

# Projects and Project Management

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Discuss: what is a project?

# What is a project? – Some definitions

- A project is a **temporary**, **result-oriented cooperation** between people using **scarce resources**.
- A project is a sequence of coherent activities which:
  - deliver a **concrete** and **well-defined** result;
  - have a well-defined **start and end date**;
  - should be realised within **restricting prerequisites**;
  - have a **client** who wants the result and is **committed** to it.

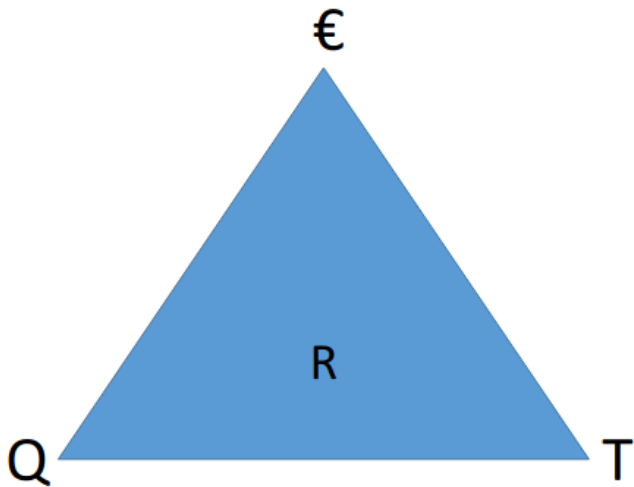
Furthermore, a project often contains **unique** elements, requires **multiple** disciplines and departments, and contains some **risks** and uncertainty that the project result will not be attained.

## What is a project? – Some more definitions

- A project is a **temporary organisation** which is required to obtain a **unique predefined** product or result within predefined timelines using predefined resources.
- A project is a **management environment** with the objective to deliver one or more products as defined in the **Business Case**.  
(business case = justification of the project, the costs and the benefits)

(PRINCE2)

## The Devil's Triangle



Discuss: when to use project-based way of working?

# Project management

Project management and project-based way of working is required in case a routinely way of working is not possible nor improvisation is desirable.

Your task: to bring **structure**.

# Project-based way of working

Characterised by four things:

- ① First thinking, then doing. (E.g., *what are the risks?*)
- ② Systematic working; making and following a plan.
- ③ Agreed is agreed; everyone depends on each other in a project.
- ④ Result-oriented way of working; deliver what was agreed.



## Recall: the agile manifesto

We are uncovering better ways of developing software by doing it and helping others do it.

Through this work we have come to value:

- **Individuals and interactions** over processes and tools
- **Working software** over comprehensive documentation
- **Customer collaboration** over contract negotiation
- **Responding to change** over following a plan

That is, while there is value in the items on the right, we value the items on the left more.

## Discuss: why do projects fail?

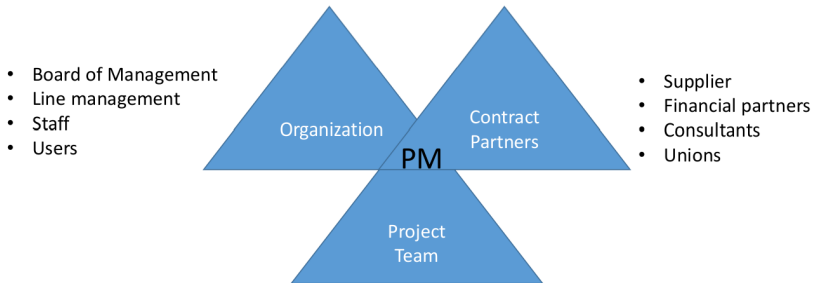
- changing requirements
- bad planning of resources and activities
- it is not clear and explicit who the client is
- no (good) project plan
- no well-defined project result (e.g., what's in scope?)
- projects are recognised too late (no project control!)
- insufficient measure points and decision points
- lacking project quality
- insufficient time allocation of the project participants
- no or poor business case
- lack of communication

# Principles of project management

- separate project management and project execution
  - requires separate skillsets
  - focus of project manager should not only be on project execution, but also on the environment (see next slide)
- separate / split the project management process
  - project start: assigning the project manager
  - project execution:
    - project preparation (project plan)
    - management of project execution
  - project closing
    - acceptance of project result
    - project evaluation
    - dismissal of project manager

