

**START-UP OF THE CONSTRUCTION  
PROJECT – ARCHITECTURAL  
COMPETITION**

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BME/BUTE – Faculty of Architecture  
Department of construction technology  
and management

*István Vidovszky PhD*

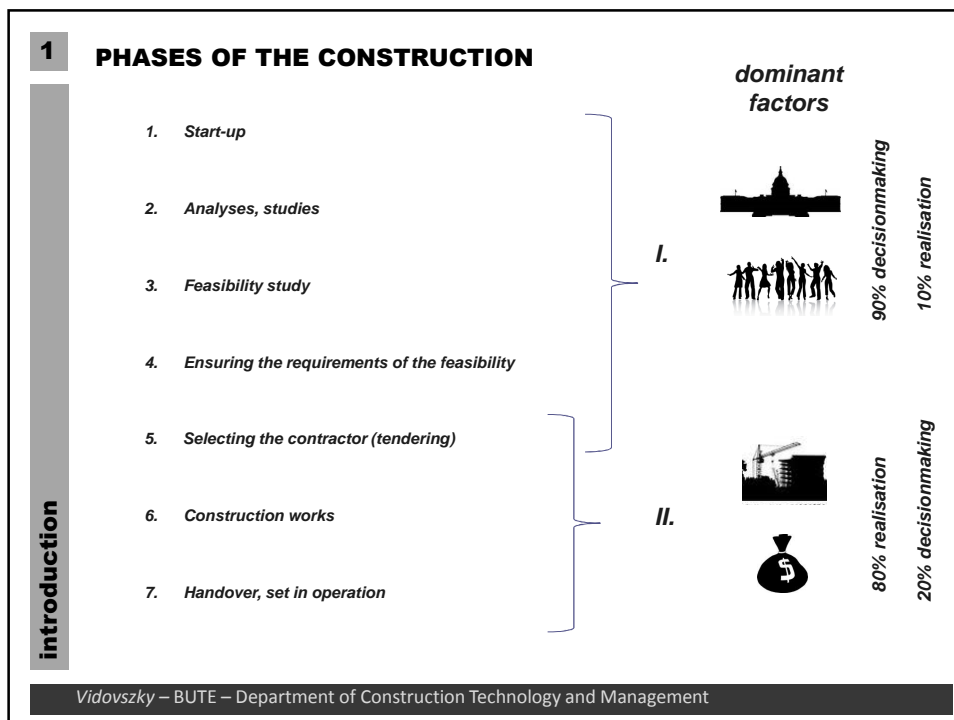
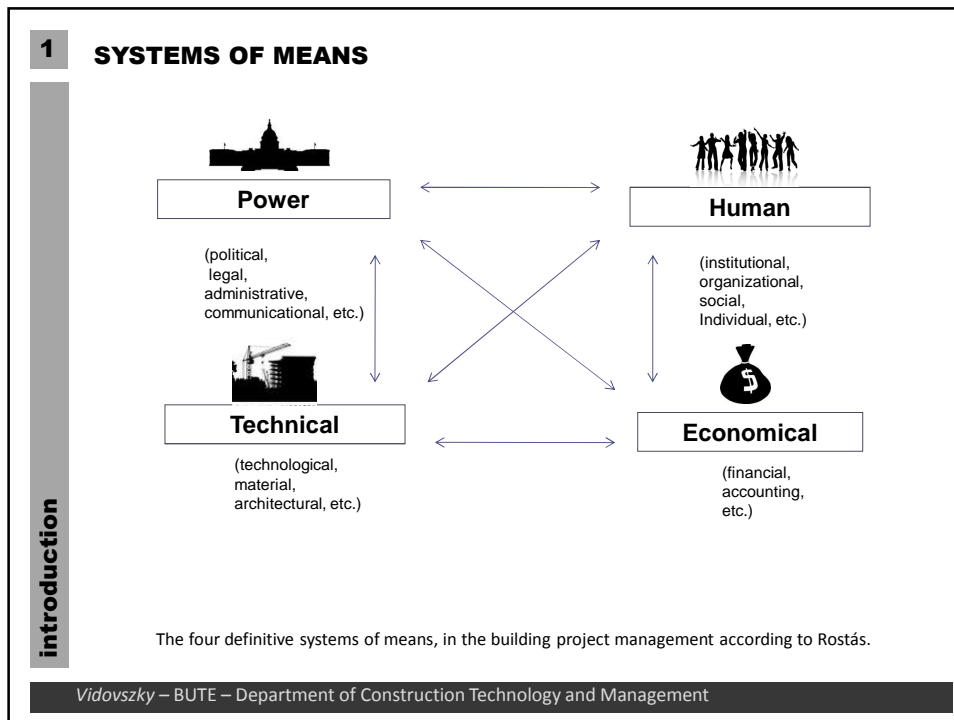
**Building Project Management**

