MASTER

The collective node in the village urban network
bottom-up renewal for the heart of Nuenen

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Award date:
2013

Link to publication
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We can’t solve problems by using the same kind of thinking we used when we created them.

-Albert Einstein-

It is not true that people stop pursuing dreams because they grow old, they grow old because they stop pursuing dreams.

-Gabriel García Márquez-
The Collective Node in the Village Urban Network

Bottom-up Renewal for the Heart of Nuenen

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Graduation project,
Faculty of the Built Environment
Master-Urban Design and Planning
September 2013

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Acknowledgements

I would like to thank my supervisors: Ad de Bont and Pieter van Wesemael for the encouragement and the knowledge I received during the process of this project.

Commissioner of the Municipality of Nuenen Mr. Jansen for kindly giving me part of his time for an interview.

Rob Uljee for the valuable constant support, professional advice and guidance.

And of course my family and closest friends for the moral support; some of them, for being close in the distance.
5.5.3.  Proposal - General scenarios
Conclusions, evaluation and recommendations.
Brainport certainly profiles itself highly; as the Eindhoven region was awarded by the Intelligent Community Forum (ICF) in 2011 the ‘Smartest region of the world’. And this year it has been declared the world’s ‘Most Inventive city’ by the Organization for Economic Co-operation and Development. While Brainport brings the region to internationally competitive levels; the local issues such as: aging population and unemployment and the consequences it carries within these are threatening the very local stability of the communities, villages, and cities countrywide. This can potentially represent the future weakness to a thriving region. ‘The Collective Node in the Village Urban Network’ is a project in Nuenen aiming to tackle only a small part of the issue but may well be a model for other communities.

The way urban design and planning has been developing during the years, has significantly changed from the paradigm before the financial crisis. Developments can no longer be conceived with the old method of Top down, masterplans and so forth. New ways of development have to be developed and have been developed since, where it is no longer about designing space and its configurations but designing strategy to get the resources needed for the development.

Today the whole system has been affected by the financial crisis where government needs to make cuts and the people are directly affected creating a shift in the whole social paradigm. This project will focus on the new ways that the urban space is used by a new king of user or rather a composition to a new kind of user: grandparents and their grandchildren. For the last few years more and more of these new users come forth in the urban space. This is because in the last years grandparents have been taking over the day care of the grandchildren so that the parents can continue working. This is a side effect of the governmental cuts in the care system of the Netherlands. Thus new kind of users have of course needs when using the public space and the question are these needs covered. The combination of continuing the development of Brainport along with the development of the urban settlements around the Brainport region with the new challenges in mind is the main goal of this project. And this is done with the search of new innovative ways that will give the tools to the users to develop their built environment.
Defining the Brainport Eindhoven Region
This project is devoted to the ‘Brabant region’ and the ‘sustainable development of economy and space in the Brabant Region. The case study is ‘Brainport’ and that means the stroke in South-east Brabant, situated between Best in the northern part, Valkenswaard in the south, Helmond in the east and Reusel de Mierden in the west region. (Figure 1)

The strength of the South-east Brabant region is its economical input for the Netherlands which also happens to have a great influence in Europe and internationally. This economic activity is mainly focused in the following sectors:

1. High-Tech systems and materials,
2. Food and Technology
3. Automotive
4. Life-tech and health
5. Design.

Another way that development is brought forward to the region is through the partnership Triple Helix (1900). This partnership is composed by governments, research institutions and businesses.

Brainport Eindhoven Region has become in 2011 the smartest region of the world under the Intelligent Community Forum (ICF) standards. And this year it has been declared the world’s Most Inventive city by Organization for Economic Co-operation and Development, based on its “patents intensity”. Brainport Eindhoven Region certainly profiles itself highly by creating more possibilities of development. In an open innovation environment the government, businesses and research institutions collaborate, share knowledge and co-create for a sustainable economy.

The challenges being faced with at this time and for the future in general for Europe are: scarcity of raw materials, ageing population, climate change, growing need for energy and food, congested roads and strong international competition. With the Brainport approach that is with the triple helix and the five sectors; these issues are addressed for the Eindhoven Region. And thus the Brainport Proeftuin atelier aims to answer the following aspects:

1. The transition from the old economy to create a new economy around knowledge, creativity and spatial perception and its counterpart: from industrial cities to network urbanized regions.
2. The transition from growth to sustainable “through” development
Through observations it has been noticed in the village of Nuenen that more and more elderly take a stroll in the suburbs with small children, their grand kids. It is as if a new kind of user has been born; that is a combination (grandparent+child) in which different needs require to be fulfilled. This new user can be found cycling, having a walk with the baby stroller, playing at the front yard of the grandparents’ house but rarely in a park. It seems that the village does not have the public spaces fit to cover all the needs for this new urban user. So these first questions rise for this project:

1. What does the new user need in order to profit better from their own time and their time together?
2. What kind of spaces do they need?
3. Where could these spaces be located in Nuenen?

This project will focus on the new challenges with which people have to deal in a village in the Eindhoven Region. Issues created due to implemented cuts by the government in the care system of the country since 2011, and the dramatic aging population which only increases the pressure on the population that has to support the economy, the active generation.

These changes have driven people to new social structures within the family nucleus, generating new social conventions within a household and in the urban life. The existing urban structures will soon not be able to serve properly to these new social activities and as a consequence the quality of life could decrease. Therefore, it is important to adapt the existing urban configuration to new social structures and activities. Since there is still a recession and these issues demand quick solutions, the approach should preferable be made in stages.
1.2 Social challenge

Due to financial cuts and aging population, after the financial crisis of 2007-08, the world has undergone drastic changes in all aspects. Fortunately, the Netherlands being among the top five economies in the euro zone (Gasic and Kurkoviak 2012) has not been struck as severely as other countries in Europe. Unemployment, harsher cuts in care and taxing measurements bring to those the people in such countries to great stress, not only to its society but for its future. Yet the Dutch economy has been affected; since it mainly relies on international financial sector and international trade, in 2009 it contracted by 3.5% due to the global financial crisis (Central Intelligence Agency 1).

This has affected tremendously the domestic economy in such a way that the government keeps implementing budget cuts into different sectors such: as child day care, health care, education, safety, foreign aid, culture among others. These issues will definitely double the problem for the Netherlands in the future.

Before the financial crisis, the Dutch already needed to consider the impact of an aging population. By 2040 more than a third of the municipalities will be facing aging population and a quarter of the country’s municipalities could be facing more than 2.5% of shrink (Vereniging van Nederlandse Gemeenten, Interprovinciaal Overleg, and Rijk). Thus, by having budget cuts it only increases the pressure to municipalities and many do not have the resources to absorb the cuts and prevent the impact of an aging population. The last on the line to be affected are the people, who are forced to invent new ways to support themselves and fill in their individual needs and families needs in order to function in the working and private environment.
1.3. Relevance of this issue

There are three main issues that have been of considerable national impact to domestic households which are: child / health care budgeting and aging population. As a consequence of the changes, these issues result in unsuitable facilities and public spaces. This will continue in the near future as well as in the long term development of cities, towns and villages and of course in the development of society and the people. The quality of life can diminish and could cause a huge problem in the next 20 years. Since the government has been falling out of the picture regarding their role in social, spatial and the care system development the people have taken those tasks into their own hands. Mostly these initiatives are innovative.

1. But how do these new interventions, ventures, and initiatives affect public space?
2. And how will it look and work in the future in the urban context?

If there is not a degree of urban planning and guidance in these collective initiatives, the future of public and semi-public spaces could drastically decrease creating social issues and problematic neighbourhoods.

On the other hand, it is important to keep in mind that soon a great percentage of the population will not be productive anymore and this will exceed a great deal of pressure on the young workers. It is substantially important that a new way of collective life is initiated to support the challenges and responsibilities this generation will have to face.

These new challenges not only bring negative news to the society of today, it also brings opportunity to new solutions. Due to aging population the cities will be less congested, there will be less pressure for housing market and there will be more space for nature. (Vereniging van Nederlandse Gemeenten, Interprovinciaal Overleg, and Rijk)

This does not mean that there are fewer resources needed such as financial, but the way they get generated will need to be completely different of what people are used to today. It is not about growing or expanding anymore, but about effectiveness and concentration.

