# to work in a project

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# a project

- one-time-task
- temporary organization of work
- too big / too complex for 1 person
- goal-oriented (problem solving)

- limited resources (time, money, people)

➔ a project is unknown, unclear

# projects at Ifi

- learning by doing
- learning how to design and how to design the design process

- tasks that are too big & too complex for 1 person
- 4-5 people in a group

- carry out a full process in a small scale

# a project is a balancing act

scope            (ambition)

quality

time                                    resources

(people ++)
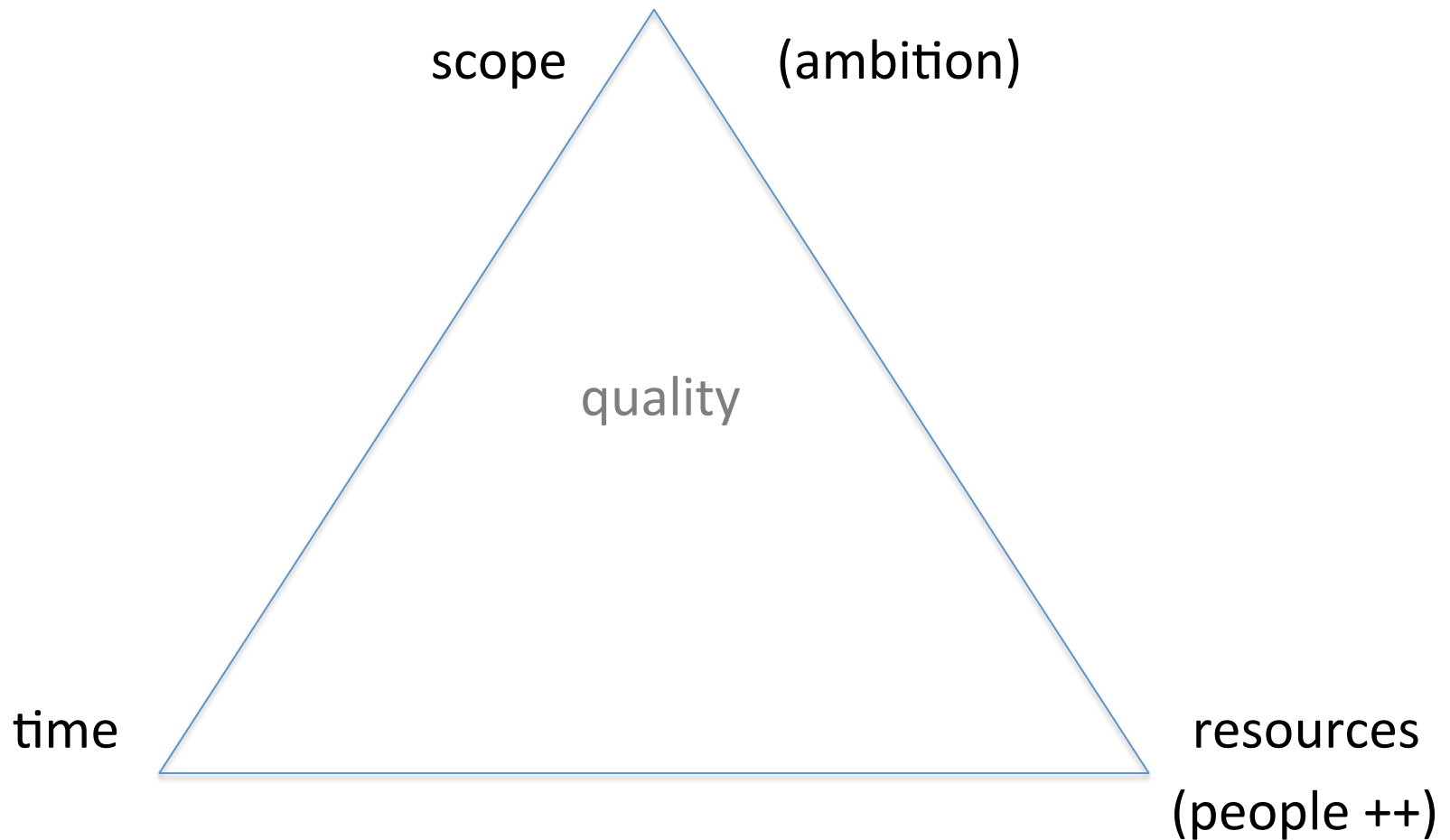
# hints for starting projects

