Plan vs. Reality: In Light of Flexibility Discussion

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ABSTRACT As plans often do not fit with reality, this article attempts to discuss this dissonance by connecting it to the flexibility concept. This is done for the purpose of providing a perspective, which may consider the plan not fitting with reality as a sign of inherent project flexibility, instead of being considered as its fault. To analyse the Bygholm Søpark case, the starting point is to unfold its development, in order to continue with the theoretically informed analysis of the flexibility features of Bygholm Søpark. The question is - How is the urban development project of Bygholm Søpark reflecting features of a flexible project, and how can the differences between the initial plan and the actual development be perceived?

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Introduction

Often the initial plans for urban development are undergoing adjustments and the final result is not exactly the same as intended. This is in many cases seen as a failure, as a loss of control, and the reason for it is that planning for a long time has been perceived as a mechanism for controlled city development (Tasan-Kok, 2008). But ‘in reality, unexpected events and irregularities occur. When predictability is lost, plans may fail.’ (Tasan-Kok, 2008, 189) The acceptance of this fact suggests that urban planning must become more adaptive to irregularities and the unexpected (Živković, M., Jovanović, G. and Kondić, S., 2014). Therefore flexibility, a concept lately entering the planning discussion in a more positive light, is offered as a way forward in planning (Tasan-Kok, 2008). In the scope of this article, the chosen definition of flexibility is ‘a capability to change and adapt when regularity and predictability were lost’ (Tasan-Kok, 2008, 189). Taking into account this line of thought, flexibility is seen as an important virtue when planning city development, as it is meant to increase the ability to cope with irregularities. But how does this relate to urban development projects and the reality created by such projects not fitting with the plans? If plans not fitting with reality, as a result of unexpected events, is perceived as a failure of urban development project, and flexibility is expected to increase the projects ability to adapt to the unexpected events, consequently, is it supposed to make plans resistible to change? Or, maybe the fact that plans can be and are changed means that there has been a certain degree of flexibility?

In order to unfold this further, the focus of this paper is to understand, what defines a flexible project, and, consequently, by focusing on a specific case - Bygholm Søpark - to explore and analyse the flexibility features of this urban development project. By doing so, I also seek to discuss, if the chosen case with its discrepancies between the initial plan and actual
development represents the inherent flexibility or yet, a failure to preserve the initial project scope. Therefore, the research question is:

How is the urban development project of Bygholm Søpark reflecting features of a flexible project, and how can the differences between the initial plan and the actual development be perceived?

The expected contribution of this article is to discuss the project flexibility in general and attempt to relate this discussion to the case of Bygholm Søpark in order to analyse its features of flexibility. By doing so, I seek to look at the differences between plan and reality in Bygholm Søpark from the perspective of flexibility, which may offer another point of view in a way such differences can be perceived.

At first, methods for carrying out the analysis in this paper are going to be briefly described and then the article is going to introduce the synthesized view on flexibility and its development in the field of planning. A framework for analysing the flexibility of a project will follow and further on, I am going to continue with introducing the case of Bygholm Søpark and its development timeline. This will be the starting point of the analysis, which is going to focus on examining the project development and further on, by using the framework defining flexible projects, flexibility features of Bygholm Søpark will be analysed. Finally, the conclusion is going to summarise the findings from the analysis and discuss the discrepancies between the initial plan and the actual development in Bygholm Søpark in light of the findings from the analysis. The article is going to conclude with reflections and possibilities for the further research.

Method

The starting point of the research idea was the superficial information about the development of Bygholm Søpark project, which I have acquired thanks to my internship position in Jørn Schütze Arkitekter MAA, MDD. The fact, that reality created by the project has turned out to be different from the one planned, made me interested in the way, how this could be viewed in light of flexibility discussion, which has been more and more positively perceived in the planning literature (Tasan-Kok, 2008).

To conduct the analysis, I have chosen the case study method, since the whole research idea has evolved around this specific case of Bygholm Søpark. I consider the case study as an appropriate method for this research because it allows ‘the development of a nuanced view of reality’ (Flyvbjerg, 2006, 6) concerning the specific case with its context. This is crucial as my aim is to gather an in-depth knowledge about this case development in order to analyse its flexibility and enable to connect it to the differences between the initial plan for Bygholm Søpark and the project outcome seen nowadays.

To start with, I have researched the concept of flexibility in planning and searched for a theoretical framework defining a flexible project in the available online - published literature, which consist of scientific articles from journals such as *International Planning Studies, Journal of Urban Design, Architecture and Civil Engineering* and published master thesis.
Meanwhile, I have started to research the case in order to understand the development process more in-depth by making myself familiar with the planning documents related to the case, which are the two consequent local plans for Bygholm Søpark and the booklet developed by Jørn Schütze Arkitekter MAA. MDD. Next step was to conduct two semi-structured interviews with the main constructing architect of Bygholm Søpark - Jørn Schütze - who is also my internship supervisor. He has been involved in the case development, therefore, I have chosen him as an interviewee. I have chosen to conduct interviews, because they can be a good help in ‘getting the story behind a participant’s experiences’ (McNamara (1999) in Valenzuela and Shrivastava, no year) and this is crucial in this case because the aim is to get insights in the development process of the case and the reasons behind the factual events. The continuation of the case analysis is to use the theoretical framework from the chosen literature to understand the features of flexibility in the case of Bygholm Søpark development. I will end up the analysis by using this perspective to look at the alteration of the initial plan.

**Flexibility Concept in Planning and Its Development**

It is important to first discuss the flexibility in planning in general to understand the relation between flexibility and planning. Further on, I will continue with the evolution of flexibility concept in planning discussion and finally, introduce the framework for analysing project flexibility.

