

# Developing a successful Business Park service portfolio

Learning from Kennispark Twente and Vision Park Apeldoorn



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## **Preface**

Before reading the report about the research I undertook for my master thesis, I would like to spare some words about the formation of this report and myself as graduate student.

After successfully completing the Bachelor of Science degree in Industrial Engineering and Management I decided to focus more on management skills in the Master of Science degree of Business Administration. It turned out that I really had a passion for the fields of research taught in the Master courses. Now, after only a year I am already writing my master thesis. This is why the saying “Time flies when you’re having fun” is really applicable on not only this last year but also my complete life as a student, because by writing this thesis I am also leaving behind a student-life that was an important factor in forming me over the years.

I would not have been able to write this thesis report without the help of some key persons that I would like to thank here. First of all, Melis Jan van Heerikhuize as a continuous driver for motivation and new insights. He made it possible for me to do my research in Apeldoorn at the CvJO, which certainly has been a stimulating environment for me. Also, my tutors Tiago Ratinho and Michel Ehrenhard were very important for guidance during my research. Meetings with them not only gave me directions and new insights but also quite often ended up at complete different subjects because of the nice informal ambiance. Finally, the cooperation of the Vision Park and Kennispark management made it possible for me to research Business Parks in real life instead of only researching books. This made both the results and undertaking the research even more attractive.

Oscar Lustig  
13-03-2012

## Management summary

This research report focuses on the (mis)fit between Business Park service portfolios and service needs of (potential) tenants of those parks, resulting in the following research question:

*“How can Business Park service portfolios be developed to cater tenants’ needs?”*

An answer to this question can ensure a right fit between offerings and needs. This answer is found by first thoroughly analysing literature in the field of Business Parks about amongst others service portfolio definitions, incubator benefits and best practices. This analysis resulted in 7 propositions about for example the relation between company age/size and service needs. The data to test these propositions was mined at two places: Kennispark Twente and Vision Park Apeldoorn. A web survey was used to identify tenants needs. Also, Business Park management was interviewed to identify service portfolio offerings. In order to be able to compare the survey results with characteristics of companies, a database was created in which all respondents were typified by number of employees, age and sector type.

By statistically testing the data from the surveys, interviews and databases the propositions were proven wrong or right. Eventually it turned out that the service needs of companies depend on the age of the company and the industry type it is active in. Furthermore, a distinction can be made between ‘nice to have’ needs and the following ‘need to have’ needs: Housing, Parking, Eating and Talent. These basic service needs form the basis of the flexible service portfolio that offers the solution to create a right fit between tenants’ needs and Business Park management offerings. The flexible service portfolio is then further customized by adding services based on the tenants’ age and industry. To conclude, adding special company specific needs complete the flexible service portfolio.

To ensure that this right fit between needs and offerings continues to exist, continuous flexible service portfolios are necessary. This means that the initial flexible service portfolio should be kept up to date by periodically monitoring service needs and offerings in interviews between Business Park management and company representatives. The flexible service portfolio now is a solution for a more efficient fit between offerings and needs. The flexible service portfolio also is a better way to attract new tenants to a Business Park.

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# 1. Introduction

# **1. Introduction**

The University of Twente offered me the chance to undertake a research in the field of Business Parks by combining an analysis of businesses located at the Kennispark Twente in Enschede with an analysis of the Vision Park in Apeldoorn. The term Business Park that is used here turns out to be a collective noun for several kinds of clusters of businesses. The exact definition used in this paper is explained in the theoretical framework in chapter two. This introduction will first describe the background of the three companies that are related to this research after which the motives for this research are further elaborated.

## **1.1. Stichting Kennispark**

The stichting Kennispark can be seen as the incubator of the Business Park: Kennispark Twente. A business incubator is an organization that 'hatches' start-up companies to grow into healthy companies that can manage to survive on their own. Incubators try to succeed in this by offering incubatees all kinds of services varying from office space to a financing network.

Stichting Kennispark at the moment is not familiar with an exact list of companies located at the Kennispark. This is why stichting Kennispark as participant in this research seeks for the development of a database in which all of these companies are listed including characteristics like age, number of employees, sector and turnover.

## **1.2. Centrum voor Jong Ondernemerschap**

The Centre for Young Entrepreneurship in Apeldoorn (CvJO Apeldoorn) was started as an answer to the growing flight of young talents to other regions like the Randstad. The CvJO can be seen as an incubator because it incubates companies with a maximum age of five years. On top of that, the CvJO also houses students working on researches and other projects.

The CvJO Apeldoorn is one of the tenants at the Vision Park in Apeldoorn, which is a Business Park that mostly consists of empty old buildings after the old owner Philips left this Business Park. Current owner of the Vision Park, real estate broker Uni-Invest, asked the CvJO to research the market of potential tenants in Apeldoorn to gain insights in potential tenants' demands. The CvJO thus acts as a mediator between Uni-Invest and me as researcher.

## **1.3. Uni-Invest**

As owner of the Business Park: Vision Park Apeldoorn, Uni-Invest has decided to revitalize the terrain and buildings to attract new tenants. Before undertaking this revitalization, Uni-Invest would first like to gain knowledge about the demands of their potential customers. The Vision Park should consist of around



45000 m<sup>2</sup> 'office-space' and 40000 m<sup>2</sup> 'business-space'. The way in which this space is going to be designed is completely free and should be decided based on the demands of potential customers. So, the market eventually determines the layout of the future Vision Park. Before an advice can be given to Uni-Invest and Business Park management in general, research is needed to be able to give an advice as to how Business Park management should develop service portfolios in line with tenants' needs.

#### 1.4. Research objective

This research aims at contributing to the existing literature about developing successful Business Parks in general. The research especially lays a focus on the role of the Business Park management and its service portfolio that is offered to attract companies. Eventually, the research results can be seen as an advice for Business Park management when developing a Business Park (service portfolio). This research addresses the gap that can exist between the service portfolio of a Business Park and the demands of present and potential customers.

More specific, the research objectives of two research participants are mentioned hereafter:

- **Stichting Kennispark:** Would like to see the development of a database with all of the companies located at the Kennispark. Besides this, stichting Kennispark can also benefit from a general advice on how to develop service portfolios for its own use in the future.
- **Uni-Invest:** Would first like to identify potential tenants for its Vision Park in Apeldoorn and second also wants to gain knowledge about the specific needs of those potential tenants. Knowledge about these tenants and the development of service portfolios in general can be used to revitalize the Vision Park.

#### 1.5. Research Question

By undertaking this research it is tried to eventually create an advice on how to develop a successful Business Park service portfolio. The definition of "successful" should be seen as a Business Park service portfolio that is aligned with companies' needs and thus is best to attract potential customers for Business Parks.

In order to eventually give an advice to Business Park management in general and in this case, specifically for Uni-Invest. This research tries to answer the following central research question:

*"How can Business Park service portfolios be developed to cater tenants' needs?"*



This research question as such can be divided in several parts which are represented by sub-research questions hereafter:

- *What are Business Park service portfolios?*
- *What are the needs of (potential) Business Park tenants?*
- *How do Business Parks develop Business Park service portfolios?*

Recent literature showed that there often exists a misfit between Business Park service portfolios and companies' needs (Chan & Lau, 2005). This question adequately addresses this overall problem that Business Park management faces when developing a Business Park.

## **1.6. Implications**

It is important for the research to contribute to the existing literature in this research field. By explicitly discussing the implications of this research, it is ensured that the research will not be the exact reproduction of earlier researches. Instead, the research goes further into the existing literature and eventually should contribute by adding new findings.

Existing literature in the field of Business Parks describes business incubator roles and performance. As described, other studies have researched differences in needs or performance between on- and off-park companies. Furthermore, limited research exists about the link between companies' needs and Business Park service portfolios.

The research contributes to this existing literature by further researching this link between the factors that determine location choice for companies and Business Park service portfolios. Existing literature has a lack of generalizable results, where this research seeks for more general knowledge about how to develop service portfolios in line with customer demands and independent of industry type. Furthermore, the unique part of this research is that the research findings are immediately used in the case of the Vision Park in Apeldoorn. This implies that the research also goes into the question of what measures should be taken by Business Park management to develop a service portfolio that meets the companies' needs in practice.

## **1.7. Limitations**

Now that the proposed research is introduced and explained, some limitations of the research are stated here to mark the exact field of research that the research is going to address.

As already mentioned before, the research will not explicitly focus on identifying geographical differences between Enschede and Apeldoorn. However, if such differences occur during research these can be mentioned in the discussion after the research.

Furthermore, this research is not trying to find out what companies are most interesting for Business Park management in terms of performance. It could well be that Business Park management should focus on specific types of companies to improve Business Park performance as a whole. The proposed research does not try to develop an advice concerning company selection.

Because of the fact that the analysis of the Kennispark and potential tenants for the Vision Park is dependent on data from the chamber of commerce, data used will sometimes be relatively old. In any case, the most recent available data is used. This implies that the resulting databases of companies located at the Kennispark and potential tenants for the Vision Park will be as recent as possible but not an exact representation of the situation at the moment of publication.





## **2. Theoretical background**





## **2. Theoretical background**

Based on existing literature within the research field of Business Parks, this paper tries to contribute to the existing literature by giving new insights in the development of Business Park service portfolios. In order to make the exact contributions clear, main findings that are of added value from existing literature in this field of research are mentioned in this chapter. This research has links to several key concepts within literature. Therefore, these concepts are all discussed.

To begin with, a clear definition of what a Business Park is and how the term is used in this paper, will be discussed. When the meaning of a Business Park is made clear, differences between Business Parks and non-Business Park locations are analysed to gather further knowledge about the specific characteristics of Business Parks. After discussing these characteristics, literature about business location choice is reviewed in order to determine which factors are important for companies when choosing a business location. These factors can then be taken into account when discussing the development of Business Park service portfolios because these portfolios can attract tenants for Business Parks. Since Business Incubators in general are the Business Park Managers that manage the service portfolio, existing literature about these incubators is discussed. Because the eventual focus of this research is aimed at contributing to service portfolio development, existing literature about service portfolios is analysed to use existing knowledge to contribute to this research. One important role that a Business Park can have is the stimulation of innovation, therefore this role is discussed in a separate paragraph.

### **2.1. Business Park definition**

Throughout literature, authors are found to be very creative in making up names for what is called 'Business Park' in this research paper. Quintas, Wield & Massey (1992) give an insight in the world of what they call Science Park by mentioning names like Technopolis, Innovation Park and Research Park.

In order to determine a definition for what Science and Business Parks exactly are, the UK Science Park Association (UKSPA) is consulted. The UKSPA's mission is "to be the authoritative body on the planning, development and the creation of Science Parks that are facilitating the development and management of innovative, high growth, knowledge-based organisations." Because Science Parks can become a member of the UKSPA it is interesting to look at the requirements that UKSPA has for Science Parks before they can become a member. To determine the exact characteristics that a Science Park must have according to the UKSPA, the definition that they use is stated here:

"A Science Park is essentially a cluster of knowledge-based businesses, where support and advice are supplied to assist in the growth of the companies. In most instances, Science Parks are associated with a centre of technology such as a university or research institute."



The UKSPA states that other property-based initiatives of clustered businesses should be considered as Business Parks instead of Science Parks, leading to the following definition:

“A Business Park is merely a property development”

Thus, in general a distinction can be made between plain Business Parks and Science Parks as defined by the UKSPA. Despite the fundamental differences between the definition of Business Parks and Science Parks, in practice both types can and do offer service portfolios (Vision Park Apeldoorn is an example of a property development that starts with and thinks about service offerings to tenants) and therefore can be taken into account during this research. This paper speaks of Business Parks referring to both plain Business Parks as well as Science Parks since the research on service portfolios can apply to both Business Parks and Science Parks. If certain conclusions only apply to plain Business Parks as property development or Science Parks, this is mentioned within the conclusion.

As discussed in the research method, this research takes place at two places. The Kennispark calls itself ‘Business and Science Park’ and can be defined as a Science Park according to the definition of the UKSPA because of the knowledge-based companies that are present adjacent to the University of Twente and the fact that stichting Kennispark acts as incubator for the inhabitants (Kennispark Twente, 2009). The Vision Park in Apeldoorn on the other hand does not require inhabitants to be a knowledge-intensive company and is not associated by a centre of technology, which implies that it can be defined as plain Business Park only offering housing opportunities. However, the owner of the Vision Park, Uni-Invest, is considering a role as a kind of incubator in the future based on the outcome of this research.

## **2.2. On-/Off-park differences**

Now that the field of Business and Science Parks is clearly defined, a comparison can be made to the non-park field. Differences between on- and off-park locations can clarify the background of the existence of Business Parks and thus the existence of Business Park service portfolios.

