

BPR LIFECYCLE

Business Process Reengineering

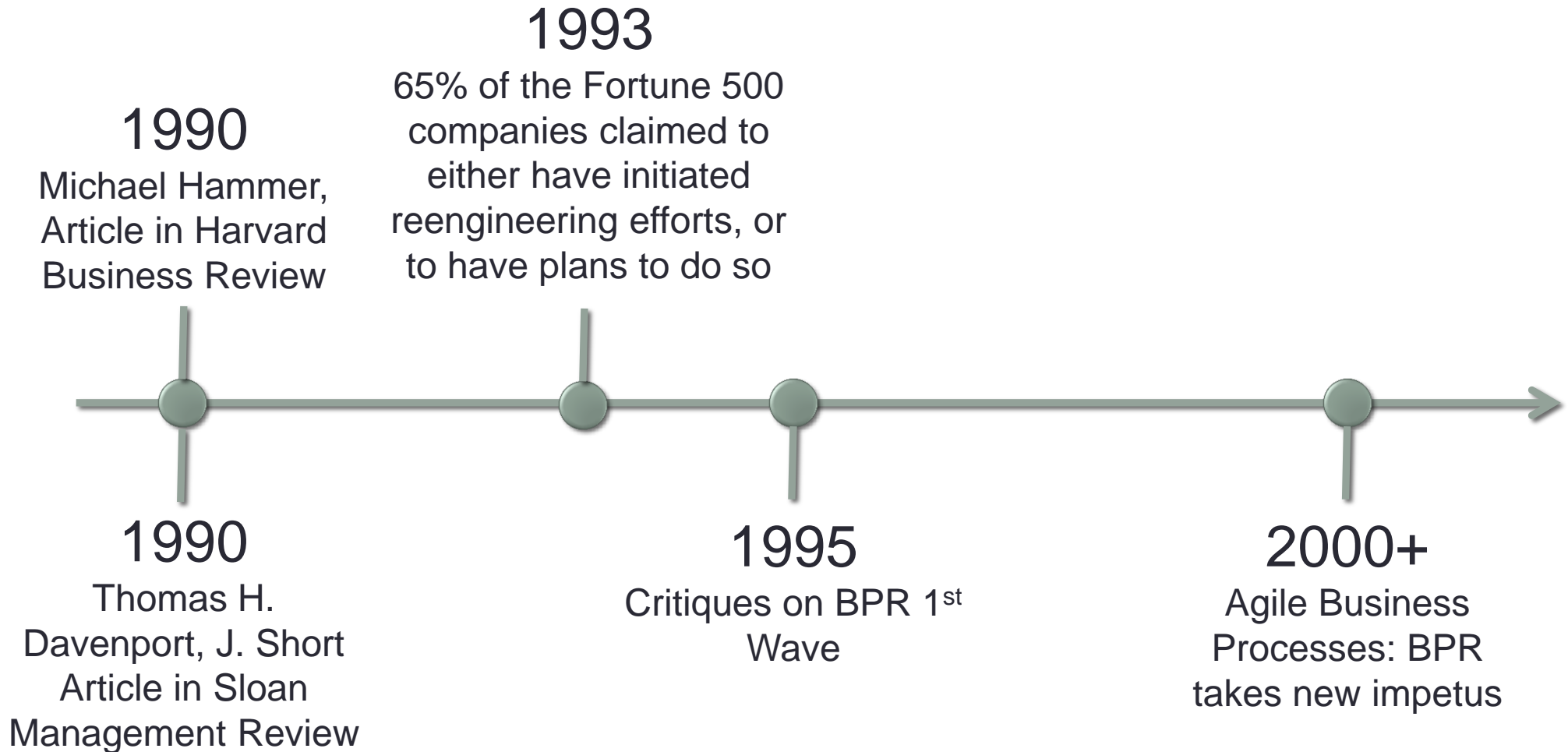
by

Lampathaki F., Koussouris S., Psarras J.

