Linking BPM and the Supply Chain

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Scope and Purpose of the presentation

- Business Processes and their supporting architecture forms the foundation of the Business Process Management implementation
- A high number of business process change projects fail in organisations
- All organisations have, or are part of a supply chain
- Effective and efficient operation of a supply chain is critical to the meeting an organisation's strategic objectives
- The purpose of this presentation is present the philosophy, principles and approach to define the appropriate baseline for Business Process Management in a Supply Chain

This presentation aims to address

- Understanding of the organisation business process
- The approach to convert existing business processes and process objects into electronic processes and process objects for BPM implementation
- The key drivers that result in failing business process projects
- Raising process maturity in the organisation in order to ensure the success of BPM implementation in the supply chain of the organisation

Content

- Part 0: Introduction
- Part I: Key Business Process Principles To Keep In Mind For A Successful Implementation
- Part II: What Do You Need To Know About BPM To Enable The Supply Chain
- Part III: Case Study: Paving The Way For A BPM Implementation
- Part IV: Conclusion

PART O: INTRODUCTION

- **Core Definitions for BPM and Supply Chain Management**
- **Overview of Business Process Management understanding**
- **Scope and status of Supply Chain Management**

Core Definitions

- BPM is the discipline of modeling, automating, managing and optimising business processes to increase profitability.
- Supply chain is the process that moves raw material to the final product in the hand of the end-customer.

Major components of BPM Solutions

- Business Process Modeling and Analysis – focuses on gaining a detailed understanding of business processes and the potential impact of changes to those processes
- Workflow automation –focuses on automating human-centric processes
- Enterprise Application Integration – focuses on the exchange of information between heterogeneous systems
- Business Activity Monitoring – focus on analyzing the efficiency and effectiveness of business processes and activities

Six Major Charactistics of BPM Initiatives (Ultimus)

- Convert paper-based business processes into electronic processes that eliminates paper forms, file folders, documents, and the inefficiencies associated with them.
- Completely automate steps by integrating with enterprise applications.
- Add intelligence to forms to reduce errors of omission (required data not filled out) or inaccurate data (e.g. pull part numbers from a database, rather than having a user enter it)
- Incorporate control features that ensure integrity of processes and compensate for human or system failure.
- Provide real-time feedback about the status of processes.
- Measure the time and cost of processes so that they can be optimised

CONTEXT FOR SUPPLY CHAIN

- **The role of supply chain management**
- **Current landscape on supply chain management in South Africa**
- **Factors to Consider in the Supply Chain**

Introduction (*)

- Flexible and responsive supply chain strategies are a critical prerequisite for enabling South African companies to enhance their international competitiveness.
- There is a growing perception that product based advantages are becoming less sustainable and more short term due to global information systems and that the competitive advantages of cost and service improvements are shifting to the supply chain.

Business Day Thursday, March 3, 2005

Supply Chain Landscape (*)

- The 2005 study confirms last years predication that the short term objective of cost reduction and increases in supply chain efficiency was unlikely to be met without an integrated approach to supply chain management processes.
- This means that more integration between customers and suppliers information in a demand network needs to exist that will increase responsiveness to fluctuating demand.
- Critical that a greater alignment between the company strategy and the operational methods used to achieve strategic goals.

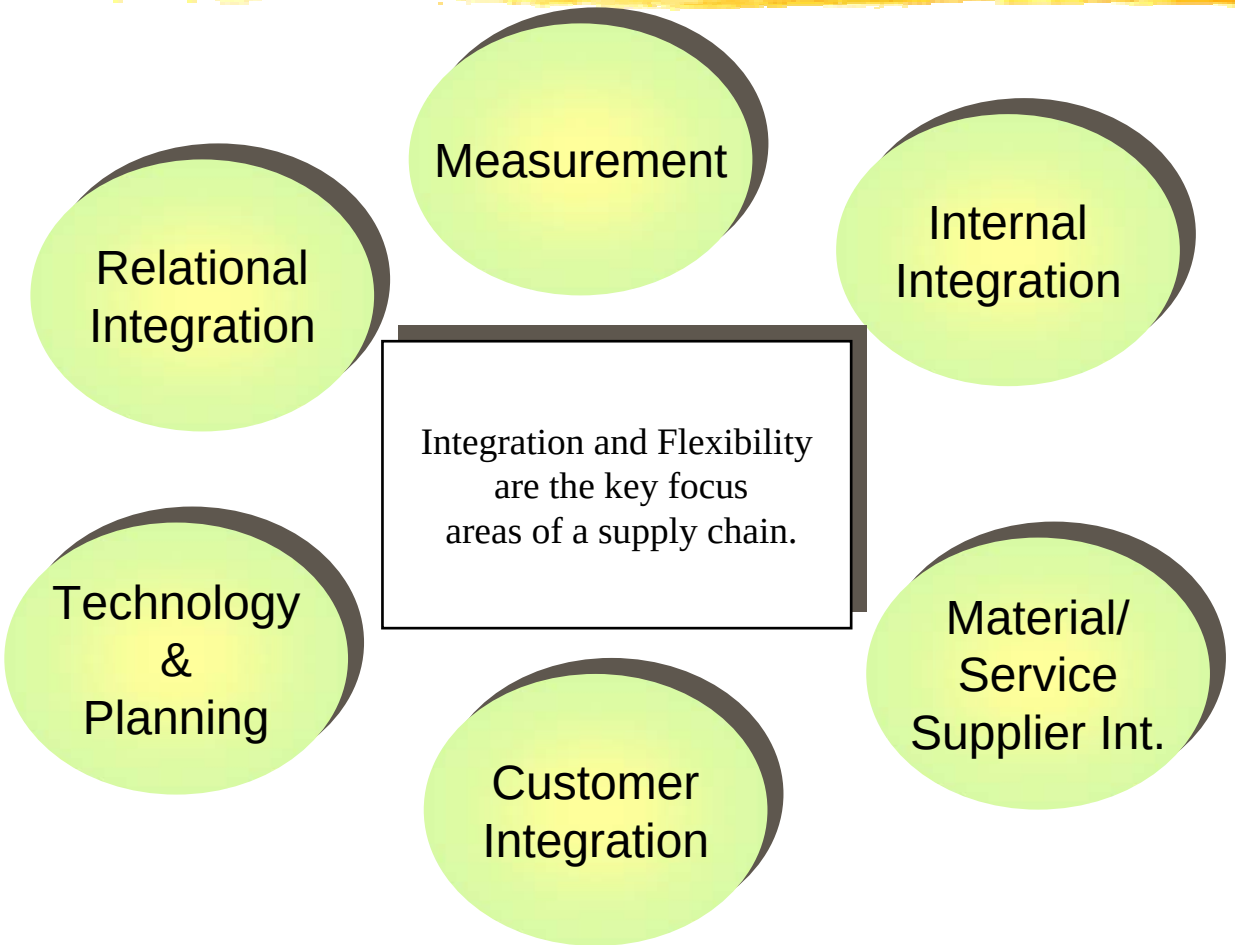
* Supply Chain Foresight Study 2005
TerraNova
On behalf of Barloworld Logistics

Supply Chain Landscape (*)

- "There was a hesitancy to tackle issues which requires a degree of integrated planning and execution across functions, such as planning, forecasting and other forms of collaboration"
- "There is a realisation that the integration of internal processes will enable the advantage through an improved and faster flow of market information, itself acquired through collaboration "
- "An increase in the importance of the management of information, for example, points to a more integrated understanding of how strategy and operations can connect to improve the whole supply chain"
- "If the overall costs of the supply chain are underestimated, then the potential cost savings and the perceived improvements in service levels to be gained from any improvements in cost reduction will also be perceived to be small, with opportunities for improvement being overlooked"

* Supply Chain Foresight Study 2005
TerraNova
On behalf of Barloworld Logistics

Factors to consider in collaborative partnerships (*)



* Spalding, R and Van Rensburg, A (2005) MBA Research Project, WBS.

Factors: Relational Integration

- Relationship prior to collaborative partnering process
- Resource availability
- Definition of exit procedures
- Information sharing between organisations
- Clear commitment, business vision
- Right governance structures in place
- Active senior sponsorship
- Cultural alignment of organisations
- Establishing trust through relational integration
- Close involvement of senior operations management

Factors: Technology and Planning

- Flexibility of both companies information systems (IS)
- IS connectivity capability
- Co-ordinated planning
- Management and implementation capability of IS teams across organisations
- The level of collaboration prior and post partnering

Factors

- **Measurement**
  - Process performance measurement
  - Seller-buyer focus on common performance metrics across organisations
  - Clearly articulated objectives
- **Customer Integration**
  - Level of sales channel segmentation
  - Management velocity
  - Sufficient capability in processes to provide support for channel co-ordination
  - Relevancy

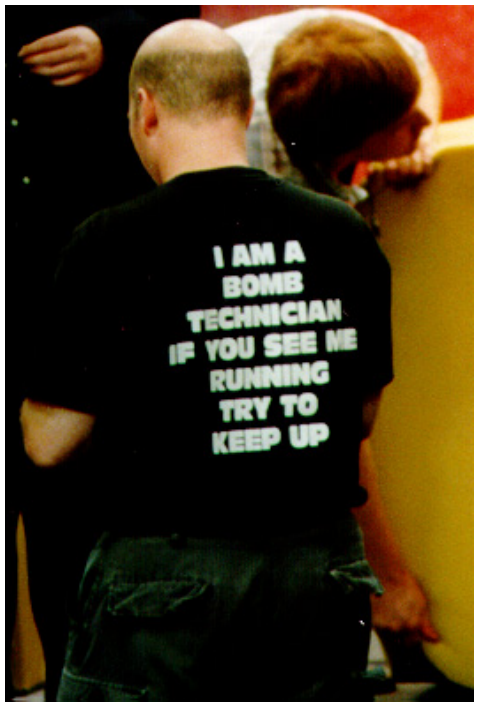
Factors

- **Internal Integration**
  - Strong internal process management
  - Standardisation
  - Structural flexibility
  - Simplification
- **Material/Service Provider Integration**
  - Operational alignment, structures and frameworks
  - Ownership of infrastructure
  - Clear commitment, business vision

Part I: Principles for processes

- **Introduction to Business Process Management – non IT, but business**
- **Core Understanding of process, change and projects**
- **Project Organisation for process change**

An appropriate approach…



Value system:

The very nature of changing an organisation's unique business processes prohibits a cook book approach

Our aim:

Use a framework based on principles to add value to business process management

WHY CHANGE ?

