

## **Heterogeneous driving forces in urban restructuring processes**

Based on two Swiss case studies - Zurich West und Basel Erlenmatt

### **1. Introduction**

Due to restructuring processes in the bigger urban centers over the last 10 to 20 years a series of centrally located areas were made available for new uses. At the same time pressure to develop these areas grew due to increased demand for centrally located areas in urban centers such as Zurich and Basel. Therefore these areas – often easily accessible and with special characteristics and identities - became the subject of larger strategic planning processes. The goals and challenges were to reuse these areas for adapted purposes with a special focus on sustainable development.

The challenges of such planning efforts lie in the complex property ownership structures and their different development ideas, different degrees of availability of partial areas, contaminated soil, and physical segregation from the surrounding urban fabric.

Good examples for guidance on how to deal with these complex issues were set by the IBA Emscher Park and the port development in Frankfurt a.M. and Bilbao to name a few. In those processes strategic and conceptual planning, communicative, informal processes such as city forums and the application of the familiar comprehensive planning approach were used.

In all these examples it became apparent that the complexities are not tangible from the beginning; rather they are marked by the constantly shifting planning framework, the volatility in the property market and the dynamically changing players in the process.

The two areas in our case studies are both centrally located brown field sites, which have recently and/or are currently undergoing restructuring, one in Zurich, one in Basel, both based on differing planning concepts and development goals from a qualitative and directive point of view. However, there are parallels, which are pointed out later.

### **2. Focus of our case studies**

In both case studies, the interplay of various elements of process management, process control, and informal and formal planning instruments have led to a strategy with high standard results. Both cases are representative of the interaction of diverse driving forces of different interests over a long planning horizon, requiring an ongoing balancing act between sustainable development, economic efficiency needs and social needs.

Our case studies focus on the following questions:

- Which interest group plays what role in the planning process?
- How does the dynamic economic, political and social framework affect the planning process?
- How can normative goals and objectives such as sustainability, the high quality of public spaces and the integration of residential use be achieved in the context of these complex planning problems?

### 3. Case study Zurich West

#### 3.1 Location and characteristics of Zurich West

The industrial area Zurich West (size roughly 100 hectares) has been converted and up-graded into a mixed-use area since the mid 1990s. From the beginning the conditions for the restructuring were excellent due to its central location and its optimal transport connectivity.



Fig. Areal view of Zurich-West, view from the East (source: BAZ DesAir)

The river Limmat to the North, the rail yards to the South, and a stadium and the high way access to the West distinctly frame the area. To the East the area partially interlinks with the adjacent neighborhood.

Site area	1'000'000 m <sup>2</sup>				Capacity according to building and zoning regulation
	1995	2001	2003	2010 (forecast)	
<b>inhabitants</b>	approx. 1'700	approx. 2'000	2'460	5'900	Min. 6'000
<b>jobs</b>	approx. 14'000	approx. 18'000	25'500	25'500	Max. 34'000

Fig: Inhabitants and jobs in Zurich West (Source: Statistisches Amt Stadt Zürich and AfS)

Zurich West is marked by a strong variety of existing buildings such as logistic centers, old and newer factories, buildings for the service industry, small garden plots and contrastingly, above ground transport infrastructure, such as a highway access ramp, inner city major traffic corridors, and rail lines, partially on raised tracks.

## Challenges

Zurich West is a typical example of an area marked by strong development pressure between international interests and local transformation processes, for which feasible planning solutions must be found. The property owners on the one hand, and the public sector on the other hand had to find a legal framework with which the future development could be realized in an economically viable way and to a high quality standard. The main challenges for such a planning process have shown to be:

### Conceptual challenges:

- existing high densities in some partial areas.
- differing time horizons for the development.
- need for high flexibilities for its future use (long planning process and dynamic property market).
- attempt of a sustainable development without knowledge of applicable evaluation criteria.

