
INNOVATIVE ORGANISATIONAL CHANGES TO BROADEN THE SCOPE TOWARDS CITIZEN PARTICIPATION

A case study to inspire NME centres in the Netherlands



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27th October 2022

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ACT project information

Team number: 2.968

Project name: Citizen participation in Nature and Environmental education centres:
How to make this a success

Source of cover page illustration: pch.vector. (n.d.). Vector gratis equipo de voluntarios estilizado que cuida y comparte la esperanza aislada ilustración plana [Online image]. Freepik. Retrieved October 27, 2022 from <https://www.freepik.es/fotos-vectores-gratis/altruistic>

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About our consultancy team



Figure 1: Our team members from left to right: Tara Riemens, Jori Boekwijt, Eudald Vicens I Roig, Sharmin Tasmiya, Zoë Thomissen and Annabelle Poventud

Our consultancy team consists of six master students from Wageningen University and Research: Annabelle Poventud, Eudald Vicens I Roig, Jori Boekwijt, Sharmin Tasmiya, Tara Riemens and Zoë Thomissen, see Figure 1. We are a diverse international team from different Master programs such as Forest and Nature Conservation, Biology, Environmental Science and Organic Agriculture. Together we form the consultancy team “The Green Initiative” and our logo can be found in Figure 2 below. Thanks to our multidisciplinary backgrounds we contribute with our knowledge on nature conservation, policy, business, and social science to produce an interdisciplinary report.



Figure 2: The logo of The Green Initiative consultancy team

Acknowledgments

Throughout this project we have had the pleasure of working with several people that greatly impacted our process. Without them we would not have been able to learn and enjoy ourselves as much as we have. Firstly, many thanks to our coach Albert Aalvanger. With your guidance and always helpful insights we were able to grow so much on a personal and also team working level. To our commissioner Jolanda van den Berg, thank you for giving us this interesting project opportunity and for guiding us during the project. This allowed our team to gain valuable experience and contribute into a real-life project outside Wageningen University and Research. Thanks go out to René Munsters, our adjunct commissioner, for always being there whenever we had questions or needed assistance with the NMEs. We would also like to thank René for including us in the GDO-tweedaagse and inviting us to the Floriade. To our academic advisor Arjen Wals, we would like to express our gratitude for guiding us through this project by providing his expert advice and feedback on the report content. Lastly, we want to thank all the interviewees. Without their valuable input and time, we would not have been able to collect all the relevant information for this report.

Abbreviations

ACT	Academic Consultancy Training
ENG	English
GDO	Gemeenten voor Duurzame Ontwikkeling
NL	Dutch
NMEs	Nature and Environmental Education centres
SDGs	Sustainable Development Goals
WEcR	Wageningen Economic Research

Executive summary

NL

Het gevoel van urgentie voor meer burgerparticipatie bij natuur- en milieu-initiatieven wordt gedereven door de maatschappelijke, wetenschappelijke en academische context. Volgens de GDO vereniging en de NME's zelf, hebben de NME's uitdagingen ervaren om meer burgers te laten participeren in natuur- en milieuprojecten. De GDO vereniging heeft onze opdrachtgever, de WEcR, opdracht gegeven hier onderzoek naar te doen. Het consultancy team draagt bij aan dit onderzoek met kennis over duurzaamheid, organisatieveranderingen, ondernemen, marketing en ervaring met participatieprojecten in natuur. Het doel van dit onderzoek is het identificeren van belangrijke succesfactoren en uitdagingen die vijf innovatieve NME's hebben ervaren bij het behalen van meer burgerparticipatie in natuur- en milieuprojecten. Dit onderzoek omvat vijf profielen waarin thema's ter sprake komen die zorgen voor meer burgerparticipatie. Daarnaast worden in de discussie de overlappende thema's van de bovengenoemde profielen toegelicht en gekoppeld aan de theorie. Uit deze resultaten en de discussie worden verschillende aanbevelingen voorgesteld. De aanbevelingen, vermeld als inspirerende actiepunten, hebben betrekking op de volgende thema's: de faciliterende rol van de NME's, de architectuur van de NME's, het gevoel van eigenaarschap van de werknemers, communicatie en netwerken met bedrijven. Naast deze aanbevelingen worden inzichten gegeven over mogelijke richtingen verder onderzoek. Verder is het aanbevolen om de gepresenteerde evaluatie tool voor NME's verder te ontwikkelen.

ENG

The sense of urgency for more citizen participation in nature and environmental initiatives is motivated by social, scientific, and academic contexts. According to the GDO Foundation and the NMEs themselves, NMEs have experienced challenges to increase citizen participation in nature and environmental projects. The GDO Foundation assigned our commissioner, the WEcR, to investigate this matter. The consultancy team contributes to this research by applying their knowledge about sustainability, organisational change, business, marketing, as well as our experience in nature participation projects. The purpose of the present research is to identify key success factors and barriers that five innovative NMEs have established to increase citizen participation. This research includes five profiles presenting the ways that the NME increases citizen participation. Additionally, in the discussion, the overlapping themes of the aforementioned profiles are explained and linked to theory. From these results and the discussion, a variety of recommendations are proposed. The recommendations, referred to as inspirational action points, cover the following themes: the NMEs' facilitator role, the NMEs' architecture, the sense of ownership of the employees, communication, and networking with businesses. Besides these recommendations, it is advised that further research focuses on theoretical frameworks and perspectives for analysis as well as expanding the target group f analysis. Furthermore, it is advised to further develop the profiling assessment tool presented in this research.

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1. Introduction

Nature and Environmental Education centres (NMEs) in the Netherlands have voiced their opinion about the challenges they are experiencing regarding the change from using mainly formal education as a mechanism to connect young people to nature and environment issues, towards using informal social learning and participation as a key mechanism to connect citizens of all ages to sustainability challenges. This became evident during our meeting on September 9th 2022 with René Munsters, the programme manager of sustainable communities of the Stichting Gemeenten voor Duurzame Ontwikkeling (GDO Foundation). From this meeting, it became clear that our research should be focused on the needs of the NME centres to increase citizen participation, this with a focus on organisational changes processes.

As mentioned in Chapter 2.1, the definition of citizen participation in this research report is defined as: the active involvement of citizens and communities in sustainability projects and their power to influence decisions, thereby strengthening the social network and success of a project. For a more detailed understanding about citizen participation, social learning and organisational change we refer the reader to Chapter 2.

This change towards increasing citizen participation comes from a worldwide awareness of addressing nature and environmental challenges as described in the Intergovernmental Panel on Climate Change (IPCC) (IPCC, 2022). Additionally, the Sustainable Development Goals (SDGs) report highlights the environmental challenges humanity faces (United Nations, 2022). When addressing these SDGs, citizen participation plays an important role (Fox and Stoett, 2016; Fischer, 2012) because through active participation citizens develop ownership on the issues and the solutions developed and as a result are more likely to enact these solutions in their everyday life. More specifically, these nature and environmental challenges can be addressed through forms of participatory governance. Participatory governance is defined as a collective participation to address common problems (Sinclair, 2013). Next to this, scientific reports like the IPCC (IPCC, 2022) elaborates on the role of citizens participation in climate change adaptation (Hügel and Davies, 2020).

The GDO Foundation is a network organisation in which municipalities and other independent organisations, such as NMEs, can exchange knowledge and inspirations on the topic of sustainable living. Education, communication, and participation are the major tools used by the GDO Foundation to help realise sustainable living. The NMEs play a central role in this organisation, and as of present, circa 140 NMEs are associated with the GDO Foundation (GDO, n.d.). In 2021, the GDO Foundation held their GDO-tweedaagse, this is an annual workshop the GDO Foundation organises for directors of NMEs to exchange knowledge about sustainability challenges. During this event NMEs have asked the GDO Foundation for help regarding increasing citizen participation next to their already comprehensive education programmes (According to R. Munsters, personal communication, September 9th 2022). This resulted in workshops during the 2022 GDO-tweedaagse about the topics of entrepreneurship and citizen participation. With regards to citizen participation, the NMEs need learning tools on how to actively involve citizens in the resolution of local sustainability challenges. This is where the collaboration with the GDO Foundation and the Wageningen Economic Research (WEcR) comes into play.

1.1 Project aim and research questions

The project aim emerged from a dialogue between the GDO Foundation, WEcR and the consultancy team. René Munsters of the GDO Foundation, got in contact with Jolanda van den Berg from WEcR about the need of NMEs to have learning tools to increase citizen participation.

The focus of this report is on finding success factors as well as barriers that enable NME centres to become better equipped to initiate and support citizen participation, this within the field of organisational change. The report looks at both success factors and barriers that have been identified in the practices of five innovative NME centres. The learning tools asked for by GDO Foundation should take into account these success factors and barriers. These learning tools can then be used to inspire NMEs in expanding their knowledge and capacities to take steps in developing their organisation to move towards increasing citizen participation. The GDO Foundation has identified five NMEs that they consider to already have made innovative steps towards increasing citizen participation, these five NMEs are listed in Figure 3 along with details on their location, team structure, target group and website link:

CNME	<ul style="list-style-type: none">• Located in Maastricht• A team of 25 people, educational experts and volunteers• Target group: residents, municipalities, schools, companies and organizations in Limburg• Website: https://www.cnme.nl/
De Groene Belevnis	<ul style="list-style-type: none">• Located in Leusden• A team of 5 employees, 5 people in board and volunteers• Target group is children, parents, entrepreneurs, elderly, and citizens• Website: https://www.degroenebelevnis.nl/
Duurzaamheidscentrum Assen	<ul style="list-style-type: none">• Located in Assen• Small team of professionals, volunteers and board• Target group: primary and secondary school students and companies• Website: https://duurzaamheidscentrumassen.nl/
NMCX	<ul style="list-style-type: none">• Located in Haarlemmermeer• A team of freelancers, project leaders and volunteers• Target group: residents, primary and secondary school children and companies• Website: https://www.nmcx.nl/
Ulebelt	<ul style="list-style-type: none">• Located in Deventer• Small team of professionals, volunteers including board of foundation• Target group: children and business projects with municipality, water board and Circulus Berkel• Website: https://www.ulebelt.nl/

Figure 33: Overview of the five NMEs

Research questions

To fulfil our aim, the following research question was formulated:

What organisational changes have the five innovative NMEs made to broaden their scope towards citizen participation?

To answer the main research question the following sub-questions will be addressed in this report:

- *What are organisational changes in the context of environmental educational centres?*
- *What organisational profiles do the five innovative NMEs currently have?*
- *What organisational changes can be identified in the five innovative NMEs?*

Furthermore, a brief description of the different stakeholders that would be influenced by our research are included in Figure 4.

GDO

- GDO Foundation is an organisation composed of Dutch municipalities and NME centres that strive for a sustainable living environment for citizens.

WEcR

- WEcR is an organization that does research for their clients to strengthen their strategy or policy to create value. They do this for organizations, partners, clients, citizens and society.

NMEs

- NMEs are local organizations that strive for nature and sustainability education and participation. NMEs work together among other with governmental organizations, NGO's, schools, citizens, and entrepreneurs/local businesses

Municipalities

- There are 90 municipalities that the GDO foundation is working with. Some NMEs are embedded and (partially) funded by the municipality whereas some work independently.

Citizens

- Many NMEs engage citizens of diverse target groups. These citizens will be possibly impacted by projects from the NMEs.

Figure 4: Overview of the different stakeholders and their roles

2 Theoretical background

The aim of this chapter is to present an extensive overview of existing theories about citizen participation, social learning, and organisational change. These theories can be used to conceptualise an overall framework of our research.

2.1 Citizen participation and social learning in environmental projects

Originally, NMEs have had a focus on environmental education for schools and citizens (Wesselink and Wals, 2011). However, they want to broaden their focus from mainly education to more citizen participation. In fact, NMEs want to involve citizens in addressing global environmental issues (IPCC, 2022). Currently NMEs in the Netherlands face several problems regarding the increase in citizen participation. Among these are the budget cuts from municipalities which NMEs throughout the Netherlands face (Wesselink and Wals, 2011). Organisations like NMEs are capable of organising citizen participation (Blanchet-Cohen, 2015). In addition, citizen participation has a fundamental part in organisation- and government decision-making, as it is considered an ethical imperative (Hardina, 2006). However, citizen participation is a challenging concept to define, as it can be interpreted in many ways. One of the definitions of citizen participation is: *“Citizen participation is the active, voluntary involvement of individuals and groups to change problematic conditions in communities and influence the policies and programs that affect the quality of their lives and the lives of other residents”* (Gamble and Weil, 1995; Ohmer, 2008, p 41). Participation of citizens is fundamental as they know their neighbourhoods from up close and can therefore contribute valuable knowledge (Blanchet-Cohen, 2015). Through collaborative participation, citizens can influence decisions and actions taken, thereby strengthening the social network (Blanchet-Cohen, 2015). When citizens are involved in the process, they feel consulted and included in the process. This sense of ownership benefits the success of the project (Blanchet-Cohen, 2015). Citizen participation is also linked to empowerment, as Hardina (2006) demonstrated a link between citizen participation and feelings of self-efficacy as well as psychological empowerment.

Social learning may be defined as a change in understanding that goes beyond the individual to become situated within wider social units or communities of practice through social interactions between actors within social networks (Reed, 2010). Public and stakeholder participation includes deliberation and inclusion (Bloomfield et al., 2001), can initiate social learning processes that go beyond individual and often predefined interests and/or values, and creates opportunities for a shared understanding and joint action (Garmendia, 2010). Social learning is one of the key objectives of engaging citizens and stakeholders. Often implicitly people learn from each other through observation and experiences in a way that it benefit wider social-ecological systems of organizational change (Reed, 2010). While learning may depend on participation; participation does not necessarily equate to learning. Well-designed public engagement has the ability to increase participation. Providing clear, concise, and accessible information helps citizens mobilise in their communities and affect change. The amount of social learning, and therefore informational needs are necessary for an NME to aim at higher levels of engagement and participation (Reed, 2010). As mentioned in the introduction, the definition of citizen participation in this research report is defined as: citizen participation is the active involvement of citizens and communities in sustainability projects and their power to influence decisions, thereby strengthening the social network and success of a project.

2.2 Organisational change

Most of the NMEs aspire to initiate and support citizen participation, on the one hand because of their desire to involve citizens in global environmental issues that surface locally, and on the other hand because the municipality that provides most of the funding demands this. However, to achieve this, they are in need of systematic change (Wals and Corcoran, 2006; Blanco-Portela et al., 2017). To move towards the integration of sustainability topics, organisations need to address organisational issues such as visions, policies and change in management practices (Doppelt, 2003; Benn et al., 2014; Blanco-Portela et al., 2017). For an organisation to remain cost-effective, it will need to mobilise talent, allocate resources, and formulate strategies (Al-Haddad and Kotnour, 2015). Lozano (2009) mentioned several organisational barriers such as lack of top management or lack of strategy. Several organisational strategies mentioned are developing new strategies, policies and frameworks as well as creating realtions and collaborations (Lozano, 2009).

Beer and Walton (1987, p 339) describe organisational development as “a set of action undertaken to improve organisational effectiveness and employee well-being”. Multiple disciplines are closely associated with organisational changes. Leadership plays an important role in successfully managing change with regards to entrepreneurship, creativity, and innovation, as leaders can influence others to accomplish goals or objectives (Al-Haddad and Kotnour, 2015). Next to this, Elving (2005) notes the importance of communication for effective implementation of organizational change as good communication helps to prevent employees’ resistance to change.

By addressing organisational change, organisations have more control over internal changes (Lozano, 2013; Blanco-Portela et al., 2017). Organisations that are dealing with changes vary considerably in terms of structure, systems, strategies, and human resources (Al-Haddad and Kotnour, 2015). Therefore, a general approach would not be advisable for all situations (Al-Haddad and Kotnour, 2015). In this research, based on aforementioned information, organisational change is regarded as: changes within an organisation related to visions, policies and management that result in the development of new strategies, policies, frameworks and collaborations that encourage more citizen participation.

3 Methodology

3.1 Character of the research

The aim for this chapter, is to present the methodological approach used to address the aim of the study and to answer the research questions. This study has an exploratory nature and a diverse set of data collection methods are used together with the application of a qualitative research study design. An inductive and interpretative approach is taken to understand the information analysed from the literature review study and provided by the respondents through fieldwork activities, interviews and observations. In addition, this research follows the nature of a grounding theory approach, consistent with a continuous dialogue and interplay with the data collected and the ideas that keep emerging (Strauss and Corbin, 1994). The use of multiple methodological tools is aimed to find alternate ways to achieve the research objective and contribute to construct validity through the process of triangulation, in which various perspectives and findings are continuously contrasted (Turner and Turner, 2009). Instrument validation is also present in this study since the data was gathered and contrasted by multiple researchers (Turner and Turner, 2009).

3.2 Target group

This research focuses on the study of the selected five NMEs (CNME, De Groene Belevenis, Duurzaamheidscentrum, NMCX, Ulebelt) by the GDO as the most innovative NMEs in broadening their scope towards citizen participation. A critical reflection process was performed to identify the success factors, challenges and barriers experienced by the selected NMEs to make the first steps towards citizen participation.

3.3 Build a profile for the NMEs

The information gathered from the data collection process described in the next chapter served as a basis to define the individual profiles of the NMEs, which can be observed in the results and in the tables of Appendix A1. The theoretical framework of Chapter 2 in which the concepts of citizen participation, organisational changes and social learning are introduced and defined, served as a guidance to orientate the questions formulated in the interview guide (Appendix B) and the overall process of data collection. In addition, the framework provided by Al-Haddad & Kotnour (2015) was used to classify organisational changes in change types, change enablers, change methods and change outcomes and served as a reference to design the interview guide and to categorise the main findings. The main questions formulated during the interviews were divided and aimed to address the following five main topics: characteristics of the NME, citizen participation, organisational changes, challenges and barriers, and networking/collaborations. The first set of questions, covered within the first theme, were aimed to picture the size of the NME; number and type of employees, culture of the NME, historical characteristics. The questions framed within the topic of citizen participation, were aimed to understand the meaning of citizen participation for each NME and comprehend the type of actions related to participation. Each interview included an explicit section of organisational changes, in which questions were asked to understand the organisational changes and necessary skills and capacities to broaden the scope towards participation together with the internal functioning of the NME. During the interviews, another section was dedicated to understanding the current challenges that the NMEs are experiencing, in relation to broadening the scope to participation and financial constraints. The last section of the interviews was dedicated to exploring the collaborations and networking capacities of the

NMEs, and served to identify the network of relationships per NME and their attachment to the municipality. The choice of these main topics was formed by participating in the workshop at the GDO-tweedaagse, after the analysis of existent interviews with the five focal NMEs, and a reviewing of secondary data. Overall, the process of data collection was designed to gain a better and deeper understanding of the functioning, organisational structure, and culture of the selected NMEs, with particular attention to the factors that enabled a change towards citizen participation.

3.4 Data collection

This chapter presents the data collection methods that were used to collect primary data and analyse secondary data.

Observations: Direct observations in form of scratch notes were made to collect complementary data during the interviews and fieldwork activities (e.g., Workshop GDO-tweedaagse and Floriade). Observations about the accessibility, the working atmosphere, and environment of the NMEs were made during our visit to NME centres. Additionally, indirect observations of the NME were made based on online material available on their websites, and social media platforms – Facebook, Instagram, and TikTok's. These observations were complementary to the overall data collection process, and ensured the triangulation process and the contrasting of data.

