Business Process Maturity Model

- A CMM-based Business Process Reengineering research

Danny Ho

Center of Excellence in Business Process Innovation, Stevens Institute of Technology

Project Motives, Goals & Initial Findings

- Motivations:
  - Business Process Maturity hasn't been well defined and standardized at current stage
  - CMM framework is broadly implemented and regularly refined to fit various industries
  - This is our hypothesis CMM framework
- Current Goals:
  - To find out the feasibility of creating Business Process Maturity Model (PMM) based on CMM framework
  - To create fundamental elements/theories to construct/standardize PMM
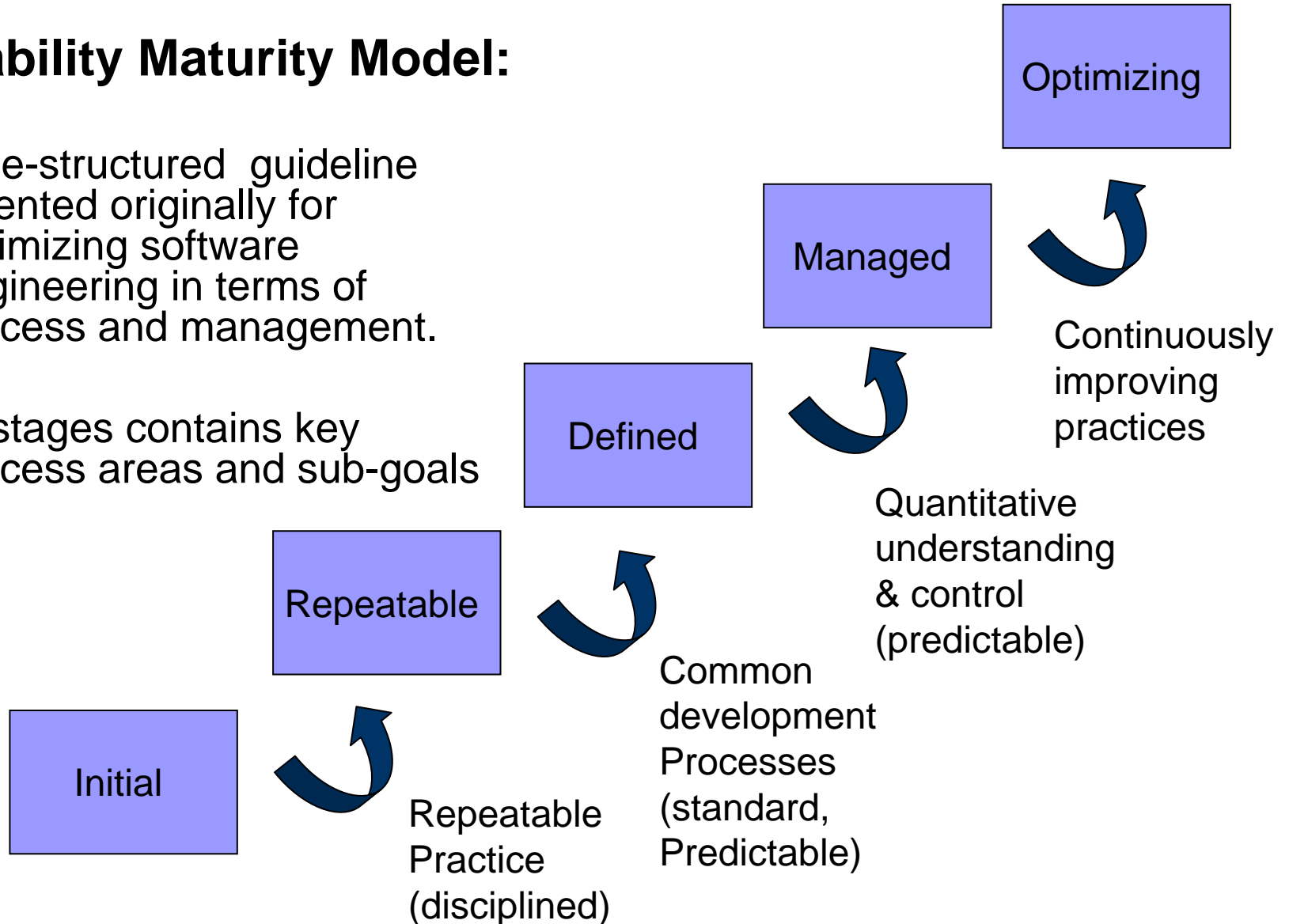- Initial findings:
  - The possibility of Applying CMM to PMM is currently being studied and tested by expertise from industry and academia
  - Our hypothesis is supported by reports/papers that published by field expertise

Introduction of CMM

Capability Maturity Model:

A stage-structured guideline invented originally for optimizing software engineering in terms of process and management.

