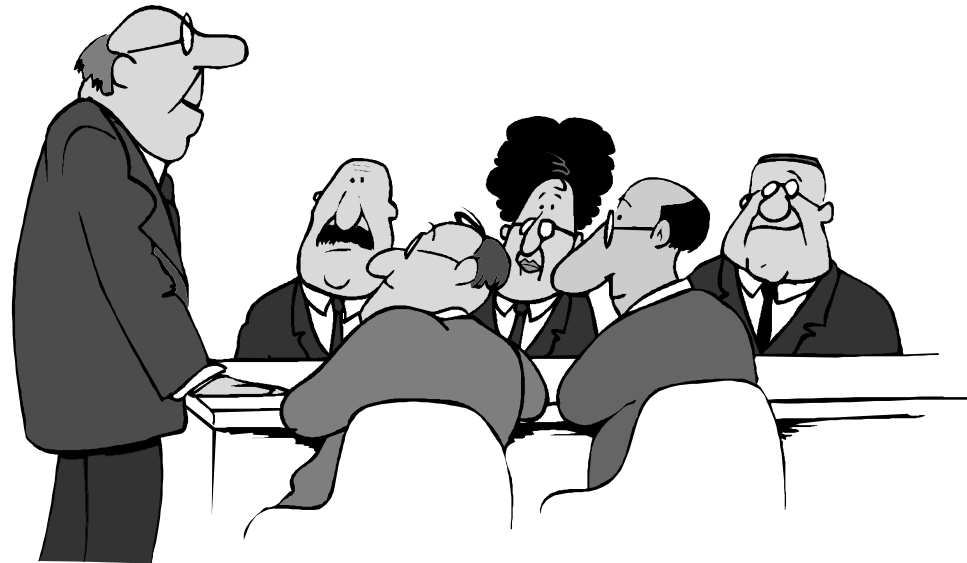# Lesson Learned from implementing SPI initiative for traditional IT organization