Interviews: This method enables a direct (informal or formal) way of communicating with the NMEs and facilitates a meeting with the respondents that promotes the creation of joint knowledge (Gubrium and Holstein, 1994). For this study, the research team conducted these two types of interviews:

- Informal: non-arranged form of interviewing that took place at the same time as the field observation and visits to the selected NMEs centres. Informal talks took place with the directors of the different NMEs during the workshop on 16th September at the "Stad natuur Almere".
- Semi-structured: pre-arranged interviews with directors and other employees at the five innovative NMEs. These interviews required the elaboration of an interview guide but are still directive and flexible and allow the interviewer to adapt to respondents' answers (Bernard, 2017). The interviews were conducted in English except the ones in Leusden and Ulebelt, which were in Dutch. The interview questions were narrowed down and detailed on the information we had from the exploratory interviews conducted by Jolanda van den Berg. The respondents were mostly the directors and/or a board member of the five NMEs.

Secondary data:

- Literature review and document analysis: this method is relevant to contextualise the research and to link the main findings to relevant literature and existing theories. Additionally, documents (e.g. booklets and annual reviews) provided by the NMEs were incorporated in the data collection process.

- Analyses from the exploratory interviews: this method consisted of reviewing, transcribing, and translating the existent raw data from the five online recorded interviews with the innovative NMEs into English.
- Mentimeter at the workshop on the GDO-tweedaagse (16th September): the answers submitted by the participants were reviewed and considered during the process of data collection.

3.5 Data analysis

The process of coding is used as the main approach to synthesise the data gathered by identifying categories as well as definitive and emergent concepts. The consultancy team opted for an inductive approach, from which the most relevant factors that played a role in strengthening citizen participation approach were further analysed through a coding process and described in the tables (Appendix A). These were used to formulate the profiles of the NMEs.

Data validation process and feedback from the selected NMEs: The series of codes and relevant factors identified by the research team and described in the tables in Appendix A, were shared by mail to the interviewed NMEs. The research team shared their findings with the NMEs, and each NME received their table from Appendix A. The aim of this action was to receive and incorporate the feedback from the NMEs for the final report and to contribute to increase the accuracy of the findings. Four of the five NMEs showed conformity and made some comments on the provided results. The fifth NME agreed with the table and did not have any additional comments.

3.6 Language of communication

The final report delivered by the research team is written in English. However, some of the respondents preferred to express themselves in Dutch. For those cases, the raw data obtained in Dutch was translated into English and subsequently analysed.

3.7 Visual overview of methods and outcomes

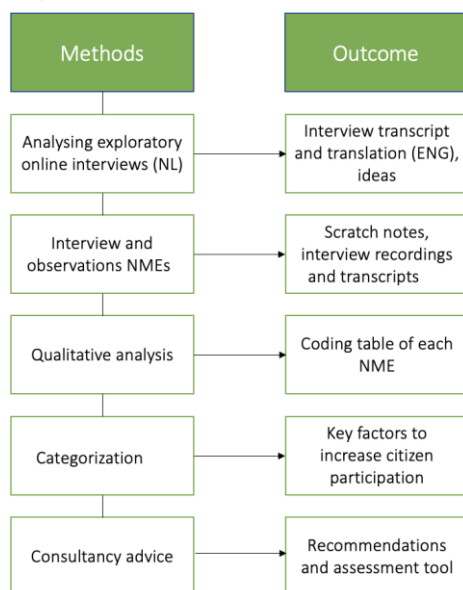


Figure 5: Overview of methods used. (Source: own design)

4 Results

In this chapter, the interview results, the results of the secondary analysis of the exploratory interviews, and the results of our observations are listed per NME. The results are presented in the form of NME profiles. In fact, a profile is made of each of the five innovative NMEs to show a clear overview per NME of what the most distinctive factors and challenges are to broaden the scope towards citizen participation. These profiles were written based on our created tables of each NME, which can be found in appendix A. At the end of every profile of the NMEs, a figure is created which summarises the most distinctive factors and challenges to broaden the scope to citizen participation.

4.1 CNME

CNME is a centre for nature and environmental education and is located in Maastricht. The NME is known for three core activities. These core activities are the ecological management of the natural areas in Maastricht, providing education to several organisations, and the management of nature gardens Jekerdal, together with volunteers. CNME was originally founded as a foundation in 1995.

When we visited CNME, we noticed that the building had a multi-use purpose for different organisations. The offices of the CNME were not open to enter, in comparison with the organisations that were located downstairs in the same building.

The CNME has one director and 24 people employed as professional staff. These employees are divided into three main teams. These teams are the participation team, the education team, and the ecological team. Next to these main teams, the CNME has an acquisition team. This acquisition team is dedicated to writing proposals to acquire funding for projects. Examples of projects they participate in are, planting and tile removal and the management of vegetable gardens and greenhouses in the city.

Our interview was conducted with two respondents. After we had conducted the interview, we created a table (Appendix A1) which consists of the important success factors and challenges to help understand/explain the change of the NME towards citizens participation. The table consists of the following key themes.

Facilitate and create incentives for citizen participation

The first theme that we indicated is about the organised activities that are related to urban greening and the management of vegetable gardens. The CNME went from providing education at schools to greening with the schools and neighbourhoods. For example, they provide supplies to schools for these vegetable gardens. CNME provides the tools for citizens to make it as easy as possible to participate in greening activities. CNME, therefore, takes a role of a facilitator. CNME also makes it easy for citizens to get in contact with them. Their office is located in the centre of the city, and they leave their contact number at each working site or completed activity. Next to that, when people want to have gardening consultations, they always get forwarded by the council of Maastricht to the CNME. When projects are started, the CNME first finds out whether there is enough support for the project. For that to happen, the management, teachers and others are asked whether they are interested to gain support and build a community network.

Entrepreneurial mindset and diversified sources of income

The director of the CNME has an entrepreneurial mindset and a business background. This mindset is being communicated to other employees. Educating and coaching employees on business skills is important. An example of such skill is to handle finances. The employees are given the responsibility of managing their income. Each year, the director meets with the employees to discuss the worked hours and how much of that is billable. In fact, to show how their hours are billable, employees need to justify and show results of their worked hours. The main source of funding comes from the municipality of Maastricht. Next to that, the CNME receives funding from collaborations with the province of Limburg, national funds, and private centres. The CNME keeps regular contact with the organisations they work together with. Therefore, the organisations will stay linked to CNME and therefore could come back to the CNME for a potential collaboration.

Forms of used marketing

CNME uses several ways to reach citizens and potential clients. They have an interactive and welcoming website and use multiple social media platforms. TikTok is one of the social media platforms they use and have an account with at least 17.700 followers. Next to these forms of digital marketing, they also reach people in real-life, by for example distributing flyers and directly visiting the citizens. It is argued that this form of marketing is successful and that being with the citizens is more effective than social media. However, it is a challenge for CNME to attract citizens to the NME because their office is located on the second floor and the doors of the offices are closed, making it less attractive for the citizens to visit the NME.

Diversified roles and working teams

CNME has, as mentioned earlier, three main working teams, and one team that is specifically focused on the acquisition of projects and funding. Some employees also have specific roles. For example, CNME hired a young employee which maintains the social media accounts for CNME. Next to that, CNME has a network of freelancers that they can hire for a specific project. CNME also works together with volunteers. They help them with all sorts of tasks, like providing citizens with a consultation on energy. If two or more different projects are linked together, knowledge is shared between them, and citizens might join the other project as well. The communication between projects and the project leaders is therefore good. Every six weeks, there are meetings with the project leader. Next to this, there are meetings with the entire team of CNME, that take place three times a year.

Expertise in social work and a proactive attitude towards sustainability

CNME have some employees which are already 20 to 25 years within the organisation. Therefore, these employees are dedicated, have a lot of knowledge and are good at connecting with people. In terms of expertise, employees have knowledge about nature, greenery, and biodiversity. Sharing this knowledge helps them with networking as mentioned in the interview. Another expertise is in social work, employees know how to work with people.

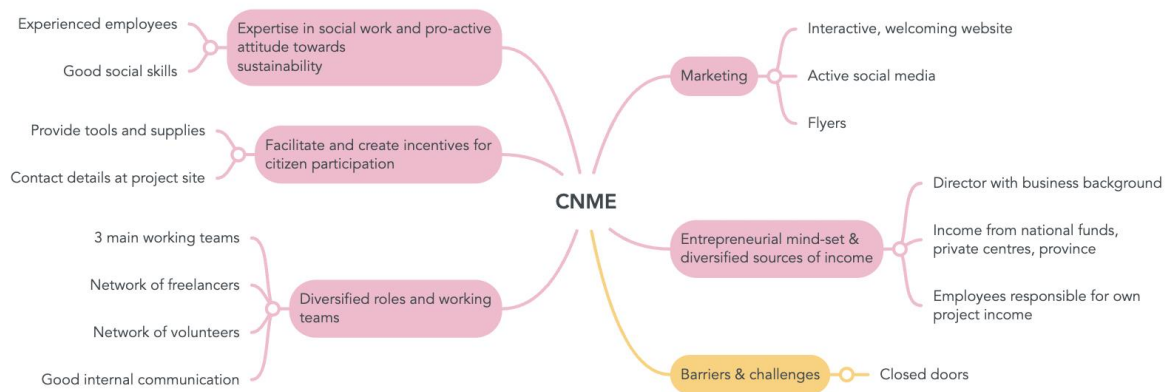


Figure 6: Most distinctive factors and challenges within CNME to broaden the scope towards citizen participation

4.2 De Groene Belevenis

De Groene Belevenis is a nature and sustainability centre which is located in Leusden. De Groene Belevenis organises activities for both young and old citizens and they strive for a healthy and sustainable living environment.

During the visit, the Consultancy team observed that De Groene Belevenis is located in a beautiful countryside environment. Next to that, many people are working in the big gardens and children had space to play. The NME is also connected to a day-care centre which you must enter to go to the 'struintuin'.

De Groene Belevenis does not have a sole director. The organisation has a flat structure in the sense that they have three employees which are all responsible for their cluster. There are four members on the board and De Groene Belevenis has eight employees. Next to that, the NME works together with around 60 volunteers.

After we had conducted the interview, a table was created (Appendix A2) which consists of the important success factors and challenges to help understand/explain the change of the NME towards citizens participation. The table consists of the following key themes.

Changes in human resources and team characteristics

The NME temporarily hired a director to help them through the transition from receiving funding from the municipality to other sources of income. There was also an employee within the team that helped the NME go through the transition phase. The NME gradually became less dependent on the subsidy and started to fill that gap by raising their income.

Welcoming and open space

The area where the NME is located is surrounded by a green environment. As mentioned earlier, the 'struintuin' is also present at the NME which provides a lot of green. Next to that, the NME is easily accessible and open to volunteer participation. Volunteers can for example participate in the maintenance garden and the working space.

Self-managing team and 'clusters'

As mentioned earlier, De Groene Belevenis has not got a sole director. The coordination of the NME is shared between three employees. The roles within the organisation are divided between different clusters: the education cluster, the communication and participation cluster, and the internal affairs cluster. Next to these clusters, employees have to divide their time between the acquisition and projects. The NME has a network of freelancers with whom they connect in case there are not enough employees or if they lack knowledge.

Networking with volunteers

The NME searches for volunteers through the newspaper and social media. Facebook is a platform they use to post short videos. Their main target group for this acquisition of volunteers are the elder citizens. As mentioned earlier, the NME works together with around 60 volunteers. These volunteers mainly provide support in the garden and education. Some volunteers have already been around for 20 years. Throughout the year, several events are organised for volunteers.

Networking with organisations

De Groene Belevenis collaborates with a couple of external companies. They for example host events for companies in their gardening space. Next to this, they collaborate with Heijmans, which is a building company, and Kimanis, which is a service club for citizens. Next to these collaborations, the NME wants to have a much stronger relationship with a housing association. The NME aims to connect to collaborate with a lot more companies. They want to make use of social corporate responsibility in the future to collaborate with these companies. Collaborations can be challenging as the NME sometimes struggles with the image of a children centre. De Groene Belevenis collaborates with the 'waterschappen'. They initiate projects together like disconnecting drainpipes and the 'waterschappen' have large budgets to work with and are a source of income for the NME. However, the NME could reach more citizens, as one member mentioned: "if we have other revenue sources, then we can make sustainability education and participation a reality."

Becoming a sustainable centre

De Groene Belevenis made a conscious change to become a sustainability centre. The underlying motivation to move to citizen participation and sustainability was to move towards a beautiful society as mentioned during the interview. The NME took a facilitator role in this process, they oriented residents to take action and they supported neighbourhood associations. Because of this change and the transition towards receiving less subsidy, the NME needed to broaden their financial opportunities on top of their educational activities. To become less dependent on subsidies, there was a need for the NME to create their own income. The NME succeeded in this, as 47% of their total annual turnover originates from projects. The NME is not part of the municipality anymore but still receives a fixed amount which is called a 'performance subsidy'. This transition towards becoming a foundation and becoming an innovative MME was supported by a mix of competencies. Competences such as knowledge about sustainability and skills such as networking and social abilities were most valued. De Groene Belevenis also uses this money to support sustainable initiatives. This was an important step towards participation.

De Groene Belevenis targets to reach the citizens of Leusden in the best way possible. They communicate towards citizens through existing neighbourhood associations. Next to this, they involve residents in their way of communicating towards citizens. They for example made a video with a few citizens who talked about their gardens. The NME also reaches citizens by the means of a page in a monthly published paper. The NME then initiates projects related to sustainability and the energy transition. An example of such a project is tidy Leusden, which is an educational and participatory project related to litter. De Groene Belevenis helps citizens to fund and promote their initiatives. They have a fund where citizens can apply for the fund for a certain activity. They help 10 to 15 initiatives from citizens each year.



Figure 7: Most distinctive factors and challenges within De Groene Belevenis to broaden the scope towards citizen participation

4.3 NMCX

NMCX is a centre for sustainability in Hoofddorp in the region of Haarlemmermeer and was founded in 2008. NMCX supports citizens who choose to live sustainably. They organise a lot of different sustainable activities like providing educational material on sustainable subjects and the championship 'tegelwippen'.

When visiting the NMCX, it was noticed that the location was very open, easily reachable and surrounded with green. There were lots of plants in the centre and the initiated projects were shown. The office of the NME is a converted gym. The gym materials are being reused for office desks and other materials in a creative and sustainable way. The NMCX has a director, 23 employees and many volunteers.

After we had conducted the interview, a table was created (Appendix A3) which consists of the important success factors and challenges to help understand and explain the change of the NME towards citizens participation. The table consists of the following key themes.

Multipurpose space

As mentioned earlier, the office of NMCX is an open space. This facilitates colleagues to reach out to other colleagues whenever they want. Next to this, the door at the entrance is open for citizens to come, which is inviting. The space is used for other organisations as the municipality and schools as the centre can host activities. There is an exhibition about sustainability, climate

adaptation and the SDGs with interactive material such as a maquette about flooding. The latter is a creative and visual way of showing citizens the importance of green gardens.

Create a personal bond with residents

The NMCX creates a personal bond with citizens by visiting their homes. The centre tailors their advice and explanations to the needs of the citizen. This creates a personal bond and shows the importance of personalized guidance. Next to providing information to citizens, the NMCX empowers and gives ownership to citizens as well as social cohesion. In this way, citizens can share that they participate and can motivate others. The projects that NMCX initiates are specific projects for citizen participation such as greening private gardens and tile removal. NMCX has also become an ambassador of the municipality. They bond with their target group: the citizens in the region of Haarlemmermeer. Trust is essential in the collaboration between NMCX and the municipality. The NMCX also functions as a facilitator role for citizens. The centre for examples organises tile collectors at the end of the day so that citizens can hand their tiles in without being bothered. The NME presents itself as the solution to the problems of citizens by providing tools and resources to facilitate citizens' activities.

Efficient internal communication

The colleagues of NMCX meet formally once in two months. Next to this, the employees meet frequently in a more informal way at the office. The employees exchange knowledge and experiences during these encounters. Besides good communication between employees, the director is very approachable. The trustworthiness and reachability of the director were especially noticed. This limits the need for check-ups and further internal communication. Another reason why internal communication is efficient in NMCX is that they make use of Sharepoint, an online platform in which employees can share their documents. This helps employees and the director to stay up to date and be informed of the different projects.

Marketing

The NMCX uses a lot of different methods to inform the citizens. They for example share initiatives in local neighbourhood Facebook groups. They created a video for example, as mentioned earlier, about citizens who share their experiences on participating in different projects. Next to this, NMCX provides updates and provide information on upcoming events and workshops on these Facebook groups. Besides Facebook, the NMCX communicates to citizens via their clear and updated website on which relevant information about running projects can be found. Next to digital marketing, the NMCX uses traditional forms of marketing. Employees of NMCX for example get interviewed on local radio. Advertisements on the local newspaper is also an essential part of the NMEs external communication. NMCX distributes flyers around the region of Haarlemmermeer to reach more citizens. Info markets are also an opportunity for the employees of the NMEs to attract citizens. NMCX also actively tries to increase the knowledge in marketing within their NME. In fact, workshops are given to the employees of the NME about marketing or behavioural change for example. With these forms of marketing, NMCX reaches citizens, however, their main target group are the elderly. This group is the easiest to reach because they are seen as the ones with the most motivation. A small push or nudge is enough to engage these citizens in participation.

Freelancers as employees

NMCX uses freelancers as employees mostly due to a lack of funding within the organisation. The hours that the employees can work on a project are clear. The employees know the number of hours while working on the project and get a lot of freedom about the design and organisation of the project. Employees are given the freedom to work in the way they want to. Working with freelancers can be a problem for continuity as employees work temporarily within the organisation, thus projects can also come to an end. Continuity is a vital aspect of citizen participation and projects. It is labelled by the NMCX as one of the most important things. In fact, citizen participation is needed on the long term. NMCX provides a solid working environment with good working ethics and colleagues that are complementary to each other in terms of knowledge and skills.

Networking with organisations

NMCX receives funding and collaborates with the municipality. A challenge they face is that they want to collaborate with surrounding municipalities, but until now, were unable to do so. Next to the municipality, NMCX also works together with several private companies like Gamma and Dura Vermeer.

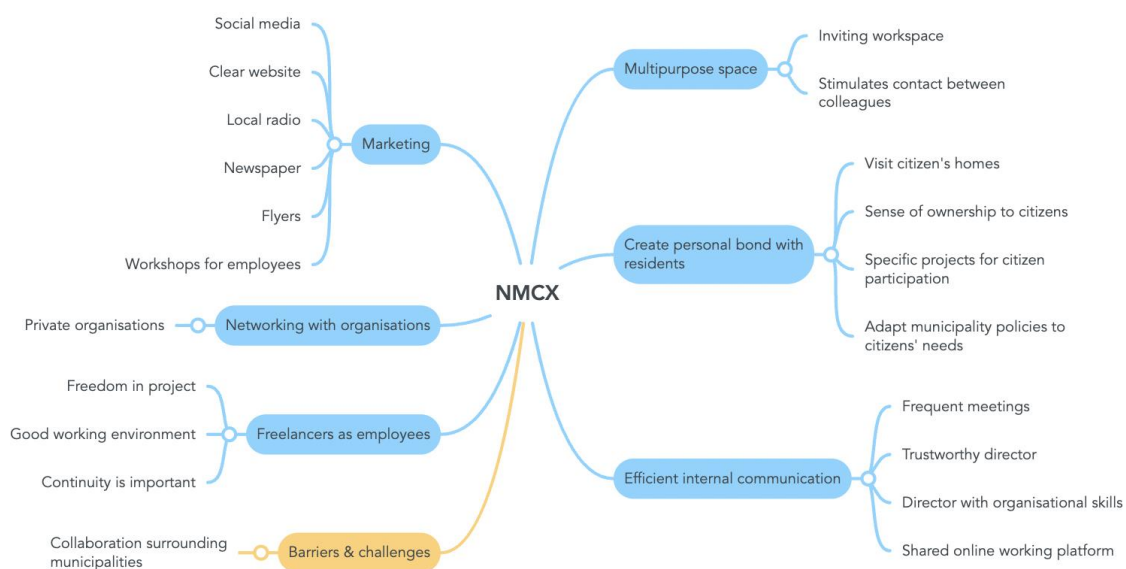


Figure 8: Most distinctive factors and challenges within NMCX to broaden the scope towards citizen participation

4.4 Ulebelt

Ulebelt is a NME which also focuses on education and is in Deventer. They also have a petting zoo, thematic gardens and natural playgrounds in the same location as the centre. Ulebelt brings organisations and citizens from Deventer and surrounding regions together and in contact with a sustainable way of living and working.

