

## Head office in Nantes

**How functional and value approaches have largely contributed to manage a major modification of the project, while optimizing it.**

## Nantes case study – Orientation phase

### The project:

- Construction of a headquarters bringing together four currently dispersed units in order to improve communication.
- The Customer (a company providing electrical engineering, communications services and specialist activities in the energy and rail industries, predominantly in France) started the project using the usual tendering procedure.

### Value management:

- The Construction company (CC) proposed a Value Study based on the principle of a specific offer.
- This contract commits all project stakeholders on the basis of a technical and functional specification developed together and on a global and fixed cost. This approach defines incentives all players by sharing the added value and performance achieved compared to the objectives set by contract.
- Team: Customer Real Estate Operations Manager, Customer Park Manager, CC Commercial, CC engineering, External Engineering company.

### Targets:

- A target cost for the project is defined after specifications and schedule defined in the contract. Any improvement/degradation will lead to a bonus/malus.

The Customer first focused on the usual tendering procedure.

CC proposed the specific offer, and after a presentation of this offer and of "Value Analysis" approach by A. Puttaert, we agreed on a working principle and on a planning of studies.

The Customer's architect was not a member of the group at this stage.

## Nantes case study – Information phase

### ➤ Description of the studied product or project

- There was no program in the "traditional" sense of the term but a reflection based on the observation of the current site and a strong desire to bring together 4 "dispersed" entities and improve their communication. The surfaces of the program must be respected.
  - The 4 entities are separated with designated areas on the space planning of the floors,
  - The reception is common to the 4 entities.
  - The modularity of offices is important.
  - The facades will be sober with attention to details, reflecting the technicality of the company.

### ➤ Real needs of users/client/owner? Current dissatisfactions (or in similar projects)

- Define the needs of the client (investor and user) around a "program".
- Understand certain orientations defined in the available documents (from the architect of the client).

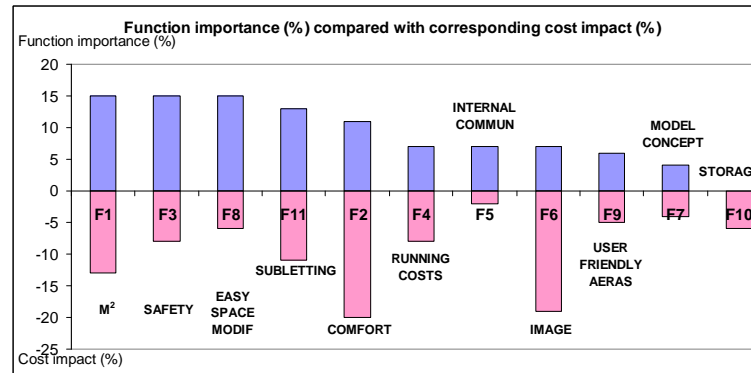
### ➤ Cost of the different elements, highlight the high costs

- Given the progress of the project (project management contract, land, subsidies, sale of the current site), it was agreed that CC would establish an estimate from the available documents including confidence level. CC taking the costs related to this pre-study at his expense.

## Nantes case study - functions definition

F1 : Accommodate each entity with the necessary area (m <sup>2</sup> )
F2 : Comfort
F3 : Ensure safety
F4 : Running costs
F5 : Facilitate internal communication
F6 : Image : plain with no thrill but reflecting high technical capability of the Customer
F7 : Use the floor planning and building concept as a model for other offices of the Customer.
F8 : Facilitate modifications : internal (flexible space planning) / external : possible building extension
F9 : Offer user-friendly areas (Cafeteria)
F10 : offer storage areas
F11 : Allow subletting

## Nantes case study - functions / costs



The different costs per technical batch (compared to a "basic" building) are broken down by function.

The costs of functions are reasonably related to their importance, except especially for the "Image" function, and also for the "Comfort" function, and also for the "Archiving" function.

Following this analysis changes to reduce costs have been defined, but without much touching the Image function.

