1 ABSTRACT

New types of large mixed-use developments of properties run by specialist operating companies prove in many western European countries their potential to attract purchasing power, create jobs and income for the local population beside other desired positive external effects. These new types of mixed-use developments are a response to the continuous rapid social, economic, environmental and cultural changes which today’s modern cities are facing. The case-study research of twenty-five successful developments of managed real estate with new types of mixed-use, also defined as managed facilities, between Barcelona and Berlin clearly highlights the principles, processes and success factors involved as well as the risks which need to be considered—representing a first step towards understanding and managing real estate development as an open dynamic system and hopefully towards more and new types of these desired developments. The project was funded by Deutsches Seminar für Städtebau und Wirtschaft (DSSW) in Berlin.

2 INTRODUCTION

Real estate development with respect to the social, economic and ecological effects is definitely a complex task and from a research point of view still unexplored in many ways - especially regarding special purpose and managed real estate development the theoretical background is lacking. Managed real estate (see fig. 1), will also be defined as “managed Facilities” and will be called accordingly in the following. From an investor’s point of view managed facilities fall into category of “high risk” (Bienert, 2005, p.8-9). The need to explore these risks and to establish methods for an appropriate risk management is also evident from a practical point of view. Finally, these types of developments are socially relevant and contribute to the development of organized synergies between different types of uses which make cities or parts of cities more sustainable. Looking at existent mixed-use developments in the outer skirts of the city of Vienna, where different types of mixed-use have been placed randomly and in an unplanned manner, the necessity for organized, managed real estate becomes obvious.

Figure 1: Model of Managed Facilities

Experience, especially in eastern Germany, show: large real estate developments run by operating companies—e.g. shopping centres—are highly accepted by the customers. On the other hand in city centres,

where landlords only desire to maximise rents and the establishment of appropriate “city management” structures fails, customers find an unsatisfying mix of offers and uses, landlords end up with a bad performance of their properties and purchase power migrates to other regions - a typical prisoner’s dilemma ². Besides this well known phenomenon new types of managed facilities with new types of mixed-uses emerge especially in Western Europe. They initiate or support e.g. business clusters of creative industries and create positive effects on the local and regional development. A private company, for example, revitalizes with a network of tenants around the topic “arts” the Baumwollspinnerei in Leipzig - a huge former industrial site. The Klassikstadt in Frankfurt offers everything for the lifestyle of fans of vintage cars – and thus initiates the transition of a problematic part of the city. In Berlin an intermediate organisation founded by women provides a business incubator: the “Weiberwirtschaft”. The objective of the organisation is to support enterprises managed by women and to enable them to profit from the synergies between these enterprises. The municipality in Barcelona revitalises its traditional market halls with a new mix of shops and improved infrastructure especially regarding the logistics infrastructure – and thus preserving an important aspect of urban culture. These new types of managed mixed-use developments with their positive effects on the regional development still occur far too seldom. Theoretical knowledge and expert knowledge are missing. Especially the problem regarding the assessment and management of risks leads to difficulties in financing and attracting institutional investors required for this kind of development.

3 TARGET AND FRAMEWORK OF THE RESEARCH
Within a time frame two years, the Chair for Real Estate Development at Vienna University of Technology has conducted explorative research on more than 25 cases of managed facilities in order to explore the generic principles and processes of these developments. The analysis focused on different types of mixed-use, with different types of developers (private, public and intermediate) in towns with different numbers of inhabitants. The main targets of our research were to enable more developers to work in this domain, to boost investments in managed mix-use facilities and to enhance the financing, through more knowledge on the risks involved and through making the risks manageable.

Most of the analysed cases could be defined as corporate real estate, neglecting the fact, that they also represent public infrastructure. They could also be seen as special-purpose real estate ³ focussing on the functions of the building, e.g. Entertainment Centre. The authors propose the term “Managed Facilities” with special regard to the managing entity ensuring the business success of the mixed-uses, e.g. cinema operation and catering, by providing much more than a coherent plan for the uses. All Developments could accordingly be called “Facilities Developments”.