During the visit to Ulebelt, the size and spectrum of activities were noticeable. The location is widely spread and there were lots of animals, gardens and playing grounds for children. Next to that, there was a display about what a green roof could look like.

Unfortunately, the director of Ulebelt has been out of the running for quite some time. There is however a board that is involved as well as 11 part-time employees employed by Ulebelt. Furthermore, there are more than 100 volunteers at the Ulebelt performing different tasks.

After we had conducted the interview, we created a table (Appendix A4) which consists of the important success factors and challenges to help understand and explain the change of the NME towards citizens participation. The table consists of the following key themes.

Grouping of individual citizens to work together on a theme/topic

Ulebelt tries to combine the strengths of individuals and aims to reach more citizens because of this process. They are combining the strengths of individuals by letting them work together as a team. When organising activities for citizens, Ulebelt creates a sense of ownership for the citizens. The citizens need to create, build, and experience together to realise something. Next to this, to attract citizens, Ulebelt makes the projects fun and attractive to participate in. They look at what suits citizens best and that it is feasible for them. Ulebelt takes a facilitator role in this process.

Relevant capacities to enhance citizen participation

Ulebelt hired a student who works on communication about the projects towards the citizens. These citizens are mainly reached by a means of social media but there are still many future opportunities on this aspect. In fact, a separate communication officer is mentioned as being favourable to address this challenge. Lack of funding is however keeping Ulebelt from hiring communication employees for the moment. Another problem recognised in Ulebelt is the lack of an entrepreneurial director. They mention that they need an entrepreneurial manager who can help them through the transition phase. Next to this, Ulebelt wants to collaborate more with companies. These collaborations can also help with increasing citizen participation. Knowledge of business approaches is another way of increasing citizen participation, therefore, some employees of Ulebelt followed training on the whole school approach. This is an approach which speaks about the influential role of the school to reach more children and parents.

Specific projects to enable citizen participation

Ulebelt has initiated many projects in which citizens can participate. An example of this is the upcoming baby trees project. This project includes saving and handing out baby trees, together with citizens. Food cooperation is another good example of a project initiated by Ulebelt to enhance citizen participation. The project involves citizens in the way that they can, in a group, buy their groceries at the local farmer instead of the supermarket. Disconnecting rain pipes and the 'groene loper' are other projects initiated by the Ulebelt to enhance citizen participation.

Efficient division of employees in the team

The team leaders within Ulebelt all have their own domain. The team leaders extensively exchange knowledge with each other. Next to this, because of the current absence of the director, the board members are involved with the activities to lower the work pressure. However, work pressure is still an important challenge for Ulebelt as they want to have an advisory board instead of a board which actively helps with the projects and activities.

Ulebelt also makes use of a network of freelancers. Whether they need specific knowledge or a helping hand, they can use their network to their advantage.

Networking with organisations

The communication between Ulebelt and the municipality is transparent. The vision of Ulebelt is for example clear for the municipality as an external party wrote it down for the municipality to show what the Ulebelt is doing. Ulebelt also did a MAEX analysis which values their contribution to the SDGs. Ulebelt also takes a facilitator role in the connection between the municipality and the citizens. Ulebelt also initiated a sustainability centre in Deventer, together with energy companies, to make climate-related issues more aware to citizens. Citizens can go to this centre if they have questions regarding energy and climate-related issues. The NME also works together and exchanges knowledge and experience on a platform regarding specific themes. The platform will state how many NMEs are interested in a specific topic, like litter. This information is used to encourage employees of NMEs to come together and work on the topic together. Ulebelt has a proactive attitude towards collaborating with external companies. They reach clients through the means of social media, mainly through LinkedIn and Twitter. Next to this, they for example also initiated a campaign towards engineering firms to work together. A challenge that we identified in Ulebelt was that their image was holding businesses back to collaborate with Ulebelt.

Towards more financial sources to break-even

Ulebelt has three main activities from which they attain funds. They guide people with a distance to the labour market, and they have a catering business and projects. Ulebelt also has activities which are not cost-effective. These activities are the petting zoo and the ground on which the Ulebelt is located. To attain funds and enhance citizen participation, Ulebelt is collaborating with several organisations. Examples of these are the organisation which provides care to the people with a distance to the labour market, sports clubs and governmental organisations. However, Ulebelt wants to collaborate with more organisations in the future.

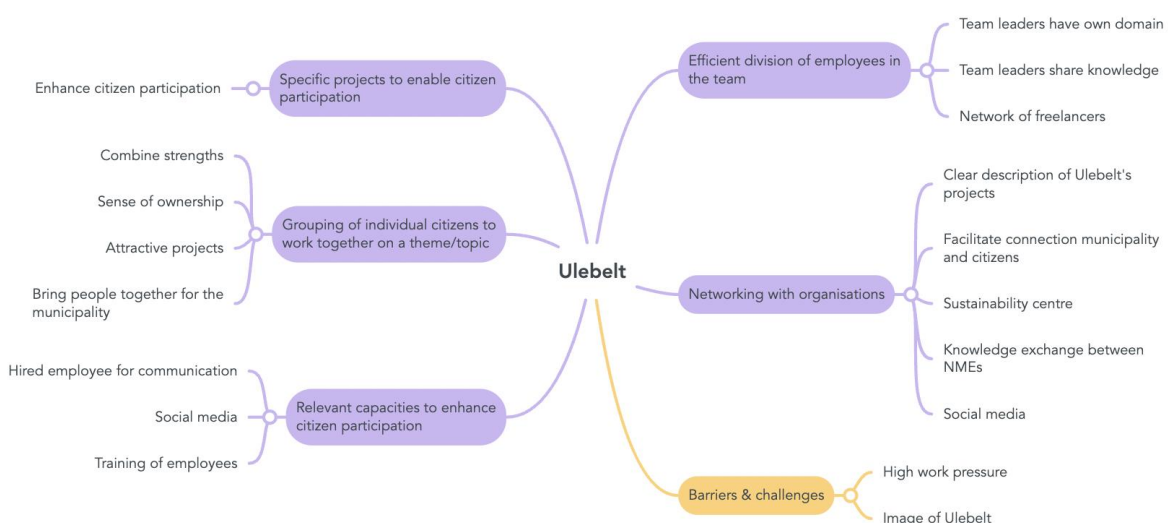


Figure 9: Most distinctive factors and challenges within Ulebelt to broaden the scope towards citizen participation

4.5 Duurzaamheidscentrum Assen

Duurzaamheidscentrum Assen is a centre working with several themes: waste and resource management, climate and water, green living, energy and healthy and sustainable lifestyle. Duurzaamheidscentrum Assen was founded in 2015.

In terms of organisational structure, Duurzaamheidscentrum Assen is part of the municipality of Assen. There is a hierarchy inside the municipalities starting with secretaries, being referred to as the CEO position of the municipalities, followed by managers and team managers. The team managers established different teams, one of them being the team of Duurzaamheidscentrum Assen.

After we had conducted the interview, we created a table (Appendix A5) which consists of the important success factors and challenges to help understand and explain the change of the NME towards citizens participation. The table consists of the following key themes.

The attractiveness of the centre

The attractiveness of the centre is ensured by several factors. The attractiveness and inviting aspect of the centre pays off with 45.000 visitors a year. First of all, the location of the centre is beneficial for attracting citizens. The centre is located close to nature, in the Asserbos forest, where many citizens enjoy walking on the trails. This location is therefore beneficial in attracting citizens who enjoy being in nature, but it also benefits employees. Employees go for a walk in their breaks and enjoy the surrounding nature. The forest, therefore, contributes to a better working environment at Duurzaamheidscentrum Assen. Additionally, to the beneficial location, Duurzaamheidscentrum Assen offers several services and activities on site. There is a petting zoo, attracting mostly families to the centre. There is also a café at the centre. The café attracts visitors in another way as they can have a drink and refresh after a walk in the forest or a visit to the centre.

Expanding the target group step by step

Duurzaamheidscentrum Assen is broadening its target group to attract a more diverse group of citizens. The strategy that Duurzaamheidscentrum Assen uses is to start small and make it grow. This means that the NME starts with small projects and a specific target group that is easy to reach. They call this the low-hanging fruit, as it does not cost much effort to reach this target group. This target group is different per project. For instance, schools contacts Duurzaamheidscentrum Assen themselves, therefore, they are a stakeholder that is easy to reach. The goal of this centre is to involve many and diverse target groups in Assen. This includes differences in age and social status for instance. Duurzaamheidscentrum Assen is moving more and more towards this goal. There are several ways in which Duurzaamheidscentrum Assen attracts different target groups. The first one is social media. The centre uses its own Instagram and Facebook accounts as well as the Facebook account of the municipality. Another way of attracting new target groups is word of mouth. Citizens help each other and communicate their activities and motivations to others. This creates a chain reaction and helps reach many different target groups.

Collaborate for a purpose

Duurzaamheidscentrum Assen collaborates with different stakeholders with several purposes. One of purposes is to organise projects with organisations to receive funding and reach

citizens. Another goal is to share expertise with other nature organisations. Duurzaamheidscentrum Assen also receives human resources from their collaborators in the form of employees who are shared between the two parties. The other purpose for collaboration is financial. The NME gets funds from the municipality and funds projects and other organisations.

Perks of being embedded in the municipality

Duurzaamheidscentrum Assen is embedded in the municipality of Assen. They have shown the many perks they get from this collaboration. First of all, the municipality creates a clear structure in terms of the hierarchy, as mentioned before. Moreover, Duurzaamheidscentrum Assen initiates projects which are well supported by the municipality, as their political interest aligns with the sustainable goals of the NME. Another perk of being incorporated in the municipality is that these two share employees, thus the municipality contributes to human resources. Besides strengthening workforces, the municipality organises workshops where employees of the centre can receive training on various topics.

Frequent in person meetings with the employees

Within Duurzaamheidscentrum Assen, employees often meet face-to-face. The NME has one office where all employees work. This facilitates face-to-face meetings and daily encounters. The face-to-face contact is more or less formal. Employees work together when this is relevant to their tasks, thus when topics overlap, and teamwork is fruitful. There are also regular formal meetings organised. Every Thursday there is a formal meeting of the whole NME team.

Like minded employees

The employees at Duurzaamheidscentrum Assen are like minded. Many similarities can be found which limit internal conflict. On the other side, this can be identified as a weakness as well. When employees are like minded, it could be the case they all think in the same way and therefore could potentially miss some important aspects regarding citizen participation. The input the likeminded employees give could be likewise and could therefore not be innovative. Different types of workers can be found in the centre. Freelancers join the centre temporarily and host for example workshops or other activities. Another type of workers are volunteers. The centre is expanding the workforce consciously.

Relevant capacities to enhance citizen participation

Besides employees being likeminded, it is crucial that employees have relevant knowledge and skills to complete their tasks. Concerning more business-oriented skills and knowledge, three competencies were mentioned being: the ability to network, responsibility and entrepreneurship. Being able to network enables employees to show in which way they can contribute and to eventually attract possible partners and funding. By communicating and creating ties, partners can assist the NME. The second competence regards taking responsibility. Teams are responsible for their budgeting and acquisition. This could relate to entrepreneurship; however, this is a competence that is nice to have but not required. In terms of soft skills, employees are required to be eager to learn, have teamworking skills, be proactive, actively communicate, and be creative. Being eager to learn is a highly valued soft skill, as it is considered more important than knowledge when hiring a new worker. Teamworking skills are needed to work effectively together. Good communication and proactiveness are highly valued within the organisation. It is mentioned that everything is directly

or indirectly connected to communication. Another soft skill that is valued is the creativity of workers, in fact, some employees work a few hours or work temporarily, and creativity can help in making sure the tasks are done.

Make it fun for citizens to participate

To motivate citizens to participate, it is important to create enthusiasm and to make the activity fun. The workers of the NME have personal contact with the citizens which is mostly informal, such as visits, but also at meetings organised during projects. Moreover, the NME ensures that the activities that are organised are fun and playful. To help citizens in their enthusiasm and willingness to participate, Duurzaamheidscentrum Assen breaks up the SDGs into smaller goals that can be achieved by the citizens themselves, thus is realistic. Citizens have the feeling that these are goals they can contribute to and have an impact on. Having this goal motivates and engages them.

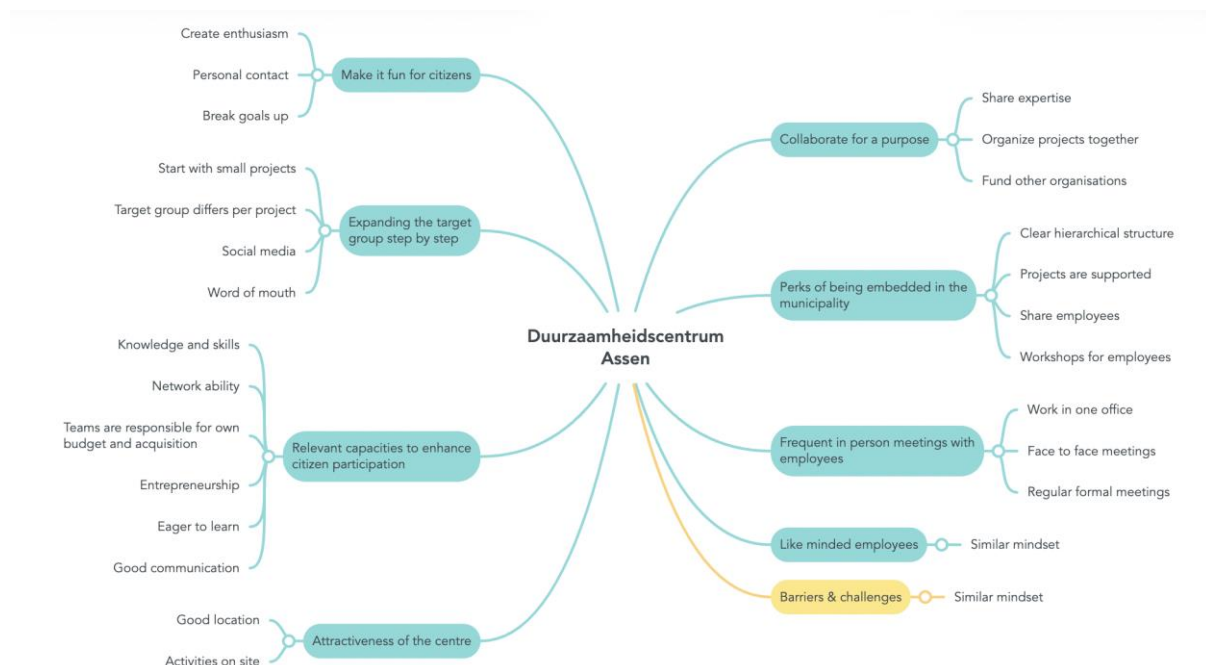


Figure 10: Most distinctive factors and challenges within Duurzaamheidscentrum Assen to broaden the scope towards citizen participation.

5 Discussion

In the previous chapter, the most distinctive factors that help to broaden the scope towards citizen participation were described for each of the studied NMEs. This chapter provides a discussion of five relevant themes, shared amongst the studied NMEs, that were identified as the success factors to broaden the scope towards participation. Additionally, the challenges and barriers to achieve these factors are described. These main themes will help answer the main research question: What organisational changes have the five innovative NMEs made to broaden their scope towards citizen participation?

5.1 NME as a facilitator

Blanchet-Cohen (2014) mentions that state-driven public participation is not enough to facilitate the shift towards citizen participation. In this study, a facilitator is seen as a role an organisation can take to assist the process of citizens' action. It was stated that NMEs can adapt this facilitator role by providing the necessary tools and resources to citizens, for example gardening tools.

From our research, it became clear that it is crucial for NMEs to provide the supplies for activities. For example, when removing tiles, CNME mentions that they bring the plants, the soil and have empty bags to take the tiles with them. This makes it as easy as possible for citizens as all tools and materials are present, which subsequently increases their willingness to participate. For NMEs, this role of facilitator is essential, as research has shown that citizens need help to be critical of their environment and need suggestions on what aspects which they can improve (Blanchet-Cohen, 2014). Blanchet-Cohen (2014) state the importance of equipping citizens with information as well as tools, because otherwise they don't know and won't be able to act. There is a need for tools instead of telling people what to do or how to behave, in order to provoke action (Graham and Mitchell, 2016).

Duurzaamheidscentrum Assen mentioned that they start with a small project and target group to help attract people to their activities. By starting small, citizens feel like they can have an influence in their community. They note that even small changes have a big effect in the end. Research showed that by starting with small projects which subsequently prove their impact, or by providing tools and services for free, organizations can build their reputation (Graham and Mitchell, 2016). If organisations are present in the community for a long time, they gain trust from the community. NMCX notes that a door-to-door approach helps to increase citizens' understanding of projects. Moreover, organisations can facilitate a neutral space for interested groups, both public and private, to come up with ideas together (Graham and Mitchell, 2016). Ulebelt also mentioned that they facilitated participation by bringing people together, for example a sports club or the neighbourhood. The organic development from small projects to more engagement was also observed in another study, which resulted in an increase in participation over time (van Koppen and Hendriksen, 2014). Increased citizen participation has both individual and collective benefits as it creates a sense of community (Ohmer, 2008). Duurzaamheidscentrum Assen mentioned that it would be helpful if people within a community are connected to help each other out. Furthermore, they mention that having personal contact with citizens helps to maintain a close relationship with the community. CNME also mentioned that by talking to everyone, you can build a community network.

It is important to start with a small project to not overwhelm citizens with big themes that give them the impression that they should change their whole life, as mentioned by Duurzaamheidscentrum Assen. Therefore, NMEs have developed specific projects to enable citizen participation, which are often playful and easily accessible. They centre around the idea that citizens themselves can get involved, for example by removing tiles and installing rain barrels. CNME mentions that their key to success is this abovementioned participation with locals. Both NMCX and De Groene Belevenis mention that as an NME it is possible to create a sense of ownership for citizens. This can be done by enhancing the citizens' feeling of self-belonging by creating banners that citizens can hang outside to show they participate in a certain project.

De Groene Belevenis currently funds and promotes citizen's initiatives. They have a yearly budget for initiatives that citizens come up with themselves. Ulebelt also note that citizens can reach out to them for help, Ulebelt will then help to bring people together and get them started. This bottom-up strategy is based on community generated indicatives that are self-managed (Perini, 2016) and results in a democratic and consultative way of decision making (Wi, 2019). This approach promotes creativity and a sense of collective involvement to the project which motivates citizens to participate (Fraser et al., 2006). NMCX also state that this approach empowers and creates a sense of ownership for citizens. This bottom-up strategy is particularly useful when a project relies on the local and coordinated effort from the community and organisations from a diverse social and economic background (Francis and Lorimer, 2011). By combining citizens' lived experiences with professional knowledge, you can create a plan that involves levels of consultation, which has more chance to succeed (Blanchet-Cohen, 2014). NMCX note that citizen participation gives social cohesion within a community.