# Principles of project management

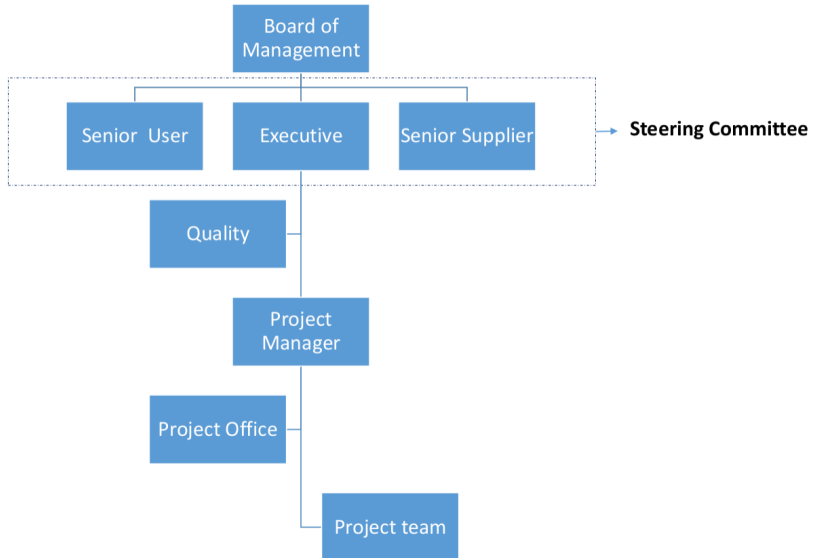
- manage and control the environment



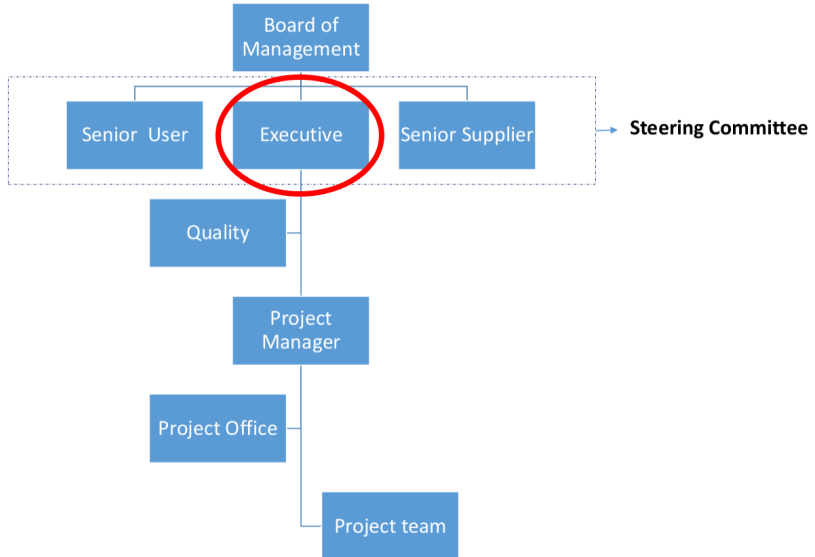
# Principles of project management

- structure and use a model for project execution
  - models: waterfall, agile techniques
  - distinguish phases, go/no go moments
  - define milestones
- control the execution, quality (functionality), time, €, project organisation, information, resources, communication
- distinguish roles