- start by getting to know each other
- define your project
  - the theme: what is your project about (at Ifi: learning objectives)
  - the goals: what do you want to achieve? level of ambition etc
  - the evaluators: what is the purpose of your result (who will use it?)
- define the norms and rules for your project *(be concrete!)*
  - what are your ambitions and time to spend in the project?
  - when will you meet? (how often, what if you do not meet etc)
  - roles: how will you organize the work? how will you make progress?
  - how will you share your work?
  - rules for handling conflicts (contract, sanctions etc)
  - write decision minutes (what did you agree on, who will do what when)
- start planning the project

# planning

1) what is the task, what will you deliver?
2) what kind of work tasks are implied?

   – parts of the work or parts of the result

   – work packages

3) dependency between tasks

   – flow of partial results / intermediate results

   – task network with dependencies & critical points

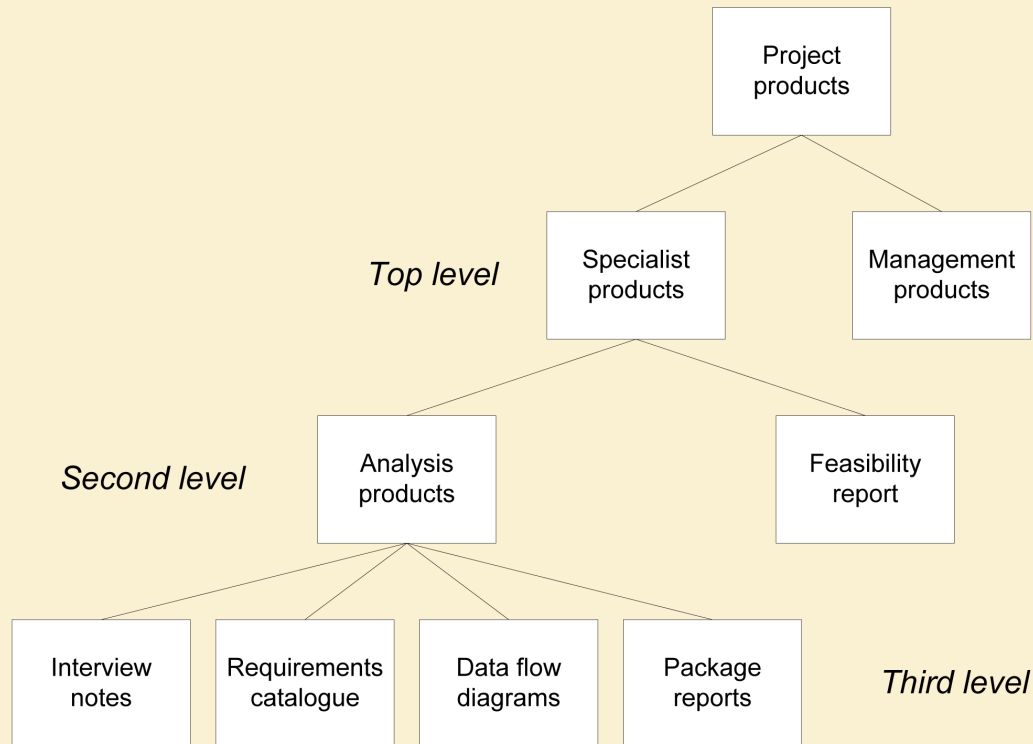4) time planning + responsibility mapping

