

## Impact of large-scale urban interventions on contemporary city centers

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### 1. Introduction

Large scale urban interventions have become a common development practice in cotemporary cities, allowing achieving rapid changes in their urban structure [Markowski, 2004]. They can be analyzed taking into account various perspectives. Some of them include planning and development models, types of sites transformed (brownfields, greenfields, densification of urban structures as well as transformation of other types of distressed urban areas) as well as consequences and results of their implementation in existing urban structures.

There is a vast literature on how these transformations are planned, developed and implemented, although there is still not much discussion on the consequences and evaluation of their implementation. Among others, one can mention here works by Swyngedouw and Salet, to name just a few of the key authors. In addition, most of the analysis of these cases was focused on spatial consequences of their development<sup>1</sup>.

Therefore, the main aim of this paper is to discuss this issue in the wider context, taking into account also social, legal, economic and infrastructural consequences of these projects, with a special focus on the ones located in city centers and generating major changes in their functional and spatial structure. Within the paper the following issues are discussed:

- Typology of contemporary large-scale urban interventions, located within the city centers;
- Scope of the spatial, social, economic, infrastructural and legal issues associated with contemporary large-scale urban interventions;
- Discussion of the consequences associated with implementation of large-scale interventions within the structure of contemporary urban centers on the basis of the analysis of selected case studies from Gdansk Metropolitan Area (Poland);
- Conclusions regarding future of planning and development of such projects.

On this basis the more in-depth analysis of the cases from Gdańsk, Poland, including the newly created “Forum Gdansk” along with “Olivia Business Center” and “New train station complex in Sopot” projects are discussed. All these are brand new interventions, located within the structure of Gdańsk Metropolitan Area – one of the most important metropolitan areas in the country and in the entire Baltic region.

The locations of these project include distressed site as well as reclaimed area above the existing railway tracks, urbanization of the urban voids and transformation of the distress railway-side area. In addition, each of these are complex urban interventions, meeting the criteria set in definition of the large scale urban interventions, later on referred to as LSUI-s.

## 2. Characteristics of the large scale urban interventions

Types of intervention within the urban areas may vary and can be described differently due to their size and type of the site, type of the degradation or characteristics of the site as well as functional and morphological composition. But in every case the level of complexity of urban intervention required asks for the comprehensive approach regarding planning and development processes. In case there is a need for more complex functional and implementation solutions, the intervention can meet the criteria described in the definition of the large scale urban interventions (LSUI-s). [Lorens, 2011]

### 2.1. Definition of the large-scale urban interventions

Large scale urban interventions are not characterized only by the size of the site dealt with or by its location. In fact, what makes these different, is the complexity of intervention. Therefore, the following definition can be applied to the LSUI-s:

*“Complex redevelopment programs associated with introduction of new, substantial portions of urban program or transportation infrastructure, which are planned and implemented in the integrated way by one, clearly defined, entity”.*

On that basis one can draw the following characteristics of the LSUI-s:

- Diversified types of land uses
- New, substantial portions of urban program
- Morphological complexity, including various types of structures
- Infrastructure improvements
- Integrated mode of implementation
- Presence of one, clearly identified, „implementation entity”

### 2.2. Typology of large-scale urban interventions

On the basis of the above mentioned, one could draw a typology of the LSUI-s. This could include:

- Key transportation hubs (associated with railway, road and air transportation) along with other uses (commercial, business and multi-use complexes) including the „railway station complexes”
- Housing complexes along with the basic social infrastructure
- Commercial complexes, which include shopping and other service centers as well as entertainment complexes
- Business and industrial parks, including „airport cities”

Above mentioned typology reflects the contemporary tendencies regarding LSUI-s within European cities and may be further developed in case the new types of issues emerge [Lorens, 2004].

### **2.3. Role of the large-scale urban interventions in the process of shaping the urban structure**

LSUI-s are frequently employed as the vehicles allowing comprehensive transformation of cities. This is due to a number of reasons, which include the facts that LSUIs:

- contribute to focusing the investment efforts in the designated zones;
- can become the trigger for further development processes in its vicinity;
- become locations of the new urban program of over-local importance – including types not yet present in the given city / region;
- allow substantial acceleration of the spatial development processes of both the entire metropolitan area as well as its key parts.