The research focussed mainly on “successful” cases. The developments reach their primary goals – even though the goals might be different in every case - and create positive external effects, e.g.:

- they are economically sustainable
- they revitalize problematic parts of the cities
- they create positive desired or external effects on the local development, like income and employment
- they maintain purchase power in the region
- they contribute to the profile of the region
- they use and strengthen the potential of the region and reduce deficits

4 RESEARCH QUESTIONS AND METHODOLOGY
The explorative studies concerning the real estate development principles, processes, actors and success-factors of the cases analysed were developed by an interdisciplinary team at the Chair for Real Estate Development. Within the analysis, the focus was mainly on the following research questions:

- Do the developments need certain preconditions, concerning the site, municipality e.g.? ²

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Do certain players regarding their organisational or individual capabilities ensure successful developments?
Do certain constellations of players lead to successful developments?
Do certain processes lead to successful developments?
Which are the success factors and the critical factors for the development of managed facilities?
What do architects contribute to the successful outcome of a project?
What is the role of the state and how important is financial or other support of the government?

Due to the fact that to the author’s knowledge theoretical background on managed mixed-use facilities is missing the research was designed as explorative case study. “A case study is an empirical inquiry that investigates a contemporary phenomenon within its real-life context, especially when the boundaries between object of study and context are not clearly evident. It copes with the technically distinctive situation in which there will be many more variables of interest than data points.” (Yin, 2003, p.13-14)

The research team decided to analyse a variety of cases in order to come to generic conclusions and to explore if a common ground connecting all different cases can be found. The selection process for the cases ensured the variety of the cases concerning the following factors:

- inhabitants of the municipality
- public, private and intermediate initiators
- concept of use, respectively mixed-use
- support of small- and middle-sized businesses (SMEs)
- inclusion and development of historic substance of building structure
- single type of project vs. repeatable type of development

![Figure 2: variety of the selected cases](image)

For this analysis the authors designed a special investigation scheme based on theories concerning case study methodology, but also regarding aspects of systems theory, predominantly referring to the science of systems that resulted from Bertalanffy’s General System Theory (GST) and Ulrich and Probst, who

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further explored systems theory in the area. The main assumption is that we are not able to understand techno-social systems—like projects—by analyzing the single entities in an isolated way; we have to understand the relationship between the entities and the context of the techno-social system to be able to understand its behavior—its contribution to the outcome of a project.

The case studies were carried out in five parts:

**Part 1—characteristics of the project**
The first part considered the “real-life” context of the project, the different constraints, especially:

- type of city
- number of inhabitants
- unemployment rate
- demographic dynamic
- economic data like purchase power

In addition the project itself was also characterised e.g. by:

- type of development
- type of use / mixed-use
- target group
- USP
- initial situation
- trigger of the project
- positive/negative effects

These data were collected through publications concerning the project and by narrative interviews with the developers involved or other key players.

**Part 2 - players and their relationships**
The players were distinguished in private, public and intermediate and characterised by:

- role within the project
- resources relevant to the project
- activities and outcome of the activities within the project
- time of involvement within the project
- targets and interests

Lastly the relationships between the players within the projects were analysed and represented graphically. Due to the fact, that the relationships of the entities within a project are heterogeneous they were named respecting their qualitative aspects: owners, awarding permission, providing service etc.

These analyses were carried out via narrative interviews with the developers involved or other key players.

**Part 3–processes**
In Part 3 of the research project the development processes were analysed—again by narrative interviews.

The processes were characterised by:

- constellation of players
- course of action
- time dimension

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• instruments

• results

If possible the interrelation with other processes was named.

Part 4 – special aspects of the development due to its purpose

This part of the evaluation respected the fact that the development of buildings with a special purposes may cause the need for:

• individual or organisational competences for this type of development

• necessary milestone for success

• deal structures

• miscellaneous

Part 5 – success factors / critical factors

This part of the research considered the risks of the development – risks understood as chance and danger and distinguished in that way–again carried out by narrative interviews with the developers involved or other key players.

