START-UP OF THE CONSTRUCTION PROJECT – ARCHITECTURAL COMPETITION

1. Introduction

2. Construction project

3. Projects of different size

4. How to develop a project

5. Architectural competition
1. **SYSTEMS OF MEANS**

The four definitive systems of means, in the building project management according to Rostás.

1. **PHASES OF THE CONSTRUCTION**

   1. Start-up
   2. Analyses, studies
   3. Feasibility study
   4. Ensuring the requirements of the feasibility
   5. Selecting the contractor (tendering)
   6. Construction works
   7. Handover, set in operation
PROJECT

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

CONSTRUCTION PROJECT

Characteristics of the construction projects

- 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
Types of construction projects

- minor projects (mostly private)
  - mini projects (garage)
  - small projects (family house)
- moderate projects (small investments, residential buildings)
- major projects
  - private investments (e.g. large-scale industrial investment)
  - public procurement (e.g. significant public buildings)

Characteristics of the projects are depending on it's scale.

Different relation patterns.
MINOR PROJECTS

- „low cost”
- mainly privately financed
- direct contract with the architect

responsibility and tasks of the architect is complex

COMPETENCES OF THE ARCHITECT

according to Vitruv (80-70 - 15 B.C.):

“Hence it is necessary, for the architect to be talented, and educated in the sciences…
…to be aware of the literature, skilled in drawing, qualified in geometry…
…optics…
…measuring sciences…
…to know the most important events of history…reading philosophers…
…music…
…law…
…astronomy…”
COMPETENCES OF THE ARCHITECT

...as a multi-functional designer and advisor of the client

- architectural design
- building materials
- statics
- building installation
- electricity
- landscape architecture
- traffic planning
- cost calculation
- time planning
- quality survey
- help to evaluate the quotations and to select the contractor
- etc.

LARGE PROJECTS

private investment  public procurement

no limitation  thresholds

but competition or tender can be organized voluntary

by

following the rules of the regulations

strict regulation of the project

competition, tender, etc.
How to develop a project

PHASES OF DEVELOPMENT ACCORDING TO ROSTÁS

audit → benchmarking

development ← conception

What?
Where?
Why?
What size?
What cost?
Who?
With whom?
How?

FEASIBILITY STUDY
### FEASIBILITY STUDY

1. **Start-up**
2. **Prefeasibility study (analyses, studies)**
3. **Architectural competition - selecting the architect (and the plan)**
4. **Feasibility study**
5. **Credit, mortgage**
6. **Tendering**

### Projects of different size

- Analysis of the existing samples
- Site analyses
  - Technical constraints (soil, inclination etc.)
  - Legal circumstances (regulations)
  - Functional - technological analysis (e.g. museum, factory)
- Architectural program
  - List of rooms/premises
  - Functional analysis (drawings)
  - Traffic analyses
- Legal analysis
- Cost estimation (area based – with plans, based on samples)
- Time estimation (for the whole project)
3 MODERATE PROJECTS

transitional cases – the investment model depends on the client

5 PLANNING COMPETITION

a form of competition, that is appropriate for the comparison and ranking of the technical, architectural and urban design concepts according to the regulations
LEGAL BACKGROUND

Regulations (in Hungary)

• act on public procurements

• act on the protection of the built environment

• governmental order on the rules of architectural competition

EXAMPLES

• Museum of Fine Arts, Budapest (1896)

• Hungarian National Theater, Budapest

• Reichstag, Berlin

• City Hall of Budapest

• Freedom Tower (replacing the WTC twin towers), New York
PLANNING COMPETITION - TYPES

competition for architectural concept

competition for architectural design

- simple
- with negotiation and invited participants
- open

restricted (public procurement) ↔ voluntary

- national threshold -> architectural competition
- threshold of the European Council -> international competition

PLANNING COMPETITION - TASKS

Organizer
- defining aim and type of competition
- ensuring the financial background
- invitation of the jury
- defining the assignment of the competition
- making the competition announcement
- organizing the competition
- announcing the results, offering awards
- utilization of the plans

Jury
- selection of the most valuable plans (according to the aim of the competition)
- evaluation with justification
- opening the „envelops” of the awarded plans
- recommendations for the future design phases