# division of work tasks



**Work breakdown structure (WBS)**
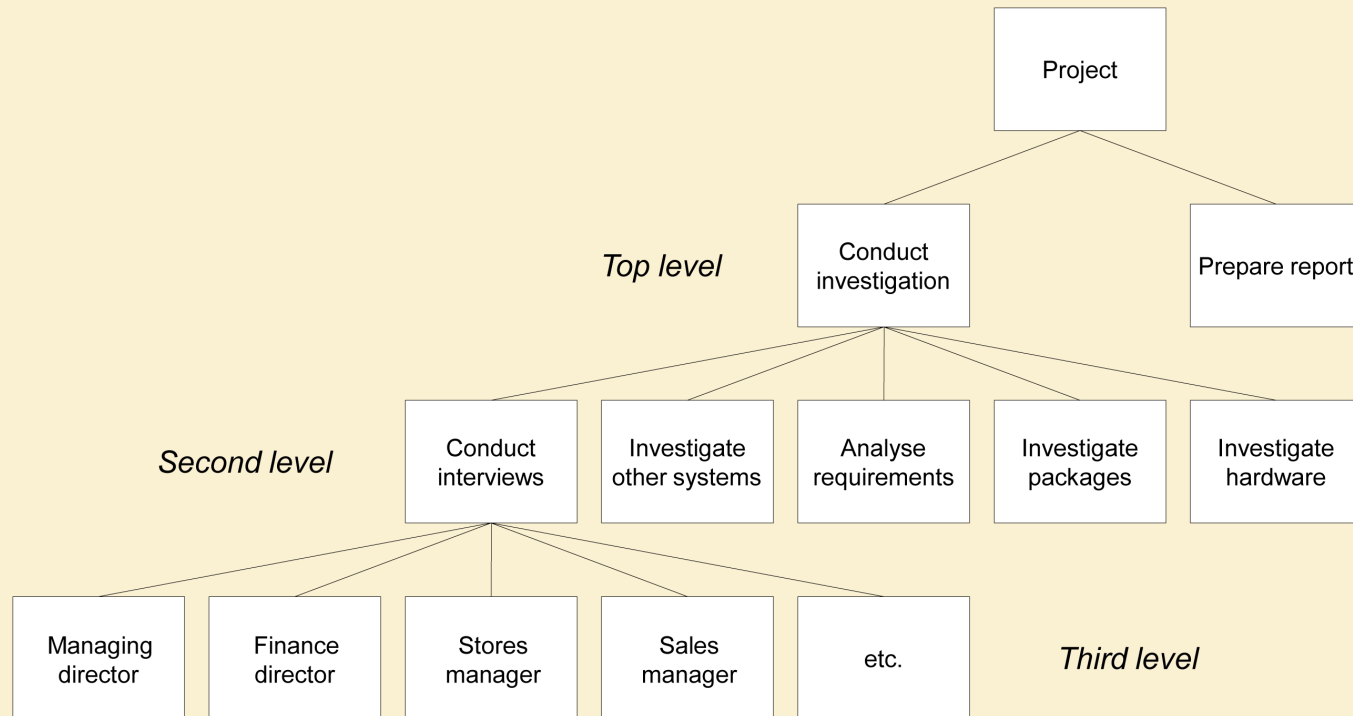
Figures 8.1–8.3  Work breakdown structures

# division of results

**Product breakdown structure (PBS)**



```
                        ┌──────────┐
                        │ Project  │
                        │ products │
                        └────┬─────┘
              ┌──────────────┴──────────────┐
        ┌──────────┐                   ┌────────────┐
Top level │Specialist│                 │ Management │
        │ products │                   │  products  │
        └────┬─────┘                   └────────────┘
     ┌───────┴─────────────┐
┌──────────┐          ┌───────────┐
│ Analysis │          │Feasibility│
│ products │          │  report   │
└────┬─────┘          └───────────┘
Second level
```