## Nantes case study – funding difficulties

- **The Customer announces that funding has not been accepted internally and requires an investor.**
- **CC proposes an investor, who will join the work group, as well as the architect of the Customer.**
- **Orientation phase bis:**
  - 1.1. Objective: An objective cost is set. It takes into account the rent that the investor might get in the area where the building is located, if after the 9-year lease the Customer decided not to stay.
  - 1.2. Limits & constraints:
    - Land use : total number of m<sup>2</sup> frozen.
    - Fixed floor plan: office building at the crossroads, clear separation of areas, but flexibility as to the extension mode of the tertiary building.
    - Number of floors fixed : ground floor + 2 levels.
    - Total floor area fixed.

## Nantes case study – Information phase bis

- **Information phase bis : investors' requirements**

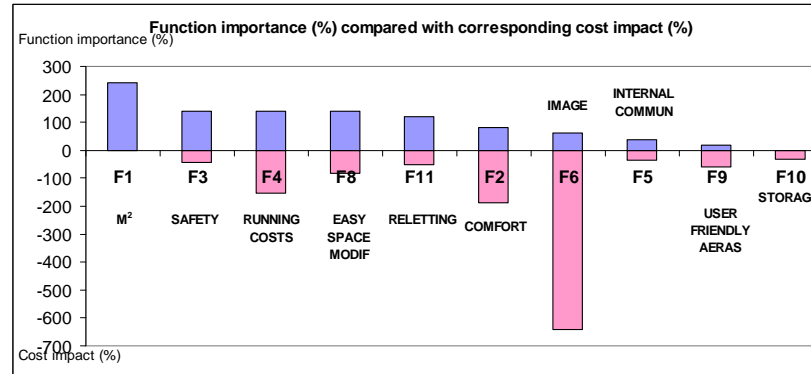
- A product in line with the market:
  - Adaptable space planning for the floors (building depth 12 m, module 2.70 x 5.00), air conditioning or at least free cooling system,
  - image: building with a specific identity of tertiary building.
- Limit the amount of the investment:
  - partitioning taken out of the rental scope.
- Allow subsequent rental of floor area (divided in 100 to 200 m2 lots):
  - To be able to partition the building easily, to limit the expenses of redevelopment (for example false suspended ceilings).

## Nantes case study - functions definition bis

Functions	Cost per Function evaluation
F1 : Accommodate each entity with the necessary area (m <sup>2</sup> )	
F2 : Comfort	Ceiling height, width of corridors, ...
F3 : Ensure safety	Anti-intrusion, fire safety, access control, etc...
F4 : Running costs	Energy, heating & cooling, maintenance etc...
F5 : Facilitate internal communication	Including sound system.
F6 : Image : plain with no thrill but reflecting high technical capability of the Customer	Traditional office building. But not totally neutral will include some specific features
F7 : <u>Use the floor planning and building concept as a model for other offices of the company.</u>	<u>This function was suppressed</u>
F8 : Facilitate modifications : internal (flexible space planning) / external : possible building extension	Include cost of fixed furniture (cupboards etc...)
F9 : Offer user-friendly areas (Cafeteria)	
F10 : Offer storage areas	
F11 : Allow reletting (100-200 m <sup>2</sup> lot)	

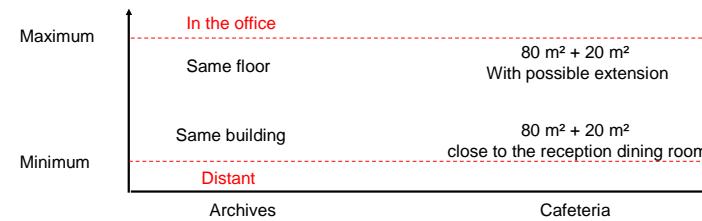


## Nantes case study - functions / costs bis



## Conclusion

- The additional costs required for the very special image of this building, which already seemed disproportionate compared with importance of the function in the original project, are even more disputable in the new situation.
- The objective will be achieved by
  - Working on these extra costs,
  - Optimizing a series of performance levels using the type of flexibilities diagrams below



The redefinition of functions

by the working group including in addition the investor

allowed a good mutual understanding, created team building and, with the minimum - maximum charts, facilitated the negotiation between the investor and the future occupant.