Flexibility in relation to the field of planning is interpreted as ‘easing the plan implementation processes’ (Tasan-Kok, 2008, 183). But how to do that and why is it important? The following paragraphs aim to find an answer to this question.

Flexibility contains in itself notions, such as ‘enabling, easing, adapting, adjusting, allowing, correcting’ (Tasan-Kok, 2008, 187). To be flexible, in accordance with Merriam-Webster Online Dictionary (2006) means to be ‘characterised by a ready capability to adapt to new, different, or changing requirements’ (Olsson, 2006, 2).

Since one cannot gather all the information about the future, as it is not known and cannot be predicted by a great degree of certainty, specific considerations must be applied when planning in order to be ‘ready’ for the unknown.

Flexibility in planning is an appropriate approach to discuss in this regard because the ‘task’ of flexibility is to achieve a degree of certainty. It can be done by accepting the uncertainty and applying specific considerations to deal with it. (Faludi (1987:206) in Tan-Kok, 2008) This is to say that flexibility offers ways to cope with the unknown future instead of being paralyzed when facing unpredictable events. In order to make plans, there must be a degree of certainty and if various possible future changes are thought of when making plans, the degree of certainty of successfully implementing the plan may be increased.

According to Sager, flexibility should be seen as an attempt to find a balance between being too rigid and too loose or, in his words, - opportunist. He argues that both, the rigidity and opportunism, are extremes, because to be rigid means the ‘lack of ability to adjust to a changing situation’ (Olsson, 2006, 2) and being at the other end means ‘adapting to new
circumstances, without being guided by any rules or overall strategy’ (Olsson, 2006, 2). (Olsson, 2006)

In relation to these two extremes flexibility has inherited both positive and negative connotations in the planning literature (Tasan-Kok, 2008).

The way flexibility has been perceived in planning has changed in time. In the 1960s, the negative opinion of flexibility prevailed. The reason for this must be related to the way in which city planning was understood at that time - being ‘prescriptive and definitive’. Even more, because, as Albrechts (1991) in Tasan-Kok (2008, 186) states, at that time planners perceived the task of planning as to control the social problems and to liberate human kind ‘from the constraints of scarcity and hunger’. (Tasan-Kok, 2008)

Since the critique of flexibility goes by saying, that there is a risk of too much of ‘relaxing the rules, changing the target, and changing the plans’ (Tasan-Kok, 2008, 187), it is clear, that flexibility was seen as a threat, when the end goal of city planning was seen as something of great importance and desirable for all.

Nevertheless, in the beginning of 1980s, flexibility in the planning literature was discussed in a more positive light. This has happened for several reasons. One reason for the increasing emphasis on flexibility is the growing multiculturalism of the contemporary societies. Therefore, planning needs to be responsive to differing and changing societal needs. (Tasan-Kok, 2008)

‘Due to the neoliberal market dynamics, by late 1970s, urban development was increasingly shaped by the dynamics of the property market. This type of planning implementation is project-led and strongly affected by the strategies of private-sector actors’ (Lindblom (1973), Fainstein (1994) and Tasan-Kok (2004) in Tasan-Kok, 2008, 190)

From this quote, a set of mutually interconnected reasons can be distinguished. One is that planners and developers have recognized the importance of planning being adaptable to the changing market trends. This is so because urban development is more and more driven by the property market trends. Second, the urban development has become more ‘project-like’, and, finally, the private sector has become more involved in urban development. In this regard, flexibility in planning is valued because private actor is a new ‘player’ in urban development. It has its own goals and needs in relation to urban development, which may differ from public sector, thus, adding to the complexity of development. Because private players are more involved in urban development, the project-like development becomes increasingly common. This is leading to the fact that urban development is more and more dependent on the will and budget of private sector, thus, becoming exposed to a new set of influences, which are hard to predict upfront. (Tasan-Kok, 2008)
Analysing Project Flexibility

I am going to continue to build on the prevailing project-led urban development and its connection to flexibility. The theoretical framework for analysing the flexibility of a project is going to conclude this section. Contradictory views on flexibility exist also in the discussion of how projects should be:

‘On the one hand, projects need stability and control to be executed efficiently, typically measured in terms of time, cost and meeting specifications. In this perspective, flexibility should be minimised. On the other hand, important decisions in projects must be taken based on limited information in an unpredictable world, creating a need for flexibility options.’ (Olsson, 2006, 3)

The main argument against flexible projects is the financial cost associated with the changes (Olsson, 2006). Nevertheless, the argument for flexibility is also strong and that is why I have decided to use a framework of Olsson (2006), which offers a way to analyse project flexibility by distinguishing several categories, perspectives, drivers and enablers of project flexibility.

- **Flexibility categorisations**

One way of analysing flexibility of a project is to look at different aspects of the flexibility. Four aspects can be distinguished:

1. and 2. **Internal and External Flexibility**

First, project flexibility can be analysed when focusing on project’s external or internal flexibility. Project’s internal flexibility refers to flexibility within the defined scope of the project, in other words, how the project goals will be met. This means, the defined project goals remain unchanged, but the ways to reach them can vary. Exactly here is the room for internal project flexibility. On the other hand, project’s external flexibility refers to the adjustments of project scope. These adjustments mean changing the already defined goals. Since the objectives are shifting, this type of flexibility is often undesired as it brings the increase of financial cost of the project. (Olsson, 2006) According to Olsson (2006, 21), ‘As the project scope becomes clarified, the relative focus on internal flexibility increases ’ but the ‘room for external flexibility decreases over time’ (21).

3. and 4. **Flexibility of the Decision Process and the Product**

Flexible decision process allows the decision - making to be done sequentially. This means, there is a certain room for freedom in taking decisions along the way, when more information is available. In this way, everything does not need to be decided upfront. Actors, which are content with the initial decision taken in their favour will not desire flexible decision process. On the other hand, those who are not satisfied with the initial decision, might prefer more flexibility in the decision process.

