# The Two Faces of Project Management

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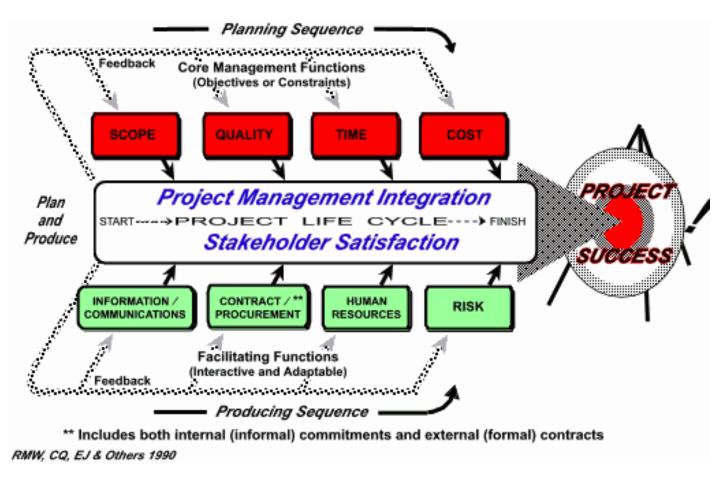
### Two Faces of Project Management



Normative	Critical
PMI, CMM Turner, Paulk, Cadle&Yeates	Alternative perspectives, Fitzgerald, Ciborra, Hanseth
Methods and control	Theories and paradoxes
Main evidence: Statistics	Main evidence: Cases
Focus on planning and control	Focus on human and social aspects