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Contents

- Situation at the beginning

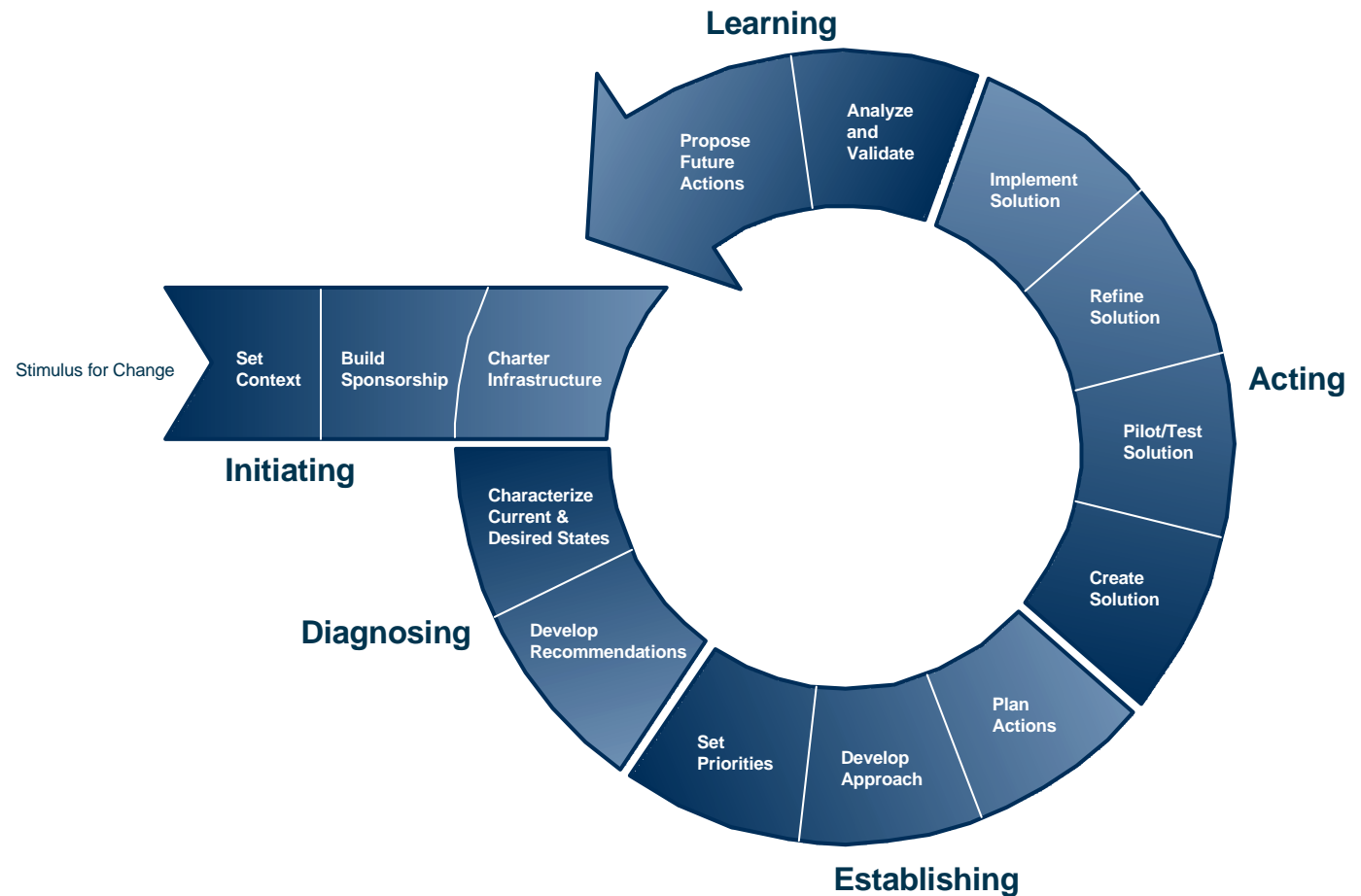- Approaches

- Lesson Learned

Situation at the beginning

■The Companies had tried to implement ISO 9000 and SW-CMM

■The several team leaders have heard about CMM/CMMI and some success story with them

■ They had bad impression about CMM/CMMI

It is suitable for only American Culture

It is documentation overhead

It is only achieving levels and levels doesn't mean anything

The IDEAL Model

■The model consists of five phases

1) Initiating
2) Diagnosing
3) Establishing
4) Acting
5) Learning

Learning

Propose Future Actions

Analyze and Validate

Implement Solution

Refine Solution

Acting

Stimulus for Change

Set Context

Build Sponsorship

Charter Infrastructure

Pilot/Test Solution

Initiating

Characterize Current & Desired States

Create Solution

Diagnosing

Develop Recommendations

Set Priorities

Develop Approach
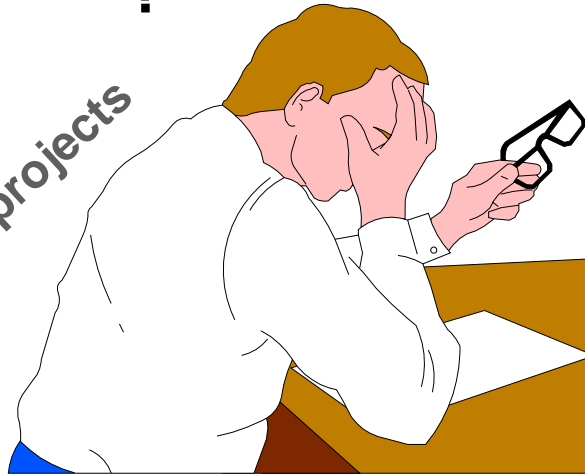
Plan Actions

Establishing

* Source: "IDEALSM: A User's Guide for Software Process Improvement", Bob McFeeley

Approaches

Achieve the sponsor's commitment

Form the respectable EPG
(Engineering Process Group)

?

?

?

?