# Roles in project management organisation



# Roles in project management organisation

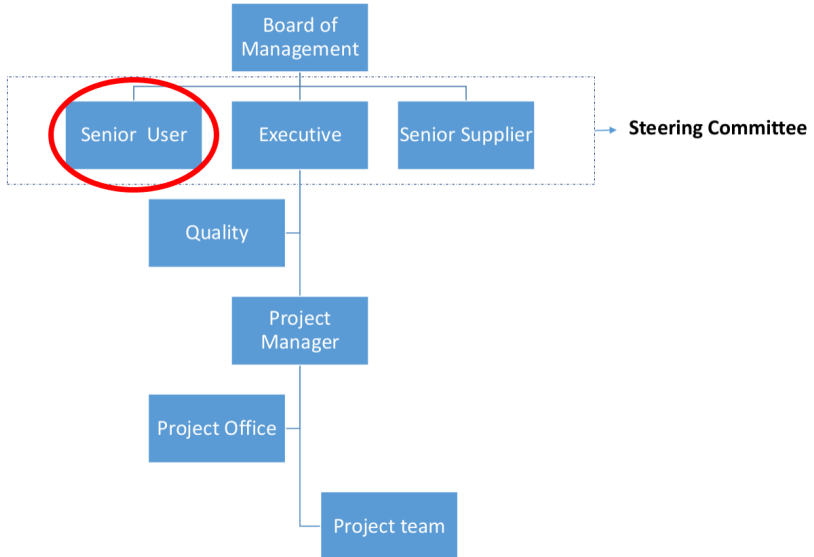


# Roles in project management organisation

- Executive
  - accountable for the project result
  - owner of the business case
  - proportions the interests of the business, users and suppliers



# Roles in project management organisation



# Roles in project management organisation

- Senior user
  - represents the user who will use the project result
  - responsible for delivering user requirements
  - responsible that project result fulfills requirements

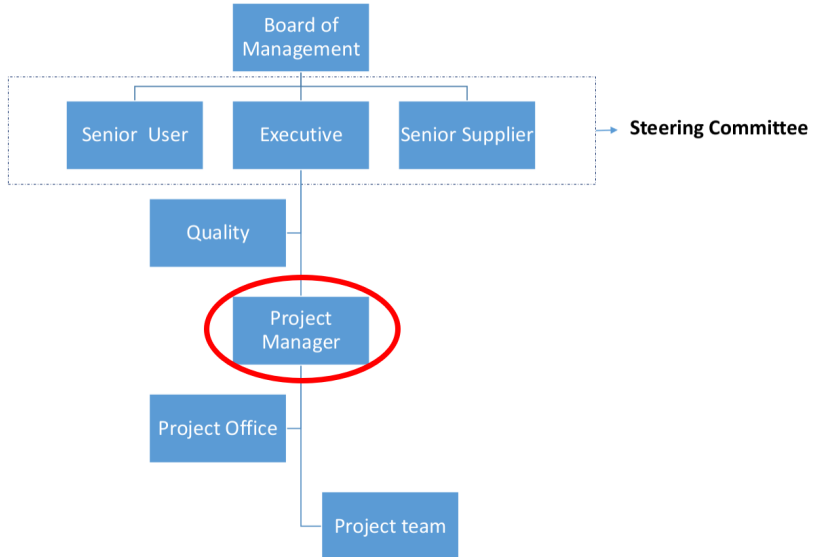
# Roles in project management organisation



# Roles in project management organisation

- Senior supplier
  - delivers required resources
  - responsible for the quality of the project result
  - ensures project result is according to agreed standard
  - judges whether project results can be delivered on time within budget

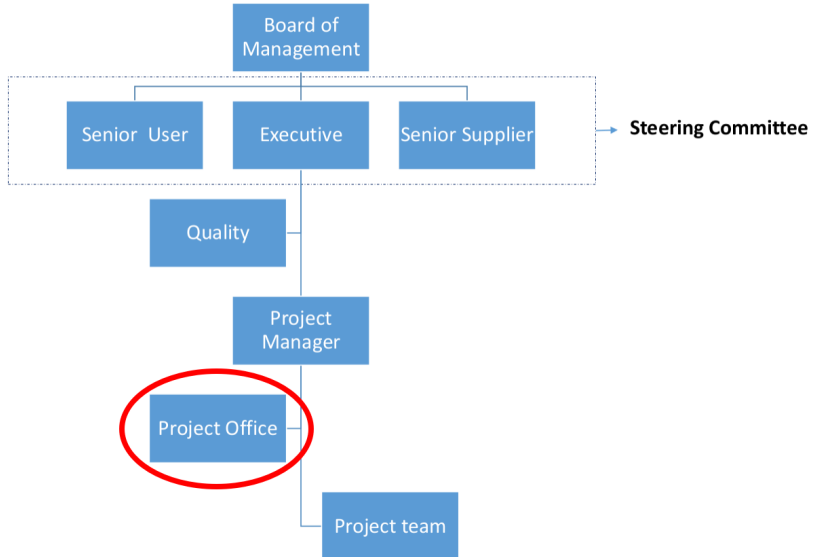
# Roles in project management organisation