It is remarkable that people are willing to come up with their own solutions and initiatives to tackle these sort issues. And although the initiatives in subject are mainly in a small scale it could definitely have a great influence in the bigger picture. Therefore, it is crucial that urban designers and architects guide these initiatives to provide with the necessary knowledge for whichever is the desired outcome of the project. This should ensure and facilitate to a better built environment and to mediate between the community and involved institutions, government, and other stakeholders.
Crowdfundingactie voor herplaatsing kunstwerk Hugo Brouwer in Nuenen

Er is 10.000 euro nodig om een kunstwerk van Hugo Brouwer te kunnen herplaatsen in Nuenen. De Rabobank schenkt een keramiek kunstwerk van 6 bij 3 meter van de Nuenense kunstenaar Hugo Brouwer aan de gemeente Nuenen. Het kleurrijke reliefs dateert uit 1966 en wordt verwijderd uit de laagbouw van het kantoor van de Rabobank aan de Fellenoord in Eindhoven. De bank betaalt de kosten van verwijdering. Rond 23 april van dit jaar zijn er ideeën over een andere openbare locatie welkom.

Kanttekening is wel dat het de gemeente geen geld mag kosten. Daarom zijn twee particulieren, Robert van Rietel en Jan Vellekoop, een crowdfundingactie ('burgerinwestering') begonnen om de herplaatsing in Nuenen ook financieel mogelijk te maken. Zij zoeken 100 mensen die bij doorgaan van de herplaatsing ieder 100 euro willen bijdragen. De eerste 50 toezeggen zijn binnen dus het aan de
1.4. Location - Nuenen and making the link to Brainport.

To make a well round development of the Brainport Eindhoven Region it is important that not only the main cities of this region develop, but also the smaller towns or villages are integrated in the process. Therefore, for the sake of a deeper development of the Brainport Eindhoven Region it is crucial preventing the previously presented social issues in the smaller urban concentrations for a stable growth of Brainport.

It is no longer only about growth, but also about sustainability, meaning that the question is not about: where can the region Eindhoven expand to? It is rather about how the existing settlements can become more efficient by decreasing costs, use of energy, travelling time and offer better quality of life.

After observing the new shifts of the social paradigm within households in Nuenen, the next thing is to question how significant it would be to develop an urban intervention in this location.

First, an analysis was made based on growth of the South East Brabant region, next the analysis moved onto the percentiles of growth of the aging population in the urban concentrations. In addition the development of the population in the years 2020 and 2040 within the combinations of (aging population + youth population vs. the supporting population) and finally based on location relevance within the Brainport benefit since Nuenen is located between two Brainport active cities such as Eindhoven and Helmond.

The fact that there are significant issues to deal with and that Nuenen is strategically well located regarding the Brainport Eindhoven Region leads to conclude that Nuenen is a suitable location to contribute to the development and the improvement of the DNA of Brainport Eindhoven Region in a smaller scale.
1.5. Research question:

How can the village lifestyle of Nuenen be improved into a more collective and generational cohesive character; updating the village into the new social and regional trends and its basic needs that belong to this time of crisis yet innovative frame of mind?
Change of paradigm from urban development done by governments (Top-down), to collective development (Bottom-up) (City-Thinking, 2013)
2.0 Theoretical framework

For a better understanding of the concepts in this chapter, the following key terms are defined:

Node: A central point in the village urban fabric where ribbons and collective activities converge to create a dynamic and thriving local space.

Urban Ribbons: Complement to the historical ribbons in the actuality and future. These can have specific themes or combined themes for kids or elders.

Stakeholder: A person with an interest or concern in something, especially a business. (Oxford University, 2013)

In this case, it referred also to every single party that would be actively involved or passively affected by the development of the node. Thus: the shop owners, private property owners; whether it is a house or a commercial space; the dwellers, also the visitors to functions like the playground, Kiwiet, and Dorpswerkplaats, restaurants, and art galleries.

2.1 Motive

In the aftermath of the financial crisis and with the environmental and social changes, there is a new phenomenon taking place. These changes are not only in the economic structures, but also in the cultural, global social and technological trends (00/, 2011). These transformations are certainly embedded in the cities and built environment, making its structure change from the inside out.

From the beginning of the 20th century, the Dutch urban design has mainly been rigidly developed with housing projects and structural plans. What one would call: a top-down intervention where there was no space for chance or surprise. Today it is difficult to continue developing cities and villages with the same approach. National and local governments do not have the financial resources to support growth and development of the built environment.

On the other hand, citizens are ready and willing to initiate ventures which are already changing economies and places. This movement has been gaining more and more strength and it shows the new ways in which cities and communities could develop. This is why the Bottom-up perspective has been chosen as the base for the development of this project in the heart of Nuenen.

Only with an approach of this nature will it be possible for Nuenen to move forward while it recovers from its current difficult financial situation, and also to deal with a rapidly aging population which will demand new solutions. Bottom-up interventions can help in keeping the aging population healthy, active, and integrated to the other generations. Moreover, in the spirit of integrating the younger generation and the elderly, the grand children will receive values that were not part of the upbringing in earlier generations and will have a more familiar and safe environment. By using Bottom-up solutions it allows more flexibility to a rapidly changing society due to aging, shrinking, and new trends.

2.2 Concept: Bottom-up

Definition: “The innovator working from the Bottom-up confronts a problem as parts before the whole. This approach is natural for complex problems and, usually, any problem worth treating as a system. The trick is having some kind of model of the problem(s) to work against. If you are going to innovate piece by piece, you have to know all, most, or at least the key topics to work on before you start.” (Owen, 2013)

As much as this way of designing may seem like a more empirical method, it does have a history of principles and concepts that define this way of thinking. During the last century, many have defined in different fields the way of
Because there are barely economical sources for development, the best way to propose an improvement plan for Nuenen is based on the Bottom-up principle as mentioned earlier, but what does it mean to design from this point of view? A first personal conclusion is: There is not much an urban designer can do since the initiative comes from individuals or stakeholders that are part of the subject; therefore some guidelines for the development should be enough.

Yet this personal affirmation is not correct in order to provide a proper solution to improve the village lifestyle into a more collective and generational cohesive character. Let alone; update the village into the new social trends and basic needs that belong to this time of crisis in an innovative frame of mind. (Research question)

Consequently, not only guidelines are enough to shape a Bottom-up intervention in the centre of the village, but a vision that can help initiate the first step by the stakeholders.

The nature of the concept will be based on organic growth; in this case: in public, semi-public, and private spaces. This should give such development direction towards a well balanced urban space that respects the surroundings, stakeholders and the principles of a sustainable environment. By sustainable it is not only meant to refer to environmental aspects but most definitely socially, economically and urbanely factors. Spaces that can be redefined for new uses that adapt to the changes of demographics society and economy.