PRODUCTIVITY ENHANCEMENT

Reduce the cost and improve the output of resources and processes

MARKET EXPANSION

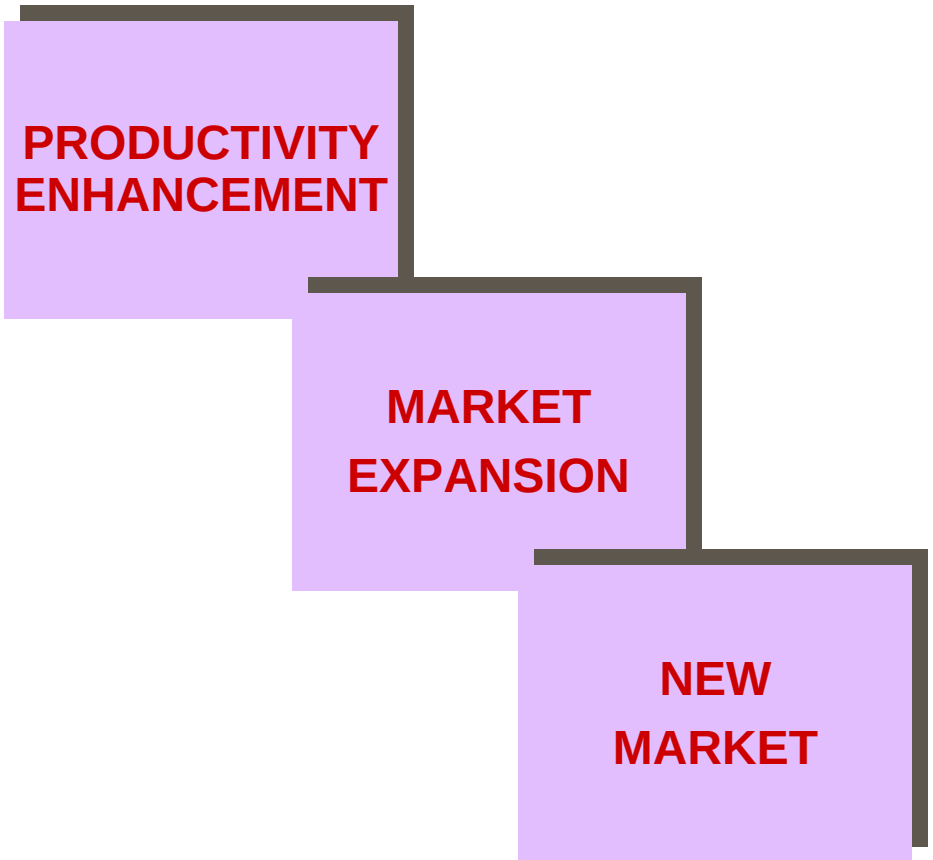
To profitably grow the size of the market and expand share of it

NEW MARKET

Profitably create new markets, and build new businesses

BPM and the supply chain

Business Philosophies



- Total Quality Management
- Just-in-time
- Concurrent Engineering
- Time Compression Management
- Business Process Re-engineering
- Knowledge Management
- Business Engineering
- Six Sigma
- BPM
- Collaboration
- Supply Chain Management

Example (before)

Portfolio

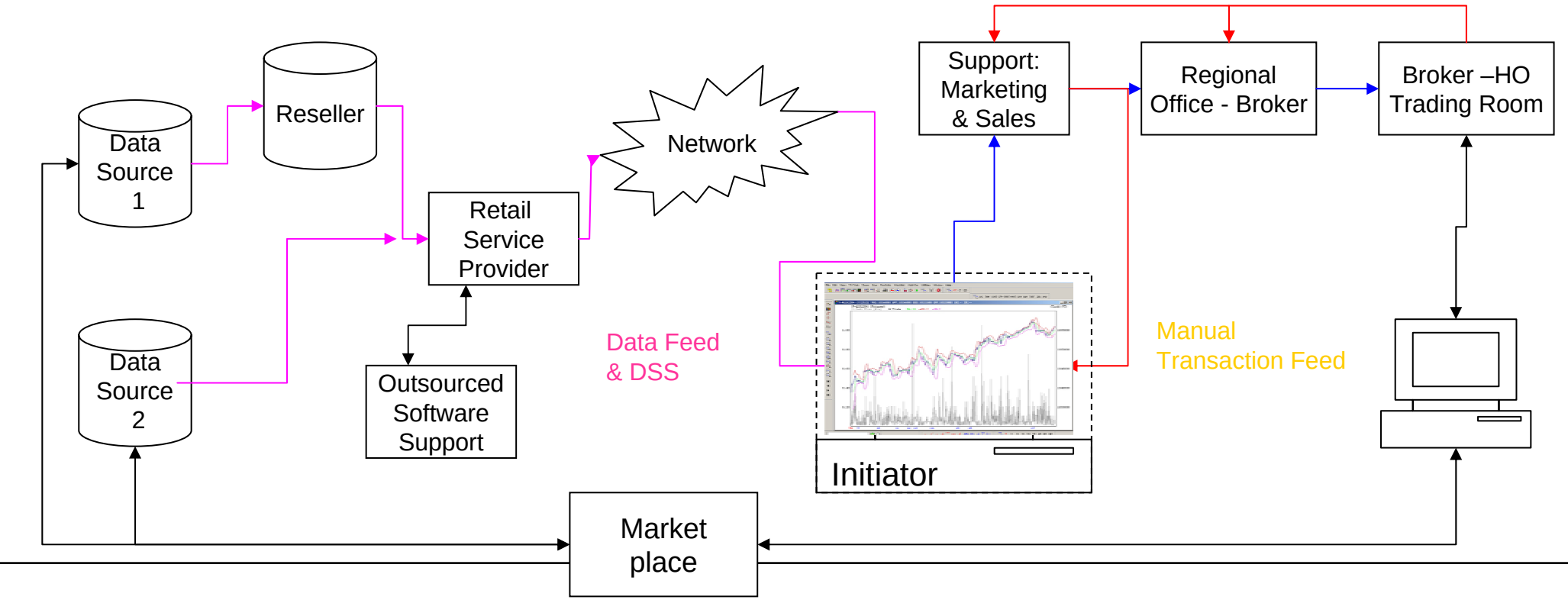
PRODUCT LINE	NM	BM
Trading	15 %	50 %
Consulting Services	35 %	40 %
Retail Investments	12 %	13 %

Project Portfolio

PROJECT
Project X

Business Case

PERFORMANCE
Time: 8-10 min
Cost: R105k/m
Risk: High



Example (After)

Portfolio

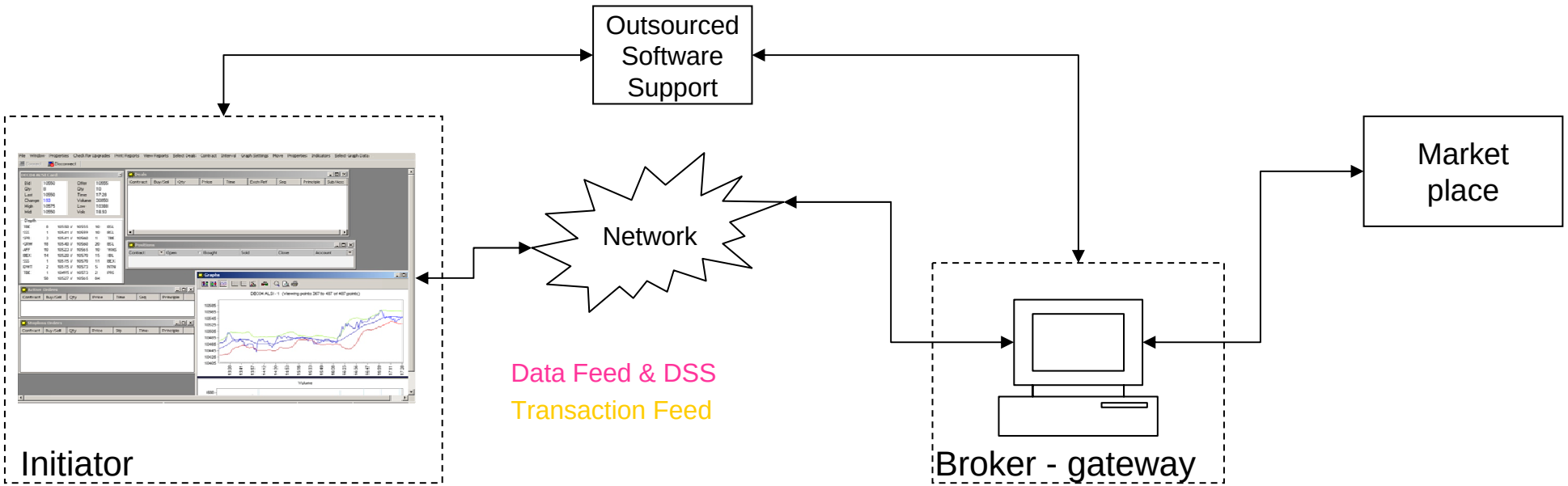
PRODUCT LINE	NM	BM
Trading	X %	50 %
Consulting Services	35 %	40 %
Retail Investments	12 %	13 %

