

Building Production Systems

Basic Concepts & Production Patterns in Construction Industry

by

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Basic Concepts

- Building
- Production
- Construction
- System
- Building system
- Production system
- Building production system
- Building construction system

Building: (engineering & architectural)

A physical object that is used for certain type of production function by society.

Production:

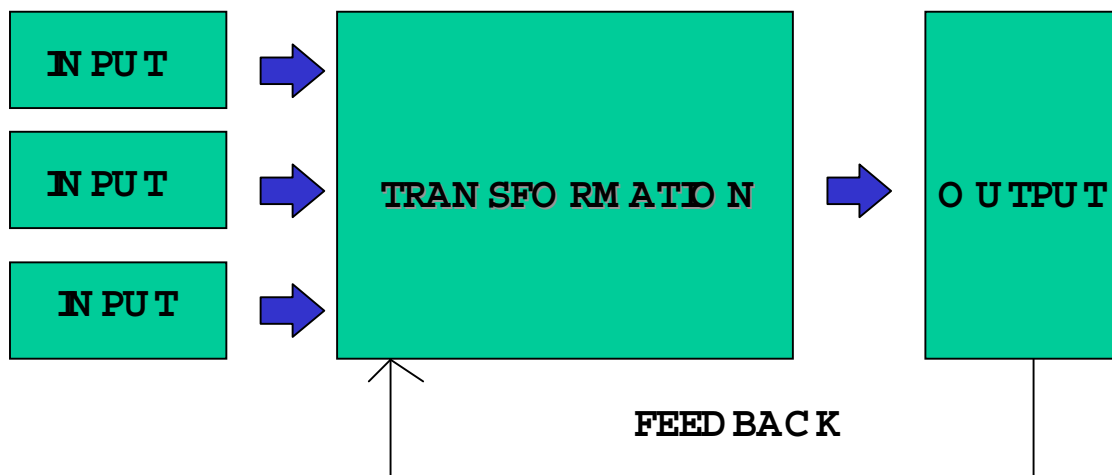
Activities to produce goods and services.

Construction:

Production of buildings on site or at factory.

System:

An event, entity, object or concept that is formed by interrelated components.



Building system:

The physical structure of the building that is formed by load-bearing, heating, lighting, envelop, partitioning, sanitary etc. interrelated sub-systems (components).

Production system:

The pattern that is formed by the structure, participants, and the inputs of the *production process*.

Building production system:

The pattern that is formed by the structure, participants, and the inputs of the *building production process*.

Building construction system:

Technology that is used to produce the building.

What is the difference between...?

Building Construction Systems

Technologies that are used for the production of buildings in construction stage.

Building Production Systems

Patterns that are applied to building production in all stages of Building Production Process.

Building Construction Systems (BCS)

- **On-site construction systems.**
- **Prefabricated construction systems.**
- **Construction systems based on Rationalized Formwork Systems (RFS).** (climbing formworks, moving formworks, sliding formworks, filigrane formworks, travelling formworks).

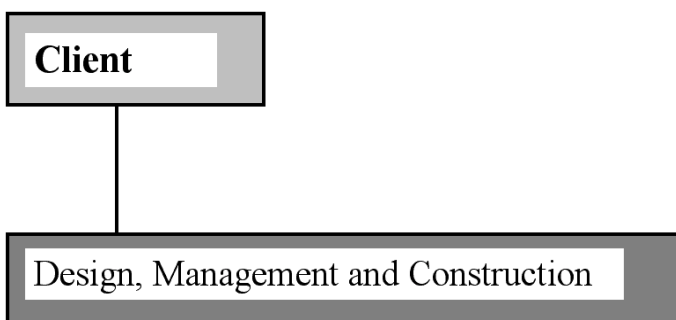
Building Production Systems (BPS)

- **Building Production Process (BPP).** (pre-design, design, bidding, tendering, contracting, construction, maintenance, demolishing).
- **The structure of the BPP.** (accelerated: fast-track or traditional process).
- **The participants in BPP; their roles and relationships, organizational patterns**