De Groene Belevenis indicated that they, as an NME, are able to fill the gap between policy and society. NMCX also mentioned that they adapt municipal policies to citizens' requirements and needs. And Ulebelt has a facilitator role for citizens to work together, as they reach people for the municipality. Blanchet-Cohen (2014) suggest that organisations should stay independent from state-driven planning processes when trying to achieve social change, as they can play a crucial role in connecting citizens and the state. Research showed that the interaction between citizens and the government is often lacking, which can result in inconsistency between what both parties want (Wi, 2019). NMEs can fill this void by acting as an intermediary organisation, as they are closer to the community (Wi, 2019). Multiple NMEs mentioned that having personal contact with citizens helps to maintain a close relationship with the community. CNME mentioned that they make sure to be present in public spots, so people have a chance to talk to them.

Overall, the abovementioned actions can help the NMEs become a key organisation within the community. Subsequently bringing citizens together and facilitate a shift in development of practices (Beyazli and Aydemir, 2011).

One of the challenges that NMEs could face as a facilitator, is that they mostly deal with enthusiastic citizens that are already engaged in activities and initiatives (Blanchet-Cohen, 2014). For citizens that are new to the NMEs, staff first needs to convince them of the benefits of the initiatives. This also requires dealing with citizens who share another opinion on the

NMEs initiatives (Blanchet-Cohen, 2014). Moreover, when citizens actively participate, this can lead to a lack of democratic control. Involvement of citizens on a project can also lead to confusion when making a collective decision (Fraser et al., 2006).

The aforementioned actions can be considered organisational change in the form of change enablers. Acting as a facilitator by providing resources, knowledge and skills can be considered a change enabler (Al-Haddad and Kotnour, 2015). Examples of change enablers can include the capacities of employees, influential leadership and having strong resources (Al-Haddad and Kotnour, 2015). It is fundamental for each organisation to identify the type of change enablers necessary to initiate the change (Hotek and White, 1999; Kotter, 1996, Al-Haddad and Kotnour, 2015). The assessment tool explained in Chapter 9 can help to identify these needs for the NMEs.

By taking up the role as a facilitator, NMEs can stimulate citizen participation. Activities that are easily accessible to citizens as well as a bottom-up approach, where citizens can come up with their own initiatives, creates a sense of collective involvement. This subsequently motivates citizens to actively participate and engage with NMEs (Fraser et al., 2006). Not only will this facilitator role result in more participation of citizens, but it will also result in better representation of communities (Eversole, 2010) and acceptance by citizens to unexpected changes (Beyazli and Aydemir, 2011). Blanchet-Cohen (2014) notes that when citizens are involved in the process, they felt consulted and heard.

5.2 Architecture and environment of NME centres

Duurzaamheidscentrum Assen notes that they are very happy with the location of their centre, as they are located in a forest and close to a hotel, but also to the city centre. From our visit to De Groene Belevenis, we observed that they are located in a green environment, with their garden close by. Literature suggests that education centres such as NMEs can make use of sustainable architectures as a language to inform and educate visitors (Chupin et al., 2021). The term sustainable architecture is ambiguous as it can be looked at from different aspects. To categorise it, sustainability is put into three sectors, these being economic, social or environmental (Hagan, 2001). In this context, we refer to sustainable architecture in its environmental context. As Hagan (2001) explains, environmental sustainable architecture means treating the environment in a way as to maintaining its health as well as maintaining our own health. Duurzaamheidscentrum Assen, recognises this, as the environment near the NME allows employees to take a walk in their free time. Although, both the economic and social aspects can also come into play when concerns such as public health and value for money arise.

When making observations we look at sustainable architecture as something that can be observed by others. At the Ulebelt, we observed the sedum roofs. Inside the NMCX, we observed a green environment and they reuse the gym material for office purpose which is quite sustainable. Through the apparent features of the building's architecture, the centres can then be perceived by others as being sustainable (Cucuzzella et al., 2021). This same author explains that these features should be visible, or even able to be experienced by others. These features can help the public in perceiving the building as respectful to its environment and being sustainable. This perception of sustainability is important as the NMEs are a place that

advocate sustainable living. When the place and message of an organisation do not align, it might lead to misleading beliefs (Cucuzzella et al., 2021).

This is also when terms such as the culture and identity of the centre come into play and how the public makes use of building. Some NMEs have an open-door policy, for example De Groene Belevens and NMCX. Here visitors can easily walk in when they have questions or want to rent some tools. Duurzaamheidscentrum Assen is located close to the forest, has a small café attracting people that are on a hike, and a petting zoo which attracts families. De Groene Belevens has a private garden in which workshops are given and where children from local schools can come during their break. All these attributes help increase citizens to visit the NME centres which in turn helps the NMEs to broaden their reach towards citizens and inform them about citizen participation programs.

5.3 Building a sense of ownership amongst employees

The architecture and surroundings of an NME centre can not only help to increase citizens' engagement and participation, but also to improve the sense of ownership among the employees. This chapter focuses on the relevance and ways to enhance the feeling of responsibility and ownership of employees towards the organisation and its projects. These feelings of ownership can be classified as a type of change enabler factors (Al-Haddad and Kotnour, 2015), that are relevant for organisations to make the first steps towards participation.

Another recurrent theme that emerged from the interpretation of the results is consistent with the increased sense of ownership and responsibility that organisational members have for their projects. Pierce et al. (2001) refers to psychological ownership to explain the ways in which organisational members develop feelings of possession and ownership towards their target (job, projects or organisation). The authors identify three means by which members can increase their level of ownership, which are: control, increased knowledge and sense of association, and self-investment with their target. The aspect of control refers to the capacity of employees to influence the design and goals of projects and their involvement through participatory decision-making processes (Pierce et al., 2004). The element of "intimately knowing the target" (Pierce et al., 2001) measures the relationship between the employee and their target in terms of knowledge and frequent interaction with the target. The quote from Weil (1952, p 33) in reference to the work of a gardener helps to clarify this second element: "after a certain time, the gardener, feels that the garden belongs to him". The third element of self-investment explains how the sense of ownership is strengthened when personal thoughts, time and ideas are reflected in the employees' programmes. From the analysis of our results, we found that certain working characteristics contributed positively to enhance a sense of ownership of the employees with their (citizen participation) projects.

The type of employees that work as freelancers contribute as a control aspect to enhance the sense of ownership.

Most of the selected NME's work with freelancers as a need to adapt to a lack of funding and project discontinuity. However, we observed how the role of freelancer adopted by most employees contributed to an increased level of freedom in the design and execution of projects. In this line, it was stated that employees get a number of hours and a project to work on, therefore the employees received a lot of freedom to organise the project. For the CNME

in Maastricht, and to adapt to recent budget cuts, the organisation implemented a new working strategy based on a “results contract and work per hours” in which, people is made responsible for their own income. From that, and as argued by the respondents, employees had to increase their level of awareness at the time to declare and provide an overview of their working hours, which may lead to an increased level of ownership and commitment to their work.

In several ways, the respondents made evident their close relationship with the object of their work. Pierce et al. (2004) analyse how frequently the respondents make use of possessive terms to refer to their programmes. In the same way, and importantly for the cases in Maastricht and Haarlemmermeer, we observed how specific projects are attached, carried and linked to one specific project leader. To refer to the Haarlemmermeer waterproof project, it was stated that NMCX focussed on adults who own a garden. By retaking the previous example of the gardener, this feeling of self-belonging can be explained by the long experience and dedication of some employees in specific projects, as mentioned in the following quote: “The people [in the NME] have been walking around here for 15 years, they know everyone, all the networks, and we are doers”. In line with Pierce et al. (2001), feelings of association and involvement with the organisation increase when its goals and mission are easily accessible and shared amongst the employees. That situation was clearly identified for the NMCX, in observing their shared working space and exhibition about the different working projects and goals.

The third element of self-investment (Pierce et al., 2001) is recognisable in the physical investment or labour exercised by some employees in planting trees or doing gardening tasks. Importantly, the combination of these physical tasks, from doing the maintenance of a garden to collecting litter or distributing flyers, allows for a non-routine daily life that enables employees to expand their sense of ownership in multiple targets.

5.4 Communication

5.4.1 Specific communication tools for citizen participation

Next to the architecture and to the visual aspect of the building, the way information is visualized also plays a big role in informing and activating people. Citizen participation can be understood as citizen involvement in public decision-making (Baum, 2001) to promote transparency, inclusivity, and fairness. One of the main changes in participatory projects of citizen participation is the role of communication. Effective communication is important to the success of change management. The correlation between change management and communication can help organizations and individuals to cope with change (Malek, 2012). Ulebelt notes that citizens need to create, build and experience together to accomplish something.

According to the De Groene Belevenis, involving citizens in communication, for example by making a video with residents for residents, can help to reach others. Ulebelt, CNME and Duurzaamheidscentrum Assen have specific people or hired new employees to work specifically on communication. Duurzaamheidscentrum Assen and CNME also state that it is important for employees to be social to aid good communication. Research mentions that the main three aspects of a comprehensive change strategy are content, people, and process (Anderson and Ackerman Anderson, 2002). Content refers to the strategy, systems,

technologies, and work practices. Communication can be regarded as a strategy and technological change enabler (van den Heuvel et al., 2013). Effective communication can be regarded as a tool that enables organizational change within but also helps in achieving citizen participation. Organizations that develop effective communication processes are more likely to both have positive work environments and be more effective in achieving their objectives (Morley et al., 2002). This is observed in all the five NMEs.

The NMEs mentioned multiple communication tools that they currently use. They use social media platforms like Facebook, Instagram, and Twitter to access a wide range of citizens and create awareness of their existing initiatives. For example, NMCX makes use of Facebook community groups to engage local participants and reach more people in the neighbourhood. Citizens could also express their point-of-view and this platform served the purpose of responding to negative comments and facilitating discussion/dialogue about the project. De Groene Belevenis also makes use of Facebook, by posting short films or videos as a creative way to grab the attention and engage their target group. As Duurzaamheidscentrum Assen is embedded in the municipality, this allows them to use this platform as well to promote their centre and activities. In recent years, the intensity and nature of public participation have changed due to the widespread use of information and communication technologies (ICTs). In addition, all NMEs in this project have an updated websites where you can find details of their centre, about the organization, the team, and what projects they involve and engage towards citizen participation. Social media tools like Facebook, Twitter, Instagram, and other social networking sites open new channels of communication through the posting and forwarding of instant messages, the uploading of photos, and the connection between users. Last few decades, scholars, planners, and policymakers have turned their attention to digital tools to overcome the problems of traditional participation methods (Lin and Kant, 2021; Kleinhans et al., 2015). Most NMEs agree with this, as they feel that social media has provided new platforms for citizen participation. Next to that it helped them focus and reach their target groups.

All the NME centres already combine online and offline communication tools to promote awareness, participation, and inclusion of their target group. Recent studies show as well that the combination of online participation with offline participation promotes a more inclusive planning process (Lin and Kant 2021; Deng, 2015). Traditional participation methods like face-to-face meetings, word of mouth and distribution of flyers were seen in all the centres. CNME mentioned that flyer distribution during social events helped them engage citizens actively. NMCX installed banners and distributed flyers of their projects at info markets, local community markets, and stakeholder workshops. NMCX also made use of local radio and newspapers to promote their upcoming activities. De Groene Belevenis also uses the newspaper to engage the local citizens by posting information about their projects.

One point of attention of this research is that every organization has a different target group. There is a need to be aware of and know different engagement strategies. Some centres prefer the use of offline communication whereas others have dedicated staff hired for online marketing. There is no one size fits all solution as there are different ways in which citizens are

reached to participate for different projects. It is important to understand and know this need as an NME to be able to move forwards.

For change communication, it is therefore important to make a variety of communication pathways and channels available for use. The most effective way would be a combination of online and offline participation methods necessary to engage different groups in the planning process. (Lin, 2021) This is clearly witnessed in the five NMEs which integrate this strategy to reach out to their target groups effectively.

5.5 Networking with businesses

Networking is based on constructing and managing interpersonal and interorganisational relationships to increase performance (Gibson et al., 2014). In this case, the focus lays on a specific target group: private businesses. The NMEs mentioned their ambition to collaborate with businesses, but they still face challenges in creating and maintaining these collaborations. In this research networking with businesses is defined as an opportunity to create ties in a formal or informal manner with a business for a purpose.

During the interviews, NMEs indicated that relationship formation is executed in several ways. One of them is through traditional and digital marketing (Chapter 5.2.2). Another form of relationship formation is facilitated by organising or attending informal and formal events as mentioned by CNME. NMCX also argued that their presence at markets and gatherings created new ties. Both CNME and NMCX mentioned that they remain in contact with partner organisations that were involved in prior projects or activities. In fact, when businesses were once involved and had a positive experience, there is an opportunity to recontact them. Street and Cameron (2007) notes that achieving an external relationship is a relevant process in relationship management. This process is composed of relationship formation, participation, trust, relationship building, and organisational learning (Street and Cameron, 2007).

When collaborating with businesses, NMEs attempt to create common interest, for example by mentioning the Corporate Social Responsibility of businesses to motivate them to collaborate, as mentioned by De Groene Belevens. The contribution to the SDGs is also seen as a common ground between stakeholders. Ulebelt mentions that they have a sustainability centre which was an initiative of energy companies. By working together, they create awareness for the climate. NMCX also mention that when they collaborate with building companies, an exchange of skills takes place. Research shows that relationship building is facilitated by finding common ground when stakeholders have contrasting goals and agendas (Hansen, 2009). Businesses for example are mostly focused on profit, but their image plays a major role in this. Collaborating with an NME will give them a better image in terms of sustainability and greening. The last theme of relationship management is organisational learning which can be defined as acquiring and accumulating resources, knowledge, and capabilities inside the organisation (Wang and Ahmed 2003). Duurzaamheidscentrum Assen differs from the other NMEs, as they are still part of the municipality. As a result, they have access to more human resources by their partners. Lastly, creating trust plays a major factor in collaborating and is essential for continuity (Tell, 2001). To gain trust NMEs can quantify their impact by communicating their contribution to the SDGs with a MAEX analysis as mentioned by Ulebelt.

Ulebelt mentioned that they want to work with more companies as it can help them to set up a participation track and get people moving. Duurzaamheidscentrum Assen also mentioned that networking can help create new projects and funding which subsequently leads to more participation. Schoonjans et al. (2013) also mentions that a network can help to reinforce internal capacities so that the organisations can better achieve their goal. Having a good network is a way of strengthening the qualities of the NME as well as expanding these qualities to better fulfil their goal which is increasing citizen participation. Networking also has a long-lasting impact on the NMEs. In fact, De Klerk (2010) as well as Street and Cameron (2007) argue that formal and informal networking enables small organisations to target sustainable success. Therefore, networking is an opportunity for NMEs to increase citizen participation on the long run.

NMEs experience various barriers in terms of networking. One of the barriers mentioned by the NMEs is the need for relevant capacities of employees to work on networking. Duurzaamheidscentrum Assen mentioned having a proactive attitude as a relevant skill. Multiple NMEs noted that being people minded would help in networking. Street and Cameron (2007) mentioned that there are several skills that can impact external relations. Relevant skills for this research are willingness to learn, trust and involvement as well as the link with an entrepreneurship mindset, as mentioned by the NMEs. These characteristics make it easier for the individual to build their network.

Besides the human capacities to network, NMEs report the barrier to engage in long term relations with businesses. In fact, businesses might stop the collaboration at the end of a project or change their mind which causes a problem for continuity. De Groene Belevens indicates that they would like to have stronger relationships with companies, such as housing associations. NMEs have to continually search for new collaborations, which is time consuming. According to Bloomfield (2006), the factors positively influencing long term collaborations is commitment and in terms of resources, transparency. In fact, NMEs must assure that they have the long-term resources to sustain the collaboration. Moreover, the NME should focus on transparency toward the collaborator by for example communicating about updates, evaluations, and quantified impact.

Al-Haddad et al. (2015) argued that sponsorship and having the right resources for change are factors of successful organisational change. Moreover, the author mentions that knowledge, skills, and resources are organisational change enablers. Small organisations don't always have the means to achieve their goals. Networking can thus benefit small organisations by providing them with additional external resources according to Street and Cameron (2007) as well as providing and exchanging knowledge and skills as mentioned by Schoonjans et al. (2013).

To achieve external relationships there is a need for strategizing (Street and Cameron, 2007). This can be a plan prior to the collaboration in terms of the purpose of the collaboration and how to manage the collaboration. Furthermore, besides building a strategy for collaborations, the collaborations itself can be strategic. In fact, Street and Cameron (2007) refers to external relationships as strategic alliances. Networking is therefore seen as a strategic change towards better productivity. Strategic change being a part of implementing organisational change (Al-Haddad et al., 2015).

The growth of the organisation due to the benefits of networking is seen as organisational development (Street and Cameron, 2007). Thus, it can be argued that taking steps in networking with businesses can be considered as an organisational change. NMEs are indeed changing and improving themselves to achieve their goal by networking with businesses.

5.5.1 Setting an acquisition team

Many of the studied NME's experience budget cuts from the municipality and need to reinvent themselves as organisations to find alternative sources of funding to continue having the resources to facilitate citizen's participation. These organisations have to look for new partnerships to diversify their sources of funding. In addition, some of them experienced internal organisational changes to increase the efficiency in getting funds. The CNME in Maastricht mentioned that they have a specific acquisition team, where employees are dedicated to writing proposals. Moreover, Duurzaamheidscentrum Assen notes that employees have a sense of ownership as they are responsible for the budget and acquisition of their projects. In this chapter, this factor is presented as a key aspect that helps to explain the adequate functioning of the studied NME's in making the first steps towards citizen participation.

The selected NME's showed a clear division of the employees in the team by creating different teams with specific roles. Each of these team roles is focused in a relevant thematic for the organisation. For example, De Groene Belevenis works with different "clusters" focused on education, participation and projects, and internal affairs. In a comparable way, CNME in Maastricht is divided in a participation, ecological and education team. Importantly and most distinctively, this last organisation counts with a team dedicated to fundraising and searching for projects. One of the respondents mentioned that the organisation set up an acquisition team as a mean to adapt to budget cuts, with the aim to spread an entrepreneurial mind-set throughout the organisation. This acquisition function is mainly dedicated to search for future projects and maintain a continuous flow of revenue coming into organisation. This competence is of high relevance for organisations who cannot rely on sustained funding from the municipality. This acquisition capacity is also present in the other interviewed NME's, however this task is not limited to one team, and is frequently assumed by the director or other individual members. The addition of an acquisition team relates to the study of Wesselink & Wals (2011), in which they inform of the positive effects, for the professional development of environmental organisations in the Netherlands, in the incorporation of a set of relevant competences and job profiles consistent of an education practitioner, programme leader, and organisational manager. Our findings suggest that the role of an education practitioner, primarily concerned with the design of learning material and nature education projects, is commonly present amongst the studied NME's. This education role is relevant for nature education tasks and communicating with schools or other learning centres. However, other alternative competences to the education practitioner are necessary to broaden the scope from education to participation. The competences of marketing, entrepreneurship and the "pursue of new opportunities are characteristic for the programme leader and organisational manager (Wesselink & Wals, 2011), and were also found for the case in Maastricht with the creation of an acquisition team. These job profiles, together with their related competences, are relevant to bringing a business approach within the NME's and represent complementary funding sources to address the limited budgets allocated to educational practices (Nikel & Reid, 2006).

Importantly, one of the main barriers to implement an innovative business-related mind-set in environmental organisations can be found on the sceptical view and limited capacities of organisation members to adapt to an entrepreneurial approach. This situation was observed for some of the NMEs, in which entrepreneurs were seen as “opportunists”. Next to this, it was also stated that some members show a lack of ability to incorporate visioning and adding managerial skills into their working routines. The building of an acquisition team within the NME’s can help to address the main obstacle of “clarity in vision” and “financial constrains or budget” manifested during in the Mentimeter during the Floriade workshop (Appendix C).