Top level

Second level

Third level

| Interview notes | Requirements catalogue | Data flow diagrams | Package reports |

Figures 8.5–8.8   Product breakdown structures

# combining works tasks & results
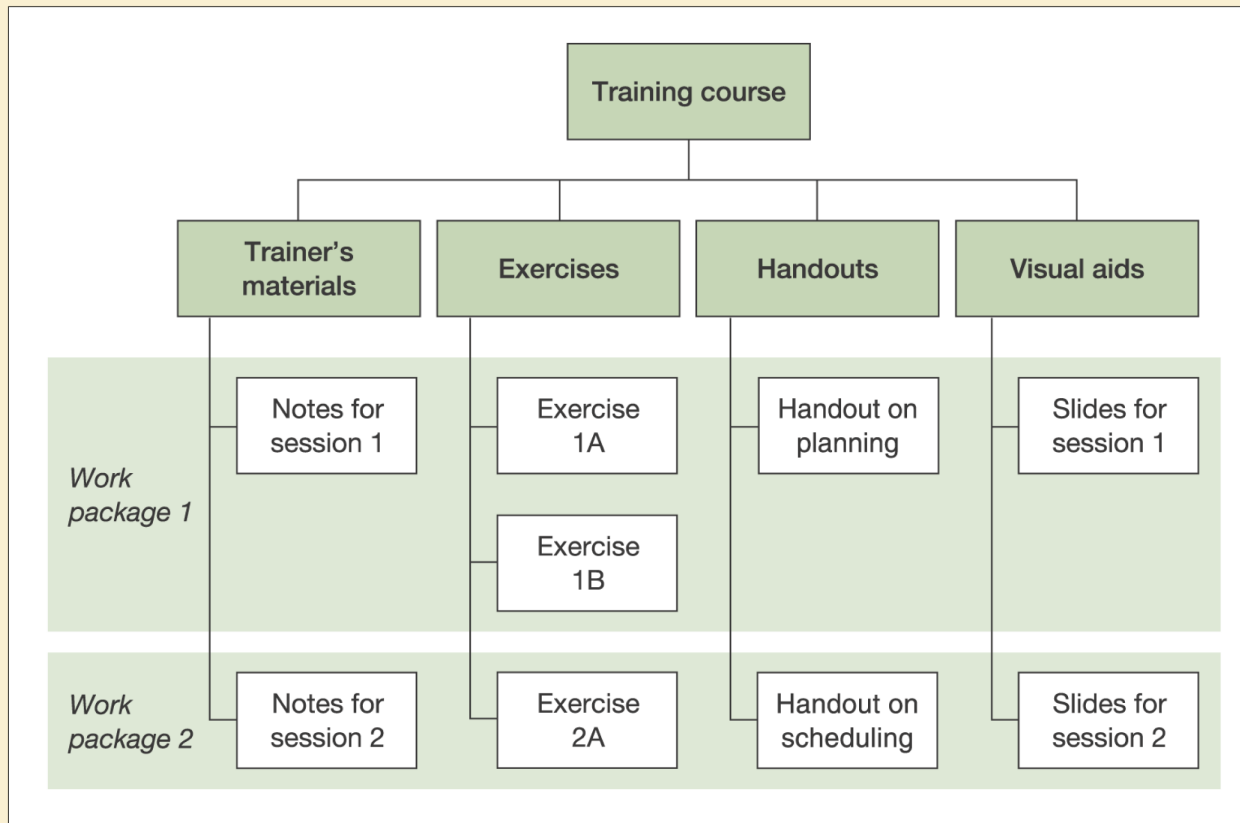
**Work packages**



Figure 8.10   Work packages for a training course

# overview of the production process
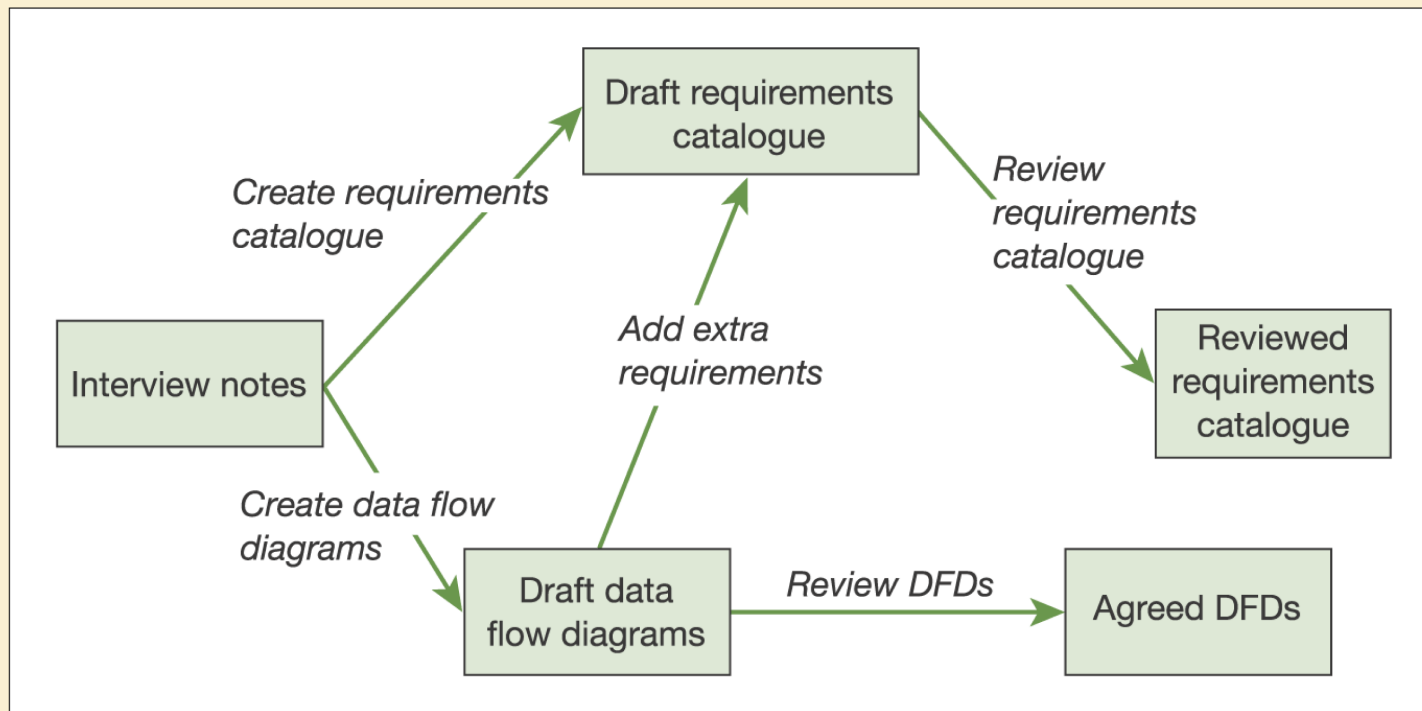