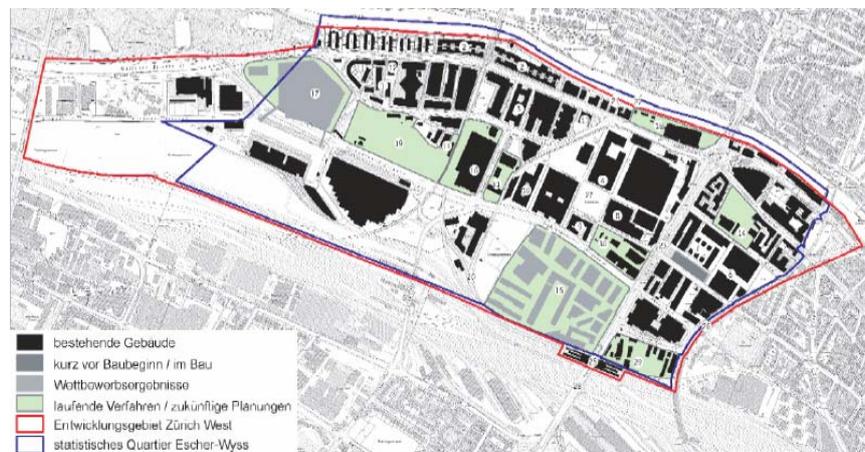


Fig. Overview of Zurich West with urban neighborhood Escher Wyss (source: Nachhaltige Entwicklung Zürich West, Statusbericht 2004 (reprint with permission of GeoZ))

### Operative challenges:

- long history of political disagreements regarding the area and unrealistic development goals of individual property owners.
- existing planning system not adapted to a restructuring effort of this scale.
- little experience of the planning authorities with managing restructuring efforts of this scale.
- lack of know how of estimating effort, time and cost.
- political and legal uncertainties.

**Central themes:** Two of the central themes of this planning effort, residential use and public space, are discussed in more detail below. Other central themes, such as transport and public participation are not scope of this paper.

### Central theme - residential use

From the beginning the aim in this restructuring process was to have a minimum amount of residential use in the various partial areas to create an overall balanced and high quality development. Residential use was to be built in appropriate locations in the upper floors. For

the property owners the residential requirement initially meant the risk of an economically non-viable scheme.

### **Central theme - public and open spaces**

The development plan initially only mentioned broad goals for the public spaces: attractive, linked open spaces of a higher quality with connectivity to the open spaces of the city. The securing of the necessary areas and corresponding development concept were not finalized at that time.

### **3.2 Cooperative planning process**

Zurich West was to be transformed into a new city neighborhood step by step. To that end the City of Zurich developed together with the property owners a cooperative planning process, which included the overall framework, the goals and planning criteria such as the open space and transport concept.

*The various steps in the process were:*

1. the city forum (informal information and communication process).
2. the actual cooperative planning process including visioning and coordinating development goals as informal processes.
3. the development of partial areas based on bilateral negotiations and formal planning processes.
4. the development of certain planning themes, such as transport, based on formal planning processes.

### **Evaluation of applied planning instruments**

The *informal planning instruments*, such as the city forum and the jointly created development concept by the property owners and the authorities, both a novelty in Zurich's planning history, are being used as the basis for the future planning of the area. However, being legally and politically sensitive, new regulations governing the building code and development concept had to be drawn up. Simultaneously, a learning process had to occur to gain know-how on the suitable parameters of such a restructuring effort in order to achieve a high quality standard, especially relating to the densities, the quota of residential use and the transport management.

The application of the *formal planning instruments* also needed updating. The traditionally one-step-planning concept process was modified into a two-step-process in order to allow the owners a higher flexibility. In essence this meant one could now propose a concept for a larger functional area without having to specify the individual uses in the partial areas until their actual implementation.

### **Planning the residential areas**

While agreements were reached on the minimum amount of residential use, uncertainties remained regarding the realizations and locations of the residential units and the social compositions of the new inhabitants. The result of these uncertainties is that to this day the social infrastructure is insufficient and schools and kindergartens and the like have only partially been supplemented.