Each stages contains key process areas and sub-goals

Optimizing

Managed

Continuously improving practices

Defined

Quantitative understanding & control (predictable)

Repeatable

Common development Processes (standard, Predictable)

Initial

Repeatable Practice (disciplined)

History of CMM
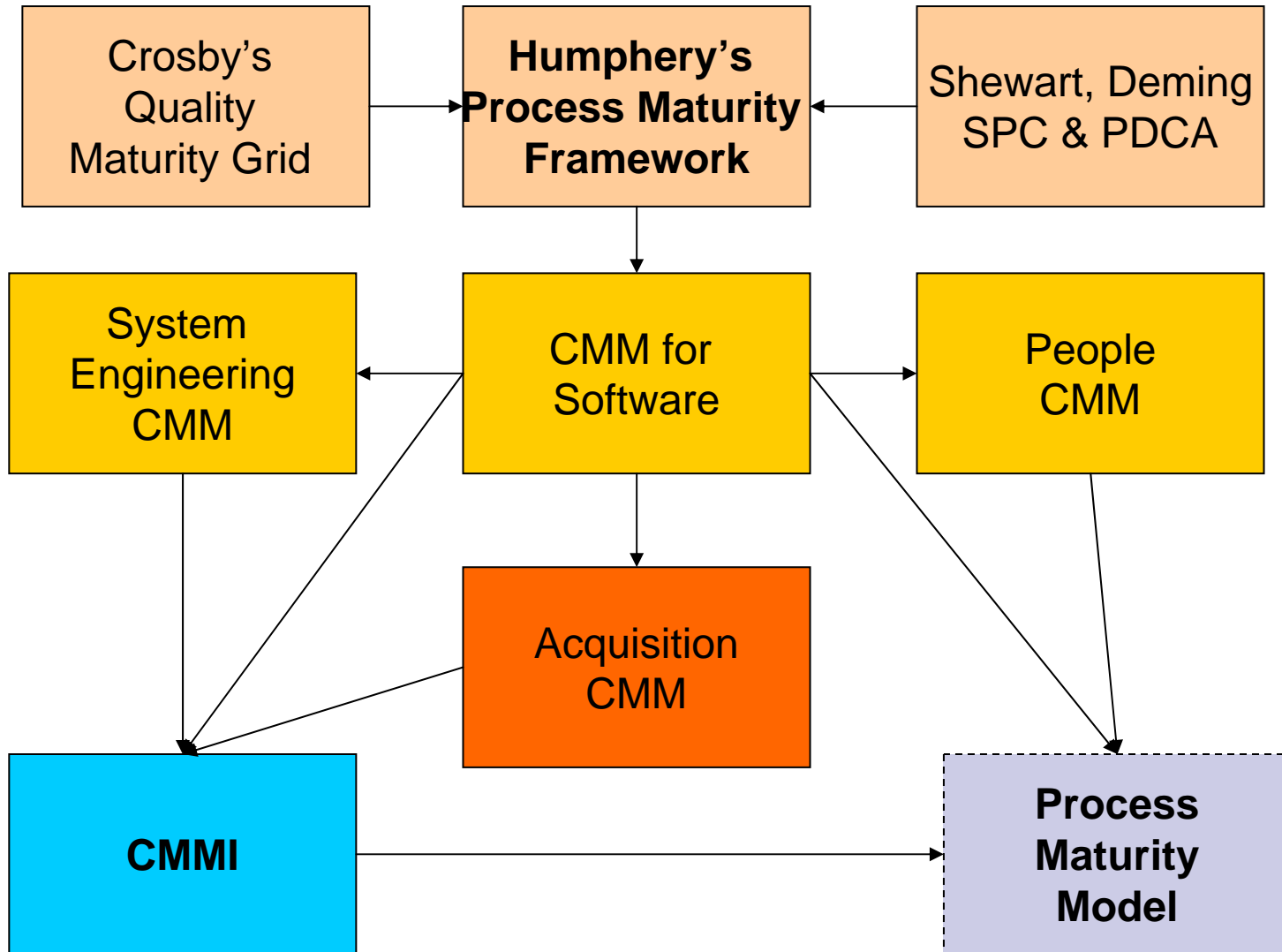
(The arrows represent causal relationships)

