

# Første Økt: introduksjon

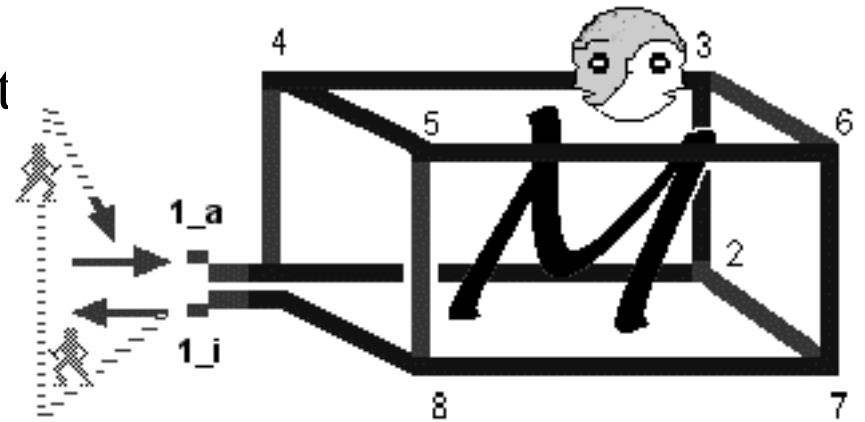
- **Organisasjonsforståelse og problemløsning:**
  - Omgivelsene, organisasjonen og policy-spørsmål for å lokalisere og identifisere prosjektarbeid.
  - SP-AR MED OPPRETT (Araki)
- **Metoder og tilnæringsmåter:**
  - DETI, MØVK (MTAK) og SOAS (Araki)
  - UCR, DIPE, NGT, SWOT...
- **ROS-analyse. Pause**

# What is a project? [PEAK]

- A project is goal oriented (P: How?)
  - MbO, Goals: Realistic, objectively measurable, limited in duration, development oriented and describing results. No top down process.
- Coordinates interrelated activities (E: How?)
  - Systems analysis & synchronized tasks: [**PERT**: Program Evaluation and Review Technique] [**CPM**]
- It is of finite duration: beginning and ends (A: How?)
  - Project responsibilities: **Deliverables is after delivery, not on time & within budget.**
- It is, to a certain degree, unique (K: How?)
  - Conditions & requirements, usefulness, tasks implied, novelty or dependency on past experiences.
- These slides are partially based on the following book: Frame, Davidson J. *Managing projects in organizations: how to make the best use of time, techniques and people*. San Francisco, Calif.: Jossey-Bass, C1995 or a newer edition. Please acquire the book

# A systems theoretical picture:

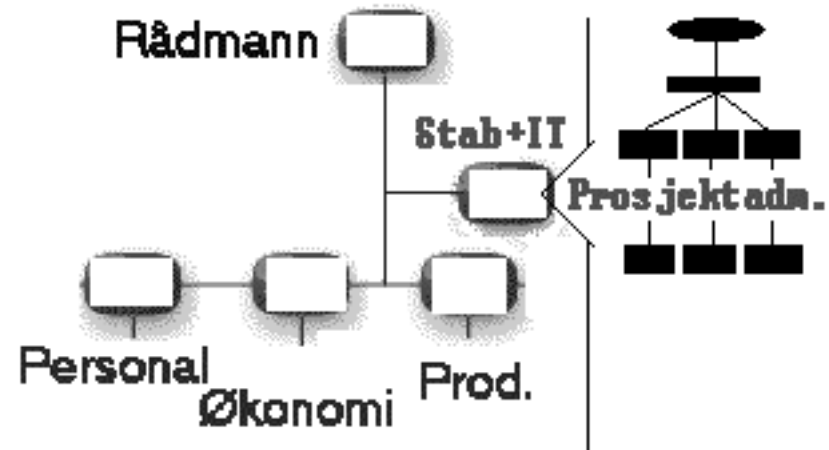
- **I- The environment & projects:**
  - Resources, best staff and equipments
- **II- The organization & projects:**
  - Localization & identification:
  - Project chart
  - Organizational policy & project
  - Project management
  - Project staff & teams
  - Empowerment & team identity
  - Cont. tasks & activities
  - Project evaluation
  - Termination & sustainability