# Roles in project management organisation

- project manager
  - responsible for delivering the agreed project results within agreed quality, timeline and budget
  - ensures project result will fulfill business case
  - manages project withi agreed boundaries
- project team: project execution and delivery of products

# Roles in project management organisation

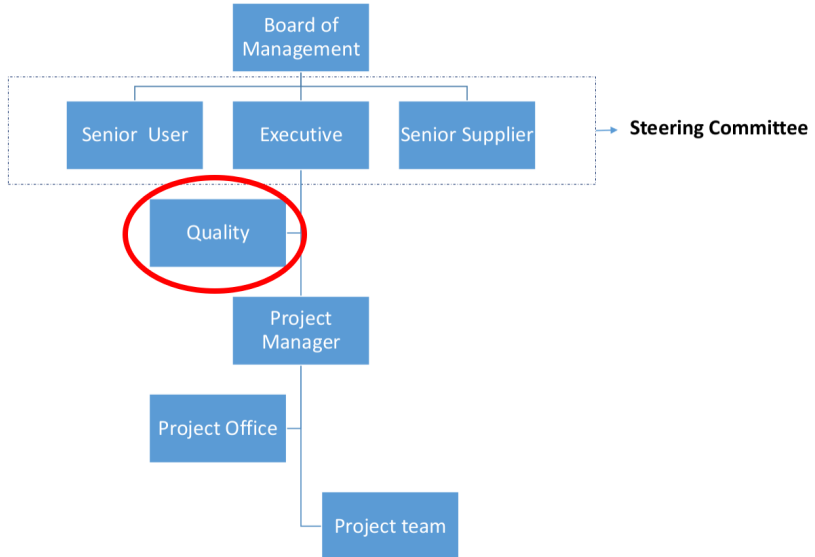


# Roles in project management organisation

- project office:
  - administrative and secretarial work
  - document and version control
  - project progress reporting



# Roles in project management organisation



# Roles in project management organisation

- quality officer: quality assurance independent of project manager
  - business case
  - correct standards
  - connections with user requirements
  - usage of right project resources
  - scope

# Purpose of project plan

- consciousness
- documentation and registration of agreements
- communication

# Project plan: sample table of content

**Objective of this document:** contract between project manager and steering committee

- ① impact of project proposal (on processes, systems, security) and prerequisites
- ② financial budget (hardware, software, training, consultancy, hours (including internal hours for backfill))
- ③ project planning: products, project breakdown structure, timelines, dependencies
- ④ project organization (roles and names): make sure people are available and willing to participate before project plan is discussed in steering committee
- ⑤ project controls: tolerance, reports, information matrix  
⇒ more about project controls and risks next lecture
- ⑥ project risks: risk management, issue management, change and escalation procedure

## Project plan: requirements for SDM managers

- ① project vision
- ② initial agreements with client
- ③ initial agreements with the team (including Definition of Done, code reviews, time allocation, etc.)
- ④ initial (prioritised) product backlog
- ⑤ project planning (if relevant): milestones, go/no go moments
- ⑥ budget (in man-hours)
- ⑦ how you intend to minimise / account for risks
- ⑧ the role each manager plans to take

### Notes:

- this is a **professional document**
- please be **concise**

## Management plan: requirements for SDM directors

- ① describe overall GiPHouse management structure (and your place in it)
- ② management vision, goals and style
- ③ agreements with clients (if relevant)
- ④ agreements with teams (process management tools, criteria for reports, etc.)
- ⑤ management planning (meeting times, quality checks, etc.)
- ⑥ budget (if relevant)
- ⑦ information and documentation
- ⑧ risk assessment and management
- ⑨ roles and responsibilities (quality checking, delivering resources, guidance, etc.)

### Notes:

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# Guidelines to prepare a project plan

- work iterative
- work together
- work from abstract / high level to more detail
- work forwards and backwards through your document
  
- Specific: what, why, who, wher, ...
- Measurable: how much, how many, ...
- Achievable: quality, time, €
- Relevant: project result is desired by customer
- Time-bound: when