Introduction of PMM

- **General Definition:**
  - ☐ Business Process: series of work activities existed in businesses
  - ☐ Maturity = Predictability + Control + Effectiveness
- **In addition to the CMM-like structure:**
  - ☐ PMM must include guidelines on management strategies (planning, executing, monitoring, and controlling)
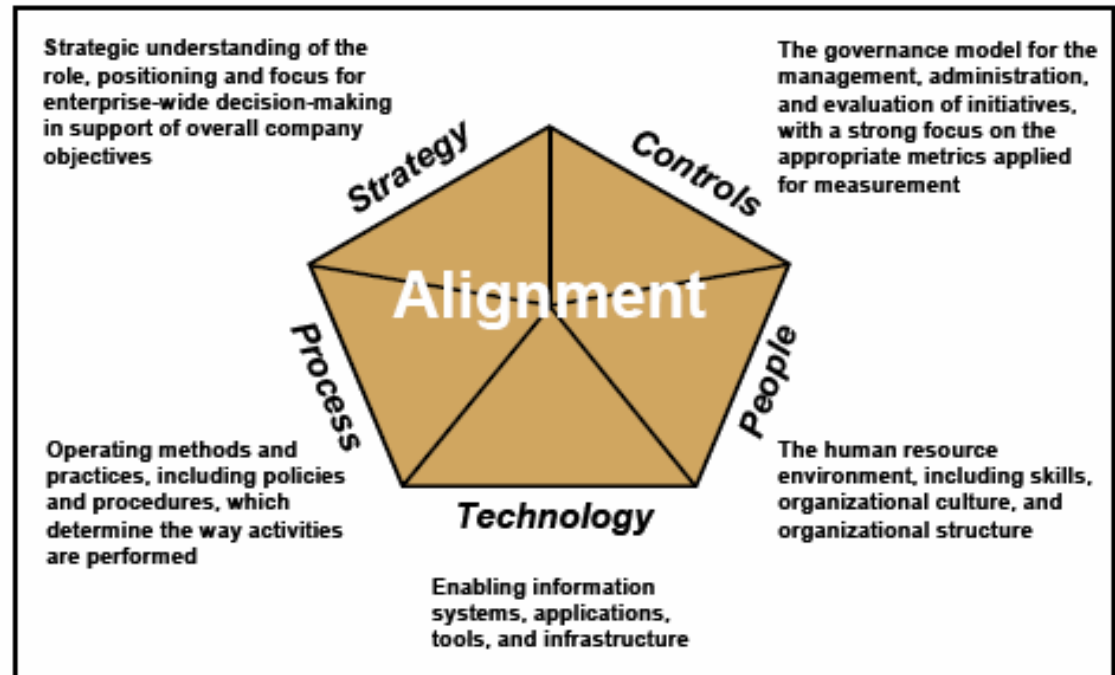 - ☐ PMM must involve business alignment strategies both vertically and horizontally

Strategic understanding of the role, positioning and focus for enterprise-wide decision-making in support of overall company objectives

The governance model for the management, administration, and evaluation of initiatives, with a strong focus on the appropriate metrics applied for measurement

Strategy

Controls

Alignment

Process

People

Operating methods and practices, including policies and procedures, which determine the way activities are performed

The human resource environment, including skills, organizational culture, and organizational structure

Technology

Enabling information systems, applications, tools, and infrastructure

(Fisher, "The Business Process Maturity Model A Practical Approach for Identifying Opportunities for Optimization", '04")

Organizations with an mature mastery of their processes.

5. Optimizing

Organizations at this level routinely expect managers and employees to work together to improve processes. They understand their processes well enough that they can conduct systematic experiments to determine if changes will be useful or not.

Continuous process improvement is enabled by quantitative feedback for the process and from piloting innovative new ideals and technologies.

4. Managed

Only a few organizations have an organization-wide understanding of how processes relate and have their corporate strategies and goals aligned, via the management hierarchy, to specific process activities.

Detailed measures of the process and product quality are collected. Both the process and products are quantitatively understood and controlled.

3. Defined

Most organizations are between levels 2 and 3. They have processes documented and standardized, but, in many cases, manager's goals are only loosely linked to process goals.