Project is producing a flexible product, when future adjustments in the use of the product are made possible, so that that the product is prepared for alternative uses. In this way, no
thorough future changes will be needed, because the design of the product will allow to accommodate possible future adjustments. (Olsson, 2006)

● Perspectives of analysis

Another way to analyse project flexibility is to look at the flexibility from different perspectives, which are:

1. Project phases

A way to define a project is to divide it into three phases and flexibility can be analysed by focusing on each of the phases. The first is the front-end phase, which contains activities before the final decision is made to go forward with the project. Usually, this is the phase in which flexibility is recognised and desired the most, because no final decision is made yet and therefore it is relatively easy to change the project scope, if considered necessary. Planning is the second phase, even though present in the first phase as well, here it refers to more detailed planning before the actual execution. Normally, in the planning phase and, even more, in the execution phase, flexibility is not desired, as changes in this phase would mean extra costs. (Olsson, 2006)

2. Stakeholders

Project stakeholders are persons or groups, whose interests are at stake in relation to the project and can be positively or negatively affected. They have ‘vested interest in the success of a project and the environment within which the project operates.’ (McElroy & Mills [2000] in Olsson, 2006, 17)

Different groups of stakeholders are distinguished, for example, the project owner, who takes the financial risk and responsibility for the future viability of the project, the users, which will use the end product of the project, the project management, which is a group of professionals, responsible for managing the project development on behalf of the owner, and contractors, which are to implementing part or the whole project. Here one group of stakeholders might wish for flexibility in project, and, at the same time, for others can be a great risk. (Olsson, 2006)

3 and 4. Effectiveness and efficiency

The perspective of effectiveness relates to the external flexibility, because it is concerned with the long - term effects of the project, how the project result contributes to the added value for the users and owner. Efficiency, on the other hand, refers to the internal flexibility, as its focus is on the project’s ability to produce the desired outcome, taking into account the agreed upon, such as the budget, time, quality and so on. For the efficiency, changes of project scope (external flexibility) is undesired, because such adjustments normally cause the increase of project cost. (Olsson, 2006)

● Drivers

Flexibility drivers ‘are factors that create needs or impose pressure on projects to be flexible.’ (Olsson, 2006, 38) These are:
1. **Uncertainty**

The main driver is uncertainty, whereas the other drivers can be considered as parts shaping the uncertainty. Flexibility can help to manage the effects of uncertainty. It is possible, for example, by reducing the amount of information needed to take the initial decision or by providing a flexible end product so that future adjustments would be possible without major additional costs. In case uncertainty is recognised, it works as a driver to strive for increased project flexibility. (Olsson, 2006)

2. **Duration**

Another driver for flexibility is the duration of the project. Long duration has a greater risk to lead to the point where changes are required, as ‘Both cost and demand estimates are more uncertain the longer the time perspective is.’ (Olsson, 2006, 38)

3. **Conflicts**

Conflict is considered as a driver for flexibility, because in projects of a large scale in both size and many stakeholders having differing needs and priorities, conflicts are expected to arise.

This can be related to the fact, that societies have become more fragmented and multicultural, which is also one of the reasons, recognised in the planning literature, that is turning the discussion towards a more positive perspective on flexibility. (Tasan-Kok, 2008)

4. **Insufficient preparation**

When there have not been enough resources to prepare prior the start of the project, an increased focus on project’s flexibility is more important. This is so ‘not because of opportunities for increased benefit or reduced cost, but to be possible to implement.’ (Olsson, 2006, 38)

5. **Flexibility options**

Flexibility options are also the flexibility enablers. If these are present or known about, past research of Olsson (2006) shows that they can work as flexibility drivers. This is so because in case flexibility options are present or known about, involved stakeholders are more likely to employed them, since they might see flexibility as a solution to problem faced by the project development. (Olsson, 2006) The enablers of flexibility are briefly explained below.

- **Enablers**

  Enablers in this framework refers to ‘factors that contribute to making it possible for projects to be flexible’ (Olsson, 2006, 39).

  1. **Redundancy**

     Redundancy is defined as the ‘ability to handle the non-routine events that cannot be anticipated or planned for’ (Olsson, 2006, 39). This ability calls for large amount of resources, be it time, money or man-power. This is so because, for example, to have an internal flexibility in a project, extra resources are required to perform an analysis in case
there is a need to come up with a new strategy to reach the defined objectives without changing a project scope. (Olsson, 2006)

2. **Incentives**

Incentive in this context is defined as something, that motivates one to strive for flexibility in project. Types of incentives can vary and are related to the project stakeholders. For example, an incentive for users, which is a stakeholder group using the end product of the project, might be a will to increase the quality of the end product of this project. So, the users will desire flexibility along the project development in order to leave room for improvements of the product, if a chance and need arise. (Olsson, 2006)

3. **Modularity**

Modularity means to break down the project development into more or less independent phases or units (Olsson, 2006). According to Miller & Lessard (2000) in Olsson (2006, 31), ‘modularity can enable projects to cope with uncertainty because individual components do not have a critical role.’

Modularity is seen as a tool to improve project efficiency. It can also minimise the negative effects of uncertainty and provide the control of the cost. (Olsson, 2006)

This resonates with the work of Friedman (1997, 287-288), where he states that ‘only those sections /modules/ for which financing has been secured and are otherwise ready for construction would be designed in the greatest detail.’

These different aspects of flexibility are put together in a framework for analysing project flexibility, seen in Figure 1.