The results of the evaluations lead to conclusions i.e. answers to the research questions and assignment regarding the behaviour of the management of future managed facility projects - outlined briefly in the following. The conclusions were verified by analyses of cases of unsuccessful developments and with experts.

5 RESULTS

The approx. 25 case studies analysed have shown the following results:

5.1 General framework

• Successful development of managed facilities is possible almost everywhere.

Success – defined as the sustainable achievement of planned private, public or intermediate sector goals – is not per se linked to aspects such as the purchasing power or the existing image of a location, but: projects need to be customized for each and every location and situation from recognizing the potential of that specific location to knowing the constellations of the stakeholders (players) involved, and thus need to be tailor-made. Projects are required to purposefully include the conditions already available and present at the location. Small scale projects have to utilize the chances; large projects might even be able to reduce deficits of a site or area.

Figure 3: Process-model
5.2 Processes of Real Estate Development

- The development of managed facilities in a narrow sense is not a chronological process, but a repetitive (iterative) process characterized by the steps analysed, concept (design) and assessment/evaluation, with the possibility of exit or entry into the next phase after every iterative cycle.\(^8\)

Consequently, successful facility development in the narrow sense can be seen as a cyclic process of optimization - in this case of public or business infrastructure.

The case studies have clearly shown two things: The grounds for a successful project are laid within the frames of the facility development in the narrow sense. A project failure though, is also possible at every other point in time.

5.3 Success factors, respectively critical factors

- In numerous developments of managed facilities one person delivers business know-how–normally concerning the business the infrastructure is developed for - that leads to a competitive advantage of the facility and good business conditions for the tenants or in the case of public infrastructure to positive social effects.

Success in corporate real estate development is linked to the business success of the tenant(s) or operator. Know-how and also innovation concerning the business of the tenant(s), concerning the infrastructure a certain business needs and concerning possible synergetic effects with other businesses seems to be a scarce resource concerning the development of managed mixed-use real facilities. In most of the cases it led to a competitive advantage of the development and of the tenants, e.g. within the project Cinecittà in Nürnberg (cinema and catering) business know-how and innovation concern different aspects:

- procurement of the projectors
- procurement of the film rights
- film projection
- ticket control
- ground floor plan
- catering concept

Business know-how is an asset and a critical factor, due to the fact that it is rarely explicit or freely available. The early inclusion of necessary management know-how concerning the business processes the facility is built for, should not be confused with an early and exclusive contracting of a company for the operational management.

- The “completeness of competencies” concerning the development of managed facilities is a main success factor.

All of the cases have confirmed that the completeness of necessary competences or knowledge is essential. Project developed through networks without competencies in the real estate or construction domain, show with significant frequency a lack of legal or constructional know-how that endangers the achievement of the project goals – e.g. within the building of “Weiberwirtschaft” in Berlin, contaminations were found after the tenants had moved in and there was no liability of the former owner agreed in the contracts etc. Projects are jeopardized if even one “capability” is absent.

- A sufficient equity position (capital base) of developers of managed facilities is essential for the project’s success.

The explored cases have revealed, that in sixty percent of the cases, developers of managed facilities had problems with finding capital i.e. they didn’t have a sufficient equity base and had difficulties in attracting investors, especially institutional investors. This greatly jeopardizes the initiation or the development of their project. In cases where the developers had a sufficient equity base i.e. they were able to invest the necessary

\(^8\) Real Estate Development Model, by Univ. Prof. Dietmar Wiegand, TU Wien und Karl Giger, Red KG
capital without being required to rely on institutional investors, the developers had a competitive advantage
and factor that highly contributes to their project’s success.

Managed facilities are often categorized as “high risk” by financiers e.g. due to difficult third-party uses. Therefore a first successful letting i.e. accommodating part of a business or comparable measures are important to yield trust. In the numerous explored case studies, private parties have confidence in project success much earlier than institutional investors.