As Löfsten & Lindelöf (2002) state, data seems to show that the performance of on-park New Technology Based Firms (NTBF's) is higher than off-park NTBF's, but a direct relation between profitability and location is not found. Besides, it is unclear whether NTBF's perform better because of the nature of the type of entrepreneurs or specific on-park advantages. It could be the case that Business Parks attract more motivated entrepreneurs than off-park locations, which results in better performance of on-park businesses because of the motivated entrepreneurs. The fact that Löfsten & Lindelöf (2006) were not able to identify a direct link between performance and location is unfortunate because the determinants of location choice indirectly reflect service needs of possible

tenants, and thus should be taken into account when developing successful Business Park service portfolios.

The article of the UK Science Park Association (UKSPA, 2003) also researches the performance of their Science Parks by comparing those to off-park companies. The research results confirm the hypothesis that Science Parks play a positive role in supporting the growth of technology-related businesses, and hence wealth creation, in the UK. Differences in performance between on- and off-park companies might be caused by differences in available services for on- and off-park companies. The UKSPA research suggests property based solutions that meet particular needs of knowledge-based businesses at various stages of their evolution as reason for higher performance of on-park NTBF's compared to off-park NTBF's. Also, McAdam & McAdam (2008) suggest that service needs change within a company's lifecycle. These sources lead to the first proposition that is researched in this paper to determine whether service portfolios can benefit from adaptation to the stage a company finds itself in:

*Proposition 1: "Knowledge-based businesses require different services in different stages of evolution"*

The link between tenants' needs and Business Park service portfolios, which is researched in this paper, thus is crucial for creating successful Business Parks. This paper tries to identify what those exact property based solutions consist of to determine how Business Park service portfolios can be developed in line with tenants' needs that possibly change for evolving companies.

Several studies of Westhead & Batstone (1999) researched possible benefits of managed Science Park locations for companies. As some other mentioned studies did, this study also investigated differences in property needs between off- and on-park firms. The research in this case is limited solely to technology-based firms, as is the case with most other studies. Furthermore, Westhead & Batstone (1999) explore the role of Science Park management in attracting firms to a Science Park. It is stated that both managed as well as non-managed Business Parks (entrepreneurial property-based initiatives) are beneficial for their tenants. Non-managed Business Park owners tend to act as gatekeeper by selecting NTBF's that are only looking for premises and postal addresses. For these companies, this is a way of reducing costs that the NTBF's otherwise had to pay for additional services at a managed Business Park. Furthermore, linking with a Higher Educational Institution (HEI) proves to have several advantages, such as providing talent, without being a cost driver. Such a link can also exist without the need for the company to be located at a Business Park that needs to provide HEI linkage.

Interestingly, Westhead & Batstone (1999) showed that there are certain differences between companies located on managed and non-managed Business Parks. In general, companies on managed Business Parks tend to depend on more risky (leading-edge) knowledge than companies located at non-managed parks. One could wonder if this is the case because those types of companies want to try to reduce the risks by choosing a managed Business Park, or that

managed Business Parks tend to stimulate the development of leading-edge knowledge that is thereafter used by its tenants. The fact that managed Business Parks often have linkages with Higher Educational Institutions implies the development of leading edge knowledge which results in NTBF's which logically tend to house at the adjacent Business Park. The development of the Business Park service portfolio thus is crucially dependent on the potential existence of a link with a Higher Educational Institution. If such a linkage is the case, the service portfolio should cater NTBF's needs when trying to commercialize leading edge knowledge. This service portfolio should be completely different from service portfolios of non-managed Business Parks. Westhead & Batstone (1999) prove that companies located on solely property-based initiatives without a clear managerial function do not benefit from the Business Park and at the same time do generally pay more for rent at the premium location.

### **2.3. Business location choice**

Now that literature about differences between on- and off-park companies is discussed, location choice is further elaborated. For this specific research it is interesting to look at existing literature about what location choice factors for companies in general are because, as stated before, they can be seen as indirect tenants' needs.

Devereux, Griffith & Simpson (2007) discuss how this location choice is related to grants. It is stated that this financial support slightly influences location choice but this is also dependent on industry type of existing companies at the specific location. The results showed that companies looking for a location tend to prefer locations where other companies who are active in the same industry are located. This leads to the following proposition that can be researched at the Kennispark.

*Proposition 2: "Business Parks tend to house clusters of businesses active in the same sector"*

This could imply that Business Parks and their service portfolios should focus on one industry type and promote themselves as for example logistics Business Park focusing on logistics companies. Therefore, it is also interesting to research the following proposition about the dependency of offered services on industry types.

*Proposition 3: "Necessity for services is dependent on the type of industry the company is active in"*

Van Dijk, & Pellenbarg (1999) focus more on the exact determinants of firm relocation. The most interesting findings, which are important for this paper, are first of all some reasons for companies to move. The research found out that a change in the environment (also called location stress) is a major reason for companies to relocate. Besides that, another situation that enhances the chance of relocation occurs if a company finds itself in an environment that needs



revitalization. Focusing on these drivers of relocation, this paper should use this knowledge to develop Business Park service portfolios that prevent these drivers to prevent occupants from moving to another location. This can for example be ensured by revitalizing a Business Park in such a way that the park is ready for future use so that the environment stays the same for a longer period. Furthermore, it could be hypothesized that there also exists something like service portfolio stress if Business Parks tend to change their service portfolio frequently.

In contrary to the expectations of the research of Van Dijk & Pellenbarg (1999), accessibility related factors do not seem to be of significant influence to location choice. This implies that Business Park management and their service portfolios do not explicitly have to focus on accessibility related facilities to attract new tenants since other factors are more important. Furthermore, the ownership situation of the location of the company does seem to be of crucial influence to relocation choices. If a company owns its own building, chances of relocation wishes are significantly smaller than when a company rents a space. This implies that in general the external factors for a company are lower drivers for relocation wishes than internal factors like ownership situation.

Grigorian, Ratinho & Harms (2010) tried to identify determining factors for IT-companies choosing a Business Park in Armenia. The intended reason for their research was to evaluate to which extent business incubation services meet tenants' needs. They do this by focussing on the fit between offered services, service provision approach and needs of incubatees. For the evaluation of this fit, the elements 'what', 'how' and 'how much' are discussed. One of their main findings was that the tenants were satisfied about the way in which their needs were fulfilled by the available services, but that this satisfaction decreased when the need increased. Companies tend to be more demanding about the services that they think are the most important. This paper goes further into this subject by generating more general results when it comes to industry type. Also, the fact that the research discussed in this paper is taking place in a completely different region than Armenia can reveal new interesting results.

## **2.4. Business incubators**

Since business incubation is widely seen as one of the most important objectives of Science Parks (Felsenstein, 1994) it is an important subject of research for this paper. The Dutch Incubator Association gives a clear and accepted definition of an incubator: "An organisation that realises an incubation-process to facilitate the fast growth of high potential start-ups into successful businesses by offering a service portfolio with services like office space, culture, coaching, networking, financiers."

The Mancuso family can be seen as the initiator of incubators as we know them (Smilde, 2011). The Mancuso's decided to split up a large empty factory in several rental spaces. One of the first tenants was a chicken hatcher, after which Mancuso came up with the term incubator as they were hatching business. The

Mancuso family still runs an incubator in the United States of America. According to McGinn (2002) that incubator is an example of the fact that there still exist successful incubators even after the dramatic period of IT incubators around 2000.

An interesting character of Mancuso's incubator is the graduation policy they use. Some graduation policies ensure that incubatees leave the incubator after say three years to look for other business locations. McGinn (2002) looks at the successful example of Mancuso's Batavia Incubator, which does not use such a graduation policy. Business park management should ensure possibilities to grow within the Business Park, for example through flexible housing opportunities. This is beneficial in two ways:

- It prevents businesses that are looking for a permanent housing facility that can suit their growth/decrease from going to non-Business Park locations
- A mixture of start-up companies and grown-up companies can be more interesting and profitable than just start-up companies.

The study of Hansson, Husted & Vestergaard (2005) comes up with the role that second generation Science Parks can play. Instead of the perceived role of attracting and developing high-tech companies in which most Science Parks fail (as concluded by several recent researches like Amirahmadi & Saff (1993)), Science Parks should serve as caterer for development of social capital. This social capital is necessary for enabling and facilitating entrepreneurship in networks. It could thus well be that social capital development should be considered as service offered by Business Park management. It is interesting to investigate how second generation Business Park management can develop this social capital development service as part of the total service portfolio. Another possible contribution to (second generation) service portfolios is made by Chan & Lau (2005). They assess technology incubators in Science Parks. It is stated that technology firms require different kinds of services during different stages in their development. Development-stage dependent needs is something to take into account when researching companies' needs and incubator service portfolios. To fully cater tenants needs it seems to be important to develop a service portfolio that takes into account the different stages of development of a company. The proposition mentioned earlier in this chapter is used to research if this is the case at the Kennispark at the moment.

In general, Business Park owners should ensure to develop a strong and clear service portfolio to make the (potential) tenants clear that the higher rent of being located at a Business Park pays off because of the service portfolio they receive in return. Also, Hackett & Dilts (2004) state that the process of incubating an incubatee is created and managed by a collaborative effort between the incubator manager (Business Park management) and the incubatee (tenant). Thus, this suggests that service portfolio development should not be seen as one-way traffic from incubator to incubatee but as two-way traffic.

Bruneel, Ratinho, Clarysse & Groen (2010) and Bruneel, Ratinho, Clarysse & Groen (2012) in their way also describe the relation between tenants' needs and incubators' information for the development of service portfolios today. Their article identified two services that are specific for respectively second and third generation business incubators: business support services (second generation) and access to networks (third generation). It is stated that business incubators service portfolios nowadays are more or less the same because new services are adapted by earlier generations of incubators. This implies that business incubators react to incubation paradigms. It is interesting to notice however that tenants seem to make more use of third generation business incubators. Despite the suggestion that this may be the case due to the fact that first generation Business Parks house older companies that tend to make less use of the 'new' services, it may also be that the reason lies in wrong service portfolio management of first generation business incubators.

This paper therefore investigates the following proposition:

*Proposition 4: "Newer generation incubator services (like network access and business support) are more used by younger companies than older companies."*

Another role that the incubator can play that also is extensively discussed in literature is the role of gatekeeper. Hackett & Dilts (2004) state that selection is an important character of incubator/incubatee success. Gatekeeping can also been seen as a way of targeting your service portfolio at the right targets. If Business Park management ensures to select the companies at which its service portfolio is aimed, a misfit between service offerings and demands can be prevented. Therefore, the role of gatekeeper should be extensively considered by Business Park management when developing a Business Park. However, in practice it can be hard for some Business Parks to actively act as gatekeeper since other stakeholders, like the municipality, often only seek profits and thus would not reject a potential tenant that fast.

## **2.5. Service portfolios**

Business Park service portfolios are offerings that are made to the tenants housed on that specific Business Park. It is important that these offerings fit with the needs of the tenants since a misfit can lead to failure of the Business Park management that offers the service portfolio (Carayannis & von Zedtwitz, 2005). This statement also emphasizes the importance of this research that tries to analyse that fit to ensure that Business Park management fulfils the tenants' needs.

Because this research eventually tries to link the determinants of choosing a business location to Business Park's service offerings in order to develop successful service portfolios, the research of Westhead & Batstone (1999) is important to review here as well. Their study researches the benefits of a managed Science Park by comparing the service needs of on- and off-park located technology based firms. Westhead & Batstone (1999) mention that

linkage to a higher educational institution (HEI) is a main character of managed business and Science Parks. One of the main advantages of a managed business and Science Park linked to a higher education institution is the fact that this saves R&D costs because less personnel costs need to be made, implying innovation through HEI links. The fact that the study of Westhead & Batstone (1999) solely focuses on technology-based firms does not imply that general conclusions about Business Park service portfolios cannot be drawn from the results. Westhead & Batstone (1999) conclude with the statement that property-based initiatives for a Business Park without significant services offered by Business Park management seem to be ineffective. This statement means that Business Park management should ensure a strong managerial function to prevent an image of a solely property-based initiative. Amongst others, this can be achieved by frequent communication between Business Park management and its tenants about for example tenants' needs. This paper researches whether this is the case right now at the Kennispark by analysing the following proposition:

*Proposition 5: "Since offered services are a representation of tenants' needs, the necessity for offered services is comparable to the use of them"*

Furthermore, results also show that contribution of Business Park management to effective linkages between tenants and higher education institutes is an important factor. This again underlines the earlier statement about the importance of HEI linkages.

