

Projects

Case-examples





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In this exercise:

- Project to establish a factory
 - Investment project
 - Job assignment and project network
 - Risk management





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Investment in production system: BMW Mexico



An investment project to establish a factory

- **In 2014, BMW announced the establishment of a car factory in Mexico**
 - The factory opened in June 2019
 - The factory is expected to produce approximately 175,000 BMW 3 Series vehicles per year
- **An important factor for the investment was the low cost and the region's potential in car production**
 - Mexico is the world's fourth largest car exporter
 - Increased investment in Mexican auto production
 - Daimler and Audi established their own car factories in Mexico in 2013
- **What should be considered when setting up a factory?**



An investment project to establish a factory

- There are three dimensions to be defined in the factory establishment project
 - Limited **scope**, i.e. what is procured
 - Limited **time**, i.e. how long it takes to set up a factory
 - Limited **costs**, i.e. how much capital is available for the project



An investment project to establish a factory

- **A company usually has many different options for implementing a project**
 - There are many developers, equipment suppliers and financiers in the market
- **Investment can be financed with equity or debt**
 - They both have a certain 'cost', meaning how much return on capital is needed
- **An investment project requires planning and negotiations between suppliers and the customer**
 - Bidding, contract negotiation and establishment of a project organization





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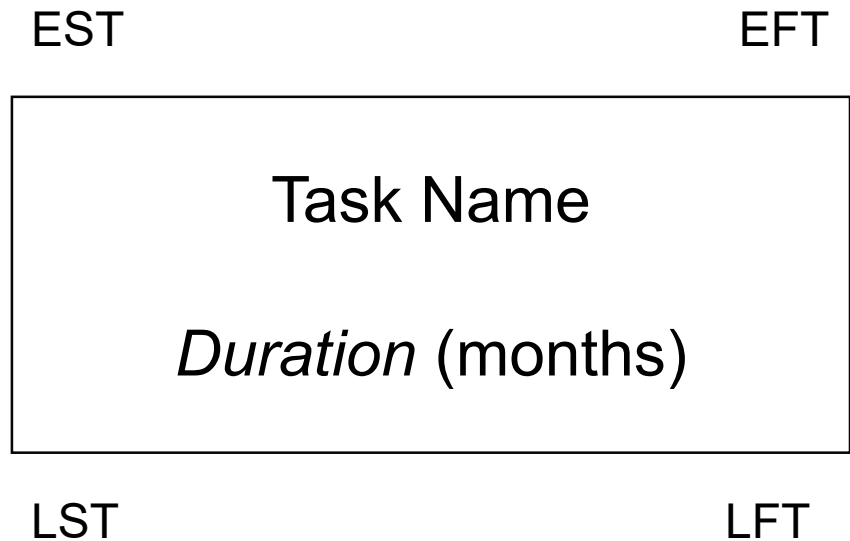


Job assignment and project network

- **The tasks required to complete the project and the order in which they are carried out can be illustrated with a project network**
 - The project network indicates the tasks required to complete the project, their duration, flexibility, and the critical path
- **The tasks required to be performed are obtained with the help of a job description**
 - The project is divided into smaller sections
- **Certain tasks can be performed simultaneously, which increases flexibility**



