

MASTER

City of stories

citizens participation and empowerment in public space

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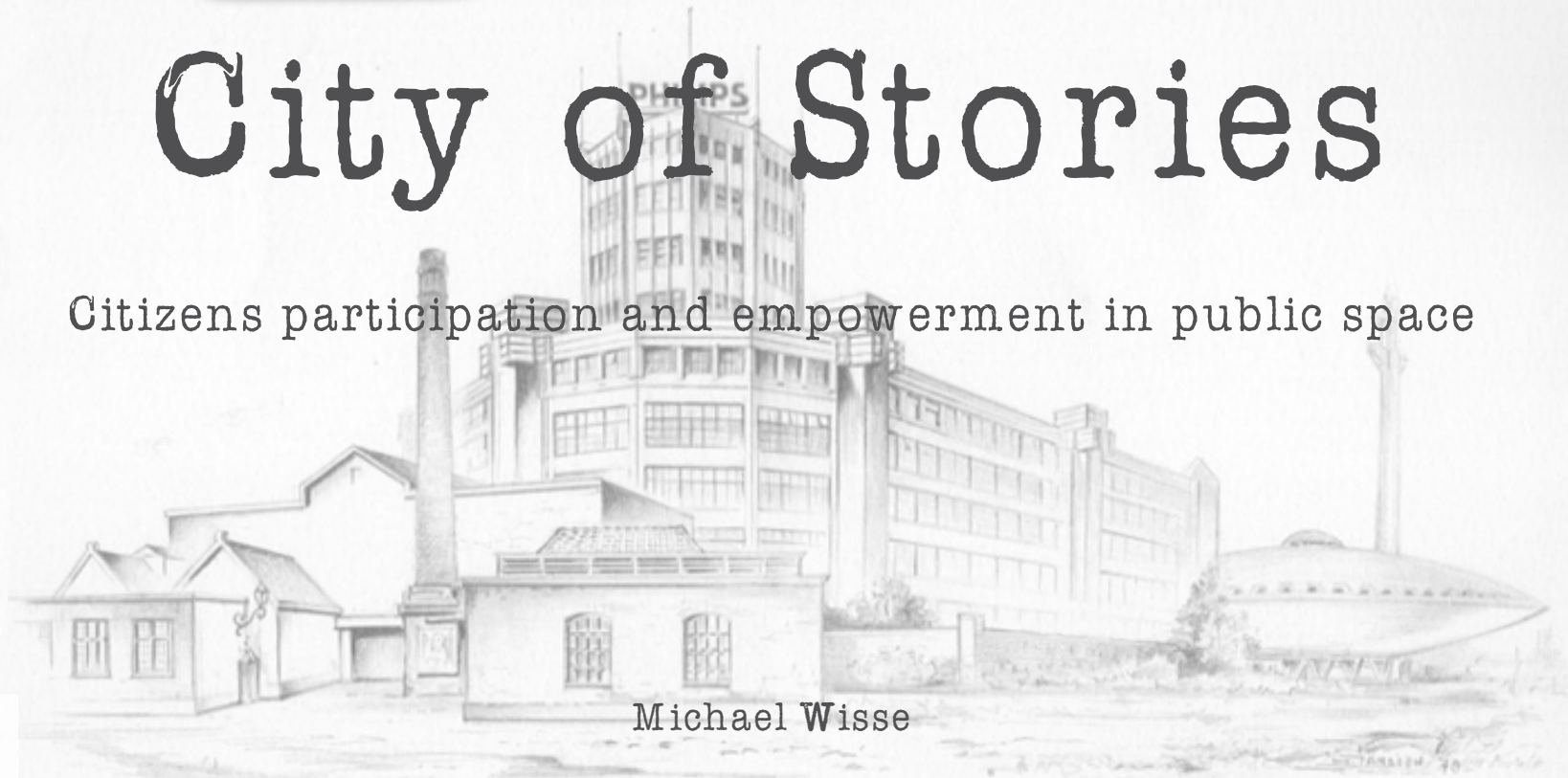
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City of Stories

Citizens participation and empowerment in public space



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City of Stories

Citizens participation and empowerment in public space

Preface

Before you lies the thesis 'Cities of stories, citizens participation and empowerment in public space'. The thesis is the end product of the ten months graduation studio 'Heart of the City'. With this thesis i will conclude my Urban Design and Planning master on the TU/e.

This thesis addresses a new development inside the urban design and planning discipline. As cities are facing more complex challenges, the knowledge of the citizens are needed to find the right solution. This process is delicate, as a miss-used strategy could lead to an increase of the problem.

During the project I always find support for my struggles or questions and would like to thank them for that. First off i would like to thank the tutors, Marcel Musch, Johan van Zoest, en Pieter van Wesemael for the tutoring during the graduation

project. As the topic I chose was unknown to me at the start, my process was not one of the smoothest. Especially during the research and concept phase I changed direction more than i would like to admit.

Secondly I want to thank all the people who helped me during the process of this graduation project by always being open to listening to my story or answer some questions.

Michael Wisse, 20th of June 2016, Eindhoven

Abstract

Urban development and planning is changing, as the top-down method is slowly being replaced by a bottom-up approach. The new complex challenges and limited amount of resources has created the necessity for small scale interventions with mayor impact. Citizens play a crucial role in this matter as they know the local aspects better than any city servant ever will. Realising ways for citizens to participate in solving the cities problems and challenges is a must. The municipality of Eindhoven has set an inspiring goal in trying to realise a participation society. But as Eindhoven's participation society starts to take shape, the citizens' involvement in their projects is lacking. This is a concern, as a participatory society by definition needs to be inclusive to be successful.

A new approach to realise Eindhoven's goal to create a smart, participatory society is required, as the current technical

approach of Eindhoven seems to miss the spot. To help create this new approach, the research question '*Can the public space be used as a tool to help develop an inclusive Smart Society?*', is asked in this thesis, and will be answered in two steps; creating the needed requirements for a participation society from a literature research, followed by constructing a concept from these requirement. To strengthening this concept created, a more specific design which could be developed as pilot project will be proposed and designed.

The main conclusions from the requirement research is the need for offline participation options, increasing the usability and awareness of all the existing options, as wel realising a way for citizens to feel heard and appreciated for their effort. Using public space to achieve these requirement seems a smart move, as public space can provide the offline participation options, can create more awareness by just showing all the options in public, as well provide a place for citizens to be heard and appreciated again.

The concept that uses the public space as an effective participation tool is called 'City of Stories'. The public space is used to figuratively tell stories; citizens stories, challenge stories, problem stories, development stories, etc. The concept itself focusses on realising participation hubs inside the hubs, on two different scales.

The city hubs combines public space with media facades and playful, intractable installations, to create awareness and a low barrier, low time investment participation option. The data collected in these project, generated by the citizens using the playful participation projects, is used in offline public debates. Not only provides this a way for a-technical citizens to truly participate, but provides an assurance for citizens that they will be heard.

The local hubs on the other hand focusses on the local participating. Existing citizens' initiatives and participation

projects are opened up in the public space, creating much needed awareness for them, as well as providing a way for the existing initiators a way to receive praise from their fellow citizens. Furthermore the local hub stimulates new initiatives, by combining access to the necessary tools, with a program on location aimed at stimulating interaction between citizens.

All the hubs are connected with each other by a physical and online network. The physical network uses the municipality proposed plan to redevelop the old city radials, to realise a green network connecting all the city hubs with each other. In this 'spider web' the local hubs hang. The online network on the other hand provide all the participation information in an easy to user overview.

As the whole participation concept need to start somewhere, one neighbourhood is chosen as a pilot project for this concept. The neighbourhood chosen is Woensel-West. The neighbourhood is undergoing a rapid transformation from a disadvantaged

neighbourhood to a liveable, active neighbourhood. Citizens' initiatives play a large role in their successful transformation.

As the City of Stories concept is translated to the specifics of Woensel-West a first concept can be made for realising the local hubs inside the neighbourhood. In the concept four local hubs will be realised, all four connected to nearby existing citizens initiatives. Each hub has an own theme, structure, program and design concept.

The four hubs are connected with each-other by two routes. These routes provide the guidance from the first introduction hub to the other three hubs inside the neighbourhood. All the four hubs, as well as the connecting routes, together tell the story of Woensel-West's rapid transformation, and provides a place for the local citizens themselves to tell their story as well.

One hub in every story needs to be designed as an introduction, a book-cover, for the story. In Woensel-West this

is the Brooklyn Square hub. The design for this hub focusses on stimulating interaction between the local citizens and the visitors, by mixing public and semi-private program.

The end conclusion of the whole thesis is, yes, the public space can be used as a tool to help develop an inclusive society. By integrating new technologies, as media facades, in the public space and combining them with offline participation options, not only creates more awareness and usability of all the options, but as well provides a guarantee for citizens that they will be heard. Furthermore by expanding the existing initiatives in the public space, local participation can be stimulated, resulting in an increase in community activity and social cohesion

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Introduction

A new form of development

The participation complication

Methodology

1.1 A new form of development

Urban development is changing. The time of top-down, masterplan development is slowly disappearing. Cities and its citizens are changing faster than ever with the rapid development of new technologies and the effects they have on the urban space. An approach is needed which is more flexible and faster to implant. Cities are looking for small interventions with major effects for themselves. In this approach citizens play a crucial role as civic servants and city councillors cannot keep up with all the changes inside neighbourhoods. The knowledge of citizens on the local problems and the challenges lying ahead.

Secondly the integration of technologies, especially social media, in the daily lives of citizens and the city in general, has brought forth hidden social problems, like loneliness, inequality and exclusion from the local community. These problems are not solved by creating a masterplan, but requires a social

approach with a crucial part for the citizens to facilitate new programs or initiatives to fight these rising social problems.

The municipality of Eindhoven recognizes the same shift of development and has started a program to allow and stimulate more citizen involvement. Their aim is to create a Smart Society; an urban society where civil servants, academic institutions, private parties, and the citizens all work together in creating a better city. The end goal is to create a society for 'a new form of democracy' (Scheurs, 2016) with place for a strong voice from the citizens.

This new Smart Society should replace the old top-down urban planning structure, with a new bottom-up development structure based on the input of the citizens. The end-users of urban development projects, become a part of the process. Not only will this result in an end product better suited to the end user, but the increased citizen involvement in the project will result in a feeling of responsibility for the end product.

1.2 The participation complication

In their quest to realise the Smart Society, Eindhoven is facing trouble reaching the whole population. Their programs and tools are just being used by a fraction of the population, which does not create the 'new form of demarcation' the city is aiming too. The current Smart Society does not create solutions for the urgent (social) challenges and problems, but more convenient new tools for the 'lucky few' that are really participating.

The groups that are often missing in the Smart Society projects are the vulnerable groups who could theoretically benefit the most from the Smart Society movement, as they are often the ones facing the new rising social issues daily; loneliness among elderly, inequality among low income, and exclusion among older generation of immigrants. The Smart Society is supposed to provide a way for them to be heard, but so far the opposite is happening; it is another group they are excluded from.

This lack of common citizens involvement in the Smart Society is a concerning trend, as it could contribute to the lack of social cohesion between the citizens that are involved and the ones that are not. Ultimately the two groups could get socially segregated, each group isolated within their own lifestyle inside the same city. One city for the tech-workers and the 'Smart community', and one for the often lower-income, technical illiterate, 'Dumb community', as San Francisco highlights (See intermezzo paragraph 'The dual city of San Francisco').

While Eindhoven recognised this lack of common citizens' involvement, they are struggling to create a strategy aimed at creating the Inclusive Smart Society, with a new form of demarcation, the city is looking for. This thesis aims to contribute to this struggles by asking, researching, and answering the following research question

Can the public space be used as a tool to help develop an inclusive Smart Society?

Intermezzo

The Dual City of San Francisco

The Dual City of San Francisco

San Francisco is the hot spot for technological companies. With Silicon Valley just around the corner, San Francisco has actively promoted itself as the place to be for the new young technological entrepreneurs with their wired lifestyle. The city has taken on the role of provider of the necessary tools to realize their Smart Society, like open data, workshops and start-up orientated policies, and enabling the large private sector to solve the civic problems of the city (and the world) themselves.

At first the private approach of San Francisco's Smart City strategy seemed to work pretty well. Tech workers were relocating themselves in the city, start-ups were popping up throughout the city, and the first applications and innovations appeared using the smart tools provided by the municipality,

focused on civic problem, requests from the public or creating easier platforms for citizens to help the local government. Some applications, like SeeClickFix and Citysourced created an easier platform for people to report minor problems in the neighborhoods like potholes or a broken swing, while other applications mapped the current locations for public transport or nearby restaurants (Lee, Hancock & Hu, 2014).

But as private investment into the Smart City initiatives and start-ups grew, the aim switched rapidly from a social or cultural one, to an economic one. The 'Smart' City started to target the group with the largest market-value, the high-tech workers and entrepreneurs, and less the whole population of the city. Most apps, initiatives and start-ups have a clear bias to the culture of this tech group (San Francisco Startups list): from their preference of Apple products, to their preference for organic and homemade food, to uniquely designed products (McLaren & Agyeman, 2015). Furthermore, new entrepreneurs followed these successful ideas and structures

as a standard for their own start-ups or applications. Terms like ‘The Uber of’ are commonly used by start-ups. This standardization results in start-ups with a pure market, tech-worker orientation, with less to none usability for the common citizen (San Francisco Startups list, n.d.).

The local non-tech workers has started to grow a grudge against the tech-community and everything associated with tech culture. Protests against Airbnb, Uber, and blocking of the Google buss-shuttles are just a couple examples of the growing conflict (Oreskovic, 2013). The local non-tech community regards the tech-community suspiciously, and questions everything they do or start, even if it might be interesting or beneficial for people outside the tech world. FAB-labs for example has been started around the city, but are (almost) exclusively used by the tech community, while they are publicly accessible. They look to these the same way as to most tech innovations: “that isn’t for us” (Schor, et al.).

Overall the city of San Francisco is slowly transforming in a dual city: one city for the tech-workers, with access to all the new ‘Smart’ initiatives, and one city for the common worker who lacks the resources or (technological) knowledge to be able to use the new ‘Smart’ initiatives. This leads to a separation of the two social groups, as Hollands already warned for in his 2008 essay *Will the real smart city please stand up?*

The smart/creative city can become not only more economically polarized, but also socially, culturally and spatially divided by the growing contrast between incoming knowledge and creative workers, and the unskilled and IT illiterate sections of the local poorer population. Urban gentrification in this regard, refers not just to housing and neighbourhoods as it once did, but increasingly to consumption, lifestyle and leisure in the city. (Hollands, 2008)

1.3 Methodology

The answer to the research questions will be established in two steps. (Figure 1). The first step is to obtain a clear set of requirements and tools to realise the Smart Society. The two main aspects of a Smart Society, city participation and citizens' empowerment, will be used as starting point and guidance. The arguments for the citizen participation and empowerment aspects will be constructed from three city cases studies: San Francisco, Seoul and Amsterdam.

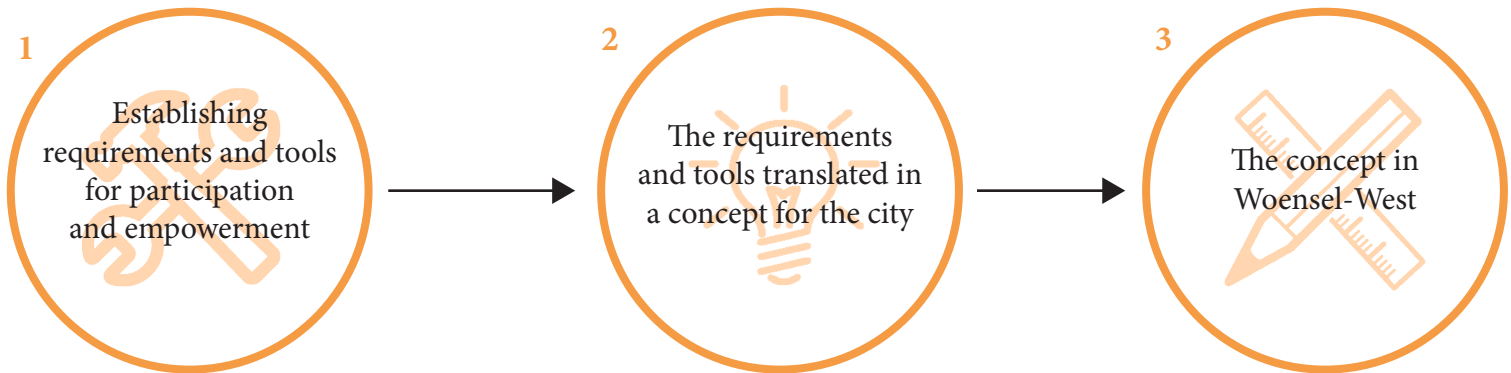
The second step is the translation of the established requirements and available tools into a concept for the city. This concept will be explained by means of the structure of program, software/technology, and space and organization. The end goal of the concept is realising a new way of participation and empowerment for the city, and so a clear example of what this new form of participation will be, is be used as conclusion,

and provides the answer to the research question. To further strenghted the proposed concept, the concept will be translated to a specific example in Eindhoven.

The last part in this thesis is more detailed elaboration on how the concept will (or can) influence the physical form of a neighbourhood. The neighbourhood Woensel-West is taken as the design location of this step, where an urban plan and rough design is created for the whole neighbourhood, with one location further and more detailed designed.

Can the public space be used as a tool to help develop this 'new form of democracy' and create an inclusive Smart Society?

Answer established in two steps, and strenghted by a specific elaboration



Smart Society requirements

2

Introducion

Smart Society Eindhoven

The five aspects of Participation

Eindhoven's Participation puzzle

2.1 Introduction

AAs Eindhoven's goal for the Smart Society is the realisation of a participatory society, the research focuses on participation as the term which is still wide enough to include most aspects of a Smart Society.

Participation in general can be done on different levels. These levels of participation are often still categorised accordingly to the 'Ladder of participation', created by Sherry R. Arnstein in 1969 (Figure 2).

The first two levels, manipulation and therapy, are misguided forms of participation, as their real objective is not to enable people to participate in planning, programs or projects, but to enable the initiators to educate the participants. Manipulation is nothing more than using participation as an instrument to create public approval or support for a proposed plan or

project. The role of the participants is to tell the community how great the new plan is. The therapy form of participation uses the feeling of collaboration, and often the slogan 'for the greater good', as a tool to distract citizens from the real problems. This tactic was a common tool used by (American) housing association in the 60s and 70s, By creating community groups with programs like 'clear your street' the attention of the participants was diverged from the serious, often more individual problems (like the umpteenth postponement of a broken window), to the programs for the whole local society (Arnstein, 1969).

The three following levels can still not be called participation, as the participants still lack true power over the decisions made. While the participants can express their opinion about a subject, the initiator can still choose to ignore their input. Providing information and consultation both provides the necessary tools for a citizens to create an opinion on a subject, but still lacks any assurance that the input is heard and

integrated in the project or plan. Furthermore they can still be used as a tool to create public approval for a suggestion, by confusing the participants with technical information. The fifth level, placation, creates the illusion of power for the participants. They are invited on the decision making board as the citizens or social group representatives, giving room to express their opinion and can even vote on new decisions, but they will always be outnumbered by the initiators or managers (Arnstein, 1969).

The last three levels are the forms where true participation start to occur, as citizens are giving meaningful power in the decision making. The ultimate form of participation is a system where the citizens are in control of the process of realisation and management. While citizens will never be truly in control, as they will have to follow city regulations or national laws, they need to be able to create their own development, programs and decisions within the frames of these regulations.

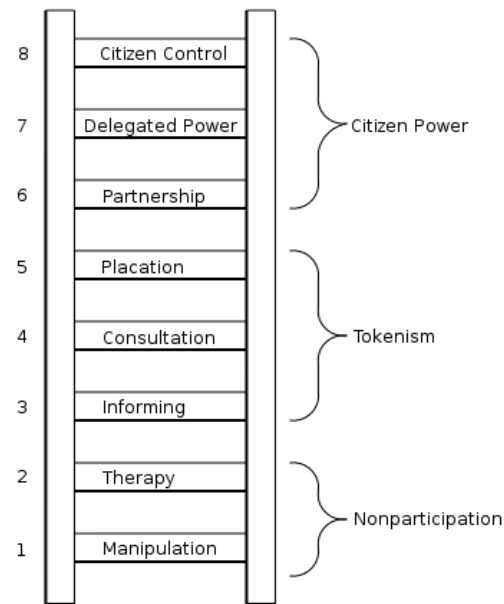


Fig 2: Participation ladder (Source: Arnstein, 1969)

2.2 Smart Society Eindhoven

As described in the introduction participation can be done on several levels. As the municipality Eindhoven wants to realise the 'new form of democracy' with an inclusive participation society, their end-goal should be realising a citizen controlled participation society. A first analysis of the current smart society projects in the city will provide the basics to see how far Eindhoven currently is on the participation ladder.

The starting point for any city that wishes to embrace the Smart City/Smart Society movement is opening up their data for its citizens. For Eindhoven this was the starting point too, but the city combined the opening of its data with data-driving hackathons. These hackathons focussed on creating new tools, ideas and applications for its citizens, and to show the potential of open data to the whole city. The hackathons are advertised as a collaboration project between the citizens, private companies,

the municipality of Eindhoven and academic institutions, but is in reality nothing more than a glorified consolation event for the city. The whole organization and program is set-up by the municipality, focused on a theme or instrument from their choosing (data in this case). The citizens pitch ideas and concepts for the cities problems, aiming to win the price money. After this it is up to the city to further develop the pitched ideas.