Involve many people in SPI projects

Make SPI activities visible to everybody

Provide CMMI-related training continuously
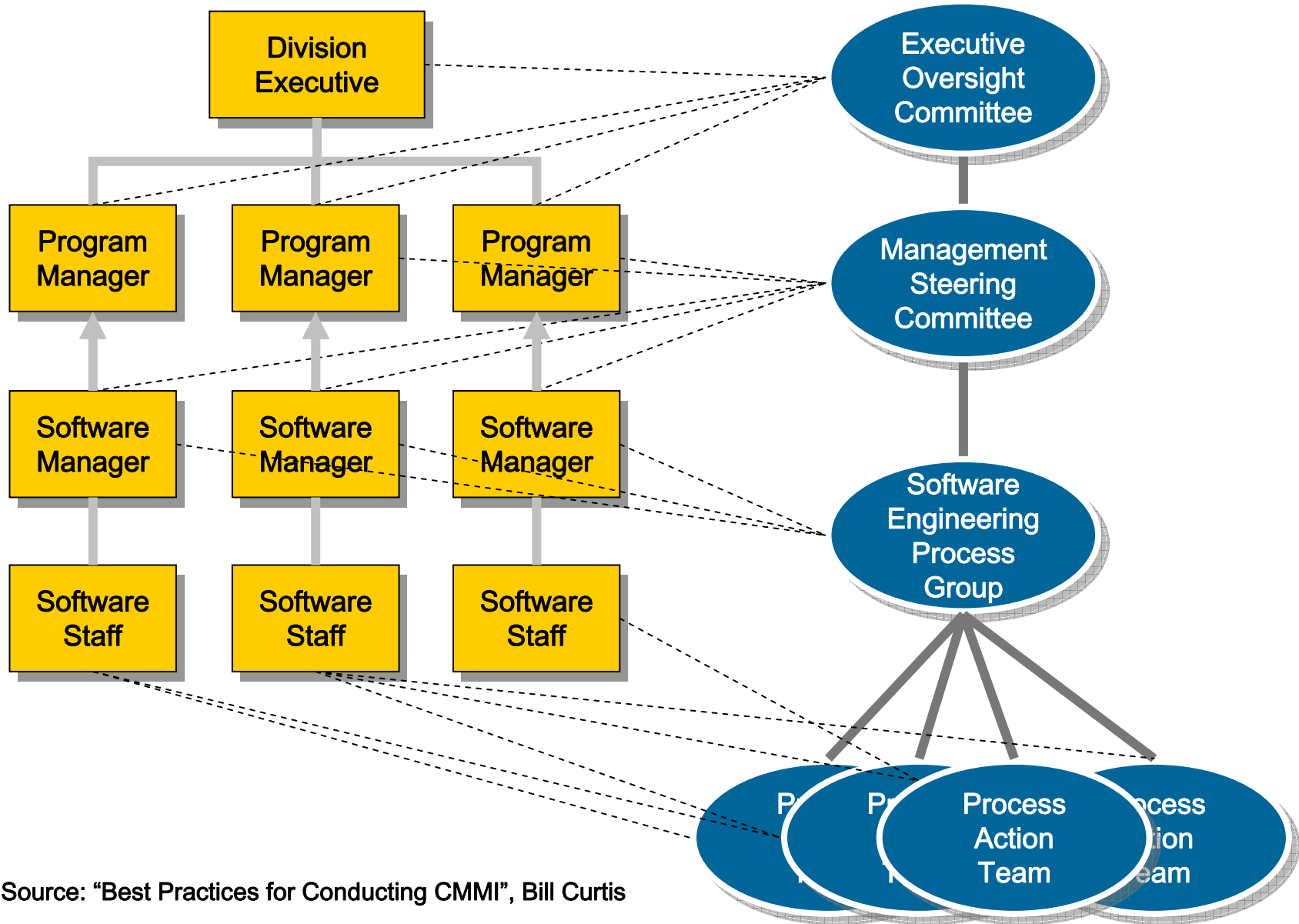
Achieve the sponsor's commitment

- The sponsor must support and own the change before the organization accept the change

- Performed gap analysis based on CMMI Level 2 to convince the sponsor that they need to invest SPI

- Make them understand the difference between "Performed" and "Managed"
- Explain the behavioral characteristics of immature organization

- EPG provide a process focus for the organization

- Must be a highly skilled change agents

- Have respect of the people

- The leader of EPG must have support of sponsor

Involve many people in SPI projects

- **Formed a SPIN group inside the organization**
  - □ SPIN group was volunteer group for reviewing the newly developed processes.