Until now the main focus was on medium to high-income groups and the creative class. Therefore the composition is rather homogenous, mostly yuppies without kids and to a lesser extent foreigners. A positive side effect is the increased tax income for the community.

### ***Planning the public spaces***

The city forum was vocal from that the Limmat (river) area needed upgrading especially from a public and open space point of view. While actual proposals were made for the river edges, no agreements or decisions could be reached for the open spaces in the inner parts of Zurich West. Everyone involved saw the necessity for such spaces and green corridors but no one wanted them within their site development. The City of Zurich launched an attempt to visualize the theme of open spaces and to persuade the property owners of their inherent value. The property owners, however, misunderstood this attempt as a method of the City to impose a public good on private property. Another attempt was to come up with unique financing ideas for the open spaces but that failed as well. Meanwhile, the property owners have come to the understanding that the quality of the spaces between the buildings make the new neighborhood a success and that there is a need for open space design and inter connectivity.

### ***3.3 Heterogeneous driving forces with opposing interests***

Two main driving forces became apparent throughout the entire planning process:

- Various city departments under the leadership of the Department of Urban Design (Amt fuer Staedtebau)
- Property owners and their representatives (developers, architects, lawyers, etc).

Further players involved in various stages of the process were:

- Working groups for specific focus areas (with representatives from local government, property owners and residents).
- Various interest groups with special thematic issues.
- Residents and users (for community amenities such as sports or culture).

### ***Interests of the various city authorities***

The opposing development interests of the various involved city authorities caused a huge difficulty in the process. The non-consensus on orientation and direction created friction, misunderstandings, mistrust on the side of the property owners and caused major delays in the planning process.

### ***Interests of the property owners***

The main concern of the owners was to achieve an economically viable development while maintaining autonomy and flexibility in formal decisions and commitments.

### ***Opposing interests regarding the user mix***

The property owners wanted maximum liberties and flexibility with land use. The residential use quota of 20-30% prescribed from the city authorities was deemed “substantial” and caused heavy discussions. Changes in the property market creating increased demand for new inner city housing made the property owners more accepting of the residential requirement. The additional requirements of a social mix and concentrated residential areas in appropriate locations were only partially realizable. Insular pockets of housing units in partial areas were a result of this requirement, based on how large the overall area is. The exem-

plary *Kraftwerk* project as a housing development with a social mix and layouts that were suitable for shared living arrangements remained an exception.

### ***Opposing interests regarding the open space design***

From the start of the planning process an area of 20'000 m<sup>2</sup> had been secured for open spaces. As mentioned above, however the concepts had focused on the river edges and no detailed designs had been made for the inner areas. The vision was that of qualitative open spaces and a linked network. The City of Zurich set an ambitious target: 5m<sup>2</sup> of open space per work place and 8 m<sup>2</sup> per inhabitant.

Only once the property owners realized that qualitative open spaces made their properties more marketable did they consent. The implementation of the open spaces is directly linked to the construction of the various residential and commercial buildings and has shown to be usually lagging behind. The envisioned open spaces only get implemented bit by bit and usually after the developments they are associated with. This means there is now a patchwork of an open space network with gaps. The ratio of developed areas versus open spaces is not fully balanced at this point in time.

### **3.4 Failures and successes**

#### ***Failures:***

- The controversial discussions about the future development of the area took place between the authorities and the property owners only. Residents were only informed at a later point and never involved in those discussions.
- The decision-making process very closely linked process-related and urban design matters: this meant pragmatic solutions and a focus on flexible phasing (also in light of unforeseen economic developments) and neutrality towards uses; the downside was less focus on urban design matters.
- Up to this day there is a small ratio of residential use creating insular pockets of living areas, which only slowly are being contextually connected.
- The strong mix of uses causes substantial noise impacts, which are not accepted by the inhabitants although the development is unique.
- The lacking social infrastructure can only be added with delay and at a high cost.
- In some aspects the development concept is not concrete enough; this is difficult to augment with specific parameters in retrospect.