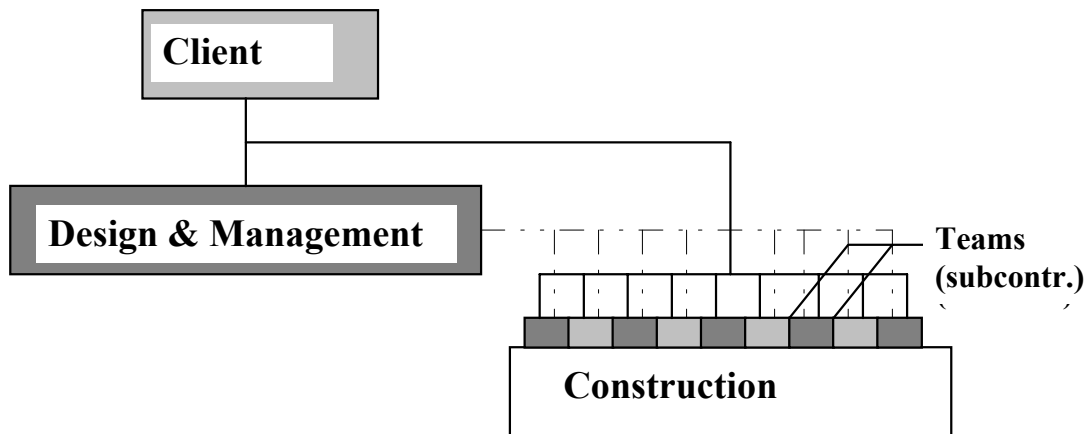
The participants & roles

- Owners, Entrepreneurs
- Design Group
- General & Subcontractors
- Construction Management Group
- Project Management Group
- Vendors

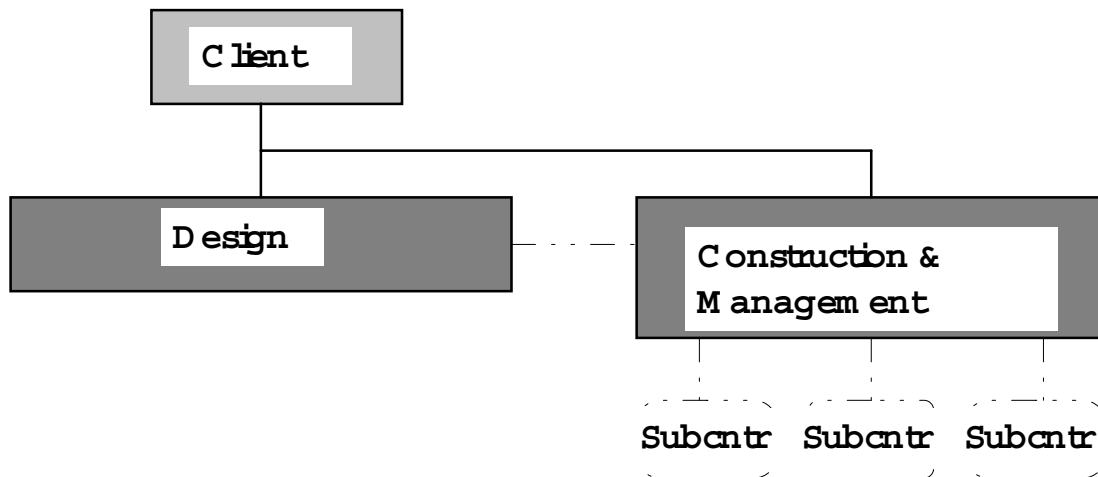
Participants & Roles (Design-Build)



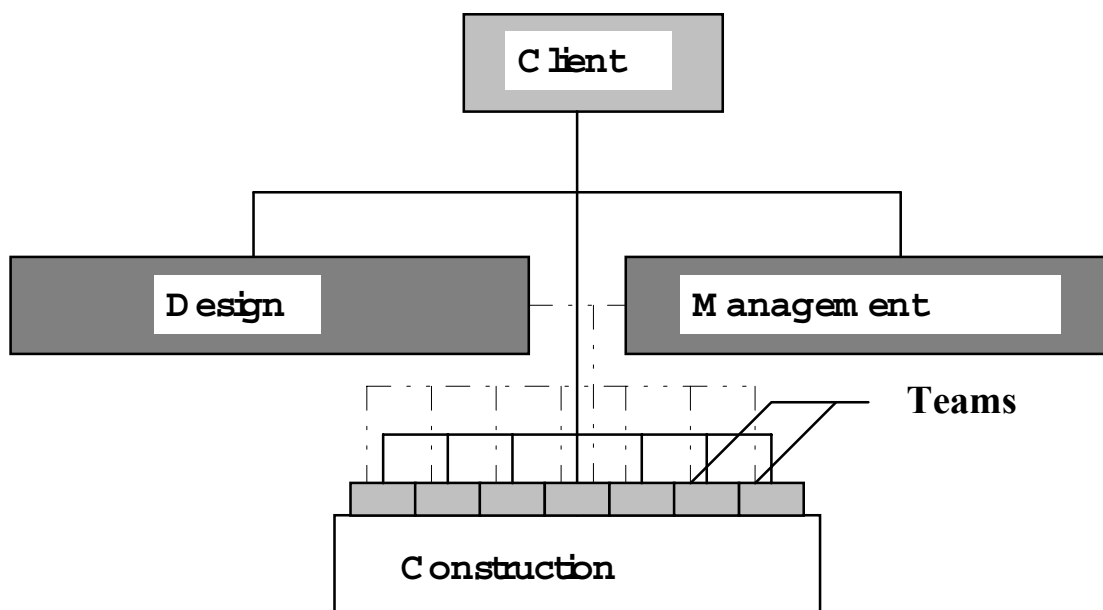
Participants & Roles (Separate Trades)



Participants & Roles (General Contractor)



Participants & Roles (Construction Management)



The Structure of Production Process