**Product flow diagram (DFD)**

Figure 8.9 PRINCE2® product flow diagram

# overview of the production process 2



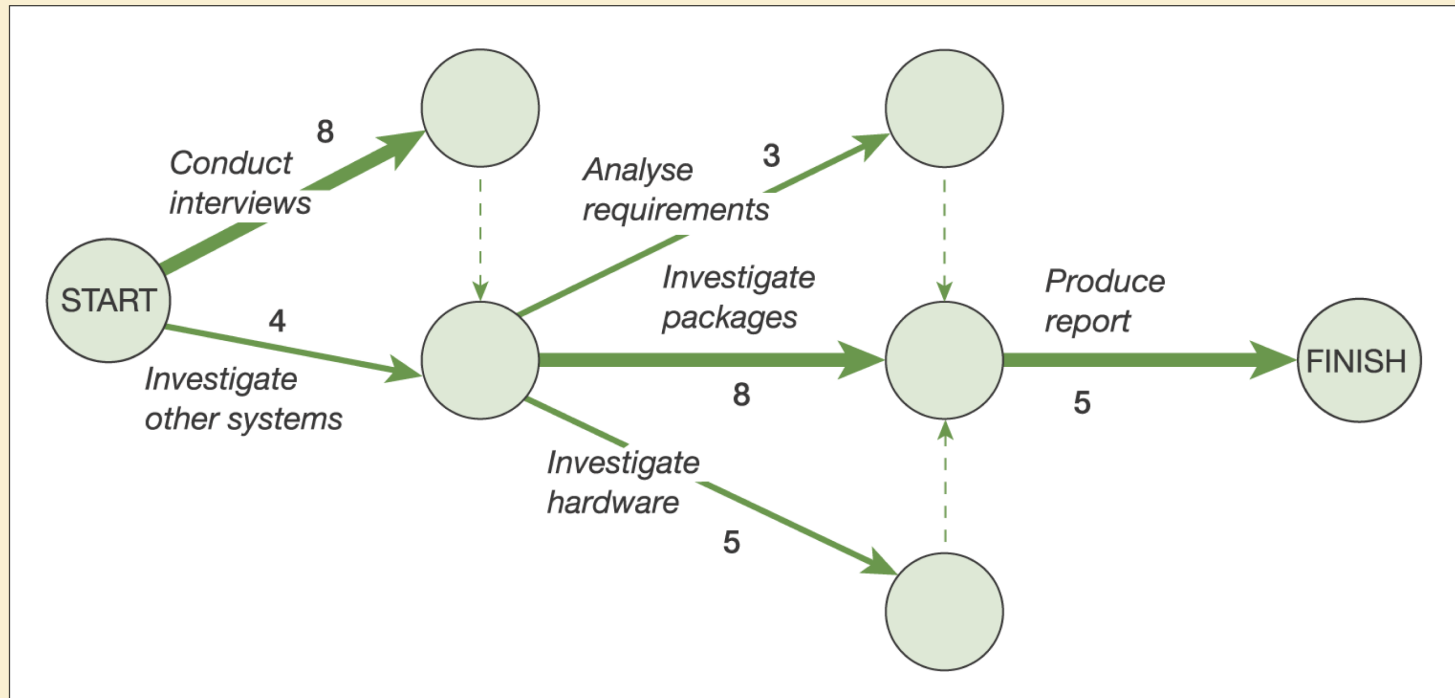**Network diagram with durations and critical path**