5.6 Link to organisational changes: the five key factors are identified as change enablers

In this chapter, the five main factors or themes of: NME as a facilitator; architecture and environment of NME centres; building a sense of ownership; specific communication tools for citizen participation and networking with businesses, are described as key factors relevant for the NMEs to broaden their scope towards citizen participation. These themes have been identified as organisational changes, and more specifically, these suggested themes can be classified as change enablers. Change enablers are required in order to facilitate a successful change and enhance organisational performance, and can be divided in the fields of “knowledge and skills, resources, and commitment” (Al-Haddad and Kotnour, 2015). The first topic of “NME as a facilitator” relates to the aspect of skills and knowledge, as it involves the acquisition of new strategies to act as a facilitator. The theme of “architecture and environment of the NME”, “specific communication tools” and “networking with businesses” are relevant material and non-material resources to incorporate for NMEs to enable a change towards participation. The topic of “building a sense of ownership” refers to the aspect of commitment, particularly, in increasing the sense of ownership and responsibility of employees’ towards their working projects and organisation. In conclusion, the five themes described in the discussion are defined as the necessary pre-conditions or change enablers in terms of knowledge, resources and commitment that NMEs should incorporate to enable a change towards broadening the scope to citizen participation. The next chapter concludes the main findings and results from our research.

6 Conclusion

This research was guided by an inductive approach, and the main data was obtained from the interviews with the director and project leaders of the five innovative NMEs to identify the organisational changes these NMEs made to broaden their scope towards more citizen participation.

During the visits to the NMEs and by our research, it became clear that the NMEs have different profiles. Some were very different from each other in terms of location, size, team structure, and accessibility to the public. However, they were also similar in aspects such as having intrinsically motivated team members, striving to create a personal connection with the citizens, efficient communication, specific projects to enable citizen participation and strategize on networking with other organizations. All NMEs started with a focus in nature education and were mainly subsidised by the municipality. However, some NMEs have moved towards more independence as well as having private means of funding.

To move towards more citizen participation, the NMEs implemented several changes which according to some were planned and some were spontaneous. The consultancy team identified five core organisational changes, that reoccurred in the interviews and were categorised as change enablers, namely: facilitator role of the NME, architecture and environment of the NME, building a sense of ownership amongst employees, communication and networking with businesses.

The NMEs as a facilitator supports citizens with resources, maintain close relationship, guide them through the activities that broaden the scope of participation making it easy and attractive for the citizens. The architectural aspect involves a good location, higher accessibility, and flexible working environment of the NMEs. By looking at the sense of ownership, each member of the NME had a sense of responsibility and a positive drive towards the vision of the organisation. They were competent and self-motivated. The communication aspect shows that every centre is aware and plans online/offline strategies to engage their target group of citizens. With respect to networking, the NMEs maintain a relationship with other business or/and non-profit organisations through formal or informal ways. These networks can be collaboration opportunities for funds, knowledge and skill exchange and adding bandwidth to the activities that enhance citizen participation. Additionally, an entrepreneurial mindset was seen as a core aspect for the NMEs in increasing their networking capacity.

Based on the identified key organisational changes or five change enablers from our research, we came up with an assessment tool on how NMEs can profile themselves, using an analysis model. This model can be used by other NMEs to assess their current stand on organisational change. However, it is subjected to changes and has future scope of research.

Since the beginning of the research, it is quite evident to conclude that these findings are no one size fits all solution as each NME is different and has different participation needs for diverse target groups and projects. The organisational changes found at the NMEs serve the purpose of identifying and tailoring innovative practices for other NME to trigger thinking and execute organisational change that suits their context and help them move towards more active citizen participation.

In the following chapters, the key themes explored in the discussion are translated into recommendations that can be used for future research and by the NMEs to broaden their scope towards participation. Also, the limitations of this study and the assessment tool are explained in the last two chapters.

7 Recommendations

In this chapter several recommendations will be given on our research findings. The recommendations have been divided into two themes: inspirational action points and further research. The first theme includes specific inspirational action points that were obtained from our interviews and research of the five NMEs. These points are categorised in five themes as identified in the discussion and can serve to inspire other NMEs to make the first steps towards participation. The second chapter consists of recommendations about further research that can be done. These recommendations include some barriers and limitations we found, as well as a tools that can be created so NMEs can profile themselves. These recommendations are aimed to provide concrete advice from our findings and provide guidelines for future research.

7.1 Inspirational action points

This chapter aims to provide an overview of action points relevant to inspire NMEs to increase citizen participation. These action points or recommendations are organised by the five core themes defined in the discussion and with a focus on organisational change processes and ways to steer citizen collaboration with NMEs.

7.1.1 The Facilitator role of the NME

Provide specific equipment and services that facilitate citizen participation.

NMEs can help with providing specific equipment to citizens, with the aim to lower the barrier for citizens to participate. An example of this is given during the tile removal program. By collecting the tiles, and providing plants, the willingness of citizens to participate increases. To be able to provide this specific equipment, partnering with local companies that provide specific material and services to facilitate these sustainable activities is of high relevance.

Creating a sense of ownership among citizens.

It is of importance that the NME builds an environment in which citizens can come up with their own initiatives. This bottom-up strategy promotes collective involvement that creates a sense of ownership among citizens and motivates them to participate. This can be accomplished by starting with small and concrete actions to show how citizens can have a direct influence to make their homes, gardens, streets or neighbourhoods more sustainable. Next to this, the NME can provide and allocate funds to promote citizen's initiatives.

Bring a team of enthusiastic citizens together

The NME should be conscious of the amount of information and motivation citizens already have about the environment and sustainability. It is advised to the NME to find the people that already have an interest in a topic and that can offer their expertise or skills. This can be done through looking in the already existing network of the NME or by spreading information online and offline about the project. Bringing people together leads to building an enthusiastic team that is eager to work on the project and that can therefore motivate other people in their network to participate.

7.1.2 Architecture and environment of NME centres

The NME centre should be perceived as sustainable and approachable

It is of importance to have the sustainable knowledge of the NME visualised in the workspace or building of the NME. This will help strengthen the image of the NME in the mind of citizens

and supports the NMEs' vision. Implementation of sustainable architecture can for example be done by incorporating greenery inside the building or having sedum roofs. Displaying posters and models of projects inside the building can be of visual importance.

7.1.3 Sense of ownership amongst employees

Increase the sense of ownership amongst employees

The sense of responsibility and self-awareness among NME employees when working on projects is of importance. To increase this, it is recommended that employees reflect on their projects and the number of hours spend on completing their tasks. For this reason, it is advised that the NMEs share an (online) standardised sheet with employees where they can record the time spend on each of the working activities. To increase citizens' and employees' understanding and sense of ownership about the organisation, is it recommended to have an exhibition or information spot inside the building, where the content and goals of the organisation are shared with visitors and employees. This action is oriented in increasing the employees' understanding of the NMEs goals.

7.1.4 Communication

Integration of both online and offline communication tools

It is of importance that the NME make use of a combination of online and offline tools and that they have people dedicated to manage these forms of communication. Examples of online tools are websites, Facebook groups, TikTok, and Instagram. Offline tools that are important are newspaper segments, flyers, local community markets, and stakeholder workshops. These forms of communication are an effective way for NMEs to promote awareness and stimulate citizen participation.

Create an online environment that reaches multiple target groups

Talking about online tools does not only include updating the different platforms like Instagram or websites, but also to put effort in the visualisation and accessibility of these platforms. Examples of this are font size, available languages, infographics and language style that is used to explain these sustainability topics. When NMEs make the online environment more accessible, the reach towards citizens can be improved.

Let citizens communicate about their participation

When citizens participated in a project, they can show this by putting a poster on their window, door or garden. In this way, neighbours, friends and companies are indirectly informed about the projects. This can motivate these stakeholders to participate as well. It is therefore of importance that the NMEs provide posters or banners for the citizens and emphasise the power and importance of these tools in enhancing citizen participation.

7.1.5 Networking with businesses

Organise networking events

When the NME organises formal or informal events or attends these events where businesses will be present, a relationship can be created between the NME and the business. This relationship can lead to opportunities for the NME to create a collaboration.

Adopt tools to quantify the impact of projects

When NMEs make use of tools like a MAEX analysis, companies and municipalities can have a better understanding about the impact of the project and gain more trust in the project as well as in the NME. This can help in convincing such organisations to participate in projects or form collaborations with the NME.

Set up a business strategy

Before meeting with a business, the NME should strategize about why involving this business and why they are the right candidate for this purpose. Businesses often only collaborate when they also get something positive out of it themselves. So, when a clear strategy is made by the NME, the chances are higher that the company of interest will participate.

Search and continuously apply for future projects or initiatives

The NME should look into setting up an acquisition team or person. This team or person in the organisation is responsible for pursuing new projects or initiatives and initiate collaborations with other businesses. Additionally, they should make use of volunteers' expertise who want to contribute to the acquisition of new projects.

7.2 Further research

This chapter aims to provide advice for future research.

7.2.1 Development and use of the profiling interactive tool

Our advice of having the NMEs profile themselves could work in an inspiring way. Future research can share and test the interactive excel tool provided by the consultancy team with the other NMEs. This research could contribute to define new relevant concepts for NMEs to move towards participation. This learning tool can be used internally for all the employees of one specific NME, to share and reflect on their diverse viewpoints and opinions. A more detailed explanation of the use and characteristics of this learning tool are described in Chapter 8.

7.2.2 Make use of other theoretical frameworks and perspectives for analysis

Our research is of an exploratory nature and served to identify the key factors that emerged from the data analysis. Our research was guided by the two core frameworks of citizen participation and organisational changes. Alternatively, future research could focus on alternative topics of relevance that could not be addressed during this research. In the next paragraphs, other perspectives to consider for future research are described.

More research into the barriers

Future research could focus on exploring the main barriers that other NMEs are experiencing, together with the main challenges to broaden their scope to citizen participation. The results shown in our research, better reflect the success or key factors relevant to moving towards participation. During the interviews the success factors appeared more repeatedly, and main barriers or challenges were not as prominent. In that sense, future research could deepen on exploring the barriers and challenges of the key themes presented in the discussion of our research. This future study then, would specifically focus on presenting and understanding the challenges and barriers to achieve: a facilitator role for the NMEs; an attractive and welcoming

environment of the NME centres; sense of ownership amongst NME's employees; relevant communication tools for citizen participation; networking with businesses; setting an acquisition team.

Strategies to create partnerships and collaborations with businesses

Future research could focus in deepening on this specific topic discussed in Chapter 5.5 "Networking with businesses" of our research. The present study was partly motivated due to the financial constraints and difficulties experienced by the NMEs in the Netherlands. Some of the NMEs studied in our research experienced severe cuts from the municipality and expressed the need to find new sources of income outside the municipality. Our research contextualises and describes the first steps made by the studied NME's to build first partnerships. However, future research could further explore strategies for the NMEs to partner with private businesses. Importantly, these partnerships should be oriented with businesses that are sensitive with the broader goal of sustainability and the aim to involve citizens in sustainable activities.

Evaluation tools to quantify the outcomes of NMEs

In relation to the last paragraph, a way to incentivise the collaboration with businesses and municipalities is by quantifying and providing specific numbers to justify the actions and activities taken by the NME. The Ulebelt in Deventer, is already making use of a MAEX analysis to quantify their outcomes in terms of financial value that shows the contributions to the Sustainable Development Goals (SDGs). Many of the studied NMEs work with the SDGs, however, they do not know the ways in which these goals can be quantified and communicated to other collaborators.

Incorporate a social and inclusive perspective

Other perspectives could be oriented in studying the social impact of citizen participation activities conducted by NMEs in marginalised neighbourhoods. This situation was exemplified for the case at the CNME in Maastricht, where some employees made use of a "door-to-door" approach or seek direct contact with residents from marginalised neighbourhoods. The aim of this approach is to increase the community well-being through greening and participatory activities. Greening activities with residents are not only aimed to contribute to a healthier and more attractive environment, but they also contribute to enhancing the social and community well-being of a specific neighbourhood or street. Then, future research could study the links between citizen participation conducted by NMEs and social inclusion for specific municipalities.

Create a video to incentivise citizen participation

An innovative, concrete, and practical tool to make a NME known for a specific municipality is to create communicative tools that can be shared with citizens. More precisely, future research could help NMEs in a technical way to create attractive videos of some NMEs showing the type of activities they do and how citizens are involved. This action was recently taken by the NMCX in Haarlemmermeer, who released a video capturing the positive feedback of citizens in participating in citizens' initiatives.

The need for citizen participation

For this research, it was assumed the willingness of NMEs to increase citizen participation. It might be that not all NMEs will see citizen participation as something of high importance. In that sense, future research could focus exploring the underlying motivations and need for NMEs to broaden their scope towards citizen participation. Therefore, the relevance and need for citizen participation could be further questioned and explored.

7.2.3 Base the study in other target groups outside the five selected NMEs

This research was based on the study of five specific NMEs selected by the GDO as more innovative in terms of citizen participation. Other target groups of study might provide relevant new information in future research.

Citizens as a new target

Another way to help the NMEs is to understand and picture citizens' needs in the field of sustainability in order to better engage them in participation activities. Citizens and volunteers are the main subjects of interaction for the NMEs, hence, so by understanding their needs and their willingness to participate, NMEs can design better plans and activities to attract them.

Other NMEs outside the five selected

Future research could conduct interviews with other NMEs outside the five selected ones for this study. Other NMEs might provide relevant insights in terms of success factors or barriers to increase the scope towards participation.

8 Assessment tool: how to profile a NME using our analysis model

With this research we have determined several key organisational changes that the five innovative NMEs have implemented. For other NMEs to assess where they currently stand on these changes, the consultancy team has created an assessment tool (in Dutch). The assessment tool can be used for self-assessment when NMEs start to make the change towards more citizen participation. It can serve as a communication or education tool within and between NMEs. It is important to consider that this assessment tool should be treated as a template, which is subjected to changes and can be elaborated on by with further research. In the future, the consultancy team advises to add a scoring matrix, to ensure that employees score with the same intention.

With this assessment tool, the NMEs can score themselves on several core organisational changes, namely: facilitator role, welcoming environment of the NME, sense of ownership, communication, and networking. The first sheet contains the instructions on how to use the excel sheet. On the second sheet is the questionnaire, which consists of the core organisational changes with several statements for the NMEs to score themselves on, this scoring is done on a scale from 1-10, as seen in Figure 11.

	A	B	C
1		Scores moeten worden ingevuld in de grijze vakken.	
2		De berekende, gemiddelde scores bevinden zich in de groene vakken.	
3			
4		1 Facilitator rol van de NME	
5	a	Wij leveren de materialen voor de burgers bij het uitvoeren van een activiteit (bijv. planten, grond, scheppen)	1
6	b	Onze projecten zijn aantrekkelijk om in te participeren voor de burgers	2
7	c	De NME maakt deel uit van de gemeenschap, en burgers vertrouwen ons daarom	3
8	d	We zijn aanwezig op publieke plaatsen, wat burgers de kans geeft om met ons te praten	4
9	e	We faciliteren een ruimte voor groepen om elkaar te ontmoeten, ideeën aan te dragen en discussies te voeren	5
10	f	We brengen burgers actief samen (bijv. voor projecten)	6
11	g	We hebben persoonlijk contact met burgers (bijv. deur-aan-deur benadering, aanwezigheid in de stad)	7
12	h	We financieren burgerinitiatieven	8
13	i	We bevorderen burgerinitiatieven door middelen en kennis ter beschikking te stellen	9
14	j	Als NME vullen we de kloof tussen beleid en samenleving (bijv. door beleid van de gemeente af te stemmen op behoeften van burgers)	9
15			5.4

Figure 11: Overview of the questions in the questionnaire

The average grade of each core organisational change is collected in the results and graphs sheet. Here a radar graph is made to show an overview of the score for each of the organisational changes, as seen in Figure 12. This visual will help the NMEs to quickly assess in which aspects they are performing well and for which organisational changes they still need improvement.

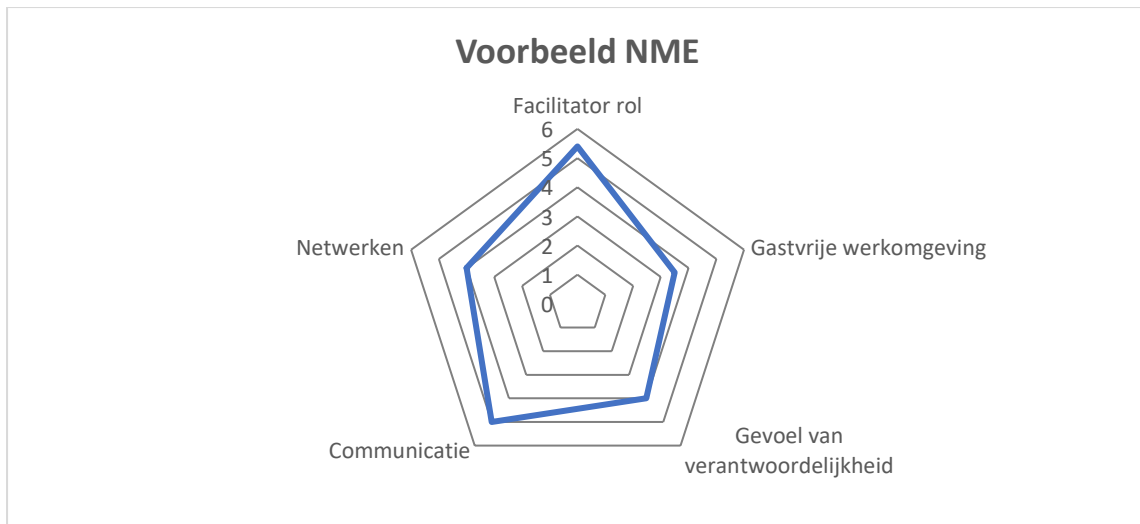


Figure 12: Overview of an example radar graph for an NME

9 Limitations

During this research there were several limitations that were encountered. In the following paragraphs these limitations will be highlighted.

Regarding the background of the research from the GDO Foundation, there were some assumptions made, which can form limitations to our research. In fact, the GDO Foundation selected five NMEs in the Netherlands that were considered as innovative in terms of citizen participation. This is something that we as a consultancy team have assumed and did not challenge. As citizen participation is difficult to measure, it is uncertain if the five selected NMEs are the most innovative ones in terms of citizen participation.

Another limitation to our research is the Mentimeter results from GDO-tweedaagse. During the Mentimeter, it was unclear if the responses were representative for the NMEs as questions were sometimes answered partially or by few respondents. Furthermore, some questions lacked specificity and were answered in an irrelevant manner. For instance, when asked about opportunities to broaden citizen participation, some respondents mentioned organic waste.

Concerning the interviews, some of them were conducted in Dutch and were translated to English with DeepL (DeepL translator, n.d.). Some translations might be inaccurate. Another limitation is that Duurzaamheidscentrum Assen was not visited thus missed observations. As a result, this might have biased our view of this NME. Another limitation concerns the respondents during the interviews. Some interviews were conducted with two interviewees, a director and project leader or board member. Due to power dynamics, the responses might be influenced by the presence of the other interviewee. Concerning ethics, the fact that the team records the interview might affect the answers of the respondents becoming more aware of what they say and maybe more careful with their statements. Finally, this research presents success factors and barriers to citizen participation, however barriers turned out to be hard to identify. The fact that the NMEs were appointed as the five innovative ones might have contributed to the lack of barriers mentioned.