# **Localisation & identification: Accomplishments. Needs. Requirements**

- **Localisation?? Accomplishments??**
- **Needs:** "I'm not sure what I want, but I'll know it when I see it" **The Needs Hierarchy. The Needs/Requirements Life Cycle:** Emergence phase, Recognition, Articulation (direct identification, precise formulation). Functional requirements (describe the characteristics of the deliverable), Technical requirements (written by and for the technical staff)
- **Requirement Problems:** Imprecise Requirements: Language, Lack of consensus; Lack of Expertise; Lack of information. Oversimplification; Requirements ignored.
- **Excessive Flexibility:** Chaotic project planning, Time and cost overruns. The most difficult to manage is SPECIFICATIONS

# Project chart & actors



- **Top Management:** (high- vs low-visibility projects)
- **The boss:** creating the daily working environment
- **Colleagues:** information, help or competitors in flattened org.
- **Staff:** often borrowed to matrix structure

**constraint:** on time, within budget, and according to specifications”

**What is the best to start with?**

# Working with people: staff & teams

- **Getting the job done-** on time, within budget, and according to specifications. What other responsibilities project managers have? What management styles do they practice, and under what circumstances? Who's in Charge here? The Perfect Project Staff Member has organizational commitment & psychological commitment
- **Working Smart :** Set Realistic Goals. Do Things Right the First Time (communication - reflection - undertakings).
- **Get Technically Competent People**
  - Thomas-Kilman Conflict Mode Instrument [**Exercise**]
  - FIRO-B Awareness Scale etc.
  - Psychological Types (Carl Jung 1923. The Mayers-Briggs Type Indicator)
  - W. Bion

# The Mayers-Briggs Type Indicator

- The Mayers-Briggs Type Indicator
  - The Extravert-Introvert Dimension
  - The Sensing-Intuition Dimension
  - The Thinking-Feeling Dimension
  - The Judging-Perceiving Dimension
- Applying Psychological Type Theory to Projects: **Selecting Staff. Diagnosing the Roots of Conflict. Improving Relations with Staff. Self-Knowledge**

- 
- **Team Efficiency** = actually achieved performance.

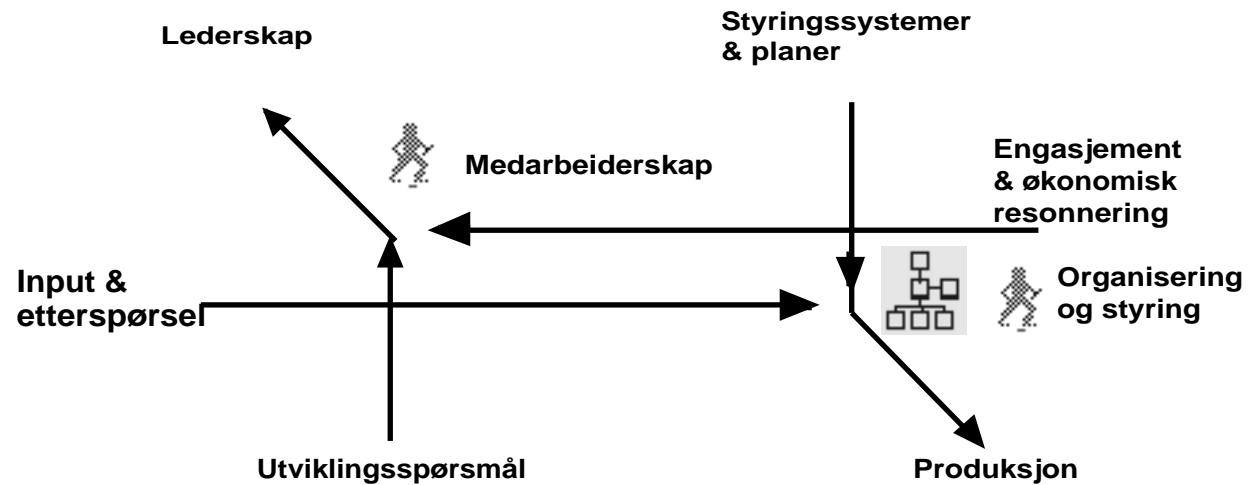
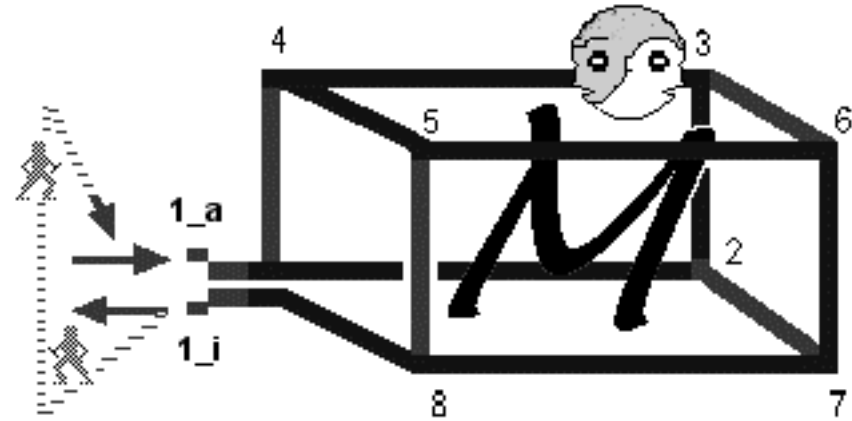
## **T\_Structure**