The process for both management and engineering is documented, standardized and integrated by an organization methodology

2. Repeatable

Basic project management processes are established to track cost, schedule, and functionality. The necessary discipline is in place to repeat earlier successes

As organizations become more mature, they begin to conceptualize business processes and seek to organize them, repeat successes, and measure results.

1. Initial

The process is ad hoc. Few activities are explicitly defined, and success depends on individual effort and heroics.

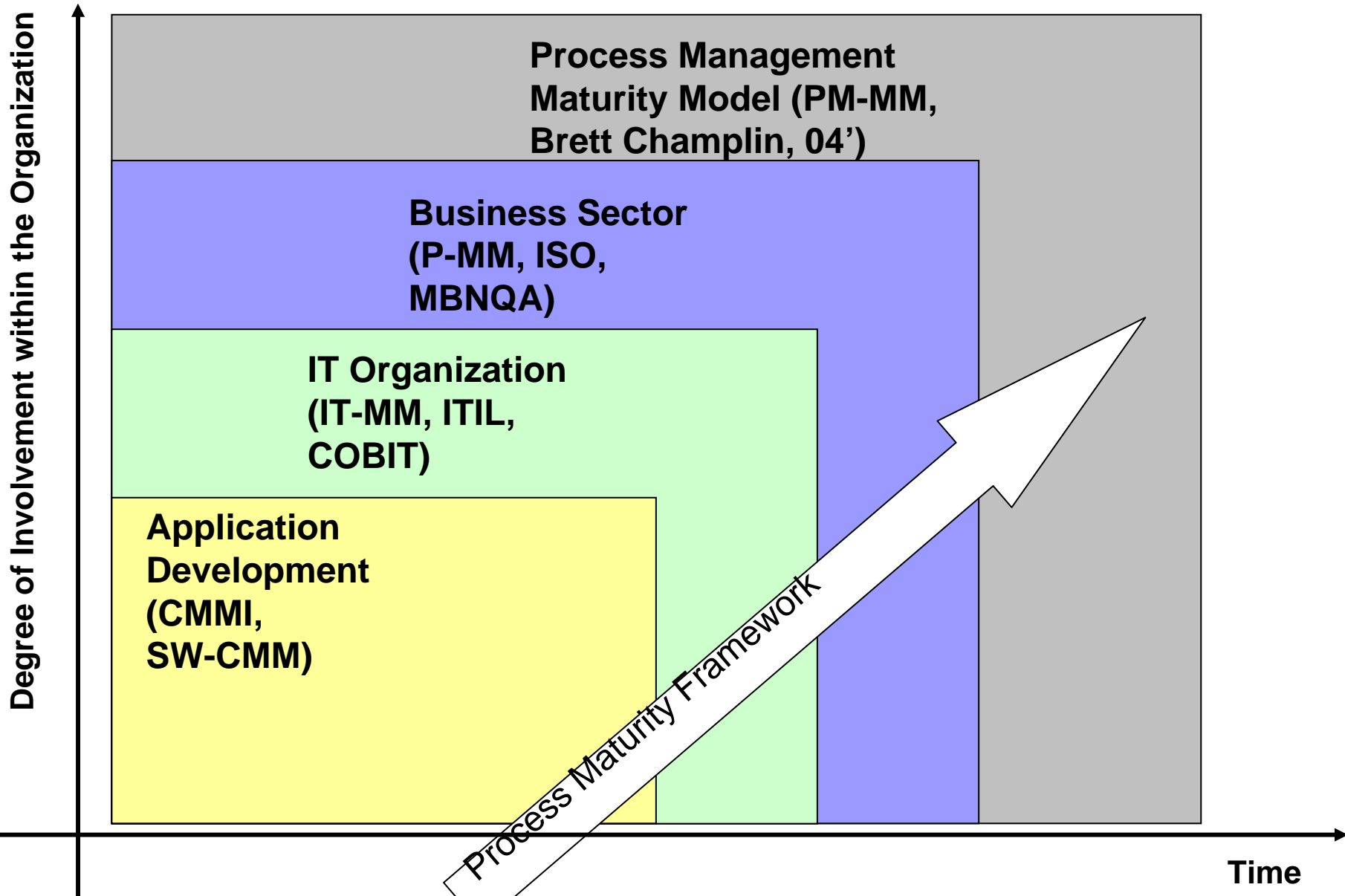Entrepreneurial organizations and new divisions that do things any way they can to get started.

Organizations with an immature mastery of their processes.