10References

- Al-Haddad, S., & Kotnour, T. (2015). Integrating the organizational change literature: a model for successful change. *Journal of organizational change management*, 28(2), 234-262. <https://doi.org/10.1108/JOCM-11-2013-0215>
- Anderson, D., & Anderson, L.A. (2002). *Beyond Change Management: Advanced Strategies for Today's Transformational Leaders*. John Wiley & Sons.
- Baum, H. S. (2001). Citizen Participation. In N. J. Smelser & P. B. Baltes (Eds.), *International Encyclopedia of the Social & Behavioral Sciences* (pp. 1840-1846). Amsterdam, Netherlands: Elsevier. <https://doi.org/10.1016/B0-08-043076-7/04439-9>
- Beer, M., & Walton, A. E. (1987). Organizational change and development. *Annual Review of Psychology*, 38, 339–367. <https://doi.org/10.1146/annurev.ps.38.020187.002011>
- Benn, S., Edwards, M., & Williams, T. (2014). *Organizational Change for Corporate Sustainability* (3rd ed.). Routledge. <https://doi.org/10.4324/9781315819181>
- Bernard, H. R. (2017). *Research methods in anthropology: qualitative and quantitative approaches*. Rowman & Littlefield.
- Beyazli, D., & Aydemir, Ş. (2011). Does Urban Consciousness Help Understand The Citizens' Role in Planning?. *European planning studies*, 19(5), 839-860. <https://doi.org/10.1080/09654313.2011.561040>
- Blanchet-Cohen, N. (2015). Igniting citizen participation in creating healthy built environments: the role of community organizations. *Community Development Journal*, 50(2), 264–279. <https://doi.org/10.1093/cdj/bsu031>
- Blanco-Portela, N., Benayas, J., Pertierra, L. R., & Lozano, R. (2017). Towards the integration of sustainability in Higher Education Institutions: A review of drivers and barriers to organizational change and their comparison against those found of companies. *Journal of Cleaner Production*, 166, 563-578. <https://doi.org/10.1016/j.jclepro.2017.07.252>
- Bloomfield, D., Collins, K., Fry, C., & Munton, R. (2001). Deliberation and Inclusion: Vehicles for Increasing Trust in UK Public Governance?. *Environment and Planning C: Government and Policy*, 19(4), 501-513. <https://doi.org/10.1068/c6s>
- Bloomfield, P. (2006). The challenging business of long-term public–private partnerships: Reflections on local experience. *Public Administration Review*, 66(3), 400-411. <https://doi.org/10.1111/j.1540-6210.2006.00597.x>
- Chupin, J. P., Hazbei, M., & Pelchat, K. A. (2021). Three Types of Architectural Educational Strategies (AES) in Sustainable Buildings for Learning Environments in Canada. *Sustainability*, 13(15), 8166. <https://doi.org/10.3390/su13158166>
- Cucuzzella, C., & Goubran, S. (Eds.). (2021). *Sustainable Architecture - Between Measurement and Meaning*. Vernon Press.

Deepl translator. Retrieved October 14, 2022, from <https://www.deepl.com/translator>

De Klerk, S. (2010). The importance of networking as a management skill. *South African journal of business management*, 41(1), 37-49. <http://dx.doi.org/10.4102/sajbm.v41i1.512>

Deng, Z., Lin, Y., Zhao, M., & Wang, S. (2015). Collaborative planning in the new media age: The Dafo Temple controversy in Guangzhou, China. *Cities*, 45, 41–50. <https://doi.org/10.1016/j.cities.2015.02.006>

Doppelt, B. (2003). Leading Change towards Sustainability: A change-management Guide for Business. *Government and Civil Society*. Sheffield: Greenleaf.

Elving, W. J. L. (2005). The role of communication in organizational change. *Corporate communications: an international journal*, 10(2), 129-138. DOI: 10.1108/13563280510596943

Eversole, R. (2010). Remarking participation: Challenges for community development practice. *Community Development Journal*, 47(1), 29-41. <https://doi.org/10.1093/cdj/bsq033>

Fischer, F. (2012). Participatory Governance: From Theory to Practice. In D. Levi-Faur (Ed.), *The Oxford Handbook of Governance* (pp. 457-471). Oxford, England: Oxford Academic Press. <https://doi.org/10.1093/oxfordhb/9780199560530.013.0032>

Fox, O., & Stoett, P. (2016). Citizen participation in the UN sustainable development goals consultation process: toward global democratic governance. *Global Governance*, 22(4), 555-574.

Francis, R. A., & Lorimer, J. (2011). Urban reconciliation ecology: The potential of living roofs and walls. *Journal of Environmental Management*, 92(6), 1429-1437. <https://doi.org/10.1016/j.jenvman.2011.01.012>

Fraser, E. D., Dougill, A. J., Mabee, W. E., Reed, M., & McAlpine, P. (2006). Bottom up and top down: Analysis of participatory processes for sustainability indicator identification as a pathway to community empowerment and sustainable environmental management. *Journal of Environmental Management*, 78(2), 114–127. <https://doi.org/10.1016/j.jenvman.2005.04.009>

Gamble, D. N., & Weil, M. O. (1995). Citizen participation. *Encyclopedia of social work*, 1, 483-494.

Garmendia, E., & Stagl, S. (2010). Public participation for sustainability and social learning: Concepts and lessons from three case studies in Europe. *Ecological Economics*, 69(8), 1712-1722. <https://doi.org/10.1016/j.ecolecon.2010.03.027>

Gemeente voor Duurzame Ontwikkeling. (n.d.). *Over ons*. Retrieved October 14, 2022, from <https://vereniginggdo.nl/over-gdo/> (Dutch)

Gibson, C., Hardy III, J. H., & Buckley, M. R. (2014). Understanding the role of networking in organizations. *Career Development International*, 19(2), 146-161. <https://doi.org/10.1108/CDI-09-2013-0111>

- Graham, A., & Mitchell, C. L. (2016). The role of boundary organizations in climate change adaptation from the perspective of municipal practitioners. *Climatic Change*, 139, 381-395. <https://doi.org/10.1007/s10584-016-1799-6>
- Gubrium, J. F., & Holstein, J. A. (1994). Grounding the Postmodern self. *The Sociological Quarterly*, 35(4), 685-703. <https://doi.org/10.1111/j.1533-8525.1994.tb00423.x>
- Hagan, S. (2001). *Taking Shape: A New Contract Between Architecture and Nature* (1st ed.). Routledge. <https://doi.org/10.4324/9780080518411>
- Hansen, M. (2009). *Collaboration: How leaders avoid the traps, build common ground, and reap big results*. Harvard Business Press.
- Hardina, D. (2006). Strategies for Citizen Participation and Empowerment in Non-profit, Community-Based Organizations. *Community Development*, 37(4), 4-17. <https://doi.org/10.1080/15575330609490192>
- van den Heuvel, M., Demerouti, E., & Bakker, A. (2013). How psychological resources facilitate adaptation to organizational change. *European Journal of Work and Organizational Psychology*, 26(6), 1-13. <https://doi.org/10.1080/1359432X.2013.817057>
- Hotek, D. R., & White, M. R. (1999). An overview of performance technology. *Journal of Technology Studies*, 25(1), 43-50.
- Hügel, S., & Davies, A. R. (2020). Public participation, engagement, and climate change adaptation: A review of the research literature. *Wiley Interdisciplinary Reviews: Climate Change*, 11(4), e645. <https://doi.org/10.1002/wcc.645>
- IPCC. (2022). Sustainable Development, Poverty Eradication and Reducing Inequalities. In *Global Warming of 1.5°C: IPCC Special Report on Impacts of Global Warming of 1.5°C above Pre-industrial Levels in Context of Strengthening Response to Climate Change, Sustainable Development, and Efforts to Eradicate Poverty* (pp. 445-538). Cambridge: Cambridge University Press. DOI:10.1017/9781009157940.007
- Kleinhans, R., Van Ham, M., & Evans-Cowley, J. (2015.) Using Social Media and Mobile Technologies to Foster Engagement and Self-Organization in Participatory Urban Planning and Neighbourhood Governance. *Planning Practice & Research*, 30(3), 237-247. <https://doi.org/10.1080/02697459.2015.1051320>
- van Koppen, K., & Hendriksen, A. (2014). Greenpoint Sonsbeek; Bezoekerscentrum Sonsbeek als initiator, facilitator en organisator voor het ontwikkelen, ontsluiten en verbinden van kennis in lokale groene netwerken. *Wageningen UR, Wetenschapswinkel*, 305. (Dutch)
- Kotter, J. P. (1996). *Leading Change*, Harvard Business School Press.
- Lin, Y., & Kant, S. (2021). Using Social Media for Citizen Participation: Contexts, Empowerment, and Inclusion. *Sustainability*, 13(12), 6635. <https://doi.org/10.3390/su13126635>

Lozano, R. (2009). *Orchestrating Organisational Change for Corporate Sustainability: Strategies to Overcome Resistance to Change and to Facilitate Institutionalization*. Cardiff University, United Kingdom.

Lozano, R. (2013). Are Companies Planning their Organisational Changes for Corporate Sustainability? An Analysis of Three Case Studies on Resistance to Change and their Strategies to Overcome it. *Corporate Social Responsibility and Environmental Management*, 20(5), 275-295. <https://doi.org/10.1002/csr.1290>

Malek, R., & Yazdanifard, R. (2012). Communication as a Crucial Lever in Change Management. *International Journal of Research in Management & Technology*, 2(1), 2249-9563.

Morley, D., Shockley-Zalabak, P., & Cesaria, R. (2002). Organizational influence processes: perceptions of values, communication and effectiveness. *Studies in Communication Sciences*, 2, 69-104.

Nikel, J., & Reid, A. (2006). Environmental education in three German speaking countries: tensions and challenges for research and development. *Environmental Education Research*, 12(1), 129-148. <https://doi.org/10.1080/09243450500527879>

Ohmer, M. L. (2008). The Relationship Between Citizen Participation and Organizational Processes and Outcomes and the Benefits of Citizen Participation in Neighborhood Organizations. *Journal of Social Service Research*, 34(4), 41-60. <https://doi.org/10.1080/01488370802162426>

Perini, K. (2016). Bottom-Up Initiatives for Green and Blue Infrastructure. In Perini, K., Sabbion, P., *Urban Sustainability and River Restoration: Green and Blue Infrastructure* (pp. 177-187). Hoboken, NJ: John Wiley & Sons.

Pierce, J. L., Kostova, T., & Dirks, K. T. (2001). Toward a theory of psychological ownership in organizations. *The Academy of Management Review*, 26(2), 298-310. <https://doi.org/10.5465/amr.2001.4378028>

Pierce, J. L., O'driscoll, M. P., & Coghlan, A. M. (2004). Work environment structure and psychological ownership: The mediating effects of control. *The Journal of social psychology*, 144(5), 507-534. <https://doi.org/10.3200/SOCP.144.5.507-534>

Reed, M. S., Evely, A. C., Cundill, G., Fazey, I., Glass, J., Laing, A., Newig, J., Parrish, B., Prell, C., Raymond, C., & Stringer, L. C. (2010). What is Social Learning? *Ecology and Society*, 15(4). <http://www.jstor.org/stable/26268235>

Schoonjans, B., Van Cauwenberge, P., & Vander Bauwhede, H. (2013). Formal business networking and SME growth. *Small Business Economics*, 41(1), 169-181. <https://doi.org/10.1007/s11187-011-9408-6>

Sinclair, T. (2013). *Global governance*. John Wiley & Sons.

- Strauss, A., & Corbin, J. (1994). Grounded theory methodology: An overview. In N. K. Denzin & Y. S. Lincoln (Eds.), *Handbook of qualitative research* (pp. 273–285). Thousand Oaks, CA: Sage Publications, Inc.
- Street, C. T., & Cameron, A. F. (2007). External relationships and the small business: A review of small business alliance and network research. *Journal of Small Business Management*, 45(2), 239-266. <https://doi.org/10.1111/j.1540-627X.2007.00211.x>
- Tell, J. (2001). Towards inter-organisational empowerment? employee participation in the development of a network of small enterprises. *Journal of Small Business and Enterprise Development*, 8(2), 113-125. <https://doi.org/10.1108/EUM00000000006819>
- Turner, P. & Turner, S. (2009). Triangulation in Practice. *Virtual reality*, 13(3), 171-181.
- United Nations. (2022). The sustainable Development Goals Report. Retrieved October 14, 2022, from: <https://unstats.un.org/sdgs/report/2022/The-Sustainable-Development-Goals-Report-2022.pdf>
- Wals, A. E., & Corcoran, P. B. (2006). 14. Sustainability as an Outcome of Transformative Learning. *Drivers and barriers for implementing sustainable development in higher education*, 103.
- Wang, C. L., & Ahmed, P. K. (2003). Organisational learning: a critical review. *The learning organization*, 10(1), 8-17. <https://doi.org/10.1108/09696470310457469>
- Weil, S. (1952). *The need for roots: Prelude to a declaration of duties towards mankind*. Routledge.
- Wesselink, R., Wals, A. E. J. (2011). Developing competence profiles for educators in environmental education organisations in the Netherlands. *Environmental Education Research*, 17(1), 69-90. <https://doi.org/10.1080/13504621003637037>
- Wi, A. (2019). Citizen participation as a key enabler for successful public education policies in climate change mitigation in Singapore. *International Research in Geographical and Environmental Education*, 28(1), 53-69. <https://doi.org/10.1080/10382046.2018.1430789>

11 Appendix

A Coding tables

A1 CNME, Maastricht

Table 1: coding table CNME with main and sub themes, descriptions and quotations

Themes	Sub-themes	Descriptions	Quotations
Facilitate and create incentives for citizen participation	Activities related to urban greening and management of vegetable gardens	Activities related with citizens' participation: Planting and tile removal, management of vegetable gardens and greenhouses in the city. From teaching at the schools, to greening with the schools and neighbourhoods.	<i>"Key to our success, is that we actually not do only education but we do the maintenance in the nature around Maastricht, and we do participation with the locals"</i> <i>"We started supplying for 40 vegetables gardens to schools, and then we went to schools to maintain the gardens".</i>
	Facilitator role of the NME	Provide the tools for citizens to engage in greening activities. Enhance community building by finding other participants in the neighbourhood. Repeated presence in public spots to divulgate NME's tasks	<i>"[gardening] we make it as easy as possible".</i> <i>"I have my plants with me, and big bags with good soil, and I have empty bags for the tiles. I have a company that brings everything in the morning, and that bring back everything in the evening."</i> <i>"[I] help him to find other people in the street to do something together,...you tell him just ring and tell what do you want and they like it to then you go next door and next door."</i> <i>"I go to part of the city, where lot of people live that don't earn much money. I have a spot opposite the Lidl, a lot of people come there from all parts of Maastricht. I think that is a good place to be with my plants, my soil, my gear."</i>
	Show and facilitate the ways in which citizens can contact the NME	Public administration derives citizens' gardening consultations to the NME. Office located in the centre of the city.	<i>"The council of Maastricht, what they say is to all citizens if you want to do something in your garden, call Nelle".</i> <i>"We also sowed for biodiversity, for wild bees, and there is a wooden plaquette with "done by CNME, if you have any questions call Peter +316..."</i>

		Incorporation of contact number in each working site or completed activity by the NME.	
	Gain support and build a community network		<p><i>"My queen of greening is Nelle, she doesn't start any project until she has at least 5 residents"</i></p> <p><i>"She first talks to management, teachers, with childrens, with parents, so she makes sure she always has support"</i></p>
Entrepreneurial mind-set and diversified sources of income	Director with an entrepreneurial mind-set and business background	<p>Awareness of annual costs, incomes and, evaluation tools (SWOT analysis).</p> <p>Respect the diversity in terms of capacities and abilities to adapt to a "results" approach.</p>	<p><i>"my costs are 1.4 million [...] I know that at the end of the year, I have 1.5 million". "1 million comes from municipality and 0.5 million to other clients".</i></p> <p><i>"We did a SWOT analysis and from there a multi-year vision"</i></p> <p><i>"If he, is never going to do that, I will do it for him. Oh, there is a talent, I will coach them. So, I try to respect the diversity in the team that we have and nevertheless tell them the story we need to learn this as an organization, we need to acquire the skills as an organization."</i></p>
	Municipality as the main source of funding	Other public sources of funding come from collaborations with the province of Limburg or national funds and private centres.	<i>"But that's mainly the target is to the municipality who gives us to the fundings to start projects."</i>
	Networking and alternative sources of funding outside the municipality	<p>Collaborations with private centres: nature organisations, schools (greening schoolyards), day care centres, and a nursery centre.</p> <p>Maintain regular contact with partner organisations.</p>	<p><i>"Green schoolyards is also a business model that is in high demand".</i></p> <p><i>"We work with a lot of organizations in Maastricht like Mondriaal Maastricht or the SDG House Maastricht, Traject, Woningcorporaties"</i></p> <p><i>"I think it is very important that you keep in contact with organizations that you work together with. So that you say maybe now there is no money but maybe next year and after a year you come back again. Try to be in contact."</i></p>
	Adaptation to budget cuts and new working strategy: results contract and work per hours		<p><i>"When I came the municipality was threatening with a large budget cost. [...] I tried to make all people responsible for their own income"</i></p> <p><i>"I have an annual planning cycle with each person. What about your hours, how much is billable...?"</i></p>

			<i>"they have to deliver results and be billable but still within the context of municipalities and schools".</i>
Marketing	Digital marketing	<p>Updated and completed set of social media accounts: Facebook, Instagram, LinkedIn, TikTok, Twitter, and Youtube</p> <p>Remarkable TikTok account with 17.7K followers and a "viral experience".</p> <p>Interactive and welcoming website.</p>	<p><i>"So I was able to get Elise and she said if you want to reach children 7-12 years old then we need a TikTok account."</i></p> <p><i>"She filmed a video of a bee that was bit dazzled and it lay on the ground. So she picked up the bee, lay it on her hand, gave it some sugar and that went viral. Children in Thailand reacted"</i></p> <p><i>"So for me the key is to attract young people for those things. I told old guy in the class that this is education 3.0"</i></p>
	Traditional marketing and direct communication to citizens	<p>Distribution of flyers on specific spots and assistance to social neighbourhood events.</p> <p>Direct calls to residents.</p>	<p><i>"I can call them and say that I am going to talk about trees for example and what do you think of this."</i></p> <p><i>"It is not about social media although it is successful it is about really in being here, going out, meeting people, that is the main thing we do and that is successful."</i></p> <p><i>"it's also paper again, it is not only social media for us. It is being there on the spot and flyer."</i></p> <p><i>Another project we just did, we made 10 bee hotspots, peter does that. He has a leap of different kinds of ground and then he gets the "buurtnetwerk" involved to make it and to maintain it. 10 spots all over Maastricht"</i></p>
	Acquisition team: Specific employees dedicated to writing proposals		<p><i>"I have people who do that [writing proposals] because of their experience"</i></p> <p><i>"I set up an acquisition team, then I had two project leaders and a team leader involved"</i></p>

Diversified roles and working teams	Experienced workers focused on maintaining close contact with citizens		<i>"A very big quality is that you have to be able to deal with people, the top is Nelle"</i>
	Three main teams: participation team, education team, and ecological team.		<i>"we also have an ecological team, I think we are also the only NME centre in that".</i>
	Contract freelancers for specific projects and work with volunteers		<i>"We have 24 people professional staff, but we also have volunteers; 2 for project #Pick it up, 2 for "Onderwijs Werkplaats", 5 for "energie coaches", and then 20 or 25 in the gardens."</i> <i>"sometimes you have an extra project, and you have people on the payroll for the duration of that project. And after that, if there is no money, there is no job anymore. And some leave"</i>
	Young employee that is dedicated to maintaining social media accounts		<i>"We didn't have a communication person. When I started, I had the opportunity to think about that and I saw Elise. She was someone who did assignment for us. She is 23 years old at that time and I thought she was really good"</i>
	Internal cooperation between projects	Participation activities can be announced by reaching citizens that participate in other projects.	<i>"On the subject of energy (...) Nelle said, if those people are going into houses please let me step behind".</i> <i>"People who are working for longer time, are encouraged to share their relations and things they do".</i>
	Internal communication	Meeting 3 times a year with every member of the team, and every 6 weeks with project leaders.	<i>"Once every 6 weeks, we have meetings with the project leader about hours, finances, and commitment"</i> <i>"Three times a year, I try to have everybody together. It is a group of 24 people. In general, there is open communication. Yet these are all people busy doing their projects outside. So it is always too little time to interact with each other. That is also what they complain about."</i>
Expertise in social work and pro-active attitude towards sustainability	Experienced employees with 20-25 years of work experience		<i>"some people have been with us for 20 to 25 year, who are very dedicated but also very knowledgeable good connecting with people".</i> <i>"The people [in the NME] have been walking around here for 15 years, they know everyone, all the networks, and we are doers"</i>
	Social work background as relevant expertise		<i>"Nelle's background is on social work and art".</i> <i>"A very big quality is that you have to be able to deal with people, the top people I have, is Nelle, is a social worker from her background, others comes from educational</i>