Project Portfolio

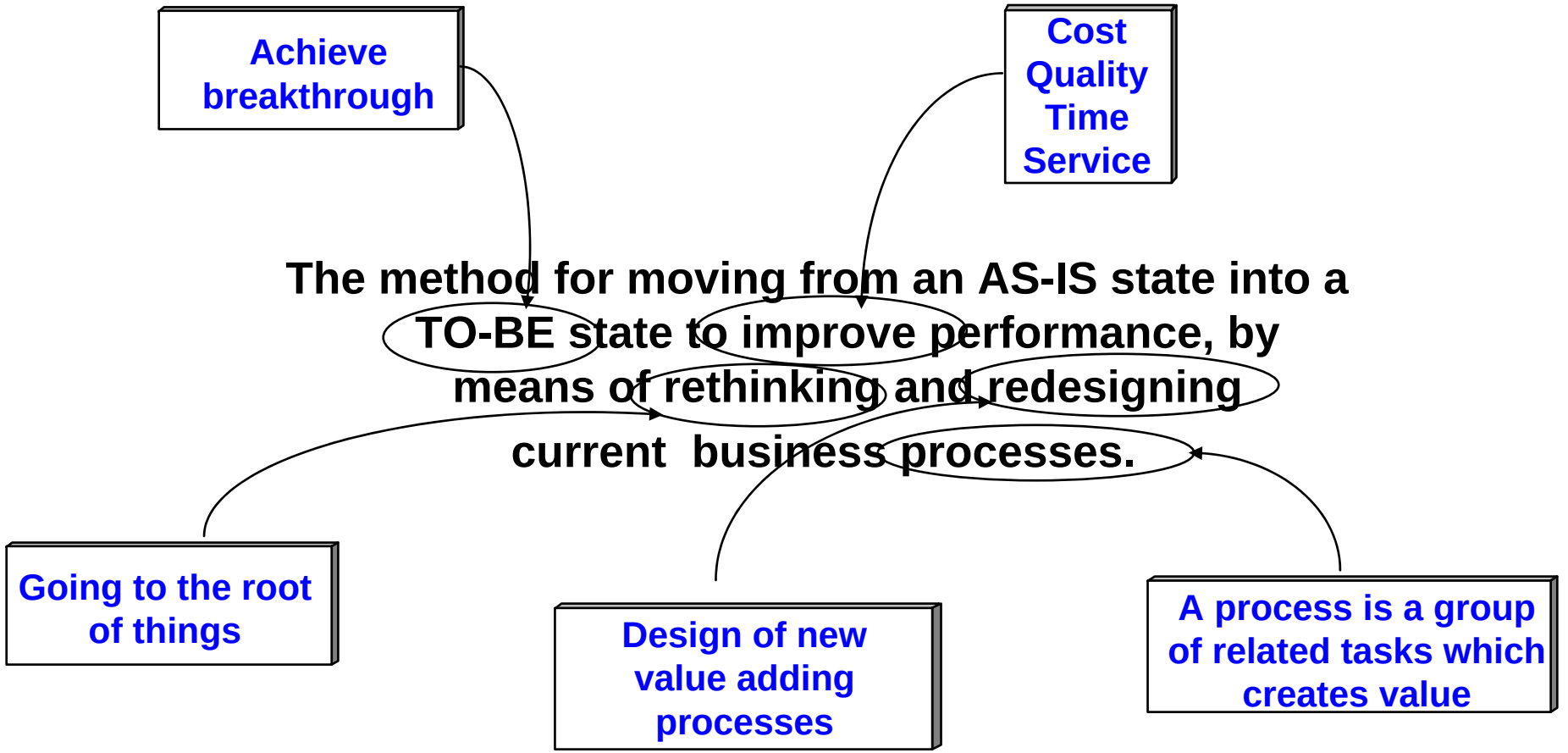
PROJECT
Project X

Business Case

PERFORMANCE
Time: real time
Cost: R30k /month
Risk: Controllable



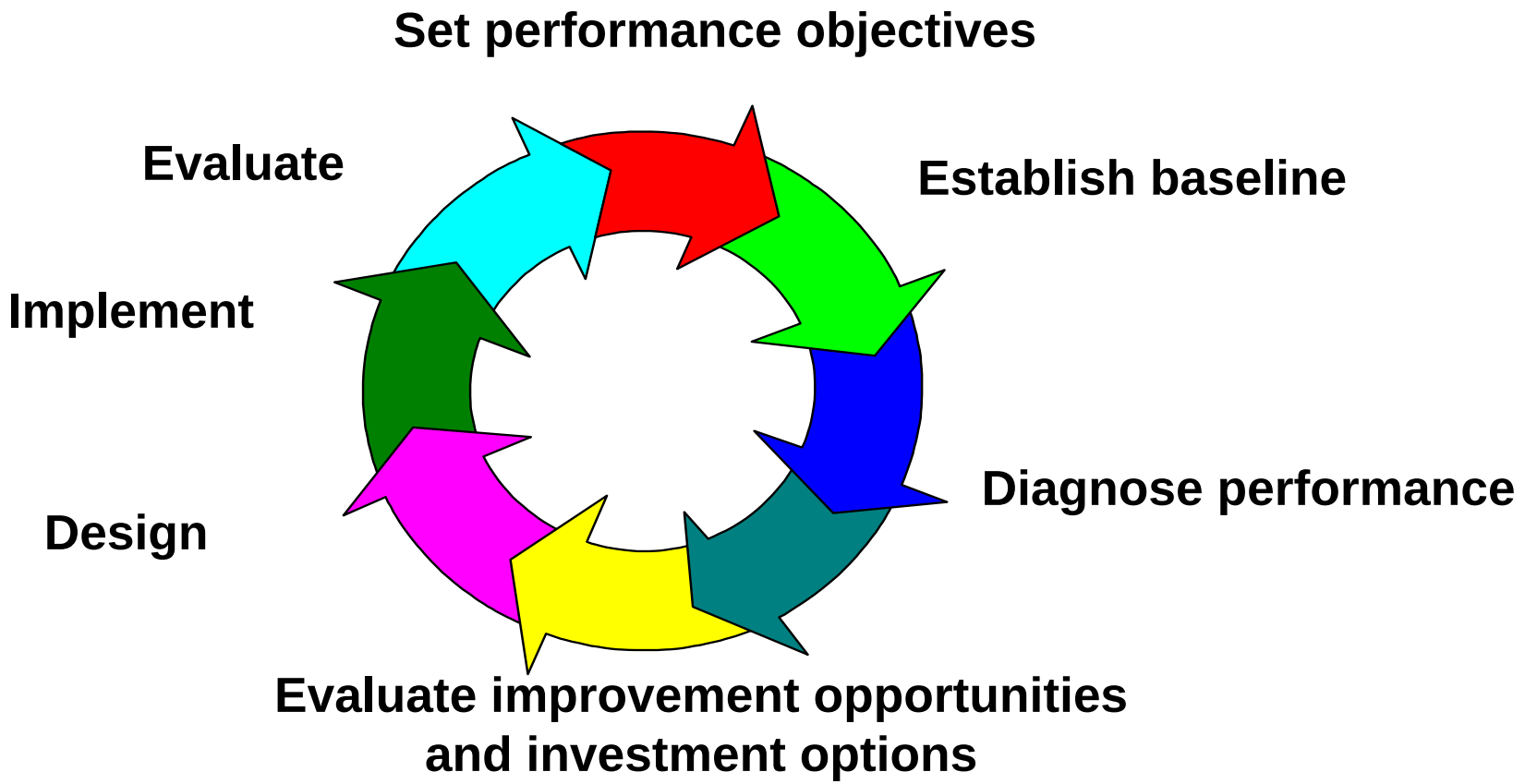
A formal definition for process change :



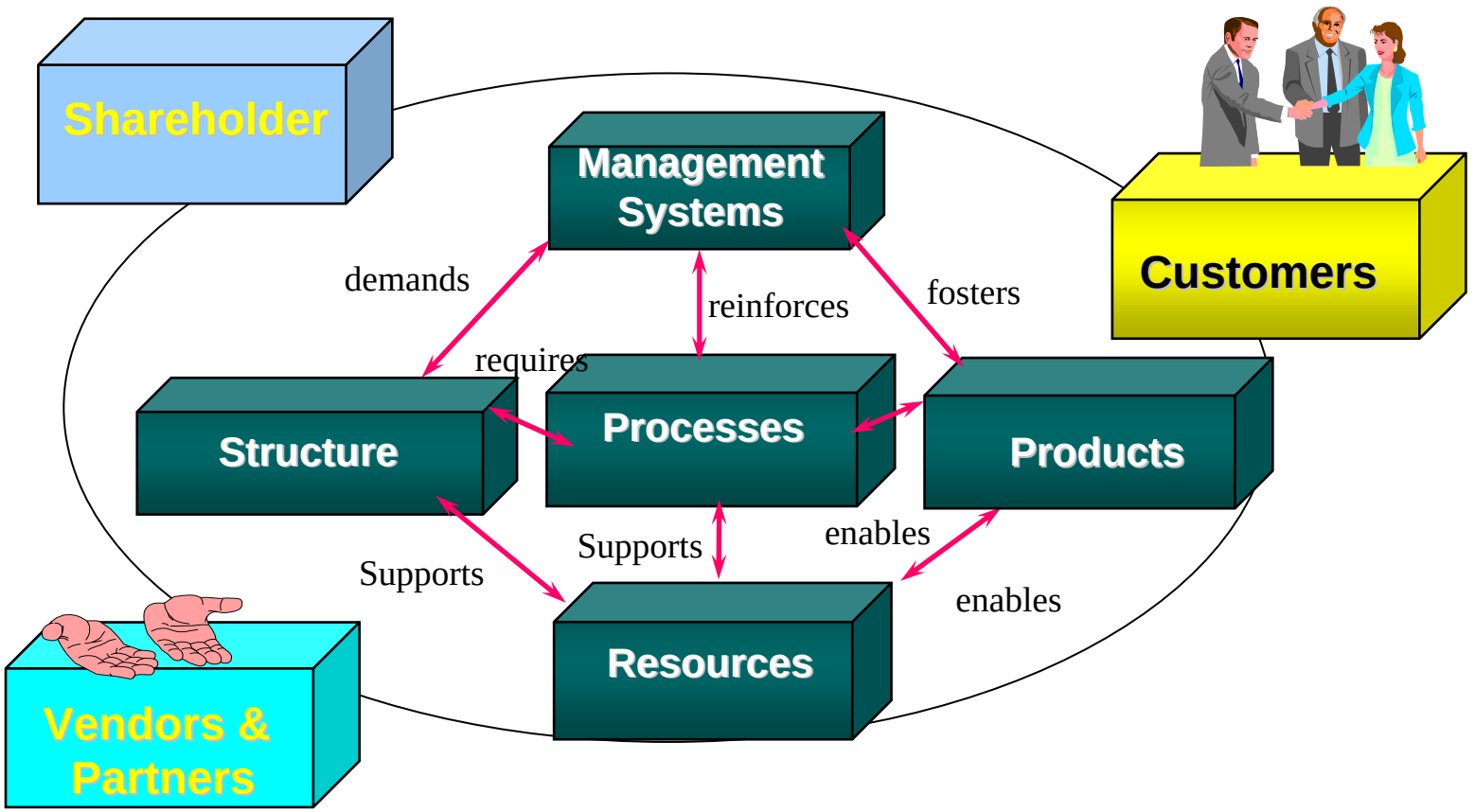
Core Understanding of process

- **How do we change ?**
- **What is the impact of change on the organisation ?**
- **What is a process ?**
- **What is the required journey ?**
- **Walk the ladder of process engineering**

The Cycle of Change



Impact of Change ?