#### ***Successes:***

- The strong personal roots of the owners translate into a strong commitment to the future development and a qualitative discussion about the goals.
- The long planning horizon made it possible to have solid and deep discussions about the various existing and desired identities of the area, as well as its identity building through transient uses such as the creative class.
- The restructuring process and special identity of the area created room for new residential projects with alternative living concepts.

## 4. Case study Basel Erlenmatt

### 4.1 location and characteristics of Basel Erlenmatt

The area of Basel Erlenmatt became available in 1998 when it was discontinued as freight rail yard of the German Railway Company. Since the decision of its disuse for the railway was made official in 1994, a planning process has been taking place between the City of Basel and the development company/ owner Vivico. Like in the case of Zurich West, the goal is to develop the site into an attractive new city neighborhood. Between the logistic areas, storage areas, administrative facilities and interim cultural uses are already the first construction sites of future residential units.



**Fig. Bird's eye view of Basel Erlenmatt (source: Baudepartement Kt. Basel-Stadt)**



**Fig. 1st Price: Ernst Niklaus Fausch Architects**

The area (19 hectares in size) is the largest continuous development area of the entire city of Basel. It borders on an operational train station (*Badner Bahnhof*) and is delineated by rail infrastructure to the East, the city's tangential highway to the North and a major through way to the West. Only to the South is there connectivity with an existing residential neighborhood. In close vicinity of the area are a recreational area (*Lange Erlen*) and major cultural facilities such as *Messe Basel* (host of the world's largest contemporary art fair) and a Musical Theater.

### 4.2 Planning process

Since roughly 10 years the German Railway Company and the City of Basel have been working in a cooperative planning process to produce planning guidelines for a mixed-use new city neighborhood. A two-phased informal urban design competition was launched with guidelines and parameters set by the City and property owners. Based on the winning design (see images above) the formal planning process was started and a zoning and development plan drafted and submitted to the authorities. The positive decision caused heavy political debates. Preceding general elections a referendum was initiated. A majority of "nos" could have killed the entire scheme! However, the final outcome was that in 2005 64% of the population voted for an urban restructuring effort of Basel Erlenmatt.

### ***Overview of the planning process***

A classical planning approach was chosen to implement a comprehensive development scheme in close cooperation with the owner. The planning process over the last ten years occurred in 4 major phases:

Phase 1: Official release of the site area by the German Railway Company (1994)

Phase 2: urban design competition based on a set of planning guidelines (1996)

Phase 3: urban design competition based on a set planning framework (2001)

Phase 4: Planning steps, such as rezoning of the area as part of the development plan (2003) followed by referendum (2005)

Since 2006: phase 5: Implementation of partial building plots with competitions; a connected, consolidated open space concept.

### ***Opportunities***

Major advantages of the development area include legal and location aspects:

- Only one property owner, large scale area, almost 20 ha in size and central location

### ***Challenges***

The major challenges in the planning process were:

#### *Conceptual challenges:*

- defining a convincing urban identity for the new city neighborhood and identifying signature vehicles for future uses.
- creating new high quality and partially ecological open spaces for subsequent step by step implementation.
- implementing a sustainable development while paying attention to social (integration and acceptance) and ecological factors (ensuring quality open space and pursuing energy efficiency) without existing guidelines.

#### *Operative challenges:*

- Planning in a Public Private Partnership (PPP) with two major players
- The need for informal and contractual planning instruments; formal planning instruments were not adapted or suitable and experience was lacking.
- Political acceptance and participation of the general public was seen as major risk factor.
- Complexities of various influential factors in the planning process, making it less manageable; causing unpredictability of the planning effort and its duration.

### ***Central Theme***

This case study focuses on the central theme energy efficient buildings (based on the principles of the “2000-watt- society”) as an innovative factor in the planning process. Other major themes such as open spaces are not scope of this paper.