The best practice of the Daeduck Science Park (DSP) is discussed here to gain knowledge about the development of service portfolios in practice. Shin (2000) Reviews the process of the development of the DSP and its outcome. Also, some policy alternatives are suggested for future development of business and Science Parks. It turned out that although the outcome of the DSP is seen as successful, there was one major shortcoming during the development of the Science Park, which should be prevented when developing such Science Parks in the future. There was a lack of input from the adjacent city during the planning and development of the Science Park. This resulted in a limited local economic impact that eventually was corrected by increased involvement of local governments in the Daeduck Science Park management. A statement about these kind of links is also made by Koh, Koh & Tschang (2005) who mentions the importance of links between Science Parks like Silicon Valley and national and global economies. Thus, linkage between Business Park management and local government or national and even global economies is important to stimulate economic impact of a Business Park.

In contrary to other literature such as Shin (2000) that tried to describe a case study as basis for a framework to develop Business Parks, Phan, Siegel & Wright (2005) suggest that no such framework exists. It is stated that the case of the DSP was successful mainly due to the fact that the park is implemented as it was planned. Also, Shin (2000) believes that there is a failure to understand Business Parks' dynamic nature as well as that of the companies located on them. This



implies that there is no clear view of the performance of Business Parks and incubators due to unknown determinants of performance.

The analysis of some criticism on Business Parks can also help in the development of service portfolios. The performance of Business Parks is critically assessed by Amirahmadi & Saff (1993). It is stated that successful Science Parks often have taken a decade or more to become economically viable, that their failure rate is high and that they have an exaggerated regional and national impact. It is also mentioned that state or governmental support is essential to the success of a Science Park. Another study that shows criticism on the Science Park model is the study from Quintas, Wield & Massey (1992). As is the case with the article of Amirahmadi & Saff (1993), it is stated that Science Parks use considerable resources while often lacking to be proven beneficial for tenants and/or regions. The existing criticism on Science Parks is also mentioned by Phillimore (1999) who tries to reflect on the linear view of innovation that Science Parks have according to some studies. Therefore, the article examines interaction and networking not only between university and companies but also between companies and between certain universities. Results show that both interaction between different tenants located at the Business Park as well as interaction between tenants and the local university are significantly present. These different kinds of interaction are beneficial for tenants and it turns out that the Business Park management's role in empowering innovation through these kinds of networking should not be seen as linear at all. Furthermore, it is also interesting to note that Phillimore (1999) found out that a more active park management seems to have a positive effect on tenants. This sign implies that it is important for park management to actively develop and manage a service portfolio that can be offered to (potential) tenants as also was concluded by Westhead & Batstone (1999).

## **2.6. Role of innovation**

One of the goals of stichting Kennispark, and according to UKSPA of other Science Parks as well, is to drive innovation. The role that innovation plays at Science Parks is further discussed here by elaborating on existing literature about the role of innovation at Science Parks to be able to contribute to this existing literature in this research by analysing relations between use of offered Business Park services and sources of innovation that companies use to drive innovation. Phillimore (1999) mentions that criticism on Science Parks exists for relying on an out-dated and linear view on innovation, by simply assuming that the presence of a university ensures the transfer of scientific knowledge to adjacent companies. Despite the fact that innovation nowadays is not seen that simple but as complex and non-linear, most researches about innovation on Science Parks still focus at analysis of direct transfer of knowledge from a university. For this research about service portfolio development it is therefore interesting to determine the role that stichting Kennispark's service portfolio plays on innovations within companies located at the Science Park instead of simply looking at transfer of university knowledge. It is researched whether specific services offered by the Kennispark drive innovation from university and

innovation as such. In this way, the incubator (stichting Kennispark) acts as a mediator between the company and university knowledge.

Quintas, Wield & Massey (1992) state that a lot of resources are being devoted to Science Parks, hoping that this results in research-based industrial and innovative activity. This linkage between commercial enterprises and academic research is central to the Science Park model. Quintas, Wield & Massey (1992) however show that in practice, no high levels of linking facilitated by Science Parks are present and therefore question the Science Park model. Based on the study of Quintas, Wield & Massey (1992) the following proposition can be developed:

*Proposition 6: "Science Park service portfolios do not facilitate the linkage between commercial enterprises and academic research to eventually drive innovation".*

On the other hand, Quintas, Wield & Massey (1992) also mention that it can be expected that Science Parks can play a big role in innovation especially for small companies. These companies cannot really focus on research due to the fact that they do not have workforce available for this and therefore should use academic linkages to drive innovation. This leads to the following proposition:

*Proposition 7: "Small companies are more dependent on academic linkages to drive innovation than larger companies"*

Research should find out if small companies tend to make more use of services present in Business Park service portfolios, especially the ones that facilitate academic linkages. Also, it should be determined if the use of these academic linkages drives innovation. Researching the previous mentioned propositions can help in gaining insights on how to develop service portfolios for different kinds of companies.



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### 3. Research method



### **3. Research Method**

In order to adequately undertake the suggested research and to be able to contribute to the existing literature by answering the before mentioned research question, the research method to do so is described here.

After setting up a theoretical framework, the research method elaborates on the way of gathering the data necessary for this research. In order to gain knowledge about for example tenants' needs, data from those tenants is needed. The Kennispark Twente is considered to be a successful example of how an innovation campus could look like. Recently, the Kennispark was even mentioned by Prime Minister Rutte (2011) who said that "Kennispark Twente, in which the University of Twente is a partner, is one of the few successful examples of these kind of Business & Science Parks in Europe". Because the research takes place both the Kennispark Twente and the Vision Park in Apeldoorn, this chapter is structured based on these two cases.

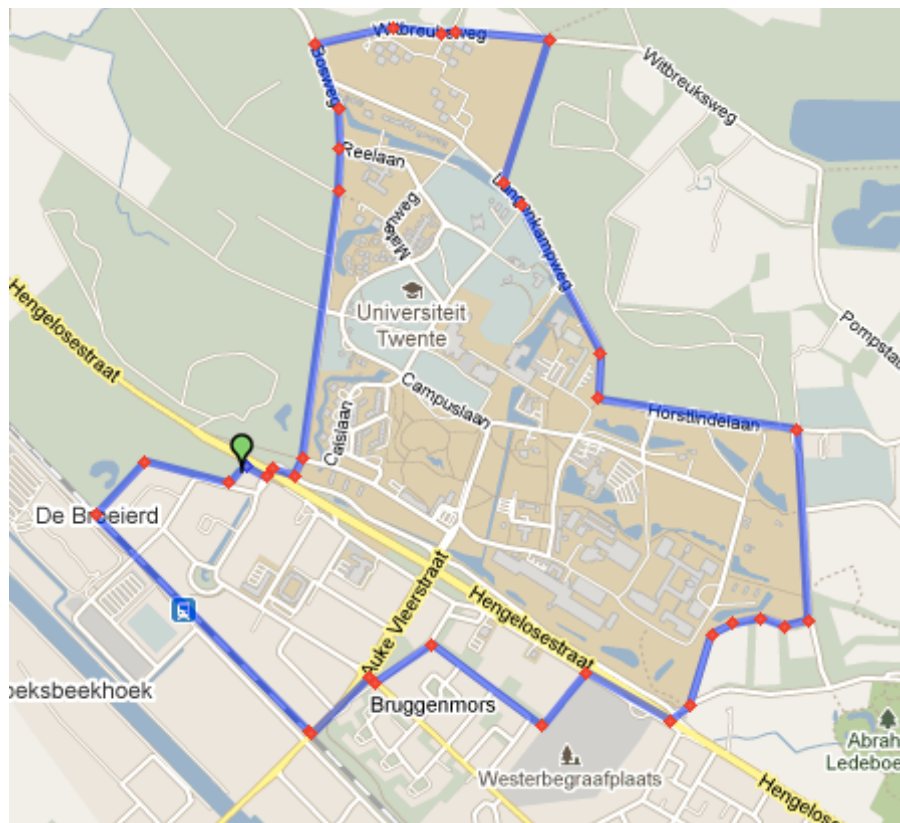
#### **3.1. Research at Kennispark Twente**

An important aspect of the proposed research is about the question what the needs of the tenants are. These tenants' needs can be seen as services that companies demand from the Business Park management. Knowledge about these demands can be used to compare these specific demands with the services offered by Business Park management in a later stadium of the research.

##### **3.1.1. Kennispark's tenants**

Before the identification of those demands can start, the companies located at the Kennispark should be known. This is why the research starts with making an analysis of the present companies at the Kennispark Twente. To do so, first the Kennispark area is determined by using maps and discussing the exact area with stichting Kennispark.

Figure 1: Kennispark area



Based on the map, a list of street names and numbers that are part of the Kennispark is made. These addresses are entered in the company.info website that contains all Chamber of Commerce entries. Because of the fact that many companies maintain several Chamber of Commerce enquiries, for example for different divisions or holdings, several entries in the database are merged to have a single entry for each individual company. Data about employees and turnover is all summarized in that one entry. The result is a complete list of Kennispark's tenants that also gives insight in for example employment at the Kennispark.

### 3.1.2. Kennispark survey

Now that a database of Kennispark's current tenants is developed, the needs of these tenants need to be researched. Because the database of companies contains 433 companies, it is too much work for this research to consider interviewing these 433 companies to acquire precise information about for example the use of and need for certain services. As stated by Walonick (1993) questionnaires appear to be the most effective way of further gathering the data needed in this case. Furthermore, Jack & Clarke (1998) focus on the cost-effectiveness of this research tool for data collection, which is an important factor for this particular research as well. To further reduce costs, it is chosen to send out an e-mail invitation to a web-survey. Also, the web-based survey makes it possible to attract potential respondents in an innovative way.



A small part of the 433 companies have a registered e-mail address at the Chamber of Commerce. Because the invitation for the web-based survey will be send by e-mail, missing e-mail addresses of Kennispark companies were looked up through websites of the specific companies. In this way, 234 e-mail addresses of the 433 Kennispark companies were found. These addresses were used to send an invitation for filling in the web survey.

The survey itself starts off with some questions to identify the respondent's company and function. It is important to also know the respondent's function to determine whether the respondent is supposed to have knowledge about for example the Kennispark's service offerings and thus if that specific respondent is right for the survey. If it turns out that let's say the cleaner responded to the invitation to fill in the survey, the answers should not be taken into account because such a respondent probably does not have a clear view on for example the exact service needs of the company.

After the identification questions, the respondent is asked to rank five categories of services, based on Westhead & Batstone (1999) elaboration on service offerings at Business Parks:

**Table 1: Categories of services**

| <b>Category</b>             | <b>Example</b>                 |
|-----------------------------|--------------------------------|
| Knowledge facilities        | Presence of the university     |
| Network facilities          | Access to financiers           |
| Infrastructural facilities  | Office layout                  |
| Business support facilities | Help with business development |
| Interaction facilities      | Events with other companies    |

In order to also be able to analyse the Kennispark's service portfolio, more specific questions about the exact service offerings are asked. Two separate questions were made about the necessity and use of Business Park services to be able to compare the necessity and use in a later stadium. This comparison can then serve as a basis to further discuss service portfolio development. As discussed in the theoretical framework, besides Westhead & Batstone (1999), Löfsten & Lindelöf (2001) also mention several Business Park services in their article about on-/off-park differences. Based on the statements they make about on-park services and a theoretical overview of key findings created by Hackett & Dilts (2004), survey questions about the following Business Park services were developed:

- Talent from the university
- Events
- Financial support
- Training for entrepreneurs
- Business development help
- Lab facilities
- Coaching for entrepreneurs
- Eating facilities

- Parking facilities
- Sport facilities
- Housing facilities

Because this research focuses on the Kennispark, the before mentioned services were discussed with the Business Park Management at the Kennispark. The Business Park management normally sets out a strategy for the Business Park and thus also decides which services to offer to tenants of the Business Park (Quintas, Wield & Massey (1992)). In order to eventually discuss the development of service portfolios, it is interesting to also determine the way in which stichting Kennispark developed its service portfolio containing the before mentioned services.

An evaluation of the development of stichting Kennispark's service portfolio can be made based on interviews with some particular employees that have been chosen because they are supposed to have the most knowledge about the service portfolio that the Kennispark offers. Furthermore, some of these persons can share their view about the development of the Kennispark as such because of their managerial role.

Table 2: Persons to interview

| Function at Kennispark            | Name               |
|-----------------------------------|--------------------|
| Director Kennispark Twente        | Kees Eijkel        |
| Account manager Kennispark Twente | Jantsje op de Hoek |
| Project employee area development | Mike Verkouter     |

Based on Cohen, Manion & Morrison (2007) the type of interview used in the research is discussed here to further elaborate on the research method. Because the eventual goal of the interviews is to identify the offered service portfolio, questions about this portfolio are prepared in advance. This implies that directive interviews are used. The data that results from these interviews identifies the offered services. Also, the management view can clarify how the service portfolio is developed and why certain services are chosen.