The scope of change : The Business Lifecycle

BIRTH OF SYSTEM
What are the strategy of the organisation ?
What are the objectives, goals and actions of the organisation?
How do we manage implementation ?

REVISE SYSTEM
How do we manage growth and change over time ?

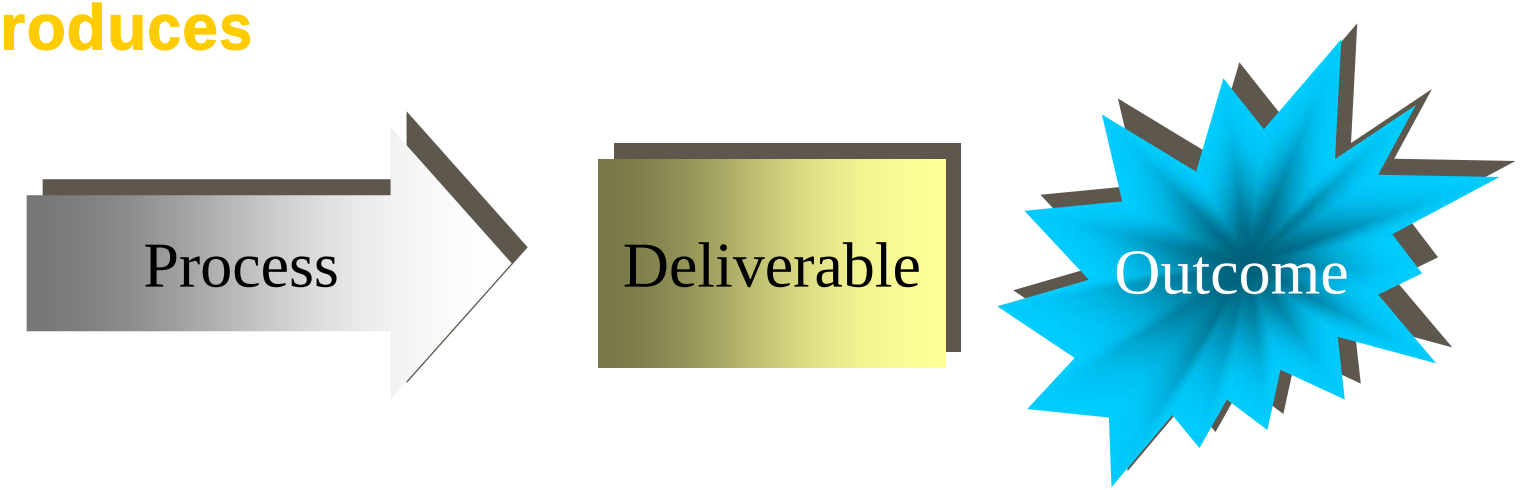
PRODUCT DESIGN AND PROCESS SELECTION
What is the form of the product ?
How do we design the service ?
How do we develop it ?
What technology do we require ?
How do we achieve quality ?

MANAGE THE SUPPLY CHAIN
How do we manage the supply chain ?
How do we manage suppliers & purchasing ?
How do we forecast demand?
How do we manage day-to-day activities of planning, scheduling and operations

DESIGN THE SYSTEM
How much capacity ?
Where should operations be located ?
How will jobs be performed and measured ?
How will workers be compensated ?
How do we measure learning ?

Process

- A process is a set of activities, which when executed, achieve a *business outcome*
- Processes *cross functional* and *organisational boundaries*
- **The most interesting about a process is the outcome it produces**



Journey of Change

MANAGE CHANGE

Educate, train, communicate, involve and do

CHANGE ACTIVITES

Innovate & Lead	Implement & Manage	Improve & Do
2-3 months	6-12 months Release every 3	Continuous
Case for Action As-Is Vision & TO-BE Business Case	Design Migration Plan Lab Pilot Roll-out	Continuous Improvement Program Measures Reward & Recognition

Discovering processes.....

TO-BE

AS-IS

This side results in jobs and organisational structures that reflect natural work processes

Organisation

Org Structure

Jobs

Jobs

Processes are not considered when organisation change - thus leads to functional organisations

Skills

Tasks

Tasks

skills

Process

Outcome Deliverables

PROJECT ORGANISATION

- **The Business Process Person**
- **Roles for process change**
- **Groups of tools & techniques**
- **Basic building blocks for success**
- **Program execution**