A scan is made throughout the history of the concept, and as starting point from the view of the The Spontaneous City (Urhahn Urban, 2010); it is easier to choose the tools and principles for the design of the project. To illustrate this, an own Bottom-up time line is developed which gathers some principles that are relevant to the conception of this project. Also citations and principles became a fundament for this process, but more significantly are the theories of: Aldo van Eyck, Kevin Lynch, Urhahn Urban Design, and 00:/.
"A civic economy is emerging, one which is fundamentally both open and social. It’s an economy which is fusing the culture of web 2.0 with civic purpose." (00:/, 2011)

"The Spontaneous City is a marketplace, where supply and demand sustains urban form." (Urhahn Urban, 2010)

"Commitment arises not through some sort of ‘total democracy’, but rather extending that experience to several aspects of society." (Urhahn Urban, 2010)

"We should go about designing in such a way that the result does not refer too over-sparingly to the supply of experts, but that it still permits interpretation so that it will take on its meaning through usage. What we make must constitute an offer; it must have the capacity to elicit, time and again, specific reactions from specific situations; it must not be merely neutral and flexible - and hence non-specific - but it must possess that wider efficaciousness that we call polyvalence." (Hertzberger, 2005)

"How can I design if I do not know what the end result will be like? Is a frequent complaint. Why would you need to design if you already knew is my response". (Habraken, 1998)

"If a theory is well constructed and spread abroad, it has the advantage of no longer being the property of specialists, but of stemming from the public domain. The present-day monopoly of the architect has to do with the fact that there is no real theory, but merely a set of pseudo-theories - in other words, observations which only reflect the preferences of their authors". (Urhahn Urban, 2010)

"The capacity to solve our problems rests with the informal web of creative and regulatory relationships we have -- our culture -- and not with specialised "experts." To rely too much on experts in silos is to reinforce their siloed condition, which threatens us all. Certainly this does not mean that there is no role for experts, or for government. It does mean that this role must be more catalytic, more "bottom-up" -- more with the grain of culture, than against it." - Jane Jacobs - (Mehaffy, 2011)
To begin with, the formal concept in the playgrounds developed in Amsterdam by Aldo van Eyck after World War 2; the most characteristic elements are the round or square sand pits and play spaces. These do not have an own hierarchical character in the total layout of the playgrounds; however, these shapes had an inviting character for the playing child and at the same time offered a sheltering feeling when using the space. Regarding the complete layout of his playgrounds, he did not create a particular centrality, rather he created several centralities which were linked by axial elements. The mentioned centralities are used in the proposal of the ‘Node’ for Nuenen; a design to create different environments for the playing children age groups, mentioned in more depth in Chapter: Design through research.

Secondly, on the definition of the concept that will help generate the design of the proposal:

Nodes and Paths are the backbone elements for the design for the Node and it's integration with the rest of the urban tissue in Nuenen and the infrastructure; proposed by Kevin Lynch in the 1960's on his book The Image of the City. He says “...the nodes may be simply concentrations, which gain their importance from being the condensation of some use or physical character.” (Lynch, 1960). On the other hand, paths which are the equivalent to the Ribbons in this project; are part of the concept of the node; he explains that a node is the point where paths converge, giving direction to the user to or from the node. When the user moves along the paths he/she experiences de city and this is how the city is acknowledged by the user.
Thirdly, in The Spontaneous City manifesto Urhahn Urban Design proposed four Principles for the spontaneous city: zoom-in, supervise open developments, create collective values and be user oriented.

Briefly these principles will be defined as follows:

Zoom-in - And map out the essential need of the different locations in subject and their relevant players for future development or renovations.

Supervise open developments - Through constant capability of having the development of a city or community adapt to the new requirements, needs, and current issues. Which also means that the different components do not necessarily develop in the same tempo or direction.

Create Collective values - Having a shared ambition can be the tie between the different stakeholders making their will to reach the goal stronger. The shared interest lies in elements which usually already exist like: architecture, nature water, landscape, accessibility and heritage; Getting the combination of these elements could inspire to new ways and uses, making the identity of the location unique and the feeling of belonging much stronger. This creates a more engaged user who takes responsibility of his/her environment.

Be user oriented - participatory activities by the user is definitely an important aspect for a Bottom-up approach. According to Urhahn, not only at an initiating stage should the user be part of the process but rather be the active motor of such development. “Residents, association, companies and cooperatives should be given an active role in urban renewal initiative”, “the urban planner’s designs should be custom made and tailored to the resources of the user”
Finally, for the development of housing around the Node the following principles are used, a participatory approach. From the Compendium For the Civic Economy by 00:/, the case study Tübingen User-Led Housing, a self commissioned neighbourhood is used as a reference. This project started in 1991 and today's reality may be different politically, but economically the same challenges are faced; where the system was fragile and new solutions were desperately needed just like today.

This case study is divided into six stages of development. For this project the four principles are considered as the main model.

For the housing in the Node the following principles are adopted from the Self commissioned neighbourhood:

First stage: The idea – partnership with University. This means not only for urbanists that design the first stage but also for the architectural design, real state, and other possible candidates that could enrich this housing project.

Second stage: The ownership dimensions – “assembles and subdivides the land” (00:/, 2011)

Third stage: The spatial framework – creates a loose plot-wise master plan for apartments (00:/, 2011) or houses.

Fourth stage: The first invitation – makes three plots to initial group development as ‘proof of concept test’ allowing the first group of pioneers to start the process. As a part of this stage is the Financial infrastructure – engages the mortgage industry and academics to provide innovative and collective solutions.

This gives a clearer image of the what is realistic for such intervention, how it can be approached, what can be considered as soft elements of the design, meaning what in the end will be defined by the stakeholders. Yet, a starting vision is very much needed which will be the starting point proposed by the urban designer.

Figure 10: Stages from the Tübingen User-Led Housing project (00:/, 2011)
2.4. Bottom-up today and in the context of Nuenen

As the concept evolves accordingly to the development of economy, political, social needs, new social paradigms, technology, and environmental changes; the concept becomes more complex as the list grows. More parties need to be involved and this also means that it is vital that the roles are clear. The benefits should be expressed clearly to the different parties so that they understand their role and also to create momentum; especially in the start up of the initiative. This can still be simplified into two groups: the stakeholders and the government.

2.4.1. Roles and benefits for the stakeholders

The stakeholder is every single party actively involved or passively affected.

The active stakeholders are the main actors, as they are the ones that take action in the development; also they will benefit in a tangible manner but not necessarily will they be the first ones to benefit. They are investing with time, money, energy, ideas, and work.

The roles of the stakeholders are to be engaged and proactive to a common mission and vision. These need to be developed and improved throughout the progress of the project. The stakeholders should feel engaged in such way that they feel they have the power of decision and to influence the course of the project to what they consider is needed in the location and the community. This is a vital aspect for the success of any Bottom-up approach because on this lies the long term success of the collective initiatives.

Therefore, stakeholders in the subject are the main players in this proposal. They help take the first steps and shape into details of how the complex will look and what kind of sphere they want to create. There should be a constant communication with this group of people who could be organized in a commission formed by their own representatives.

In the context in Nuenen there are already several communities that organize different activities and initiatives. There is also an online community NuenenNet, where members can communicate with health care institutions, shops, other organizations, and businesses established in Nuenen.

This indicates the amount of energy the people in Nuenen are willing to invest, and there are enough channels that can be used to introduce a collective initiative, whether that needs to be physical or digital.

The Bottom-up approach is a small scale intervention, it is beneficial as it creates short term results, which need small financial investments. This also motivates the stakeholders and most likely encourages new participants to be part of the project. This will only engage the people more to the location, their context and make them more aware of their environment. If the people and the stakeholders are engaged it will only make it easier for the future of the location and the village itself because they will be able to recognize a shift in the paradigm and therefore, respond with innovative solutions fit for new emerging economies, social structures and so forth. The user will recognize this moment and will have the tools and skills to act on time. It is a more preventive approach rather than an aftermath “patch up” solution which is the result of bureaucratic processes.

2.4.2. Government’s role and benefits from this concept

According to Planning Zonder Overheid (Planning Without the Government): ‘Planners, politicians, scientists who, although no longer believe in an engineered society, but in the use of a powerful and more global spatial vision by the government, with many, or at least some integration and impact(vrom 2006), this conviction begins to earn support and interest’ (Boelens, 2006)

Furthermore, the media and global view has changed the way of seeing and perceiving society and its mechanism, the frontiers are in some aspects imperceptible making it more difficult for governments to have a grasp on directing new developments and let alone finance them.

The locality has become more present in the bigger contexts and therefore it is harder as for the government as it is no longer the only payer when it comes to development of the built environment (Boelens, et al., 2006).
Under this spirit it is crucial that government facilitates, guide with the expertise of professionals, such as sociologists, economists, urban planners, and architects; among others. To develop the built environment to a livable environment which is sustainable not only in terms of energy and CO2 emissions but also economically and socially. Moreover, should the norms become an obstacle for future developments then it is the role of the government to change or adapt them to the new paradigm. After the financial crush the world has been going through changes where old ways no longer fit but rather slow down the rehabilitation of economies and as a consequence making the recovery for society a struggle.