This discussion about the exact services that stichting Kennispark offers took place in the form of an interview in which the service-specific survey questions were compared with the precise service portfolio that stichting Kennispark offers according to its account manager. This test resulted both in some additional services that the Kennispark offers on top of the literature-based services as well as some further specifications of the literature-based services. Eventually, after further developing the survey in close collaboration with stichting Kennispark, the survey contains questions about necessity and use of the following services:

- Talent from Universiteit Twente (e.g. students as future employee)
- Events
- Financial support (e.g. TOP regeling, Meesters van de Toekomst)
- Training for entrepreneurs

- Business development team
- Initiating joint ventures between companies and knowledge institutions (Centre 4 Cloud, Thermo Plastic Composite Research Centre are examples of this)
- Kennisvraag.nl
- Lab facilities (e.g. Nanolab, Smart Xperience lab)
- Coaching for entrepreneurs
- Eating facilities
- Parking facilities
- Sports facilities
- Housing facilities

The necessity and use questions can be answered on an ordinal five point Likert scale (Jamieson, 2004) consisting of the following answering options:

Table 3: Ordinal five point Likert scales for 'necessity' and 'use'

| <b>Necessity</b> | <b>Use</b> |
|------------------|------------|
| Not              | Not        |
| Below average    | Sometimes  |
| Average          | Moderate   |
| Above average    | Often      |
| Very             | Very often |

Of course, these closed questions about necessity and use of the mentioned services only give an idea of what the exact tenants needs are. Therefore, open questions about demanded services for every of the five before mentioned categories are also asked to determine possible other not yet mentioned services that are not part of Kennispark's current service portfolio but are considered needed by tenants.

The theoretical framework already addressed the role of innovation at Business Parks. Driving innovation certainly is something that the Kennispark tries to do through its service portfolio. Therefore, it is interesting to determine the relation between innovation sources that companies use to innovate and services offered by stichting Kennispark. The Community Innovation Survey (CIS IV, 2004) offers a survey design that is used before to, amongst others, determine which sources of innovation are used to innovate. Because this question design has already proven to work in practice, it is used in this survey at the Kennispark as well. The specific questions distinguish the following sources of innovation:

- Own organisation
- Suppliers
- Customers
- Competitors
- Consultants
- Universiteit Twente
- Conferences and trade fairs
- Scientific publications

- Industry associations

To test whether the survey would work as expected in practice, following the statement of Jack & Clarke (1998) the survey was sent to a pilot sample of 2 companies to check reliability and validity before assessing the total research sample. After these companies filled in the survey, they were asked how they experienced the questions. The response from the pilot sample did not give any reasons to change the intended survey. Appendix 7.1 shows the complete survey.

The e-mail invitation that was sent to the research sample is shown in appendix 7.2. The web-survey itself is presented at [www.kennispark2020.nl](http://www.kennispark2020.nl) because the tenants help developing the Kennispark of the year 2020 by filling in the survey. Also, the tenants can choose to be part of a wall of fame with their logo and link presented at the Kennispark 2020 website. This wall of fame creates a form of social pressure to participate because all of the 'co-developers' of Kennispark 2020 are made visible. In an attempt to further raise the response rate, respondents had a chance to win prizes and a reminder was sent twice to non-respondents. A screenshot of the website [www.kennispark2020.nl](http://www.kennispark2020.nl) including a piece of the wall of fame is shown in appendix 7.3.

Concluding it can be said that this first part of the research results in a database of all the companies located at the Kennispark Twente characterized by sector, size, turnover, legal form and age. Furthermore, the survey generates data about what the tenants think about the necessity and use of the offered services. Furthermore, also insights are gained about other possible services that companies do consider needed but are not (yet) offered by stichting Kennispark.

### **3.2. Research at Vision Park Apeldoorn**

The set of data gathered from the companies that are situated at the Kennispark Twente gives insights in the demands of so-called on-park companies (Westhead & Batstone, 1999). The data from this first part of the research has focussed on the use and necessity of services within a service portfolio and provides an evaluation of the current Kennispark services. For the second part of the research, the focus is laid on the Vision Park in Apeldoorn. The Vision Park serves as a case of a Business Park that needs further development for both its buildings and the offered service portfolio. In this way, the case of the Vision Park can give insights in the phase of Business Park and service portfolio development.

#### **3.2.1. Potential Vision Park tenants**

In order to broaden the study, the off- (Vision) Park companies in Apeldoorn are also asked for their service demands. This part of the research adds value to the research as a whole because it is crucial to also take off-park companies into account when developing a Business Park service portfolio aimed at both current and potential customers. Furthermore, using two cases instead of one can give



more insights and provides a better foundation to eventually draw conclusions about future service portfolio development.

Data gathering at these companies in Apeldoorn differs from data gathering at companies located at the Kennispark because of the fact that the set of companies at the Kennispark is relatively small compared to the set of companies that can be seen as potential customer for the Vision Park in Apeldoorn. Therefore, in a discussion with Uni-Invest, a selection of companies is made based on the following selection criteria:

- Location within municipality Apeldoorn
- Size of at least 10 employees
- Heavy industry and small retail is excluded

Based on Chamber of Commerce data derived from the company.info database the target group for this research is found. As was the case at Kennispark Twente, a survey here also is an adequate way of gathering data about tenants' needs (Walonick, 1993).

### **3.2.2. Vision Park survey**

Because of certain demands from Uni-Invest, it was not possible to basically use the survey from the Kennispark here as well. As was the case with the Kennispark survey, this survey also was developed in close collaboration with Business Park management to ensure valid results. The survey can globally be divided in two parts. The first part tries to identify some of the tenants' characteristics because Uni-Invest would like to gain knowledge about tenants' current housing for its future customer targeting. Besides questions about amount of parking lots and office space, also questions about demanded services are asked. These open questions try to determine services that are necessary for those companies. Also, it is asked whether certain services at the companies' current location can be improved and if so, how. By asking this, it can be analysed whether the companies in Apeldoorn maybe also need services that were considered as necessary at the Kennispark.

The survey concludes with a conjoint question with the following attributes and levels to determine the services that are most important to the potential tenants (SPSS Inc., 2005). Gustafsson, Herman & Huber (2007) state in their book Conjoint Measurement that conjoint analysis is a good way of determining the real preferences by letting respondents choose between alternatives. In this case, conjoint analysis is used to determine the services that respondents in Apeldoorn prefer to have access to at a Business Park.

Table 4: Attributes and levels used for conjoint analysis

| Attribute         | Levels                         |
|-------------------|--------------------------------|
| Eating facilities | (none, lunchroom, restaurant)  |
| Sport facilities  | (none, fitness)                |
| Security          | (none, secured)                |
| Business support  | (none, help for entrepreneurs) |
| Interaction       | (none, networking events)      |

The complete survey is shown in appendix 7.4.

As was the case at with the Kennispark survey, e-mail addresses of the target companies were looked up through the company.info database and websites of the specific companies themselves, which resulted in a target group of 288 companies with a known e-mail address. These companies were invited by e-mail to cooperate with the research by answering the survey questions through the website [www.visionpark.nl](http://www.visionpark.nl). This website also contains a wall of fame with logo's and links of companies that filled in the survey to thank those respondents. The e-mail invitation is shown in appendix 7.5 and a screenshot of this website is shown in appendix 7.6. Response was stimulated by again rewarding a prize and by getting attention through Twitter and LinkedIn. As a final attempt, reminders were sent to the target companies that did not fill in the survey yet.

### 3.3. Ecofactorij Park management

So far, the Business Park management of the Kennispark is the only mentioned case in this research in which a service portfolio is analysed. Because the Vision Park is still in the progress of developing such a portfolio (based on this research), another Business Park management serves as a case in Apeldoorn. Business Park management of 'De Ecofactorij' is interviewed as example of how a service portfolio in Apeldoorn can look like. De Ecofactorij is a specific choice based on the fact that Vision Park management thinks of De Ecofactorij as its biggest competitor. The interview held at De Ecofactorij is of a directive form to determine the service portfolio at De Ecofactorij and to analyse how this portfolio was developed.

### 3.4. Data analysis

The described research method results in data about service demands and (sources of) innovation. This data is statistically analysed by using SPSS to gather knowledge about service offerings, demands and the link to innovation. First of all, data is used to determine the representativeness of the used population in comparison with all of the (potential) tenants at the Kennispark and the Vision Park. Furthermore by also using data from the database of companies, links to number of employees, sector and company age can be made. All of these parts of the analysis have the eventual goal to contribute to existing literature about the

development of service portfolios. Specifically, the following propositions are researched by analysing the corresponding relations.

Table 5: Relations that are to be tested in the results chapter

| Proposition                                                                                                                                                   | What should be tested?                                                                                 | How?                                                                                                             |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------|
| <b>1:</b> “Knowledge-based businesses require different services in different stages of evolution”                                                            | Relation between necessity for services and age/size                                                   | Mann-Whitney U Test, Spearman’s Rank correlation                                                                 |
| <b>2:</b> “Business Parks tend to house clusters of businesses active in the same sector”                                                                     | Type of industry of the tenants, comparison of numbers per sector                                      | Frequency tables                                                                                                 |
| <b>3:</b> “Necessity for services is dependent on the type of industry the company is active in”                                                              | Relation between industry type and necessity for certain services.                                     | Compare modes on use/necessity of each service between all companies and companies from a specific industry type |
| <b>4:</b> “Newer generation incubator services (like network access and business support) are more used by younger companies than older companies”            | Relation between age of companies and use of business support and network access?                      | Analyse correlation between age of companies and use of business support/network access                          |
| <b>5:</b> “Since offered services are a representation of tenants’ needs, the necessity for offered services is comparable to the use of them”                | Relation between use and necessity of all the individual services                                      | Analyse correlations between use and necessity of services with Spearman’s Rank correlation                      |
| <b>6:</b> “Science Park service portfolios do not facilitate the linkage between commercial enterprises and academic research to eventually drive innovation” | Relation between use of a specific service and the use of UT/academic research as source of innovation | Spearman’s Rank correlation between use of services and use of UT as innovation source, analysis of modes        |
| <b>7:</b> “Small companies are more dependent on academic linkages to drive innovation than larger companies”                                                 | Relation between company size and the use of UT/Academic research as source of innovation              | Mann-Whitney U Test, Mean descriptives                                                                           |

Considering the earlier mentioned role of innovation, correlation and Shapiro-Wilk tests are used to identify the driving forces behind innovation within Kennispark tenants. In this way it is possible to determine certain services that in a way can result in innovation.

As stated by Chan & Lau (2005), service needs of companies depend on the different stages that a company cycles through. Therefore, analysis should also focus on researching the relationship between company age, size and the necessity for certain services. This relationship is analysed by using correlation and nonparametric comparative means tests.





## 4. Results



## 4. Results

The previous chapters about the research method and the theoretical background already discussed key propositions about research subjects that are important to answer the research question. These numbered propositions need to be statistically analysed in this chapter to eventually be able to discuss conclusions from the surveys held at the Kennispark Twente and Vision Park Apeldoorn.

### 4.1. Research sample Kennispark

The results of the survey are presented here in order to present data about tenants' needs at the Kennispark Twente. First of all, the response is summarized in the following table:

Table 6: Survey response

| <b>All tenants</b> | <b>Tenants with known e-mail</b> | <b>Undelivered e-mails</b> | <b>Respondents that started the survey</b> | <b>Respondents that completed the survey</b> | <b>Response rate</b>          |
|--------------------|----------------------------------|----------------------------|--------------------------------------------|----------------------------------------------|-------------------------------|
| 433                | 234                              | 9                          | 67                                         | 55                                           | (55/225)*<br>100% =<br>24,44% |

To determine whether this 24,44% gives a good representation of all the Kennispark tenants as a whole, it is analysed whether the total population is comparable with the sample on the variables age and number of employees. By showing the means on age and number of employees for the total population and the survey sample a comparison can be made to determine if the sample is a valid representation.

Table 7: Compared means on number of employees

| <b>Group</b>                         | <b>Mean on 'number of employees'</b> | <b>Standard deviation</b> |
|--------------------------------------|--------------------------------------|---------------------------|
| <b>Survey sample (N=62)</b>          | 16,2                                 | 47,074                    |
| <b>Kennispark population (N=433)</b> | 14,0                                 | 129,581                   |

Table 8: Compared means on age

| <b>Group</b>                         | <b>Mean on 'age'</b> | <b>Standard deviation</b> |
|--------------------------------------|----------------------|---------------------------|
| <b>Survey sample (N=62)</b>          | 9,6                  | 7,881                     |
| <b>Kennispark population (N=433)</b> | 10,7                 | 14,338                    |

As shown, means on number of employees and age between survey sample and Kennispark population are comparable and therefore the survey sample in this case can be seen as a valid representation for the Kennispark population as a whole.

#### 4.1.1. Comparing use and necessity

To gain knowledge about the necessity and use of the thirteen different services that stichting Kennispark offers, an analysis of the responses to these questions is made by looking at the mode of the use and necessity for each service.