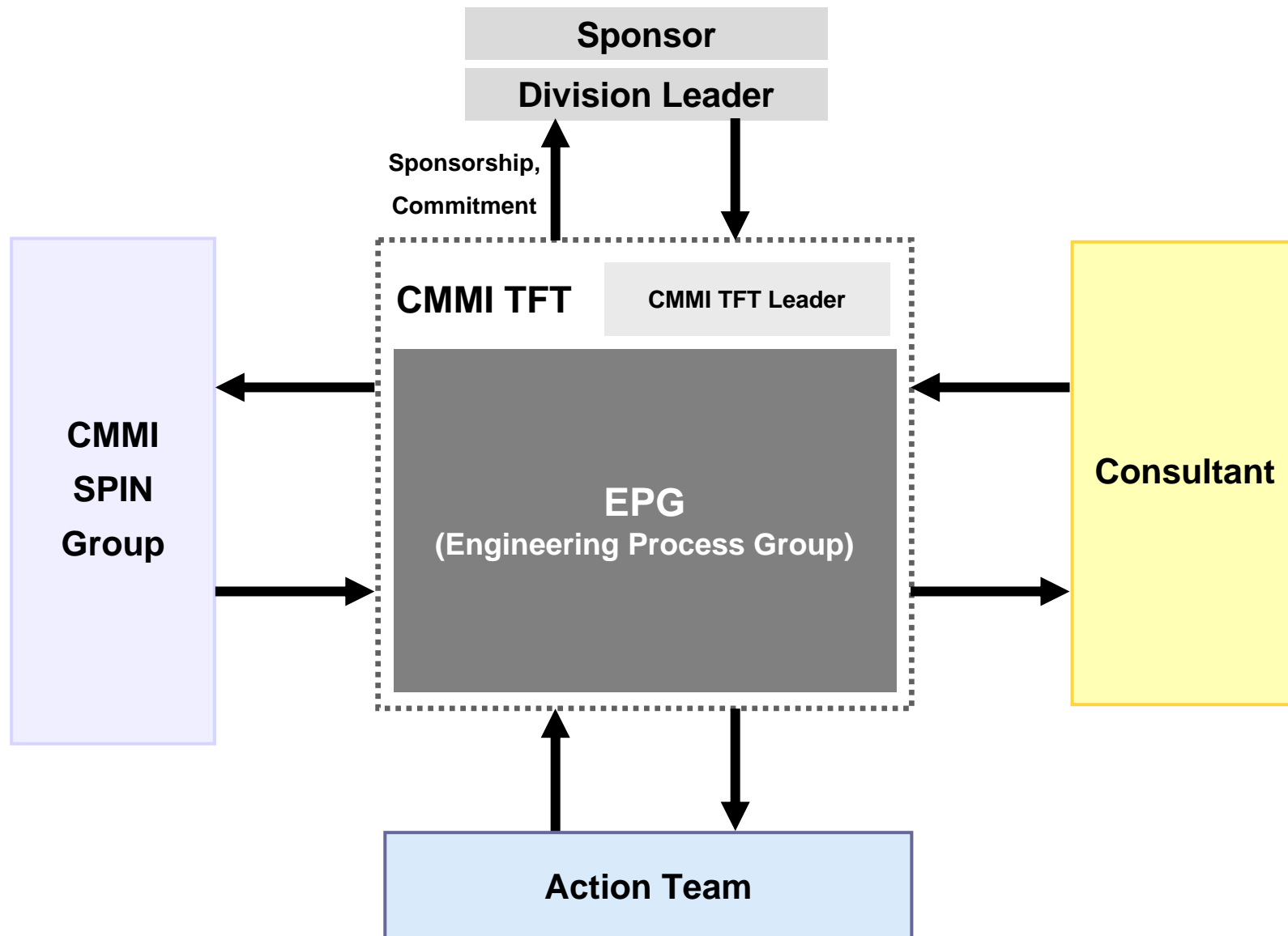- **Formed action teams to find best suitable processes for their work**