(Source: Harmon, "Evaluating an Organization's Business Process Maturity", '04)

Evolution of Maturity Model

Degree of Involvement within the Organization

Process Management Maturity Model (PM-MM, Brett Champlin, 04')

Business Sector (P-MM, ISO, MBNQA)

IT Organization (IT-MM, ITIL, COBIT)

Application Development (CMMI, SW-CMM)

Process Maturity Framework

Time

Research methods

- Examination of existing models:
  - Take inputs from samples cases
  - Simulation and result comparison
- Refining models:
  - Conducting surveys
  - Analyzing laboratory data and survey results by cross-referencing
  - Demo creating
  - Conducting surveys based on resultant demo

Conclusion

- The theory of this project is based on the hypothesis that CMM can be successfully applied on determining maturity of business processes

- The literature research will be continued and focus on published papers that support/against our hypothesis
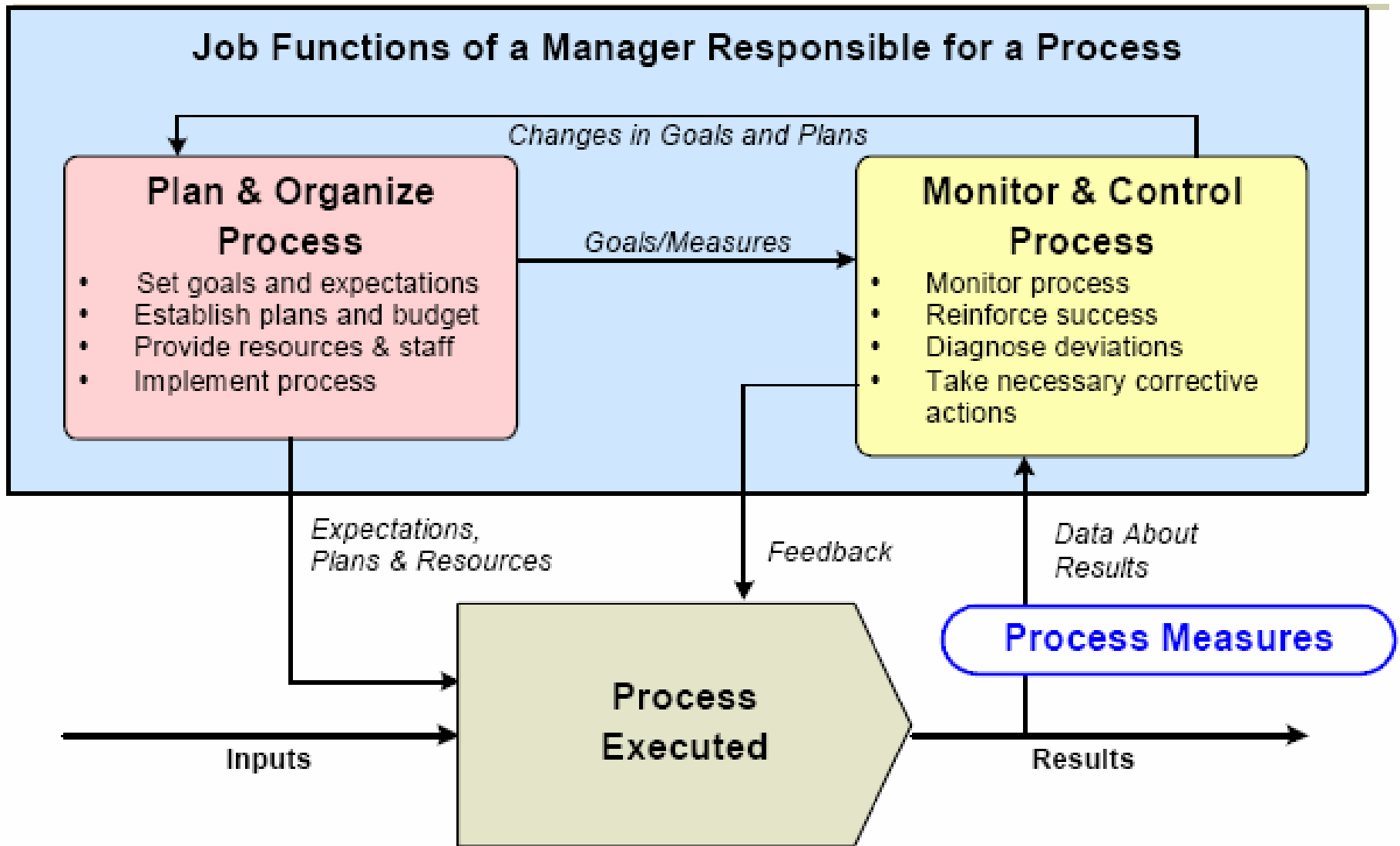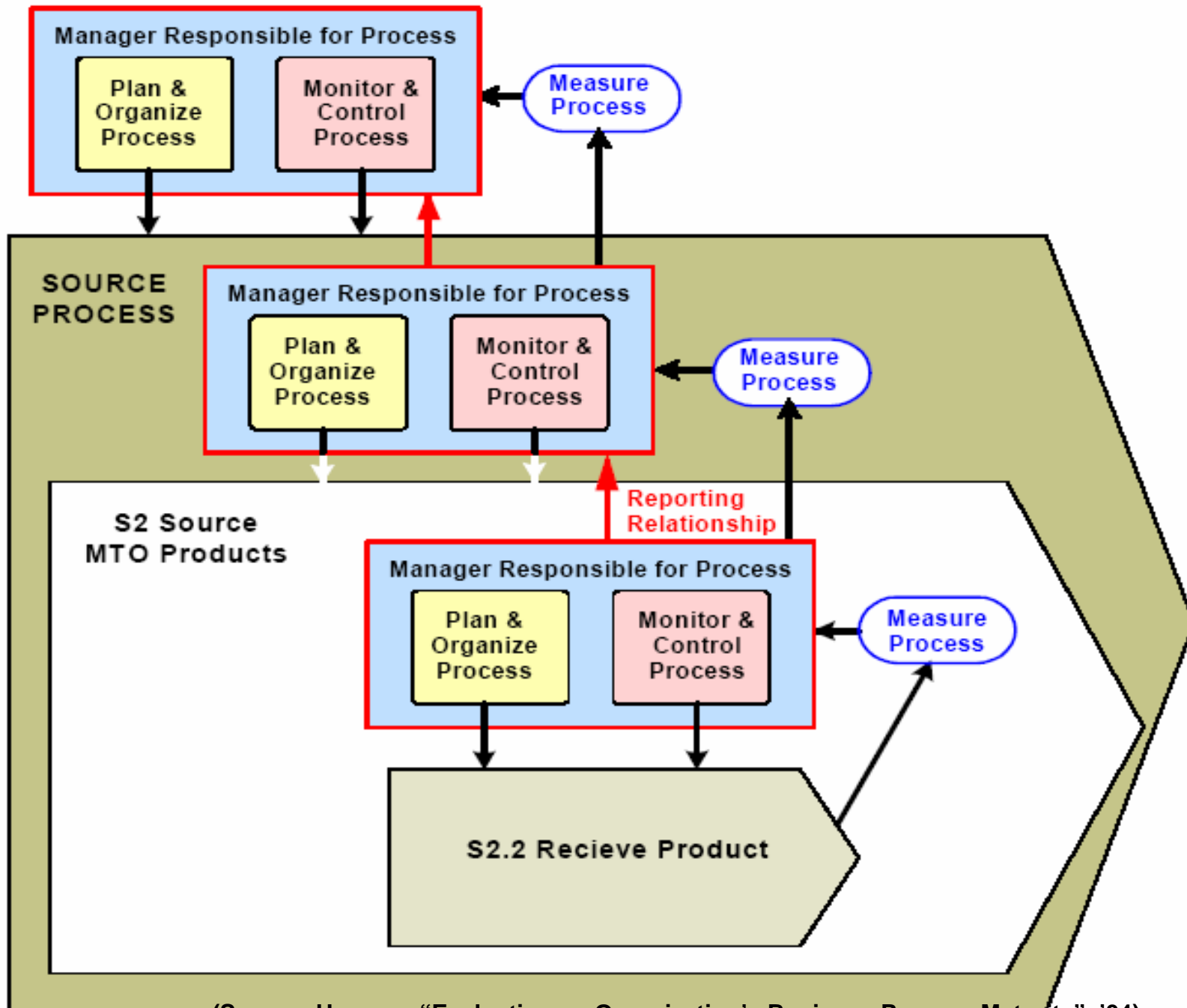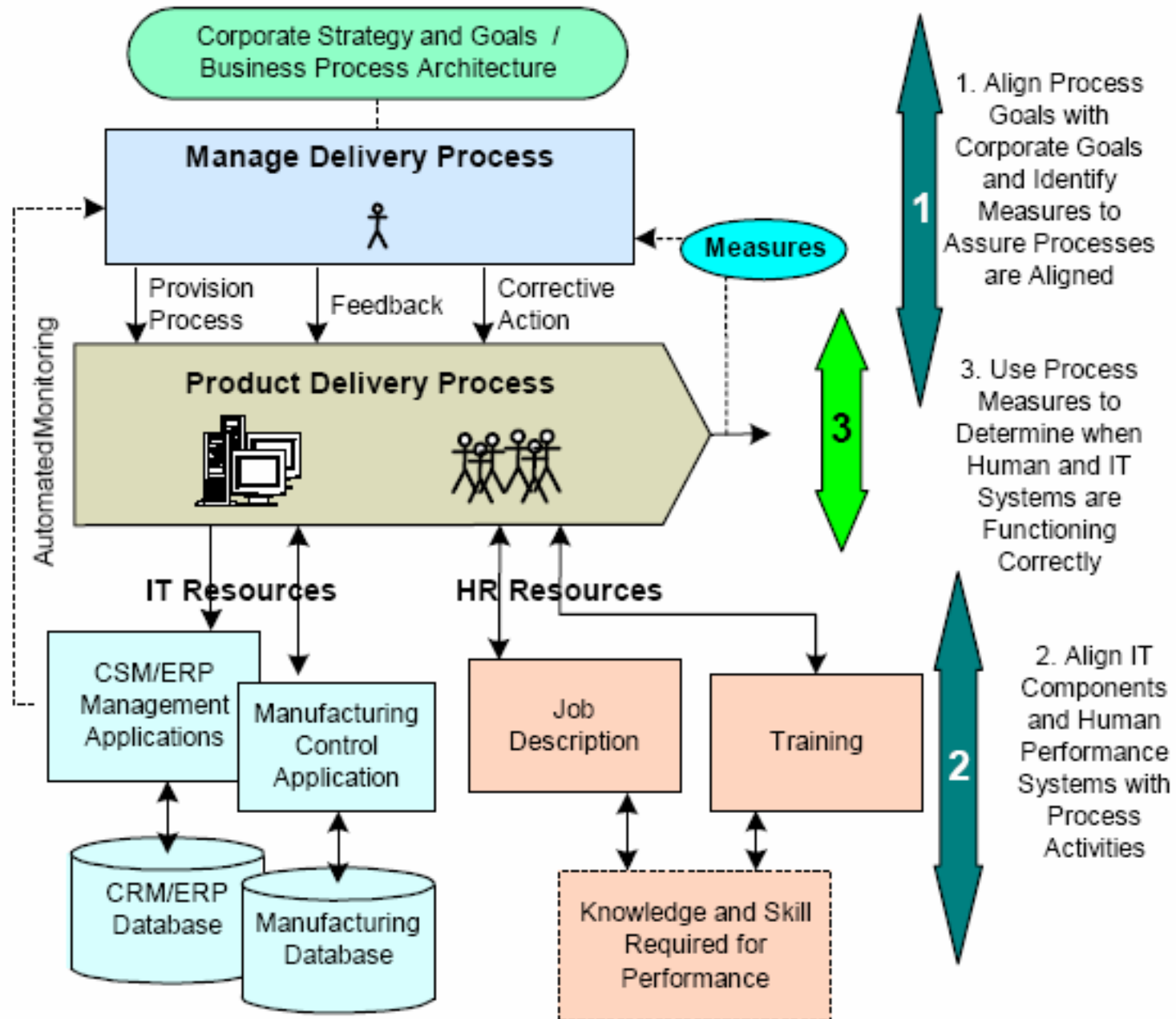
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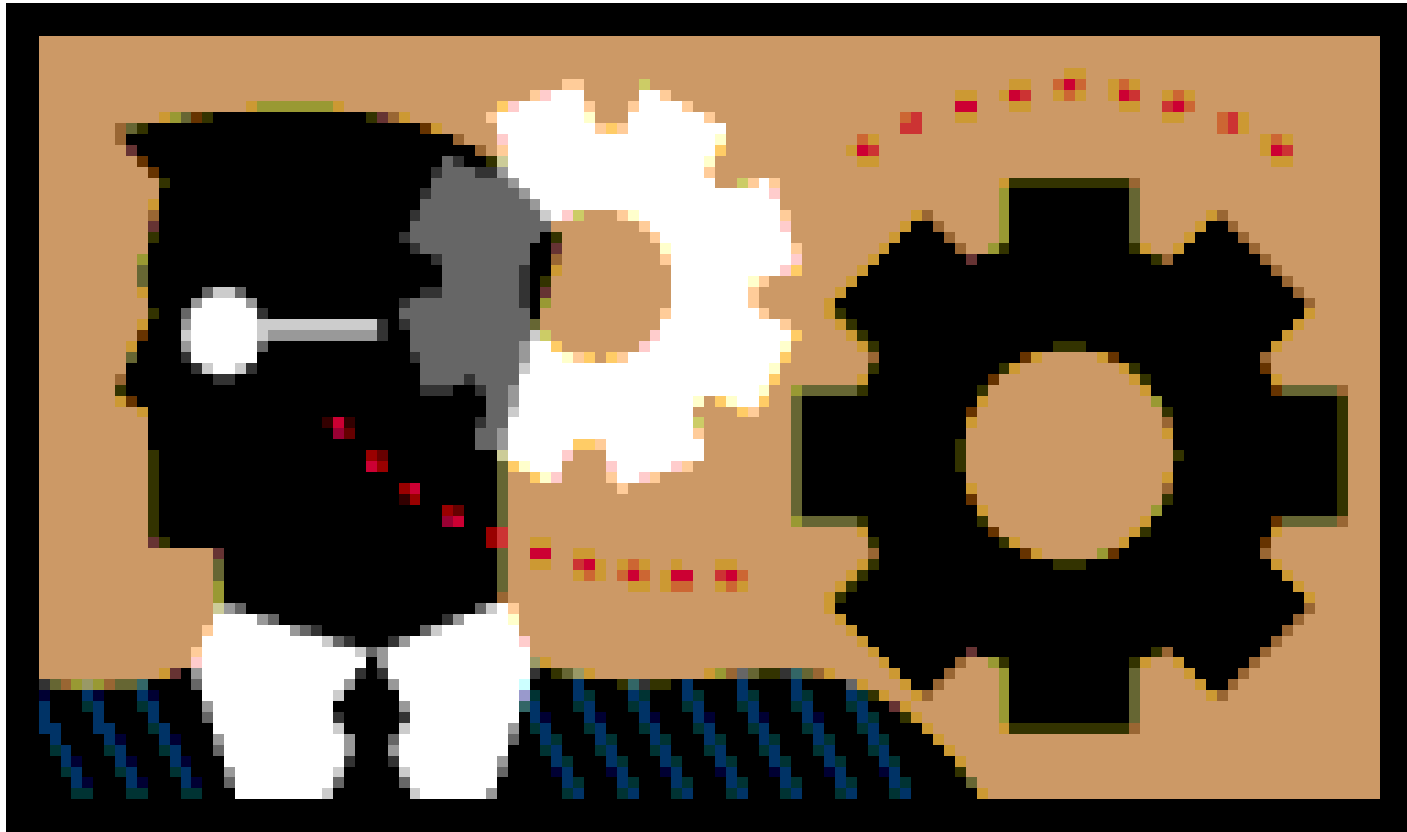
Figure 3. A Basic Process Management Model (After Rummler.)

(Source: Harmon, "Evaluating an Organization's Business Process Maturity", '04)

Manager Responsible for Process

Plan & Organize Process

Monitor & Control Process

Measure Process

SOURCE PROCESS

Manager Responsible for Process

Plan & Organize Process

Monitor & Control Process

Measure Process

S2 Source MTO Products

Reporting Relationship

Manager Responsible for Process

Plan & Organize Process

Monitor & Control Process

Measure Process

S2.2 Recieve Product

Corporate Strategy and Goals / Business Process Architecture

Manage Delivery Process

Provision Process

Feedback

Corrective Action

Measures

Automated Monitoring

Product Delivery Process

IT Resources

HR Resources

CSM/ERP Management Applications

Manufacturing Control Application

Job Description

Training

CRM/ERP Database

Manufacturing Database

Knowledge and Skill Required for Performance

1. Align Process Goals with Corporate Goals and Identify Measures to Assure Processes are Aligned

3. Use Process Measures to Determine when Human and IT Systems are Functioning Correctly

2. Align IT Components and Human Performance Systems with Process Activities

(Source: Harmon, "Evaluating an Organization's Business Process Maturity", '04)