Looking at the results this never seems to happen though. The winners from the 2016 hackathon, happy machine, pitches an interesting idea (using gaming to monitor happiness inside neighbourhoods), but searching for further information or a continued development comes up with nothing. The project, just as the other results from the 2016 hackathon, seems to be abandoned right after the hackathon. Both the participants and the city seems to lack interest in further developing the ideas, which is understandable considering most pitched ideas are nothing more than that; ideas. The happy machine pitch for

example provides some suggestions how it could work, but does not provide any arguments or structures to make sure it really monitors the happiness of the whole neighbourhood, and not just the few citizens that participate.

Next to city wide participation, Eindhoven has tried to empower its citizens on the local scale, by promoting and providing platforms for citizens to start their own initiative. An online platform which provides the latest news per district provides the basic information for citizens to know what is happening in their neighbourhood (Stadsdelen, n.d.). The 'Maak't Mee' program from the municipality supports the ideas and initiatives of the citizens with finances, organization and realisation. (Gijzel, 2013). Some inspirational results were published in a pamphlet as promoting material, and highlighted project like 'Adopt a street', 'Teenager enabled BMX-location' and 'Neighbourhood libraries' (Maak't Mee Magazine, 2015). This part of their approach is more in line with true citizen participation, compared to the hackathons, as it is more

focussed on creating a partnership between citizens and other parties, where the citizens has some sort of meaningful power. Calling it a true partnership would be misleading, as the city still seem to have final decision power in further developing a project or not. Result wise the program seems semi-successful as several projects have been realised, but the overall citizens' involvement in the project is low.

Besides fostering citizen participation the city has realised several living labs to experiment with new technologies. One of these labs is the 'Urban Lab Stratumseind 2.0', where the city is experimenting with lighting, social media and gaming technology to address the rising number of incidents and declining number of visitors of the night life area. Other living labs are located in Strijp-S and Eckart-Vaarbroek (Brouwers, 2015). These are more focussed on multiple smaller smart projects, from smart parking, to smart lightning, to smart housing. While described as a living lab with citizen involvement, the actual role of the citizens seems to be more

on providing data and monitoring their behaviour than being actively involved in the smart projects. Especially the 'Urban Lab Stratumseind 2.0', shouldn't be called a living lab as the form of citizens' participation comes the closest to the manipulation level, then to any other scale.

One of the last started innovations to embrace citizen participation is the realization of the Smart Council, consisting of international professionals, local experts, city board members, and citizen representatives. The first (public) meeting was during the Dutch Design Week 2015 as a one day seminar 'DeStaatVanEindhoven'. An introduction to what this Smart Council will focus on was given. Their current project is to create a data-centre bus inside one of the neighbourhoods, to introduce the citizens of that area to all the options and nonsense of open data. The project is still in the start-up phase and so a complete conclusion cannot be made, but the description of the data-centre bus seems more educational and informational than really participatory.

Concluding Eindhoven's current approach is somewhere in the middle of the participation ladder (Figure 3). There is some experience with truly citizen participation in collaboration events, but the city is still in the starting phase. Most of the projects and processes focus on providing information and consolation, which is according to Sherry Arnstein (Arntstein, 1969) a good starting point to realise the truly citizens participation.

Result wise the described projects inside Eindhoven seems to produce a limited amount of useful products. The hackathon end-products are abandoned right after the hackathon, while the other programs have not resulted in many results at all. Just providing the opportunities to participate does not seem to guarantee useful results.

Because of this, the next paragraphs will focus on the aspects related to a successful participatory project or process.

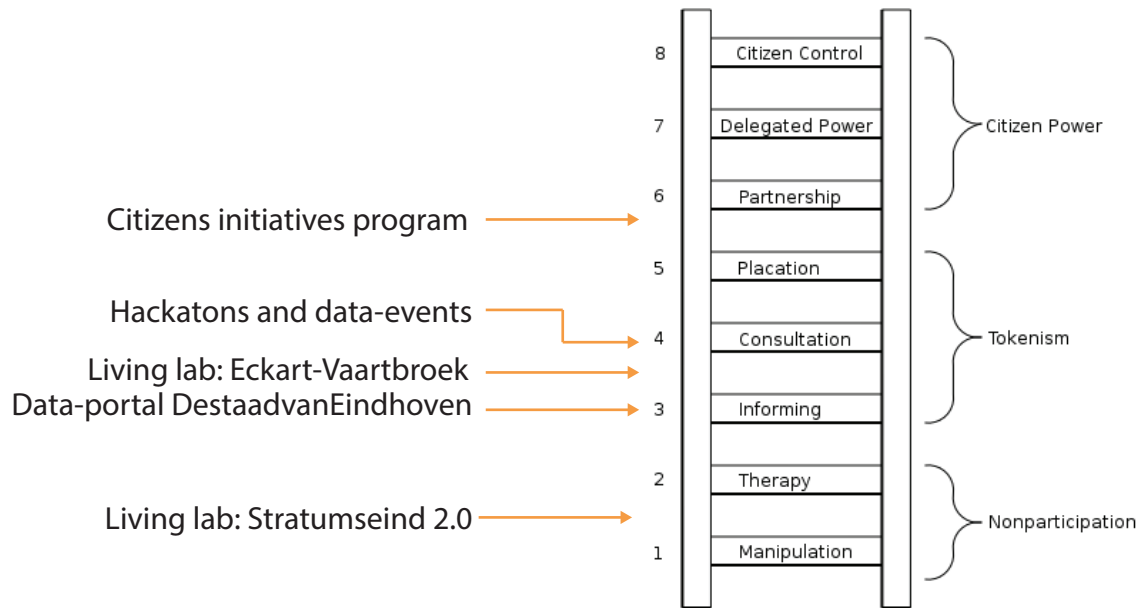


Fig 3: Participation ladder of Eindhoven

2.3 The five aspects of Participation

The lack of results or use of participatory projects and processes is a returning concern for Eindhoven's Smart Society program. Gladly research on the successful development in participation is extensive. While participatory processes and projects can differ wildly between disciplines, five main aspects for successful participation processes return. These first three of these main requirements for participation were already provided by Finn Kensing in 1983 (Kensing 1983), with Clement and Van den Besselaar ((Clement & Besselaar, 1993) adding two more a decade later in 1993.

- *The need for relevant information*
- *The ability to express your opinion*
- *The ability to participate in the whole process.*
- *A participatory development structure*
- *A fitting organizational and technical approach to the project*

As these five requirements were created several decades ago, their specific meaning needs to be altered to the contemporary society and city, especially to the integration of technology in the participatory processes and projects.

The need for relevant information

A participatory process is meant to start a conversation between different parties. A meaningful conversation can only be started if all the parties are well-informed about the discussed topic, meaning access to relevant information is needed. Furthermore the information needs to be understandable by all the parties.

For city participation this often means opening up their data, policies, master plans, procedures, etc. For citizens to participate in urban challenges and development, they not only need to know what is happening, but why it is a challenge or a problem too. Furthermore the information needs to be understandable for the average citizen. To achieve this

Eindhoven and the Centraal Bureau voor de Statistiek (“Dutch Statistical Office”) have already started transforming data sets into interactive maps and applications, to create more user-friendly information sharing platforms.

One new (and rising) concern in the need for relevant information is the usability of the platform used to share the information. Originally the information was shared on paper or verbally, but nowadays it is mainly (or exclusively done) online. Not everyone has the required technical knowledge to use these platforms. While the citizens of Eindhoven have access to the relevant information of their needs, the usability of the info-platforms is a different story. Besides everything being online, which automatically excludes the a-technical citizens to access the information, all the information is also scattered on countless sites and specific information is often hard to find. For Eindhoven one platform where all the information comes together, with offline access points, seems a necessary step to realise the Smart Society goal.

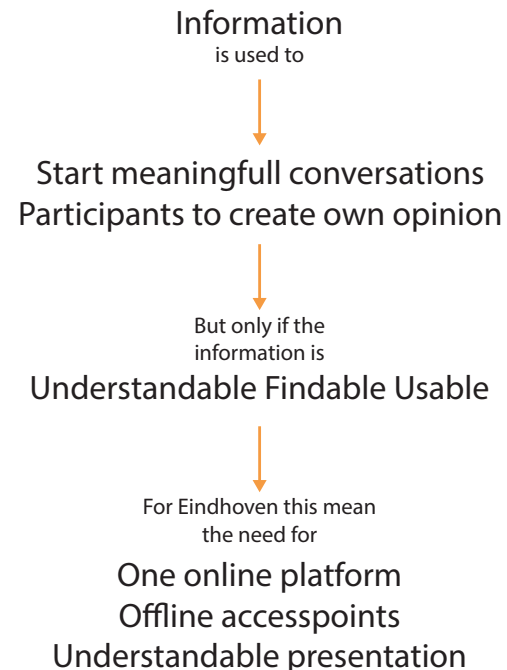


Fig 4: Need for relevant information scheme

The ability to express your opinion

Expressing your opinion on a subject is crucial to achieve meaningful participation. In the original meaning this requirement was associated with being able to freely express your opinion without any negative consequences, as well as your opinion being heard by the right people. This requirement was especially aimed at the managers of a company to have an open mind for the employees' responses and feedback.

Nowadays expressing your opinion is not a problem anymore. With social media and countless forms, everyone can provide their opinion on everything (and everyone), including the newest development and challenges for cities and Eindhoven specifically. But as described, before the feeling of being heard there is the equally important ability to express your opinion. This feeling of being heard is hard to achieve on an online platform, as the citizens will (almost) never

know if their comments will be read by the city board and councillors. Looking at the results from the social media and the participation forms highlights the need for being heard, as they provide minimal useful input from the citizens for the city.

The essay 'Are government internet portals evolving towards more interaction?' (Sandoval-Almazan & Gil-Garcia, 2012) urges that for more meaningful participation face-to-face meetings are needed, which provides more trust in a citizens' input and opinion and gives citizens a feeling of truly being heard. This claim is supported by the success of Seoul's participation structure, which combines the online platforms, with a structure that provides the feeling of being, which includes offline meetings (See intermezzo Seoul-Oasis).

Seoul not only shows the benefits and the need for offline meetings, but highlights another aspects: the usability of the participation platform. Even with Seoul being the most connected city in the world, the city invested heavily in

making sure everyone has access to the new E-governance and participation options, and moreover the knowledge and ability to use them. An online approach fits into the culture and structure of Seoul.

For Eindhoven a mainly online approach seems a bit misplaced, as the city does not have the technological integrated backbone of Seoul. Furthermore a more offline approach, in the public space, seems as a better way for citizens to express their opinion, as this is already done in western culture in demonstrations and public protests. While supported by online networks to facilitate demonstrations, the protesters create awareness to their concerns by 'exploiting' the public nature of public space.

For the realisation of a participation society, as Eindhoven wants, a more offline approach with room for large public discussion and debates seems to fit more into the culture and technical capabilities of its citizens.



Fig 5: The ability to express your opinion scheme

Intermezzo

Seoul-Oasis.

Seoul is the most connected city in the world, 97% of its inhabitants have a broadband connection and close to 80% of the 10 million inhabitants have a smartphone. This technologically advanced society has been the leading structure of the Smart City movement inside the city, as the city has mostly invested in creating a wide-spread E-governance and citizen participation network (ITU-T, 2013).

The first step was to create a more convenient and opener government. Showing the public what the city is doing, how their forms are being handled and creating a first interaction platform to increase trust and usability in the government and its services (Kim, Kim & Lee, 2009).

By creating this network Seoul government has paved the way for realising a participation society. To make sure everyone

has access to this network and the e-governance services, the city has started a cooperation with the tech giants of Seoul, to hand-out second-hand devices to vulnerable groups, who would otherwise be excluded from accessing the e-governance network. Devices are collected, cleaned and repaired (if necessary) by the tech giants and distributed freely to vulnerable groups. For each donated and repaired device, the companies earn a small tax rebate. Furthermore, the government provides lectures and educational workshops on how to use these devices (Seoul, 2013).

The next step in realising the participation society in Seoul was the realisation of Seoul-Oasis, an easy to use platform for city-wide participation, where everything related to participation comes together, including comments on social platforms like Twitter. While providing a very usable service, the number of participants were initially low (Chung, 2013). To promote participating a reward system, the Mileage system, was initiated. Participation with Seoul-Oasis awards points that

can be exchanged for public-transport, cultural and museum tickets, as well be used to pay for governmental services. This reward system creates the first impulse for citizens to participate.

The initial reward is supported by a system of appreciation for active and helpful participants. The activity of a participant at the participation platform is reflected in the status and strength of their comments and posts (Chung, 2013), as well as in the possibilities to get invited to the citizen committee. This committee evaluates suggestions and create a starting point for collaboration between the citizens' ideas and the governmental resources, in the form of offline meetings.

With this system Seoul has tried to realise a participation platform usable by the whole population. By means of a large system which shows both the governmental support and involvement in the participation projects as well as that of active citizens (Chung, 2013). And they were successful, the platform

has close to seven million unique users (Seoul has roughly 10 million inhabitants) in 2014, and looking at the realised projects their approach seems evenly successful in creating an inclusive participation platform. The projects and upcoming discussion address a wide variety of problems and themes, from English subtitles for Korean movies for international visitors, to free to use wheelchairs and strollers in public parks, to adding charge stations for the public transport pass at bus-stops, to a special workers card for part-time workers(Seoul, 2009).

To conclude, the approach of Seoul's government has activated the culture and strength of the city and the technical integration in the daily lives of the citizens as leading structure to achieve their participation society. They have invested heavily in making sure everyone has access to the platforms, by collaborating with the tech giants of Seoul. Supported by an appreciation and reward structure, which included the necessary offline meetings, the city has realised an active and inclusive participation society.

The ability to participate in the whole process

Just as any other projects, a participatory project undergoes several stages from first idea, to concept and design, and ending in realisation and management. Generally speaking, participation is only possible during a small part of the whole process, often during the design and concept phase. Citizens provide feedback and input on the proposed development, and together with the initiators will form an end design. From here the participation stops, as the big decision moments have passed, and the initiators take actions to realise the project.

Such an approach with small windows for participations works fine if the end goal is to create a finished product which requires little to no management after realisation, and will be replaced with a new product after a certain time period. City participatory projects fall outside this category more often than not, as often there is not a specific end-product. Their results, like new services, urban space interventions or

event organization to name a few examples are more circular processes, with continuous reflection on passed stages and the end-product itself. Offering citizens just one option to participate in only a small part of this process seems illogical.

First off the citizens are (almost) always the end-user of the product/service, realised by the participatory program. They will experience the product or service on first-hand, and can provide valuable user information for the further development or monitoring of the new product.

Secondly citizens are less involved with a participatory project when they can only participate in a small part of the whole process. This is noticeable in the end-use of the new service of product, as it often collapse in a small period of time after release. Furthermore getting citizens' support for a new product is a challenge, if they are not involved from the start. They do not see the need for this new product, or lack the interest to participate in it. In Amsterdam for example, a lot of

citizens' ideas are pitched on crowdsourcing websites to find citizen support, but as they were not present from the start, they do not see the benefits of this new product, or just lacks the interest to get involved (See intermezzo crowdsourcing in Amsterdam). Another example of the lack of interest in a new service or product can be seen in Seoul. While they have created a great city-wide participatory projects, they are having trouble finding citizen support for smaller, local scale projects (See intermezzo Empowerment in Seoul).

From these example giving citizens the ability to participate in the whole process, would create a better connection to the participatory product, resulting in continues involvement and interest in the end-product. This will be reflected in the usage of the product or service. Furthermore the more citizens are involved in the whole process, the closer it gets to Arnstein's (1969) truest form of citizen participation: citizens controlled participation.



Fig 6: The ability to participate in the whole process

Crowdsourcing in Amsterdam

Amsterdam is promoting itself as a Smart Society focussed on the citizens. This is done by not only opening up their data, organizing participatory events and embracing a start-up society, but also by creating public-private partnerships, where citizens play an active role and are seen as a valuable asset. In Amsterdam's Smart City program themes like civic engagement, public opinion and knowledge, and citizen empowerment, are plentifully integrated in the cities projects. The realising of a smart society (and associated smart citizens) is considered one of the leading themes of the city (City of Amsterdam, n.d.).

One of the ways Amsterdam is promoting citizen empowerment is by supporting crowdsourcing programs and platforms, like 'IdeeVoorJeBeurt', 'VoorJeBeurt', and 'Civocracy'. New citizens' ideas and initiatives are pitched on these platforms, and citizens can show their support by donating resources.

The results from these platforms seems lacklustre though. For example, 'IdeeVoorJeBeurt' has 99 users (on February 2016), and most ideas and projects posted have not found any support or funding. 'Cibocracy' does not even seem to have any discussion about Amsterdam. The most successful one seems to be 'VoorJebeurt', where at least several project have found support and enough funding to be realised. A good reason for this could be the reward system implanted, if somebody donates a certain amount of money the donator often receives a handmade small 'thank you' gift from the project starters.

This lack of activity on online platforms is a returning aspect in the whole Smart Society/Smart City movement, citizens cannot use something they do not know, and even if they known citizens still needs a reason to support the platform (Graham, 2002). The only crowdsourcing website that has some success, is the one that provides an understandable and immediately reason to support this new initiative (in the form of a small reward).

Empowerment in Seoul.

While the participation platform itself is quite successful as the last Seoul intermezzo highlighted, it has created an almost insurmountable barrier for other empowerment or participation projects. While the citizens are more than enthusiastic to participate in the cities projects and online forums, they expect the government to set-up the whole program and provide a finished product, like they did with Seoul-Oasis. While the city can manage this for one city-wide platform, it lacks the resources to be able to achieve this for a larger variety of smaller scale projects.

As example the city started a project to support local citizen initiatives and citizen developed projects aimed at increasing community activities and social cohesion. The government financially supports communities to create lending libraries for books, power tools or bicycles, supports car sharing with

specific carpool-parking spaces, and has opened up public buildings after closing hours for cultural community driving programs. While actively promoting citizen led and managed initiatives, citizen engagement into these have been low, a survey from last year shows that barely 12% of the population knew Seoul is actively promoting local initiatives, and even if they knew, they barely used the services. This is for example reflected in the really low number (32 in 2014) of realised local libraries. (SOURCE)

While Seoul has been very successful at developing the city wide participating environment, it has cornered itself in trying to expand the empowerment to the local scale. Citizens see themselves as end-users, and expects a complete product, which is just impossible for the local scale (Johnson, 2015).

A participatory development structure

As mentioned before a participation project is often a circular project, as citizens always reflect on passed processes. This requires a new development structure, as the conventional structure in development projects is linear (Idea - concept - design - realisation - exploitation). The possibility to alter a passed stage is often limited in these processes.

Not only fits a circular structure more with the way citizens participate in projects, it provides another tool for citizens to be feeling heard. In the reflection of last meeting and passed phases citizens can see if their feedback and ideas are received, as they will be noticeable inside the project design (or absent with reasons why it is not implanted). Participants will be more involved in such a project, as they always will know that their feedback is received and that the initiators appreciated the time and effort the participants provide for the project.

Secondly, as citizens will be more involved in a continues process, they will be more likely to take on other roles and responsibilities inside the project. Ultimately this can lead to a citizens controlled and managed participation process, with just a supporting role of the initiators.

Besides being circular, a participation process and project should always be an expanding process. Not only will this result in a more citizen involvement, as the process will not get stale, but stimulates the participants in adapting and evolving their opinion and thought on the participation topic, and hopefully leading to citizens starting their own initiatives and projects using the knowledge and information generated inside the process.

Currently Eindhoven's participation structure is still quite linear, with small scale and periodically projects with limited room for reflection on finished products and projects. A more continues participation structure is needed.

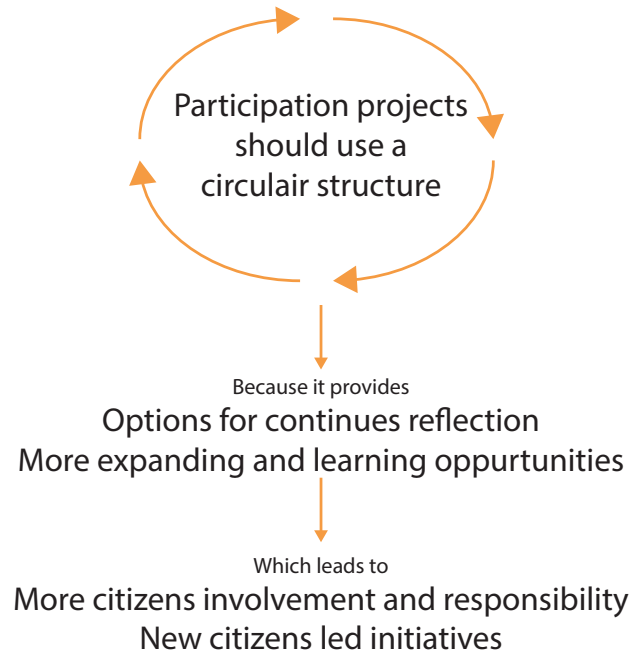


Fig 7: A Partipatory development structure scheme

A Fitting organizational and technical approach.