In result, in many cases LSUI-s are understood as key triggers of urban change. This is due to the fact that development of LSUI-s may:

- influence the decisions of other investors / developers / site owners;
- lead to creation of the new spatial development poles – which especially relates to the sites especially attractive for investors;
- contribute to changing the geography of spatial and functional connections and networks within the city and entire metropolitan areas;
- prevent the disordered, spontaneous development – which is due to their ordered structure.

In addition, LSUI-s may also play an important role of shaping the investment strategies both of the public and private stakeholders. This comes from the fact that LSUI-s:

- allow coordinated and carefully planned realization of the extensive investment program;
- provide investment stabilization for both „leading entity” (i.e. land developer, key developer) and other entities/partners (small-scale developers);
- allow creation of the urban space of predictable quality – which contributes to the stabilization of the land market.

### **2.4. Obstacles for planning and implementation of the large-scale urban interventions**

Planning and implementing the LSUI-s is not always an easy task. In many cases it is associated with a number of obstacles and issues that have to be taken into account while considering these as a viable vehicle for urban change [Markowski, 2004]. Among many, one should mention the following key ones:

- lack of interest in undertaking more complex urban undertakings on the side of local/public administration („who does nothing, never makes any mistakes”);

- lack of trust in private entities and their activities on the side of the public sector;
- dislike – in many cases due to lack of clear legal framework – in undertaking the public-private partnership schemes;
- lack of highly skilled administration clerks/officials able to initiate/implement/monitor the development of the LSUIs.

Of course, above mentioned obstacles are not always present. In many cases these are considered as one and only type of vehicle able to deliver the major urban transformation projects. The key example here is Hamburg HafenCity project, which since late 1990-ies is successfully implemented<sup>2</sup>. This major waterfront transformation project allowed not only regeneration of the distressed urban area but also retaining by Hamburg its prominent position as key business centre of Europe. In this case it was necessary not only to develop a masterplan itself (see fig. 1), but also to conceptualize a comprehensive implementation scheme based on public-private partnership.



Fig. 1. Visualization of the HafenCity masterplan. Source: *HafenCity Hamburg. Der Masterplan*. Hamburg 2000.

But at the same time one have to note that not always planned interventions are actually fully implemented and not in each case they provide an immediate effect of urban regeneration. In case some of the “success factors” are absent, instead of the comprehensive implementation once can observe partial development of the isolated urban structures, not allowing the fundamental change of the entire site. One of the good examples of such a situation is Glasgow waterfront, which – despite numerous planning and implementation efforts undertaken since late 1990-ties – is still a fragmented urban structure awaiting comprehensive rejuvenation and implementation of the coherent urban structure (see fig. 2). Of course, in each of these cases the reason of partial implementation or even failure may vary, but some of them are associated with not always positive consequences of the planned intervention.



Fig. 2. Image of the Glasgow waterfront (2016) – where newly developed structure are still neighbored by distressed sites awaiting new comprehensive transformation despite the fact that the regeneration process was originated over 20 years earlier. Photo credit: P. Lorens

### 3. Selected aspects and contexts associated with planning and implementing the large scale urban interventions

As discussed before, the LSUI-s may bring various effects and be associated with numerous types of consequences to the urban structure. Among these one should name the spatial and infrastructural contexts as well as social, legal and economic issues associated with their implementation. Many of them may be considered of negative character to the existing urban structures and local communities.

#### 3.1. Spatial contexts

LSUI-s, due to their scale, may bring significant changes to the urban structure. Despite the regeneration effect for the site itself, it may at the same time cause **disintegration of the existing urban structure and networks**. And this means not only their transformation and creation of the new poles of growth, but also elimination of the existing vibrant urban centers. In many cases, this is also associated with **substituting the “old” centers of urban life with the new ones**, which may also cause substituting the diverse functional structure of those with the facilities focused i.e. on tourism and mass entertainment. The good examples of such the situation is construction of the CentrO center in Oberhausen, Germany (developed in the late 1990-ties) which caused serious functional decay of the neighboring urban centers<sup>3</sup>. To some extent the similar cases can be found in many other European cities like Barcelona, which centers are over-dominated by the tourism industry. In result, the daily needs of the citizens of these areas (associated i.e. with grocery shopping) have to be fulfilled in alternative ways. Another issue is associated with **transformation of the urban landscape** which may include creation of the new landmarks, which in some cases may dominate the historic townscapes and influence the perception of the heritage areas. Moreover, in some cases one can observe the significant **environmental changes**, which may include reshaping the green and blue infrastructures of the site. Finally, in many cases LSUIs are associated with **capturing the vast portions of land** and transforming them into the commercial structures, which may make further spatial improvements leading towards creation of the more human structures impossible.