![Figure 1. Framework for analysing project flexibility (Olsson, 2006, 35)](image_url)

To conclude, it is clear, that flexibility of projects can be analysed from different angles. The next part of the article is devoted to use this theoretical understanding in order to analyse an urban development project – a case study of Bygholm Søpark.
Bygholm Søpark: Case Description

The Bygholm Søpark is a mixed use urban development located in the municipality of Horsens. In the year 2000, Local Plan 155 was issued by the Municipality of Horsens for the Bygholm Søpark development, following the will of a private investor to undertake the construction of this area. (Horsens Kommune, 2000)

The investor, who had bought the land, together with the representatives of the Municipality of Horsens and a group of influential people, which consisted of ‘some people ranging very high in the local society’ (Schütze/a, 2017) and was supporting the idea of this new development, were considering this as an attractive project for residential and business uses. (Schütze/a, 2017)

‘Horsens City Council wishes more attractive residential and business areas in Horsens. This local plan can help to realize this wish.’ (Horsens Kommune. 2000, 2 - author’s translation)

![Picture 1. Bygholm Søpark area. [Google Maps, 2017 - modified by the author]](image)

This was considered an attractive development by the investor, the formed group of influential people and the Municipality of Horsens because of its location - proximity to the Bygholm lake (seen in Picture 1) and the golf court. In addition, the area is located 2 km away from the city centre of Horsens. The last, but not least, the architectural quality of the project proposal was also an important factor contributing to the project’s attractiveness. (Schütze/a, 2017)

The investor’s opinion was that also the business purpose is attractive in Bygholm Søpark ‘due to the infrastructure, because, if you go in the city centre, you will have to pay a lot of
parking and there is lot of traffic, but here it is very easy. You can come by car and, following the old main road, you can come from any destination anywhere in Jutland, you come directly to this place.’ (Schütze/a, 2017). Besides, the motorway, connecting north and south of Jutland, is also adjacent to the area. The offices would generate the necessary noise barrier, protecting the residential buildings from the noise from the main road. (Schütze/a, 2017)

The total project area, seen in Picture 1, is estimated around 28 000 m² (Google Maps, 2017). The project development has been divided and executed in 5 phases, this means, the construction happened successively. In Picture 2, extracted from the booklet, prepared by Architect firm JØRN SCHUTZE ARKITEKTER MAA. MDD, the buildings belonging to each phase can be seen. At the stage of the project execution, when the booklet was released, the first 4 phases were already finished and the last one - the Bygholm House, a 3-storey office building - was still left to build. Phases 2 and 4 together contain eight residential buildings of 42 dwellings, and phases 1 and 3 consist of two office buildings. (Schütze/b, 2017)

![Picture 2](image)

**Picture 2.** Situation plan of Bygholm Søpark indicating 5 project phases and their relation to the buildings (Arkitektfirma Jørn Schütze MAA. MDD, 2004, 3 - modified by the author)

Nevertheless, the current situation seen in Bygholm Søpark today, meaning, the phase Nr. 5, is not corresponding with the envisioned in Picture 2. In Picture 3 the current state of the development can be seen.
Therefore, to understand, what are the reasons behind this change, it is important to look at the project development process, and, in order to illustrate it with the key events, I have prepared the following timeline. Afterwards, I will shortly explain the key events.

**Figure 2.** Timeline of Bygholm Søpark development. (made by the author, based on the information from sources: Horsens Kommune, 2011; Horsens Kommune, 2000; Schütze/a, 2017 and Schütze/b, 2017)
Late 1990ies
- The investor purchases the land of Bygholm Søpark area and invites architects and engineers to develop a proposal and general vision for the district.

According to Schütze/b (2017), the investor contacted the architect company right after the purchase of the land took place, so that the architects could start working on the main concept of the area immediately and submit it to the municipality of Horsens for the reviewing.

2000
- Municipality of Horsens releases Local Plan 155, approving the proposed vision and architectural concept.

As Schütze/b (2017) mentions, the proposal, which was prepared for the municipality, was not detailed, but contained only the main concept expressed with the sketches, prepared by the main constructing architect: ‘they didn’t come and tell us, and showed us how it should be’. In order for municipality to approve the proposal, it must respect ‘the surrounding buildings and/or trees and landscape and so on. It’s about the context.’ (Schütze/b, 2017).

- Construction of Bygholm Søpark starts in phases.

As Schütze/b (2017) remembers, the execution of the first 4 phases happened more or less continuously.

The investor had decided to execute the project into phases, because ‘he did not dare to build all of it from day one’ (Schütze/a, 2017). Schütze/b (2017) distinguished two main reasons for this:

‘in case, you imagine, you get a building permit upfront, then it only lasts for a year, therefore you simply do it successively, and because the client would like to reduce risk and to control the costs as well’. (Schütze/b, 2017)

‘the reason why the flats were built in two phases, because still it was seen as something risky to build out there, and therefore he /the investor/ started just to build 21 flats, and then to restart, he couldn’t sell them, because people were thinking - it’s outside without any connection to anything -, but then we came to phase 2, he could have sold three times as many, then it escalated and went very fast.’ (Schütze/b, 2017)

Even though the chosen approach with project execution in phases had its benefits, Schütze/b (2017) has mentioned, that in case the whole development would have been decided to build all at once, it would have taken less time, estimating around 2 years.
Increased activity in building single-family houses in the surrounding area of Bygholm Søpark.

Almost simultaneously with the construction of Bygholm Søpark, the adjacent areas were undergoing the construction and as Schütze/a (2017) is stating, the reason for this must be the freshly kicked-off project of Bygholm:

‘Maybe that focus they /the municipality of Horsens/ had on our project, it might have opened the eyes to the municipality due to that. They had seen: “Well that could be an option, now we have started out there.” So, I think it might have inspired them.’ (Schütze/a, 2017)

### 2003 - 2004
- Arkitektfirma Jørn Schütze MAA. MDD. releases a booklet for the phase Nr. 5 in order to start the negotiations with the potential tenants.