The government is no longer capable to finance big investments to develop top down projects. None the less they have the ‘know how’; today knowledge is the new rising economy (one of the big trades of Brainport). This gives governments the advantage as they already own the resources. Should there be an expertise that is absent with in their system, then they have a network where the government can also use as source for eventual financing strategies, for example, for future development investments.

Fortunately, the government of Brabant has been working hard on this in the past years. The triple helix is a great example of working together and moving forward to a common goal, where government, research institutions and entrepreneurs work together an innovate towards solutions in the five sectors of Brainport.

In the case of Nuenen it is vital that the local government carries this out which in many aspects do happen. Entrepreneurs in Nuenen are quite active and also local associations are an active part of the development of the village, none the less it is important to get the people who live and use the amenities of the village on a daily basis. This are the groups of the elderly and the children who remain in the village during the day.

Although there are many companies located in Nuenen that are an important component of Brainport, this is not perceived to the visitor in Nuenen and maybe even to the local people. If this is a choice of the companies located in Nuenen; then that certainly should be respected, there should be other ways to make Brainport present in the villages in the Brainport Eindhoven region, this with the goal to empower the concept in every scale level.

For this to happen the government has a major role to bring these parties together as they have all the information of who and how they could work together. In the future, when starting a new project there would be less contingency from the community, as what is being built is something that answers to their needs and issues based on their initiatives or participation. In this sense there is a greater chance of a development succeeding.

2.4.3. The meaning of such space for the three generations.

According to BOInK – chair (Schöttelndreier; De Volkskrant, 2013) “From the 750,000 children between 0 and 10 years old there are between 50,000 and 75,000 children who are taken care of by the grandparents”; a phenomena caused by the earlier mentioned cuts in childcare and health care. The new family structures that rise from these measurements have brought a positive effect in the upbringing of children from working parents. At the same time it gives the elderly a chance to share with their grandchildren and the feeling of playing an important part in the upbringing of their grand kids.

Furthermore, according to an article by Mirjam Schöttelndreier for De Volkskrant; this paradigm shift has improved the quality of life for the ambitious, busy, and professional generation. It gives a new meaning to the grandparents as they are an important part of their kids’ and grand kids’ life. Also, they become an extension of the family nucleus, not to mention the emotional closeness that develops and adds to the lives of the family members.

Therefore, this new family structure is a ‘Win-win’ situation (for the three generations) as working parents can keep doing so – work and maintain a household, be sure that the children are in good hands and for the grandparents the regular contact allows them to keep vitality and emotional health as oppose to loneliness that can lead to depression. According to the National Ouederen Fonds (National Elderly foundation); there are in the Netherlands about 800,000 elderly out of 2.6 million of the elderly population that are over their 65, who feel lonely. More than 100,000 people feel extremely lonely. This last figure is mostly likely among people who live in an elderly nursing home. The shocking part is that of the over 4 million of the population over their 55, 1 million suffer from loneliness of which 200,000 feel extremely lonely. (Ouderenfonds, 2013). It would be expected that the young elderly were not yet victims of this social issue, but clearly that is
not the case.
As elderly advance in age they seem to isolate themselves slowly and almost imperceptibly they retreat to their own space. By making them part of the care of their grandchildren it keeps them active and integrated in a regular daily life, keeping this part of the society emotionally and psychologically healthy. It is scientifically proven that by having a caring role and physical contact allows people to lead a healthier life. Improving life quality could significantly alleviate the pressure the health care system undergoes and is yet to get in the next decades.

By having a location where grandparents can get together with people of their own generation and at the same time there is the availability of a space suitable for children; the interaction between generations will only improve and improve the quality of life.

2.5. Conclusion

Based on the study on Bottom-up solutions, it seems that more answers are given for young active people with initiatives rather than elderly. This concept is a development of movement and change, it is not stationary. It may seem that elderly could not keep up with these changes.Yet they do manage to keep some pace with the new media and technology. This shows some of the flexibility that this generation still has within itself.

With the new medical developments and other aspects, people have a higher life expectancy, this means that after people retire they still lead an active life compared to 15 years ago. By having new goals and meaning this could be extended to new levels which can make the pressure for care and the younger generations more bearable in the coming years.

Although Brainport development focuses on the effects of a fast growing gray population, it is mainly lead by the big organizations and companies; still, there are the different scales economically and socially that need attention to keep its level of development and have growth from the inside-out.

This project is not only a localized intervention, rather it aims to be an intervention that focuses locally, but that is immersed in an already existing urban structure which is complex, but yet allows for new movement or trends and by influencing it in such ways that the presence of a village can already be sense at the proximity of it.
Source: B. Ericson and T. Lloyd-Jones, 2001
3. Method

Once the conclusions are made as to: what, where and how about the project, a scheme is created based on the ‘Perceived hierarchic nature of the built environment - concept scheme’ (Ericson, 2001) as part of the initial analysis and literature research, there are also interviews (to the councilman of Nuenen, a volunteer of one of the community organizations of the village, and the manager of Dorpswerkplaats) and observations of the urban space documented in images.

3.1 Components for the design process

In the method scheme one of the components is made by: social significance, built form and urban space. These are combined with the different scales the project deals with. The scales are: Brainport, strategy, Node, Villages centre and the ribbons of the village. (See scheme) When combining the components with the scales on the scheme the results will lead to the final product for the design and the main users that benefit of the final product. Essentially the goal is that all users benefit as a result of the interventions, but the groups previously mentioned: elderly and children may do more because they make use of that space already. For example in the centre of the village; these two groups already have a space that is used for their recreational activities in the village; however, if this space is improved these users will profit as first allowing a longer stay in it, more community participations, social contact, and better interaction possibilities between the two generations, through the activities/amenities available in the space.

3.2 Three scales

Although every scale is important to make sure that a development is embedded in the village; in this project the Node will be developed in more detail. That is the Small (S) scale. The global integration of the project is given to illustrate how the node is part of the urban tissue and infrastructure. That is shown schematically in scales Medium (M) a Large (L) and with the same spirit of the Bottom-up concept they are presented from S, M, to L.

3.3 Strategy to enable Bottom-up

Strategy is a part that shifts back and forth in the process of the design. This to provide with some guidelines that will help the design be more realistic and feasible. Once the design is done it makes more sense to have it as an initial step to communicate the different stages of the process.
Design method

Finally, an important factor of the method is: Design by research. In this process there is a shift between theory, space, observations and confirming the data collected for a final decision for the proposal. The questions can rise mostly at the point of design and defining the Node making the process go back to the initial observations, analysis and so forth.
Location of the project

Brainport: Eindhoven Region (Brainport, 2012)
Population: 740,000 (Nuenen, 2013)

Municipality: Nuenen, Gerwen, and Nederwetten
Population: 22,553 (Nuenen, 2013)

The village: Nuenen
Population: 19,642 (Nuenen, 2013)
This chapter gives a scan of the Nuenen village today. From the basic aspects to the most important components of the village, this is done with the purpose to build a general image of Nuenen today. This analysis makes a scan of activities such as: touristic, recreational, and commercial; this in combination to the generation groups and thus the relation of each activity to the three generation groups.

In the theoretical framework chapter, two concepts of Kevin Lynch were presented; one of them was paths, in this project called: ribbons. The initial urban settlements of Nuenen formed ribbons which are still the axes of the village. They also conceptually help to define new ribbons for the village and thus make the village more attractive with new trails across the town.

Next to the previous aspects, this chapter has a brief view about infrastructure and connectivity from a global to a local scale. And finally the importance of the cultural DNA of Nuenen which partly is on some high tech innovations and on Vincent van Gogh. For this bottom-up intervention the cultural trade of the village does definitely come back but searching a more innovative character, with new interpretations and using the existing artistic talent of the village.
4.1. Looking at the urban history of Nuenen through the development of the ribbons.

In 1810 Nuenen and Gerwen formed a municipality and in 1821 joined Nerweten. The Old Catholic church could no longer be used so the ruins were brought down to then use the material to repair the old barn church. The last one was also torn down after they started building the Saint-Clemens church, the present church of Nuenen which made the centre of the village move to the park (today called Vincent Van Gogh park) from 1883-1885 Vincent Van Gogh lived with his parents in Nuenen. Only in 1932 was there a tribute to the artist at the Berg square by the Linde tree.