### 3.2. Social issues

Although LSUI-s are rarely located within the already inhabited areas, they may also be associated with numerous social issues. The key one is based on impact of the LSUI-s on the local community, with a special focus on these parts of it inhabiting the sites in close vicinity of the intervention. In many cases **members of these communities are not very much welcomed** within the borders of the newly development areas while – at the same time – the redeveloped space gets opened for incomers from more distant places or even from other cities. The good example is Lyon Confluence, which has become a truly international district and a new hub of urban activities while the local community was – to some extent – left behind<sup>4</sup>. At the same time this newly transformed space is – in many cases – much more dense than before which makes it **less friendly for the existing local community**. But at the same time – in many cases – implementation of LSUI-s may effect in **creation of the high quality public spaces**, open and accessible for all citizens and allowing organization of numerous public events – like open-air exhibitions etc. Also, **development of the new cultural offers as well as shopping and entertainment environments** make the surrounding living environments more attractive. But – at the same time – since the urban environments within which the LSUI-s are located get more commercially and touristically attractive, the **real estate prices within their vicinity may rise** and the living environments – gentrified. In result, some of the previous citizens may will to move out from the districts affected. Although at the same time development of the LSUI-s may be associated with **creation of new social housing**, which could be financed from the **fees and taxes** coming from using for the investment purposes the municipal grounds.

### 3.3. Legal aspects

Development of the LSUI-s is usually associated with numerous legal aspects. Some of them are related to the **changes in land ownership patterns**. In these cases the expropriation and compulsory purchase of land can be executed, although not each of the legal systems allow for such the action. Also, selling **and leasing publically owned land to the private investors** is usually executed. This may take also the form of creation of the public-private partnership scheme, within which each of the partners is contributing with different type of assets. On the public side this is usually publically owned land, which may be in hands of both municipalities, state and other public companies (like i.e. airport or railway companies). In addition, issuing the planning permits allowing development of LSUI-s may be dependent on **making the special development agreements**, within which the private partners may be obliged to develop elements and systems of public and technical infrastructure of the over-local importance. Among others, one can identify here new public transportation networks, public roads and walkways as well as new or rejuvenated public spaces. On the contrary, development of LSUI-s – due to their high commercial attractiveness – may be associated with **increased crime rates**. Finally, in many cases the **environmental standards may be challenged** and the development of LSUI-s may be associated with eliminating some of the environmental values and elements. Of course, in these cases usually the compensation mechanisms are introduced, but in reality these rarely pay back the environmental harms created by i.e. elimination of mature trees or semi-natural creeks or ponds. In these cases, even if the water bodies themselves are preserved, they usually are transformed into some sort of pleasure areas and lose their environmental potentials.



### 3.4. Economic issues

Also the economic consequences associated with development of LSUI-s are massive. One of the major thing that has to be mentioned here is **development of the commercial offer** within the city and **increase in the number of jobs**. In many cases the new types of urban program that have not been present before in the city or in the vicinity of the site are introduced, which additionally increases the attractiveness of this type of the development. But – on the contrary – this can have also negative effect on the local economy as a number of previously existing local enterprises, small shops as well as service points may go **bankrupt**. Of course one may argue that this effect can be considered real only in part, as the creation of new jobs can compensate elimination of the previously existing ones, but what counts is that usually within this process the locally developed and sustained businesses are specially endangered. So what counts is not just the amount of jobs but their importance to local communities. Another key issue associated with development of LSUI-s is connected with the **increased attractiveness** of both the city and – in some cases – the entire metropolitan area. This has to be considered in three perspectives: attractiveness for tourists, migrants (willing to get permanently relocated) and other investors. All of them are important for local economy as this may further spur economic growth and increased income to municipal budget. Finally, when discussing the economic issues associated with location of LSUI-s, one has to mention the risk of **gentrification and manhattanization**<sup>5</sup> of entire cities, but – predominantly – of the sites in the close vicinity of these interventions. This comes along with **increase of the real estate prices**, both for sale and – predominantly – for rent. It is necessary to mention that this increase in case of the analyzed sites is much higher than in other parts of cities.