In the introduction paragraph of this chapter, different levels of participation were given, with citizen control as the highest level. While this should be the final goal of a participation process or project, the first initiators are almost never the citizens themselves.

One mistake often made by the initiators is to assume that the citizens will take over their responsibilities automatically after the start-up phase. When they leave, more often than not, the participation project will start to crumble and be abandoned by the citizens, as they lack or lack the skills and knowledge to be able to organize the whole project, or lack interest in the project. A better approach is to create a more even transfer of responsibilities. As citizens' involvement grows inside the project, they should start taking over responsibilities from the initiator and ultimately control the majority of the whole process. For this to be achieved, a flexible organization is required.

A flexible organization requires some set-up. The whole organization, process and project needs to be clearly structured, so every stakeholder and actor in the project knows what is done to keep the process going. Each part itself should try to include an initial participation role for the citizens (even if it is something minimal as helping setting up the chairs in the preparation of an event), as an introduction and stimulate to the whole responsibility of that part. In time the intention is to switch the responsibility for organizing this part of the process to the citizens.

For this to happen the technology used in the participation project needs to be usable by the majority (if not all) of the citizens involved. Not only will this make sure the project can be led by the citizens, but it will reduce the initial barrier of entering the participation project for citizens. As Eindhoven's goal is to realise a participatory society, the technology used in the project should be usable by the majority of the population.

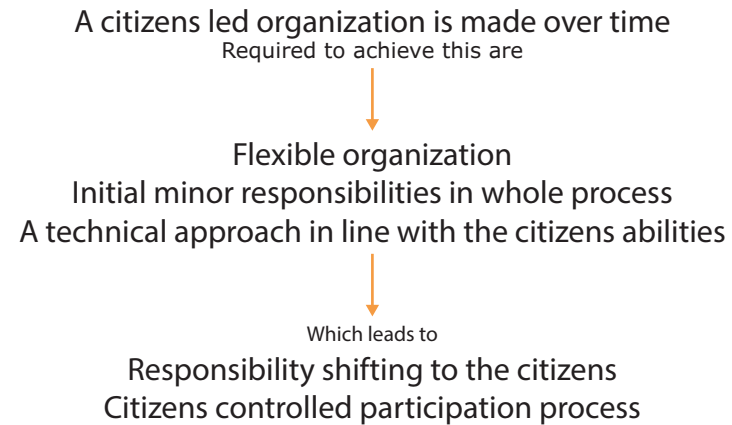


Fig 8: A fitting organizational and technical approach scheme

2.4 Eindhoven's Participation puzzle

In the paragraph Smart Society Eindhoven, the current participation projects and processes of Eindhoven were introduced. The conclusion was that Eindhoven is trying to achieve the highest form of citizen's participation, citizens led participation, but so far has been stuck in the middle of the ladder with merely informing and consulting citizens. Furthermore, citizens' involvement is minimal in the cities projects. Looking at the five requirements with relation to Eindhoven's initiatives, this should not come as a surprise. First off, most projects are small linear projects, with a narrow time frame for citizen's participation. The longer programs only provide a small frame for citizens' participation in certain parts of the process. According to the requirements this approach of not giving citizens any true power, will result in the lack of interest noticeable in Eindhoven's programs.

Secondly Eindhoven seems to take a too technical approach to the whole Smart Society goal. Most of their projects are focused online, or have a specific technology as leading structure (Data-portal from 'DeStaatVanEindhoven', or the hackatons from the city). The technical approach limits usability and awareness of all the options, as citizens need to have the knowledge to use them, and to know that they are there. Furthermore the online presentation of the data and options is chaotic, as everything is spread out on different websites and web-pages. Especially more detailed, specific information is hidden in the countless data bases, information schemes and maps.

This has resulted in a lack of citizens' involvement in the participation society in Eindhoven. The focus of Eindhoven should be on increasing this involvement, by providing a more variety of participation options, a better usable and understandable online backbone, and an organizational switch to more citizens led processes.

In Figure >< Eindhoven's participation puzzle is given. The four main parts together should provide the basics for Eindhoven to guide the participation from the information level to the truly participation levels of collaboration and citizens led initiatives. Ultimately this should lead to the wished participation society.

More diverse possibilities

While Eindhoven has a lot of options for participation, citizens or lack the skills and knowledge to enter (data-events for example), or do not even know the options exist. More awareness and usability for all the options is needed, mainly in the form of offline options.

The feeling of being heard and appreciated

For citizens the feeling of being heard and appreciated works as a validation for their effort and input. This will not only increase the initial interest for citizens to participate, but as well

increase the likelihood for citizens to take over responsibilities from the city.

Organizational change

Currently all participation projects are led by the municipality. This is fine in the initial face, but for true citizens' participation and empowerment, the organization should be able to switch to the citizens, as they will feel more connected the project or processes, and its survival.

Improved online network

While there are offline options needed, the online aspect of participation needs to develop further too. Especially the usability should be improved, by realising one platform where all the information about participation comes together. Furthermore public access points should be realised for the less technical citizens.

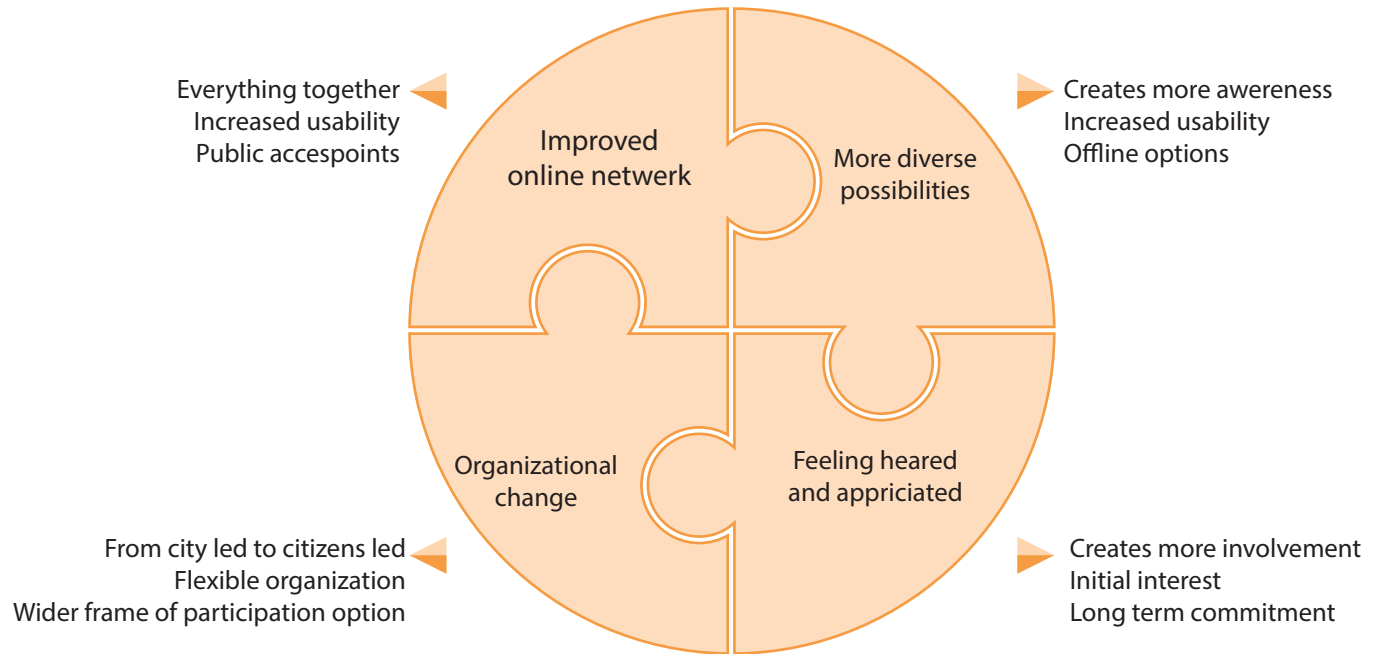


Fig 9: Participation puzzle

Cities of stories concept

Introducion

Cities of stories

City hub

Local hub

Physical network

Online network

Flexible organization

Conclusion

3

3.1 Introduction

As the participation puzzle concluded Eindhoven has four mayor aspects it should focus on; creating a wider variety of options, creating a structure of appreciating and being heard, the realisation of a more flexible organization, and an improvised online network. To achieve this the public space should play a much larger role in the participation process of Eindhoven, as the requirement for offline participation options was a returning aspect in the focus points.

This thesis, therefore, proposes a new approach that uses public space as a tool to introduce participation and empowerment to the citizens of Eindhoven. Public space that shows all the options and benefits of participating, while at the same time providing a place where citizens are heard and appreciated for their input and dedication in the cities challenges. This new offline approach is supported by the existing online possibilities, on an easier to use and cleaner platform. The integration of a

flexible organization, should allow the evolvement overtime to a mainly citizens led and controlled participation process and projects.

The concept for using the public space as a participation and empowerment tool, is called 'City of Stories'. The term stories refers to the figural main function of the whole concept; providing space where stories can be told. Stories from the citizens (their opinion, concerns, ideas, and wishes), the stories of the city (challenges the city is facing, opportunities, new development etc.) and the local stories (redevelopment of a neighbourhood, the local citizens, etc.).

By letting the public space tell the stories of the city, the stories will inspire and stimulate citizen participation and empowerment, by showing all the options to participate, the current participation topics and challenges, and the citizens existing initiatives, while at the same time providing a place for citizens to express themselves (tell their own stories).

3.2 Cities of stories

The concept 'Cities of Stories' uses the public space as a tool to stimulate participation and empowerment, by realising participation hubs inside the city. These hubs provide the need space for physical and offline participation. The hubs themselves are divided in two groups, city and local hubs, depending on their audience and participation scale,

The city hub is the place for the cities 'stories', and focusses on the city participation projects. Inside the hub citizens will be introduced to all the options to participate as well as the current topics and challenges of the city. Furthermore the hubs provide place for offline participation in the form of public debates and discussions. The main roles of the city hub is creating awareness of the participation options, provide a new way of participating, and give a place where citizens can express their opinion publicly again.

The local hubs on the other hand tells the local 'stories', and focusses on inspiring citizens to enter the local participation projects and option. This is achieved by stimulating interaction between citizens inside the local hubs, by combining a nice place to be with citizens led program in the hub related to nearby existing citizens' initiatives. This last aspect will provide the opportunity for active citizens to tell what they do and why they started an initiative.

The citizen led program inside the hub is provided by bringing the existing local citizens initiatives, in the public space. Not only will this provide a way for the initiator to show what they are doing (and get appreciating for their effort from neighbours), but create much needed awareness for all the existing citizens initiatives and opportunities. The largest struggle for citizens' initiatives in general is keeping them running, as sometimes even neighbours do not know the initiatives exist, limiting the support options for preservation of the initiative. (See intermezzo Empowerment in Amsterdam)

Intermezzo

Empowerment in Amsterdam

Amsterdam recognized that Smart People and a Smart Society are a vital aspect of a Smart City, and recognizes the strength and the knowledge of the citizens inside the city. Their aim is to empower the citizens themselves by supporting the citizens own ideas and initiatives aimed at solving local challenges and improving the local community. Amsterdam's support is noticeable in the specific regulations for new initiatives, as well as existing ones wanting to integrate inside the city (Amsterdam was for example the first city in the World to create AirBnB regulations).

The success of their approach is reflected in the vast amount of smaller initiatives, like urban farming, co-work-spaces, local trading websites, open cultural spots and even some give-away stores. While plentiful a lot of these initiatives had a hard time setting up, and are often still facing challenges for preservation

of the initiative. Interviews of the urban farming promoters, for example, brought up finance, like-mindedness (everyone wants something ells) and lack of volunteers as reasons for their struggle (Cities 2011).

Overall, low awareness of the options and the associated benefits for the local community, are the leading causes for the struggle of the citizens initiatives. More citizen involvement in the initiatives is needed to be able to have the necessary support and resources for the initiatives to survive

Furthermore the lack of awareness of the possibilities, or more the ability to participate, could result in an increase in social tensions, with a feeling of being excluded from the community. In the essay 'Paradox of openness and distinction in the sharing economy' (Schor, et al. 2015) several new sharing community programs where analysed with interviews, focussed on who uses it and why others don't. The main conclusion from the report, was that a certain dominating user group can unintentionally

exclude other groups from joining in. The main users from a Food Swap event, for example, where younger creatives who would only swap their brought food for meals with a certain quality (home cooked, organic, special ingredients). People that came to swap some leftovers, or simple products (like brownies), couldn't find a swap partner, because their product was not in line with the expectations of the regulars. (McLaren & Agyeman, 2015)(Schor, et al. 2015). Other initiatives are falsely associated by regular citizens to a specific group. FAB-lab for example are publicly accessible and often even provide workshops and support for even the clumsiest persons, but are in general seen by the common citizen as an initiative for the creative class. (Schor, et al. 2015)

In Amsterdam this unintentional exclusion seems to be missing. at first glance, as Amsterdam (or the Netherlands completely) has a history of relatively good social cohesion and integration. Furthermore several of the projects have taken extra care in enabling the integration and interaction between different

minorities groups. Community urban farms for example has added a place where food, recipes and cooked meals can be exchanged. According to the 'Sharing cities; a case for truly smart and sustainable cities' the best way to build a community around an urban farm is to include an open kitchen (McLaren & Agyeman, 2015), where people meet and interact with each other.

Concluding Amsterdam's public approach combines the wiliness to start initiatives of the resident, with a program to support these initiatives from the city. The result is a wide variety of smaller scale initiatives throughout the city. While the literature on these topics often warn for unintentionally exclusion, Amsterdam's culture of immigrant integration and the extra care for inclusion from the initiatives, this does not seem to be a massive problem in Amsterdam. Unfortunately the lack of general awareness for all the options has still resulted in survival challenges, and limited expandability options for the citizens' initiatives.

The two different hubs come together in a physical and online network, as well in an overlapping organization which keeps the whole process running.

The physical network connects all the hubs together, with the main network axis running between the city hubs. This main network functions as a kind of spider web for the local hubs.

The online network brings all the online participation parts together. In here citizens can find all the information about the participation options, the locations of the city and local hubs, access to open-data, an overview of current city challenges, as well as an overview of local challenges organized per neighbourhood.

Lastly the overlapping flexible organization keeps the whole process running. While the organization starts out as a collaboration between the municipality, the citizens, academic institutions, and private parties, it has the potential (and the

prospect) to evolve to a mainly citizens led organization.

Figure >< gives a summarizations of the whole concept. In the following paragraphs the different parts of the concept, the city hub, the local hub, and the overlapping network and organization, will be explained. The city and local hubs will be structural explained using program, software/technology, and space and organization as guidance.

The organization part in the hubs will focus on what is needed to keep them running, and what supporting programs and processes should be deployed to achieve this, while the overlapping organization part will focus on the evolving possibilities of the organization, and how this is embedded in the initial collaborative organization.



Connected by a physical and online network, and an overlapping organization



Fig 10: City of Stories concept overview

3.3 City hub

The city hub introduces participation in a non-technical way and provides place for a new offline form of participating. This is combined with the option for citizens to express their opinion again in public events and debates. For this to work the city hub requires several elements to be organized and set-up, before participation will be possible inside the hubs. The aspects needed are in the next four chapters described, divided in program, software/technology, space and organization.

Program

The program of a city hub consists roughly out of four parts, as figure 11 highlights. Each part facilitates a specific function for the whole city hub; from attracting citizens in general, to providing a low barrier, low technical way of participating, to providing space for citizens to be heard.

Existing attractive

The city hub uses an existing, accretive program to initially bring citizens to the locations, and introduce them to participation options and current topics.

A space for public debate

With the introduction of online platforms, citizens' way to express their opinion has shifted from the public space to these online platforms. While the online networks provide a much easier and accessible way of expressing your opinion, citizens never know if their targeted audience (the city) will even receive and read their message. In a city hub the old ways of citizens' expression, in the public space, is brought back. Citizens can again express their opinion and discuss new developments publicly, like they did on the Agora in ancient Greece, or the 'Soapbox politics' in the 19th and 20th century in England.

Media facades and online platforms

The media facades and online platforms parts work together. The media facades project the current participation projects and topics, found on the online platforms, in the public space. The media facades introduce the options and topics, and provide the first step of a participation process. Citizens can provide their first thought about a subject or a new development, by interacting with the media facades. The next paragraph will explain the requirements for these media facades to stimulate interaction and participation.

The online platforms support the media facades by storing the data generated by the participation project, as well provide an overview of all the participation projects and discussions topics throughout the city.

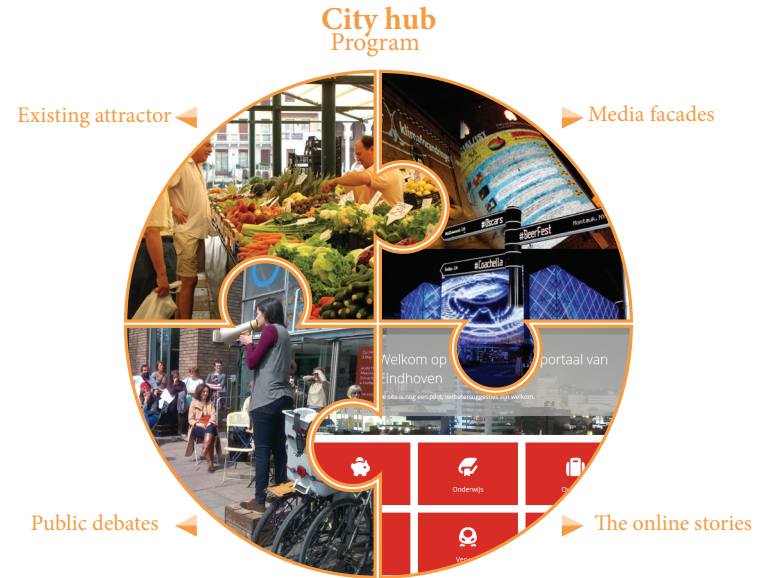


Fig 11: Program City hub.

Software/technology

Media facades are currently have mainly used as advertisement boards, while they can be used for much more than that, as Figure 12 till 19 highlights.

Twitter tower, Istanbul

The Twitter tower in Istanbul was a temporary project to create awareness for the first nuclear power plant plan in Turkey. A twitter account where citizens could post a comment or questions about the Nuclear Power plant plan was projected on the Galata watertower, located on one of the main squares inside Istanbul. While started as a project to bring attention to the plan, it rapidly grew to a public debate where citizens, civil servants and the contractors of the power plant discussed the questions of the citizens. This initiative shows how integrating social media in public space can stimulate a public debate and discussions on new developments.

Climate on the Wall, Aarhus

To bring attention to the 2007 climate conference in Aarhus happening inside the Ridehisut building, the façade of the building was projected with climate words which would stick to people passing by. Together the people and the words could create climate phrases. The project shows the benefits of a playful installation to create awareness of something happening inside.

SMS-Slingshot, Helsinki

By using a slingshot, passers-by can shoot small messages on a projected wall. The project uses a playful and easy to use element, a slingshot, to stimulate interaction between the media façade and citizens. While the original project was just an art installation, it could be altered to a simple starting participation project (shoot your opinion about a topic on the wall).



Fig 12: Twitter tower (Source: Tegenlicht, 2016)



Fig 14: SMS-Slingshot (Source: The constitute, 2010)



Fig 13: Climate on the Wall (Source: Storm, 2009)

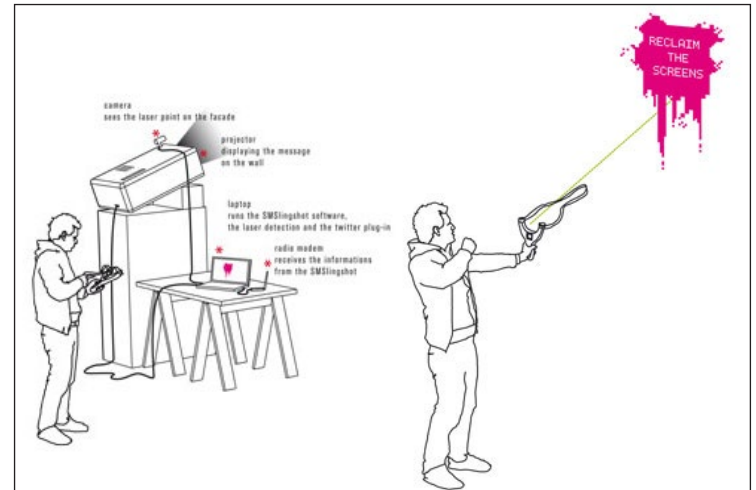


Fig 15: SMS-Slingshot (Source: The constitute, 2010)

LED Display, Madrid

On the Plaza de Las Letras in Madrid a LED Display was realised. The display facilitates as a media for young artists to show their digital work, as well provide an interactive element for the citizens as a gaming platform. The LED has provided a new attractor for a neglected square, and highlights the multifunctional usage of a media-facade.

Miami Beach Soundscape

The last project shows a permanent media facade which is integrated in a park. The Miami-Beach soundscape project is a design for a park next to the Opera house, which includes a projection facade where visitors can watch and listening to the concerts happening inside. The installations needed for the media facade are integrated in the design of the whole park in a way that ensures the park is still attractive, even when the media façade is off.