### ***The “2000-watt society” – planning sustainable development***

While sustainability increasingly became an important factor in urban planning since the mid 1990s, there were no specific guidelines to go by. In the year 2000 the building department of the City of Basel was chosen to become a pilot region of the “2000 Watt- society”, being a research project of the Swiss Federal Institute of Technology (ETH), which was particularly

keen on facilitating the flow of knowledge by practically applied research. The City chose 4 pilot test sites, Basel Erlenmatt being one of them. The aim of the building department was to focus on new building technology and mobility issues. Financing for the pilot projects was made available through a newly enacted energy fund. 2000 watt equals the targeted per capita energy consumption, which is thought to be compatible with sustainable/ global warming related goals. Nowadays, the consumption is at 5000 watt a person in Switzerland.

*Legally binding framework for the 2000-watt-society:* In the case of Erlenmatt the goals of the energy efficient buildings (based on the principles of the “2000-watt- society”) are a binding part of the development plan. Buildings must in generally adhere to specific standards of energy efficient heating systems and energy efficient building interiors. 10% of the buildings have to qualify for pilot projects based on the terms of the 2000-watt-society. Before implementing the building projects contractual goals are being set.

#### **4.3 Heterogeneous driving forces**

In the case of Basel Erlenmatt two major driving forces have been active in the process: the City and Vivico, the owners. Their major interests and how they managed to achieve their normative goals are described below.

##### ***The City’s interests***

In each phase of the planning process, step by step, preconditions for sustainable development were formulated and then included in the informal plans. In order to incorporate sustainability goals in the planning process and to achieve the goals of the 2000-watt-society, specific legally binding standards in energy and building efficiency could be set at last as part of the development plans. Additionally, it became mandatory for the property owners to launch pilot building projects.

##### ***Planning research interests***

During the planning process a working group for sustainability was formed. It was made up of authority representatives and researchers from various educational institutions. The aim of the sustainability group was to develop innovative systems and projects and enable them to become not only applicable but also marketable. That was the reason why the implementation approach through pilot projects was chosen; although a fixed set of goals and parameters for sustainable building development would have had the same effects concerning energy consumption and efficiency in generally this approach was thought to be more interesting from an applied research point of view.

##### ***The owners’ interests***

The owners realized that the energy efficient building technology exercised on their property was financially interesting as they promised lower operating costs in the long term, but also as a marketing tool to have a pioneer role in that field. The 2000-watt-project therefore coincided with their development goals.

##### ***Opposing interests regarding the 2000-watt-society***

The City benefited from its position as a pilot region for sustainability in planning and building and attracted attention from important researchers in the field. At the same time the City was

able to advance its know how of energy efficiency. Both, the City and Vivico, the owners, used it as a marketing strategy.

It has now become apparent that it was a flaw not to specify the individual pilot projects on the Basel Erlenmatt development site. While the City is trying to have certain areas dedicated for such pilot tests, Vivico is reluctant to do so, fearing adverse reactions from future investors who are to develop individual building plots.



Fig. Bird's eye view of Basel Erlenmatt (source: Baudepartement Kt. Basel-Stadt)

#### **4.4 Failures and successes**

##### **Failures:**

- Lacking legal framework and certainties regarding the future uses and general conditions of the area; only in the end of the planning process a decision was legalized. For a long time the process was marked by political uncertainties and risks that manifested themselves in a referendum followed by a public voting process.
- The implementation of the on-site pilot projects of the 2000-watt society is hampered by the lack of firm regulations regarding their building. It may be that financing pressures will amount and that they will be realized at a later stage.
- Immense planning effort due to the comprehensive/classical method without actual results in the project development: the pilot projects have not been planned to this day.

##### **Successes:**

- That Basel had been chosen, as a pilot region for the "2000-watt-society" was a driving factor in the attempt to incorporate sustainability into the planning process. Moreover, the interest and support of R&D circles was crucial in formulating a strategy and vision for the planning effort. It added scientific knowledge and made it possible to develop specifications and guidelines for the future development. The flexible design of the planning process allowed incorporating new or updated guidelines throughout.