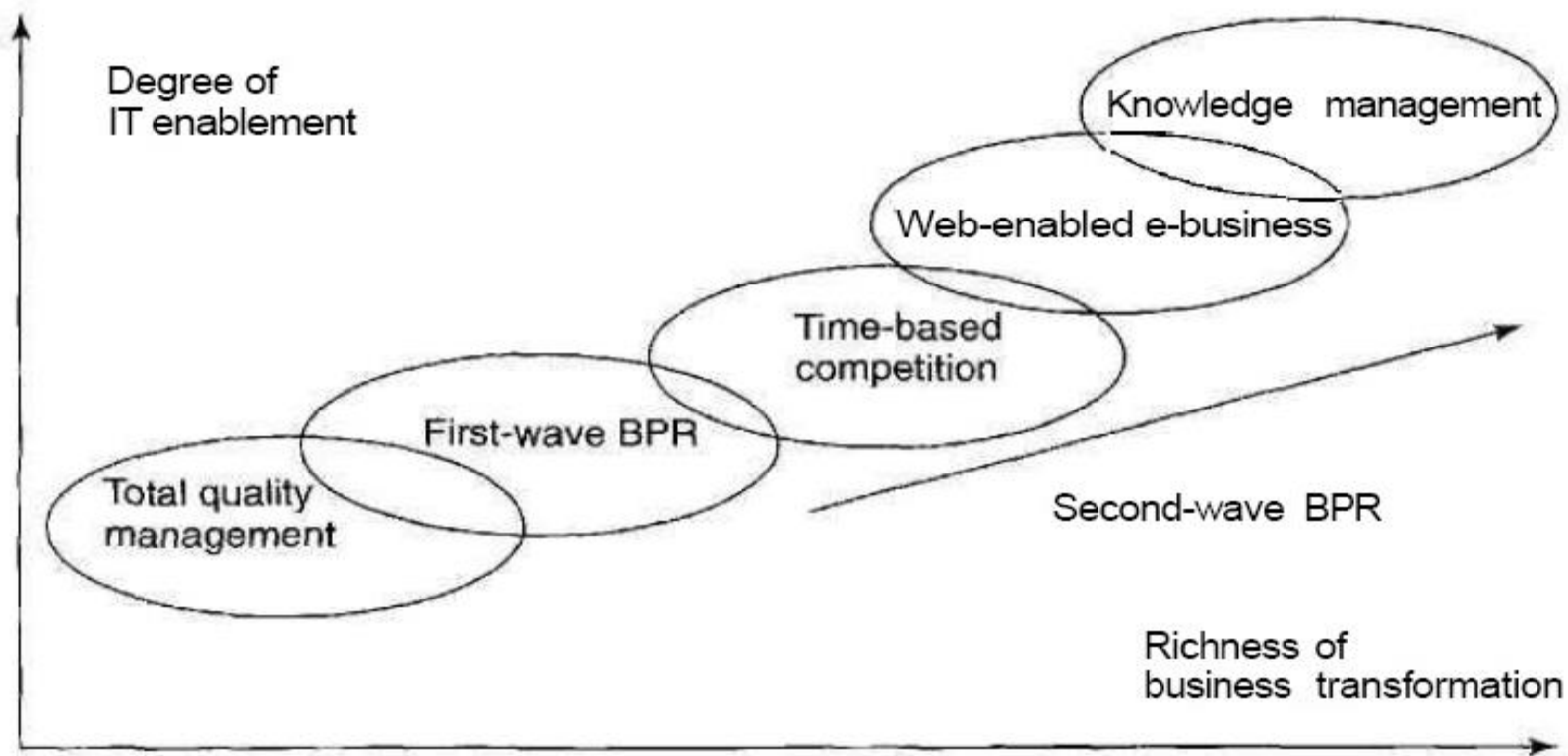
Roots of BPR in history

- **Adam Smith (1776, The Wealth of Nations)**
- Use separating work areas to increase productivity
- **American Railway (1820)**
- Create modern business bureaucracy (control-command procedures)
- **Frederick Taylor (1880)**
- Observation and analysis through time study to set the optimal production rate. In other words, develop a science for each mans task a One Best Way.
- Scientifically select the best man for the job and train him in the procedures he is expected to follow.
- Cooperate with the man to ensure that the work is done as described. This means establishing a differential rate system of piece work and paying the man on an incentive basis, not according to the position.
- Divide the work between managers and workers so that managers are given the responsibility for planning and preparation of work, rather than the individual worker.
 - Tawney (1954): The strict belief in man being totally rational, and the history of Protestant ethic, which considered work as being a manifestation of religious grace, made him disregard the crucial issue of human behaviour and the fact that money is insufficient as the single source of motivation.
 - Thompson (1969): Scientific management, focusing primarily on manufacturing or similar production activities, clearly employs economic efficiency as its ultimate criterion and achieves conceptual closure of the organization by assuming that goals are known, tasks are repetitive, output of the production process somehow disappears, and resources in uniform qualities are available.
 - Drucker (1972): Scientific management was not concerned with technology. It took tools and technology as givens.

A historic perspective



BPR Evolution



Source: Omar A. El Sawy, *Redesigning Enterprise Processes for eBusiness*, McGraw-Hill

Selecting the right timing for BPR

When in power position:

- To strengthen its competitive advantage
- To widen the gap from its competitors

When facing problems:

- To map a strategy and future action plan
- To consolidate its position
- To avoid deterioration of problems

In the brick of bankruptcy:

- To survive
- To revolutionize its strategy and mode of operation

Preparation for BPR

- Identify and quantify process improvement opportunities
- Establish objectives "stretching" the existing activities
- Identify benefits for the organization
- Identify the necessary changes

Reengineering Process

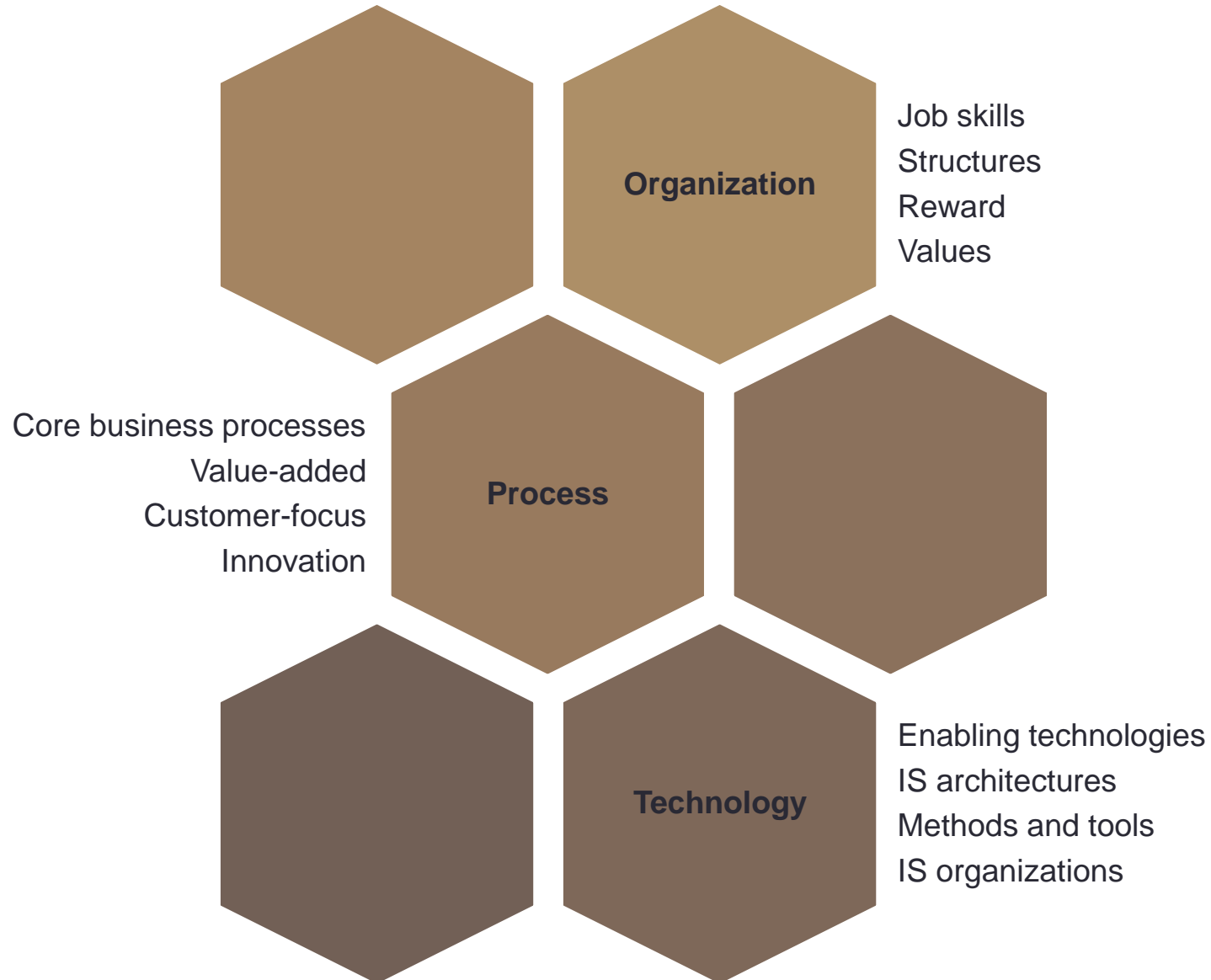
1. Preparation – What the customer actually wants from the business
2. Strategy Development – Develop Strategic Processes, Analysis & Prioritization
3. Organizational System Design - Create a Core team of People
4. Implementation – Realization of technical and social objectives