**0**

**table of contents**

- 1. Introduction**
- 2. Construction project**
- 3. Projects of different size**
- 4. How to develop a project**
- 5. Architectural competition**

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## 2 PROJECT

construction project

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



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## 2 CONSTRUCTION PROJECT

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**



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**2 CONSTRUCTION PROJECT**

**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**.

scale, costs, legal prescriptions

construction project

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**2 CONSTRUCTION PROJECT**

amount of the projects

high pestigue public buildings

private investments - industrial

small public buildings

small private investments

mini projects

public procurement

scale and costs

construction project

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### 3 MINOR PROJECTS

projects of different size

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



*responsibility and tasks of the architect is complex*

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### 3 COMPETENCES OF THE ARCHITECT

projects of different size

*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...”

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### 3 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.*

projects of different size

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### 3 LARGE PROJECTS

private investment

public procurement

**no limitation**

**thresholds**

but **competition** or  
**tender** can be  
organized **voluntary**

- national threshold
- threshold of the European Council

**by**

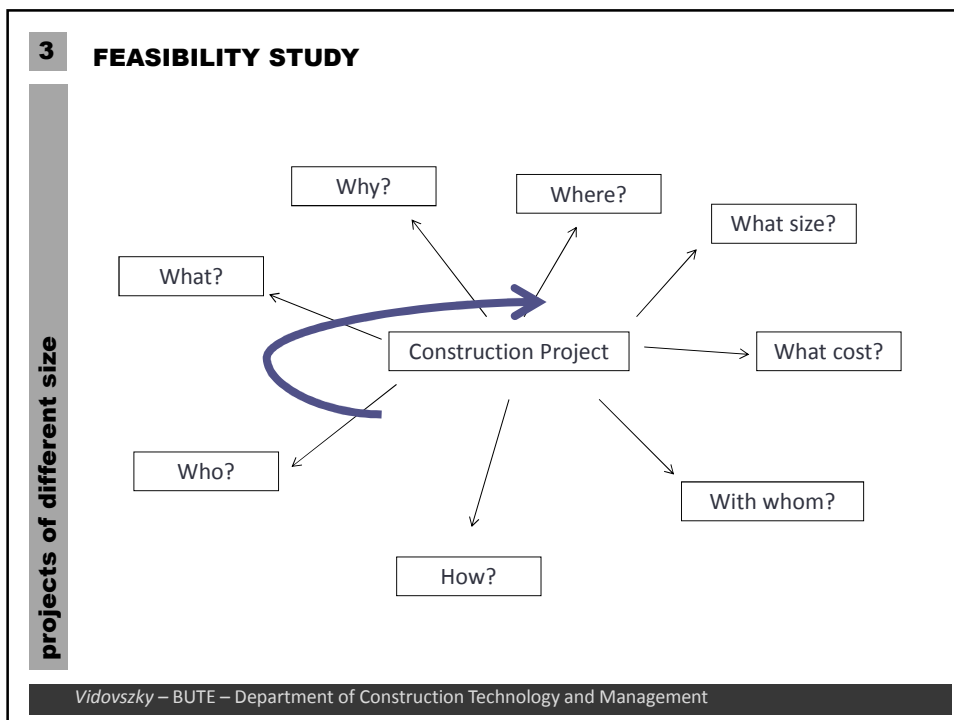
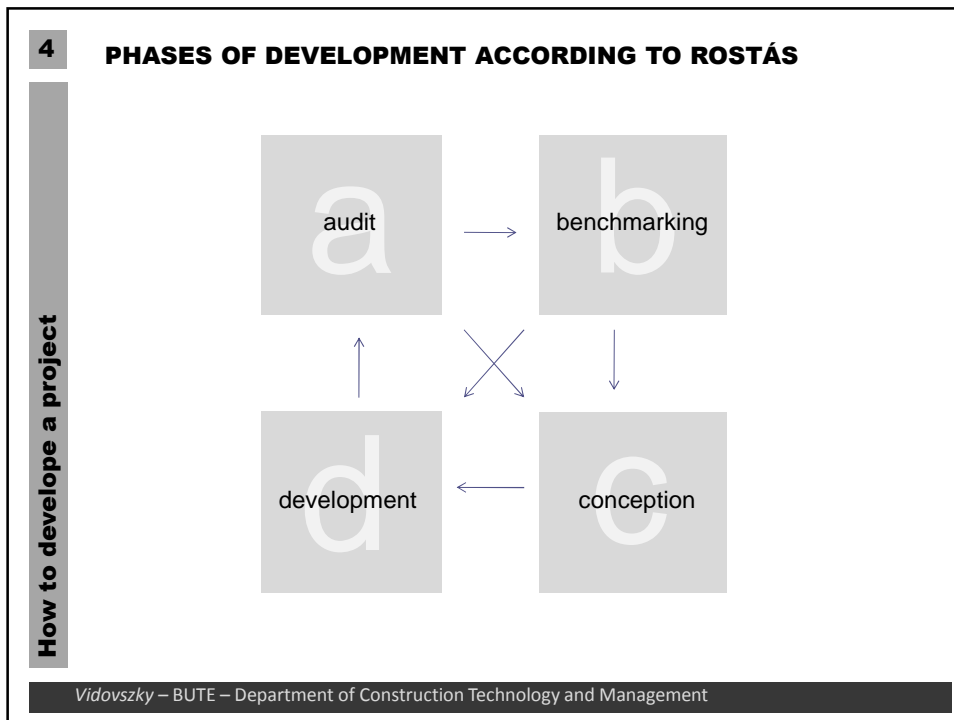
strict regulation  
of the project

following the rules of  
the regulations

competition,  
tender, etc.

projects of different size

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**3 FEASIBILITY STUDY**

projects of different size

1. <i>Start-up</i>	1. <i>Start-up</i>
2. <i>Prefeasibility study (analyses, studies)</i>	2. <i>Analyses, studies</i>
3. <i>Architectural competition -selecting the architect (and the plan)</i>	3. <i>Architectural concept (with or without competition)</i>
4. <i>Feasibility study</i>	4. <i>Feasibility study</i>
5. <i>Credit, mortgage</i>	5. <i>Tendering</i>
6. <i>Tendering</i>	

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**3 FEASIBILITY STUDY**

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)

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**3 MODERATE PROJECTS**

projects of different size

transitional cases – the investment model depends on the client

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**5 PLANNING COMPETITION**

architectural 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

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## 5 LEGAL BACKGROUND

architectural competition

### Regulations (in Hungary)

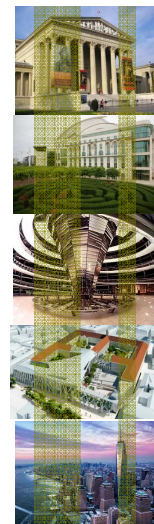
- act on public procurements
- act on the protection of the built environment
- governmental order on the rules of architectural competition