- The informal process led to a kind of “social” sustainability: diverse interests could be incorporated throughout the long process.
- The largeness and general conditions of the planning area give it a type of pioneer character that lent itself to implement the targeted projects of the “2000-watt-society”.
- Strong voices of the public give the open space theme importance; moreover, they heavily influence it so that it becomes an important quality of the urban design.

## 5. Overall conclusion of both case studies Zurich West and Basel Erlenmatt

Both cases are representative of the interaction of diverse driving forces over a long planning horizon, requiring an ongoing balancing act between

- sustainable development aspirations (energy efficiency),
- economic efficiency needs (financial viability)
- and social needs (housing, open space, and social infrastructure).

In each case various driving forces play dominant roles in different stages of the process. Each driving force aims to push forward specific themes, of which we focused on the following: in Zurich West, the two central themes are residential use and public and open spaces; in Basel Erlenmatt, energy efficiency modeled after the “2000-watt society”.

In each case we focused on the following issues:

- What role was played by what interest group in the process (heterogeneous driving forces),
- How did the dynamic economic, political and social framework affect the planning process (input, duration and outcome),
- What were the major challenges (conceptual and operative)
- What were the major planning instruments (formal or informal)
- What were the major failures and successes
- And how can the distinct normative goals and objectives be achieved in the context of these complex processes with diverging interests.

To briefly summarize our findings we categorize several **dilemmas of diverging interests**:

- “Interest dilemma”: The opposing interests create major challenges in the planning process and in the cooperation of the key decision makers and stake holders. In a bilateral debate between two main parties both interests get heard. In the formal process (public vote), however they are no longer controllable. Moreover, there is a tendency to completely underestimate the time and cost implications of a wider set of inputs and interests. Those however, make the process management and control much more challenging and should be factored in at the beginning of such a process.
- “Commitment versus flexibility dilemma”: Everybody involved wants a legally secure framework with binding guidelines. However, they pose a contradiction to phased development planning where responsibilities and commitments can be adapted to changing circumstances. Changes in the project management in return cause a loss of knowledge and time and can create uncertainties in the project implementation. The only solution to avoid a loss of knowledge, time and money is to maintain an excellent documentation record during the entire process.  
Especially in PPP efforts it has become apparent that the legal contractual framework is labor intensive and costly, and that a high experience level is lacking.

- “Knowledge dilemma”: Past versus future: In this complex planning process the locally rooted property owners play a major role. Throughout the process however, the players change and specialists and professionals have an input in the future development, causing a certain side lining of the locals. While this allows for professional expertise and debate, the area loses its local expert input, and with that a bit of its special local identity and soul.
- „Complexity dilemma“: the longer an open, informal approach is used in a planning process, the more interests and requirements are being included, making the planning process overall more complex. A risk of the informal way is that no results get produced over a long time. In the long term this may bring up questioning about the input/output. However, delays may not necessarily produce bad results: in fact, they have the advantage of incorporating ‘social sustainability’ aspects and involving less risk.
- „Risk dilemma“: A comprehensive, non-phased approach automatically leads to a higher risk factor in the planning process. A comprehensive approach can, however, be a positive image factor and lead to a pioneer status for a development, which in return can be a positive factor in driving a development forward.

The list of various dilemmas shows how there are pros and cons of different process scenarios but also contradictions within each of them.

Both restructuring processes should be praised for their ambitious goals especially from an environmental and social sustainability point of view. They both tried innovative planning mechanisms and cooperative planning processes to drive the restructuring efforts forward. While our cases show that heterogeneous forces are beneficial in a multi-directional process where a variety of central themes and normative goals are dealt with, it is also apparent that this leads to long lasting processes associated with time, effort and cost.

It will be interesting to evaluate both restructuring schemes once they are fully implemented to see if all objectives were fulfilled and at what cost. Further important lessons might be learned and deduced for future schemes driven by heterogeneous forces with a mix of formal and informal planning instruments.

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