BPR Principles

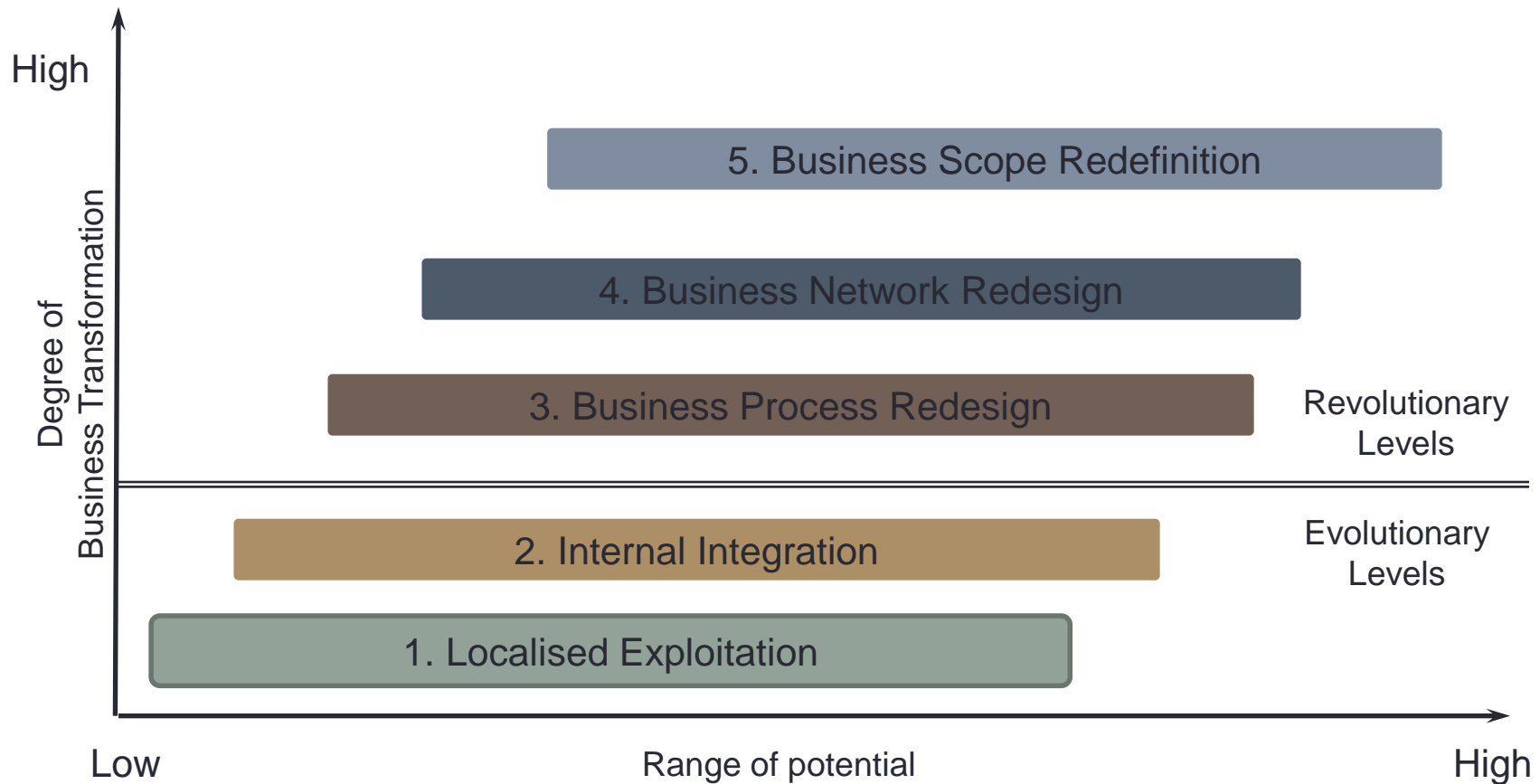
- Organize around outcomes, not tasks.
- Have those who use the output of the process perform the process
- Subsume information-processing work into the real work that produces the information
- Treat geographically dispersed resources as though they were centralized
- Link parallel activities instead of integrating their results
- Put decision points where the work is performed and build controls into the process
- Capture information at the source

Michael Hammer, "Reengineering Work: Don't Automate, Obliterate," Harvard Business Review, July-August, 1990, pp. 104-112