Organizational Structure for SPI

Division Executive

Program Manager

Program Manager

Program Manager

Software Manager

Software Manager

Software Manager

Software Staff

Software Staff

Software Staff

Executive Oversight Committee

Management Steering Committee

Software Engineering Process Group

Process Action Team

* Source: "Best Practices for Conducting CMMI", Bill Curtis

Organization Structure for CMMI Project

Provide CMMI-related training

- To correct misconception

- To satisfy the diverse needs of a diverse organization

- When you want to talk about Project Planning, you better start from PMBOK which they are already familiar with
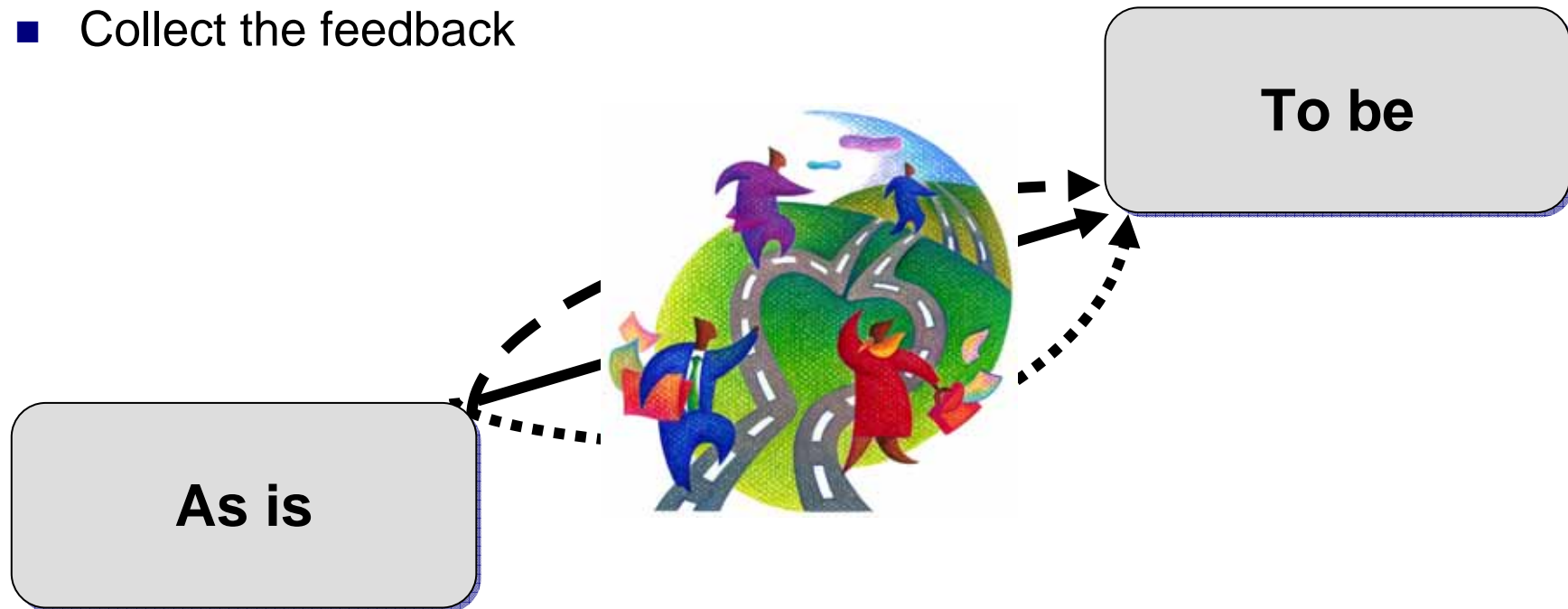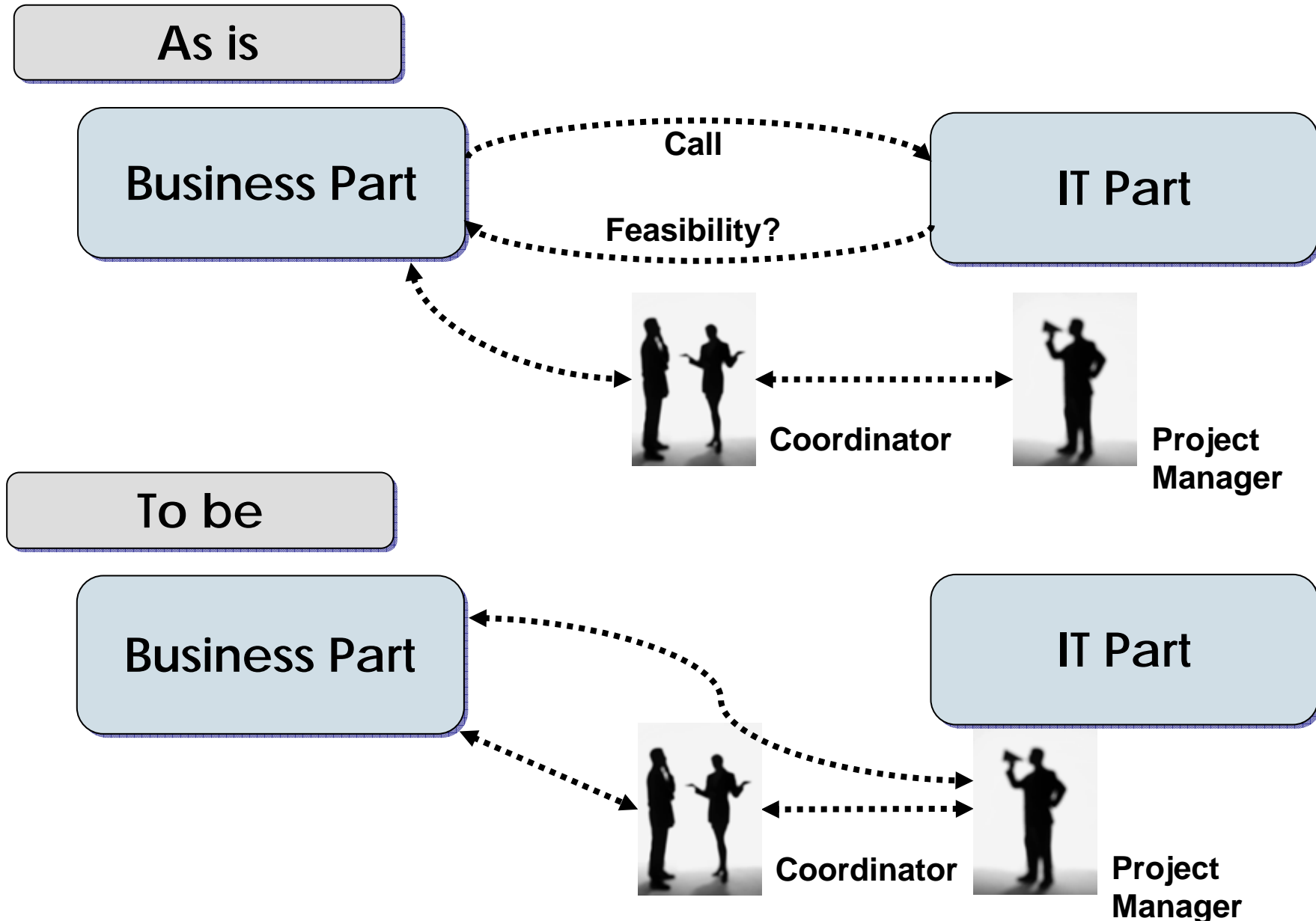