Overall media facades create more interaction between passersby if they or interact with them passively (Climate on the Wall) or with a playful element (SMS-Slingshot). Furthermore most projects introduced here, are or temporary, or provide a wide variety of options. To keep citizens interesting in participating the media facades and projects used should be temporary or multifunctional as well.

Secondly the examples show how diverse the media facades can be, from technologies used, to size, to intractability and playfulness. This suggests the ability to create specific projects adapted to the qualities and specifics of a location or a specific participation theme.

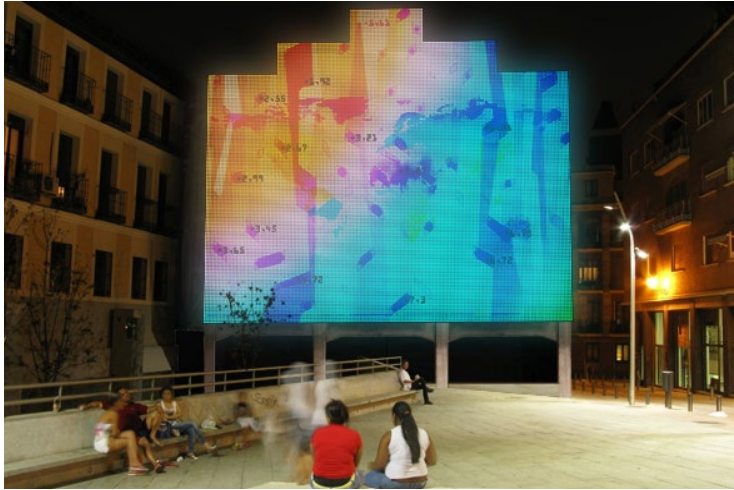


Fig 16: Twitter tower (Source: Tegenlicht, 2016)



Fig 18: Miami Beach Soundscape (Source: West-8, 2010)



Fig 17: Climate on the Wall (Source: Storm, 2009)



Fig 19: Miami Beach Soundscape (Source: West-8, 2010)

Space

As already stated in the program, the city hubs requires an existing attracter to be able to introduce citizens to all the new options and possibilities of participation. Figure 7 shows the locations chosen for the city hubs.

While the locations all have different elements, they can roughly be categorised in two categories. The first are locations with a city wide market, providing an interesting program for the whole city, as well as visitors. These programs often provide a recreational program, like shopping in the city centre, design shops in Strijp-S or a fruit picking garden for children at the Philips Fruittuin.

The second group provides a more localised program, for one or two districts. These are often the old village centres which Eindhoven annexed in the last century. The main attracting program inside these city hubs are the weekly markets.

While the hubs themselves do not always have the whole city or population as main audience, they are all publicly accessible, making sure that everyone can participate in all the projects. An elderly person, for example, will still be able to attend a participation project on the TU/e about student loans, if he would like too, as the TU/e is publicly accessible.

All the different city hubs together provide the ability to facilitate all kinds of different projects. From city wide participation projects for everyone, to more localised development projects (like a park redevelopment), to projects for a more specific audience (like a school route safety project).

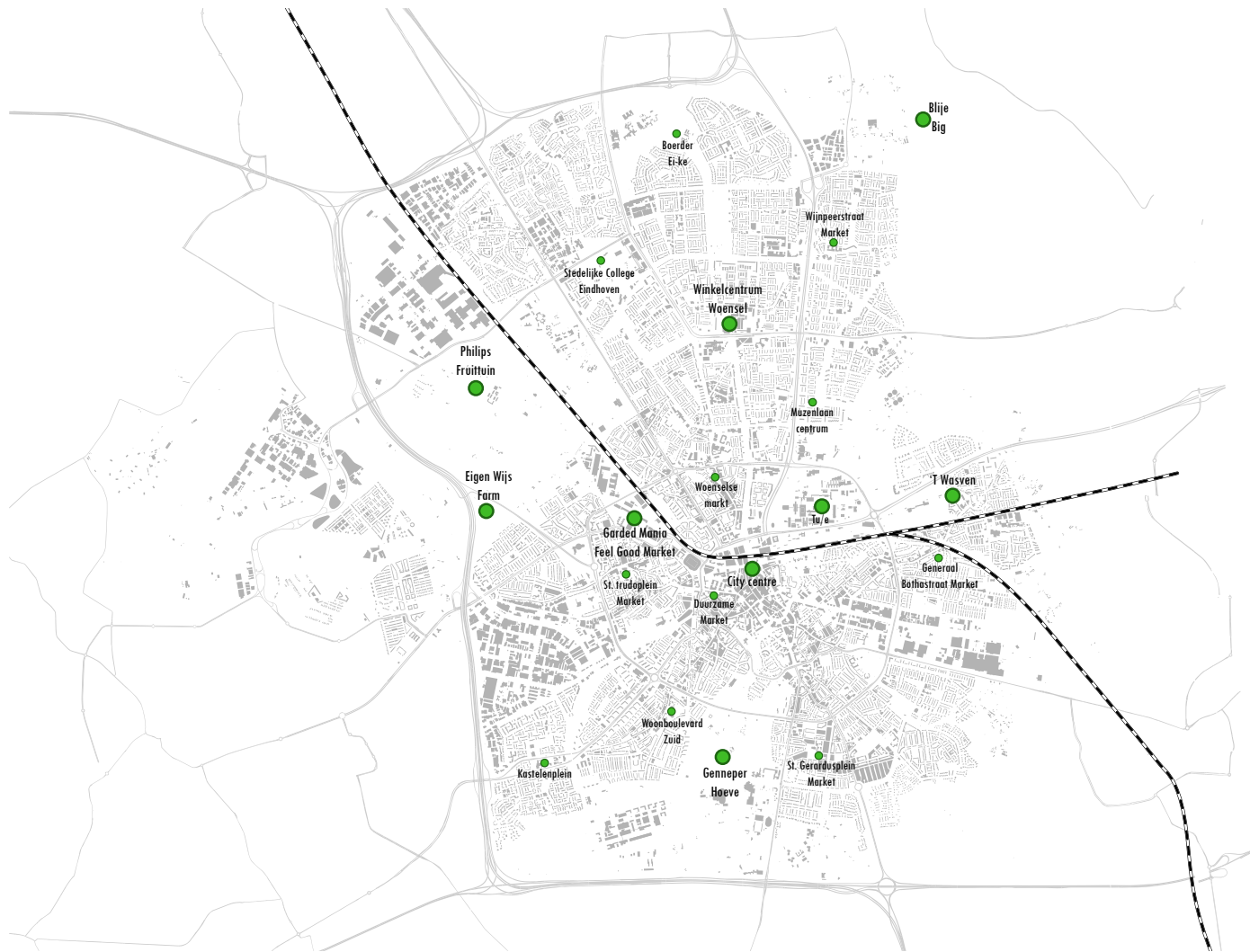


Fig 20: City hub Locations

Organization

As described in the paragraph 'Cities of stories' the specific city hub organization paragraph will focus more on the required parts needed to keep the program running, and the starting role of each stakeholder inside the quadruple-helix (local government, academic institution, private parties and citizens), while the overlapping organization paragraph will focus on the flexibility of the organization, and its evolvement possibility to a citizens led participation process.

The city hub requires three main parts to keep it running; participation projects as introduce to low barrier participation and current participation topics, public debates and events, and the online backbone providing all the information needed about participation. Each part provides a (small) initial responsibility for the citizens, as this provides the starting point needed to stimulate the organization change over time from one of the other actors to the citizens themselves. (Figure 21)

Participation projects

The projects that introduce the participation and provide the first options, needs to be developed. As mentioned before these projects needs to be diverse and often temporary.

Initially two programs will be realised which provide the necessary projects. First off the academic institutions provide continues programs in their facilities, where in the students are asked to make a participation project for a specific urban question. Especially the TU/e Industrial design faculty and the Design academy as a whole are suited for this academic program. The second program is returning events and contests organized in the city. In these contests different parties work together in creating ideas and projects for a specific question. As the contests has quite some similarity with hackathons, the city should be the main organizer of these contest. Furthermore the city has initially the most knowledge about the current challenges and questions Eindhoven is facing..

► Participation projects

Temporary projects will provide the possibility for more specialised projects for a certain theme, as well keep citizens engaged.



Continues academic programs



Participate public contest
Help setting-up contest



Setting-up public contest



Supporting public contest
Participate public contest

► Period debates/ events

The debates are organised periodically to make it easier for citizens to plan for them.



Management



Participate in period debates
Help setting-up events



Provide main locations
Help setting-up



Provide secondary locations
Management

► Online backbone

The online backbone provides all the information needed for the other two parts and the whole participation process to function.



Improving online platform
Creating new applications.



Requesting new data-sets
and wished applications.



Providing data-sets and
up-to-date participation info



Providing data-sets
Improving online platform

Fig 21: Initial organization City hub

Lastly the city is the most likely candidate to make sure the contests are publicly accessible and publicly aware. A private party could theoretically organize the events too, but this will often unintentionally lead to a less diverse participant base. This happened in San Francisco where private parties organize the hackathons for the city. (See intermezzo Summer of Smart).

The citizens' role in this part is first off joining in the contests themselves. Secondly the citizens should help with setting-up the contests and events (even if it is just helping placing the stairs for the events). This latter provides the first responsibility for the citizens in the whole process as a basis for more responsibilities in the future.

Periodic public debates and events

As public debates and events will require a larger time investment from citizens, they should be organized periodically preferably on the same location, to provide the possibility for

citizens to plan for the public debates. The periodic debates and events themselves requires a physical location. These locations will be provided inside the city hubs, which are mainly owned by the city or a private party. The municipality owned locations will provide the main public debate areas, as they are the most accessible, while the privately owned locations are used as alternative locations.

The whole public debate process needs to be managed as well. Initially a suitable private party with the required knowledge, and tools to set-up the events, or an academic institution that has experience with organizing and managing debates and participation events, should be found. If chosen for a private party, this has to be a non-profit organization, similar to the Pakhuis de Zwager organization in Amsterdam.

The role of the citizens inside this part, besides participating in the events, is helping to prepare and set-up the public debates, as a starting point for realising more responsibility for the citizens in the future.

Online backbone

The online backbone provides all the necessary information needed for the other two parts. It provides information on the new challenges, an overview of the whole participation program, projects and schedule, and provides a place where the data generated by the offline participation is stored. The whole platform will likely be developed by a private party, supported by academic institutions. The more specific applications for the website, like interactive maps, could be done either by a private party, or by the academic institutions.

The initial role for the citizens inside the online backbone part, is requesting new data-sets or wishes/ideas for new applications to present the data. The initial role for the citizens, is compared to the other parts relatively small, as the online part requires specific technical knowledge and tools, which the majority of the citizens currently lack.

Intermezzo

Summer of Smart

Hackathons are regally organized in San Francisco, more often than not organized by private companies. The risk for privately organization hackathons is a limited diversity in the participants, as their advertisement will often be biased to their own social network. One of the clearest examples of this, is the first mayor hackathon organized inside the city, The Summer of Smart in 2011 (Townsend, 2013). The city outsourced this to the non-profit organization Gray Area Foundation for the Arts, who organized a three week long app-contest/hackathon, addressing a different issue each week.

As the aim was to get as many people with different backgrounds involved, the hackathon was promoted as a non-technical, non-data driving one. Furthermore the topics chosen, public health, food, nutrition and urban farming, community development and public art, and transport and

energy, were general enough for almost anyone to be able to draft a project proposal or problem.

While they proudly claim to have had a wide variety of participants, a closer review tells a different story. They all seem to be higher educated with a background in design or technology. (Figure 22) As expected they used their own network of tech workers and creative companies as leading promoting tool, while still claiming to have had participants from every economic class.

This lack of common public involvement is clearly visible in the results that heavily focus on mapping art locations, mapping organic food shops and creating interactive art applications (Summer of Smart, 2011). Furthermore the organizer ignored the public vote winner (a project focused on food scarcity), as they chose to take a different project, more in line with their own ideals, to the end meetings with the city councils. (Guerrilla Crafters, 2011)

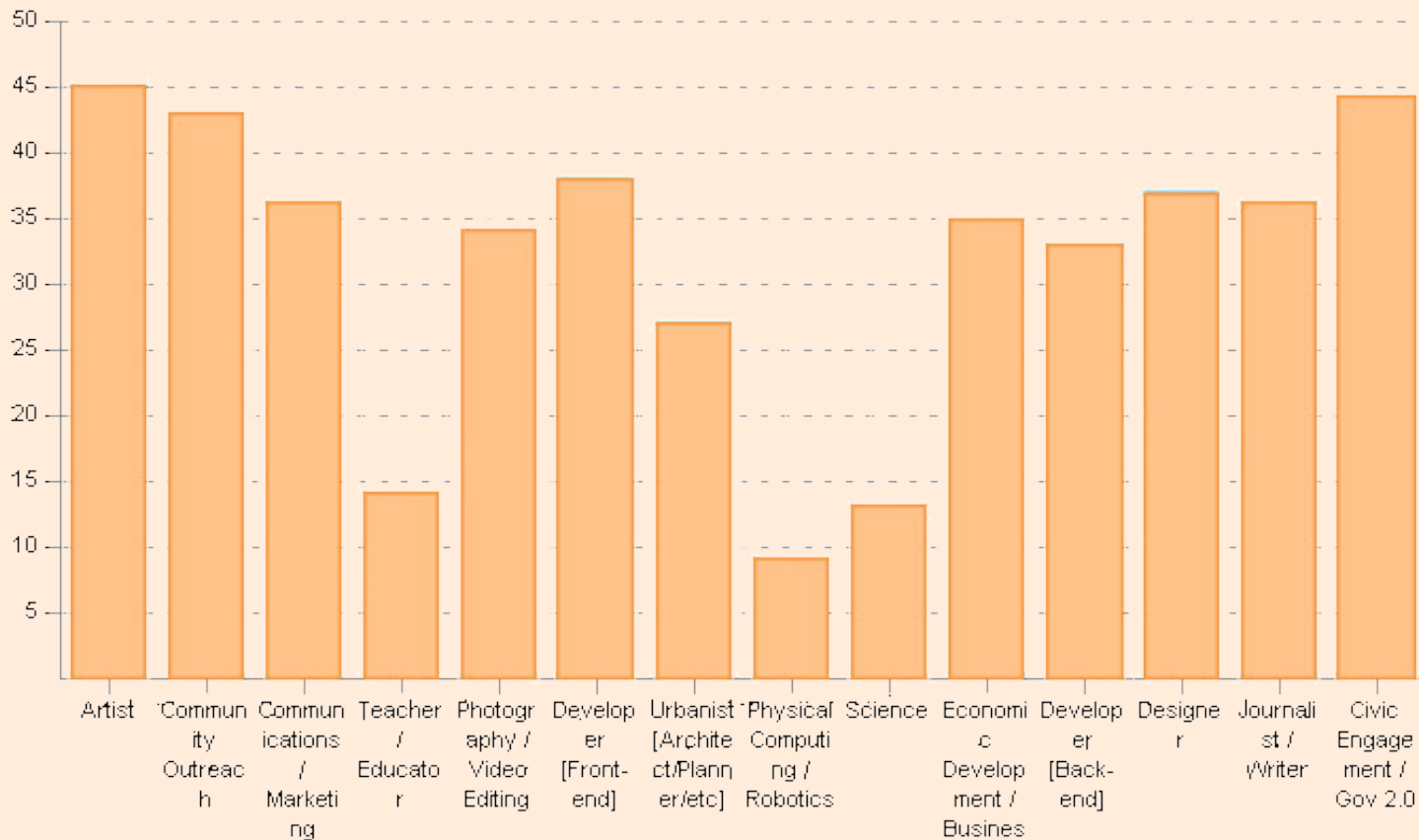


Fig22: Summer of Smart participants (Source: Summer of Smart, 2011)

3.4 Local hub

The local hubs tells the local 'stories' and focusses on the local participation projects and stimulating citizens to enter the local participation projects, by stimulating interaction between citizens inside the local hubs. This is achieved by acombining a nice place to be, with citizens led program in the hub, and the oppurtunity for active citizens to tell what they do and why.

Program

The program of a local hub consists roughly out of four parts, as figure 23 highlights. The four parts together stimulate citizens' empowerment, by combining a program that stimulates interaction with a program that creates awareness for all the citizens' initiatives options. The latter one is done by opening up the existing initiatives by expanding their program in the public space of the local hub.

Besides stimulating new local participation and empowerment, local hubs provides space for new initiatives, with multifunctional places and furniture supported by an online information platform.

Existing initiatives

Inside the local hub the program of the existing initiative will be extended in the public space, to provide more awareness for other local citizens and visitors, as well provide the initiators a way to show what they are doing, resulting in recognition from neighbours and a form of proudness of the citizen' initiator.

Stimulating interaction

Interaction between citizens is a key factor in stimulating participation. By talking with each other citizens can express their concerns or ideas for the neighbourhood, and find like Minden citizens to start a new initiative. To stimulate

interaction the city hub needs first off be a nice place to stay, with green, play or sport options, or citizen possibilities. Furthermore interaction can be stimulated by combining different programs together. Especially a combination of semi-private and public programs together can stimulate informal interaction between locals and visitors.

Space and tools for new initiatives

After being stimulated to start a new initiative, citizens need space and tools to realise their idea. Inside the city hub multifunctional space, as well as multifunctional elements and furniture, will provide the space and some of the physical tools needed for a new initiative.

The online tools provides all the information needed to set-up the initiative. This online part needs to be accessible on physical locations as well, so even a-technical citizens can access the platforms (or ask somebody to help them access,

which stimulates interaction again). In the next paragraph, software/technology the online tools will be further explained.



Fig 23: Program Local hub

Software/technology

The online tools provide the citizens with four crucial parts to realise a new initiative; a local dashboard, a voting system, an easy to use and clear online community, and offline intractable LDC screens.

Local dashboard

The local dashboard provides the citizens with an overview of their neighbourhood. Up-to-date local data, current development plans, opportunities and challenges are displayed. Furthermore the dashboard provides an overview all the citizens' initiatives and other local participation and community events scheduled, as well as the hot-topics and voting topics in the online communities. Lastly social media could be integrated inside the dashboard. Twitter for example is often integrated inside city dashboards to provide the latest news, as well as the thoughts of random people about the city.

Voting system

Crowdsourcing is often required for an initiative to be realised, but as said before interest in crowdsourcing initiatives is relatively low, as citizens lack the interest to donate (a resemble amount of) resources for something they are not involved in. A voting system can help in this aspect, by providing an entrance for citizens to get involved at the starting phase of a new initiative. By just pressing 'Yes' to a suggestions a citizen already creates a small commitment to the participatory project, and will be more likely to participate in the next steps of the whole project. The voting system works as a low barrier, low commitment catalyser to create more citizens' involvement.

A clear online community

A neighbourhood often houses several organization, like the local elementary school, the neighbourhood association, or a local sports club. Each of these local organization has an own

Eindhoven Online
Maandlijks diner 18:00
In de voortuin restaurant
Woensel-West

Economie Woensel
Onderwijs Woensel
Overheid Woensel
Gezondheid Woensel
Erfgoed Woensel
Vervoer Woensel
Bevolking Woensel
De groene stad Woensel

Diner vote: Italiaans!
Gewonnen met 745 stemmen

Herontwerp speeltuin Humboldtstraat
Meeting 5 juni 15:00 SPIL-centrum

JUNE 2016						
SUN	MON	TUE	WED	THU	FRI	SAT
				Brei-club	3	4
Herontwerp Speeltuin meeting	5	6	7	8	Dinner	11
12	13	14	Buiten Speeldag	Brei-club	16	18
19	Open Dutch class	21	22	23	24	Antiek Markt
Antiek Markt	26	27	28	Brei-club	30	

Hebben we meer bankjes in de straat nodig?

Oude polls

18 °C | °F

Fig 24: Local Dashboard collage for Woensel-West



Fig 25: Voting system example (Source: Ernst, 2012)

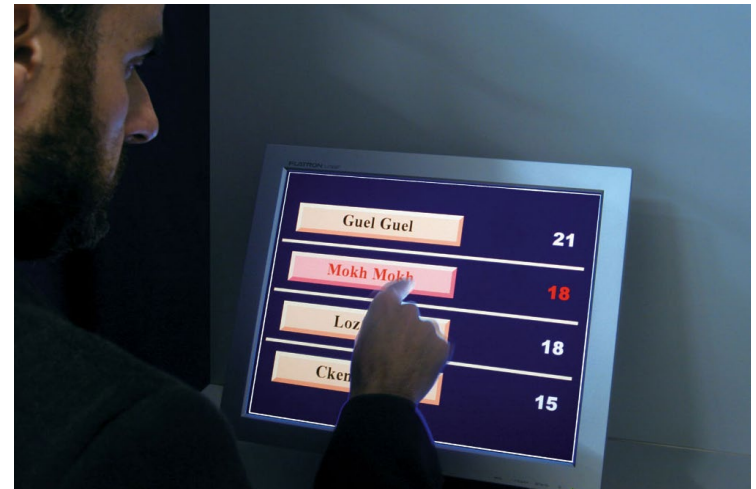


Fig 26: Voting system example (Source: Closky, 2007)

online forum and website, but minimal interaction between the platforms occur. Finding support for your idea is challenging if the initiator in question does not have access, or even know that some of the online communities exist. Furthermore planned public events or existing public initiatives done by one organization, might be unknown by the local citizens who are not involved in that specific organization.