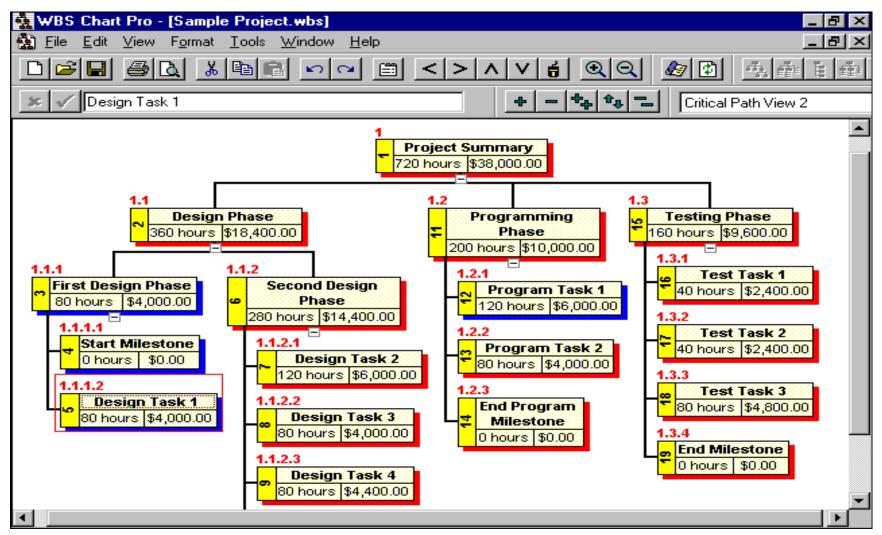


### The Normative Approach: PMI

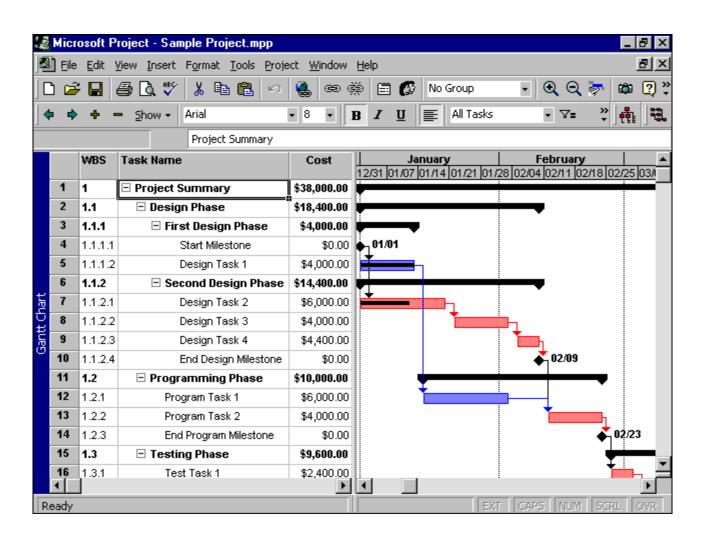


**Project Management Institute** 

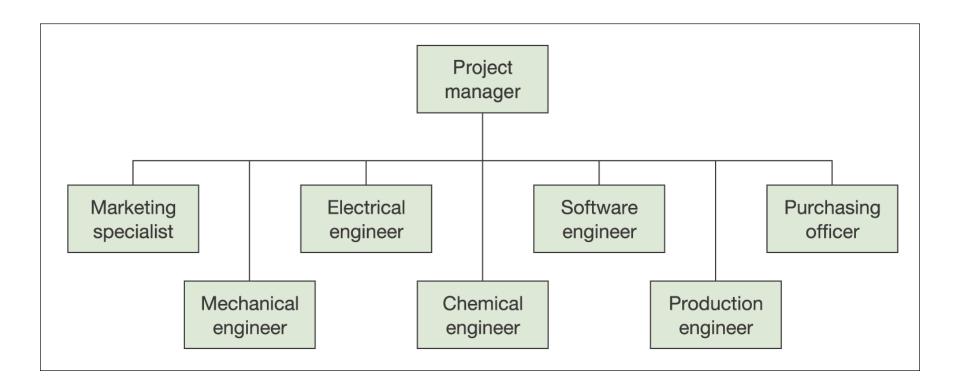
### Work Breakdown Structure (WBS)



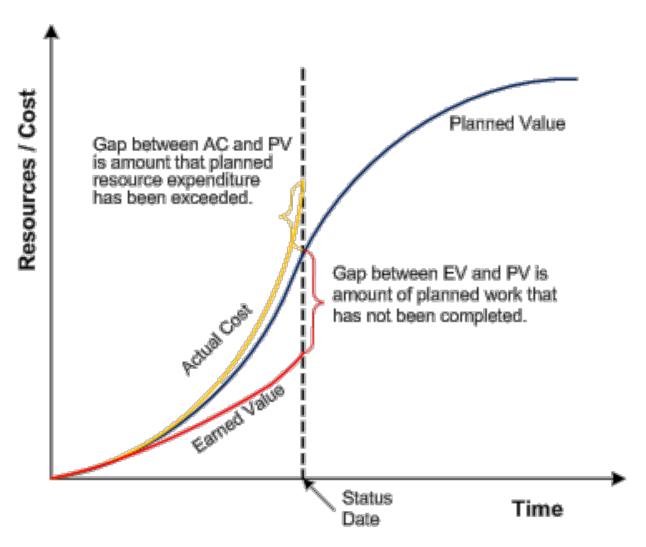
### Project Plan



## Organising



#### Earned value



## Jones, C (2004): Software Project Management Practices: Failure Versus Success



Capers Jones has published 12 books on software project management topics and more than 200 journal articles. He has given seminars on software project management in more than 20 countries to more than 150 major corporations, government agencies, and military services.

Successful Projects	Failing Projects
Effective project planning	Inadequate project planning
Effective project cost estimating	Inadequate cost estimating
Effective project measurements	Inadequate measurements
Effective project milestone tracking	Inadequate milestone tracking
Effective project change management	Ineffective change control
Effective project quality control	Inadequate quality control

Empirical basis: 250 large software projects at or above 10,000 function points in size that were examined by the author's company between 1995 and 2004.