A BPR Framework



BPR Levels

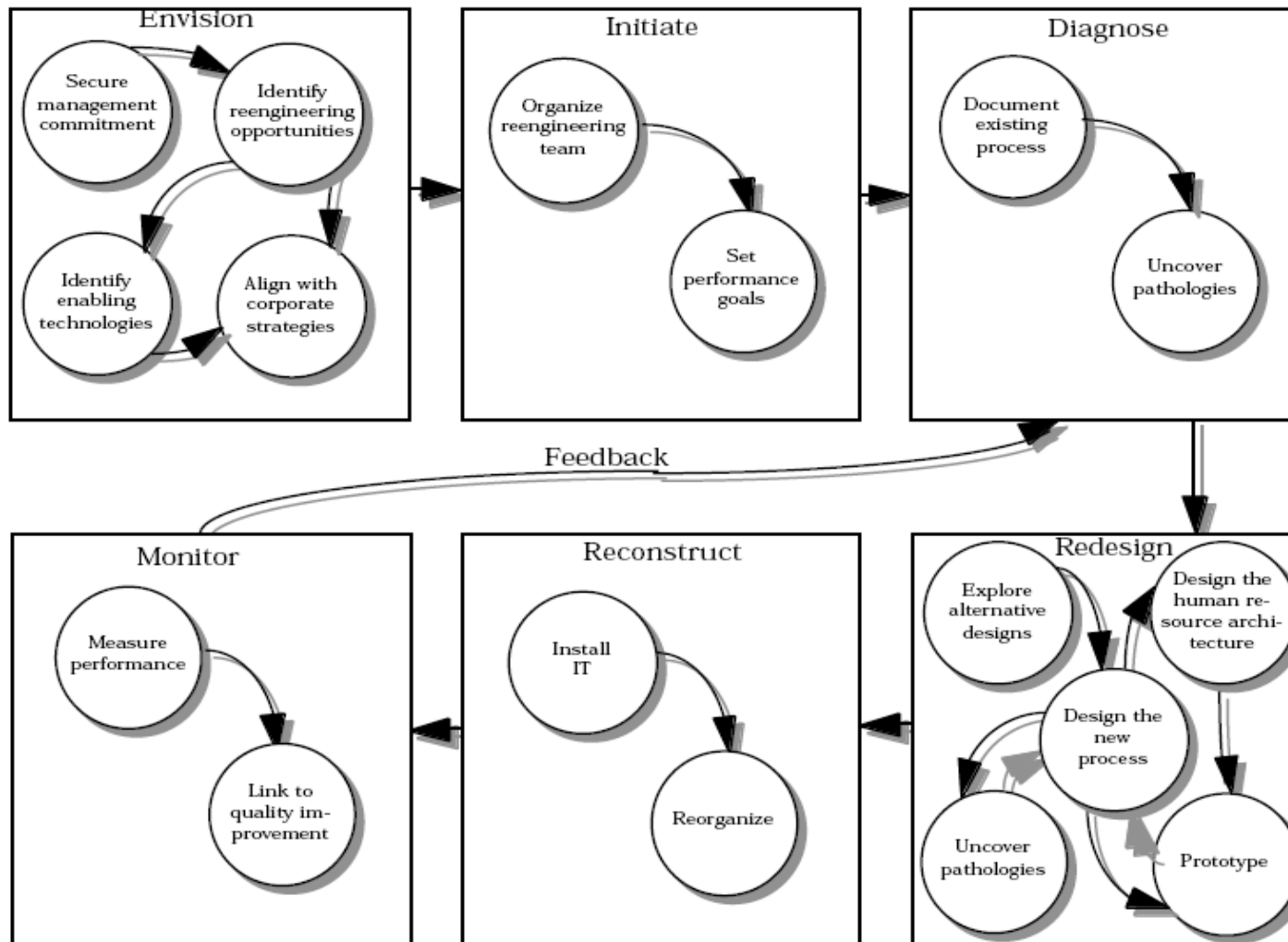


Contemporary BPR Methodologies

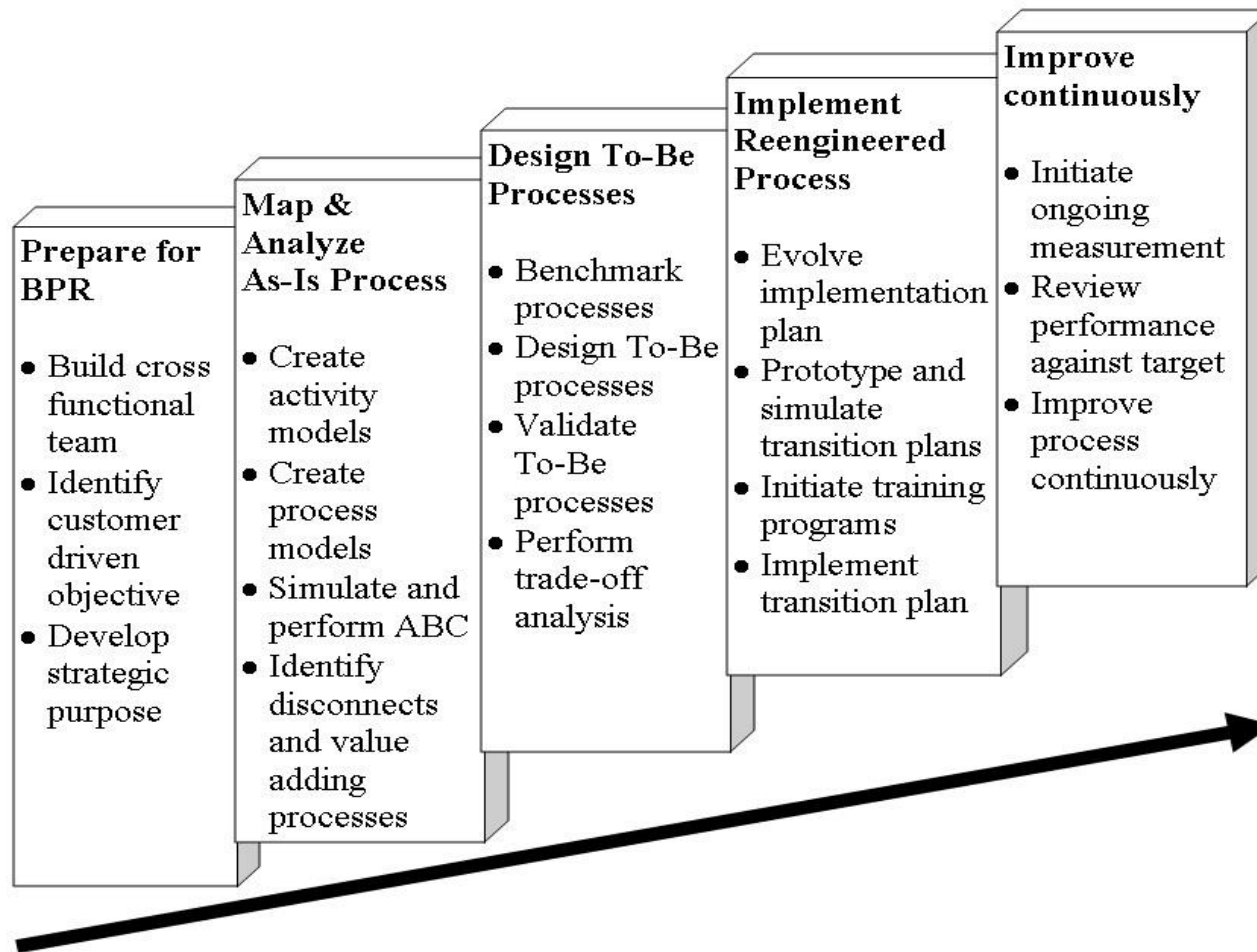
- Process Reengineering Life Cycle (PRLC) Methodology
- Integrated BPR Methodology by Muthu, Whitman and Cheraghi
- Object-Oriented Business Engineering Methodology (OO-BEM) by Jacobson et al
- Accenture BPR Methodology
- McKinsey BPR Methodology