One online community which connects all the different communities is needed. While this can be done by abolishing all the other online communities, some of them might be reluctant in doing this. A better approach is by realising using a structure which is often found on online news websites. While the site is divided in different news topics, it has one front-page where all the 'hot-topics' from each part comes together. For the local hub this would mean citizens would be able to get a fast overview on the hot-topics in their neighbourhood, even from other community organizations the citizen in question is not a member of. The different organization parts can have

restricted access for non-members if the organization is really to reluctant in changing this.

Interactive LCD-screens

As the online department plays a large role in facilitating new citizens' initiatives, everyone should be able to access them. An interactive LCD-screen can provide citizens who do not have the required equipment at home or possess the required skills, still a way to access the online part.

Furthermore the LCD-Screens could be developed as a dashboard for the local hub it is stationed in. The LCD-screen provide an overview of the hub and the planned events, without showing all the other online components that might confuse a less technical skilled citizen. Lastly a citizen can still ask another citizens for help accessing something on a LCD-screen, turning the LCD-screen itself in a conversation starter between locals.

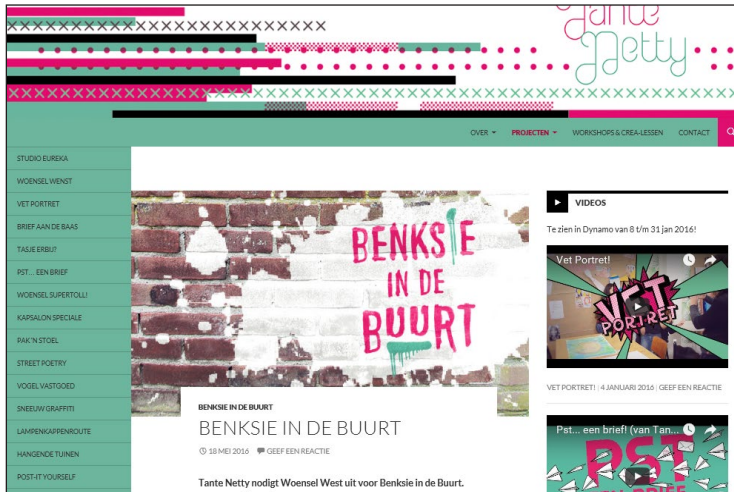


Fig 27: Example local community organization website (Source: Tante Netty, 2016)



Fig 29: Interactive LCD-screen example (Source: Tawitian, 2016)

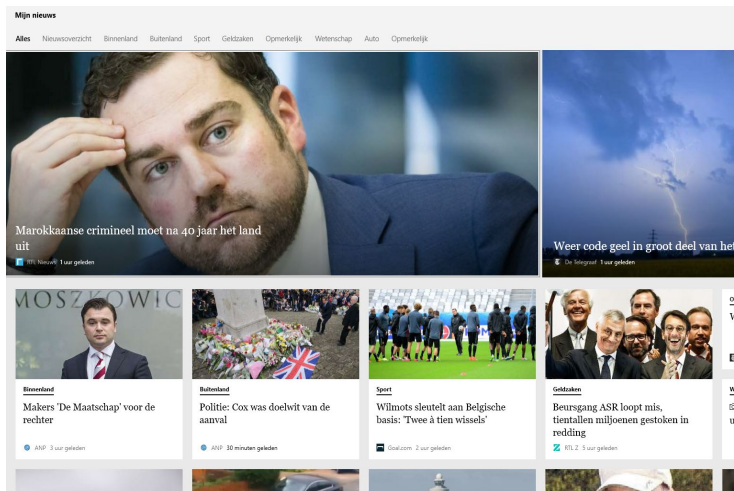


Fig 28: News website layout (Source: News-feed Microsoft NL, 2016)



Fig 30: Helsinki interactive LCD-screens (Source: Suvanto, 2015)

Space

The exact location for each local hub cannot be made at this point, as it would require a full analysis and research of all the citizens' initiatives inside the city. Despite, the program and main goal for the local hubs allows the creating of some guidelines for the local hub location choices.

As the local hub works together with the existing citizens initiatives, the locations for the hubs will mainly depend on the locations of these initiatives. The secondary aspects influencing the locations chooses are the proximity of supporting program (playground, some shops, sports field, etc.) and the proximity of the entrance axis in the neighbourhood. The narrowing down is needed to not only limit the amount of hubs inside the neighbourhood, but make sure the local hubs will stimulate interaction between citizens to create more community participation and involvement.

After chosen the most suited locations for the local hubs their role in the 'storytelling' needs to be addressed. Local hubs with the same theme will be linked together, to tell the story of that theme. One hub needs to be used as a 'book cover' of that story; a starting point, as well as an introduction tool for visitors, for that story.

Take a neighbourhood where the citizens has set-up a lot of children activities for example. The 'book cover' local hub would introduce this theme to an outsider, who then can follow the children part along all the other children themed local hubs; a local hub where children are giving cooking lessons, one where they are being tutored if needed, a hands and crafts class, etc.

The 'book cover' hub requires a supporting program with a wider audience than the neighbourhood. Linking this introduction hub to a city hub would provide this program, and allows the local hub hopping as described in figure 31.

Location



Main aspect
Existing initiatives

Secondary aspects
Main routes
supporting program

Locations choice
Local hubs

Local hub hopping

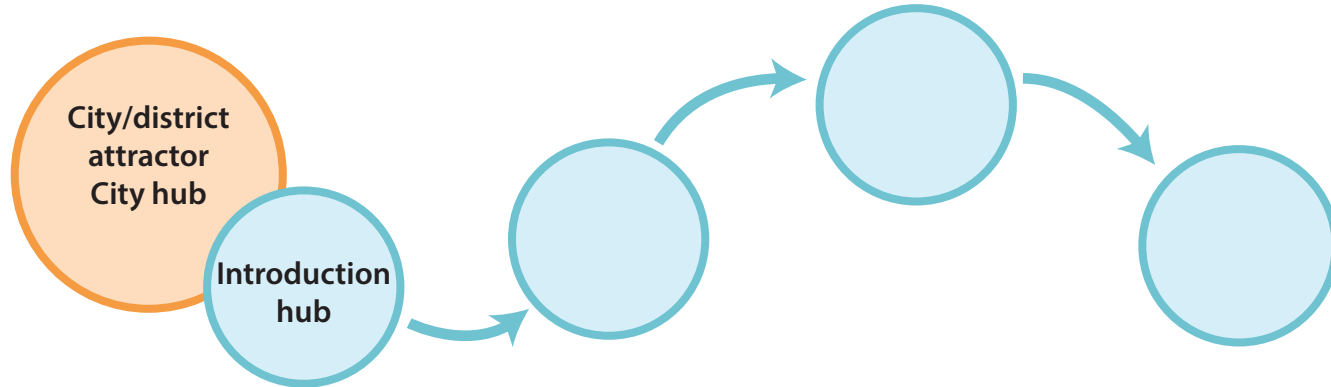


Fig 31: Local hub space framework

Organization

Organizational wise, the local hub has three parts which the organization is responsible for; realisation and management, initial stimulate, and the online backbone. Together with the program and design of the local hubs, it should provide everything needed to stimulate citizens' empowerment and realise new citizens' led initiatives. (Figure 32)

Realisation and management

The local hub needs to get realised before anything else can happen. The whole realisation process is a collaborative project between the citizens, the city and private parties. The city and the private parties provide the expertise for the realisation, while the citizens provide their wishes, suggestions, ideas and feedback for the project. The citizens should be in control of the end design decisions, as they will be the end users and main managers inside the local hub. An end design in line

with the citizens' vision and wishes, will result in more citizens' involvement in the following phases, as well as more usage from the local hub by the citizens at the end.

As said the citizens will be the main manager of the local hub. Both the city and private parties can provide support in this management. The city can provide some minor funding and help setting up the management and maintenance of the hub. The private parties on the other hand can provide technical maintenance, and if they are themselves actively involved in the local hub (like a local elementary school or local shop) can help the citizens with the whole management and maintenance of the local hub.

Initial Stimulate

While the local hub stimulates citizens to participate in local projects and start new ones, an immediate reward for citizens to get involved in the local participatory process, might be

► Realisation and management

After the collaborative realisation of the hubs, the local hubs will be managed by the people from the nearby existing initiatives and other local citizens.



-



Participate in realisation process
Managing the local hub



Participate in realisation process
Supporting the management



Participate in realisation process
Supporting the management

► Initial stimulate

As citizens involvement is crucial inside the local hub, a supporting program to create the initial interest might be necessary



-



Local reward; Timebanking



City wide volunteer reward



Collaboration options

► Online backbone

The online backbone provides all the information and tools needed to start a new initiative.



Creating new applications



Keeping agenda up-to-date
Providing local overview



Providing local data



Improving online platform

Fig 32: Local hub organization scheme

required as an initial stimulate. This initial reward or stimulate can be provided by the city, the citizens themselves or a private party. The city can provide a city wide volunteering and participatory reward, as done in Seoul described in the Seoul-Oasis intermezzo earlier in this thesis. The city offers tokens for volunteering, which can be exchanged for public transport funds, museum tickets or be used as a payment for city services.

The citizens themselves on the other hand can provide this initial reward too, in the form of time banking. Citizens can exchange their skills and services in a one to one time ratio with each other. An hour of volunteering could for example be exchanged for an hour baby-sitting. Furthermore the possibility exist for the exchange service to expand to the local stores, turning community volunteering in a local alternative payment method.

Lastly a private party can provide a reward for volunteering in the local community. For example, inside the neighbourhood

Woensel-West, the local social housing association Trudo is offering tenant a €100, - discount on their rent, if they volunteer 10 hours a month in the community activities. From the three different reward typologies, this one provides the most clearest and immediate benefit for entering the participatory process, but requires a private party willing to invest in the community.

Online backbone

Besides stimulating participation, the local hub needs to provide the necessary tools for citizens to start a new initiatives to be started. The online part provides all the necessary information, and tools to achieve this, as described in the software/technology paragraph.

The two mains role of the organization inside this part is keeping all the information on the online platform up-to-date, as well as the continues improvement of the online platform. The city provides new local data, while the citizens themselves

make sure the agenda, current developments and voting's, and the local citizens initiatives overview is up to date. Furthermore the citizens can provide requests or wishes for new applications on the online platform.

The private party and academic institutions on the other hand focusses on further developing the platform, by doing research to new tools and applications that could be integrated in the platform.

3.5 The physical Network

The physical Network

As described before all the city and local hubs come together in a physical network. The main structure is formed by the connections between city hubs and will function as 'spider web' for the local lint. The structure of the whole network consists out of three parts, inner city-, outer city-, and local part. Each part will be briefly explained in the following paragraphs.



Fig 33: Eindhoven's suggestion for Hoogstraat (Source: Eindhoven op Weg, 2013)

Inner city network

The city hubs has the option to be integrated in a city network, by following the cities proposed redevelopment of the old village radials inside the city (figure 33 to 35), as well as the redevelopment of the green corridor from the city centre to the Brainport park at the edge of the city. All the city hubs are located along these radials and corridor, as shown in figure 35. While not completely necessary it will provide more audience for the city hubs, resulting in more input in the participation projects inside the city.



Fig 34: Eindhoven's suggestion for Kruisweg (Source: Eindhoven op Weg, 2013)

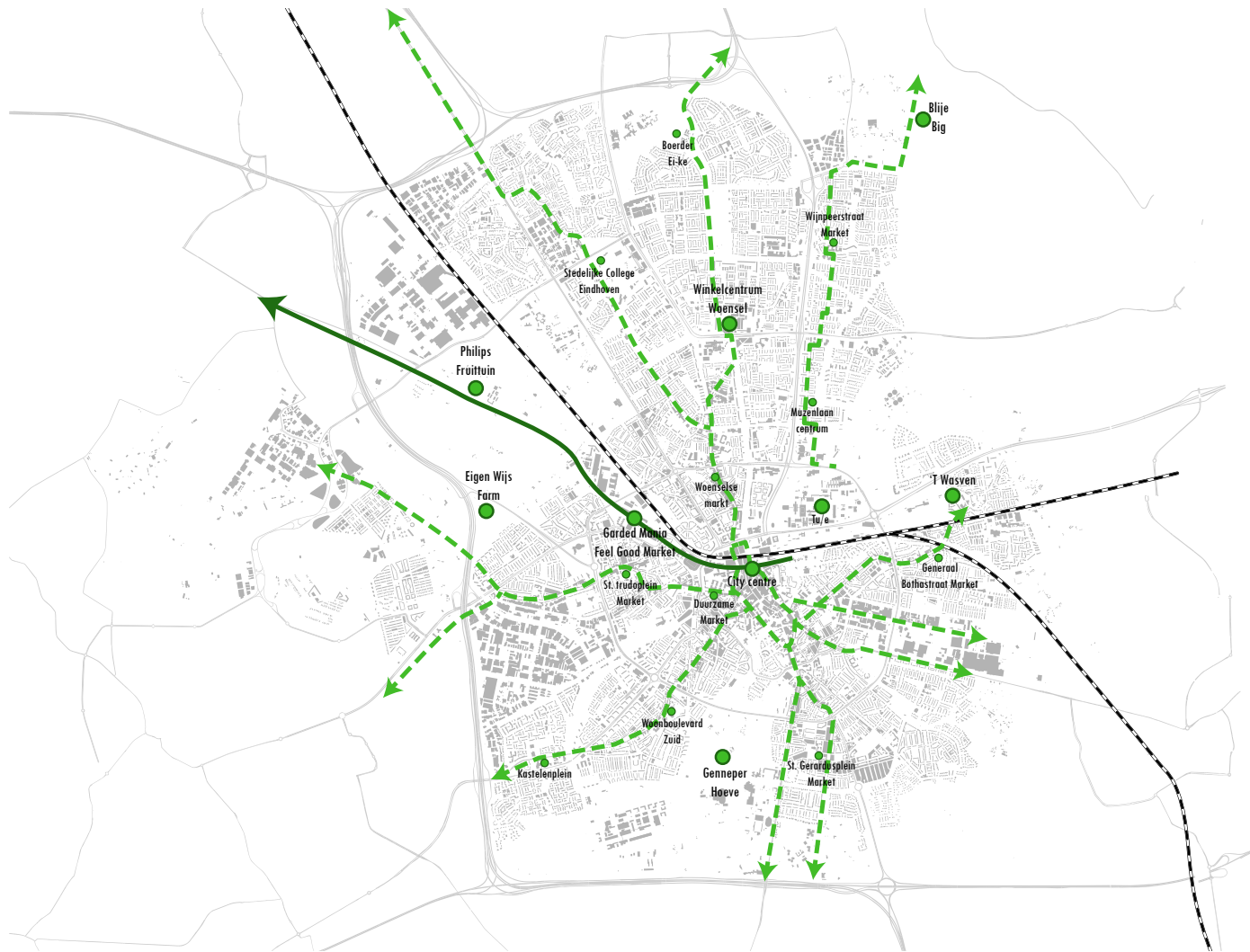


Fig 35: Inncity network

Outer city network

The old radials do not stop at the edge of the city, but lead to the nearby villages. Together with the slow lane, a realised bicycle road-ring, it connects the villages with the large technical and working areas inside Eindhoven.

While traveling along the city radials, slowlane and green corridor commuters will pass by several city hubs, and will provide the (local) commuters an opportunity to as well participate inside the cities participation projects and society.



Fig 36: Eindhoven's suggestion for Hoogstraat (Source: Cycling village, 2015)

In just a couple minutes they are able to provide their opinion and input on a participatory topic using one of the media facades installations. All in their daily commute routine.



Fig 37: Slowlane Eindhoven (Source: Fietsenbond, 2016)

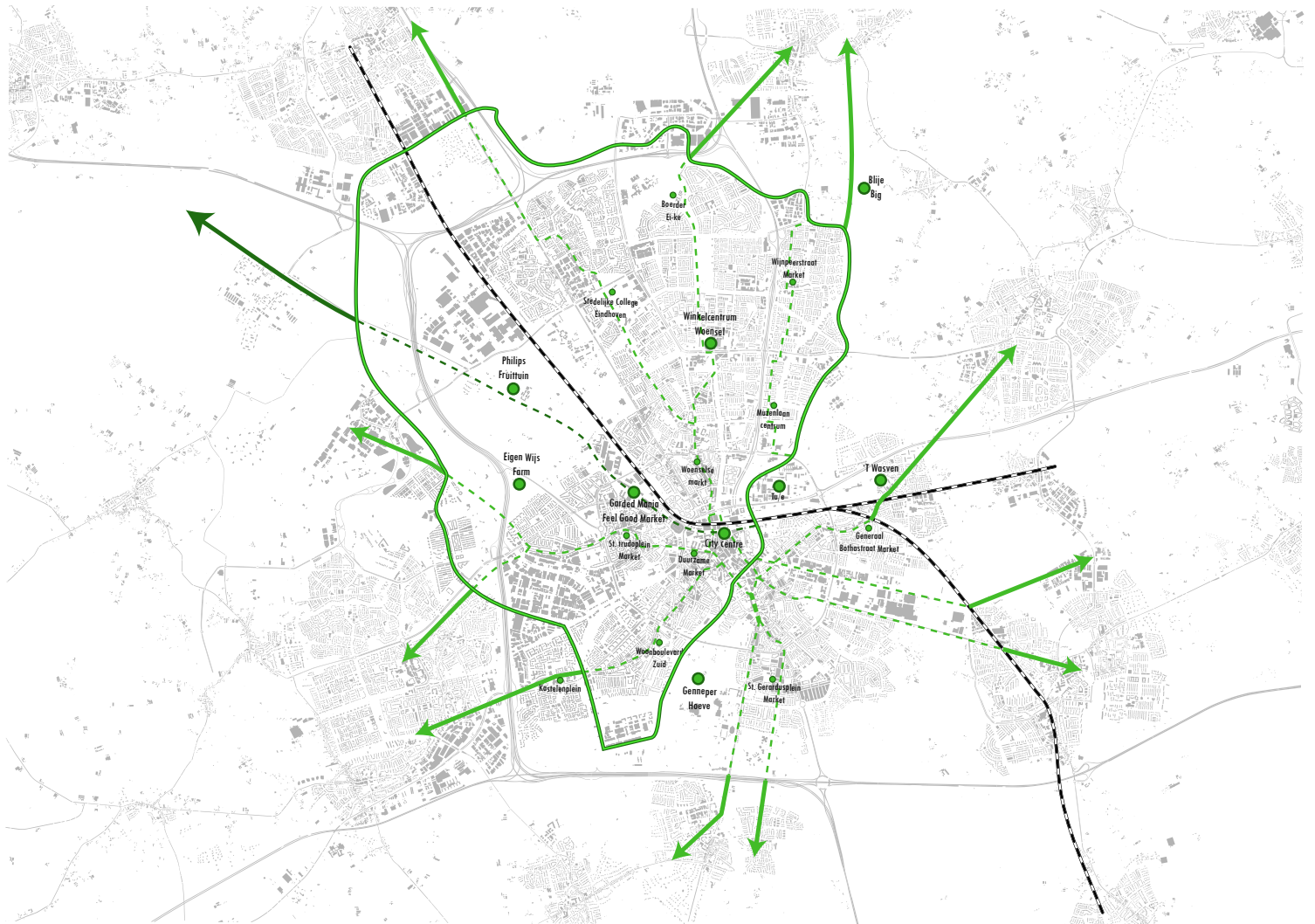


Fig 38: Outercity network

Local stories and final network

The inner- and outer city network provides the 'spider web' where the local hubs cling to. The intro hub of each local story is located near a city hub, wherefrom the 'storyline' starts. The local axis can be indicated by some returning element. How this is done, depends on the story and the local conditions. (Figure 39 and 40).

All the three parts together could result in a green network through the city, connecting all the city hubs and local stories together, providing for the whole city, and visitors, a clear physical structure for all the participation locations, projects and options inside Eindhoven. (Figure 41)



Fig 39: Kindlint Amsterdam (Source: Eupen, 2003)



Fig 40: Repetitive elements in Valencia (Source: Dina, 2014)



Fig 41: Final network prospect

3.6 Online network

Both the city as the local hub needs a strong online network as backbone for their program. The online network provides the needed information and tools for the city wide participation projects, as well for the local initiatives, on one place. Providing everything participation related together will increase the likeness for citizens to enter the participation society.

For the city hub the online network provides a clear overview of all the participation related information and data. It shows an overview of all the city hubs, current participation topics and projects, and stores all the data generated in these participation topics. Furthermore it provides a schedule for the offline participation events, as well as a place for citizens to address an own problem or topic they would like to see discussed inside these public debates.

For the local hub the online network provides the same clear overview of all the participation and empowerment related information and data, as well the latest development inside the neighbourhood. Furthermore it provides a place where all the local online communities come together, including the voting system.

Because both of the hubs are part of a whole new participation concept and process, both the online networks should be on the same platform. This new platform will provide all the information, data, schedules and options about participation on the city and local scale. Figure 42 and 43 shows two collages of both the city and local level inside the platform.