Participants
- submission of the plans
PLANNING COMPETITION - AIMS

1. anonymity – opportunity to be winner without preconceptions
2. to reach higher architectural quality
3. secrecy – for the elimination of advantages of personal relationships

PLANNING COMPETITION - CONTRADICTIONS

1. anonymity ↔ partnership of confidence
2. competition ↔ co-operation (changing by time)
3. „architectural quality“ ↔ the quality of the architect (good architect / star architect)
4. beauty ↔ practical means (function, cost)
5. member of the jury ↔ partners in the project
6. rational decision ↔ emotional opinions (subjectivity, lack of visual culture in the society)
7. announcement of the competition ↔ contracts, capabilities
8. secrecy ↔ frankness
9. creative artist ↔ architectural engineering
10. decision making: lack legal responsibility in jury (cost, feasibility)
PLANNING COMPETITION - PROBLEMS

If the architectural program is poorly developed
and the architectural quality is too subjectively evaluated

the competition is not effective
the difference between the conception and the realized building will be significant

The proper preparation of the competition is very important:
– well developed architectural program
– preparation of the evaluation system according to the aims of the project

PLANNING COMPETITION - PROBLEMS

The duration of the competition – differing opinions

• the client does not understand the need of time in case of a creative procedure
• the architect does not feel the cost aspect of the time

someone have to be aware of both

scheduling of the entire project
Main parts of the competition announcement:

- detailed program
- necessary information (data)
- annexes

The detailed program contains:

- detailed assignment of the task (data, guidelines)
- further information, how to gain not provided but available data
- data have to be taken into consideration in the work of the participants
- required data helping objective assessment
- information - how to record if patent has been used
- professional aspects of evaluation
- requirements of the technical documentation
- list of items must be submitted
PLANNING COMPETITION - ANNOUNCEMENT

Necessary information has to be provided

- name of the organizer
- title, subject and type of the competition
- conditions of the participation
- cost of the competition documentation – location, where it is obtainable
- information on submission (deadline, location, way of submission)
- conditions of the evaluation
- members of the jury
- questions (how and when will be answered)
- in case of invitation form the list of the invited participants
- data on architectural contract (deadlines, prizes)
- table of contents
- regulations concerning the project
- the return of the non-awarded works
- location and date of announcement of the results

Annexes

- site plans, site information
- maps, results of analyses, forgoing plans, photos
- data sheet for participants
- envelop
PLANNING COMPETITION - ANNOUNCEMENT

Data recommended for consideration

- history of the settlement
- urban structure of the settlement
- future aspects of urban development
- vegetation
- characteristics of the terrain
- characteristics of the soil
- restrictions for the site
- monument or archeological protection
- traffic
- social environment
- etc.

The system of evaluation

aspect 1 $\rightarrow$ criterion $+$

aspect 2 $\rightarrow$ criterion $+$

aspect 3 $\rightarrow$ criterion $+$

... $\rightarrow$ ...

criteria (=criterions) + significance of each aspect
<table>
<thead>
<tr>
<th>Aspects of evaluation</th>
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</thead>
<tbody>
<tr>
<td>• fulfilment of the technical requirements of the plans</td>
</tr>
<tr>
<td>• fulfilment of formal requirements</td>
</tr>
<tr>
<td>• submission of all the claimed items</td>
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<tr>
<td>• design according to the architectural program</td>
</tr>
<tr>
<td>• utility of the building</td>
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<tr>
<td>• economy of the building</td>
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<tr>
<td>• sustainability</td>
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<tr>
<td>• energy consumption</td>
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<tr>
<td>• the location concept of the building</td>
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<tr>
<td>• architectural environmental effects</td>
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<tr>
<td>• view, view protection</td>
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<tr>
<td>+ more</td>
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</tbody>
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**Objective Criteria**

1. System of criterion (on more levels)
2. Criterion of compliance with the prescribed aspects (yes/no)
3. Definition of each criteria (text)
4. Definition of the significance of each criterion or group of criteria in percentage (sum 100%) and it's justification

**Subjective Criteria**

- Can be objective with exact definition of the evaluation
- More
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