The BP Person

Strategic Process Planning

Project management

Business Modelling

Costing

Workflow

Facilitation

Application Development

Simulation

VISIONING

LOGICAL ANALYSIS & DESIGN

PHYSICAL DESIGN

IMPLEMENTATION

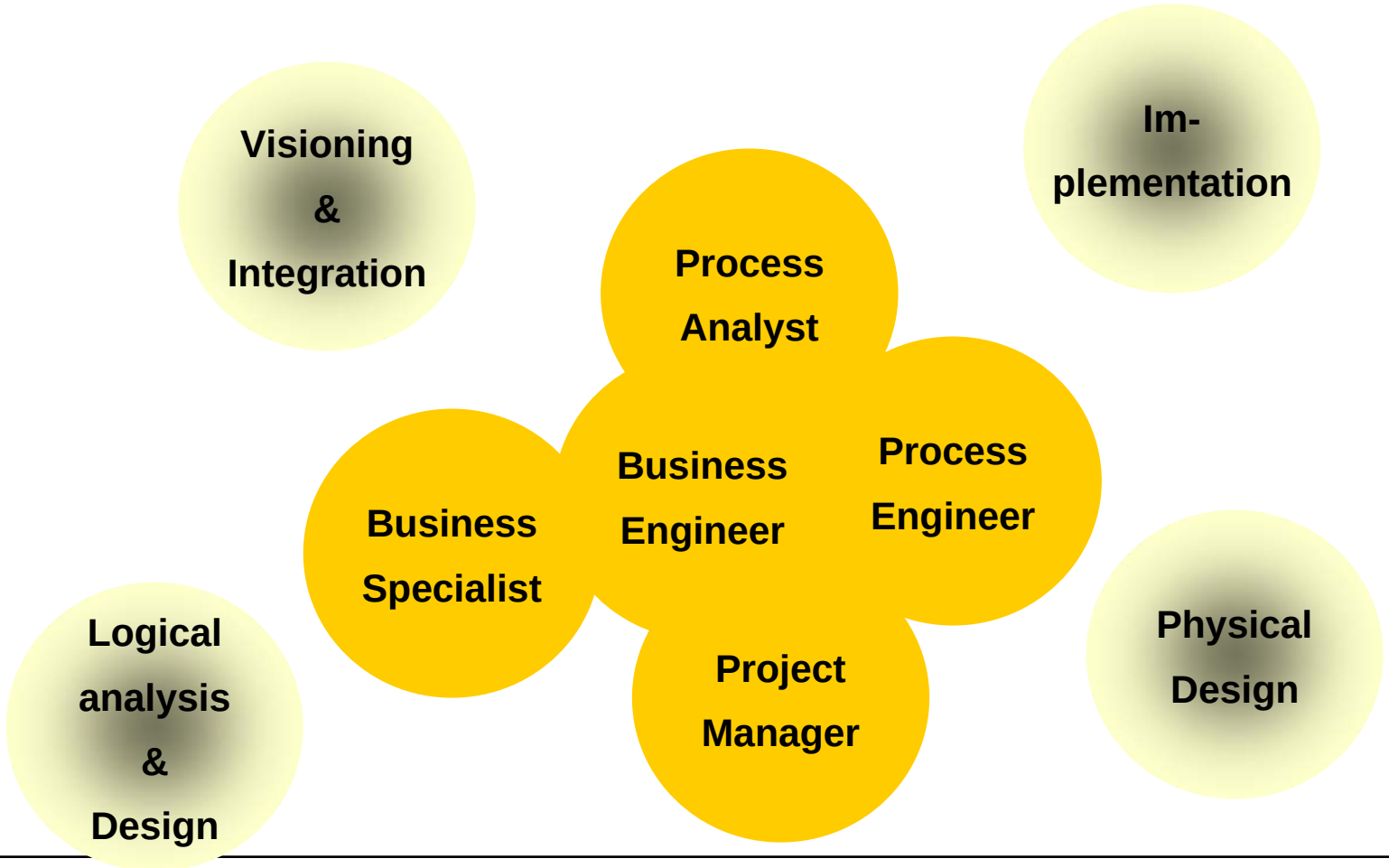
Financial Engineering

Business Architectures

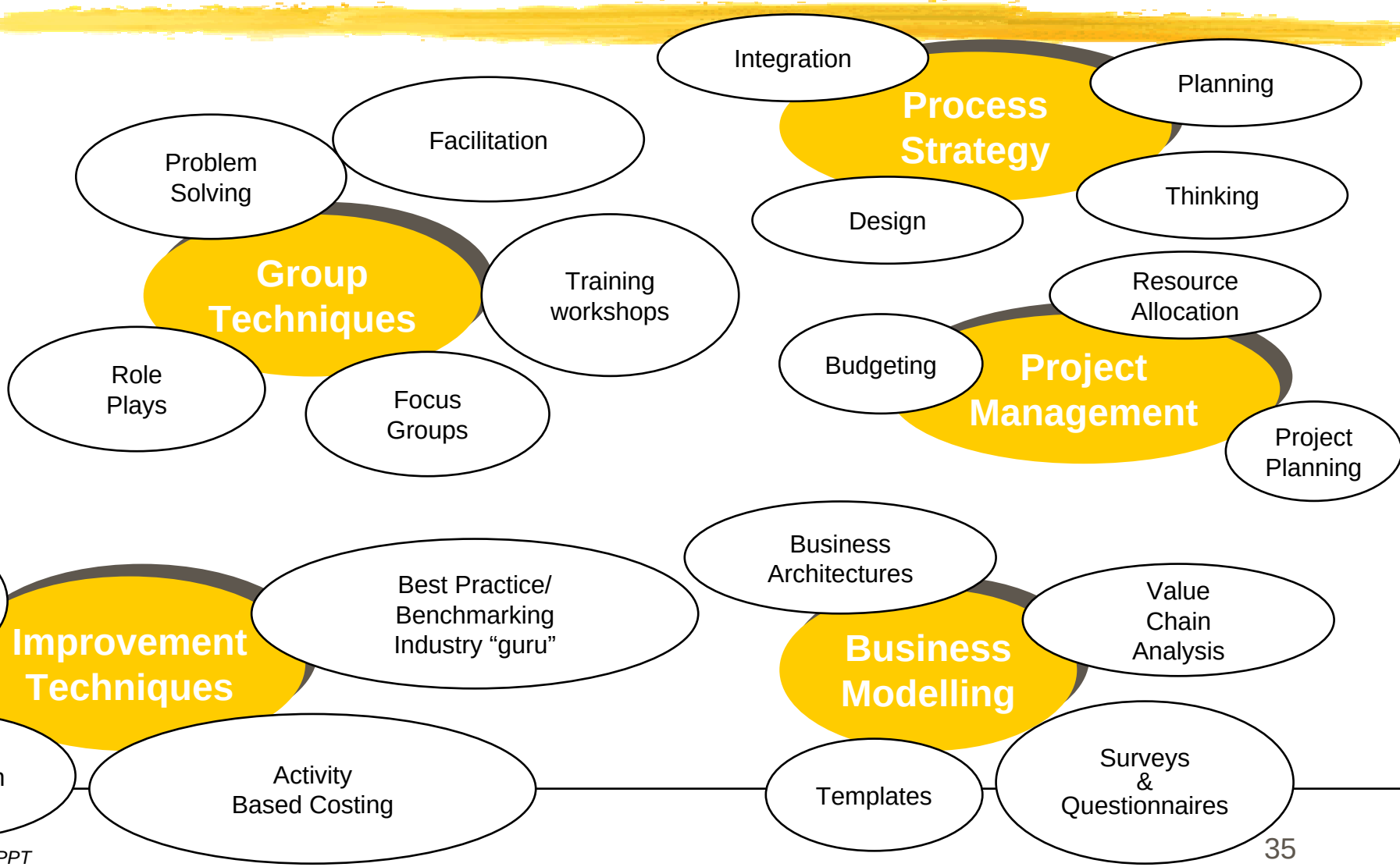
Organisational Development

Strategy

Roles for Process Change

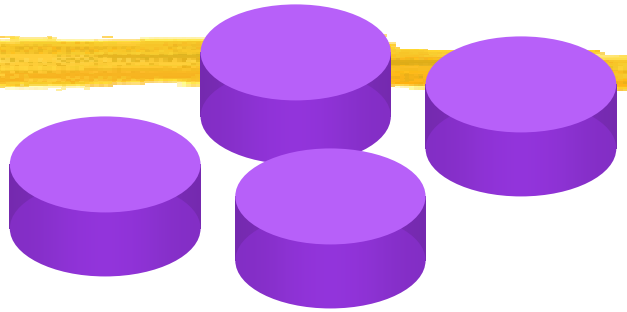


Groups of Tools & Techniques



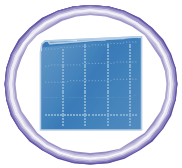
Basic building Blocks

Process-focused teams



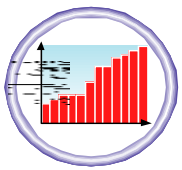
Capability development centres

Coach



Property Dev.

Change leader

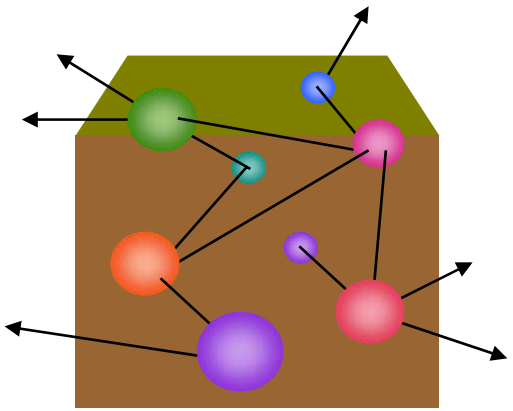


SLD

Process

Strategy

Dedicated leaders



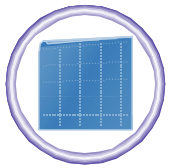
Agile technology

RUNNING THE PROGRAM

Sponsors

Steering Commitee

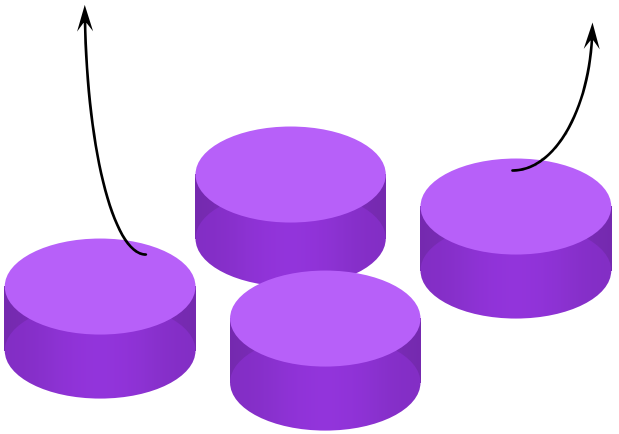
Core Process Team



Work Teams

Specialist Teams

Process-focused team



Center of Excellence

Productivity XXX

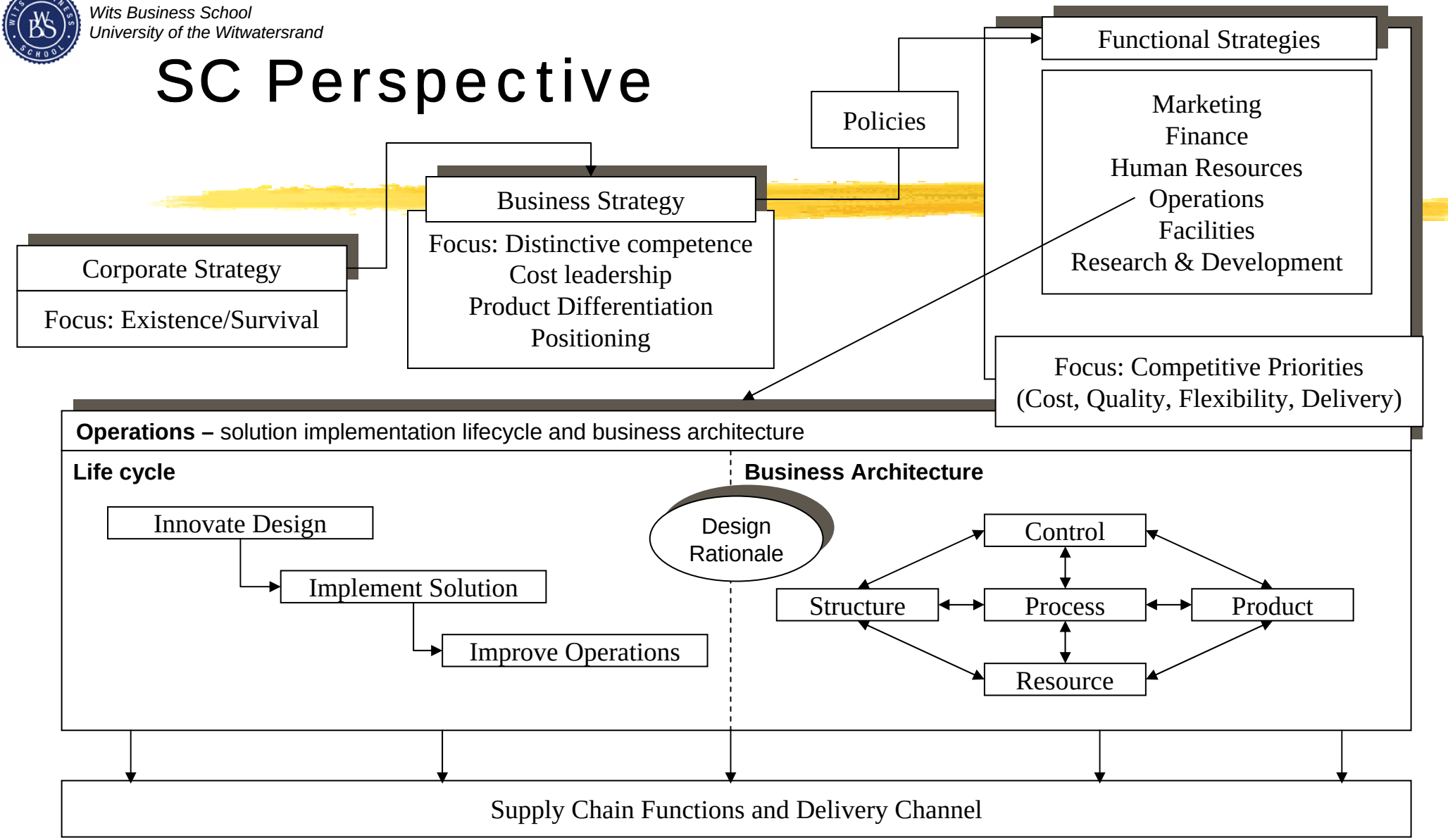
Market Exploitation XXX

New Market XXX

Financial Engineering
Business Architectures
OD
Strategy
Process Engineering
Project Management