Comprise the Western approach to go beyond the Japanese Management
KAIZEN (TQM)

«Process Reengineering Life Cycle» Methodology

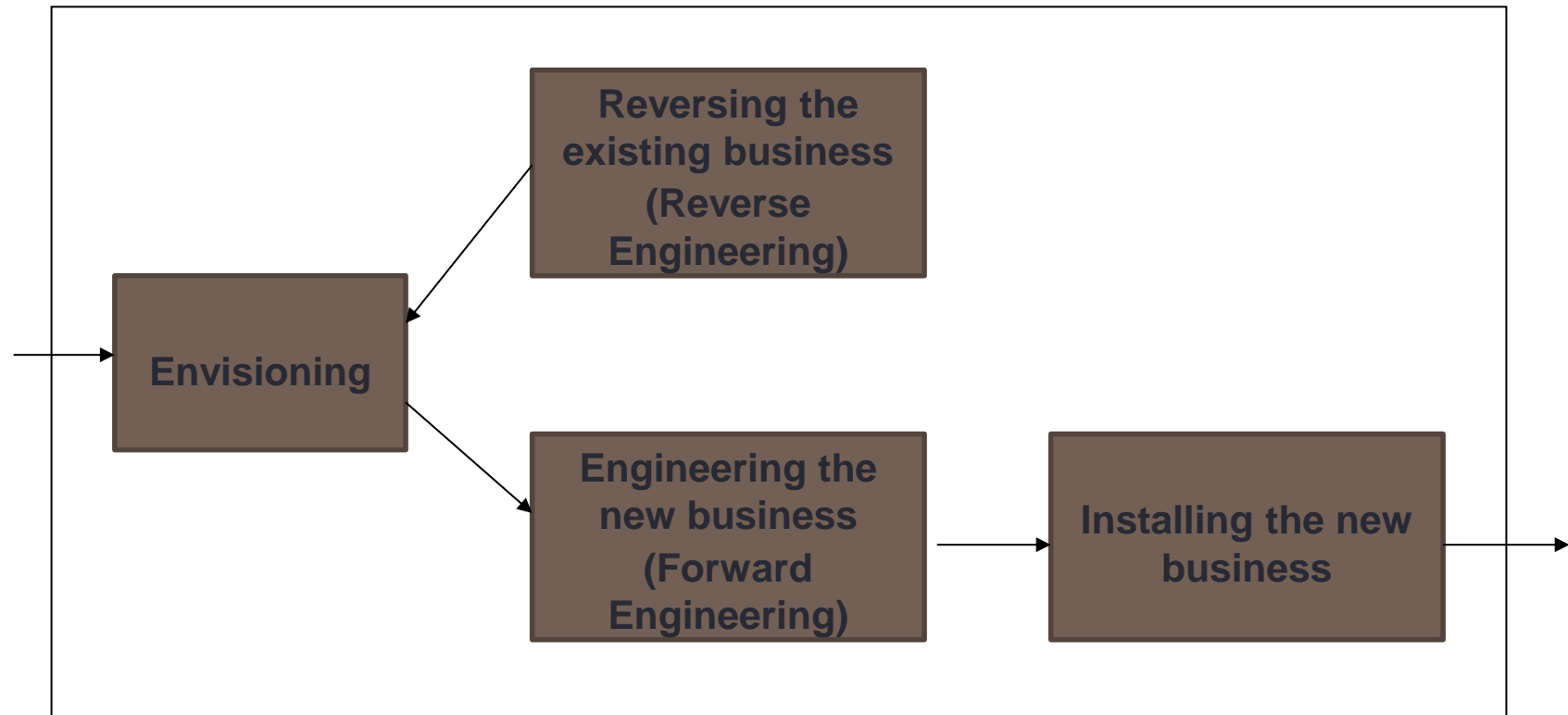


Integrated BPR Methodology by Muthu, Whitman and Cheraghi

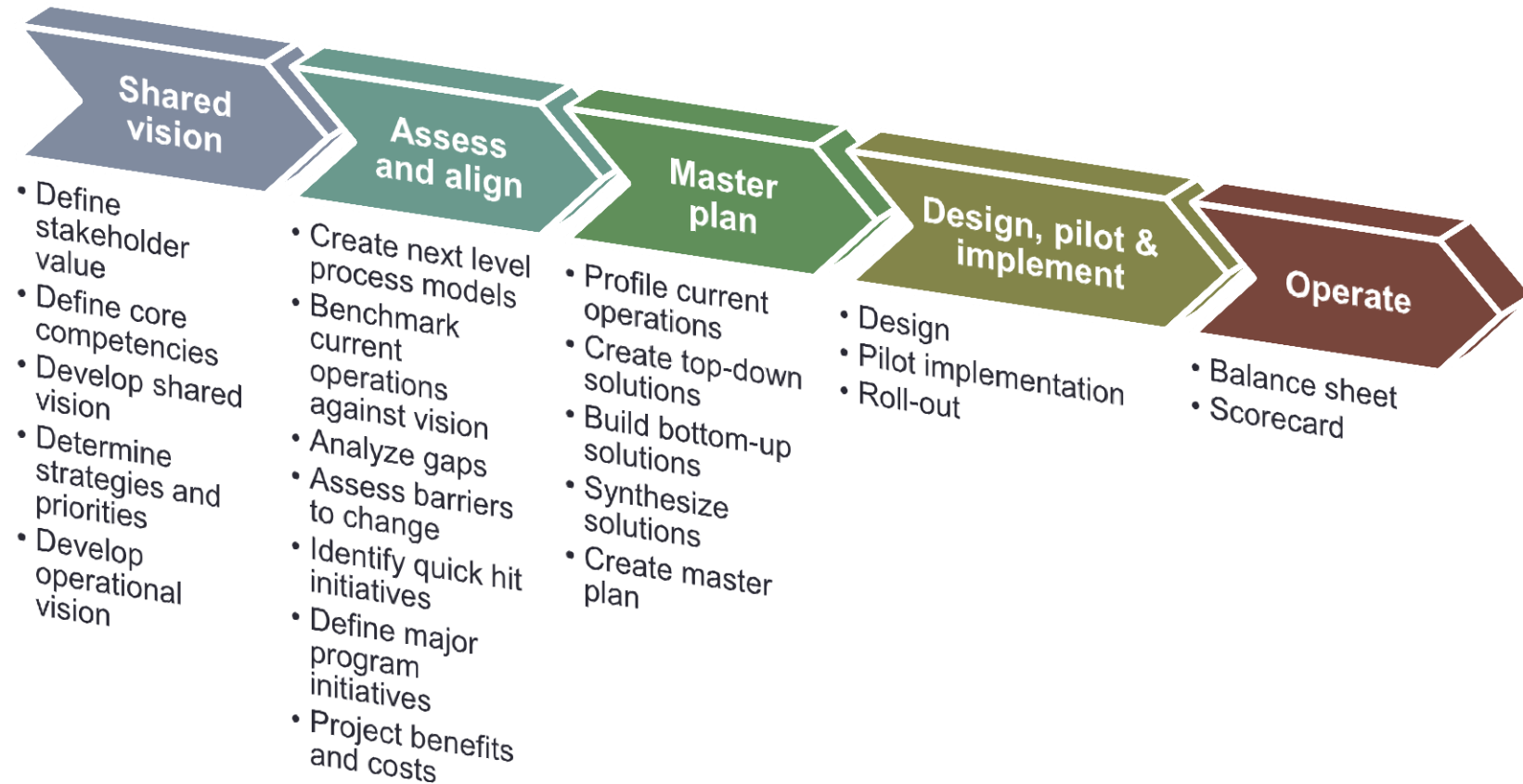