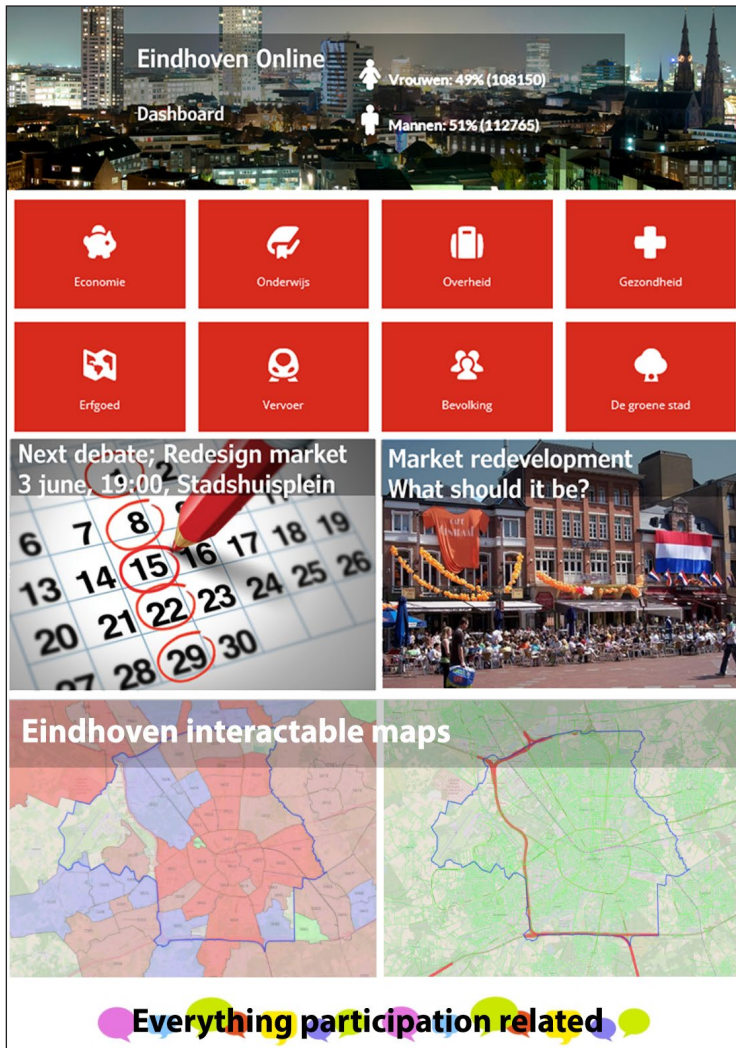


Fig 42: Eindhoven participation platform collage



Fig 43: Local Dashboard collage for Woensel-West

3.7 Flexible Organization

While citizens led participation projects provide the highest level of participation, most projects cannot be started as a citizen led one. That is why one of the requirements for a successful participation projects is the need for a flexible organization. This allows the power to slowly be transfer from each actor to the citizens, leading ultimately to a citizens led project. This is the desired prospect for the City of Stories concept, and the associated participation projects and process.

As mentioned inside the NAME OF CHAPTER 2 chapter, providing citizens an option to participate in every organizational aspect, will stimulate the slowly transfer of power to the citizens. In the organizational paragraphs of the city and local hub the key requirements for the hubs to function were giving. The citizens are responsible for a small part in each requirements, as show in figure 44. These responsibilities form

the basis for the slowly organizational change to the sought-after citizens led participation project.

While the citizens could potentially organize the whole participation process, the focus of the organizational change lies in providing the citizens the power to control the content. While the participation topics and themes will be drafted collaborative with all the four actors, the citizens should have the power the chose the most urgent topics and themes from this initial draft. In the local hubs the citizens already possess a lot of power and responsibilities, as they will manage and maintain the local hubs from the start, keep the local information qua events, initiatives, voting's and development up-to-date. The citizens will already control most decision making power content wide for the local participation process.

To further illustrate how this can happen a couple of the most-likely responsibility and power growing paths for the citizens will be elaborated on the next pages.

City Hub

▶ Participation projects



Continues academic programs



Participate public contest
Help setting-up contest



Setting-up public contest



Supporting public contest
Participate public contest

▶ Period debates/ events



Management



Participate in period debates
Help setting-up events



Provide main locations
Help setting-up



Provide secondary locations
Management

▶ Online backbone



Improving online platform
Creating new applications.



Requesting new data-sets
and wished applications.



Providing data-sets and
up-to-date participation info



Providing data-sets
Improving online platform

Local hub

▶ Realisation and management



-



Participate in realisation process
Managing the local hub



Participate in realisation process
Supporting the management



Participate in realisation process
Supporting the management

▶ Initial stimulate



-



Local reward; Timebanking



City wide volunteer reward



Collaboration options

▶ Online backbone



Creating new applications



Keeping agenda up-to-date
Providing local overview



Providing local data



Improving online platform

From setting-up to controlling

Starting with just helping set-up the events, the citizens will lean from the other actors what all of them are doing to organize the events, and slowly take over their organization responsibilities. The other actors' role slowly transform in just providing the necessary tools, like locations, chairs, etc., while the citizens choose the topics discussed in the public debate's, as well as in the contest which provide the new playful participation projects for the public space.

Other actors still have enough influence in the process to steer the events in the right direction, as the citizens' main focus lies on determine the content of the events.

From requesting data to acquiring data

The data used in the participation process will initially come from the city itself, supported by some private companies.

Overtime the citizens themselves can turn in the main data generator. Existing reporting applications and Smart City kit already allows citizens to monitor and create their own data. Meanwhile the whole DIY (Do It Yourself) environment meter is upcoming with freely accessible programming and building plans published online, while the required parts are getting cheaper and cheaper.

In the long run the prospect is that the citizens themselves will monitor and generate a lot of the data inside the cities, with home-built sensors measuring noise, humidity, traffic, etc. Collaborated with the other actors, the data generated by the citizens themselves will be transformed to understandable intractable maps.

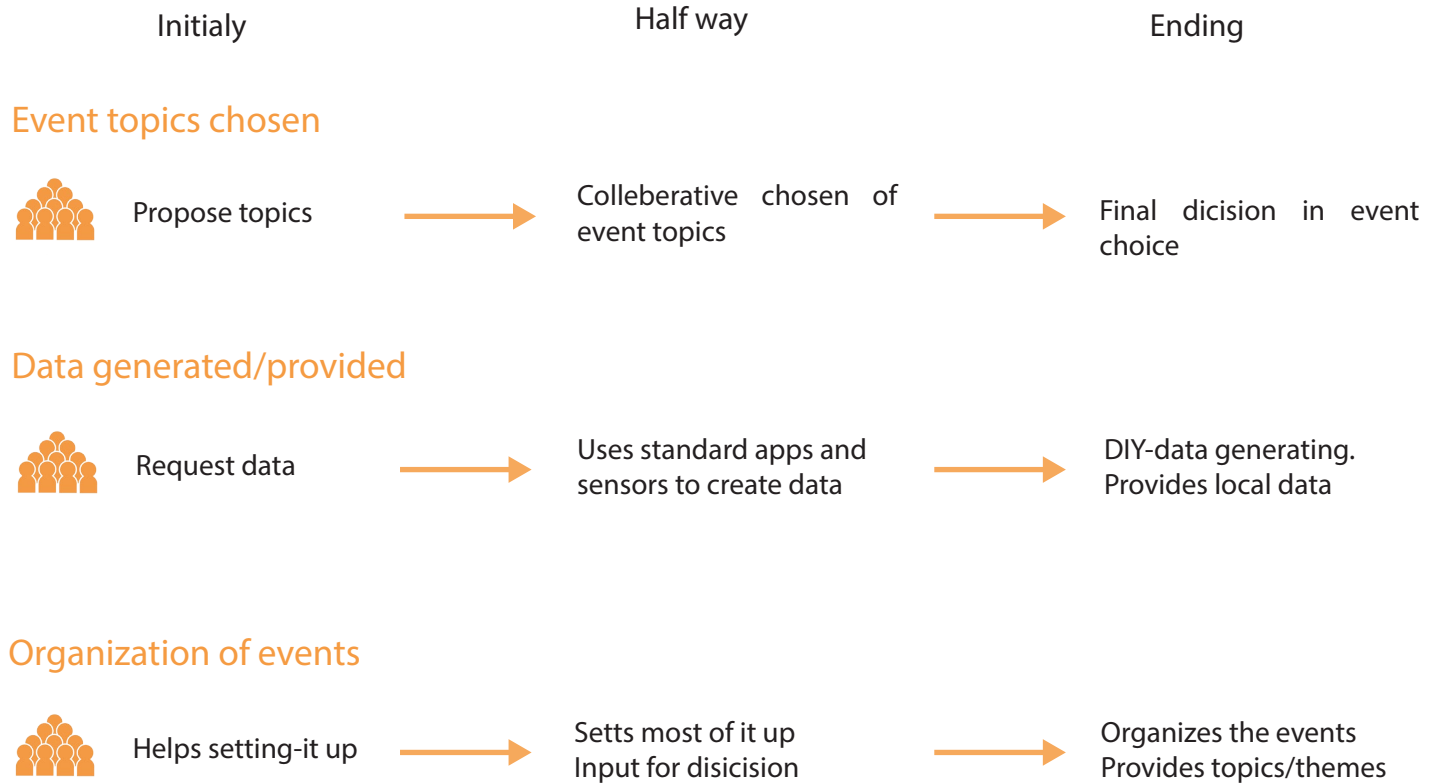


Fig 45: Organizational flow and transformation

3.8 Conclusion

Concluding the City of Stories concept realised a new participation process. This new process is illustrated on the next couple pages by two fictional stories.

The loneliness problem

The city wants to bring attention to the loneliness problem inside neighbourhoods. They ask the TU/e if the students of industrial design can come up with an interactive participation project bringing attention to the loneliness problem inside some of the Neighbourhood of Eindhoven. A couple months later the student present their ideas, and a playful installation asking the question *'Do you know your neighbour?'* is chosen.

The installation is for two days installed on three local markets inside the city, creating awareness to the topics. 1643 people

provide their answer in the question with 44% voting no, and 56% voting yes. Furthermore 123 people have submitted reasons in an online survey.

In the next public debate, the city introduced their findings to the citizens. Quite a lot of the participants look shocked to the high amount of no voters. A discussion flourishes from the city's presentation, which discusses reasons behind this high number, as well as small interventions that could increase the communal activity inside the neighbourhood. At the end of the public debate, several citizen groups from the same neighbourhood are discussing plans to address this loneliness problem.

In the following weeks several new initiatives through the city are started. Inside Fellenoord a couple dozen new benches have been placed through the neighbourhood, while Eikenburg has started organizing a monthly community dinner, with 157 local citizens joining the first dinner.



Fig 46: Participation circle Loneliness problem

Cloud-burst problem

After a night of heavy rain a concerned citizen, Mark, reports the flooding of his street to the City hall. As the sewer-system seems to be lack capacity for such a high amount of water in such small period, Mark proposes to remove a part of the sidewalk in his street to create a slow water drainage system, reducing the pressure on the sewage system. The city likes the idea and fully supports his initiative, but asks for him to get some support from his neighbours before they allow him to start realising it.

He proposed his idea and problem on the voting system of his neighbourhood, asking if the neighbourhood agrees with his problem statement, the flooding issue, and his idea. After a week 230 person voted, with a 74% approval rate. During the monthly organized community dinner, Mark further elaborate his idea, and addresses the main concern from the no-voters; my sidewalk is all so small! Mark acknowledge their concerns

and proposed just to implant his idea on the wider streets. The community agrees on his proposal, and a handful of the yes voters even volunteer in helping realise it.

Mark returns with his community supported idea to the city, and acquire permission from the city to realise it. The city even provides some small funding to buy and plant some flowers from their flooding problem jar. Furthermore the city asks if Mark could present his idea in the next public debate, as the city knows more neighbourhoods are facing this problem, which Marks agree to.

In the next couple weeks Mark with the help of a dozen neighbours realise his idea inside his neighbourhood, and starts a city wide discussion on this problem during the public debates. This not only in result in more neighbourhoods adapting his solution, but as well an academic program to create a 'report flooding' application, and a concept for 18-Septemberplein to integrate a bit of water-storage.

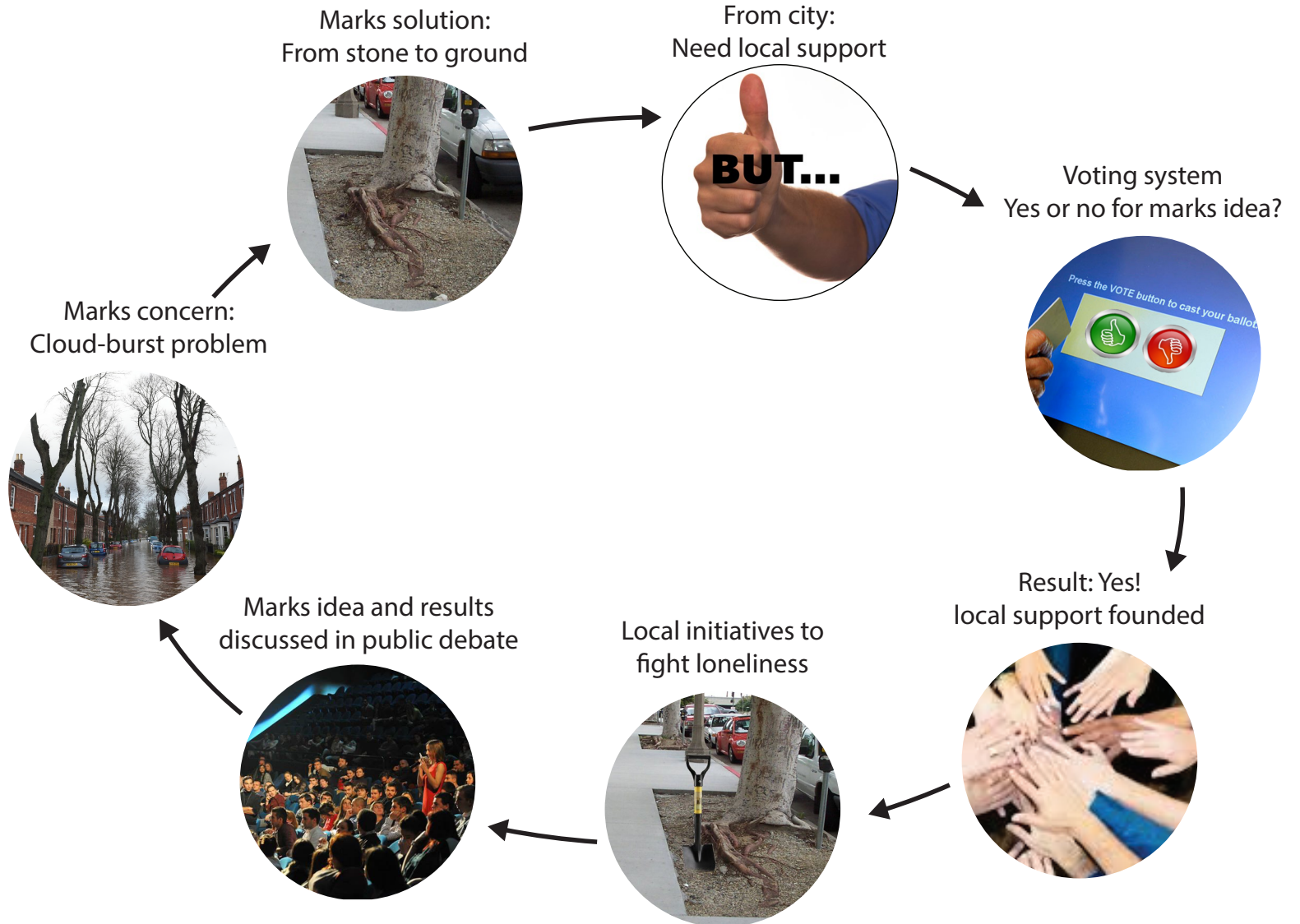


Fig 47: Participation circle cloud-burst problem.

A new way of participating

As the two examples highlight the City of Stories concept will provide the possibility for a fluent process of participation. Both the city and local hub stimulates participation, and as seen in the stories, complement each other with their program.

At the start of this thesis the following research questions was asked:

Can the public space be used as a tool to help develop an inclusive Smart Society?

The answer to this question is yes, the public space can be used as a tool to help develop an inclusive Smart Society. The conclusions from the requirements paragraph brought up the need off offline participation options, more awareness of all the options and a way for citizens to truly feel heard and appreciated for their effort in the participation process. Public space is an

excellent tool to fulfil these requirements. First off the public space has the required space for the offline participation options, as well as the publicly accessible character needed to realise more awareness for all the options, including the new offline ones.

Furthermore as history shows, public space has always been the place where citizens express their opinion. Since the technological advancement this has been lost. Returning a part of participation in the open again, provides the much needed opportunity and assurance a citizen's voice will be heard.

The realisation of the city and local hubs, will not only provide the necessary requirements, but allows the realisation of a new participation process, with each part supporting and strengthen each other. The city wide participation in the City Hubs stimulate empowerment on the local scale, by providing ideas, attention to city problems and challenges, as well as example of existing local development and initiatives.

At the same time this process works vice versa. The citizens led development in one of the local hubs can be discussed and inspire other neighbourhoods during the city wide participation events.

Finalising the City of Stories concept provides a detailed framework to set-up a new participation process inside the City of Eindhoven. This new process uses the qualities and strengths of public space, to help the City in their goal to create an inclusive Smart Society.

Story of Woensel-West

Why Woensel-West?

Introduction Weensel-West

Historic development Woensel-West

A new approach

Local hub locations

Concept for Woensel-West

4

4.1 Why Woensel-West?

Woensel-West is a neighbourhood in transition. Labelled as a ‘Vogelaarswijk’ or ‘Krachtwijk’ around a decade ago, started the redevelopment of the disadvantaged neighbour. The initial approach of redeveloping out-dated houses, and upgrading the public space did not achieve much (which was a returning conclusion in all the 40 Vogelaarswijken), so the city and housing association Trudo tried experimenting with a new approach; investing in the community, by stimulating citizens’ initiatives and programs.

Their approach was successful in stimulating citizens’ initiatives, as every week sixty different citizens led initiatives are organized. Volunteering inside the neighbourhood has doubled in just 8 years from 27% in 2007 to 59% in 2015. The usage of the citizens initiatives widely vary though. The children activities seems the most used from all, while

especially initiatives aimed at adults to increase social cohesion and community are limited used. While the awareness for all the children activities seems quite fine, the adult’s one seems a bit lacking. This dispersion of usage is reflected in the statistics inside the neighbourhood, as the statics for the neighbourhood show mixed results. On most aspects, like crime, social cohesion, healthy and economy, the neighbourhood has slight improved, but nothing to write home about. Others, especially education, has seen massive leaps forward. The local elementary school for example changed from one of the worst school in the Noord-Brabant province to one of the best in Noord-Brabant, according to the CITO-score.

The large number of initiatives, but lack of awareness of mainly the adult ones, are the main reasons why Woensel-West was chosen. Figure >< shows the reasons why Woensel-West should be developed as local hub pilot, with both benefits for the neighbourhood itself and Eindhoven.

What can Woensel-West do for Eindhoven when developed as pilot project?

- ◇ showing examples of citizen's initiatives.
- ◇ Showing the strength and successes of citizens initiatives.
- ◇ Providing a place where current and future initiators can meet and exchange tips.

What can Woensel-West do for itself when developed as pilot project?

- ◇ Creating more awareness of all the initiatives, which are still quite unknown even for the local citizens
- ◇ Further improve its image to outsiders, which currently is still an area to avoid.
- ◇ Providing the citizens an easier way to tell their story behind the initiative.

Fig 48: Benefits for Woensel-West and Eindhoven

4.2 Introduction Woensel-West

Woensel-West is a neighbourhood in Eindhoven just outside the ring. (Figure 49). The neighbourhood was constructed as a housing area for the Philips workers, with an expansion after the Second World War to provide providing emergency housing.

Demography wise, Woensel-West is characterised as a multicultural neighbourhood with a high amount of immigrants, with Turkish citizens as the largest immigrant group. The amount of man and woman are about equal. The age distribution inside the neighbourhood is compared to Eindhoven quite different. Woensel-West has a low amount of elderly compared to Eindhoven, while having a high amount of students and young adults. As Woensel-West has a large amount of social housing, aimed for citizens looking for their first house, this was expected.

Economically the neighbourhood scores under average. With the quite high amount of students and social housing this does not come as a surprise either.

The layout of Woensel-West is focussed one main axis, the Edisonstraat, with a couple perpendicular secondary axis. Most of the activity inside the neighbourhood is centred along the Edisonstraat. The sporting facilities are on the edge of the neighbourhood, next to the railway. (Figure 50).