PART II: Enabling Business Process Management

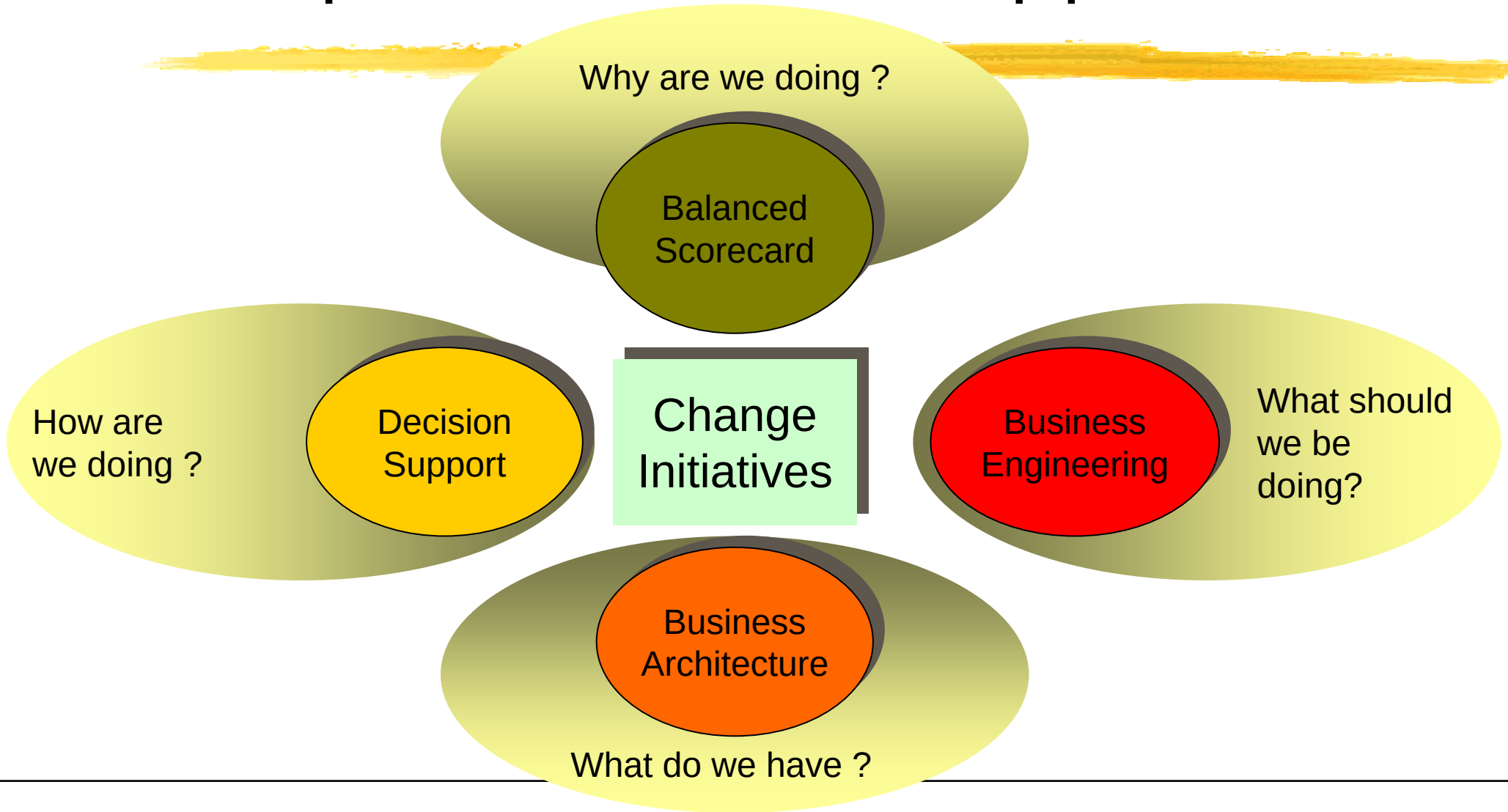
SC Perspective



Assessment of Process Capability

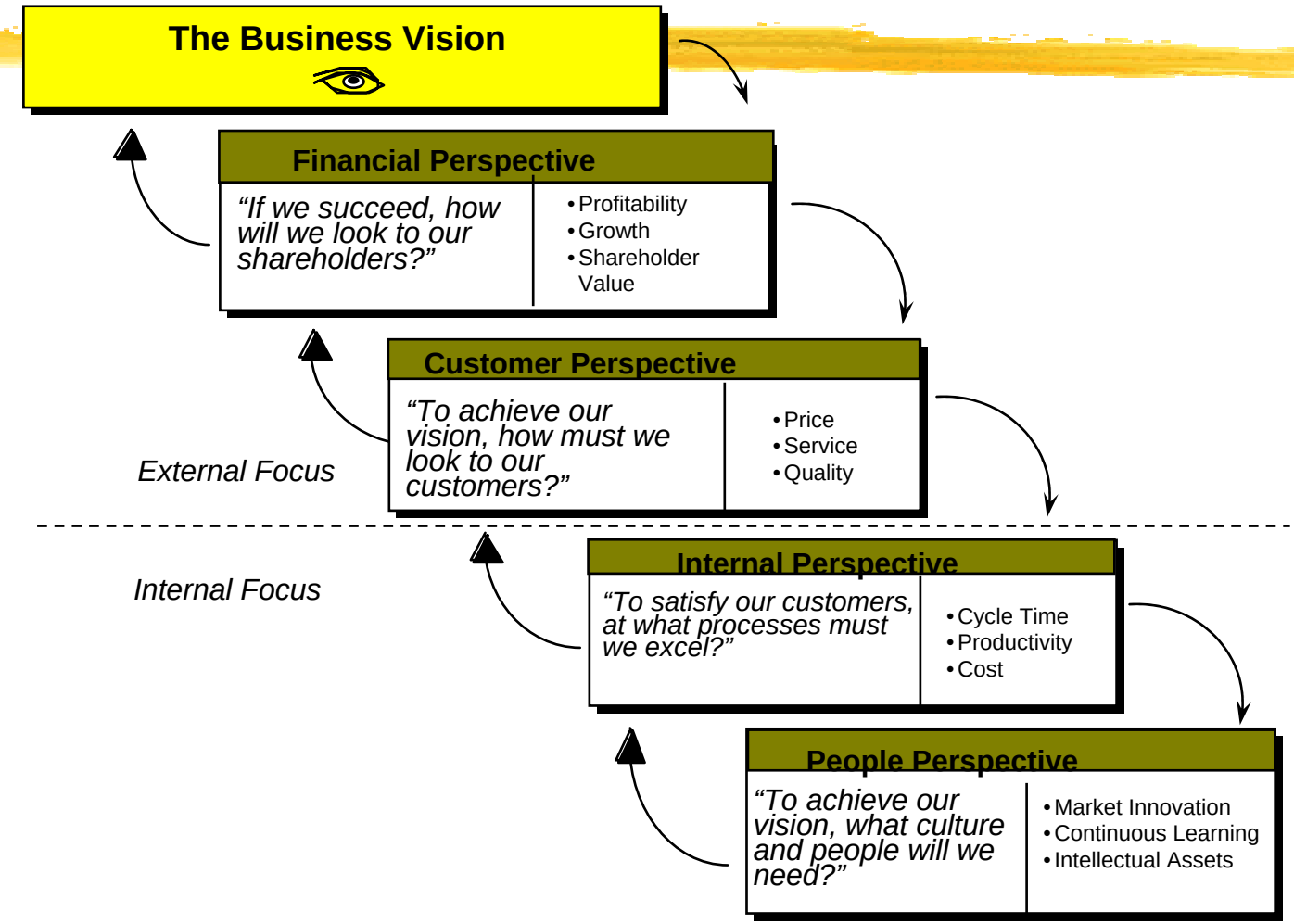
LEVELS	CHARACTERISTICS
Level 5 OPTIMISED	Capability exists for continuous improvement of process performance. Technology and process improvements are planned and managed as ordinary business activities
Level 4 MANAGED	Processes are quantifiable and predictable within measurable limits.Predict trends in process, product and service quality. High quality processes - process capacity can be managed and root causes of errors effectively addressed
Level 3 DEFINABLE	Capability is standard and consistent. Process/software engineering and management activities are stable and repeatable. Common, organisation-wide understanding of activities, roles and responsibilities exists in defined business processes.
Level 2 REPEATABLE	An effective process which is practiced, documented, enforced, trained, measured, and able to be improved
Level 1 INITIAL	Capability is a characteristic of individuals, not the organisation. Process can be repeated if same competent individuals are assigned. Success depends on competence and heroics of individuals