Muthu, S., Whitman, L., and Cheraghi, S. H., Business Process Reengineering: A Consolidated Methodology, Proceedings of the 4th Annual International Conference on Industrial Engineering Theory, Applications and Practice, 1999

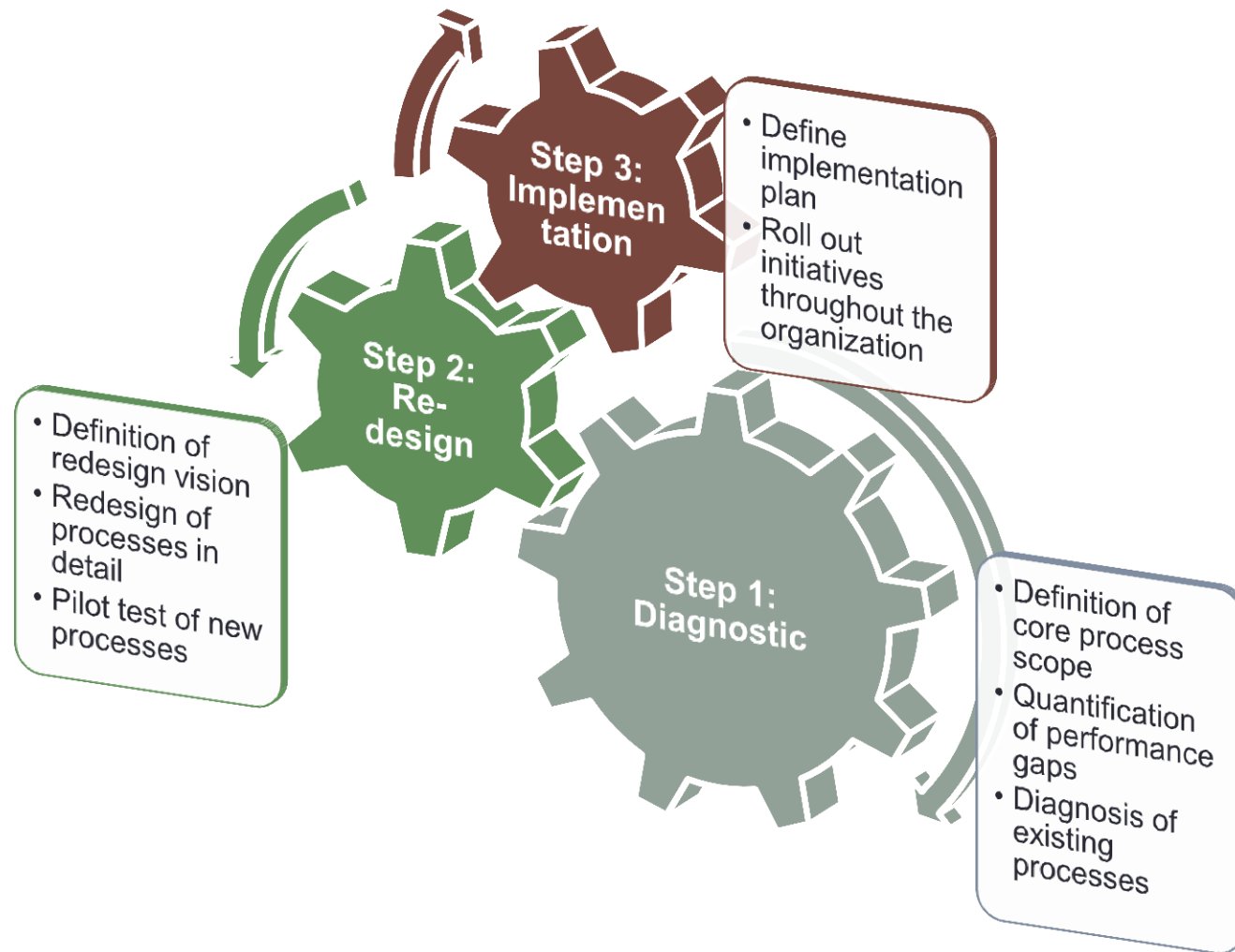
Object-Oriented Business Engineering Methodology (OO-BEM) by Jacobson et al