Fig 49: Location Woensel-West in Eindhoven

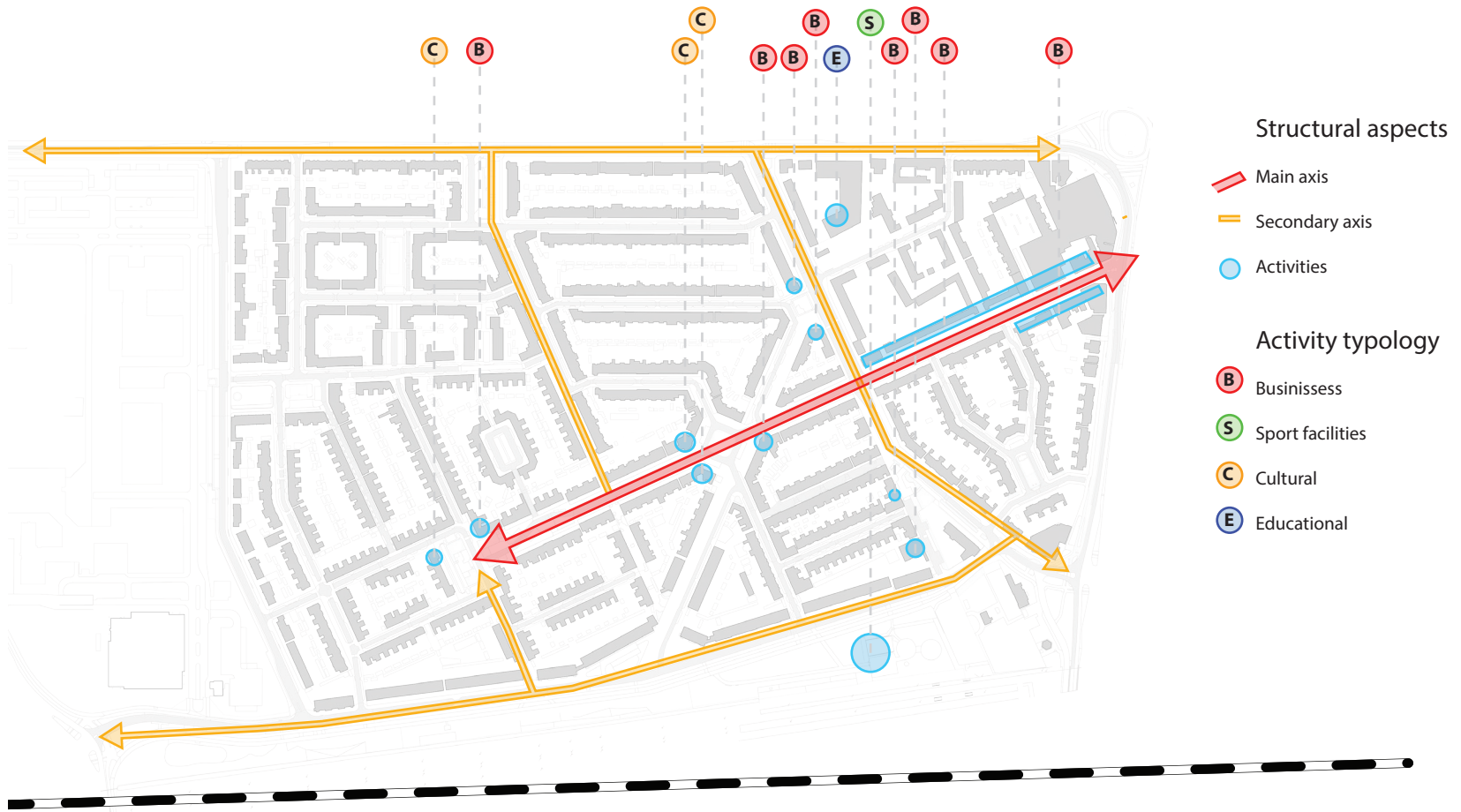


Fig 50: Analysis Woensel-West

4.3 Historic development Woensel-West

Woensel-West is a classic example of a Volksbuurt, built for the Philips factory workers. The name of the neighbourhood has changed several times during its brief history, from its original 'Het Lijntje' (The line), named after one of the original streets, to the 'Natuurkundigenbuurt', related to the physics streetnames, to Woensel-West, which was in 1986 changed to Groenewoed to prevent confusion with the Woensel district. In 2011 the name of the neighbourhood was changed back to Woensel-West, as almost everyone called it that anyway

Woensel-West is a relatively new neighbourhood with the first houses built around 1925 along the Boschdijk (Figure 53), followed up by realisation of 200 houses for Philips workers between the Galileistraat, Marconilaan en Wattstraat, including a Christian elementary school (figure 52). Between 1930 and 1940 larger houses between the Edisonstraat and the Boschdijk

were realised, to provide housing for the higher educated workers of Philips. The last part of Woensel-West was built during the reconstruction period after the second World War (Figure 54). Figure 51 shows the different building periods of Woensel-West.

During the decades after the second World War the neighbourhood started to deteriorate, resulting in rising crime and prostitution. In 1978 Woensel-West is at the bottom of the social hierarchy ladder of the neighbourhoods in Eindhoven. The next thirty years the neighbourhood is labeled as city renewal and focus area, with continuous redevelopment programs aimed at improving the living and social qualities inside the neighbourhood, which in reality accomplished nothing.



Fig 51: Building years Woensel-West



Fig 52: Christian elementary school in 1928 (Source: Van der Hoeven, 2009)



Fig 53: Het lijntje in 1928 (Source: Melis, 2006)



Fig 54: Celsiusplein in 1952 (Source: Van der Hoeven, 2009)

4.4 A new approach

The current renewal program for Woensel-West is a new approach for the neighbourhood and has three focus points:

- Change of scene
- Change of image
- Focus on emancipation

Change of scene

While being a new approach, the redevelopment of a third off all the houses inside the neighbourhood is still a crucial part. Two parts have already been finished. A new multifunctional project along the Marconilaan finished in 2004. The project provides a place for the local prostitution, out of sight of the main access roads of Woensel-West, at the Baekelandplein.

The second part, Voltagalvani, has been completed in 2014. The redevelopment provides 190 houses in a Mediterranean style (Figure 58), as well as space for new shops and other activities in the Woensel-Westside stores, along the Edisonstraat. This redevelopment included a new building, the SPIL-centrum (SPeel, Integreer, Leer) and a redevelopment of a diagonal, crossing street to a SPIL-street.

Two other projects are currently under construction. Plan Celsius has recently been started with the deconstruction and site preparation for the first part of the plan, which should be completed mid-2017. The whole project is aimed to be completed around 2022 (Figure 56) The second project, Edisonstreet Corners, is about realising eye-catchers at the corners of the Edisonstraat. Two have been realised so far, with several more planned to be realised in the next decade. (Figure 57) The last redevelopment part, which is still in the design-phase, is the redevelopment of the old Philips headquarters, at the edge of Woensel-West.

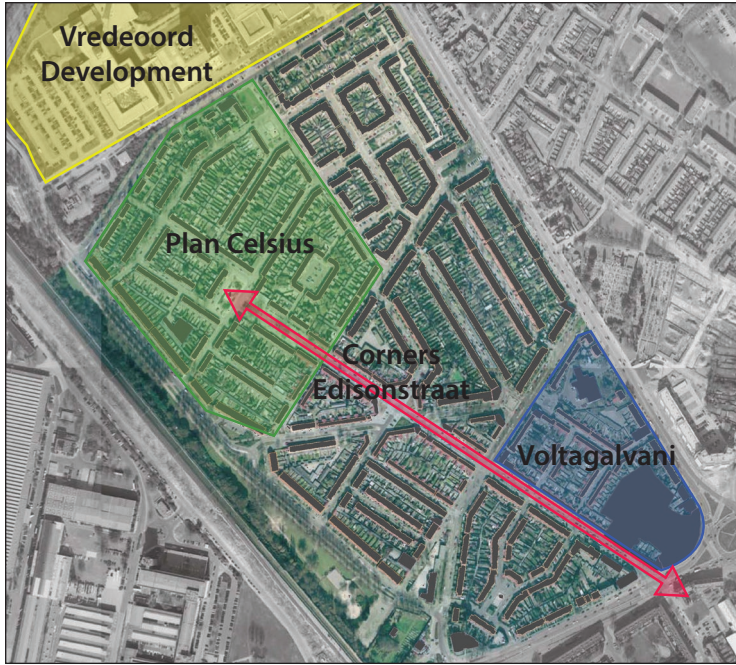


Fig 55: Current developments Woensel-West



Fig 56: Plan Celsius (Source: Wiersema Architecten, n.d.)



Fig 57: Corner buildings Edisonstraat



Fig 58: Voltagalvani

Change of image

As Woensel-West has been negatively viewed in the news for the last couple decades, the neighbourhood has an image problem. For outsiders the neighbourhood is still seen as the disadvantaged neighbourhood with prostitution and drugs problems, while in reality it has significantly been improved lately.

Their main strategy used to achieve this change of image consists out of two parts. The first one is trying to bring Woensel-West positively in the picture. Several websites report over the changing scene and redevelopment inside the neighbourhood, as well as all the events organized inside the area. Furthermore a book showing all the citizens initiatives has been released. (Figure ><)

The second part is realising a wider variety of program inside the neighbourhood which will more outsiders to the

neighbourhood Woensel-West. The Woensel-Westside stores provides space for more specialised stores, like a small bakery and a biological shop, while the just opened Brooklyn Square houses a tattoo-shop and an Italian restaurant. The latter one is advertisement as the stepping stone to Woensel-West from Strijp-S. (Figure 59 and 60)

Focus on emancipation

The emancipation program for Woensel-West stimulates citizens' initiatives, with a focus on language and children. Not possessing a basic understanding of the Dutch language is one of the largest barriers for immigrants to participate in the community. Woensel-West provides several Dutch classes for adults to learn the Dutch language.

Children on the other hand are seen as the future for Woensel-West. The children initiatives are diverse, from tutoring classes, to cooking classes, to the arts and crafts club as example.

Besides these two mayor types of initiatives, some smaller ones with a different focus are realised. A couple initiatives aimed at lonely elderly are realised, as well as sporting events and clubs for all ages.



Fig 59: Woensel Westside stores (Source: Thijssen, 2014)



Fig 60: Zoveel te doen in onze wijk (Source: Trudo, 2016)

4.5 Local hub locations

The location choice for the local hubs depends on three aspects. The main one is the location of the existing initiatives. The secondary aspects are if there is any supporting program in proximity, and if there is a main access routes nearby. The latter two aspects are supposed to narrow down all the local hub locations to places which has more to offer than just the existence of initiatives. (Figure 61)

As Trudo has provided a couple locations inside the Neighbourhood to facilitate the citizens' initiatives, they have clustered themselves on these locations. These locations are the SPIL-Centrum, Tante Netty and Celsius 360.

Two other locations which provides citizens activities, are entrepreneurial set-up. The first one, In de Voortuin, is a neighbourhood restaurant at the Celsiusplein, which provides

cooking lessons. The second one is Brooklyn Square, where an American from Brooklyn (hence the name) redeveloped the old community centre with a new program, including space for community activities.

Figure 62 shows the locations of these citizens initiatives. On the next pages each location will be shortly introduced, followed by an analysis of supporting program inside Woensel-West for the locations of the existing initiatives. These three aspects will lead to the locations choice of the hubs.



Fig 61: Local hub location variables

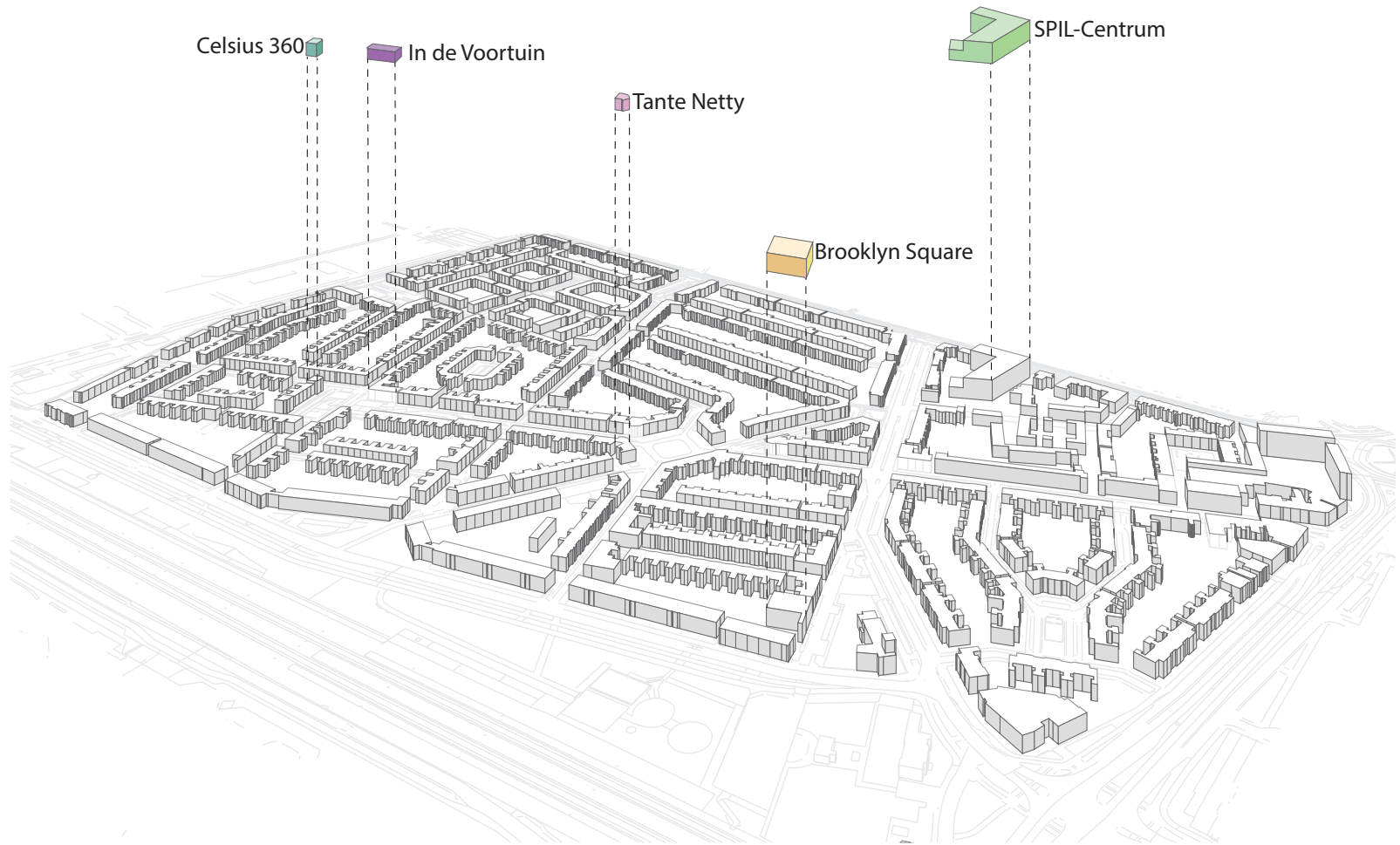


Fig 62: Location existing initiatives

SPIL-Centrum

The citizen's initiatives inside the SPIL-Centrum focus on learning, as the building houses the local elementary school as well. In here all the Dutch lessons for adults are given, as well as the children tutor sessions.



Fig 63: SPIL-Centrum focus



Fig 64: SPIL-Centrum (Source: PDA, n.d)



Fig 65: Learning initiatives (Source: Trudo, 2016)

Tante Netty

Tante Netty was originally an artist project, but has grown to a well-known initiator inside Woensel-West. Tante Netty's initiatives focus on arts and crafts, children activities, as well as some elderly activities, like the knitting-club. While the building itself is recognisable from the outside, what is exactly happening inside is hard to tell.



Fig 66: Tante Netty



Fig 66: Tante Netty focus



Fig 68: Arts and crafts initiative (Source: Trudo, 2016)

Celsius 360

Celsius 360 provides the widest variety of program. It houses several non-profit organization which focusses on low-income children. Besides this the local music club and youth organization Dynamo organises weekly program in here. Lastly Celsius 360 is managed by a couple active elderly in Woensel-West, which organizes some elderly activities as well.



Fig 69: Celsius 360

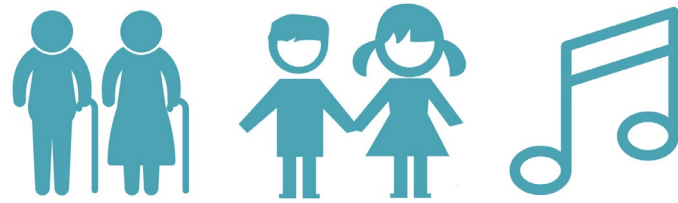


Fig 70: Celsius 360 focus



Fig 71: Music initiatives (Source: Trudo, 2016)

In de Voortuin

In de Voortuin is the neighbourhood restaurant, and one of the main community places inside the area. The restaurant organises three times a year a four week cooking lesson for children, where they learn to cook and bake a wide variety and multicultural dishes.

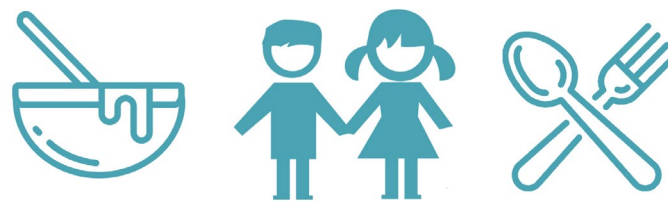


Fig 73: In de voortuin focus



Fig 72: In de voortuin (Source: Zitfabriek, n.d.)



Fig 74: Cooking initiative (Source: Trudo, 2016)

Brooklyn Square

Brooklyn Square is an entrepreneurial run building, which currently houses a tattoo-shop, an Italian pizzeria, and an American breakfast, and provides space for larger citizens initiatives in the event space on the second floor.

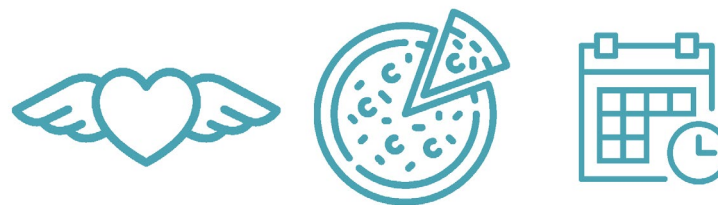


Fig 76: Brooklyn Square focus



Fig 75: Brooklyn Square (Source: Wljdeven, 2016)



Fig 77: Pizzeria Brooklyn Square (Source: Wljdeven, 2016)

Supporting aspects

As said before the locations where the citizens initiatives are located, does not guarantee the realisation of a local hub on that specific location. As the main goal of a local hub is about stimulating interaction between citizens, the local hubs should provide more than just the existing citizens' initiatives.

For Woensel-West gladly, each location has some sort of supporting program and are as wel along the main acces roads inside the neighbourhood (Figure ><). So concluding each of the four locations (as Celsius 360 and In the Voortuin practicly lies next to each other) should be developed as an own local hub.

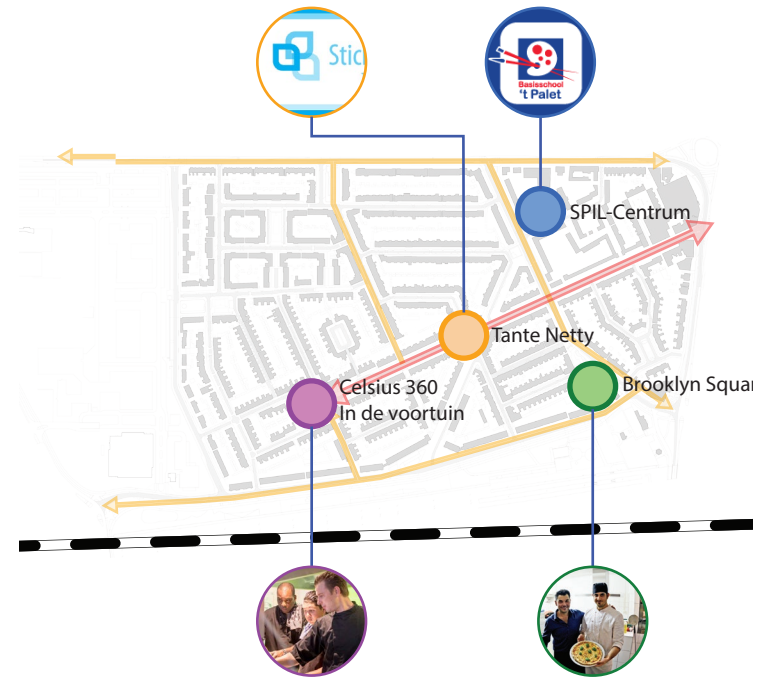


Fig 78: Supporting program existing initiatives locations.

4.6 Concept for Woensel-West

The concept for Woensel-West is the realisation of four local hubs (figure 79), related to the nearby initiatives. The SPIL-square works together with the SPIL-centrum and focusses on learning. The creative hub on the other hand is an expansion of the creative character of Tante Netty. As Celsius 360 and In de Voortuin provides a diverse program with different audience groups, the hub associated with them is a living room hub. As the Brooklyn Square is already advertised as the stepping stone from Strijp-S, it will be further designed and developed as the introduction local hub for Woensel-West.

All the hubs are connected with each other by two routes, as well between Strijp-S and Brooklyn square by a third route. The two routes inside the city are related to the main themes inside the neighbourhood; the Volksbuurt character and the children focussed citizens' initiatives.

The first route is focussed on the children theme of the neighbourhood, and will run from the sports facilities at the edge to the SPIL-centrum, while passing through the Brooklyn Square. The design will be roughly copied from the current SPIL-street. The Second route highlights the Volksbuurt character from the neighbourhood, and will run from Brooklyn Square to the Living room hub, passing through the creative hub.