Basically Nuenen settlements started around the old village greens of the mountain hamlets and Heieind. And radial character accesses from the green agglomerations formed the centres of the village (Croonen, 2013); first, the Berg where the Linde tree is located and secondly the Park along to the south. As the ribbons were formed along the village the space behind these started dandifying into urban tissue. This happened initially to the west of the settlement and then towards the south. After WW11, Nuenen developed rapidly with many dwelling developments and becoming a commuter town of Eindhoven.

Conclusion

The urban structure of the centre of Nuenen is embedded in the ribbons which emphasizes the village character it has. There are two historical nodes and those are the Berg square where the Linde tree is located and the Van Gogh Park. The last one is the centre of the village and classified as National heritage while the Berg gives Nuenen an even more historical character to the village. This is because the house where Vincent Van Gogh lived is located in this area and today there is the Van Gogh museum.

For the development of the project the ribbon typology is adopted to add quality to the existing ribbons and to create new ones that should improve the quality of the urban space and the quality of life for the dweller.
Figure 5: The oldest Linde tree of the Netherlands planted in the 17th c.

Figure 6: Van Gogh Park and at the background the statue of Vincent Van Gogh looking towards the Berg square.

Figure 7: Van Gogh Church.

Figure 8: Protected National and local monument area in the centre of Nuenen. (Data: Nuenen, 2012)
4.2. Infrastructure and connectivity

As mentioned in chapter one, Nuenen is strategically located between Eindhoven and Helmond; giving it a better opportunity to develop not only with in itself but also in the context of the Brainport region. By being at a mere distance of 8.5km from the city of Eindhoven; making a drive by car of about 15min long, a ride with public transport 20min, and cycling 30min long; Nuenen offers the quietness of a village.

4.2.1. Global connectivity

Therefore, to step into the global network from the village only takes less than an hour considering the Eindhoven international Airport. This of course also applies to the railways and the inter-regional network, especially once the HOV2 (Bus Rapid Transit network) is concluded. Regional connectivity – Eindhoven region Brabant
4.2.2. Regional connectivity – Eindhoven region

4.2.2.1. HOV2 - Bus Rapid Transit network

This system has a lane of its own in the infrastructure meaning that the rest of the traffic has less. This will connect the centre of Nuenen to the High Tech campus in Eindhoven. This project is ambitious for Nuenen since at the time the municipality (costing about €12 million) can no longer make such an investment. The project ‘Nuenen West’ of 1560 dwellings; was to make the funds for the realizations of the HOV2 network but since the housing market crush the plan has slowed down yet the municipality of Nuenen remains optimistic. In the last trimester of this year the start up of the first stage of Nuenen West will take place with 80 dwellings.

4.2.2.2. Cycling network

There is one main interregional cycling route that goes through Nuenen. It initially follows the ribbon that passes the Berg square and when it enters the V.Gogh Park it goes through the Kerkstraat (St). The routes are for recreational activities therefore it avoids the centre of the village which is on the Parkstraat (St) this allows continuity for the cycling activity and for less traffic jam in the centre of Nuenen. The recreational cycling traffic is considerable in Nuenen and often is the village a pitstop for the sportsmen or tourists.

The rest of the cycling network is of good quality enough crossing tunnels at high traffic spots of the infrastructure and separated from the vehicular traffic. This infrastructure connects very well the different green areas around this region and there is a suggestion of rings which connect the radials that part from the V.Gogh Park.
4.3. Demographics

4.3.1. Productive group and demographic pressure

This pressure is the sum of the Grey pressure and the Green pressure the result is the total pressure that comes upon the productive group.

In 2011 the demographic pressure registered at 64.1% but the worst is yet to come, the prediction for 2040 is of 101.4%.

4.3.2. Elderly and Grey pressure

Is the pressure caused by the elderly (65 years old and older) upon the productive group, which is the group of the population between 20 and 64 years old.

It is predicted that by the year 2040 the gray pressure will increase to a staggering 48.7% as oppose to the 25.6% that was registered in 2011. This is due to the generation of the baby boomers that is already entering the retirement period. (CBS, 2012)
### 4.3.3. Children and Green pressure

In this case the pressure is from the group of people from 0 to 19 years old upon the productive group (20-64 years old).

In this case the pressure is predicted to increase to 41.3% in 2040, compared to the percentage registered in 2011 of 38.6%, it is not very high. Thus, the pressure will mainly come from the Grey pressure. (CBS, 2012)

### 4.3.4. Conclusions

These ciphers bring along a great amount of change and demand a great deal of adaptability from the productive group. The welfare of the elderly could be very well end up under the responsibility of their own children while this is a task done by the government. It is already evident that the government suggests this, or indirectly inflicts this on the productive group by making massive cuts; counting with the cuts there are still to come; in the care sector. This seems to be pointing towards young families taking in their parents into their homes to cover for the care of their elderly parents. This may be an extreme appreciation but %101.4 of demographic pressure is a big task for the government carry on its own specially when there is a financial crisis which has been going on for over five years. The advantage of Nuenen and other towns in the area is that Eindhoven does not suffer a significant change, the population in this city remains stable with respect to the productive group offering the opportunity to attract some of this population.
4.3.4. Urban presence of the three groups

Productive group

By identifying the functions and observing in the village it is possible to trace a ribbon that marks the use of the space by the productive group. This mainly takes place during the evenings and weekends. This happens naturally, along the Parkstraat (St) and around the park because of the bars and restaurants. The ribbons are extended to the highway that runs through Nuenen; this group is the one that transits the most to and from Nuenen to other cities in the area.

Elderly

There are mainly three clusters of facilities for the elderly. Two of them are in the area of the centre of Nuenen. This clusters are composed by elderly homes and dwellings for the people who are still are independent and do not need special care. Shops, restaurants, sport centre, and other recreational activities are part of their ribbon. They may move into different directions of the village but since the dwell longer in the village their use of the ribbon they generate is more intense than the other groups.
Children

The most extended ribbon is the one formed by the activities of the children. This mainly happens when they go and come back from school. Therefore it mainly happens twice a day and the rest of the activities are more time related as this group has the schedule of school and extracurricular activities such as sports. In their free time they make used of the public space in a more random manner. These ribbons are not exclusively for each age group but it does give an idea of how the public and semi public space is used.

Conclusions

These ciphers will bring along a great amount of change and demand a great deal of adaptability from the productive group. The welfare of the elderly could be very well end up in the responsibility of their own children whereas this was a task done by the government. It is already evident that the government suggests this or indirectly inflicts this on the productive group by making massive cuts; counting with the cuts there are still to come; in the care sector. This seems to be pointing towards young families taking in their parents into their homes to cover for the care of their elderly parents. This may be an extreme appreciation but 90% of demographic pressure is a big task for the government carry on its own specially when there is a financial crisis which has been going on for over five years. Furthermore, the analysis of the ribbons is not exclusively for each age group but it does give an idea of how the public and semi public space is used. Also, by overlaying the three ribbons from the analysis it is no surprise that the node of Nuenen is clearly drawn. This confirms that this is the centre of the village but unfortunately the three groups do not necessarily come together in one space. Possible at the Van Gogh Park (based on observations) and a few times a year on special events such as fairs, carnival, etc.
4.4. The economy of Nuenen

In 2005 Nuenen got the mission from Eindhoven to built 3000 dwellings to cover part of the housing demand of the region. This was an opportunity at the time, where it could only mean growth for Nuenen. Nuenen West is in a great deal part of this mission but since the financial crisis and therefore the drop in the housing and building market all the investment that the municipality put into this project has been in a great deal to loss. (Heijden, 2013)

In 2011 the general reserve of the general service was negative with € 5.1 million. From 2011-2012 the municipality made cuts up to €3.7 million and tasks that today still lye by the State and the province will be turn to the municipalities. Among these are the youth care and the exceptional health care costs. (Nuenen, 2013)

4.5. Innovative Village

Despite the financial crisis in which Nuenen lies, the village manages to stay innovative. It was one of the first locations to get fiber web internet and today, about %80 of the dwellings have access to this infrastructure. Furthermore, according to the municipality Jansen (interview), there are plans to extend it to the rest of the village.