- **Isomorphic Team Structure**: project manager is integrator
- **Surgical Team Structure**: The surgeon define effectiveness.
- **Ego- less Team Structure**: high level of interaction. (Japan)
- **Specialty Team Structure** EX. A variance of Matrix.

# Empowerment and teambuilding

- **Making the Team Tangible:** Effective Use of Meetings. Collocation of Team Members. Creation of Team Name
- **Using a Personal Touch:** Be supportive, accessible and clear. Learn something about the team members. Celebrate special occasions.
- **Building a Reward system:** Letters of recommendation, public recognition for good work, job assignments, flexible work time, job-related perquisites, new equipments, recommendation for cash awards or bonuses.
- **Understanding Finance & Budgets**
- **Espoused theory & theory in use**
- **Simple & doubl- loop-learning**

# The opponents?



# [ I] Konsolidering Leses alene

## Prosjekt

- Forprosjekt
- hovedprosjekt

## Prosjektorganisering

- Styringsgruppe
- Referansegruppe
- Prosjektleder
- Prosjektgrupper
- ProsjektMANDAT

## Prosjektmetoden og matriser

## Grupper og komiteer

NGT\_teknikk

SWOT-matrise

ROS-analyse

# The Project Manager

- **Politics of project management:** Politics is the art of influence. Six steps for good project politician (Block, 1983):
  1. Assess the environment
  2. Identify the goals of the principal actors
  3. Assess your own capabilities (1-3 = realistic view)
  4. Define the problem
  5. Develop solutions
  6. Test and refine the solutions
- **Project Manager Responsibilities**
  - Developing Staff
  - Serving as Management/Staff Intermediary
  - Conveying Lessons Learned
  - Choosing a Management Style: Autocratic, Democratic

# Projects and organisational policy

- Operating within organizational reality/context
- **Politics is the art of influence.** Six steps for good project politician (Block, 1983):
  1. Assess the environment
  2. Identify the goals of the principal actors
  3. Assess your own capabilities (1-3 = realistic view)
  4. Define the problem
  5. Develop solutions
  6. Test and refine the solutions
- **Nurturing Authority:**
  - formal authority (backing from above and operational)
  - bureaucratic authority (rules, paperwork, procedures),
  - technical authority (technical competence) and charismatic authority (leadership)