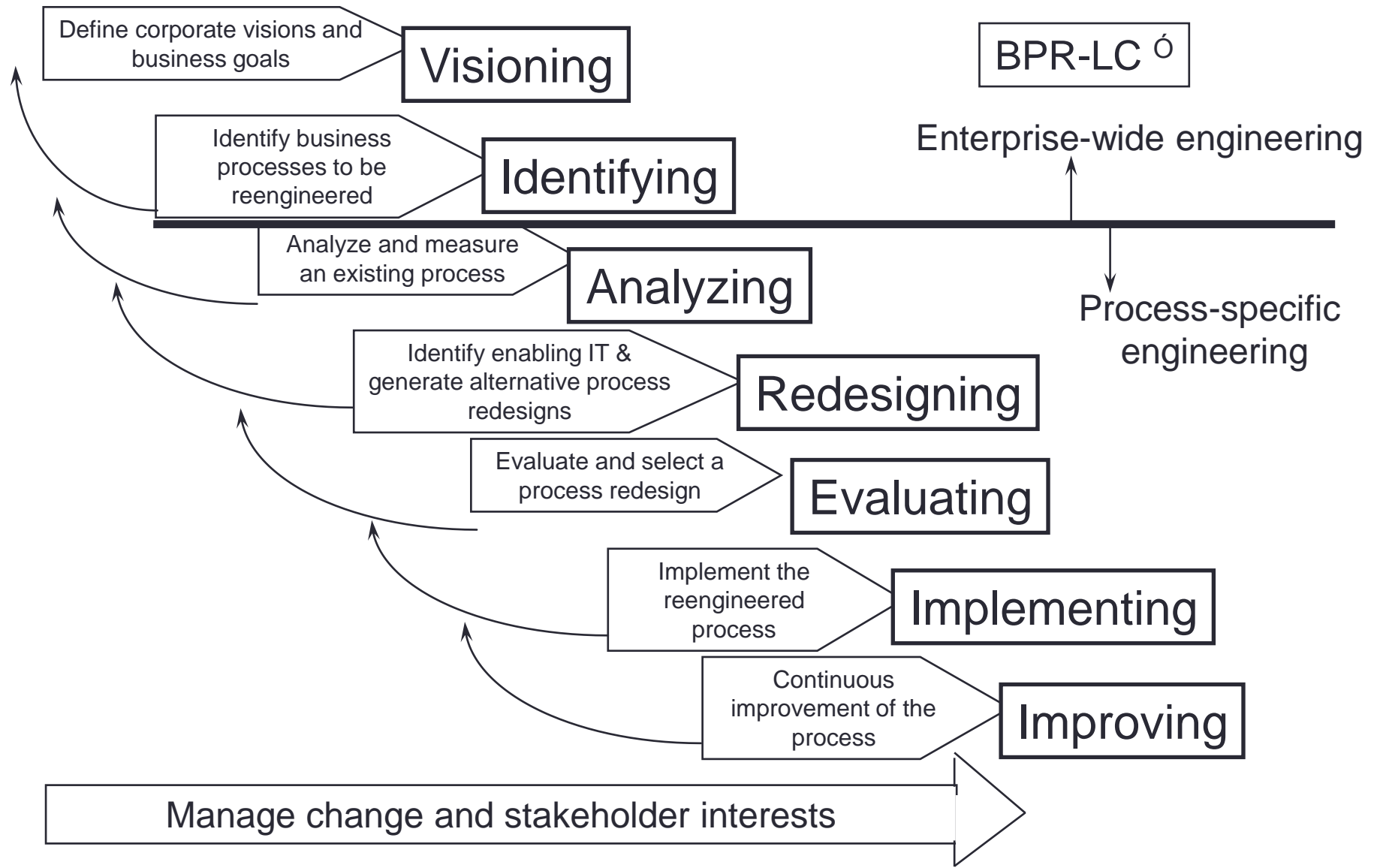
Accenture BPR Methodology



McKinsey BPR Methodology



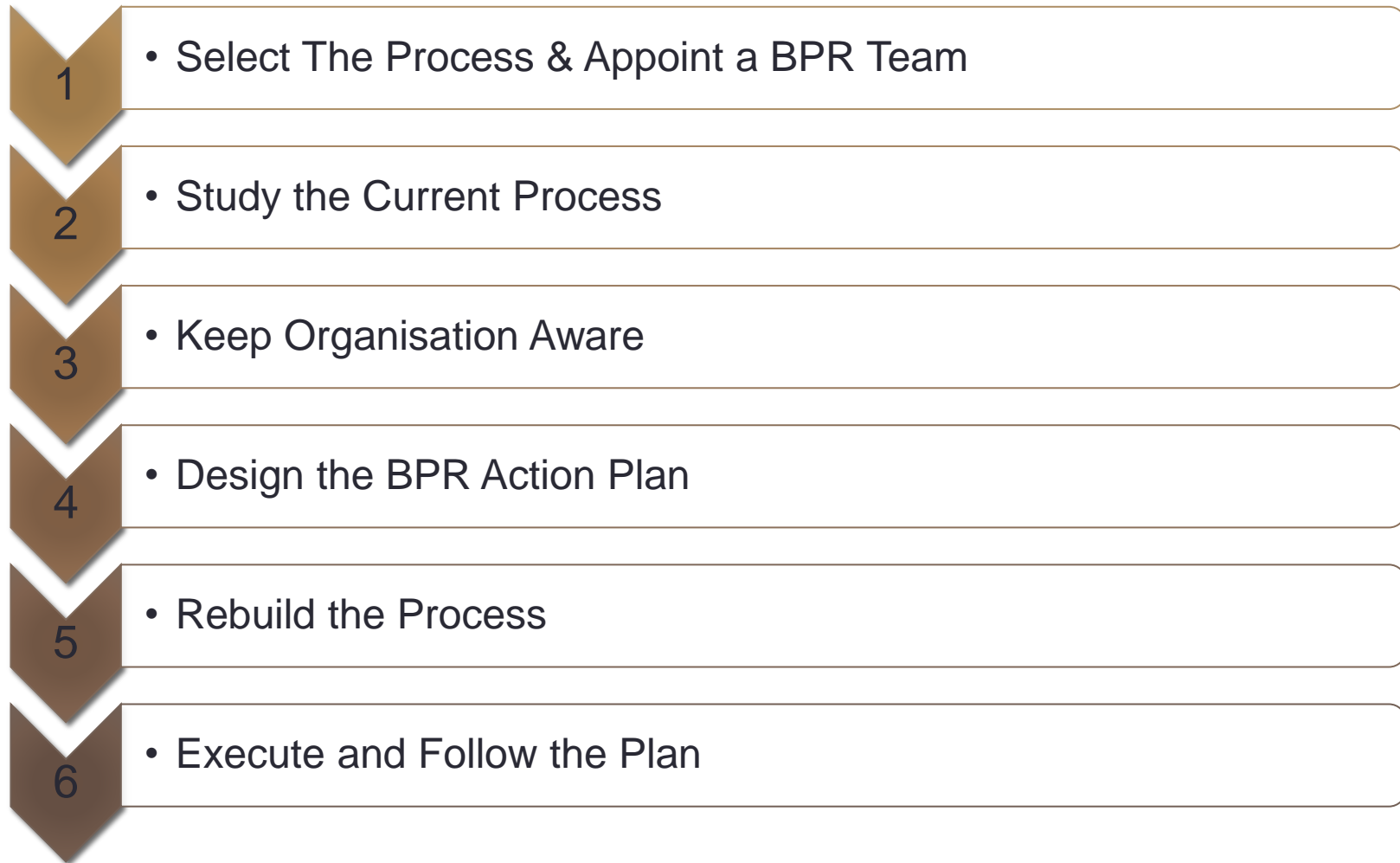
Business Process Reengineering Life Cycle



Baseline Rules

- **Benchmarking:** To provide opportunities to examine practices in other organizations with similar conditions.
- **Collaborating:** to involve stakeholders so that they may see the real impact BPR can have on their work.
- **Communicating:** to keep stakeholders informed throughout the various stages of BPR and provide them the opportunity to raise and address concerns.
- **Meeting:** to maintain support from and gain stakeholders sign-offs at each stage of the BPR.

Key Steps in BPR Pilots



Step #1

Criteria for Selecting Processes

- Broken Process
- Bottleneck and Delays
- Cross-functional or cross-organizational units
- Core processes that have high impacts
- Front-line and customer serving (moment of truth)
- Value-adding
- New processes and services opportunity
- Feasibility

Step #1

Process Data

- Basic Overall process data
- Customers and customer requirements
- Suppliers and suppliers qualifications
- Breakthrough goals
- Performance characteristics
 - Cost
 - cycle time
 - Reliability
 - defect rate
- Systems constraints
 - Budgetary
 - Business
 - Legal
 - social
 - environmental
 - safety issues
- Measure critical process metrics
 - Cycle time
 - Cost
 - Input quality
 - Output quality
 - Frequency and distribution of inputs

Step #1

Select the Process

- Review business strategy and customer requirements
- Select core processes
- Understand customer needs
- No assumption
- Select correct path for change
- Ask - questionnaires, meetings, focus groups

Step #1

Appoint a BPR Team

- Identify process owners
- Develop executive improvement team
- Provide training to executive team

Step #1

BPR Team's Core Skills

- Capacity to view the organization as a whole
- Ability to focus on end-customers
- Ability to challenge fundamental assumptions