![Picture 4. The Bygholm Hus. (Arkitektfirma Jørn Schütze MAA. MDD., 2004, 4)](image)

### 2005
- The successive construction of the phases Nr. 1, 2, 3 and 4 was finished.

### 2007
- The financial crisis was exerting its influence, having an impact on the execution of the phase Nr. 5.
According to Schütze (2017), the execution of phase Nr. 5 had to start around year 2007/2008, but ‘Then he /the investor/ had to stop, because suddenly the banks were demanding a lot of guarantees and/or they would have had many high interest rates, so he wasn’t willing to pay this, because it would have had quite a cost to do so and he would not be able to get a mortgage price, which could compensate for this.’ (Schütze, 2017)

In the previous stages of the project, which refer to business uses in phases Nr. 1 and 3, the investor had enough economic capacity to move on with the development without finding tenants upfront (Schütze, 2017). This time, going forward without finding tenants upfront would be a risk for the investor because after the construction there might be no tenants willing to move in. The financial crisis had an impact on the property market, therefore the demand for office space was reducing. (Schütze, 2017)

According to Schütze (2017), there has been an offer from doctors to occupy the premises and create a health care house in there, ‘but in the end, they couldn’t lift that and then we had to give it up. And that was the end of it and then after this, I thought for long period, nothing will happen here, it will end on the floor all of it’ (Schütze, 2017).

2010 - 2011

● The investor sells part of the plot (1000 m²) to a grocery store company Rema1000.

The Rema1000 company was approaching the investor, and was offering to buy part of the land and build a local grocery store in there. Schütze (2017) is speculating about the perspective of the grocery store company and their reasons for willing to purchase the land in Bygholm Søpark: ‘they /the grocery store company/ might have seen this area and it was well known, that it was hard to build something anywhere, and, in case the crisis would have never been there, I am sure, they would never have been in position to build that supermarket. (...) but now they got kind of a chance. And then in the neighbourhood they have built lot of single - family houses, so lot of people are out there and it is good to have a supermarket there. So, it is attractive for them /the grocery store company/ as well.’ (Schütze, 2017)

Initially, the investor was reluctant to sell, because this meant the adjustments in the initial architectural concept for the area of which the investor was very fond of. Nevertheless, because he had other properties and was under the pressure from the banks, he chose to sell after all. (Schütze, 2017)

According to Schütze (2017), the investor regrets this decision very much. There was, of course, a possibility to refuse the deal and wait in order to find other tenants for the initially proposed office building and it can be done ‘if you have the necessary economical capacity (...) and then build it one day, then you will be in a better position seen in relation to paying property taxes’. (Schütze, 2017)
When answering to why the store was never intended to be there at the first place, Schütze (2017) states: ‘Well, at that time you didn’t have any one family houses in the neighbourhood. (...) just fields all around. And over the years suddenly people could see, well, we have that many houses in the neighbourhood and seems as if they /the municipality of Horsens/ have planned further extensions of this area, so it is quite logical that there would be a need for retail.’

2011
- Municipality of Horsens is cancelling Local Plan 155.

According to Schütze (2017), the development trend in Denmark has been towards presenting the projects upfront already in the local plans and therefore a reason, why Local Plan 155 had to be cancelled and a new one issued is because: ‘when you suddenly bring in a third player, that’s the supermarket, you just cannot call this, let say, an adjustment, it’s a radical change. And due to that, it might have an impact in other places for the Kommune and if they would allow this to take place here without a new local plan, everyone might come and say “Well, you allowed this up there. Since you did this, you must do it here as well.”’ (Schütze, 2017)

- Municipality of Horsens is releasing Local Plan 2 - 2011.

The Local Plan 2-2011 is issued, because the investor is willing to finish the planned development of the phase Nr. 5, but the office building design has to be adjusted by incorporating a grocery store on its ground floor. (Horsens Kommune, 2011)

In the Local Plan 155, the planned proposal for Bygholm Søpark can be seen, but the Local Plan 2-2011 already contains the existing situation after the completion of phases 1 - 4 and in addition, the new concept for the phase Nr. 5.

‘Compared with the originally planned application of the local area plan, this local plan allows for the incorporation of a grocery store for local supply on the ground floor of the new office building.’ (Horsens Kommune. 2011, 7, - author’s translation) This refers to the 5th phase.

The whole development area is divided into 5 sub-areas. Sub – area A for residential purposes, sub – area B for business purposes (in addition, also retail purpose in Local Plan 2-2011), sub – area C for business purposes, sub – area D is green common area and sub – area E is secured for publicly accessible pathway along the cost of the lake. (Horsens Kommune, 2000) Picture 5 is indicating the adjustments in sub-areas of planned future functions in Local Plan 155 and Local Plan 2-2011.
Plan vs. Reality: In Light of Flexibility Discussion

**Picture 5.** Adjustments of sub-area functions from the Local Plan 155 (on the left) and Local Plan 2-2011 (on the right). (Horsens Kommune. 2011, Appendix 3 – on the left; Horsens Kommune, 2000, 19 – on the right)

**Picture 6.** Sub-areas from the Local Plan 2-2011 combined with the Bygholm Søpark development 5 phases. (Horsens Kommune, 2000, 19 - modified by the author)

In Picture 6 I have combined the development phases with the sub-areas from Local Plan 2-2011 and it can be seen that the phase Nr. 5 refers to sub-area B and correspondingly, sub-area A has been divided into 2 development phases, same as sub-area C.
Plan vs. Reality: In Light of Flexibility Discussion

2013

- Local grocery store opens. (Retail News, 2013)

According to the Local Plan 2-2011, ‘The store in the local area is primarily intended to serve the local area, including the major urban development area north of Bygholm Lake, located a little west of the local area.’ (Horsens Kommune. 2011, 10 – author’s translation)

2017

- New incentives to restart the project arise from the side of the investor, in order to integrate the grocery store within the existing architectural concept of Bygholm Søpark.