### 3.5. Infrastructure contexts

Finally, implementation of LSUI-s is usually associated with **massive infrastructure improvements**, both on-site and in its vicinity. This process may include creation of new public transportation hubs and multi-story parking lots, which offer **new transportation options** both for the residents and customers of the analyzed developments and for all other city inhabitants and visitors. In many cases these components of the projects are negotiated within the agreements, mentioned in one of the previous parts of this article. On the other hand, increase transportation demands associated with LSUI-s may result in **increased traffic demands**, both in terms of requests for more efficient, safe and reliable public transport and in relation to the demand for parking. The last part is especially visible in case there is a shortage of parking spaces within the planned structure and the system of public transportation is not efficient enough to cater for the increased demand. Also, in many cases there is much greater **demand for supply of media**, like water, electricity etc. Finally, development of LSUI-s may result in **increased pollution**, which include both solid waste, waste water, noise as well as light pollution<sup>6</sup>.

All groups of aspects mentioned in this chapter May be further analyzed according to a number of criteria. Also, one has to remember that some of these issues and consequences may be regarded as positive and others as negative to the local economy, society and space.

#### 4. Selected case studies of large-scale urban interventions in Gdańsk Metropolitan Area

In order to present the above mentioned issues three case studies from the Gdansk Metropolitan Area were selected. Each of them has different nature and scale, which make this group and interesting set allowing further comparisons.

##### 4.1. Forum Gdańsk

The project was conceptualized as both retail, entertainment and transportation hub, allowing reorganization of the mobility and land-use patterns in the entire city center. In addition, development of this project extensively influences the future of the city and its central part, changing the development chances of other post-industrial and other brownfield areas. In addition, its scale and level of complexity allows using it as the good case study, on example of which the entire scope of issues associated with contemporary large scale urban developments can be discussed.



Fig. 3. General view of the Forum Gdansk complex (2018). Photo credit: M. Habier

In addition to these general features of the project, this new development created a new city landmark, although perceived in the local scale (as no high-rise building was built within it). The key entrance plaza to the entire complex – a brand new part of public space (although privately owned and operated) – has also immediately become a focal point for the citizens and visitors of the city. This was also a result of the decision to combine the commercial part of the project with the public transportation hub (including new suburban train station and key bus and tram stops) of regional importance. Therefore, the entire complex may be now regarded as not only the huge shopping center (the area of it is over 6ha) but a true sub-center of the entire Gdańsk. Also, what has to be mentioned is the fact that within this project a railway corridor was included, and the existing tracks were covered by the platform on top of which part of the complex was developed. Therefore, also from the landscape point of view this project has a huge importance for the entire city. In result it is possible to conclude that this development contributed to the spatial reorientation of the entire city center.



But the project has also negative aspects which have to be discussed. First of all, construction of the extensive parking complex in addition to the commercial part has generated a huge increase in car traffic in this part of Gdańsk. Also, since so many public transportation routes were connected to this development, one can observe a rapid decrease of the volume of passengers using the previous hub – associated with Gdańsk main train station. Also, some of the architectural solutions adopted (like incorporating the existing Radunia river in the structure of the complex including rebuilding the historic river bed) generated the extensive discussion on the limits of possible intervention within the historic and natural structures. One has to mention that this part of the project was developed despite the fact that developer in fact did not have a valid permit for this part of works. And the decision of doing this was taken with full understanding of possible consequences, including the extensive fees which developer had to pay.

Despite these, development of the Forum Gdańsk complex definitely contributed towards perceiving Gdańsk as the major Polish metropolis.



Fig. 4. Main entrance to the Forum Gdansk complex (2018). Photo credit: M. Habier

#### 4.2. New railway station complex in Sopot

The new railway station complex in Sopot (a city constituting the Gdańsk Metropolitan Area, located just 10 km to the north from Gdańsk city center) was completed in 2016. This is one of the largest projects in Poland developed within the framework of the public – private partnership. It is also perceived as key example of combining the public and private funds, assets and experience. Within the project the large-scale multi-use complex was developed, combining the new building of the railway station, shopping and gastronomic center as well as culture facilities.

Despite its size, this project has not affected heavily the natural and cultural environments, as well as has not generated major transportation hassle. What is important is that no major increase in traffic was observed after its completion. In addition, its architecture is regarded to be compatible with the surrounding area. In result, this project is perceived as one of the two key hubs of the Sopot center (the other one is so-called Haffner Center near Sopot Pier

on the waterfront). It also contributes towards building the image of Sopot as the modern city (and not only nostalgic XIX-century summer resort), which – in conjunction with the fact that Sopot is perceived as one of the top three cities in Poland regarding the cost of life and of high quality of urban environment – makes justified its nickname as “Monte Carlo of the North”.