# Specifying Project Requirements

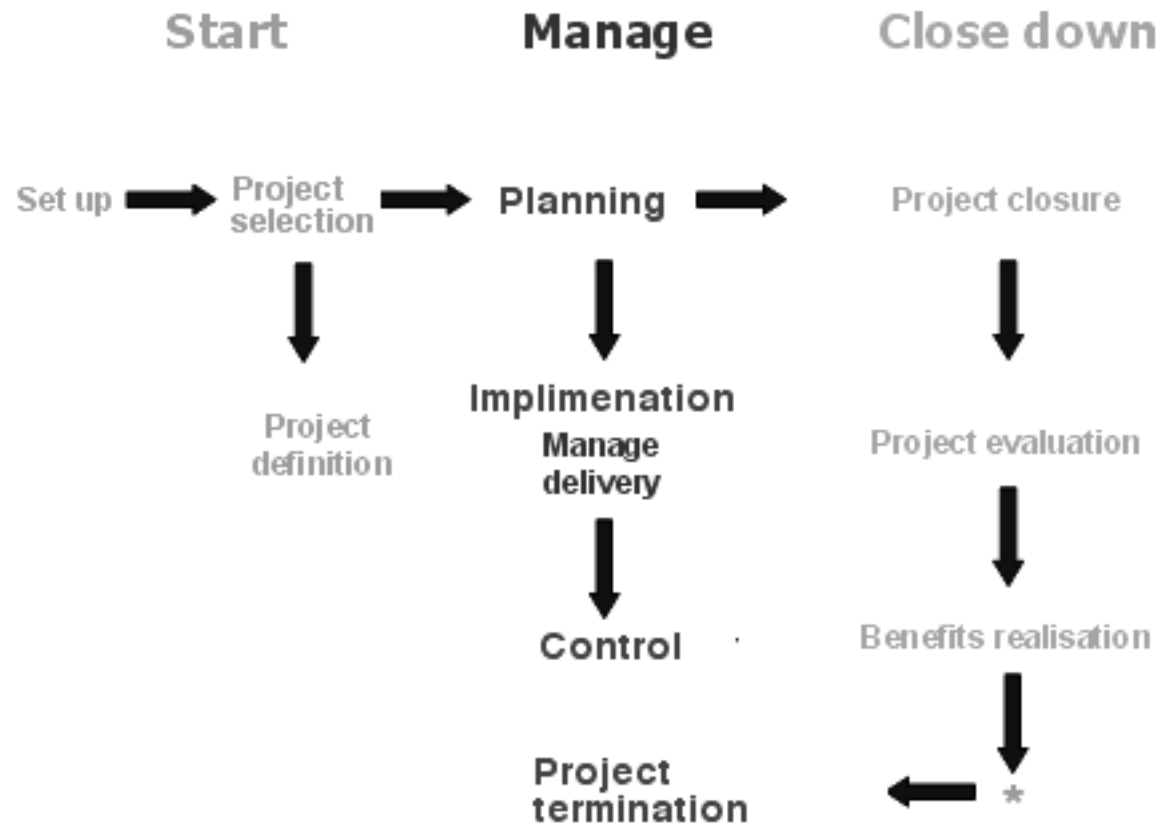
- Rule 1: State the requirement explicitly and have project staff and customers sign off on it
- Rule 2: Be realistic; assume that if a requirement can be misinterpreted, it will be misinterpreted
- Rule 3: Be realistic; recognize that there will be changes on your project and that things will not go precisely as anticipated
- Rule 4: To as great an extent as possible, include pictures, graphs, physical models, and nonverbal exhibits when formulating requirements
- Rule 5: Establish a system to monitor carefully any changes made to the requirements: Configuration management: [date of change, description of change, impact on the project, tasks and staff affected, cost of the change, name and signatures of those requesting change request]
- Rule 6: Educate project staff and customers to the problem of specifying requirements

# The Project **Life Cycle** - dynamics?

- Where you are in the project life cycle determines what you should be doing and what options are open to you.
- Six functions are addressed during the course of a project: [S-P-I-C-E-T]
  - **Selection**: external and internal sources & opportunity costs
  - **Planning**: The roadmap: Pre-plans: Detailed plan- rarely static
  - **Implementation**
  - **Control**: Variances between the plan and what has been done. is called **Management by exception**  $\neq$  micromanagement.
  - **Evaluation**
  - **Termination**

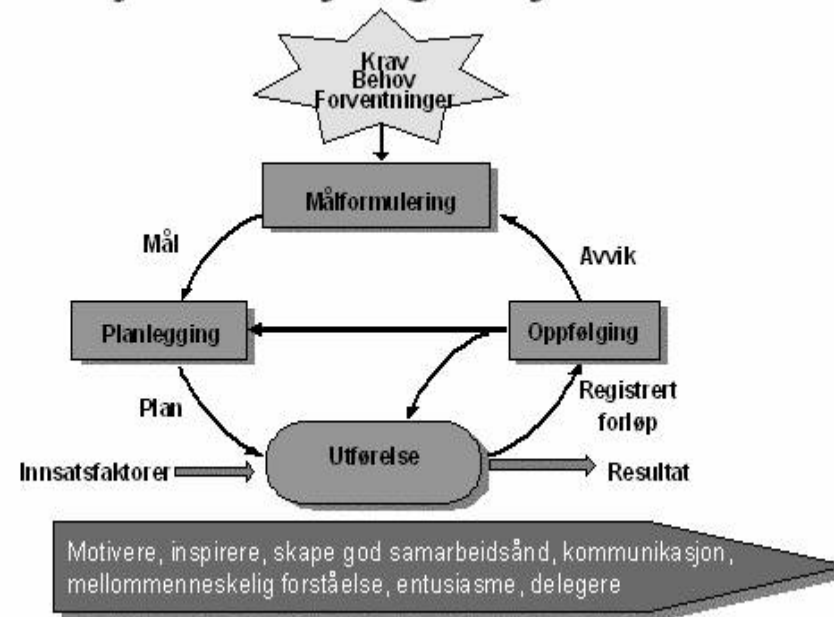
# Project lifestyle

## Project lifecycle



# Planning and Control Resources: How much?

## Prosjektets styringsløyfe



Phased planning: rolling wave.