Since the investor has regained an economic capacity to continue the phase Nr. 5, the project is likely to be restarted in year 2018. The meetings and discussions between the investor and the main constructing architect have been taking place during the year 2017. (Schütze/b, 2017)

The Local Plan 2-2011 is stating, that the grocery shop must be ‘integrated on the ground floor of the new business building’ (Horsens Kommune, 2011, 10 – author’s translation) and should fill in ‘a courtyard between two building wings, so from the outside, the building does not seem significantly different.’ (10 – author’s translation).

Nevertheless, according to Schütze/b (2017), nowadays, ‘you can hardly see that this /the situation in Bygholm Søpark/ is a part of the local plan, (...) they have written as well that it should be integrated in a way, so the illustration and main concept of the area should be kept so to say, but today’s situation is of a kind so it’s rather disturbing architectural component there’. Therefore, new incentives have arisen in order to complete the phase Nr. 5.

Following the insights of the project development process, the project flexibility will be analysed by using the theoretical perspective shown in Figure 1. The focus will be on the external and internal flexibility, and the flexibility of the decision process and product. The different perspectives of analysis and both the drivers and enablers of flexibility, which I have recognised based on the information gathered, will be shortly discussed as well.

Flexibility features of Bygholm Søpark development

- Flexibility categorisations

External and internal flexibility

Since external flexibility refers to the ability to adjust the project scope and internal flexibility is regarded as flexibility within the defined scope, first, it is important to recognise, what the project scope is. Based on Local Plan 155, the scope of the project is to deliver an attractive
business and residential area (Horsens Kommune, 2011). This is defined by the Municipality of Horsens and can be regarded as a broader scope, but the investor has an additional goal - to add an exquisite architectural quality to the development (Schütze/a, 2017). This desire was shared by Schütze/a (2017) ‘we had been awarded and he /the investor/ was really proud of this, he felt something for that project we did and he has told me this recently too.’ This refers to the award issued by the Municipality of Horsens in year 2001 for the best newly built building for the business and residence (Schütze/a, 2017).

For the analytical purposes of the internal project flexibility, the project scope will be delimited to the proposed development for the phase Nr. 5, which is defined in the Local Plan 155 and the booklet. According to Schütze/b (2017), potentially, there has been a room for adjusting the concept for the initially proposed office building so it could be suitable for the use of medical professionals instead. In that case, Local Plan 155 would not need to be changed, as it can still be seen as fitting with the business function and the initial concept would remain (Schütze/b, 2017). This situation indicates the potential for the internal flexibility. Since, according to Schütze/b (2017), the project with these adjustments was already made, that means, there were enough resources to adjust the prepared proposal in order for it to be used for slightly different purposes. In this way, the main architectural concept would not need to be changed. This can also be discussed in close connection with the product flexibility.

Nevertheless, this proposal never came to be realised, and the project scope was after all adjusted. Consequently, Local Plan 155 was cancelled, and, according to Schütze/b (2017), the architectural quality of the area was compromised, also from the perspective of the investor. This adjustment had to be made because of the changes in the external context, - the economic crisis, which caused greater economic uncertainty for the investor. This resulted in more guarantees required by the banks as well as changes in the property market, where the demand for the office space decreased. So, in this context, we can start discussing the external flexibility of the project.

Despite all that, it can be said that the investor has been reluctant to change this initial scope, that is expressed in his regret in selling part of the plot to grocery store company Rema1000 (Schütze/b, 2017).

In case the investor would have had access to more financial resources, the project’s internal flexibility could be increased in order to keep the initial project scope. It could be done, as Schütze/b (2017) notes, by simply waiting for the ‘better times’, when the impacts of the financial crisis would lessen and therefore, other tenants might appear.

‘I am not saying he should have built at that time, but he could have waited. I would wait, absolutely, but that is very individual situation. ... But if you have the necessary economical capacity and able to keep it, and then build it one day, then you will be in a better position seen in relation to paying property taxes. (...) he sold it and he got some money in his pocket,
but he was taxed quite hard due to that, if you build and you are getting in tenants, you are brought in much better and favourable situation, where you are not taxed.' (Schütze/b, 2017)

As noted by Schütze/b (2017), this was a way to reduce the risk for the investor, meaning, to take an action and sell. In that way, investor would get money right away, instead of risking by waiting and not knowing, how it could turn out to be in future.

Even though the project scope was changed so that the development was able to move forward, the investor and main constructing architect were not pleased by the outcome of the phase Nr. 5: ‘today’s situation is of a kind, so it’s rather disturbing architectural component there, because it isn’t connected to the area, it’s more or less free of the other buildings and without any context.’ (Schütze/b, 2017)

When zooming out from the phase Nr. 5, analysis continues to discuss the Bygholm Søpark project’s general approach to its external flexibility. The project execution is subdivided into phases and that indicates the incremental approach, in order to control the costs and reduce the risk of potential changes (Schütze/b, 2017). When each phase is ready for the execution, - all the needed documentation, including the building permit, gathered, and the loan from the bank acquired - the development can move forward fast without any interruptions. It was so because in this way the execution time was relatively short for each phase. For example, after the approval of the 5th phase, the execution took only a bit more than half a year. (Schütze/b, 2017)

Since, according to Olsson (2006), the flexibility in the execution phase is generally not desired, decreasing the execution time can possibly be a solution in order to minimize the possible future interruptions. The drawback - longer total implementation time - of this choice has been also recognised by Schütze/b (2017): ‘in case it has been decided upfront to build all of it, you could have built this within 18 months, maybe 2 years.’