Enterprise Portfolio Approach

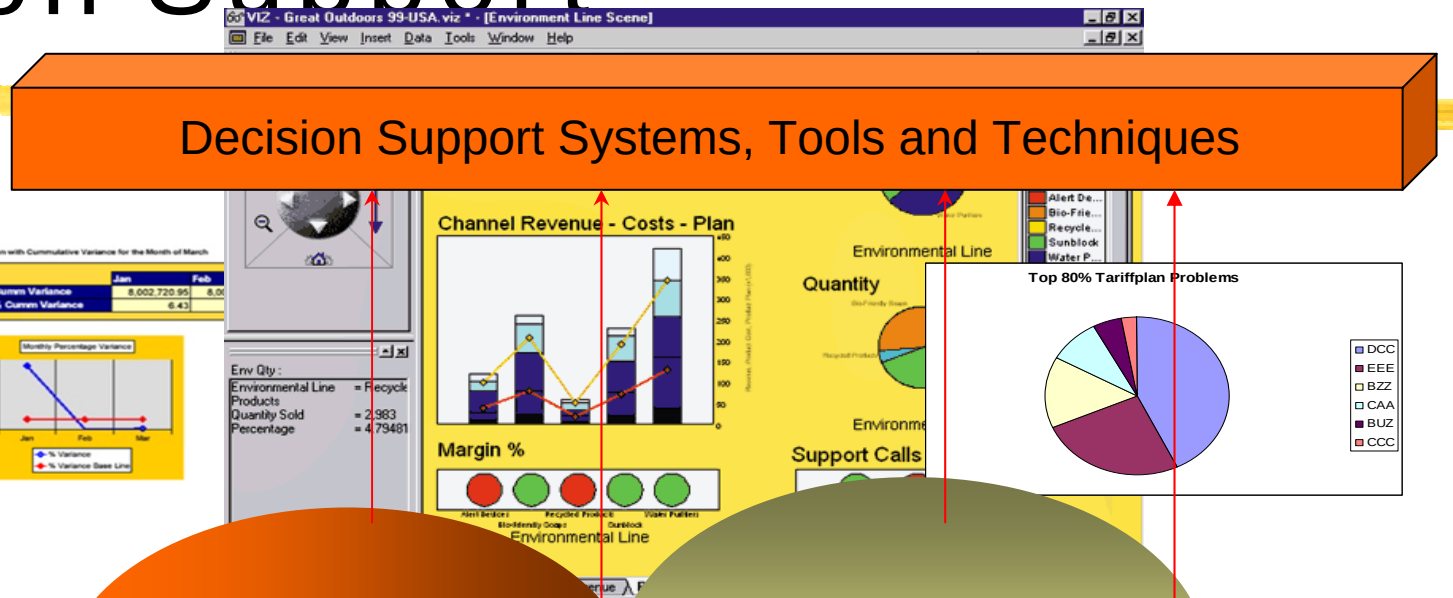


Balanced Scorecard

"management system which integrates an organisation's strategic operating objectives with balanced performance measures as a basis of monitoring planned achievement and an indication of future performance"



Decision Support



Decision Support Systems, Tools and Techniques

Warehouse

Source

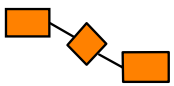
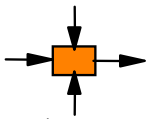
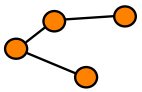
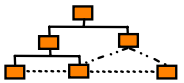
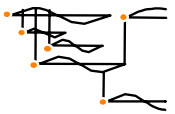
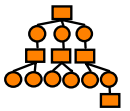
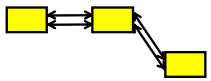
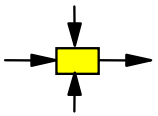
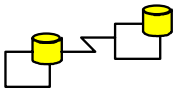
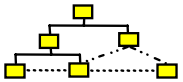
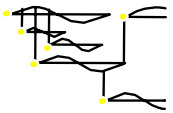
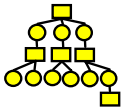
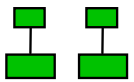
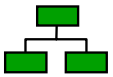
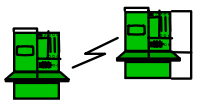
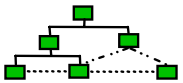
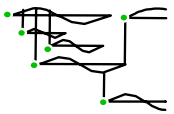
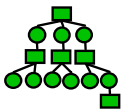
OPERATIONAL SYSTEMS

FINANCIAL SYSTEMS

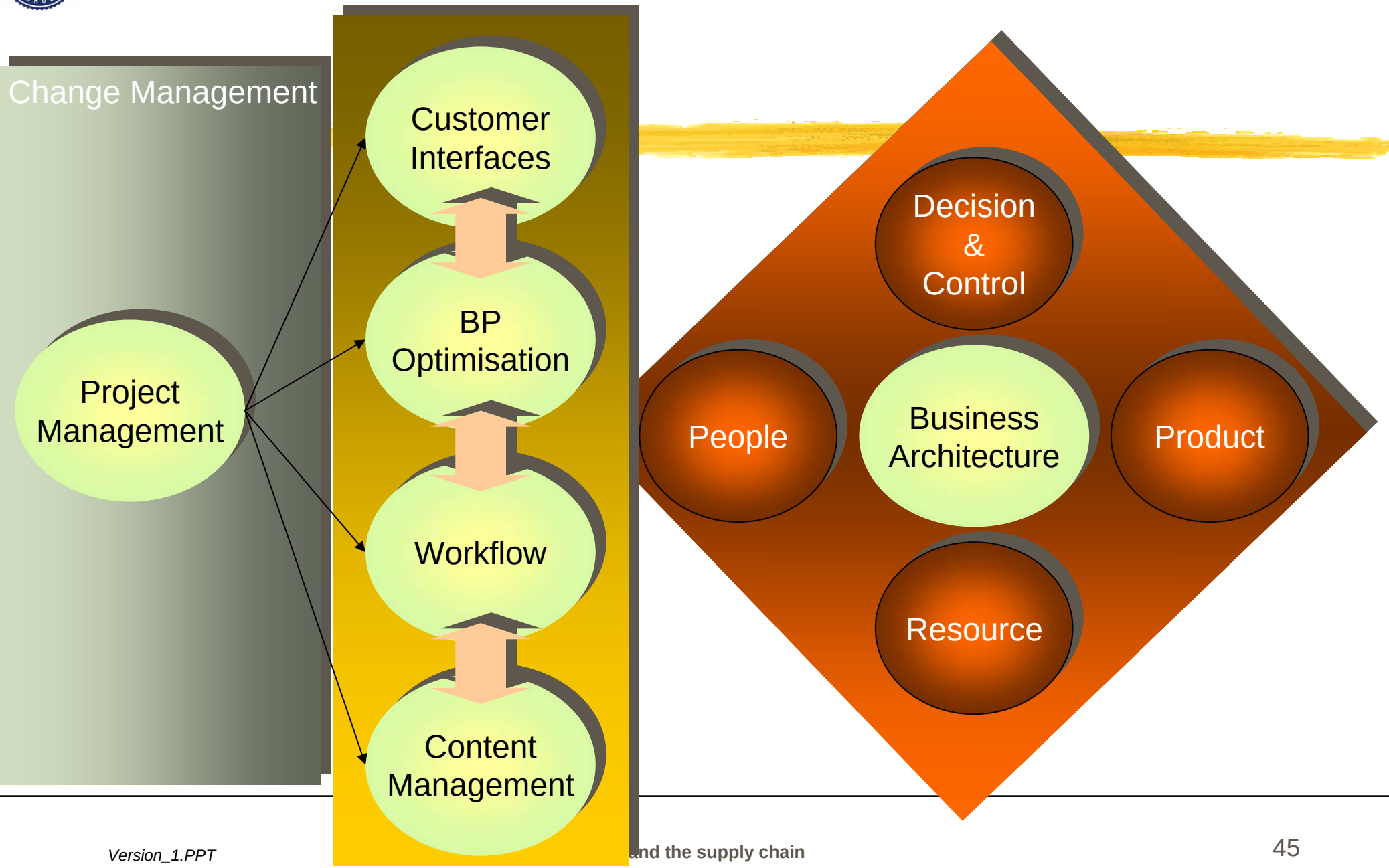
CUSTOMER SYSTEMS

HR SYSTEMS

Business Architecture

	DATA *What*	FUNCTION *How*	NETWORK *Where*	PEOPLE *Who*	TIME *When*	MOTIVATION *Why*	
SCOPE (CONTEXTUAL) *Planner*	List of Things Important to the Business  ENTITY = Class of Business Thing	List of Processes the Business Performs  Function = Class of Business Process	List of Locations in which the Business Operates  Node = Major Business Location	List of Organizations Important to the Business  People = Major Organizations	List of Events Significant to the Business  Time = Major Business Event	List of Business Goals/Strat  Ends/Means=Major Bus. Goal/ Critical Success Factor	SCOPE (CONTEXTUAL) *Planner*
ENTERPRISE MODEL (CONCEPTUAL) *Owner*	e.g. Semantic Model  Ent = Business Entity Reln = Business Relationship	e.g. Business Process Model  Proc. = Business Process I/O = Business Resources	e.g. Logistics Network  Node = Business Location Link = Business Linkage	e.g. Work Flow Model  People = Organization Unit Work = Work Product	e.g. Master Schedule  Time = Business Event Cycle = Business Cycle	e.g. Business Plan  End = Business Objective Means = Business Strategy	ENTERPRISE MODEL (CONCEPTUAL) *Owner*
SYSTEM MODEL (LOGICAL) *Designer*	e.g. Logical Data Model  Ent = Data Entity Reln = Data Relationship	e.g. "Application Architecture"  Proc .= Application Function I/O = User Views	e.g. "Distributed System Architecture"  Node = I/S Function (Processor, Storage, etc) Link = Line Characteristics	e.g. Human Interface Architecture  People = Role Work = Deliverable	e.g. Processing Structure  Time = System Event Cycle = Processing Cycle	e.g., Business Rule Model  End = Structural Assertion Means =Action Assertion	SYSTEM MODEL (LOGICAL) *Designer*
TECHNOLOGY MODEL (PHYSICAL) *Builder*	e.g. Physical Data Model  Ent = Segment/Table/etc. Reln = Pointer/Key/etc.	e.g. "System Design"  Proc.= Computer Function I/O = Screen/Device Formats	e.g. "System Architecture"  Node = Hardware/System Software Link = Line Specifications	e.g. Presentation Architecture  People = User Work = Screen Format	e.g. Control Structure  Time = Execute Cycle = Component Cycle	e.g. Rule Design  End = Condition Means = Action	TECHNOLOGY CONSTRAINED MODEL (PHYSICAL) *Builder*
DETAILED REPRESEN-TATIONS (OUT-OF-CONTEXT) *Sub-Contractor*	e.g. Data Definition  Ent = Field Reln = Address	e.g. "Program"  Proc.= Language Stmt I/O = Control Block	e.g. "Network Architecture"  Node = Addresses Link = Protocols	e.g. Security Architecture  People = Identity Work = Job	e.g. Timing Definition  Time = Interrupt Cycle = Machine Cycle	e.g. Rule Specification  End = Sub-condition Means = Step	DETAILED REPRESEN-TATIONS (OUT-OF-CONTEXT) *Sub-Contractor*
FUNCTIONING ENTERPRISE	e.g. DATA	e.g. FUNCTION	e.g. NETWORK	e.g. ORGANIZATION	e.g. SCHEDULE	e.g. STRATEGY	FUNCTIONING ENTERPRISE