# Understanding **Finance & Budgets**:

- **Components of the Budget**
  - Project Costs = Production + Administrative Costs
  - Direct labour costs; Staff & Economic Reasoning
  - Overheads: relatively fixed in relation to direct costs
  - Auxiliary costs: travel expenses, consultant fees.
  - Fringe benefits: from social security to tuition fees
  - Planning and Uncertainty: terra incognita
- **Project Controls:** Actual realisations and the plan: (un)acceptable. Criteria? **Management by exceptions.**
- **Management Reserve:** unanticipated problems: 5 or 10%
- **Budget Control:** Variance analysis to control the budget
- **Control Resources & Project Management Software**
  - **WBS--> Gantt Chart--> PERT/ CPM**

# Achieve Results & avoid failure

- **Principles for Success as a Project Manager**
  - Be conscious of what you are doing; don't be an accidental manager
  - Invest heavily in the front-end spadework; get it right the first time
  - Anticipate the problems that will inevitable arise
  - Go beneath surface illusions; dig deeply to find the real situation
  - Be as flexible as possible; don't get sucked into unnecessary rigidity and formality.
- **Sources of project failure**
  1. **Organizational factors:** arbitrary rules, micromanagement from the top, haphazard budgeting: Coordinate & influence. Recognize limits & frustrations. Spend much time on what you can influence.
  2. **Inability to Identify Customer Needs and to Specify Requirements Adequately.** Customer needs and project requirements are major sources of project failure
  3. **Poor planning and control: WBS, Gantt, PERT/CPM charts**

# **Project evaluation:** throughout the life of a project

## **Control:**

- Continual project progress.
- Focuses on details
- The responsibility of project manager.

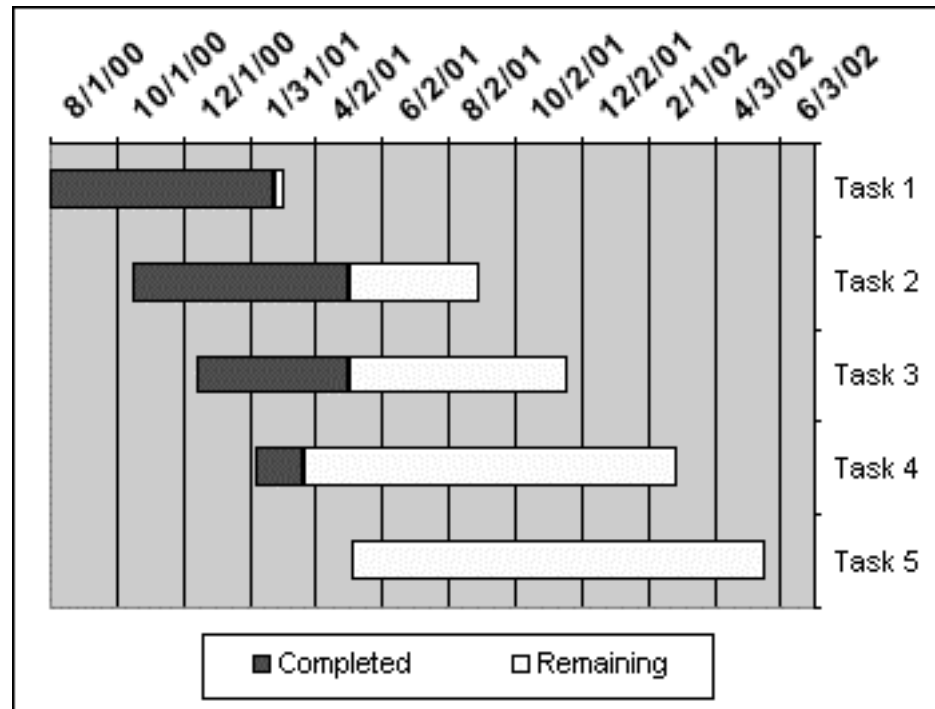
## **Evaluation:**

- Periodical to determine the status of project...
- Is carried out by group or individual NOT directly related to the project.