Table 9: Mode on necessity and use of the thirteen services

| Service                  | Mode on necessity | Mode on use |
|--------------------------|-------------------|-------------|
| <b>Talent</b>            | 4                 | 4           |
| <b>Events</b>            | 3                 | 2           |
| <b>Finance</b>           | 1                 | 1           |
| <b>Training</b>          | 3                 | 1           |
| <b>Development</b>       | 3                 | 1           |
| <b>Ventures</b>          | 2                 | 1           |
| <b>Kennisvraag.nl</b>    | 2                 | 1           |
| <b>Labs</b>              | 1                 | 1           |
| <b>Coaching</b>          | 3                 | 1           |
| <b>Eating facilities</b> | 3                 | 4           |
| <b>Parking spaces</b>    | 3                 | 4           |
| <b>Sports facilities</b> | 2                 | 1           |
| <b>Housing</b>           | 3                 | 3           |

It is now interesting to look at high and low scores from table 9 to be able to for example determine if there are services that are clearly not used and thus are to be further researched to answer the question of whether this service should be in the service portfolio. Based on the modes on necessity and use from table 9, four groups can be identified when stating that a mode is low on a score of 1 or 2 and high on a score of 4 or 5:

Table 10: Groups of services based on high/low modes

|                               | High mode on use | Low mode on use                                               |
|-------------------------------|------------------|---------------------------------------------------------------|
| <b>High mode on necessity</b> | Talent           |                                                               |
| <b>Low mode on necessity</b>  |                  | Finance, Ventures, Kennisvraag.nl, Labs and Sports facilities |

Frequency tables can clarify if there exist companies that do consider the services that scored low on mode highly used and/or necessary. Therefore, frequencies of the services that scored low on mode of use and also scored low on mode of necessity are displayed hereafter.

Table 11: Frequencies of necessity and use

| Service            |           | None | Below average | Average | Above average | A lot |
|--------------------|-----------|------|---------------|---------|---------------|-------|
| <b>Finance</b>     | Necessity | 17   | 14            | 17      | 8             | 3     |
|                    | Use       | 34   | 10            | 8       | 4             | 0     |
| <b>Ventures</b>    | Necessity | 15   | 19            | 12      | 11            | 2     |
|                    | Use       | 37   | 14            | 3       | 1             | 1     |
| <b>Kennisvraag</b> | Necessity | 17   | 20            | 16      | 3             | 3     |
|                    | Use       | 37   | 12            | 3       | 2             | 2     |
| <b>Labs</b>        | Necessity | 29   | 8             | 7       | 7             | 8     |
|                    | Use       | 38   | 6             | 5       | 3             | 4     |
| <b>Sport</b>       | Necessity | 15   | 20            | 18      | 4             | 2     |
|                    | Use       | 35   | 6             | 14      | 0             | 1     |

As introduced in the research method, the correlation between necessity and use of the thirteen different services is also researched to determine whether for example a service that is considered necessary, also is being used. This also showed up in proposition 5:

*“Since offered services are a representation of tenants’ needs, the necessity for offered services is comparable to the use of them”*

The results from Spearman’s rank correlation test of the thirteen services are shown in table 13. A distinction can be made between high and low significant correlations. According to Calkins (2005), the following distinction between different degrees of correlation can be made:

Table 12: Degree of correlation

|                              |                  |
|------------------------------|------------------|
| <b>Little correlation</b>    | <b>&lt;0,3</b>   |
| <b>Low correlation</b>       | <b>0,3 - 0,5</b> |
| <b>Moderate correlation</b>  | <b>0,5 – 0,7</b> |
| <b>High correlation</b>      | <b>0,7 – 0,9</b> |
| <b>Very high correlation</b> | <b>0,9 - 1</b>   |

Based on the degree of correlation as shown in table 12, the following table shows to what degree the different relations between necessity and use are correlated.

Table 13: Necessity/Use correlations

| Service                   | Spearman's rank correlation coefficient between necessity and use | Degree of correlation |
|---------------------------|-------------------------------------------------------------------|-----------------------|
| <b>Talent</b>             | 0,741**                                                           | High                  |
| <b>Event</b>              | 0,612**                                                           | Moderate              |
| <b>Finance</b>            | 0,618**                                                           | Moderate              |
| <b>Training</b>           | 0,326*                                                            | Low                   |
| <b>Development</b>        | 0,542**                                                           | Moderate              |
| <b>Ventures</b>           | 0,458**                                                           | Low                   |
| <b>Kennisvraag.nl</b>     | 0,621**                                                           | Moderate              |
| <b>Labs</b>               | 0,811**                                                           | High                  |
| <b>Coaching</b>           | 0,488**                                                           | Low                   |
| <b>Eating facilities</b>  | 0,384**                                                           | Low                   |
| <b>Sports facilities</b>  | 0,575**                                                           | Moderate              |
| <b>Housing facilities</b> | 0,778**                                                           | High                  |

\* Correlation is significant at the 0.05 level (2-tailed)

\*\* Correlation is significant at the 0.01 level (2-tailed)

#### 4.1.2. Use and necessity over time

Chan & Lau (2005) mention that service needs of companies can depend on the different stages that a company cycles through, this was stated in proposition 1:

*"Knowledge-based businesses require different services in different stages of evolution"*

Therefore, in order to analyse whether this proposition also holds at the Kennispark, it is tested whether the distribution of the necessity for services offered by stichting Kennispark is the same across categories age of companies. Therefore, companies are split up in two groups based on age (group 1: 0-5 years; group 2: 5 years and older). The Independent-Samples Mann-Whitney U Test delivered the following results:



Table 14: Results Mann-Whitney U tests

| Variable                       | Mean group 1 | Mean group 2 | p-value | Implication                |
|--------------------------------|--------------|--------------|---------|----------------------------|
| Necessity of talent            | 3,50         | 3,77         | 0,228   | Retain 0 hypothesis        |
| Necessity of events            | 2,58         | 2,61         | 0,914   | Retain 0 hypothesis        |
| Necessity of finance           | 2,67         | 2,23         | 0,250   | Retain 0 hypothesis        |
| Necessity of training          | 2,63         | 2,58         | 0,900   | Retain 0 hypothesis        |
| Necessity of development       | 2,37         | 2,39         | 0,986   | Retain 0 hypothesis        |
| Necessity of ventures          | 2,08         | 2,58         | 0,128   | Retain 0 hypothesis        |
| Necessity of kennisvraag       | 1,92         | 2,45         | 0,072   | Retain 0 hypothesis        |
| Necessity of labs              | 1,96         | 2,55         | 0,092   | Retain 0 hypothesis        |
| Necessity of coaching          | 2,67         | 2,58         | 0,893   | Retain 0 hypothesis        |
| Necessity of eating facilities | 2,67         | 3,52         | 0,005*  | <b>Reject</b> 0 hypothesis |
| Necessity of parking           | 3,08         | 3,19         | 0,817   | Retain 0 hypothesis        |
| Necessity of sport             | 2,25         | 2,42         | 0,430   | Retain 0 hypothesis        |
| Necessity of housing           | 3,67         | 3,13         | 0,046*  | <b>Reject</b> 0 hypothesis |

Asymptotic significances are displayed. (significance level is 0.05)

Table 14 shows that only for the services 'eating facilities' and 'housing facilities' the distribution significantly differs between the different groups based on age.

The theoretical background also suggested further research about newer generation incubator services in proposition 4:

*"Newer generation incubator services (like network access and business support) are more used by younger companies than older companies"*

Therefore, the correlation coefficients between age of companies and use of the before mentioned services are determined. Network access and business support are available at the Kennispark through the services 'Kennisvraag' and 'Business Development'.

Table 15: Spearman's rho Correlation coefficients

|                               | Age                                    |
|-------------------------------|----------------------------------------|
| Use of 'Kennismvraag'         | 0,032 (significance 0,822 (2-tailed))  |
| Use of 'Business Development' | -0,079 (significance 0,579 (2-tailed)) |

#### 4.1.3. Industry types

In this paragraph we study facts concerning proposition 2 formulated in the theoretical framework before:

*"Business Parks tend to house clusters of businesses active in the same sector"*

The following table shows the number of companies active in different sector types that are present at the Kennispark.

Table 16: Distribution Kennispark companies amongst sectors

| Sector                                                            | Number of companies | Percentage |
|-------------------------------------------------------------------|---------------------|------------|
| <b>M</b> – Free professions and scientific & technical activities | 102                 | 23,6%      |
| <b>K</b> – Financial activities and insurances                    | 84                  | 19,4%      |
| <b>J</b> – Information and communication                          | 68                  | 15,7%      |
| <b>S</b> – Other services                                         | 34                  | 7,9%       |
| <b>G</b> – Wholesale and retail; repairing cars and motorcycles   | 24                  | 5,6%       |
| <b>C</b> – Industrial                                             | 23                  | 5,3%       |
| <b>P</b> – Education                                              | 22                  | 5,1%       |
| <b>Q</b> – Healthcare and social services                         | 17                  | 3,9%       |
| <b>N</b> – Administrative and supporting services <sup>4</sup>    | 16                  | 3,7%       |
| <b>F</b> – Construction activities                                | 2                   | 0,5%       |
| <b>Total</b>                                                      | 392                 | 100%       |

As shown in table 17, The Kennispark houses businesses that are active in a variety of 10 different sectors. Clearly the main sectors at the Kennispark are 'Free professions and scientific & technical activities', 'Financial activities and insurances' and 'Information and communication'.

Besides looking at distribution amongst industry types, it also is interesting to analyse the distribution of companies amongst other categorizations. Table 18

shows the number of companies active in technology-intensive and knowledge-intensive industries based on their SBI code (Eurostat, 2008).

Table 17: Technology-intensive vs. Knowledge-intensive

| Type of company                             | Number of companies | Percentage  |
|---------------------------------------------|---------------------|-------------|
| Knowledge-intensive industries (M, K, J, P) | 276                 | 92,3%       |
| Technology-intensive industries (C)         | 23                  | 7,7%        |
| <b>Total</b>                                | <b>299</b>          | <b>100%</b> |

It is also tested whether the necessity for services offered by the Kennispark depends on the type of industry the company is active in according to proposition 3:

*“Necessity for services is dependent on the type of industry the company is active in”*

In order to test this, the modes of the necessity for each service per industry type are compared with each other.

Table 18: Modes per industry type

|                                 | Industry types |   |   |   |   |   |   |   |   |   |
|---------------------------------|----------------|---|---|---|---|---|---|---|---|---|
|                                 | M              | K | J | S | G | C | P | Q | N | F |
| <b>Necessity of talent</b>      | 5              | 3 | 4 | 1 | 5 | 4 | 1 | 4 | 2 | 1 |
| <b>Necessity of events</b>      | 3              | 2 | 2 | 2 | 1 | 2 | 2 | 2 | 3 | 3 |
| <b>Necessity of finance</b>     | 1              | 3 | 3 | 1 | 2 | 2 | 1 | 2 | 1 | 1 |
| <b>Necessity of training</b>    | 3              | 3 | 2 | 1 | 2 | 2 | 3 | 3 | 3 | 3 |
| <b>Necessity of development</b> | 3              | 3 | 1 | 1 | 2 | 3 | 2 | 3 | 1 | 2 |
| <b>Necessity of ventures</b>    | 2              | 2 | 1 | 1 | 2 | 3 | 1 | 2 | 1 | 1 |
| <b>Necessity of kennisvraag</b> | 3              | 3 | 1 | 1 | 2 | 3 | 1 | 2 | 1 | 2 |
| <b>Necessity of labs</b>        | 1              | 1 | 1 | 1 | 3 | 5 | 1 | 2 | 1 | 1 |
| <b>Necessity of coaching</b>    | 3              | 3 | 3 | 1 | 3 | 3 | 1 | 3 | 3 | 3 |
| <b>Necessity of eating</b>      | 3              | 4 | 3 | 2 | 3 | 4 | 2 | 4 | 3 | 4 |
| <b>Necessity of parking</b>     | 3              | 3 | 4 | 2 | 3 | 4 | 1 | 4 | 3 | 4 |
| <b>Necessity of sport</b>       | 1              | 2 | 2 | 2 | 3 | 2 | 3 | 2 | 4 | 3 |
| <b>Necessity of housing</b>     | 3              | 3 | 4 | 1 | 4 | 4 | 4 | 5 | 2 | 3 |

#### 4.1.4. Innovation

The research method already discussed that innovation plays a large role at the Kennispark Twente. It is interesting to research if some driving factors of innovation at the Kennispark can be identified. Therefore, statistical analysis is used to determine the relations between certain services, innovation and sources of innovation.

To do so, first of all the main sources of innovation are analysed by developing a frequency table about what companies' main innovation sources are. Table 20 shows the mode from 1 (not used) to 5 (used a lot).