Another innovation commissioner Jansen talked about was the intelligent urban illumination system, which used LED technology and aims to sustainability and cutting expenses. In Rotterdam there is a prototype installed where 60m of lighting uses 6wats of energy (Binnenhof, 2012). These are to be tested this year on the cycling path between Nuenen and Eindhoven.

There are also smart home located at the Borgorstraat (St) on the south of the village. These dwelling were specially built for a group of 18 people who have a handicap. The aim of these homes is to offer them more independence and reducing care costs. It is indeed a question on how rentable this solution is as it may be very likely that they use more energy. None the less it is certainly an initiative that leads to new innovations with social awareness.
4.6. Cultural activity and valuable trades of the village

Nuenen is culturally very active, during the last century they have built a profile around the history of the artist Vincent Van Gogh, he lived in Nuenen from 1883 to 1885 and painted there the famous master piece the Potato Eaters. Next to Amsterdam, this is the second best known locations to appreciate the history of this known artist. Nuenen has an open air museum dedicated to his time in the village, where many of the buildings that he painted in his work then, still remain in the village and form part of a cultural route. This route can be visited by bicycle or walking.

This has influenced and inspired the locals to further develop into a creative sphere. It is common to find guests artists from different styles. And locally there are enough workshops and galleries where different types of crafts and art are taught and sold.
4.7. Analysis of the Node

- **Main roads that go through the centre of Nuenen**
- **Urban like character**
- **Village like character**

- **Existing buildings in the Node**

- **Main+secondary roads that go through the centre of Nuenen**

- **Rigid area of the Node**

- **Area in the Node that is less likely to change**

- **Typology in the Node**

- **Area of opportunity in the Node**

- **The ‘Ring’ where there is space for development, Private property**
Present and possible entrances to the centre of the Node

Functions in the Node

Existing green area in the Kievit playground and Dorpswerkplaats

Existing high vegetation in the Node and the V. Gogh Park

Private green areas mainly where the potential lies for dwellings.

Urban like character

Village like character

Housing

Restaurants / Bars

Art gallery

Shops

Community spaces

High vegetation

Private green areas

Main+secondary roads that go through the centre of Nuenen

Existing entrances

Potential entrances

Green area in the project location
4.8. Zooming in the Node

4.8.1. Dorpswerkplaats

Location facts:

This is an initiative from the people of the village which took place about 20 years ago. With a onetime subsidy from the municipality of Nuenen and the ‘Oranje Fonds’ the Dorpswerkplaats was built in 1995 at its present location. The purpose was and still is; to provide space and the facilities for wood crafting and crafts. Today it offers more than that and the members like to think that it is the second living room of the Village. In the present they pay a rent of about €20,000/year (Dorpswerkplaats manager, 2013). They work also with a voluntary system and by charging a yearly membership that gives access to all the facilities.

The main building of one story high is where the workshops are located, among these are for: woodcraft, electronic workshop, crafts, pottery, metal, and there is also a meeting room and storage space. It is important to mention that just last year they have invested almost €70,000 to renew the roof and replace the window frames of the building.

- Area: 2,890 m².
- It has one public entrance.
- There is a connection entrance with the Dorpswerkplaats.
- Gardens and a field for ‘Jehu de Boulez’.
- A parking lot that serves as for other purposes as well (ex. Market)
4.8.2. Playground Kievit

Location facts:

The Kievit is a playground for the youth in Nuenen, located at the Kerkstraat east side of the village centre. The playground exists more than two decades; the land was made available for the youth and it could remain like this as long as the purpose remained like this. Today the land is managed by the municipality and what lies on it, is property of the Kievit playground. Recently the municipality decided to keep the playground as it is and not use the land for other purposes.

- Area: 6,023 m², about the area of a football field.
- It has one public entrance.
- It has one service entrance, connection with the Dorpswerkplaats.
- Grass fields, a toddlers swimming pool
- From 2013, there is a new building, of one level.
- And picnic facilities.
4.8.3. Program

The existing program was made by visiting the Kievit playground and Dorpswerkplaats. There are mainly traditional playing and hobbying activities. It is interesting to mention that the metal shop has some of the old machinery of the Phillips factory. In the park the playing devices are fairly new and they have a good variety of them. For the design there could be two stages where the devices are kept but later on could be replaced with new ways of making the playground more playful and innovative. For example the smart lights can be implemented along the playground and other technological gadgets that can make playing a learning experience. There is a new section added to the program for the young workers.

This doesn’t necessarily take place inside the node, although there is already a space used privately for workshops. This space is an initiative of the owners of the property. Also there are existing activities that are not available for a particular group, for example the crafts workshops are only for the elderly at the time but these could be activities realized by the children and their grandparents.
4.9. Stakeholders

To further zoom in into the Node a scan is made to see which stakeholders are physically present in the Node or are related to it. The categories are: shops, restaurants/bars, private initiatives, cultural, and a beauty salon. Creating communication channels between the stakeholders and having a common vision from which all benefit is crucial to be able to start up a Bottom-up initiative.
As part of the exercise, different tools will be applied during the design process. With the purpose to apply skills and the knowledge gathered previous this graduate project.

Because there is no straight line towards an urban design (a final product) (quote - feedback sessions P. v. Wesemael, 2013), the design method used in the process of this project is design-research. Basically it is the process of corroborating the data gathered through observations at the location, interviews, possible scenarios that would help improve the design and possible scenarios as part of the design of the project. Thus making sure that the proposed scenarios were realistic solutions to the needs of the community.

Therefore the final product should not be seen as a master plan but rather, as one of the endless possibilities that a bottom-up approach can offer. It is a tool that will try to encourage and inspire the community, municipality and other stakeholders towards a more collective urban node that leads to also a more collective urban structure. And also give a strategy plan that illustrates the different stages that give some guidelines to make a start of the development.

From the theoretical conclusion there are some elements considered for the design of the project. Which are for formal purposes and for the strategy.
5.1. Strategies and phasing of the process

Possible access ways to the Centre Node
Stages 1, 2 and 3
Stages combined

In the actual design process the strategy is developed almost at the end. It is important to have a global idea in order to determine the different stages of the project. Basically it is a process of going back and forth, trial and error towards different options that lead to a final product. Therefore there is no definite strategy, rather there are different stages based on the access, the centre of the Node and the Ring which can be combined based on the opportunities and initiative that are created by the stakeholders, partnerships and so forth. There is a great deal of combination possibilities these are just some of them.
Combination of the entrances versus the core of the Node and the Ring

(A3-B3)+(A3-C3)

(A2-B2)+(A2-C2)

(A1-B1)+(A1-C1)
Formal and conceptual factors for the design

- Zoom in
- Supervise open developments
- Create Collective values
- Be user oriented
  (Urhahn)

- Partnership with University
- The spatial framework
- The first invitation
  (00:/:)

(Van Eyck)

Ribbons  Node

(Lynch)
Synthesis proposal for the Node in Nuenen centre.
References

- Burnley Living Roofs by HASSELL
- +node, ID Architects
- GreenhouseLiving
- Saunalahden lastentalo
- Urban Farming
Centre of the Node - Playground and Community centre
References

Almere Zelfbouw

Space-5, Eindhoven

Tübingen Sudstadt

New Leyden Primavilla
Centre of the Node - Playground and Community centre

A. Light path, Gammel Hellerup
Gymnasium / BIG

B. Shrewsbury International School by
Shma
Ribbon Children - potential development locations

NODE

Themes

Ribbons

Node

Collective Node
Ribbon Elderly - potential development locations

Ribbon Children - potential development locations
The Queen’s Walk in London

Turkey rainbow views

Street tiling
Social ribbons forming the Node
Inner Cycling Ring. The Ribbons cross as radials.
Cycling rings that connect the different quarters if Nuenen.