Conduct interviews — 8

Investigate other systems — 4

Analyse requirements — 3

Investigate packages — 8

Investigate hardware — 5

Produce report — 5

START → FINISH

Figure 8.13  Network diagram with durations and critical path added
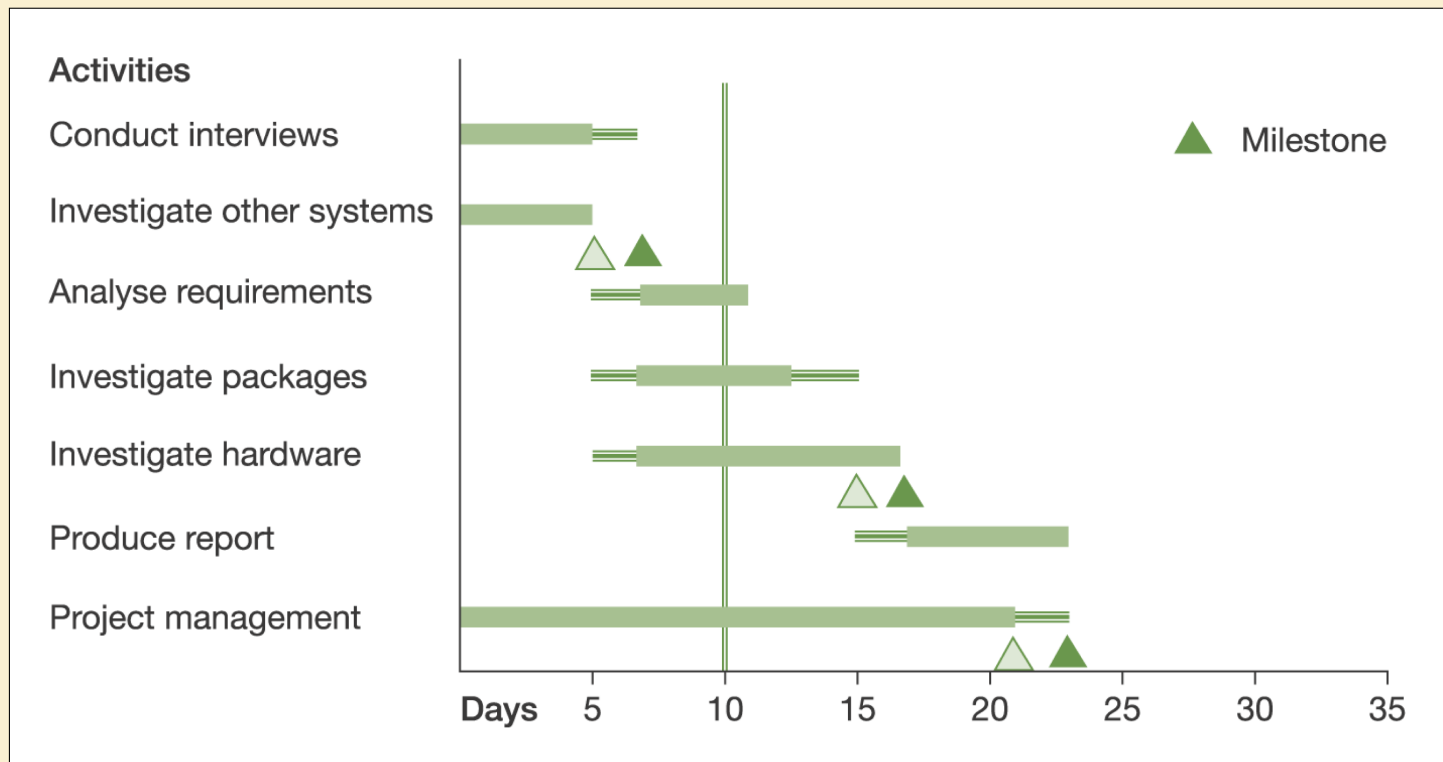
# to do list & overview *(Gantt)*



Figure 11.2 Bar chart used to illustrate progress

# mile stones & responsibility

| finished | problem | investigate. | design | analysis | report | mile stones | | who & what (role) |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | | |

time when achieved

mile stone = what should be achieved

who is responsible? who will do the job?

types of mile stones
visualize
- dependencies
- flow of the process

# check point mid term

- each individual reflect on his/her work in the group
  - how much time per week, what are your contributions, how do your work add to the group, are you satisfied with the ambition, the work load, the roles, the distribution of work, the cooperation etc etc
- discuss as a group
  - how much time do each of you and the group invest in the project?
  - are you happy with this amount of work? suggest changes
  - discuss which parts of the result each of you contribute to?
  - are you happy with the result and its parts? suggest changes
  - discuss how you have organized the work?
  - is it fair? should the work be organized differently to have a different distribution of work tasks and/or a different result?
- how can the group change unwanted sides of the project?

# check point mid term 2

- revise your plans
  - plans are resources for situated action

- address problems before they grow big & fat & difficult
  - and before they grow personal
  - your teachers can help in the discussion

## good luck!