- Courage to deliver into unknown areas
- Ability to assume individual and collective responsibility

Step #2

Study Current Process

- Draft the Process Overview
- Define and develop the process in detail
 - Mission
 - Scope
 - Boundaries
 - Roles
 - Interactions – Interfaces
- Set performance metrics
- Understand customers expectations

Step #2

Study Current Process

- Document the Process
 - Cost
 - Time
 - Value Data
 - Workflow
- Identify Improvement Opportunities
 - Quality
 - Time
 - Cost
- Rework

Step #3

Keep Organisation Aware

- Spread the knowledge in the organisation
- Cultivate the vision for the future
- Keep people informed on developments
- Persuade people that BPR is necessary
- Reassure people by closely managing BPR
- Indicate necessary actions
- Assign responsibilities to key personnel

Step #4

Design the BPR Action Plan

- Develop an improvement plan
- Appoint process owners
- Simplify the process to reduce process time
- Remove no-value-added activities
- Standardize process and automate where possible
- Up-grade equipment
- Plan/schedule the changes

Step #4

Design the BPR Action Plan

Exploit BPR-related Tools developed from

- Modelling
- Benchmarking
- Risk analysis & SWOT
- Simulation
- Impact Assessment
- Lean development
- Theory of constraints
- ...

Step #5

Rebuild the Process



More on this you'll learn in this course!

Step #6

Execute and Follow the Plan

- Qualify/certify the process
- Test periodically the process
- Identify and eliminate emerging process problems
- Evaluate the impact on the business on customers
- Run periodically benchmarking tests for the process
- Train the employees for maximizing process efficiency



**“What good is technology if it takes six seconds
to send a message but six months to get
someone to act on it?!”**

RFID in Retail

Is it BPR?



<http://www.youtube.com/watch?v=4eOr0PfwFgs&list=FLH-uoNhwpO93bHwkdDgMqVw&index=9>

QUESTIONS?

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