			<i>training. I have people who have a lot of knowledge about nature, greenery, and biodiversity and who enjoy transferring knowledge to others by doing. As a result, they make connections”.</i>
	Commitment and pro-active attitude towards sustainability		<i>“People are motivated because they want to make a change and do something, that is the case for almost everybody here”</i> <i>“They are people who intrinsically live in a certain way in their own lives, are engaged with nature”.</i>

A2 De Groene Belevenis, Leusden

Table 2: coding table De Groene Belevenis with main and sub themes, descriptions and quotations

Themes	Sub-themes	Descriptions	Quotes
Changes in human resources and team characteristics	Temporary hiring of a corporatisation director	Helped in the transition from receiving subsidy from the municipality to other sources. He added additional qualities to the team.	"We had a director who helped us through the corporatisation. He then left because his job was done."
	Relevant role of experienced members in the transition	Relevant role in the transition to become an independent organisation. Contribute in the design of a business plan to perform the transition.	"the intention was that we gradually become less dependent on this subsidy flow and start to raise our own income". "I have been involved in De Groene Belevenis since its inception, been a treasurer within the board all along, always a board member"
	Hiring personnel of support	To lighten the tasks of the coordination team.	"... been able to hire someone for more support. Who does more yes, office support, supporting us with all kinds of chores"
Welcoming and open space	Green surrounding environment	Presence of the "Struin garden".	Observations
	Easy accessibility and open to volunteer participation	Volunteers can participate in the maintenance of the garden and working space.	"And we have a very large group of volunteers who actually mainly provide support in education, so in the lessons, the outdoor lessons, the Struin garden requires a lot of maintenance."
Self-managing team and "clusters"	Absence of team leader	Flat structure. Coordination shared between 3 members.	"So more flatter actually, and more with, yes we call it clusters, so I coordinate my cluster and my other two colleagues coordinate their own cluster. Between them you have consultations and you link that back to the board"
	Division of roles: "clusters"	Work on clusters: education cluster; communication, participation and projects cluster; and internal affairs cluster.	"my colleague does experience and learning cluster (education cluster), I do communication participation and project cluster, and other colleague internal affairs"

	Network of Freelances	Freelances are hired to work for specific projects.	"No, if I have a project with a paid assignment and can't execute it myself, there are freelancers in my network who I say "shall we work together""
	Acquisitions tasks assumed by project leaders	Account management not centred in one director. Coordinators involved in content of projects and finance management.	"Henriette (...) she is acquisitive with the municipality and makes appointments for new things" "small organisations, people have to wear several hats, divide their time between acquisition and projects"
Networking with volunteers	Relevant volunteers support	Around 60 volunteers collaborate with maintenance garden and education activities. These volunteers are important for the execution of tasks. Social cohesion: special events and Christmas meetings for employees and volunteers.	"mainly provide support in education, the lessons, the garden..." "some volunteers have been for 20 years" "Yes, and twice a year we try to organise something special for them like a knowledge outing, and at Christmas there is always a year-end, just trying to keep an eye on that kind of thing"
	Search for volunteers	Through newspapers, Facebook (short films). Main target are elder volunteers.	"we reach through newspaper and facebook" "we had a series of very short facebook films"
Becoming a sustainable centre	Becoming a foundation	The NME is no longer part of the municipality, and they receive a fixed amount "performance subsidy". Performance subsidy: piece of subsidy focused on "supporting sustainable initiative". Supporting sustainable initiatives: mainly focused on broadening participation. Need to find new sources of finance.	"we became a foundation": no longer part of the municipality "we receive a fixed amount ,performance subsid, for which we have to deliver certain performances". "supporting sustainable initiative" "that piece has been an stepping stone to broadening and participation". "to find substantial finance, we had to broaden"

	Neighbourhood oriented	<p>Target and communicate to existing neighbourhood associations.</p> <p>Communication strategies to involve residents: promote and share videos of participants and aim to make open-garden route (use of banners).</p> <p>Reaching and communicating to participants through: monthly newsletter and “mouth to mouth” of volunteers that participate in the garden.</p>	<p>“make video with few residents talking about their own garden”</p> <p>“open-garden route, I am participating” Start small and spread like an oil slick”</p> <p>“A neighbourhood association or community centre or a group of people to start the initial conversation, and who then start the conversation with others more”.</p>
	Broaden from education towards resident participation	<p>Conscious change towards a sustainability centre.</p> <p>Underlying motivation to move towards participation and sustainability: bringing people together to create a “more beautiful society”.</p> <p>Pursue a facilitator role: Oriented to “facilitate residents take action” and “supports neighbourhood associations”.</p>	<p>“And because of this corporatisation and because we also had to find substantial finances ourselves, we also had to broaden. And we developed more towards a sustainability centre. So that you not only focus on education but also on communication, participation and education. Those are our three pillars.”</p>

		<p>Broadening of finance opportunities on top of education activities.</p> <p>The 47% of income comes from projects of the total annual turnover.</p>	<p>“The underlying motivation is of to [build] a more beautiful society” “The motivation of building a society together”</p> <p>“I always say we fill the gap between policy and society”</p> <p>Resident participation: “helping people, facilitating them to take action”</p> <p>“And now it is also something that is needed. Our base is almost half of our turnover comes from fields other than subsidy. We raise those with a piece of entrepreneurship”</p> <p>“The intention that you gradually become less dependent on this subsidy flow and start to raise your own income”.</p> <p>“The income from projects is 47% of the total annual turnover”</p>
	Type of participatory projects	Projects: Tidy Leuden and drainpipes, renew green roofs and solar panels (energy transition).	<p>“With litter, that's a residents' participation project and small part education for schools. That's called tidy leusden, people sign up here, I also respond from my mail address with tidy leusden.”</p> <p>“We are broadening our focus in the energy transition, which is really a main topic where participation and tackling neighbourhoods is very central”.</p>
	Fund and promote citizen’s initiatives	Budget of 8000 euros where residents can come up with their initiatives.	<p>“We actually want you to continue to support initiatives in Leusden and we have a fund of 8,000 euros.”</p> <p>“That's just a very small fund, 8000 euros. And you can apply for 500 euros per activity, there is a maximum and it is not intended to pay for labour costs”</p> <p>“every-year we have about 10-15 initiatives”</p>

	Specific social skills and competences	Organizational talent and connecting with people. Human skills on top of environmental knowledge. Most relevant skills for project leaders: knowledge in sustainability, networking capacity and project acquisition ability.	“above all, must be able to bring people together, organizational talent” “it’s not just having knowledge about something, of a garden or how to do that, but those human skills around it”
Networking with organisations	Collaborations with companies	NME host events from external companies in the gardening space. Specific collaboration with “Heijmans” (building company) or “Kiwanis” (service club for citizens). Challenge: Have a close collaboration with housing association.	“With companies what we do is host employees in the garden” “I also do projects for companies for Heijmans” “because they wanted to build a residential area and wanted to have a green character” “I would like to have much stronger relationship with housing association”
	Aim to connect with private companies	Using social corporate responsibility to collaborate with companies. Companies are required compensate their actions into environmental actions. Change the image of the NME: beyond being a “centre for children”.	“companies had this ideas that we were a centre for children” “But we don’t have an offer that all entrepreneurs can make use of” On the basis of corporate social responsibility: “for example, a climate action day, then we look at which entrepreneurs fit in with that”
	Other revenue sources	Rentals of “stuintuin” garden for parties or rent a classroom for third parties. Tree planting as CO2 compensation initiative for a Rally activity. Working together with “waterschappen”. Additional projects for the municipality.	“if we have other revenue sources, then we can make sustainability education and participation a reality” Related to disconnecting a drain pipe: “That was a project via waterboard...These are very large budgets”

A3 NMCX, Haarlemmermeer

Table 3: coding table NMCX with main and sub themes, descriptions and quotations

Themes	Sub-themes	Description	Quotation
Create personal bonding with residents	“Door to door” approach	<p>Create a personal bond with the NME’s target group by visiting resident’s homes.</p> <p>Personal explanation of the NME’s project to increase citizens’ understanding.</p> <p>Show a positive attitude towards residents.</p>	<p><i>“What I do is visit people at home and put real focus and attention in the contact with people and then they can also become ambassadors, apart from being a participator, and in quite some cases they do.”</i></p> <p><i>“People registered to the program saying they wanted to quit 1 square meter. Then I come and I tell them about the importance of a green garden and then they decide to quit 2 square meters, for example.”</i></p>
	Become an ambassador of the municipality	Adapt municipal policies to citizen’s requirements and needs.	<p><i>“We are the implementing organization of the municipality.”</i></p> <p><i>“Become ambassadors: is personal bonding with the people, your target group, ‘invest in people, in their drives, questions and considerations. Via trust building and continuity create consciousness and mentality change by showing interest/attention.”</i></p> <p><i>“you have to gain trust with the inhabitants, and we also have a very good relationship with the municipality”.</i></p>
	Adoption of a facilitator role	<p>Collaboration beyond monetary aspect: help residents to get rid of the tiles from their gardens.</p> <p>Provide the tools and necessary resources to facilitate resident’s action.</p>	<p><i>“we go all round on the truck to collect those tiles.”</i></p> <p><i>“civil servants have to see you as the solution to their problems.”</i></p> <p><i>“our young ambassadors help people realize to make their piece of public space green.”</i></p>

	Empower and give ownership to citizens	Enhance citizens' feeling of "self-belonging": make use of banners that citizens' can hang outside their garden to share their participation.	<p><i>"Citizen participation, if well organised (a.o in expectation management) is very good because it gives real agency, it gives ownership, it gives social cohesion, it gives, I think, a lot of mental and social health, because you're really adding to the collective effort."</i></p> <p><i>"It was suggested by a participant of my campaign that she would like to show her neighbours she was a participant by hanging a banner at her fence."</i></p>
	Specific projects for participation	Resident participation activities: greening private gardens and tile removing, installing rain barrels, free compost for participants.	<p><i>"Sometimes we do that [buy rain barrels] with the first 50 people to incentivize" "crucial factor is that tiles are collected."</i></p> <p><i>"What we do is construction work, activating residents and social cohesion, getting participation going."</i></p>
	People-minded employees	Anneke has 14 years of experience El Salvador (community health programmes).	
Multipurpose space	Open space that facilitates interaction for employees	Reused old gymnasium/sports gym.	<i>"It is an open space and helps to reach out to other colleagues."</i>
	Sharing the space with external entities	Schools/municipality can hire the place to organise special activities.	<i>"Students slept here for 2 nights because the municipality wanted them to study bats."</i>
	Informing centre for citizens	<p>Presence of a small exhibition about sustainability, climate adaptation, and the SDGs with interactive material.</p> <p>Door is normally open to invite citizens.</p>	<p><i>"But most of them read a newspaper article and stop by. My other colleague usually attends them when she is here."</i></p> <p><i>"Workshop for neighbours on energy and we invite them here and give them information/presentation on the screen."</i></p>

			<i>" we give participants their 'goodies' at the gym and also inform them and answer questions."</i>
Marketing	Digital marketing	<p>Share initiatives on local neighbourhood Facebook group.</p> <p>Mailing: send newsletters from the NME to explain events and workshops.</p> <p>Registration forms.</p> <p>NME's updated and clear website.</p> <p>Recent creation of a activity-related video: citizens share their experiences on participating in different projects.</p>	<p><i>"I use a Facebook account. There are a lot of neighbourhood Facebook groups and I share my items there. That's how you can really reach a lot of people."</i></p> <p><i>"Newsletters from the nme on the different themes, all the people receive the information about this new campaign starting, and then there's the Facebook page and the nmcx website."</i></p> <p><i>"people fill in a form so they give the information whether they want to receive the mailing. So, that form of marketing is all privacy protect. People let us also know whether they want to give their telephone number."</i></p>
	Traditional marketing	<p>Word-of-mouth.</p> <p>Post banners in public spaces.</p> <p>Participation in the radio.</p> <p>Collaboration with newspapers.</p> <p>Distribution of flyers.</p> <p>Attend in local markets and community events.</p>	<p><i>"We give local radio interviews. Yesterday Lisette (communication colleague) sent a press note to the local press. The messages are in the paper, and there are regular communication moments with the local press."</i></p> <p><i>"that's the Flyers which are physically and digitally spread."</i></p> <p><i>"Lot of people know it also via their neighbours. So, people from the same street or from the broader neighbourhood. Or either family or friends."</i></p> <p><i>"I started visiting info markets. Where I explain our programs at NMCX."</i></p>

	Increase knowledge on marketing within the NME	Workshops directed to the NMEs employees.	<i>"we invite someone, an external person, who has a nice story about behavioural change or marketing."</i>
	Elderly as an initial target group	Start with the easiest group to reach because of time availability.	<i>"We start with what we call in Dutch, the low hanging fruit. So, the easy target groups, the demographics that are basically the people that are already interested because you want them at least connected; you don't really need to convince them, but they often do need some small nudge(s) to start participating."</i>
Efficient internal communication	Formal meetings	Meetings with colleagues.	<i>"once every 2 months we have meetings with other colleagues."</i>
	Informal meetings	Employees frequently interact and meet in the workspace. The director is easy to reach.	<i>"If I need somebody from another department we work together, maybe it would be nice to make it more formal and exchange knowledge." "she's really from short lines, so just giving a call is something she stimulates. You can also mail her and she will always react quick, also just to let you know that she is busy and will come back to you later; clear reachable communication."</i>
	Shared online platform	Through these platform, employees update their work.	<i>"the projects are being monitored and updated on the SharePoint, it also makes the physical meetings, not such a very strict protocol because she can always see how you're projects are going on the sharepoint environment."</i>

	Trustworthiness between employees and the director	High level of trustworthiness that reduces the need of constant communication and checking.	<i>"Actually, when there's not a problem, you just go and you're working and sometimes you give small brief up of how it's going. If she sees all is going well she has all the trust. So there's a high level of trust/ freedom to work on your projects."</i>
	Role of the director and influential leadership	Director with a long experience in the NME, since 2012. Long-term support of the director. Capacity of having good organisational skills: finding the adequate people for specific themes.	<i>The interviewed people showed appreciation and respect for the director.</i> <i>"you have to organise it so that if you can't do something yourself, you have people around you who can do it."</i>
Freelancers as employees	Positive attitude from the employees	Enthusiasm, complementary work, work together, productivity , energy, intrinsic motivation of all the NMCX employees.	<i>"I do like a lot working for nmcx"</i> <i>"working atmosphere and the working ethics right now I would say are very good."</i> <i>"I really feel there's a lot of constructive and productive energy in the freelancers and the colleagues, and there's sensibility to work together too, to be complementary to each other, instead of competing on these different topics. I think this cooperating modus amongst the freelancers has also grown the last 2/3 years."</i>
	Freelancers because of lack of funding	Most employees work as freelancers to adapt to a lack of funding and project continuity.	
	Clear amount of working hours	Number of hours are clear per project.	<i>"we get an amount of hours for a project or theme cluster and then the nmcx gives us indeed a level of freedom to form and to organize the project according to our own vision/style."</i>

	Freedom given to employees increases efficiency	Director gives employees freedom in the design of projects.	<i>"freedom within guidelines which makes it great because then you can really work conform your own temperament and conform your own way of logics/ method."</i>
	Responsible for evaluating their work	Quantity: increase the amount of people participating. Quality: manage the continuity of the projects.	<i>"I think continuity is very vital aspect. Actually it's I would say one of the most important things, apart from trust, and a solid investment in the start of working with the people, citizens, various 'stakeholders'."</i> <i>"I want to scale up in terms of amount. I want to scale up in terms of quality. So amount is more participants, quality is more a guarantee of continuity, so more events to inform people and consolidate the developed knowledge and consciousness concerning sustainable green."</i>
Networking with organisations and volunteers	Collaboration with the municipality	Public funding from the municipality is key. Expand collaborations with surrounding municipalities.	<i>"The municipality is your [our] base" .</i> <i>"Also on the level of policy, for example in exchanging developments in the concerning fields, playing the part of 'the voice of reason' towards the citizens, which implies to intermediate and co-inform in how the municipality communicates their policy."</i>
	Collaboration with private companies	Examples of collaborations: companies in industrial areas, Duravermeer (linked to the water adaptation project), the Vlinder Stichting foundation, Gamma, ecological plant nurseries.	<i>"Different programs, to which we link different partnerships"</i> <i>"We can also work in Aalsmeer or Sassenheim."</i> <i>"We work in between 15-20 municipalities"</i>

A4 Duurzaamheidscentrum Assen, Assen

Table 4: coding table Duurzaamheidscentrum Assen with main and sub themes, descriptions and quotations

Codes	Sub-themes	Description	Quotation
Attractiveness of the centre	Accessible and inviting	Many visitors throughout the year.	<i>"we have about 45,000 visitors a year."</i>
	Close to nature	Spacious and close to the forest.	<i>"close to the centre are close to the forest, close to like a hotel and other popular centres. So it's a very good place."</i>
	Includes a café	Attract walkers to go to the café, have a walk and discover the NME.	<i>"the centre is next to a forest. So we have a lot of people who just go walking in the forest and then drink a cup of coffee in our, how you call it? Small cafe. In our small cafe and then they see a lot of things and they maybe go walk around a little bit and they get triggered because of its because of the fun."</i>
	Petting zoo	Attract children and families with the petting zoo at the centre.	<i>"So we have four people managing the small petting zoo. Let's call it a petting zoo. We have two people on education. So what Loes just told teaching primary school classes."</i>
	Location benefits employees as well	Employees can go for a walk, this contributes to a better working environment.	<i>"Yeah, we're very happy with the location happy with. Yeah. Now it so takes a walk ourselves. So it's nice now. It's really perfect. Yeah. I wouldn't change anything."</i>
Expanding the target group step by step through marketing	First reached is the low hanging fruit	Start with a small project and small target group and make it grow.	<i>"Our strategy is to start small and make it big so we can attract people with small things like in the centre and schools come our way."</i>
	Broad target group	Broad target group, wanting to have everyone as target group. Different ages, levels of income.	<i>"So we have like a very broad scope of who we want to connect with."</i> <i>"It would be nice to reach the broadest spectrum of people in Assen. On different subjects. So I think we reach a lot of people but maybe not everybody. And it would be nice if we could reach everybody."</i>

