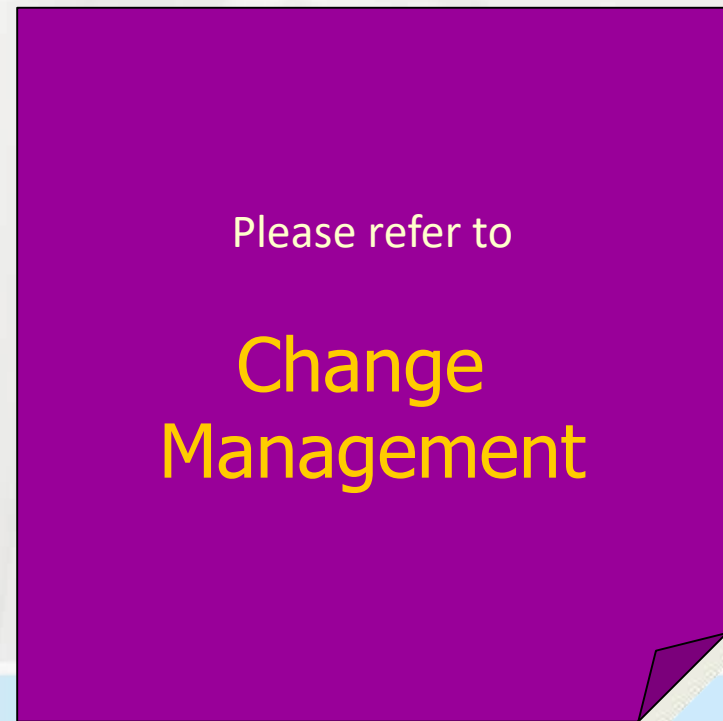
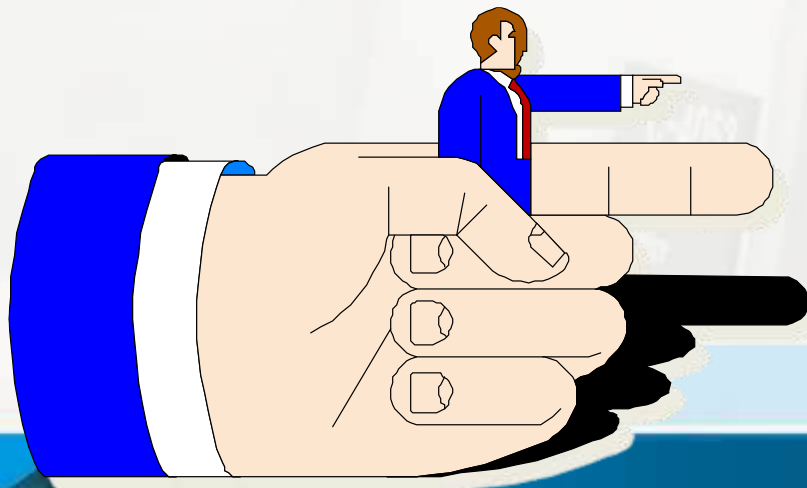
Issues
Encountered

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graph TD; A[Issues Encountered] --> B[Gain a high level understanding of the existing processes]; A --> D[Validate with the process owners and management];
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Implementation Cubic



Implementation Strategy



SUMMARY AND CONCLUSION



Summary and Conclusion

- Before = functions and hierarchy, Now = process based approach, need a change on management mind set
- BPR is a radical change, need a radical out-of-the box thinking (should not be trapped with the current/existing environment)
- Main components that should be considered in BPR program: people, process, and technology
- The measurements should exist, as a comparison base of the old and new systems
- BPR should be followed by continuous improvement
- Remember, the ones that will implement the BPR are PEOPLE, everything will depend on the people in many respects (not on technology, infrastructure, system, or even processes itself): commitment, positive thinking, willingness to change, new mind set, eagerness to improve, sense of ownership, critical awareness, and ready to act.



Discussion and Q&A

Watch Out !!!

According to Survey:

70%

of BPR Projects
Successfully Fails...