Table 19: Use of innovation sources

| Innovation source       | Mode |
|-------------------------|------|
| Own organisation        | 4    |
| Suppliers               | 3    |
| Customers               | 4    |
| Competitors             | 3    |
| Consultants             | 1    |
| University              | 4    |
| Conferences             | 3    |
| Scientific publications | 1    |
| Trade organizations     | 1    |

N= 45

By using table 20, the main sources of innovation can be identified when stating that sources that scored at least a 4 on mode should be considered as main source. In this way the following three main sources can be distinguished: 'own organisation', 'customers' and 'university'.

Now that these three main sources are identified, it is tried to research whether these sources show correlation with the use of certain services corresponding with proposition 6:

*"Science Park service portfolios do not facilitate the linkage between commercial enterprises and academic research to eventually drive innovation"*

In this way it can be determined if certain specific services can drive the main innovation sources and thus innovation as such. To do so, Spearman's rho is calculated (because this case is non-parametric and compares ordinal scale variables with other ordinal scale variables) by using SPSS. In this way, the correlation between each innovation source and all of the thirteen services is calculated to determine the services that drive innovation most.

Table 20: Correlation between services and innovation sources

| <b>Innovation sources</b> | Organisation | Customers | University |
|---------------------------|--------------|-----------|------------|
| <b>Services</b>           |              |           |            |
| Use of Talent             | 0,084        | 0,099     | 0,495**    |
| Use of Events             | -0,006       | 0,193     | 0,336*     |
| Use of Finance            | -0,054       | 0,190     | 0,290      |
| Use of Training           | -0,116       | 0,084     | 0,090      |
| Use of Development        | -0,137       | -0,031    | 0,327*     |
| Use of Ventures           | -0,243       | 0,191     | 0,139      |
| Use of Kennisvraag        | -0,092       | -0,028    | 0,012      |
| Use of Labs               | -0,243       | 0,116     | 0,313      |
| Use of Coaching           | -0,109       | 0,049     | 0,068      |
| Use of Eating facilities  | 0,122        | 0,455**   | 0,299      |
| Use of Parking space      | -0,258       | 0,362     | 0,226      |
| Use of Sports facilities  | -0,157       | -0,224    | 0,125      |
| Use of Housing            | 0,027        | 0,075     | 0,150      |

\*\* Correlation is significant at the 0.01 level (2-tailed)

\* Correlation is significant at the 0.05 level (2-tailed)

The theoretical background also mentioned proposition 7:

*“Small companies are more dependent on academic linkages to drive innovation than larger companies”*

Through applying the Mann-Whitney U test, it is tested whether the distribution of the use of the university as innovation source is the same across categories of size (category 1: 0-5 employees; category 2: more than 5 employees).



Table 21: Results Mann-Whitney U test

| Null hypothesis                                                                   | Test                                    | Significance | Decision               |
|-----------------------------------------------------------------------------------|-----------------------------------------|--------------|------------------------|
| <b>The distribution of inno_ut is the same across categories of size</b>          | Independent samples Mann-Whitney U test | 0,345        | Retain null hypothesis |
| <b>The distribution of inno_publicaties is the same across categories of size</b> | Independent samples Mann-Whitney U test | 0,750        | Retain null hypothesis |

## 4.2. Research sample Vision Park

The second part of the research took place at the Vision Park in Apeldoorn. The research method described how a target group for a survey was selected and how the survey was developed. The results are analysed to gain knowledge about which facilities are wanted at a Business Park and what the demands of potential tenants look like in the near future. Furthermore, the Business Park Management of two other Business Parks in Apeldoorn are interviewed to gather information about how those Business Parks develop their service portfolios and how they determine the needs of (potential) tenants.

The Vision Park now is mostly uninhabited, this might be caused by the fact that the park clearly is in need of revitalization. As Van Dijk & Pellenbarg (1999) stated, this is a potential driver for companies to move. Uni-Invest therefore wants to revitalize the Vision Park based on the survey results.

Besides gaining knowledge in location needs of these companies, Uni-Invest also would like to identify the willingness to move of these companies because these are possible leads to new hire contracts. The target population consists of 288 companies with at least 10 employees.

Table 22: Survey response

| Target population | Undelivered e-mails | Respondents that completed the survey | Response rate             |
|-------------------|---------------------|---------------------------------------|---------------------------|
| 288               | 2                   | 16                                    | (16/286)*<br>100% = 5,59% |

The fact that this response rate is lower than it was with Kennispark survey was expected because this invitation was sent to companies who for the most part do not have a linkage with the University of Twente or Vision Park and thus are less motivated to cooperate than the Kennispark companies.

To test whether the survey sample can represent the target population, the means on age and number of employees of both the survey sample and the target population are given in tables 24 and 25.

Table 23: Means on number of employees

| Group                          | Mean on 'number of employees' |
|--------------------------------|-------------------------------|
| Survey sample (N=16)           | 34,8                          |
| Vision Park population (N=288) | 57,6                          |

Table 24: Means on age

| Group                          | Mean on 'age' |
|--------------------------------|---------------|
| Survey sample (N=16)           | 16,4          |
| Vision Park population (N=288) | 26            |

#### 4.2.1. Conjoint analysis

The survey that was held in Apeldoorn partly consisted of a couple conjoint questions in order to determine the real demands of the respondents. The corresponding relative importance that was given to the mentioned attributes is shown in table 26.

Table 25: Conjoint analysis results

| Attribute         | Relative Importance |
|-------------------|---------------------|
| Eating facilities | 46,35%              |
| Sport facilities  | 0,25%               |
| Security          | 46,36%              |
| Business support  | 0,75%               |
| Interaction       | 6,29%               |

It is clear that both eating facilities and security come up as relatively most important services compared to the other mentioned services. Some interest also seems to be focussed on interaction but the services 'sport facilities' and 'business support' are clearly not demanded at all with a relative importance of less than 1%.

#### 4.2.2. Business Park De Ecofactorij

Because the Vision Park is located in Apeldoorn, it is interesting to analyse other Business Parks in the region to get familiar with the other possible business locations that regional companies can choose for. Furthermore, it may well be that the region has specific characteristics that can be used in the development of a service portfolio.

Business Park De Ecofactorij is founded by the municipality of Apeldoorn as an answer to the growing demand for sustainable business locations. De Ecofactorij started as a cluster of a few companies who were looking for a new sustainable business location in Apeldoorn. The owners of these companies were obliged to participate in the cooperation Ecofactorij, which is directed by one of the

business owners at De Ecofactorij. Both the cooperation and the municipality wanted to create a Business Park manager to arrange services for the park. Therefore, since a couple years Fons Bouwhuis is assigned to be this Business Park manager.

When it comes to developing a service portfolio, De Ecofactorij is still in the beginning of this development. For years now, the Business Park has focussed on a sustainable environment friendly energy supply by developing a private energy network. The development of this network has cost a lot of money and time and still, the Business Park manager is very busy with arranging the development of several windmills. Because of the efforts made for the energy supply, for now the Business Park Manager cannot focus on more extra services. To benefit from this case, a couple statements can be made to keep in mind when developing service portfolios in general:

- Creating a private energy network can be beneficial if it is used enough by the park's tenants but a lot of time and money has to be invested in it so it might be better to focus on this when other services are already present. In the case of the Ecofactorij it turns out that companies appreciate the existence of a private energy network for sustainable entrepreneurship but they also believe there is a lack of other services. Other, more basic services, like security and lunch facilities are not present but tenants would really like to see these kinds of facilities. This implies that basic services should be taken care of first before further developing the service portfolio with these kinds of 'extras'.
- At Business Park De Ecofactorij, all of the tenants are obliged to participate in the cooperation Ecofactorij that acts as a spokesperson to the Business Park manager. Participating in this cooperation results in the fact that all of the tenants have something to say about the development of the service portfolio. This way of making tenants part of the service portfolio development process can result in a service portfolio that exactly represents the tenants' demands and thus caters tenants' needs. Furthermore, as stated by Westhead & Batstone (1999), it is important for Business Park Management to frequently communicate with its tenants. The obliged cooperation participation ensures this frequent communication.
- Tenants themselves can also facilitate services that can be part of the service portfolio of the Business Park as a whole. In the case of De Ecofactorij, the Business Park manager is trying to use the heat produced by one company as energy for other tenants. Again, letting the tenants participate in the service portfolio development can result in being able to offer additional services.



## 5. Discussion and Conclusion



## **5. Discussion and Conclusion**

This chapter is all about discussing the most interesting findings that the results gave us, and concluding with an answer to the research question. Chapter four already summed up the survey results by statistically testing propositions that were mentioned in the theoretical background. Now, the results of these statistical tests and its implications are further discussed per subject here.

### **5.1. Discussion**

Analysis amongst Kennispark companies makes clear that all inhabitants can see the advantages of being part of a managed Business Park instead of a plain property development as defined by the UKSPA. There was no evidence of companies that prefer to move to a non-managed location. Based on this fact and Westhead (1999) it can be stated that it is important for Business Park management to actively manage and market their service portfolio. The services offered by Business Park management should consist of more than solely the property function of a Business Park. To ensure an effective service portfolio, marketing the portfolio to current and new tenants is needed so that inhabitants are familiar with the portfolio that should suit their service needs.

#### **5.1.1. Comparing use and necessity**

Comparing use and necessity is meaningful to analyse the fit between offered services and service needs that companies at the Kennispark have. The services 'finance', 'ventures', 'kennisvraag', 'labs' and 'sports facilities' clearly are not considered necessary nor are used since their mode is 2 or less. These low modes can mean that stichting Kennispark is better off without these services in its service portfolio. However, it can also be caused by the fact that certain services are aimed at a specific small target group of companies and thus are not used or considered necessary by the companies outside the small target group. It can for example be assumed that only a specific group of companies could make use of labs for company related activities. It could well be that there thus exists a small group of companies that is dependent on lab use, which should imply for stichting Kennispark to keep this service in its service portfolio.

Based on table 11 it can be concluded that the prediction that there exists a small group of companies that does depend on the use of lab facilities seems valid. There are 8 companies that consider labs very necessary and 4 that use labs very often. These groups of 8 and 4 out of 234 are considered to be large enough to keep the service in the service portfolio. When it comes to the other four analysed services however, it can be stated that amounts of 1 to 3 companies that use and/or consider the services necessary are very small. This implies that stichting Kennispark should consider to not put any efforts into the services 'finance', 'ventures', 'kennisvraag' and 'sports facilities' anymore. Further analysis about costs of maintaining those services should eventually determine



whether they have to be removed from the service portfolio to prevent unnecessary costs.

As table 13 shows, all of the thirteen services show positive correlation between its necessity and use to a certain extent. This implies that if for example the necessity for talent from the university is considered high, the use of this talent probably also is high. In table 12, a distinction between the degrees of correlation is stated. The services 'Training', 'Ventures', 'Coaching' and 'Eating facilities' show a low correlation between use and necessity, implying that these four services need further analysis in order to determine whether stichting Kennispark should put effort in maintaining these services.

According to Kennispark's account manager, service portfolio management in practice means a lot of customized service offerings. A lot comes down to networking between stichting Kennispark and Kennispark's inhabitants. Companies mention that they appreciate the possibility of being able to contact an account manager that tries to come up with individual service solutions. However, the results show that several companies miss out on potentially beneficial service offerings since they simply do not know that stichting Kennispark does offer certain customized services.

The surveys and interviews also revealed some possible new services that are demanded by some companies. Business Park management of de Ecofactorij for example mentions the potential benefits of private energy supply initiatives by Business Park management. Especially for larger industrial companies that use a lot of energy can benefit from a private energy supply through for example windmills. However, the interview also made clear that in practice it takes too much time for the Business Park management to arrange such a service and therefore it should not put effort in such an initiative if it takes time at the expense of other services. Other mentioned services that can be taken in consideration are: Better connection with transport (airports, intercity trains) and periodical social meetings. Since multiple companies mention these services, stichting Kennispark should analyse if they can facilitate these. To conclude, it can be beneficial to use companies' facilities for services offered in the service portfolio. In some cases, companies have certain facilities available, like labs, that can be used by other companies at the Business Park. Business Park management should then act as mediator to develop these facilities into a part of the service portfolio.

### **5.1.2. Use and necessity over time**

Analysis of use and necessity over time can determine the potential benefits of adapting service portfolios to certain company characteristics, since UKSPA stated that adapting services to the evolution of companies ensures better performance of those companies. Statistical analysis showed us that the necessity of 'eating facilities' is lower for young companies (0-5 years) than older companies (older than 5 years). In contrary, the necessity for 'housing facilities' is higher for young companies than for older companies. The reason for this

difference could lie in the fact that younger companies feel the necessity for housing since they are not able to for example buy or build their own building. Also, younger companies might less think that eating facilities are necessary since those companies are smaller and thus it is easier for everyone to for example bring their own lunch. Bruneel, Ratinho, Clarysse & Groen (2010) made a comparable statement about housing facilities without mentioning adaptation of the service itself as a chance for creating more necessity amongst the older companies. Housing and eating facilities offered by Business Park management can be adapted to the age of the tenant by for example offering large flexible office spaces that can fulfil an upcoming trend: home-based working.