- When project end, the project **manager's responsibilities continue:** equipment, staff, deliverables, final reports etc.
- **Project maintenance: is a separate** and distinct undertaking from the initial project.

# [II] Konsolidering: andre økt

## Gant\_skjema

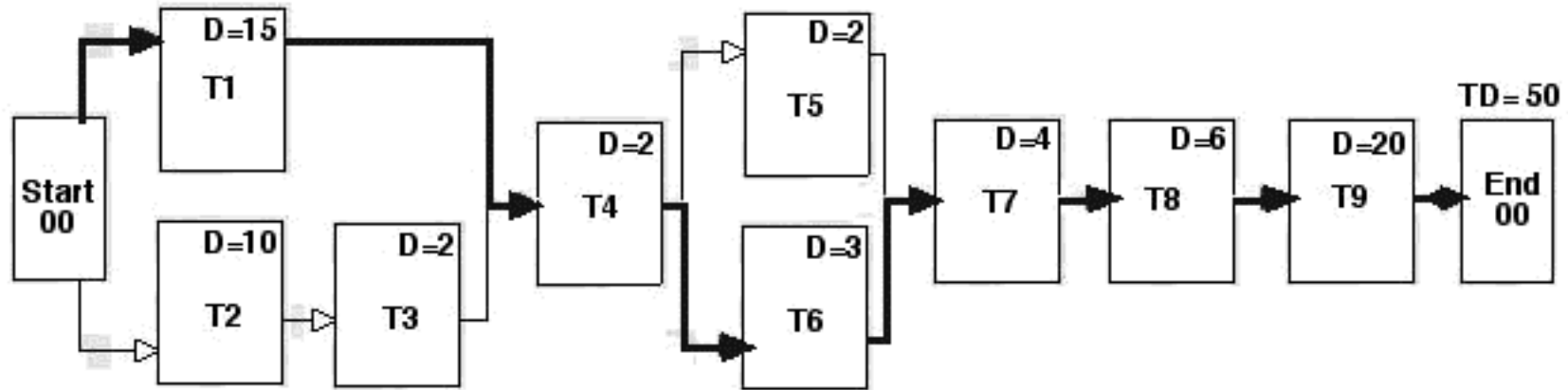


## **Picnic: George & Martha have 50 minutes.**

<b>Make iced tea</b>	15 George
<b>Prepare sandwiches</b>	10 Martha
<b>Prepare fruit</b>	2 Martha
<b>Prepare basket</b>	<b>2 Martha</b>
<b>Gather blankets</b>	2 George
<b>Gather sports gear</b>	3 Martha
<b>Load car</b>	4 George
<b>Get gas</b>	6 George
<b>Drive to picnic site = 20m</b>	20 Martha

# WBS, PERT/CPM

PERT/CPM Network (the modern version)



- T= Task. D= Duration. TD= Total Duration. DM= Dummy Task Red line= Critical tasks/path  
 NB!
- The sequence of the boxes and their relationships with each other
  - The critical path takes the longest time to complete and has no slack
  - Noncritical tasks are flexible because of slack time

## Slack calculations

Task	Early start	Late start	Slack
1	00	00	00
2	00	3	3
3	10	13	3
4	15	15	0
5	17	18	1
6	17	17	0
7	20	20	0
8	24	24	0
9	30	30	0

[Left to right] Earliest start time		[right to left] Latest start time	
Critical	non-critical	Critical	non-critical
T1=0	T2=0	T9=30 (50-20)	
T4=15	T3=10	T8=24 (30-6)	
T6=17	T5=17	T7=20 (24-4)	
T7=20	--	T6=17 (20-3)	
T8=24	--	T4=15 (17-2)	
T9=30	--	T1=10 (15-5)	
			T5=18 (20-2)
			T3=13 (15-2)
			T2=3 (13-10)

# Intern og ekstern effektivitet

		Produksjon Ressursforbruk (intern effektivitet)	
		Lav	Høy
Behovs- dekning (ekstern effektivitet)	Høy	"Riktige" oppgaver Høyt ressursforbruk 3	"Riktige" oppgaver Lavt ressursforbruk 4
	Lav	"Gale" oppgaver Høyt ressursforbruk 1	"Gale" oppgaver Lavt ressursforbruk 2

Figur 07: Forhold mellom intern og ekstern effektivitet