The third route runs from Strijp-S to Brooklyn square, and functions as a guiding tool for the visitors of Strijp-S to Woensel-West. Inside the Brooklyn square the visitors will be introduced to all the new initiatives and character of Woensel-West.

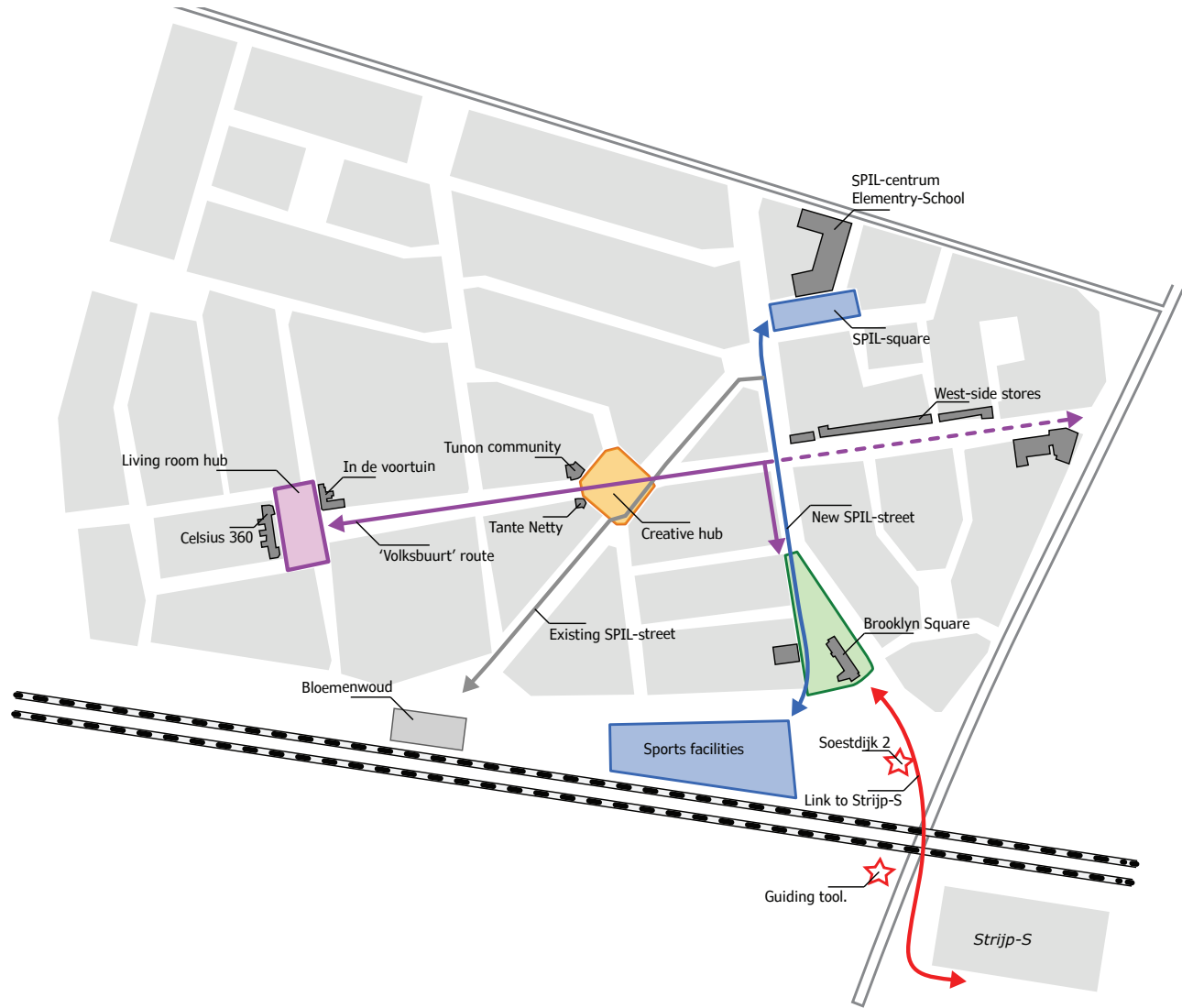


Fig 79: Story concept Woensel-West.

Each hubs program is associated with the existing initiatives next to it; Learning and children in the SPIL-hub, arts and crafts in the Creative hub, Cooking and relaxation in the Living room hub, and larger events in line with the ideas of the entrepreneur in Brooklyn Square.

Three of the four hubs, SPIL-hub, living room hub and Brooklyn Square has urban farming in their program, all three with a different purpose tho. The urban farming in the SPIL-hub is there for the children to learn about healthy food, and has an educational purpose. The production of food in this area is more an accessory to the educational program. (figure 80).

The urban farming in the Living room hub has a combined focus of creating community and producing usable products. The urban farming provides a relaxing environment for the neighbourhood. The food produced inside the hub is used by In the Voortuin, as well as by the community to cook meals inside the public, community kitchen in the Living room hub.

The last hub, Brooklyn Square, has the largest amount of urban farming of the three hubs. The urban farming on Brooklyn Square has a combined purpose of producing food, and stimulating interaction between local citizens and visitors. While the urban farming in the above two hubs is communal based, the urban farming inside Brooklyn Square is more individually.

Besides the urban farming all three the hubs has some specific program aimed at bringing the existing initiatives in the open air. The SPIL-hub provides place for an outside classroom, which can be used to teach one of the Dutch curses outside. To further show the educational character of the initiatives inside the SPIL-Centrum, all the signs will be multilingual. While the urban farming is aimed at the children, the signs (what kind of veggies is growing here) will be multilingual as well. The children are 'used' this way as a tool to inform the parents about the language character of the hub, and the Dutch class possibilities inside.



Fig 80: Children and urban farming (Source: MIndfood, 2016)



Fig 82: Urban farm and relaxing (Source Jolandav, 2014)



Fig 81: Urban farming for production (Source: Kessler, 2013)



Fig 83: Urban farming Moestuintjes style (Source: Borghuis, n.d.)

The creative hub provides place for artistic and creative program, as well as place for temporary initiatives and projects. The hub itself has specialised furniture adapted to the creative program inside the area. As the knitting club is one of the most frequent users in Tante Netty, the furniture could provide a little dish hanging under the tables where the elderly knitters can put their yarn. Secondly the hub provides place for exhibiting the stuff created inside the hub, so when even the hub is unused by the creative participants, visitors will still be able to tell the character of this hub. Lastly the hub provides space for temporary initiatives and projects. This is done in the Parklet style.

The living room hub combined the earlier mentioned urban farming and open kitchen, with space for a flexible program. Moveable furniture, as well as moveable elements like a podium, allows the wide variety of existing initiatives from Celsius 360 to use the hub for an event or wished program, like a music performance from the music lessons, an elderly activity

by the current elderly participants or an outdoor cooking class by In de Voortuin. Celsius 360 itself is currently being managed by a couple active elderly of Woensel-West. To stimulate them to manage the Living room hub as well, the hub should be low maintenance. The vegetables and herbs which are grown inside the urban farming should be chosen with the low maintenance aspect in mind.

As the Brooklyn Square hub is the introduction hub, it requires a more direct and finished approach, than the other three hubs. This hub has been chosen to be further design in this Thesis, and will because of this be skipped for now.

Lastly the three connecting routes all have an own theme, as described before. Starting with the SPIL-route, it has children as its theme, and is design wise a rough copy of the existing SPIL-street in Woensel-West. This existing SPIL-street consist out of a recognisable pavement colour, as well as small circular playing grounds along the way. (Fig >< and ><). The new SPIL-



Fig 84: Outside class (Source: Kirkpatrick, 2014)



Fig 86: Arts and crafts of the Creative club (Source: Pennyfather 2012)



Fig 85: Multilingual aspect of the SPIL-hub



Fig 87: Urban farm and relaxing (Source: Rfcfsj, 2012)

route will have this same typology, and integrate the same elements in their design. As the SPIL-street is passing through the Brooklyn Square hub, these elements need to be integrated in the design for that hub as well.

The Volksbuurt-route has Volksbuurt as theme. One aspect of the Volksbuurt theme is the wide usage of the front yard as a place to sit during nice weather. This aspect is in the Volksbuurt-route enhanced by enabling the citizens along this route to adapt the street and turn it in an extension of their front yard. What they do with this new piece of front-yard is up to them, there is just one requirement they need to stick to; The sidewalk they adopted still has to be able to function as a sidewalk.

The last route, the design route between Strijp-S and Brooklyn Square, is more a combination of some small elements than a physical route. The small elements guide the visitors of Strijp-S to Woensel-West. Along the route from Strijp-S to Brooklyn

Square, two places require a guidance tool. The first one is next to the Strijp-S station. This element is noticeable from Strijp-S and will provide the first guidance from Strijp, over the ring-road and under the railway track. From here the second guidance tool will be visible; the redevelopment of the Soestdijk two building (Figure ><). By transforming the program of this building to an interesting program for the creative visitors and citizens of Strijp-S, it can be used to guide the citizens further to Woensel-West. From this place Brooklyn-Square is visible.

On the next page a rough first collage of all the design elements is created to give a first impression for each hub, as well as the three routes.



Fig 88:SPIL-street recognisable pavement colour



Fig 90: Strijp-S station (Thijssen, 2016)



Fig 89: Circular playgrounds integrated in the SPIL-street



Fig 91: Soestdijk 2 (Source: Willem-Alexander fanclub, n.d.)

Public kitchen
Urban farming
Multifunctional elements
Maintained by elderly



New space for initiatives; parklets
Exhibition space
Arts and crafts furniture

Overtuin concept
Public-private interaction

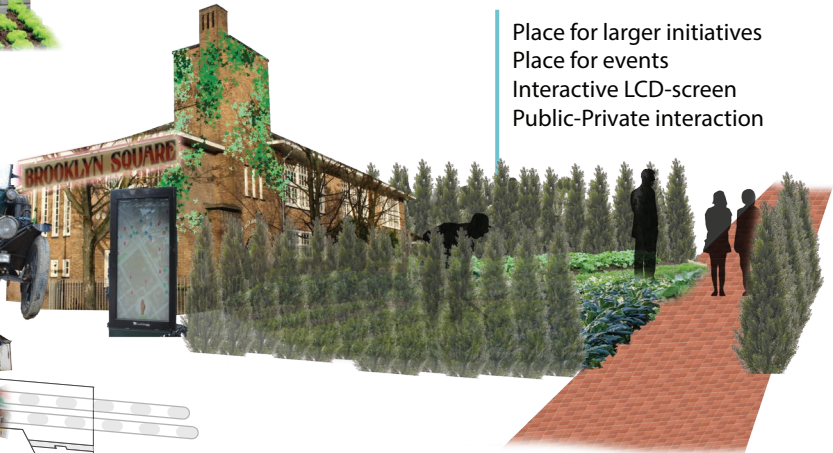
Interesti



Learning where food comes from
Multilingual signs
Child as a way to get to the parents'
Outside classroom



ing program as guide to Woensel-West



Place for larger initiatives
Place for events
Interactive LCD-screen
Public-Private interaction



Guiding tool from Strijp-S to Woensel

Brooklyn Square

Current situation

Concept Brooklyn Square

Design

5

5.1 Current situation

Brooklyn Square is the introduction hub for outsiders to Woensel-West. As introduction hub it needs the ability to stimulate interaction between complete strangers, which requires a delicate design approach. Because of this reasons Brooklyn Square will be further designed.

In the City of Stories and the Story of Woensel-West chapters, several conclusion with requirement for this hub were made. The first conclusion is the integration of both the main themes (children and Volksbuurt) of Woensel-West inside the hub. The second requirement is the need of an attractive program for outsiders. The current Brooklyn Square already provides this program, and has the option to expand to the empty school.

The last requirement, and the one that will require the largest interventions for Brooklyn Square, is stimulating interaction

between visitors and locals. Local hubs has as goal stimulating citizens to enter local participation and starting own initiatives. As Woensel-West should be developed as pilot project, showing all the benefits of the citizens initiatives, Brooklyn Square needs to stimulate visitors. The best way to do this is to create a low barrier for interaction with the locals.

Before a concept and design for Brooklyn Squaer can be made, an analysis to the current situation is required. Figure 93 shows an overview of the current situation with the main aspects highlighted. Figure 94 till 101 show the current situation in pictures. Lastly figure 102 shows a more detailed analysis of the current traffic situation.



Fig 93: Current situation Brooklyn Square



Fig 94: Trees in line with main axis



Fig 96: Trees in line with main axis



Fig 95: Non-usable greenery



Fig 97: Non-usable greenery and overgrown schoolyard



Fig 98: Informal parking at current Brooklyn Square side



Fig 100: Formal parking at other side



Fig 99: Overgrown schoolyard



Fig 101 : Bird view current situation

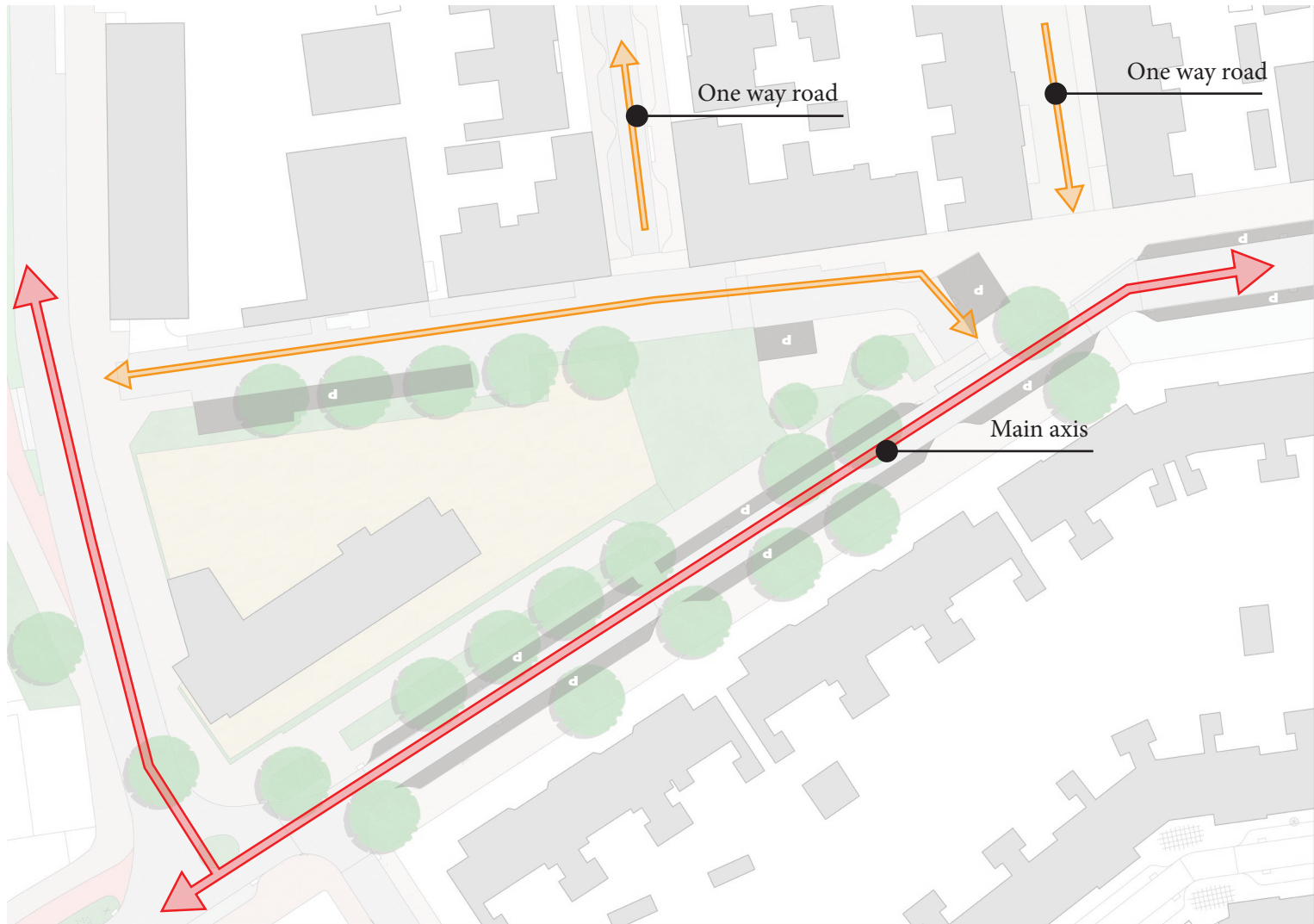


Fig 102: Current traffic situation

5.2 Concept Brooklyn Square

The concept for Brooklyn Square combined three tools to stimulate interaction between locals and visitors. The first tool is by flipping the program and route of the visitors and locals with each other. The entrance axis for the visitors passes through the program for the citizens, while the entrance from the neighbourhood, passes along the program.

The second tool is extending the Volksbuurt character from the frontyards inside the neighbourhood to the moestuintjes (allotments) on Brooklyn Square. The citizens of a Volksbuurt are overall quite open to strangers when they are sitting on their own plot of land (normally the frontyard, but this time their moestuintje).

The third tool is by mixing a public program, a sidewalk and main visitors entrance, with a semi-private program, the

moestuintjes. Furthermore by closing of the moestuintjes at the edges, visitors will be surprised by the appearance of the moestuintjes when following the route through the gap in the hedges.

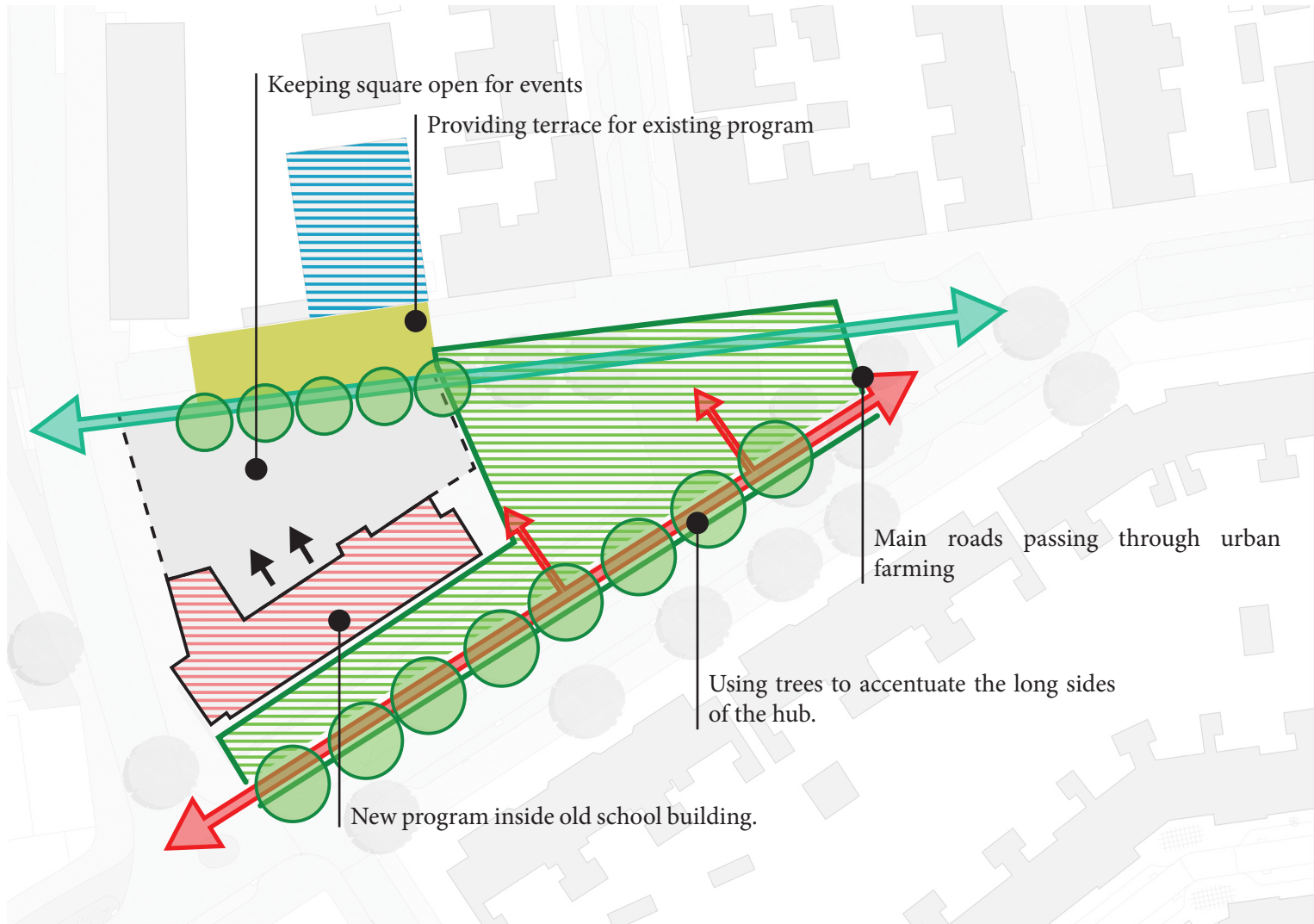


Fig 103: Concept for Brooklyn Square



Fig 104 : Masterplan Brooklyn Square



Fig 105 : Impression 1



Fig 106 : Impression 2



Fig 107: Impression 3



Fig 108 : Impression 4

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