Service portfolios also change over time resulting in different generations of business incubators. The correlation coefficients between use of newer generation services and age of companies do not prove that those specific services are more used by younger companies. Thus, data from the Kennispark survey suggests that there is no difference in use of newer generation services between younger companies and companies older than 5 years.

The newer generation business service 'business support' also was part of the conjoint analysis that took place at the Vision Park. Here it turned out that there clearly was no demand for this service. Based on this fact and the Kennispark data on use of newer generation services it can be stated that these newer generation services in this case are not really used by companies, regardless of the age of those companies. Since the Kennispark companies do consider these services necessary, the services themselves should be analysed for further improvement. In general, an important lesson can be learned here when it comes to newer generation business services. It turns out that in our examples, the newer generation services were not used much. So, Adaptation of newer generation services is something to keep in mind to seek for continuous service portfolio innovation. However, before adapting a new service into the portfolio it should be thoroughly analysed how to adapt the service to a specific Business Park and whether companies see the benefits in the new services before simply copying a service from newer generation incubators.

Since it now can be assumed that there exist some differences in service needs concerning the age of companies, it raises the question of whether there should exist different portfolios aimed at for example the specific age of a company. Also, the theoretical background made clear that there are certain benefits of maintaining a healthy mix of companies as tenant instead of developing a service portfolio that only suits for example companies from 0 to 5 years. Therefore, for profits' and development's sake, Business Park management should develop flexible service portfolios that can be adjusted to the stage a company finds itself in. Offering a 'start-up' service portfolio to companies from 0-5 years ensures an incubation ambiance that drives the growth of start-ups from for example the adjacent university, while also offering a 'mature' service portfolio aimed at companies that require other services like more eating facilities and less housing facilities (as the results at the Kennispark showed us).

One could suggest that flexible service portfolios are already present at the Kennispark since there exist services that suit both the needs of younger and older companies. This is true for a fact, however the response of Kennispark companies made clear that a lot of companies would like to see services that in their eyes are new but in fact are already part of the service portfolio. This finding roughly can imply two important things: Stichting Kennispark did communicate the existence of these services but the companies are just ignorant, or stichting Kennispark did not effectively communicate the service portfolio. In practice, better service portfolio marketing can prevent both causes from taking place. If flexible service portfolios are offered according to the tenants' characteristics, this ensures the companies attention since it should feel a connection with a portfolio specifically aimed at them (preventing ignorance). On the other hand, it is an improved way of marketing the service portfolio in a right way (preventing ineffective communication).

Customized service portfolios can go even further by for example starting with offering a service portfolio with some basic 'need to have' services. Both Kennispark and Vision Park results show that the following services can be typified as basic needs since a lot of companies find them necessary and use them: Housing, Parking, Eating and Talent. To complement this 'need to have' service portfolio, the service portfolio can be customized with 'nice to have' services that Business Park management can offer.

### **5.1.3. Industry types**

Analysis of the different sectors the companies at the Kennispark are active in shows three major sectors that are present at the Kennispark: 'Free professions and scientific & technical activities' (23,6%), 'Financial activities and insurances' (19,4%) and 'Information and communication' (15,7%). Especially the largest sector 'Free professions and scientific & technical activities' can be logically explained since stichting Kennispark's goal is to stimulate the start up of firms based on knowledge from the adjacent university. This is also reflected in the fact that 92,3% of the Kennispark companies can be typified as knowledge-intensive. Therefore, it is not surprising that these types of companies turn out to be the largest sector at the Kennispark.

Now that the primary sectors are known, it is interesting to see whether there are differences in necessity for services between the different sectors. Table 18 showed us that the necessity for services is dependent on the industry a company is active in. Flexible service portfolios can act as solution for this as well. It is for example an opportunity to offer a company a flexible service portfolio partly based on the industry its active in. Regarding the flexibility of the portfolio it is then possible to further customize this offered portfolio to specific demands. If Business Park management offers a service portfolio based on the specific industry a company is active in, this improves the connection that a company feels with Business Park management, eventually resulting in a more effective service portfolio.

One of the perceived benefits that a Business Park offers is networking between the companies that are present at a Business Park. It can be assumed that networking can be particularly beneficial for companies that are active in the same sector. Therefore, companies that are (almost) the only one present at a Business Park active in a specific sector cannot really benefit from networking. This implies that Business Park management should actively take the gatekeeper role to ensure that only companies that can benefit from current tenants are allowed onto the Business Park. Acting as gatekeeper should be seen as a facilitating factor in order to ensure an effective service portfolio. This corresponds with the suggestion from Hackett & Dilts (2004) to use gatekeeping to target your service portfolio at the right targets.

In practice, acting as gatekeeper is not as easy as it sounds. Often there are a lot of other stakeholders that do not profit of a gatekeeping role of the Business Park management. Take for example the municipality that doesn't like the sight of buildings that are for sale or rent because the gatekeeper rejected a certain company because of the industry it is active in. Kennispark data shows that there already exists a certain natural gatekeeping process to some extent. The presence of the university for example drives the number of companies active in the 'Free professions and scientific & technical activities' industry. So, to improve a suitable environment for the service portfolio, a slight gatekeeping role of the Business Park management will do. The gatekeeper should only prevent companies from settling if two things are the case: The Business Park cannot benefit from the companies' presence and the company cannot benefit from being a tenant at the Business Park.

#### **5.1.4. Innovation**

Analysis of the use of different sources of innovation revealed that the Kennispark companies use three main sources of innovation: 'own organisation', 'customers' and 'university'. First of all this suggests that Business Park management should consider 'customers' and 'university' as important stakeholders concerning the service portfolio. Therefore, Business Park management should not only focus its service portfolio at tenants but also at tenants' customers and the university to drive innovation.

Now, it is interesting to discuss possible correlations between the three mainly used sources of innovation and the use of specific services. As it turns out, the university as innovation source is positively correlated with 'use of talent', 'use of events' and 'use of development'. Furthermore, the use of customers as innovation source is positively correlated with 'use of eating facilities'. What can these positive correlations tell us? The fact that 'use of talent' show correlation with the university as innovation source is not completely surprising because the talents come from the university. In general, it can be stated that services that show positive correlation with the innovation sources are driving the use of a certain innovation source and thus innovation as such. Subsequently, stichting Kennispark should maintain these services that drive innovation since stichting Kennispark aims at contributing to innovation. Besides, there is a lot of evidence

that proves the benefits of linking companies with a Higher Educational Institution (HEI) not only for innovation's sake, therefore the service portfolio should consist services like 'talent' that are based on HEI-linkage.

Quintas, Wield & Massey (1992) suggested a possible dependency of smaller companies on innovation through academic linkages. The results showed that when the respondents were split up in groups based on age (group 1: 0-5 years; group 2: older than 5 years), there was no significant difference when it comes to the distribution of the use of the university as innovation source. Therefore, the previous proposition cannot be proven with Kennispark data. What can we learn from this? This finding implies that larger companies are just as dependent on the university as innovation source as small companies, since research of proposition 6 earlier made clear that there are offered services that eventually drive innovation. Stichting Kennispark should acknowledge this by clearly stimulating links between larger companies and the university as well, they should not only focus on small companies when it comes to stimulating innovation through university knowledge.



### 5.1.5. Conclusion

To conclude, the statistically found answers to the propositions are summed up and the research question is answered:

Table 26: Answering the propositions

|   | Proposition                                                                                                                                         | Findings                                                                                                                                          |
|---|-----------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------|
| 1 | “Knowledge-based businesses require different services in different stages of evolution”                                                            | Generally no, but for the services ‘housing facilities’ and ‘eating facilities’ this proposition holds                                            |
| 2 | “Business Parks tend to house clusters of businesses active in the same sector”                                                                     | Yes, in the Kennispark’s case there clearly are three main sectors                                                                                |
| 3 | “Necessity for services is dependent on the type of industry the company is active in”                                                              | Yes                                                                                                                                               |
| 4 | “Newer generation incubator services (like network access and business support) are more used by younger companies than older companies”            | No, there is no evidence found that suggests so                                                                                                   |
| 5 | “Since offered services are a representation of tenants’ needs, the necessity for offered services is comparable to the use of them”                | Yes, a positive correlation is found between the use and necessity of all services                                                                |
| 6 | “Science Park service portfolios do not facilitate the linkage between commercial enterprises and academic research to eventually drive innovation” | No, a positive correlation was found between three Kennispark services and the university as source of innovation                                 |
| 7 | “Small companies are more dependent on academic linkages to drive innovation than larger companies”                                                 | No, there was no significant difference found in the use of the university or publications as innovation source between small and large companies |

The research question that was formed in the first chapter was:

*“How can Business Park service portfolios be developed to cater tenants’ needs?”*

It is hard to give a short answer with general validity since every Business Park is different and thus demands a different solution for a service portfolio that caters tenants’ needs. However, flexible service portfolios are the solution here for Business Park management to be able to cater tenants’ needs best. These flexible service portfolios should be offered to tenants based on their age, industry type and special needs. In practice, this implies presenting a company a customized service portfolio that is specifically developed to cater that companies’ needs. Every service portfolio should first be based on the following basic service needs: Housing, Parking, Eating and Talent.

To further develop the service portfolio, the basic service needs are complemented by age-related and industry-related services that are considered necessary by the company based on companies with a comparable age or industry. To complete the service portfolio, an interview between representatives of the company and Business Park management should identify further special needs. Business Park management should consider whether these special needs can be fulfilled or not. This results in a customized service portfolio based on age, industry type and special needs that should be adapted through time by periodic communication between Business Park management and the company. In this way, flexible service portfolios ensure a right fit between companies' needs and Business Park offerings. It also ensures that this fit will continue to exist resulting in a healthy mix of young and old companies that benefit from each other and the Business Park.

In practice, this customized service portfolio can be presented by interactively visualizing the potential benefits that Business Incubators can offer to specific companies based on their characteristics. Making a digital web-based map that represents the companies' current location can draw the attention of companies. Such an interactive map can then digitally visualize potential benefits of customized services like security fences that can be offered.

## **5.2. Limitations and further research**

Besides the importance of the previous conclusions, it is just so important to clearly state the framework of the research and its limitations. Furthermore, based on these limitations some suggestions for further research can be made to make the implications of this research even greater.

First of all, we reflect back on some limitations that were already discussed in the introductory chapter. As was already discussed there, the fact that the research took place in Apeldoorn and Enschede implies that the results may not be directly applicable to other regions/countries. Every Business Park has its unique characteristics and thus should Business Park management always consider these local characteristics before plainly implementing our conclusion. It could well be that service needs depend on geographic location. Future research should aim at identifying these differences and ways of dealing with them.

The conclusion states that better targeting and adaptation of service portfolios to individual tenants is needed. However, it is not researched which forms of marketing should be used to offer these customized service portfolios. It is suggested that a web-based interactive map can visualize and attract (potential) tenants. Further research should be undertaken to determine the best way of marketing these custom-made portfolios to (potential) tenants.

Finally, it is interesting to further research the benefits of the implications of this research. It should be tested what the exact consequences are when Business Incubators start developing their service portfolio using the here concluded

solution of customized portfolios. It is especially interesting to determine whether these customized service portfolios positively influence tenants' performance. These results could contribute to existing literature about the performance of on- versus off-park companies.



## 6. References



## 6. References

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## 7. Appendix



## 7. Appendix

### 7.1. Survey Kennispark Twente

**Kennispark**

1.

**\* 1. Vragen ten behoeve van ontwikkeling Kennispark 2020**

Deze vragenlijst is opgesteld om een bijdrage te leveren aan het dienstenaanbod van de stichting Kennispark.

Om uw bedrijfslogo na deelname weer te kunnen geven op de wall of fame dient u hier de betreffende bedrijfsnaam te vermelden:

**Wat is de naam van uw bedrijf?**

**2. Wat is uw functie binnen het bedrijf?**

**\* 3. Hier kunt u aangeven of u na deelname opgenomen wenst te worden met uw bedrijfslogo op de wall of fame**

☐ Ik wil wel op de wall of fame ☐ Ik wil niet op de wall of fame

## Kennispark

2.