These rings can have also the smart illumination and there is also a pavement being developed in Brainport that gather solar energy. One or both of the cycling rings could be laid with this material.
This project is a process of rediscovering methods that have been developing for about a century, that is the Bottom-up concept and finding how this concept can be adapted into today's context with so many shifts in the economy provoking other parts of the system to change along. As it has been mentioned the social structure and way of working together to solve the challenges these changes bring along.

Understanding how the new trends work and how design fits into the new scheme of urban design was not easy during the process of this project and there is certainly more space to finding more solutions and developing further more towards a design that is clear enough to portray a vision and yet still be flexible in case there is an early turn or an unfortunate setback in the planning. This is why there are some options throughout, for the housing, for instance. Ideally a sort of catalogue should be developed from which the user, stakeholder and new owner can have the parameter in which he or she may develop an initiative or a home.

Yet finding out about the pieces of the puzzle helped understand how a Bottom-up intervention can work and the endless possibilities it offers; the last one can lead to confusion and even create the idea that there is no design needed. This could not be more wrong, although there is a user participation and is part of a great deal of the project, the urban designer still has to lead towards a design that fits into the rest of the context. Also, that it is responsible, socially, economically and with the environment. As the main theme of this project: society is changing drastically, not acknowledging this would not be responsible or socially sustainable. Economically it is no longer feasible to have big developments, there is no money for it and also it can not be afforded built more and more for the wrong purposes taking the risk that it may remain vacant. And of course developing with sustainability in the back of the mind is a must. It should be as basic as considering the orientation of the sun when designing a building or a public space.

There should be an integration of old ways and knowledge with innovation and new trends. It's a puzzle that gets more complicated thanks to technology that moves rapidly forward, the systems of movement, work, living and recreating become more complex and the user grows to be more demanding.

Having studied and discovered only a small fraction of the concept Bottom-up, the new phenomena that take place in daily life and finally the endless possibilities to provide solutions to these challenges only seems to be the first chapter to these fascinating topics.
Interview with ‘wethouder’ Mr. Jansen
Wethouder Gemeente Nuenen
Intro to my project (summary)
Profile questions:

1. What did you do before becoming ‘wethouder’?
'I worked for 12 years in the automotive/insurance area. As I teenager (16 yrs old in 1965) I volunteered to help my father organize activities for young people as he thought there wasn’t enough to do for young people. Initially I was not official and later on, it became more and more official. This took place at the Farm on Beekstraat (street). At 20 year old I was active in the politics in Nuenen and at 28 years old I became part of the town council in Nuenen. I stepped away from the politics in the period I had my family and came back in 2010.

2. Do you live in Nuenen?
Born and raised in Nuenen, I lived for some time in France for an internship and was able to travel all over the Netherlands due to my job in insurance business. I have two daughters, one of them lives in Nuenen already and the other one will move to Nuenen will move as soon as they can find a house of their own.
National issues that affect on a village scale:

3. How is the Municipality trying to deal with vacancy (schools, shops and offices)?
The main issue in vacancy is in the sector of education. Because of the new way the facilities are used are more in a multipurpose way where the school building is not only used for holding school lessons but extracurricular activities for the children. Which means that the building is used until later in the afternoon. Because of this new use the old fashioned schools cannot house the new activities and due to the shrink of the population the schools don’t function in their whole capacity. We have asked the housing association Helpelkeander to rehabilitate the buildings of these vacant schools into dwellings. In one of these schools buildings will be refurbished into apartments for social housing. There are 10.000 dwellings needed in the region of Eindhoven of which 30% is to be provided by Nuenen. Until now there have been about 1300 dwellings and there should be 1600 more to be built in West Nuenen for social housing. Even though the will be growth in the population in Nuenen in about 2030 this growth will be more constant and therefore the need of new dwellings will decrease. Regarding the schools there are at this point 4 new schools in Nuenen with the new use form.

4. How is the Municipality dealing with an aging population?
We give a lot of attention to the aging population, we have different facilities that should fulfil this task to keep people as long as possible independent in their own houses without the need to go to a retirement home, like the Akkers bejaardenhuis. To make it possible for elders to stay independent in their own houses the municipality make sure to make the necessary adjustments in their homes to they stay their longer. There is also another group that is important to us and that is the people that need special care. This people are part of the aging group so we make sure that all the facilities are there for them and also to provide more space in order to have more people as part of the program. At the time being there are some people who are from Nuenen but are in other locations because there is no space for them at the moment. So we want to provide space for then in their own municipality. This facility is called WIN (Woon Initiative Nuenen, http://www.hetwin.nl/actueel.php) for this facility there are 18 places...
6. How has the cuts in health and child care affected the population in Nuenen?

Relevance within Brainport:

7. What is the present relation/participation in the concept of the Brainport?

Nuenen doesn’t have a production industry but there are 24 businesses that create new technology in prototypes and collaborations with companies in Eindhoven. We do everything we can to keep these companies happy in Nuenen and that they stay here therefore when we start laying internet fiber glass in Nuenen we will start in the business area. The business area is located in Eeneind west. The region of Eindhoven city is planning to built 500ha of which 30ha are to be built in Nuenen. The average in the Netherlands of high educated people in municipalities is of about 20%, in Nuenen it goes up to 42%. One of Nuenen’s pride is an engineer that made great achievements as a Mechanical engineer.

8. Are there any plans to participate in a proactive way? If so, how?

Sure there is we want to keep the companies that are here and we innovate in different instances but there is more to come regarding the Van Gogh historical and touristic facilities. In the north of Nuenen we want to develop an area where he painted the Potato eaters. Different things should be coming there to create more activities.

9. Does Nuenen have plans to become innovative? How?

W.I.N. housing has the technology of domotica where lights and systems go on or off for the comfort of the clients.

Elderly and Kids:

Lately I see many grandparents baby-sitting their grandchildren.

For demographics you can look in www.brabant.nl

10. Do you know people that do this?

11. Do they have everything they need in the village?

There is the Dorpswerkplaats and the Kiwiet park for kids. When we were re-evaluating the plan for the centre of Nuenen we decided that even though the land where this park is is very expensive we will not change the function of it as we find that it has a significant value to the social aspects of the centre. So that stays as it is. There is also the

provided at this time.

For elderly who cannot take care of themselves we want to reach up to 96 beds to accommodate more people in the future.

Regarding housing I think that the schemes we are use to have in dwellings is going to change drastically because there will be a lot more single habitat dwellings in the future. Also the housing should be more flexible in order to adapt to the changes according the different faces of a family or one person’s life phase and also to adapt to health care needs in order to stay in one’s home. In this sense it is important that we innovate in new ways of living spaces, flexible in short term and long term.

In terms of social aspects and staying active as an elder we have in Nuenen an organization called (Ouderen organisatie) which has 1400 members from Nuenen itself and the adjacent villages. This organization creates activities for elderly such as hiking, cycling activities among others. Also there is another initiative that exists for a while now and that is the Dorpswerkplaats, a place elderly come together to practice different hobbies. What is nice about this place is that they are well established with their own machines and needed equipment for the different activities. This place is well organized and established and the owners of the this property is the housing corporation which is not allowed to make changes in this area. They have to keep these facilities available for the community.

5. How is the Municipality dealing with a shrinking population?

Regarding child care we had a time when people would volunteer to take care of the kids in different facilities with time it was noticed that a professional was needed in these places to be able to detect special needs that the children would show in this important period of a child (between 0-4 years old) the volunteers where not able to see certain things because they were not trained for that and thus issues that need to be detected at an early age in kids were not picked up. As a consequence volunteers were replaced by professionals. These ‘kinderdayerblijf’ are subsidized by the municipality but we can no longer subsidies all of it, therefore we have suggested to these facilities that they go back to volunteers and keep some of the professionals to fulfil the needs of the kids’ development. How they reorganize this is up to them. Another amenity is the kinderopvang Kids society Erica which is open between 8.30 to 18.30
kinderburderij and like I mentioned the new development that we have envisioned as part of the Van Gogh route.

12. What are the major problems for these two groups and the young workers (on Nuenen)?
13. Does the Municipality have plans already to tackle this? The future Nuenen:

14. In the ‘Centrum visie’ the village centre is protected patrimony, what is the possibility to make some changes within the blocks of this area? (Show on map) It is possible to make changes within the blocks but not in the park itself that should not be touch as it is a historical monument.