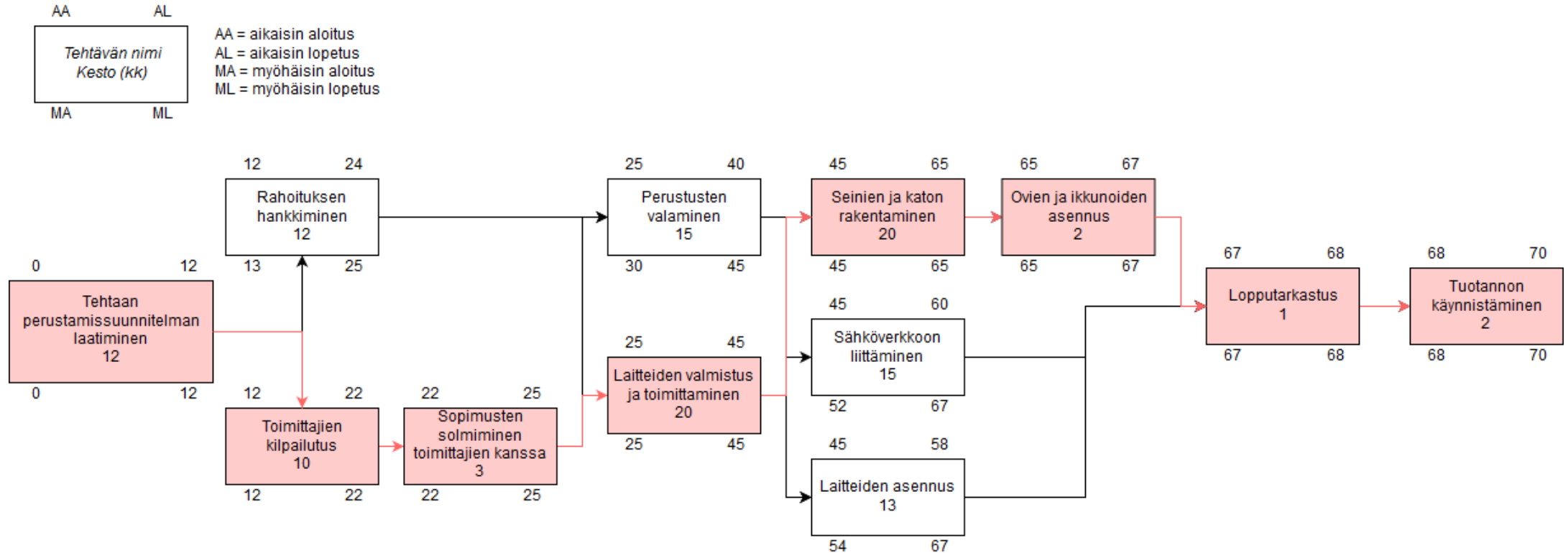
Project network node anatomy



EST = Earliest Start Time
EFT = Earliest Finish Time
LST = Latest Start Time
LFT = Latest Finish Time



Project network for establishing a factory (in Finnish)





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Risk management

- **Projects involve risks, that is, events that affect the cost, schedule or scale of a project**
- **Risks need to be identified and assessed, and measures to avoid them must be planned**
- **Risks can be classified as**
 - Pure risks
 - Business risks
 - Financial risks
 - Regional risks



Risks of setting up a factory

- **Pure risks**
 - Accidents at work, machine failures, fires
- **Business risks**
 - Production capacity, quality of equipment and other of the completed factory, competence project organization could be worse than anticipated
- **Financial risks**
 - The cash flow from the factory could be worse than anticipated, the change in the peso's value against other currencies
- **Regional risks**
 - Restrictions on trade with the United States, earthquakes



An example of the risks at the BMW factory

BMW opens its first Mexico plant as the US government threatens tariffs on Mexican goods

The Bavarian automaker is in an unenviable situation as it waits for a decision on tariffs from the US government.

BY KYLE HYATT | JUNE 6, 2019 3:24 PM PDT



Week 5 assignment: Project plan

Founding a business (1-2 pages)

1. Make a project network about the creation of your business.

- Network tasks may include obtaining business spaces, recruiting, etc.
- There must be flexibility in your project network, i.e. tasks of different lengths can be performed at the same time.
- Mark the critical path
- Explain briefly the tasks of your project network

2. What are the risks involved in setting up your business and how can you be prepared for them?

- Think of the categories of risks!



Week 5 assignment: Project plan

- **The assignment must be returned as a pdf to myCourses by Monday 26th October 18:00**
 - You have more time than usual (2 weeks)
- **Remember to give feedback:**
 1. How long did it take to do the assignment?
 2. What new did you learn?
 3. What should be developed in this exercise?
 4. General comments on the course so far?

Reminder: The mid-term exam takes place on 20.10 at 13:00-16:00

May the force be with you!