The resemblance of this approach can be found in the work of Friedman (1997). He elaborates on the idea that breaking down project design into phases according to the anticipated time of construction and dealing with more detailed planning matters right before the construction is a way to ensure more fluent and successful urban development.

*Flexibility of the decision process*

Since the project scope is defined upfront and secured in the local plan, this indicates low flexibility in the decision process. The flexibility of decision process is reduced, because the project scope is defined and the adjustments, which might be needed, can be made only if they are within the defined scope of the local plan. This is so because after the approval, ‘it /the local plan/ becomes an absolute point of reference for the duration of the construction of the development’ (Friedman, 1997, 287).
As Schütze/b (2017) comments about the development trend in Denmark, ‘it’s more and more developed in a direction where you upfront announce the projects more or less already in the local plan.’

This is so, ‘because they /the investor and the municipality/ should be able to defend this in case neighbours or relevant persons come up with some critical comments, they should be able to defend their decision there.’ (Schütze/b, 2017)

This emphasizes the need for local plans, which are in some way, restricting as well as securing the project development. This depends, of course, on the level of detailedness of the local plan. In case of Bygholm Søpark, it did not allow adding a commerce function, needed for the phase Nr. 5, without coordinating it with the higher planning documents and releasing a new local plan.

Another reason is that, ‘local plan in general takes time to make, sometimes couple of months. (...) I think, in practice, it’s hard to think of a local plan, which takes less than 7, 8 months.’ (Schütze/b, 2017)

Therefore, between the moment when the decision has been taken and the time of actual construction there is a time gap. This has also been recognised by Friedman (1997, 291): ‘during this lag-time, demographic, economic and technological changes might render the design inappropriate for the emerging market.’ It is decreasing the flexibility of decision process because, while the municipality is working with the plan, the possibility for adjustments is restricted from that moment on even though a potential need for them might arise because of the passage of time during the plan approval.

This is also recognised by Schütze/b (2017): ‘A lot of clients /the investors/ prefer to take negotiation with the municipality upfront and in case they can avoid the local plan, they fight. That is really what most people would try to do, because time is money.’

Despite this, in case of Bygholm Søpark, avoiding a new local plan was not possible, if a grocery store had to be built.

Nevertheless, the project execution in phases allows for some degree of flexibility.

**Flexibility of the product**

The flexibility in product in the perspective of this article is regarded as the flexibility of the prepared plans for the buildings in Bygholm Søpark, even though the product can be regarded as the actual outcome after the execution.

Schütze/b (2017) states that the proposal for the office building in phase Nr. 5 has been designed with a great deal of flexibility:

‘in order to make his /investor’s/ position easier and his position as negotiator, well, we did it very flexible, so flexible, so it could contain one big company (…) and/or it could be a
combination of a smaller company or several smaller companies ... so we couldn’t do anything more’ (Schütze/b, 2017).

Even when the medical professionals were showing interest to inhabit the potential 5th phase building, and even though it was initially designed for slightly different purpose, ‘this project could be somehow transformed into a way, so that the health care house could be there. (...) We actually did the project. (...) it could be split up in different ways’ (Schütze/b, 2017).

Another indicator for striving for the product flexibility is that some adjustments might be added to the functional division of the future extension of the grocery store building within the completion of the phase Nr. 5: ‘if you go into the Local Plan 155, it was meant to be maybe either offices, all of it, or one floor should have been for flats and two floors, in general, for offices. Today the situation is of a kind where it looks as if we build like it’s the intention now, then we are talking about two floors of flats and one for offices.’ (Schütze/b, 2017) This discussion has arisen, because investor wishes to adapt the development to the current property market trends, which include low demand for office space. (Schütze/b, 2017)

Despite the incentives to ensure the flexibility for the product, Schütze/b (2017) admits, that ‘it’s hard to go in and be able to have so much flexibility, so you can somehow adjust the whole organism to any situation.’

● Perspectives of analysis

Project phases
The proposed concept for the project development in the front-end phase in Bygholm Søpark was restricted in a sense, that it had to be designed so that it respects the context and abides the general guidelines for the area in order for it to be approved by the municipality (Schütze/b, 2017). This was the factor decreasing the flexibility at this stage, which I have recognised.

Stakeholders
The main stakeholders, of whose perspective the information was available, are the investor and the main architect of the project. Both have worked in close cooperation, which is expressed in the commonly shared desire to realise an urban development project with an exquisite architectural quality. The desire from the side of the investor developed gradually, as Schütze/b (2017) states, it increased, when the investor saw the appreciation of the projects architectural quality during the development process.

The will for flexibility, from the side of the investor arguably goes as far as the financial aspect of the project has been secured. In critical moments, as concerning the phase Nr. 5, for the investor this goal proves to be more important than ensuring an architectural quality to the project. (Schütze/b, 2017)
Plan vs. Reality: In Light of Flexibility Discussion

- **Drivers**

I have distinguished the uncertainty and duration as the main drivers for the flexibility in this case.

As the future can hold unknown turn of events, it is uncertain, and, because of that ‘the client/the investor/ would like to reduce risk and to control the costs’ (Schütze/b, 2017). Project subdivision in phases is reducing the duration of execution of each phase and this in turn can reduce the number of exceptional events, which could arise during the execution. This indicates, that the uncertainty has been recognised by the investor and tackled by choosing the approach to sub-divide the project execution.

The duration of the construction in relation to the due date of the building permit can be seen as another reason for subdividing the execution in phases (Schütze/b, 2017).

Conflict has not been recognised as a driver for the flexibility, because according to Schütze/b (2017), in this project there were no user group/s and ‘the complexity grows quite a lot, if you have users as a main player.’ (Schütze/b, 2017). In this regard, notable conflicts have not been experienced: ‘we didn’t meet anything, which collided with our intention there’ (Schütze/b, 2017).