#### **Capability Maturity Model (CMM)**

Level 5-Optimizing

Process change management Technology change management Defect prevention

Level 4-Managed Software Quality management Quantitative process management

Level 3-Defined

Peer reviews
Intergroup coordination
Software product engineering
Integrated software management
Training program
Software process definition
Software process focus

Level 2-Repeatable

Software configuration management Software quality assurance Software subcontract management Software project tracking and oversight Software project planning Requirements management

Level 1-Initial

### The Critical Approach

**Point of departure:** The normative approach is not effective:

- Normative approaches not found much in empirical research (Ciborra, 2000, Fitzgerald, 2004)
- Lack of real theory: From Control to Drift (Ciborra 2000, Hanseth 2007)
- The "iron triangle" (time, cost, quality) is too narrow (Atkinson, 1999, Bygstad and Nielsen 2012)
- The Agile approach

#### From Control to Drift...

Ciborra/Hanseth's critique (Ciborra 2000, Hanseth 2007):

- Top-down planning and control approach is not reflected in practice
- Empirical investigation often finds IS development projects to be situated and emergent
- This requires skills such as empathy and improvisation rather than managerial control
- Complexity and risk is inherent in IS, and cannot be mitigated by more control...

## The Agile Manifesto: The Programmers' Revolt

- Our highest priority is to satisfy the customer through early and continuous delivery of valuable software.
- Welcome changing requirements, even late in development. Agile processes harness change for the customer's competitive advantage.
- Deliver working software frequently, from a couple of weeks to a couple of months, with a
  preference to the shorter timescale.
- Business people and developers must work together daily throughout the project.
- Build projects around motivated individuals. Give them the environment and support they
  need, and trust them to get the job done.
- The most efficient and effective method of conveying information to and within a development team is face-to-face conversation.
- Working software is the primary measure of progress. Agile processes promote sustainable development. The sponsors, developers, and users should be able to maintain a constant pace indefinitely.
- Continuous attention to technical excellence and good design enhances agility. Simplicity-the art of maximizing the amount of work not done--is essential.
- The best architectures, requirements, and designs emerge from self-organizing teams.
- At regular intervals, the team reflects on how to become more effective, then tunes and adjusts its behavior accordingly.

(Beck et al, 2001)

## The normative approach has integrated some of the critique...

Cadle & Yeates:

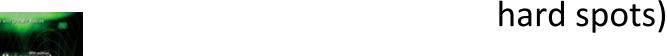
– Part 1: The Business context (Hard side)

– Part 2: Project execution (Hard side)

Part 3: Delivering success (Hard side,

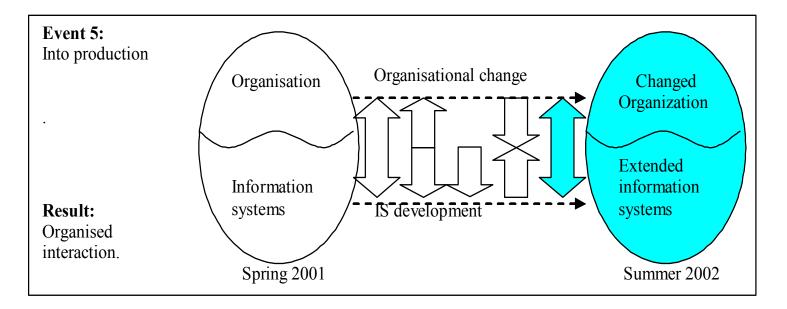
soft spots)

Part 4: The human dimension (Soft side,



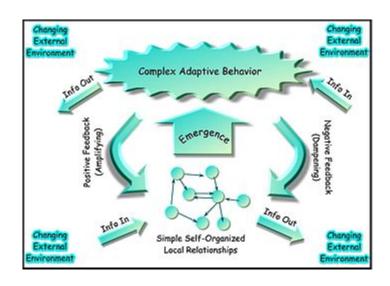
## Trade-off: Differentiation and Integration

- Lawrence and Lorsch (1967): Trade-off between differentiation and integration
- Bygstad and Nielsen (2012): Process Interaction



#### **Unsolved problems**

- Project management in large information infrastructures
- Project management in complex adaptive systems
- Project management in service innovation.



#### Conclusion



#### **Project Management:**

- is en exciting discipline!
- is (must be) both hard and soft
- is rich in tools
- lacks a theoretical foundation