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## 5 EXAMPLES

architectural competition

- 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



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## 5 PLANNING COMPETITION - TYPES

architectural competition

competition for architectural concept

competition for architectural design

simple

with negotiation and invited participants

open

restricted (public procurement)  $\leftrightarrow$  voluntary

national threshold -> architectural competition

threshold of the European Council -> international competition

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## 5 PLANNING COMPETITION - TASKS

architectural competition

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

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## 5 PLANNING COMPETITION - AIMS

architectural competition

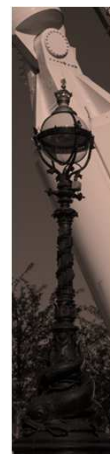
1. anonymity – opportunity to be winner without preconceptions
2. to reach higher architectural quality
3. secrecy – for the elimination of advantages of personal relationships

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## 5 PLANNING COMPETITION - CONTRADICTIONS

architectural competition

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



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## 5 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*

architectural competition

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## 5 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*



architectural competition

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## 5 PLANNING COMPETITION - ANNOUNCEMENT

architectural competition

Main parts of the competition announcement:

- detailed program
- necessary information (data)
- annexes

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## 5 PLANNING COMPETITION - ANNOUNCEMENT

architectural competition

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**

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**PLANNING COMPETITION - ANNOUNCEMENT**

architectural competition

**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**

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**PLANNING COMPETITION - ANNOUNCEMENT**

architectural competition

**Annexes**

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

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**5 PLANNING COMPETITION - ANNOUNCEMENT**

architectural competition

**Data recommended for consideration**

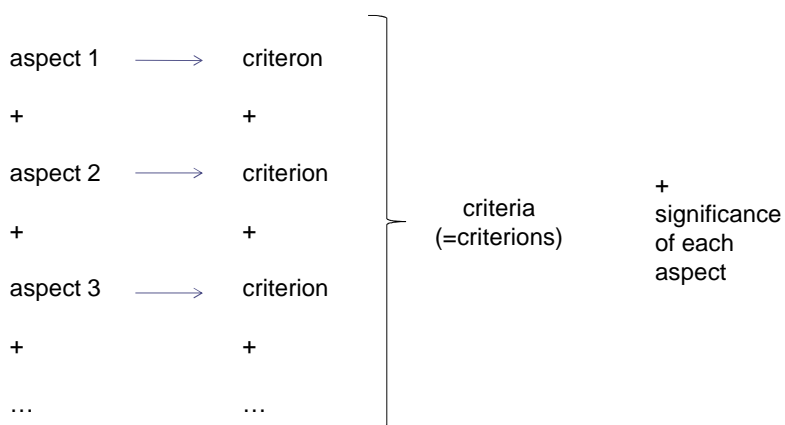
- history of the settlement
- urban structure of the settlement
- future aspects of urban development
- vegetation
- characteristics of the terrain
- characteristics of the soil
- restrictions for the site
- monument or archeological protection
- traffic
- social environment
- etc.

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**5 PLANNING COMPETITION - ANNOUNCEMENT**

architectural competition

**The system of evaluation**



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## 5 PLANNING COMPETITION - ANNOUNCEMENT

### Aspects of evaluation

- fulfilment of the technical requirements of the plans
  - fulfilment of formal requirements
  - submission of all the claimed items
  - design according to the architectural program
- } objective criteria  
(yes/no)
- utility of the building
  - economy of the building
  - sustainability
  - energy consumption
  - the location concept of the building
- } can be objective  
with exact definition  
of the evaluation
- architectural environmental effects
  - view, view protection
- } subjective criteria
- + more

architectural competition

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## 5 PLANNING COMPETITION - ANNOUNCEMENT

### Aspects of evaluation

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

architectural competition

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