BUSINESS ENGINEERING FRAMEWORK



Project Management

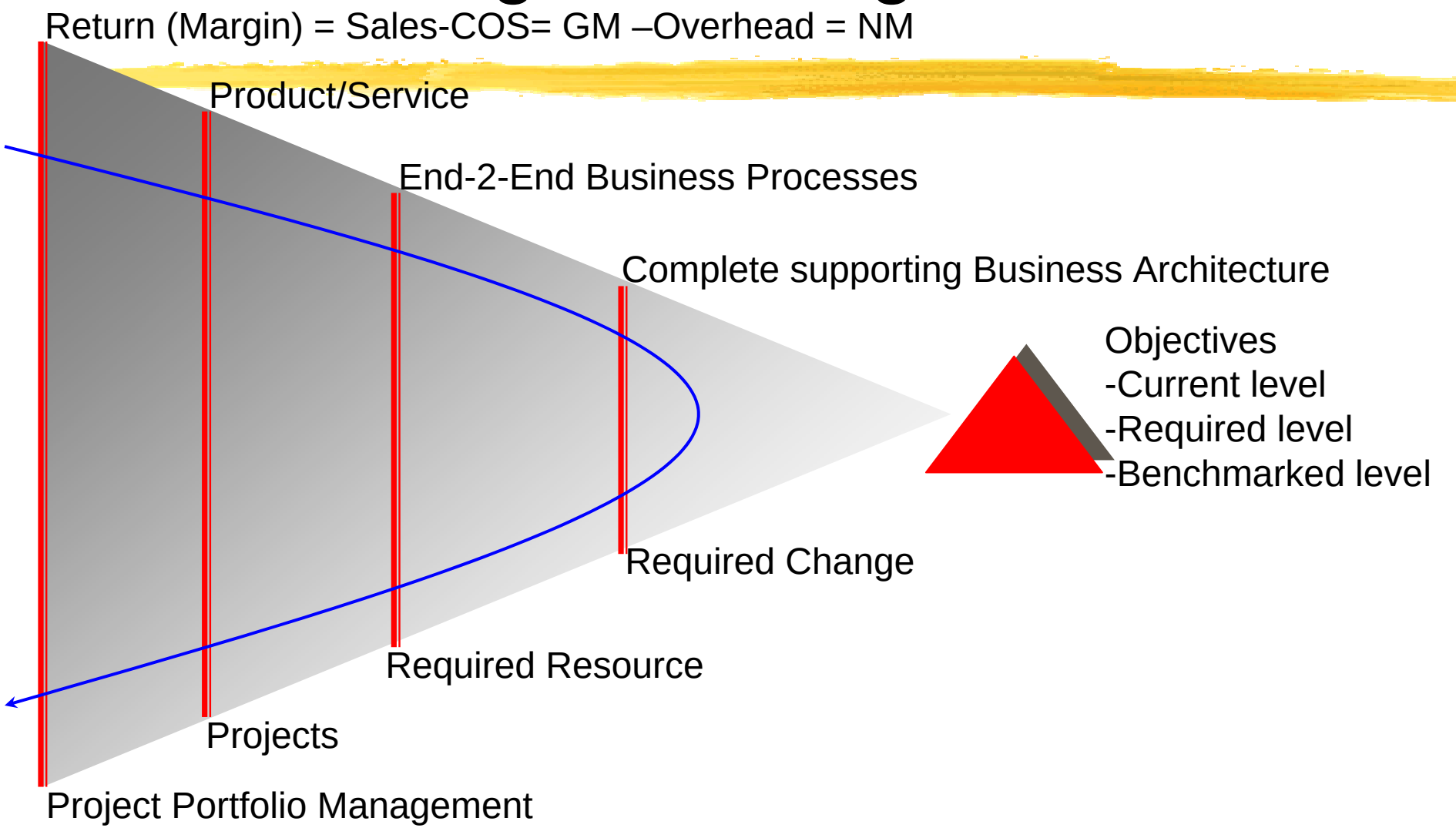
MANAGE CHANGE

Educate, train, communicate, involve and do

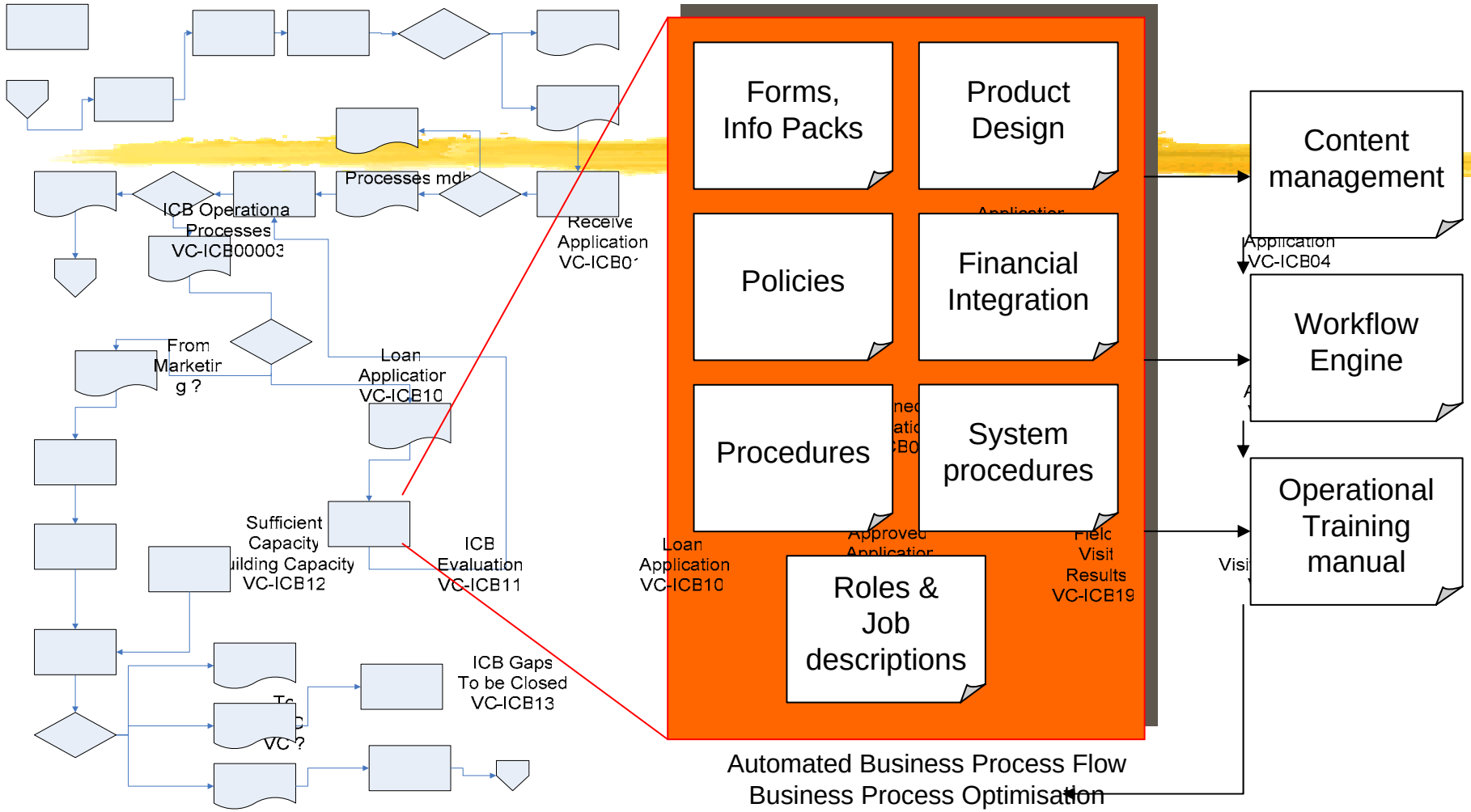
CHANGE ACTIVITES

Innovate & Lead	Implement & Manage	Improve & Do
2-3 months	6-12 months Release every 3	Continuous
Case for Action As-Is Vision & TO-BE Business Case	Design Migration Plan Lab Pilot Roll-out	Continuous Improvement Program Measures Reward & Recognition

Change Management

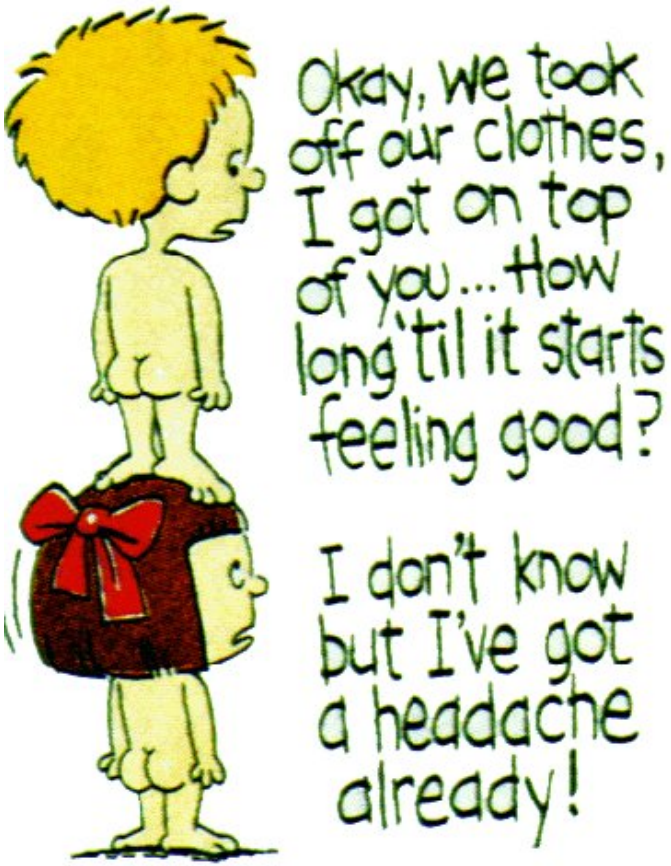


Content Management Level



PART III: CASE STUDY

PART IV: Conclusion



Closing remarks

Q&A

Q & A