Fig. 5. General view of the new Sopot Railway Station complex (2018). Photo credit: M. Habier

#### 4.3. Olivia Business Center (OBC)

Olivia Business Center is currently the largest office park within the Gdańsk Metropolitan Area, combining seven buildings of total floor area of 120,000m<sup>2</sup> occupying the 3.5ha plot. Its main part is the high-rise building „Olivia Star” – 35-stories high class A office building, scheduled for completion in the end of 2018, which is already perceived as the tallest building within the Gdańsk Metropolitan Area and the new city landmark. Development of the project contributed extensively to the rapid change of the part of the city it is located within, both in terms of architectural and functional criteria. Moreover, Olivia Business Center has become a seat for many both local and international companies, which contributed towards creation of truly international image of this site. In addition, location of the complex in close vicinity of suburban train station allowed many of the commuting employees to use public transportation as the basic way of getting to their offices.

Despite these features of the project, the key issue associated with its development is jamming the Grunwaldzka Avenue (the main spine of the Tri-City area, in close vicinity of which the OBC complex was located). In addition, extensive usage of private cars by OBC employees led to the situation that every piece of vacant land located in the walking distance from OBC was converted into parking. This resulted in measures undertaken by other site owners in the area – and the largest one is Gdańsk University – aimed at protecting their land from being used as unofficial parking. In this case the university authorities decided to fence its area, which was associated with a very negative response from the academic community. Also, other office park owners in the vicinity of the OBC had to deal with issues coming from increased traffic in the area as well as with heavily increased demand for public



transportation. These issues are still to be solved. Another problem is associated with the tallest building of the OBC complex – “Olivia Star”. Its extensive illumination caused discussion on how this is polluting the neighboring areas with unwanted lights as – due of its height – it was affecting pretty large part of the city, including the historic districts and heritage areas. This could potentially lead to the court cases put through by unhappy citizens. In addition, the large density of the project (FAR) may cause in future environmental issues (lack of green spaces, no opportunity for the rain water to be retained within the site etc.). Finally, despite its quite central location in close proximity of key transportation hubs as well as other local centers OBC is still perceived as a white-collar workers area, lacking the public space – which in fact is untrue as within the complex a vast public areas were developed and OBC management is trying to bring to this site many public events.



Fig. 6. General view of the Olivia Business Center complex (2018). Photo credit: M. Habier

## 5. Conclusions

As argued, large scale urban interventions have become a common development practice in cotemporary cities, allowing achieving rapid changes in their urban structure. But at the same time their implementation is associated with numerous issues and consequences, which were outlined in the article. One can identify both social, legal, economic and infrastructural consequences of the development of LSUI-s. Of course, the scope of these depends on the nature, location and character of the particular project, therefore its peculiarities shall be taken in the account in case of the more detailed analysis. And although these interventions are frequently associated with a number of negative influences, still their implementation can help in spurring urban development and making cities more attractive. In many cases these are also the only chance for undertaking the complex regeneration programs for distressed sites, which otherwise would either never be transformed or – in some cases – might have been developed in an accidental way.

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<sup>1</sup> See – among others – works by Pancewicz and Lorens

<sup>2</sup> More on this: [www.hafencity.com](http://www.hafencity.com)

<sup>3</sup> More about the CentrO Project Oberhausen in: Weimer, Jurgan (2001) "CentrO Neue Mitte Oberhausen" in: Large Scale Urban Developments, Gdańsk: Wydawnictwo Politechniki Gdańskiej

<sup>4</sup> More on this in Tolle, Alexander (2005) Quartiersentwicklung and innerstadtischen Uferzonen, Berlin: Leue Verlag; see also: Kamrowska – Załuska, Dorota (2011) "Projekt Lyon Confluence" in: Planowanie i realizacja przedsięwzięć urbanistycznych, Gdańsk: Akapit-DTP

<sup>5</sup> Referred to in literature as „corporate gentrification”.

<sup>6</sup> This term refers to the situation when new buildings and structures are extensively illuminated, which may be troublesome to the other users of space. For more on this refer to: Martyniuk – Pęczek, Justyna (2014) Światła miasta, Wrocław: Wydawnictwo Marina