**1. Stichting Kennispark richt zich op het werk maken van kennis. In die rol worden in verschillende categorieën een aantal diensten aangeboden door het Kennispark.**

**Kunt u het belang aangeven van de volgende algemene categorieën van dienstverlening bij de keuze voor een bedrijfslocatie? Dit kunt u doen door de categorieën te rangschikken waarbij 1 het belangrijkste is en 5 het onbelangrijkst. (slechts 1 keuze per kolom mogelijk)**

|                                                                              | 1                     | 2                     | 3                     | 4                     | 5                     |
|------------------------------------------------------------------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| Kennis voorzieningen (bijv. aanwezigheid Universiteit)                       | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Netwerk voorzieningen (bijv. toegang tot financiers)                         | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Infrastructuur voorzieningen (bijv. indeling kantoorruimte)                  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Bedrijfsondersteunende voorzieningen (bijv. hulp bij ondernemen)             | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Interactie voorzieningen (bijv. ontmoetingsevenementen met andere bedrijven) | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

1. De volgende vragen richten zich op de noodzaak en het gebruik van deze diensten. Vervolgens kunt u ook aangeven of de diensten bevredigend zijn en wat uw eventuele gewenste diensten zijn.

Kunt u aangeven in hoeverre de volgende diensten noodzakelijk zijn voor uw bedrijf?

|                                                                                                                                                                   | niet                  | benedengemiddeld      | gemiddeld             | bovengemiddeld        | zeer                  |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| Talent van de Universiteit Twente (bijv. studenten als toekomstig werknemer)                                                                                      | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Evenementen                                                                                                                                                       | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Financiële ondersteuning (bijv. TOP regeling, Meesters v.d. Toekomst)                                                                                             | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Training voor ondernemers                                                                                                                                         | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Business development team                                                                                                                                         | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Het initiëren van joint ventures tussen bedrijven en kennisinstellingen (hier zijn bijv. Centre 4 Cloud en Thermo Plastic Composite Research Centre uit ontstaan) | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Kennisvraag.nl                                                                                                                                                    | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Labfaciliteiten (bijv. Nanolab, Smart Xperience lab)                                                                                                              | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Coaching voor ondernemers (begeleiding bij ondernemen)                                                                                                            | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Eetgelegenheid                                                                                                                                                    | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Parkeerfaciliteiten                                                                                                                                               | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Sportfaciliteiten                                                                                                                                                 | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Huisvestingsfaciliteiten                                                                                                                                          | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

4.

## 1. Kunt u aangeven hoe vaak u gebruik maakt van de volgende diensten?

|                                                                                                                                                                   | niet                  | weinig                | gemiddeld             | veel                  | zeer veel             |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| Talent van de Universiteit Twente (bijv. studenten als toekomstig werknemer)                                                                                      | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Evenementen                                                                                                                                                       | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Financiële ondersteuning (bijv. TOP regeling, Meesters v.d. Toekomst)                                                                                             | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Training voor ondernemers                                                                                                                                         | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Business development team                                                                                                                                         | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Het initiëren van joint ventures tussen bedrijven en kennisinstellingen (hier zijn bijv. Centre 4 Cloud en Thermo Plastic Composite Research Centre uit ontstaan) | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Kennisvraag.nl                                                                                                                                                    | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Labfaciliteiten (bijv. Nanolab, Smart Xperience lab)                                                                                                              | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Coaching voor ondernemers (begeleiding bij ondernemen)                                                                                                            | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Eetgelegenheid                                                                                                                                                    | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Parkeerfaciliteiten                                                                                                                                               | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Sportfaciliteiten                                                                                                                                                 | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Huisvestingsfaciliteiten                                                                                                                                          | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |



## Kennispark

5.

- \* 1. De vragen op deze pagina gaan over diensten waarvan u zou willen dat het Kennispark deze zou bieden. U kunt per categorie vrij aangeven welke diensten u graag zou willen zien.**

**Kunt u één of meerdere diensten noemen binnen de categorie kennisvoorzieningen (bijv. aanwezigheid Universiteit) die u graag op het Kennispark zou zien?**

- \* 2. Kunt u één of meerdere diensten noemen binnen de categorie netwerkvoorzieningen (bijv. toegang tot financierders) die u graag op het Kennispark zou zien?**

- \* 3. Kunt u één of meerdere diensten noemen binnen de categorie infrastructuur voorzieningen (bijv. indeling kantoorruimte) die u graag op het Kennispark zou zien?**

- \* 4. Kunt u één of meerdere diensten noemen binnen de categorie bedrijfsondersteunende voorzieningen (bijv. hulp bij ondernemen) die u graag op het Kennispark zou zien?**

- \* 5. Kunt u één of meerdere diensten noemen binnen de categorie interactie voorzieningen (bijv. ontmoetingsevenementen met andere bedrijven) die u graag op het Kennispark zou zien?**

6.

**\* 1. Graag onderzoek ik ook de rol die de Universiteit Twente speelt bij innovatie in uw bedrijf. In dat kader worden er tot slot een aantal vragen gesteld over uw bronnen van innovatie en de rol die de Universiteit Twente daar in speelt.**

**Heeft u uw product/diensten over het afgelopen jaar geïnnoveerd?**

☐ Ja

☐ Nee

### 1. Kunt van de volgende informatiebronnen aangeven in welke mate deze van belang zijn geweest voor de innovatie?

|                               | Niet gebruikt         | Laag                  | Gemiddeld             | Hoog                  |
|-------------------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| Eigen organisatie             | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Toeleveranciers               | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Klanten                       | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Concurrenten                  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Consultants                   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Universiteit Twente           | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Conferenties en beurzen       | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Wetenschappelijke publicaties | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Brancheverenigingen           | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

8.

**1. Indien de Universiteit een rol heeft gespeeld bij de innovatie: Kunt u deze rol hier specifiek toelichten?**

### 9. Einde

1. Bedankt voor het invullen van de enquête, mocht u nog iets kwijt willen dan kunt u dit in het vak hieronder vermelden.

De uiteindelijke resultaten en toekomstige stappen zullen na afloop teruggekoppeld worden via de website [www.kennispark2020.nl](http://www.kennispark2020.nl), daarnaast wordt indien u dit heeft aangegeven uw bedrijfslogo zo spoedig mogelijk op de wall of fame geplaatst.





## **7.2. E-mail invitation Kennispark**

Geachte Heer/Mevrouw,

Via deze mail wil ik u namens de stichting Kennispark en Universiteit Twente uitnodigen om online een aantal vragen in te vullen ten behoeve van de ontwikkeling van het Kennispark waar uw bedrijf zich op bevindt.

Deelname kost ongeveer 5 minuten en na deelname wordt indien gewenst uw bedrijfslogo toegevoegd op de website. Op deze 'Wall of fame' bevinden zich uiteindelijk alle bedrijven die samenwerken ten behoeve van de ontwikkeling van het Kennispark. Tevens worden de onderzoeksresultaten en vervolgstappen via deze website teruggekoppeld.

[www.kennispark2020.nl](http://www.kennispark2020.nl)

Onder de deelnemers worden twee prijzen verloot: een bon voor een avond uit eten inclusief bioscoopbezoek in Enschede voor twee personen en twee VIP kaarten voor Campuspop ([www.campuspop.nl](http://www.campuspop.nl)).

Alvast bedankt voor uw medewerking,

Oscar Lustig

### 7.3. Website Kennispark 2020



Figure 2: Screenshot [www.kennispark2020.nl](http://www.kennispark2020.nl)

## 7.4. Survey Vision Park Apeldoorn

[Exit Survey »](#)

Questions marked with a \* are required

4%

---

Wat is de naam van uw bedrijf? \*

Wat is uw functie binnen het bedrijf?

---

Continue

[Exit Survey »](#)

Questions marked with a \* are required

8%

---

Heeft u een gekocht of gehuurd bedrijfspand? \*

☐ Koop

☐ Huur

---

Continue

[Exit Survey »](#)

30%

---

Tot wanneer loopt uw huurcontract?

-- Select --

---

Betreft het een verzamelgebouw of bent u de enige gebruiker?

☐ Verzamelgebouw

☐ Enige gebruiker

---

Hoeveel m2 kantoorruimte heeft uw huidige bedrijfspand?

Hoeveel m2 bedrijfsruimte heeft uw huidige bedrijfspand?

Hoeveel m2 overige heeft uw huidige bedrijfspand?

Aantal huidige parkeerplaatsen?

---

Bevindt uw huidige bedrijfspand zich op een zichtlocatie?

☐ Ja

☐ Nee

---

Beschikt uw huidige locatie over buitenruimte?

☐ Ja

☐ Nee

---

[Continue](#)

[Exit Survey »](#)

34%

---

Hoeveel m2 betreft deze buitenruimte ongeveer?

---

[Continue](#)

[Exit Survey »](#)

Questions marked with a \* are required

47%

---

Wat is uw ideale huisvestingssituatie? \*

☐ Koop

☐ Huur

---

Gaat uw bedrijf in de toekomst wellicht 'Het nieuwe werken'/flexwerken toepassen?

☐ Ja

☐ Nee

---

Speelt duurzaamheid voor u een rol bij de keuze voor bedrijfshuisvesting? \*

☐ Ja

☐ Nee

---

[Exit Survey »](#)

56%

---

Kunt u de rol die duurzaamheid in bedrijfshuisvesting voor u heeft toelichten?

---

Bent u bereid om in de toekomst te verhuizen om toegang te krijgen tot betere faciliteiten?

☐ Ja

☐ Nee

---

Continue

69%

Hoeveel m2 kantoorruimte heeft uw gewenste huisvesting?

Hoeveel m2 bedrijfsruimte heeft uw gewenste huisvesting?

Hoeveel m2 overige ruimte heeft uw gewenste huisvesting?

Aantal gewenste parkeerplaatsen?

Bevindt uw gewenste bedrijfspand zich op een zichtlocatie?

☐ Ja

☐ Nee

Kunt u bepaalde faciliteiten noemen die noodzakelijk zijn voor uw bedrijfsvoering? (Bijvoorbeeld alarminstallatie, kluis, bushalte)

Kunt u aangeven welke faciliteiten op uw huidige locatie voor verbetering vatbaar zijn?

Continue



[Exit Survey »](#)

73%

Step 1 of 5

Bij de volgende schermen ziet u steeds twee opties die bedrijvenparken representeren. U dient op basis van de gegeven eigenschappen een optie te kiezen.

|                                                                                                                                          |                                                                                   |                                                                                                                                          |                                                                               |
|------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------|
| <p>Eetgelegenheid op het park</p> <p>Sportfaciliteiten op het park</p> <p>Beveiliging</p> <p>Bedrijfsondersteuning</p> <p>Interactie</p> | <p>Broodjeszaak</p> <p>Geen</p> <p>Geen</p> <p>Geen</p> <p>Netwerkevenementen</p> | <p>Eetgelegenheid op het park</p> <p>Sportfaciliteiten op het park</p> <p>Beveiliging</p> <p>Bedrijfsondersteuning</p> <p>Interactie</p> | <p>Geen</p> <p>Fitness</p> <p>Geen</p> <p>Hulp bij ondernemen</p> <p>Geen</p> |
|------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------|

Continue

[Exit Survey »](#)

Questions marked with a \* are required

100%

Wilt u opgenomen worden op de Wall of Fame? \*

☐ Ja
 ☐ Nee

Continue

Bedankt voor het invullen van de vragen!

[Thank You for completing this survey](#)

SHARE THIS SURVEY: [f](#) [t](#)

ONLINE SURVEYS POWERED BY

**Survey Analytics**

## 7.5. E-mail invitation Vision Park

Geachte Heer/Mevrouw,

In het kader van mijn afstudeeronderzoek dat ik uitvoer voor mijn opleiding Bedrijfskunde aan de Universiteit Twente binnen het Centrum voor Jong Ondernemerschap te Apeldoorn, wil ik u uitnodigen om online een aantal vragen in te vullen ten behoeve van de ontwikkeling van bedrijventerreinen in het algemeen en specifiek voor uw bedrijf.

Gezien de huidige ontwikkelingen zoals 'het nieuwe werken' en 'duurzaamheid' is er een sterke verandering zichtbaar in de vraag naar bedrijfsruimte. Om concreet inzicht te krijgen in de veranderende vraag onder werkgevers in Apeldoorn wil ik u uitnodigen om deel te nemen aan mijn [onderzoek](#).

Als dank voor uw deelname wordt onder de deelnemers een restaurantbon voor twee personen verloot.

Daarnaast bied ik u als deelnemer de mogelijkheid voor gratis publiciteit door met uw bedrijfsnaam/logo op de [website](#) vermeld te worden in de 'Wall of Fame'.

Mocht u naar aanleiding van dit onderzoek nog vragen hebben, dan verneem ik dat natuurlijk graag.

Met vriendelijke groet,

Oscar Lustig  
Centrum voor Jong Ondernemerschap Apeldoorn

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## 7.6. Website Vision Park



Figure 3: Screenshot [www.visionpark.nl](http://www.visionpark.nl)