

# REAL OPTIONS PLANNING IN REAL ESTATE DEVELOPMENT

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## Abstract

Real options, the right but not the obligation to conduct an action, still plays a minor role in the practice of real estate development and investment. Taking into account the numerous options to behave, that exist during the lifecycle of real estate especially for real estate and portfolio managers means:

- accept the existence of uncertainties
- design and prepare possible future behaviours
- appraise option prices
- design and prepare monitoring systems

Real option planning means a new way of thinking. Both, architects and investors, trained to reduce uncertainties and to reduce the complexity of techno-social and physical systems, have to start to accept uncertainties and manage complexity.

The results of five years research and development concerning the design and appraisal of real options in the operation phase already in the development phase proved:

- real options lead to improved investment decisions, better managements concepts and improved building design
- discrete event simulations (DEVS) are a relatively easy and appropriate mean for real options valuation
- real options planning has preconditions, e.g. an improved understanding of possible events and the possible behaviour of building and management

The research results prove, the disregard of uncertainties reduces the complexity of the real world in unacceptable way. Real options planning with DEVS makes uncertainties manageable and enhances the business decisions especially concerning corporate and public real estate.

## Keywords

Realoptionen, Diskrete ereignisorientierte Simulationen

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