5.4 Stakeholders
- Managed facilities are not per se developed more successfully by a specific group of stakeholders—here a distinction needs to be made between the types of managed infrastructure.

Basically, stakeholders (players), who have little or no knowledge about the business (or the activities) for which the infrastructure is being developed, should consult and include competent parties. Stakeholders (players) on the other hand have quite different qualities: e.g. networks need time to learn to work together; in this case a small scale project at the beginning is recommended.

- Public stakeholders and public sponsorship are no guarantee for positive socio-economic or spatial effects, but valuable “incentives” and “helpers”.

Most of the Explored Case Studies have some kind of a public sponsorship, which differs in its variety and amount. The amount of the sponsorship is less relevant though, than its point of use (catalyst function) and the benefit it creates - among other things also due to the fact that the sponsorship is connected to co-ordinated project goals, which are in accordance with public interest.

5.5 Architecture
- The architecture itself delivers an important contribution to a successful development of managed facilities, although very project-specific and in different forms.

A business incubator for women, such as the “Weiberwirtschaft” in Berlin, needs small and flexible spatial structures, in order to support and enable the growth and shrinking of businesses. Entertainment centres can be developed as brands, but even without branding they always need a good and functional logistics concept. In the case of “Klassikstadt Frankfurt”, where customers and fans of vintage cars, who are in love with design, history and technology also expect an ambient reflecting history and design.

6 CONCLUSION AND OUTLOOK
In conclusion, the explored cases have shown that development of managed facilities is
- possible even in economically weaker regions, but need to be tailor-made
- in an early phase a cyclic process of optimization and not a step by step process is required

In managed facility developments:
- the know-how concerning the business the facility is built for is essential and leads to competitive advantages
- the equity base is essential
- the involvement of the public sector doesn’t necessarily lead to success, but it helps
- architecture is essential but in completely different forms

The explorative case studies have also clearly revealed, that the existent theories, methods and processes-models of real estate development, established primarily from a point of view of investment-bankers, concerning properties which combine build substance and services as so-called “facilities” of public or private infrastructure, have to be “re-thought” and newly written.

In conclusion it can be said that the development of managed mixed-use real estate uses regional potential or in the case of large developments with public funding reduces existing regional deficits.

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We propose that mixed-use within the managed facilities can also be defined as a kind of cluster\(^\text{10}\) (see also Maskell), where the single businesses existing “under one roof” are concentrated as a vertical, diagonal or horizontal cluster, depending on the kind of organizational and legal structure (see also figure 1).

Three types of clustering are defined in today’s literature\(^\text{11}\):

1. Horizontal: co-location of competitors, same level of value creation, e.g. same types of businesses are cooperating with each other;
2. Vertical: co-location of companies of different and successive value chains, e.g. as in the case of Klassikstadt, different businesses, but belonging to one value chain—cars;
3. Diagonal: businesses are working together, but creating different products and services, which are seen by the consumer as one product.

The conclusions of the case studies can be read like a check-list:

- my project uses the regional potential or changes deficits with the support of public funding
- mix of uses / cluster is the best possibility in the given context
- business know-how is in the project guaranteeing competitive advantages\(^\text{12}\)
- capabilities are compete

The explorative studies are a starting point for future research. We need to further develop theories and models concerning the network or business clusters creating benefits for the operator and the customer. Methods for risk management and methods to measure and control the external effects of managed mixed-use development need to be established. State support needs to be made transparent and linked to positive effects. Finally the measurement of external effects of real estate developments on the region could be redesigned and become extended to other properties part of urban policies.

Conclusively it can also be stated, that planned managed mixed-use real estate contributes to a “smart” urban development, by organizing and exploring synergies between different types of uses which are necessary, needed, suitable or attractive on specific locations or certain parts of the city, which leads to the assumption that planned managed mixed-use developments are more sustainable and resilient in today’s rapid urbanisation.

7 LITERATURE