"The quality of a software system is governed by the quality of the process used to develop and evolve it."
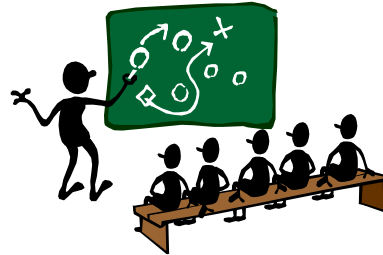
—Watts Humphrey

* Source: "Managing the Software Process", Watts S. Humphrey

Make SPI-activities visible to everybody

- Regularly provide the report seminar where new process is presented
  - The problems with the current processes
  - The explanation of improved processes
  - The advantages of new processes
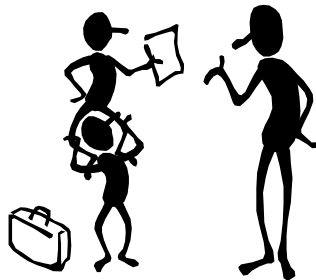 - The opinions of action teams and spins

- Collect the feedback

To be

As is

[Example] Requirements Development

As is

Business Part   Call   **IT Part**

Feasibility?

Coordinator   Project Manager

To be

Business Part   **IT Part**

Coordinator   Project Manager

Consultant Roles

Facilitator

- **Regular or special team meeting**

Executive coach

- **Coaching sponsors and CMMI TFT**

Process consultant

- A process framework for Enterprise wide integration is needed.

  - CMMI + managerial processes

- Combine CMMI Staged Representation and Continuous

  Representation properly

  - Level 2 PAs and Some of Level 3 PAs

- Provide benefits of applying CMMI in a short term period

  - 6 Month or Less than 1 year

  - It will make SPI activities continue

  - Unless, the executive may try another model

References

- Bob McFeeley, "IDEALSM: A User's Guide for Software Process Improvement", Software Engineering Institute at Carnegie Mellon University, 1996

- Bill Curtis, "Best Practices for Conducting CMMI", 2004 Korea SEPG

- Watts S. Humphrey, "Managing the Software Process", Addison-Wesley, 2002

- http://sei.cmu.edu/cmmi

- http://seir.sei.cmu.edu/seir/

* Source: "Managing the Software Process", Watts S. Humphrey

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