15. Is there a plan to attract new people/families to Nuenen? With social housing in west Nuenen we should be able to attract young people and also internationals. The school in the area is not functioning at its fullest because it is supposed to serve to those who would come to live in west Nuenen. Because it is still to come we need to maintain this school as it is. By the end of this year the infrastructure should be started and next year we would start with the first 30 houses. We do realize that we need to make adjustments due to the crisis in order to achieve our goal. And this also applies to the type of dwellings that we get in the development.

16. How could it be done?

*Is there anyone I could get in touch with in the future, should I have more questions?
25-2-2013

- There were 5 people out of Nuenen out of 25 participants.

- According to some of the results of the survey. Eindhoven was the last to score for quality in it’s green areas and Nuenen came as 3 last with in the South-east Brabant region.

- The Nuenens Broek is mentioned as an interesting/attractive green area of Nuenen. Located to the north east of Nuenen.

- Also is it mentioned how some people organize out of their own initiative excursions for elderly. Organized by elderly. Excursions on boats by the riverside – cost mentioned of €27

- 2 SRE – bir routes that are used even at night. It is not much appreciated by the people who live in the area. As it is not safe and it is disturbing because of the bicycle lights.

- Sport in green areas (forest) is appreciated by elderly. So the surroundings are used by this group also for recreational purposes. Active group.

- Combination – in recreation

  - cyclers – young/elders
  - Horse riders
  - Bikers
  - Pedestrians
  - in a way that they don’t interfere with each other.
  - “Many think that Eindhoven is not attractive enough to live in” – To the high educated. According to a teacher of ‘vastgoed’ Fontis

- Because of the ‘HOV’ being built towards Nuenen it worries some to the people that it brings the city too close to the village and as a consequence the green areas disappear.

- Nuenen west’s project will not go forward (????) verify if this is true.

- One of the people that come from Nuenen goes to the theater to Helmond

- Schools - could encourage a little more for children to come to green areas

- Stimulate families to come outside.

- For kids - during winter recreational spaces indoors but –green.

- Expositions that would bring more people to Eindhoven

  - leegstand – van Philips. What will happen with that?
  - how do you make people enthusiastic about activities?

- Bus connections are not optimal in all locations of Nuenen.

- Playgrounds in Nuenen need a better network and introduce more playgrounds outdoors/indoors during winter time or bad weather in the summer.

- Horeca has some nodes in the region that are strong. Focus on these aspects to improve the area.

- Cross field in Nuenen, but it is not much used. A pity since the facility is already there. It could attract more young people. It is located north of Nuenen near Son.
- Combine water and green and ‘hard’ (buildings/activities) Think of the safety for children and elderly and accessibility for wheelchairs.

- Not necessarily play furniture but make it adventurous.

- To attract expats-internationals you can better have activities with food and music.

It's about Hightech in the Eindhoven region but also about Hightouch, *my interpretation to this is that by being hightouch you also go back to the basics of experiencing things and experimenting with things.*

Tip from one of the participants to get in touch with the Nuenen Municipality is by: Wethouder Jansen via bureau Vermeeden.
Bottom-up: “An approach to product design based on research into the specific requirements of users, rather than on general design principles or existing models.” (Oxford University, 2013)

BRT: The Brainport region aims at improving mobility by sustaining car mobility and by developing a Bus Rapid Transit (BRT) network. BRT is a sustainable alternative for the car and BRT is fast, reliable, comfortable and has a high frequency.
In the next years the other corridors of the BRT-network will be developed. HOV2 is the first BRT corridor to be developed. This corridor runs from the village of Nuenen via Eindhoven Central Station and the city centre towards the High Tech Campus technology centre. (SRE, 2010)

Care cuts: Reduction of budget in the care system by the government.
Collective initiatives: Activities realized by a group of people with the same interests or skills towards a common goal.

Cluster theory: Porter mentions suppliers of specialized inputs and infrastructure, customer, manufacturers of complementary products, companies related by skills, technology or common inputs, governmental and knowledge institution, and trade associations.

Crowd funding: the practice of funding a project or venture by raising many small amounts of money from a large number of people, typically via the Internet (Oxford Dictionaries Online project team, 2013 17 /id)

Day-care: Provision for day care by one or more companies intended for the children (CBS 2013).

Demographic pressure: Demographic pressure is a demographic notion that the ratio between the sum of the number of persons 0-19 years and 65 years or older and those in the ‘productive age’ 20-64. The demographic pressure is the sum of the green and the gray pressure (CBS, 2013)

DNA of the village: is the analysis of the urban environment, demographic aspects, history, economical, and cultural aspects of a village.

Elderly: old or ageing (Oxford Dictionaries Online project team, 2013 17 /id) For this project it mainly refers to the elderly that take care of their children while their parents work.

Generation groups: In the context of this project is refers to 3 generations: Kids, Elderly and the Young workers (definitions to be found on this list).

Gray shock: “The world’s population is rapidly aging — by the year 2030, one billion people will be sixty-five or older.” (Shock of Gray, 2010)

Health-care: Care aimed to support clients in such a way that they can live at home instead of being hospitalized or admitted to a nursing home (CBS 2013).

Historical ribbons: Are the initial linear settlements in the village. For this study the time frame considered for this kind of urban development is from 1811 to 1943.

Kids: For this project this term will represent the children between the age groups of: 0-3, 4-6, and 7-12 years old. (Casanova Hernandez Architects, 2008)
Lifestyle: The habits, attitudes, tastes, moral standards, economic level, etc., that together constitute the mode of living an individual or group.

Liveability: (of an environment or climate) fit to live in with higher quality standards.

Micro-initiatives: Are individual and collective actors who by means of interventions in public space contribute to the development of their cities from the bottom-up approach.

New user: Grandparents and their grandchildren using public and urban facilities together.

Node: A central point in the village urban fabric where ribbons and collective activities converge to create a dynamic and thriving local space.

Population pressure: Demographic pressure is a demographic concept that the ratio between the sum of the number of persons 0-19 years and 65 years or older and the people in the so-called “productive age” 20-64. (RIVM, Rijksinstituut voor Volksgezondheid en Milie, 2013)

Population aging: “Is a phenomenon that occurs when the median age of a country or region rises due to rising life expectancy and/or declining birth rates” (DictionaryReference.com, 2013)

Labor force: “All 15 to 65 year-olds are among the potential labor force, for example, the proportion of the population that falls in the productive age group” (RIVM, Rijksinstituut voor Volksgezondheid en Milie, 2013)

Green pressure: “Is a demographic notion that the ratio between the number of people aged 0-19 years and the number of people in the ‘productive age’ 20-64.” (RIVM, Rijksinstituut voor Volksgezondheid en Milie, 2013)

Stakeholder: a person with an interest or concern in something, especially a business. (Oxford University, 2013) In this case it referred also to every single party that would be actively envolved or passively affected by the development of the node. Thus: the shop owners, private poverty owners; wether it is a house or a comercial space; the dwellers, also the visitors to functions like the playground Kiwiet and Dorpswerkplaats, restaurants and art galleries.

Subject: The Kiviet playground, Dorpswerkplaats and the attached amenities to these spaces.

Ribbons: “The building of houses along a main road, especially one leading out of a town or village.” (Oxford University, 2013)

Urban Ribbons: Complement to the historical ribbons in the actuality and future. These can have specific themes or combined themes for kids or elders.

Young workers: the population that has started to be part of the labor force. Also that part of the population that is starting a family or acquiring their first home.

Village: a small community or group of houses in a rural area, larger than a hamlet and usually smaller that a town, and sometimes incorporated as a municipality.

Work–family conflict (Werk-thuis conflict): “is a form of inter-role conflict in which the role pressures from the work and family domains are mutually incompatible in some respect. That is participation in the work (family) role is made more difficult by virtue of participation in the family (Task Force Part-Time Plus 83-85) role” (Greenhaus & Beutell, 1985, p. 77)

Work–family enrichment: “refers to a process at the work-life interface whereby experience or participation in one role increases the quality or performance in the other role.” Wikipedia
References


