PHASES AND PARTICIPANTS OF THE CONSTRUCTION PROCESS
ROLES AND RESPONSIBILITIES

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Basics of construction

CONSTRUCTION

What is construction?

DEF.: Construction is a technical project in accordance with an investment of a real estate, where a part of a building or an entire building is established or restored.

Each construction has unique project model!
PROJECT

Single, complex, unique task, that is limited in costs and time, and has predefined goals, and assigned sources.

It is...

...single ...as it is not a product of an ongoing procedure,
...complex ...as it deals with several challenges in many fields,
...unique ...as each project is different.
Limitation in costs and time means:

...costs and time are the main constraints restricted by decision or capacity.

How it has...

...predefined goals,
...assigned sources

...defining goals is the initial step of the project management – bases of every decision.

...the assigned resources are result of a decision process, or defined by the capacity of the investors.
What is investment?

**DEF.:**

*Investment* is the commitment of money or capital to purchase financial instruments or other assets in order to gain profitable returns in the form of interest, income, or appreciation of the value of the instrument.

What is special in case of a construction project as an investment?

- most cases single, unique, *project*-like investment
- relative high investment *costs*
- high demands on *professionals*
- predefined *quality*
- directly (e.g. cultural segment) or indirectly (e.g. industry, agriculture) satisfies social *claims*
high costs – determining branch of industry

Strength of the economy influence general quality requirements of the construction

http://www2.worksafebc.com/topics/youngworker/Statistics.asp

http://blog.trade.gov/category/trade-data/
**CONSTRUION**

**Quality requirements**

- better performance requirements
- need for wider choice of material
- more standards and prescription
- higher aesthetic requirements
- innovation of technology
- quality management
- higher level of accuracy

**Claims for educated personnel** (skilled workers, graduated professionals)

- **technical staff**: architect, civil engineer, mechanical-engineer, electrical-engineer, landscape architect, transportation engineer (design, construction, quantity surveyor, etc.)
- **economy staff**: economist, economy-specialist engineers and jurists (cost-calculation, cost-control, financial scheduling, cost-strategy etc.)
- **legal personnel** (lawyers, attorneys)
- **consultants** (e.g. institute-specialist, technology-specialist, etc.)
- **skilled worker**: (mainly building trades, general foreman)
CONSTRUCTION

Social claim

1. Level of defense
   a) physical defense, protection of the property
   - against natural forces
   b) sacral – against supernatural forces

2. Level of the society
   – serving the functions of the community

3. Level of luxury - entertainment

CONSTRUCTION

The participants

- client
- architect (designer)
- contractor
directly involved
- consultant
- project manager, construction manager
- quality surveyor (supervisor)
- maintainer, facility manager
- user

- bank
- authorities
- public services
CONSTRUCTION

Client

Individual / firm / institute

- What is the aim of the project? (financial or social benefit)

- What kind of financial sources are available? (private capital, bank loan, grants, etc.)

- How has been the other participants selected? (e.g. What are the legal commitments?)

CONSTRUCTION

Consultants

economy, investment, technology, architecture, real estate development, law etc.

individual / firm

- for feasibility
- for the whole project
- for single tasks
Designers – architectural plan types

- architect
- co-operators:
  - structural designer
  - installation designer
  - electric designers
  - landscape architect
  - fire safety specialist
- monument specialist
- calculation specialist
- etc.

Outline planning consent
Planning consent/building permit
Construction plan
Fulfillment plan

CONSTRUCTION

Contractor

- general construction management
- turnkey project

Project manager

- hired by the client, responsible for the connection and for the information transport between the participants

Quality surveyor

a single firm or a firm with sub-contractors

Project manager

- depends on the capacity and the specialization of the firm
- most PM crews have technician and economist specialist staff as well

CONSTRUCTION
CONSTRUCTION

**Authorities (national/regional)**
- public health and medical officer service
- local fire department
- local municipality – building department
- inspectorate for environment, nature and water
- office of cultural heritage

**Public Services / Utilities**
- public services for electricity
- gas works
- water works
- sewage works
- local chimneysweep service

**Bank**

CONSTRUCTION

**Maintainer, facility manager**
- responsible for the operation and maintenance of the building
- individual, firm or organization

**Users**
One or more target group utilizing the building.
**CONSTRUCTION**

*Different roles of the participants*

- client
- consultant
- project manager
- designer
- contractor
- quality surveyor
- facility manager
- user

**CONSTRUCTION**

*The project model*

- show the *organigram* of the project
- demonstrate the *connections of the participants*
- demonstrate the characteristics of the connections of the participants
CONSTRUCTION

The project model

- real/realistic claims
- relation network on real basis
- financeable investment (with the essential resources / capital)
- process accordingly to the scale of the project

FAMILY HOUSE

Sources: 100% private capital

contractor (chosen by competition) → client → architect (direct customer)

subcontractors

technical consulting
Continuous personnel consultation
architectural design
planning consent (construction plan)
quality survey
## Construction

### Storehouse

- Sources: 80% private fund, 20% credit
- Consultation supported by documents
- Client (company)
- Architect (direct commission)
- Contractor (chosen by competition)
- Subcontractors
- Construction plan

### Local Museum

- Sources: 60% governmental funds, 40% grant
- Client (museum)
- Contractor (by competition)
- Project management company
- Architect (by competition)
- Subcontractors
- Quality survey
- Architectural design
- Planning consent
- Construction plan

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