- **Enablers**

The lack of financial resources from the side of investor prior the 5th phase of development can be seen as the lack of internal flexibility driver - redundancy.

Nevertheless, when preparing for the phase Nr. 5, there have been enough resources in terms of time, finances and man power to adjust the architectural concept to the requirements of the medical professionals to provide slightly differing uses.

Modularity, or subdivision of the project execution in phases allows for flexibility because between the execution of each phase there is room for adjustments, within the context of what is determined the local plan, of course. So, it can be seen as the flexibility enabler, recognized in Bygholm Søpark development.

**Conclusion**

This article has attempted to research the development of Bygholm Søpark project and by using the defined theoretical framework, discuss flexibility features of it in order to answer the question - How is the urban development project of Bygholm Søpark reflecting features of a flexible project, and how can the differences between the initial plan and the actual development be perceived?

Following the perspective, informed by the theoretical framework, it can be concluded that in the Bygholm Søpark development project the investor and the main constructing architect have valued flexibility to a great extent in relation to the end product. The subdivision of the
project execution into phases - defined as modularity, which is one of the enablers of flexibility - represents the consideration of financial risk reduction from the side of the investor. Therefore, in theory, it also allows to take the most appropriate decisions in relation to the existing market situation right before the execution of the consecutive phase. This represents the approach to external flexibility management.

It can be argued, that the decision process does not allow much space for flexibility, even though the modularity as an enabler of flexibility has been recognised and is meant to provide a chance to take the most appropriate decision right before the execution of the next phase. This is so, because the local plan pre-determines the development path and expected end result. Nevertheless, this situation is prevailing for urban development projects, because of the commonly accepted procedure of the urban development in Denmark. As follows, it cannot be seen as something characteristic for this specific development. It can be argued, that it is important for planning to have the secured development path in the local plans, because ’when implementation is too flexible (...) the demands of the private sector will prevail, and the public sector will lose the controlling power.’ (Tasan-Kok, 2008, 188). Therefore, finding the balance between the rigidity and flexibility is a challenge for planners (Tasan-Kok, 2008).

When discussing the changes in the initial project’s scope in relation to the 5th phase of the development, and the way how these adjustments can be perceived, it can be argued, that it depends if one’s focus is on external or internal flexibility.

For example, since the flexibility is understood as ‘a ready capability to adapt to new, different, or changing requirements’ (Olsson, 2006, 2), and if the focus is on the external flexibility, then these adjustments represent the project’s ability to adapt and incorporate changes in order to continue the development at a specific point in time. In addition, it could happen even faster, in case a new local plan would not be needed. So, the Bygholm Søpark development project could deal with changes in the property market and find a solution - adding a new function (commerce) to the development and persuade the municipality of Horsens to allow these changes to be incorporated into a new local plan for the area.

On the other hand, it can be seen as a failure of carry out the initial plan for the phase Nr. 5, if the focus is on the internal flexibility. Internal flexibility is desired more by the investor, because of the project scope being pre-determined by the local plan and consequently, major adjustments are not possible within the defined project scope. Not at least not without a delay in project’s development, which for the investor means an extra expenditure. As recognised in the analysis, there was a capacity to adjust the building design for the phase Nr. 5, so that it could be transformed into a health care centre, but since this was not realised, according to Schütze/b (2017), there were two options left for the investor. One was to wait for other potential tenants in the future, so that the initial scope would be preserved. For this choice the drawback would be the uncertainty about when this could happen and the extra cost related to the delay of the development. Other option for the investor was to sell part of the land to the Rema1000 company, who was ready to purchase it and build a grocery store. In that way, the financial risk apparent in the first option could be reduced, and the development could continue.

As already know, the investor had chosen the second option, because of the financial pressure related to economic crisis and its impact on other of his projects (Schütze/b, 2017). Therefore,
it can be argued, in case the investor had access to larger amount of financial resources, the initial project scope for the phase Nr. 5 might have been “rescued” and internal flexibility would have prevailed.

To conclude, if the focus is on relatively fast development being able to adapt to changes, then this case can be seen as a success, in terms of external flexibility. If the focus is on the preservation of the initial project scope and internal flexibility, then it can be seen as a failure to carry out the initial project scope because of the lack of internal flexibility. Nevertheless, it has to be said, that the Local Plan 2-2011, besides allowing the additional commerce function in Bygholm Søpark, also requires it to be incorporated and ‘swallowed’ by the extension of the Rema1000 building. In this way, the initially desired architectural quality of Bygholm Søpark would not be “sacrificed” by this adjustment.

To sum up, this article has discussed aspects of project flexibility in general and has attempted to use a theoretically informed perspective on project flexibility to analyse the flexibility features of an urban development project - Bygholm Søpark - in practice. This analysis was expected to provide another point of view on the often negatively perceived differences between the initial plan and reality, which is created by the project. In addition, the flexibility discussion in urban planning is enriched by this article because it is offering a new case study. The development of the case is discussed by using the theoretically informed perspective on project flexibility analysis.

The possible improvements for this research could be done by focusing more in depth on a specific category of flexibility, for example, only on the internal flexibility or only on the flexibility of the decision process. This would provide a better understanding of a chosen flexibility aspect rather than a broad and general one, as it is in this current research. This would also help to narrow down the scope of the research. However, as this research attempts to gain more general understanding of the concept of flexibility and how can it be analysed in urban development project, the chosen broad and general scope fits the purpose. The framework for analysing flexibility has been developed, so that it could refer to all kinds of projects in various fields of expertise, size, time-horizon etc. One step forward can be the adjustment of the framework, so that it is suitable to analyse the flexibility of urban development projects, in particular.
References