			<i>"all the classes are for primary schools with high schools we do a lot of projects or we do some projects. And the projects in the neighbourhoods are also for adults, for children, for grandparents, it's we want to, yeah, have everybody involved. So also, if you have like a large wallet or if you have a small wallet."</i>
	Target group still broadening	Involve different target groups for participation over time.	<i>"So I don't think the message has changed, only like the target groups." It would be nice to reach the broadest spectrum of people in Assen. On different subjects. So I think we reach a lot of people but maybe not everybody."</i>
	Social media	Instagram and Facebook from NME. Facebook page of the municipality.	<i>"Now we have the Communications Department of the municipality. They use social." "So we have our own communications platform and we mainly use Facebook and Instagram for that." " we do have people especially for the use of the social media."</i>
	Word-of-mouth	The chain reaction to stimulate participate among citizens has been challenging.	<i>"busy with participation it would be really nice if all those people are connected to each other so they can help out each other."</i>
Make it fun for citizens to participate	Personal contact with citizens	Personal informal contact with citizens by visiting and organising events.	<i>"with my projects with reaching all the adults in Assen I go to the neighbourhood then you're really in their neighbourhood and very close. You make it very easy, but also with the way like there's a party. And then we go talk to them, it's easy access to have people in the right mindset." "For example, I go there with a little, yeah. If there's a party in the neighborhood, we go there and we give them plants and then go in conversation with them about how their garden looks."</i>
	Breakup SDGs	Every project is linked to the SDGs, but the SDGs are broken up into smaller goals where citizens	<i>"own plan making that if we have a plan and we have it on paper, then we also acknowledge the global goals it's contributes to."</i>

		<p>have the feeling they can contribute, to motivate and engage them.</p> <p>Small steps and bigger impacts.</p>	<p><i>"So people feel like they don't have influence on such a huge subject. So we try to push the smaller things and connect them to the global goal so people feel like they have influence in their own region or their own home."</i></p> <p><i>"So even doing small things has a big effect in the end. And no, don't make them scared and want to hide under a rock."</i></p>
	Fun-based activities	Playful activities.	<i>" And money is one of them, making it very easy is one of them, be in your communication is one of them. Make it fun."</i>
Relevant capacities to enhance citizen participation	Networking capacities	Networking to create new projects and funding to create participation.	<i>"like the competence of the team is the networking ability that makes it possible to go along and showing what we can do and what we can contribute. So in that sense and now this year I got more money because they were happy."</i>
	Teamwork	Working as a team.	<i>"I think the team is most important."</i>
	Entrepreneurship as a nice to have	Entrepreneurship is not a priority but is always good.	<i>"We don't actively use it, but we do have a big network of other organizations. That's how we do come across it."</i>
	Responsibility of employees in budgeting and acquisition	Each team is responsible for their own budgeting and acquisition.	<p><i>"We have different projects, have different project budgets. And people in the project groups are responsible for for the budget."</i></p> <p><i>"Everybody keeps off with, keeps up with the news and with relevant new subjects."</i></p>
	Proactive and active communication	People should be people minded and good in communication. To hire a new employee, they would prefer communication skills to be highly valuable.	<p><i>"Communication is very big one. Because most of the things we do are about communication in one way or another."</i></p> <p><i>"have to be really people minded."</i></p>

			<i>"No, I wouldn't really say we're looking for a certain profile. The competencies just named are the most important thing in hiring new people. And it doesn't really matter what kind of person it is."</i>
	Eager to learn	The attitude towards learning is very important, when hiring new employees, the team prefers quality to learn than knowledge.	<i>"I would say the willingness to learn is more important than having the knowledge. So a willingness to learn, to learn with the right competences. I would rather hire that person than a person without the competences and a lot of knowledge."</i>
	Creativity to overcome limited available time	Employees working for a few hours and sometimes employees are temporary. Creativity helps to counter this problem.	<i>"we have like a pretty small team with a pretty small amount of hours."</i> <i>"we started small and that way we had to be creative with how we do things."</i>
Frequent in person meetings of the teams	Face-to-face	One office with all the employees.	<i>"And we work with that in the same office place so. We see each other daily."</i>
	Work together when overlapping work	Meet when topics overlap. Combination of the role of the individual and teamwork.	<i>"Sometimes people function in their own role and sometimes we ask each other for help to make it more rounded."</i>
	Frequent regular formal meetings of the whole team	Once a week, there is formal meeting with the whole team. Also meetings within teams.	<i>"We meet weekly with the whole team. Every year Thursday. And within projects, we also have meetings."</i>
	Positive approach to manage internal conflict	Solve it as a team.	<i>"Well, that doesn't happen very often but we tried to solve it as a team. Most of the time, everybody in inside the team of the sustainability center is very likeminded. And so we don't really have big conflicts here."</i>
Like minded employees	Similar mindset	The employees are like minded so there is not a lot of conflict, everyone is on the same page.	<i>"Most of the time, everybody in inside the team of the sustainability center is very like minded. And so we don't really have big conflicts here."</i>
	Freelancers	Freelancers come temporary to give workshops or organise activities.	<i>"we work with freelancers because we don't give all those activities ourselves."</i> <i>"someone that guides the workshop."</i>

	Volunteers	Volunteers help from the outside.	<i>"we have, like, volunteers in the building. So yeah, that way we have like, a little team with, with help from outside."</i>
	Expanding workforce consciously	Conscious decision towards change by hiring new employees and expanding manpower.	<i>"my previous team manager made a conscious decision to hire me and then later now we have another colleague. I was like more for your own environment, but I now have a colleague who works with the public environments, how people can contribute"</i>
Perks of being embedded in the municipality	Municipalities workshops	Workshops by municipality to educate employees.	<i>"we always keep a keep ourselves educated and you follow what's new."</i> <i>"we have a lot of training possibilities within the municipality."</i>
	Extra employees	Overlapping employees between NME and sustainability centre.	<i>"I'm interim team manager at the municipality of Assen and then at the sustainability centre."</i>
	Hierarchy	The municipality gives a clear structure with hierarchy to the NME .	<i>"We call it, secretaries. Which is kind of the CEO of the municipality on the top, then the layer of concern managers, then team managers. And below the team managers, the different teams of which the sustainability centre is one."</i> <i>"we are part of the municipality of Assen. So there is our hierarchy, but we have a mixed team."</i>
	Political support	Politics/municipalities are very involved in citizen participation and sustainability, which helps the NME and gives a positive view of the future	<i>"the politics in Assen are really into the subject. So into the inhabitant participation and sustainability. So I think the future will be bright."</i>

Collaborate for a purpose	Organize projects together	NME adapts to the municipality and municipality adapts to the NME to organize projects together.	<i>"it is to not organize everything ourselves. But to also ask other teams from the municipality what they're doing, if we can connect with their projects or the other way around, if we organize something, they connect with ours. So you don't have to always do, as our center everything yourself."</i>
	Subsidise other organisations	The NME gets funding from the municipality that can spend by subsidizing other organisations.	<i>"we have a we're subsidizing the "Drents landschap". We did that with a contract for four years."</i>
	Sharing employees	Employees of the NME are also employees of collaborators.	<i>"And they have like a person in our team. So that's a different organization, but we work closely together. So the hierarchy in that way is different and also in our building there are a lot of partners of other organizations we work together with."</i>
	Sharing expertise	Collaborate with other organisations to exchange knowledge.	<i>"Which is yeah, a nature organization. Yeah, they also have a place in the center here. They get, uh, subsidized from the municipality. And we work very closely with them. That's just one example."</i>

A5 Ulebelt, Deventer

Table 5: coding table Ulebelt with main and sub themes, descriptions and quotations

Themes	Sub-themes	Description	Quotation
Specific projects to enable citizen participation	Baby trees	Saving and giving baby trees to citizens.	<i>Printed documents from the Ulebelt</i>
	Food cooperation	Getting people to buy local food together.	
	Groene Loper	Making the citizens create a greener neighbourhood.	
	Rainwater disconnection at households	Disconnecting rainwater from sewage.	
Grouping of individual citizens to work together on a theme/topic	Combining individual strengths	Reaching more people because of this method, they are combining the strengths of people by letting them work as a team.	<i>"Society is individualised. So, environmental communication focuses on what is the action perspective of an individual citizen (...) Whereas what we therefore see now, we then bring a group of people together, for example in the neighbourhood or within a sports club, together they are much more effective."</i>
	Creating the sense of ownership	Citizens need to create, build, and experience together to realise something.	<i>"They have to experience it themselves, build it themselves, create it together. Then you can really realise something."</i>

	Organising activities which people like and fits them	Attracting citizens with fun and cosy activities.	<i>"And you have to make sure you make it a bit fun and cosy, attractive. And also that together with people you can really look for what suits you. So that it also becomes feasible for you to participate."</i>
	Ulebelt has a facilitator role for citizens to work in teams.	The NME reaches the people for the municipality. Ulebelt brings people together and make sure they take action.	<i>"They need to do something, but how do we reach them. Well then they come to us and say: help us ulebelt. Then we say well that's good, and then we are going to bring those people together and make sure they start moving."</i>
Relevant capacities to enhance citizen participation	Hiring people with communication capacities	<p>Hired a working student who will communicate about the projects. Ulebelt wanted a communication officer, but could not afford this because of the lack of funding.</p> <p>Citizens are reached by social media: Facebook & Instagram, LinkedIn, Twitter, Youtube.</p>	<p><i>"And now I have hired a working student who will communicate about those projects."</i></p> <p><i>"One of the things the SME report says is that we should preferably have a separate communications officer for that. But well, we don't have the money for that."</i></p> <p><i>"And instagram and facebook are more for the supporters."</i></p>
	Expanding employee's knowledge through learning programs	Learning the whole school approach.	<i>"Two staff here attended training at SME on the whole whole school approach."</i>
	Entrepreneurial manager	The director can help the Ulebelt to be more financially independent.	<i>"What we need is a very entrepreneurial director. Who can also supervise the transition phase."</i>

		<p>Opportunity to collaborate more with companies.</p> <p>Entrepreneurial thinking.</p>	<p><i>"I would like to work more with companies (...) This is very useful if you want to set up a participation track and get people moving to do something."</i></p> <p><i>"turnaround towards commercial thinking."</i></p> <p><i>"create as many connections as possible with association, neighbourhood organisations, to ultimately say that Ulebelt's role is much bigger than just educational."</i></p>
Efficient division of employees in the team	<p>Clear team roles with domains</p> <p>Active board members</p>	<p>11 part-time employees</p> <p>Team leaders have their own domain, and exchange knowledge extensively.</p> <p>Board members are involved with the activities to help with the workload.</p>	<p><i>"Well, we have different domains. The cooperation is then at the level team leaders for each domain and they have quite intensive exchange."</i></p> <p><i>"Board members are involved in one way or another with all kinds of activities."</i></p>
	Network of freelancers	The NME works together with freelancers.	<i>"No those are employed people and in addition to that we also use a number of ZZP'ers, yes."</i>
	High work pressure causes a need for efficient use of work hours.	High work pressure because of loss of director.	<i>"Look we have a high workload (...) The director is away since December last year."</i>
Networking with organisations	Clear communication with municipality	<p>Vision of NME is clear to the municipality.</p> <p>The Ulebelt did a MAEX analysis which shows your worth in the projects you undertake. They showed this to the municipality.</p>	<p><i>"Well they neatly wrote down what we already knew ourselves. But anyway, it is important that sometimes an external party tells the municipality: things could be different."</i></p> <p><i>"Well, to the municipality, yes we wave that to the municipality."</i></p>

		Facilitator role of the Ulebelt between municipality and citizens.	<i>"You have to guide them, and you have to be able to create connections between indeed the government and those grassroots initiatives."</i>
	Collaborations with energy cooperative to make climate related issues more aware to citizens.	Sustainability centre in Deventer is an initiative from energy cooperative and Ulebelt provides awareness on a number of sustainability topics.	<i>"Sustainability centre as Estella just put it, is an initiative of the Ulebelt and the energy cooperative and where they focus on a number of topics."</i>
	Active attitude to attract companies: Campaign to engineering offices	Ulebelt wanted to collaborate with engineering offices and reached out to them.	<i>"We did a campaign towards the engineering firms: Tauw, Witteveen en Bos, and Auping and so, companies that have something to do with sustainability."</i>
	Knowledge exchange by NMEs and learning from each other.	Knowledge exchange on platform on specific themes, like waste. Exchange materials and experience.	<i>"On a specific theme, you then look for a number of parties who want to work on that theme. You then exchange materials and experiences."</i>
	A good image is important for attracting organisations.	The image of the Ulebelt can still be improved.	<i>"ah such an Ulebelt then you can, you can also see those animals on the farm" that kind of comment and we could build housing there too."</i>
	Reaching clients through social media	LinkedIn and Twitter.	<i>"And then she starts processing that for twitter and linkedin in particular because that's where our target group of clients is."</i>
Towards more financial sources to break-even	Cost-covering tasks	Guiding people with distance to labour market/disability, catering business, projects.	<i>"Because those 3 tasks, KiBo (children's farm) and grounds are not cost-effective, we have developed additional activities. And as 3de we have the catering business."</i>
	Clients that are collaborating with Ulebelt	Municipality, water board and own projects. Province of Overijssel	<i>The municipality, water boards. "on the other hand care, guiding people who have a disadvantage on the labour</i>

		Sportclubs	<i>market or have a disability. And they also help out at the city farm."</i>
		Care organisation	

B Interview guide

Introduction

- Introduction team and interviewee
- Confidentiality, recording, usage of names
- Use information for the report
- Presentation 24/10, 11:00 in Wageningen University

Presentation of research

- Background information
 - GDO, René, Jolanda etc.
 - If you do not know the answer, or think someone else can answer a question better, then let us know
- Introduce change
 - The (insert NME) has been acknowledged by the GDO as one exemplary NME in taking new steps towards citizen participation.

Characteristics of NME

- How is your NME structured in terms of hierarchy?
- Are you familiar with the other innovative NME centres?
 - In which ways do you differentiate from them?
- Do you work with free lancers (zpp'ers)?
 - Why did your organisation chose to work mainly with free lancers?
 - How many of your employees are paid, and how many are volunteers?
- How is the relationship between employees and freelancers, and between the freelancers themselves?
 - Do they know each other well?
 - Do they meet on a regular basis?

Citizen participation: what, why, since when?

- How would you define citizen participation?
 - How do you measure citizen participation (e.g., logbook, social media)?
 - How many people within the organisation are currently working on citizen participation?
- What is your target group and which target groups do you still want to reach?
- Why do you engage in citizen participation?
 - What do you want to achieve with this transition?
 - What was the driver for this change?
- How do you reach citizens (communication/events)?
- What do you think you need as an NME to have citizen participation?
 - What about competencies (knowledge and skills)?
 - What about funding?
 - What about strategies?
 - What about communication?
- How do you make sure that your employees have the right skills and knowledge?
 - Do you give any guidance or workshops?

Organisational changes

- Has your vision changed with the change towards citizen participation?
- What changes did you already make to realize this movement from solely education to also include citizen participation?
 - Do you consider these to be long- or short-term changes?
 - Do you think these were conscious decisions or did it just happen?
 - Do these changes affect the whole NME or only some members?
- Do you use SDGs in your organisation?
- What do you think of entrepreneurship in relation to engaging in citizen participation?

- Is this something you do at your organisation?
- What are the responsibilities of the employees in terms of business (e.g., handling budget, networking, (declarable) working hours)?
 - Do you guide them in this process?
- Do you have any business-related team(s) (e.g., acquisition team)?
 - And do plan to implement this in the future?
- In terms of communication, do you make any use of social media (e.g., Instagram, TikTok)?
 - Why and when did you decide to do this?
 - Who is responsible for this?
 - Can you see any results because of this?
- We have now talked about organizational changes, which outcomes did you achieve, or do you plan to achieve?
- How do you quantify/measure the outcomes of these changes?

Challenges

- What challenges do you face regarding citizen participation?
- What are other sources of income besides the municipality?
 - Which sources of income do you want to pursue in the future?
- Do you think that the image that your NME currently has is a challenge to engage in more citizen participation?
- How do you handle conflict/frustration within your organisation?
 - How do you handle conflict with citizens?
 - Do your employees experience a high workload/tensions?
- Do you experience any trouble with regulations (from municipality)?
 - How do you solve this (e.g., hiring an expert)?
- Do you face any problems hiring new people?
 - Do you consider inclusiveness when hiring (e.g., competences)?
- You mentioned that you are looking for a new director, do you think this will affect your ambition to become more participatory?
 - Is participation part of the competences of the job description?

Collaborations

- Which parties do you currently work with (outside the municipality)?
 - How are they involved in the projects?
- What opportunities do you still see in terms of collaborations to enhance citizen participation (others mentioned housing corporations, VVE, councils)?
- What is your strategy when approaching businesses?
 - Do you mention corporate social responsibilities (maatschappelijk verantwoord ondernemen) when contacting businesses?
 - How do you convince them to work with you?
- How do you make sure that collaborators trust you, and want to work with you?
 - Do you quantify your impact (e.g., MAEX analysis to quantify impact on SDGs)?

Conclusion

- We have talked about your organisation, but where do you want to be? Where is it moving towards? How close are you to your “end goal”?

Check-out

- Q&A from them to us
- If questions still pop up, can we email them to you?

C Mentimeter results



Figure 13: picture 1/7 Mentimeter results



Figure 14: Picture 2/7 Mentimeter results

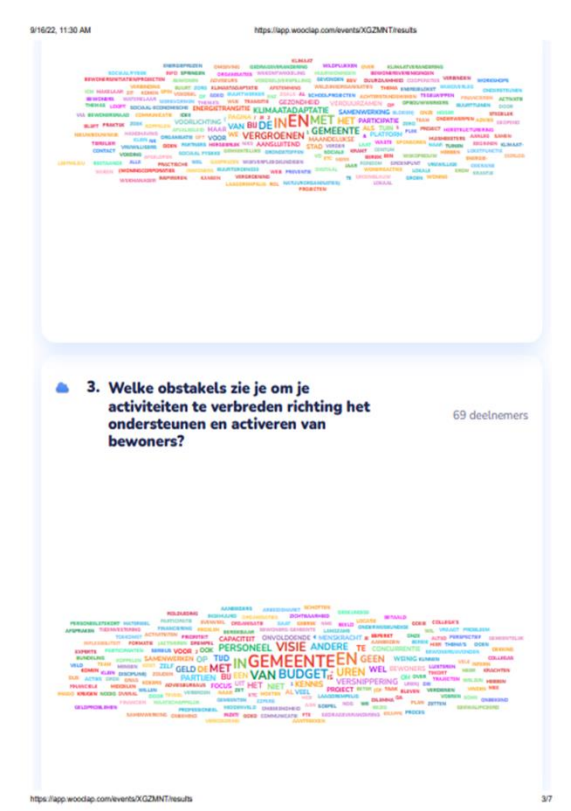


Figure 16: Picture 3/7 Mentimeter results

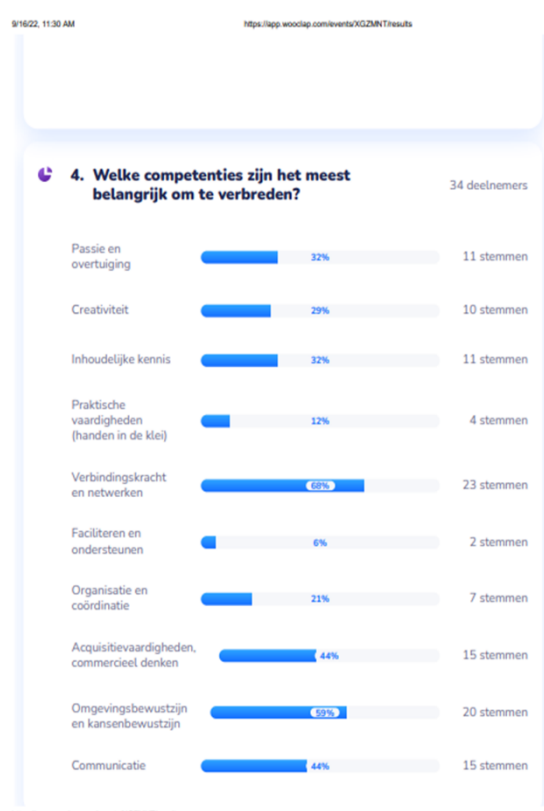


Figure 17: Picture 4/7 Mentimeter results



Figure 18: Picture 5/7 Mentimeter results



Figure 19: Picture 6/7 Mentimeter results

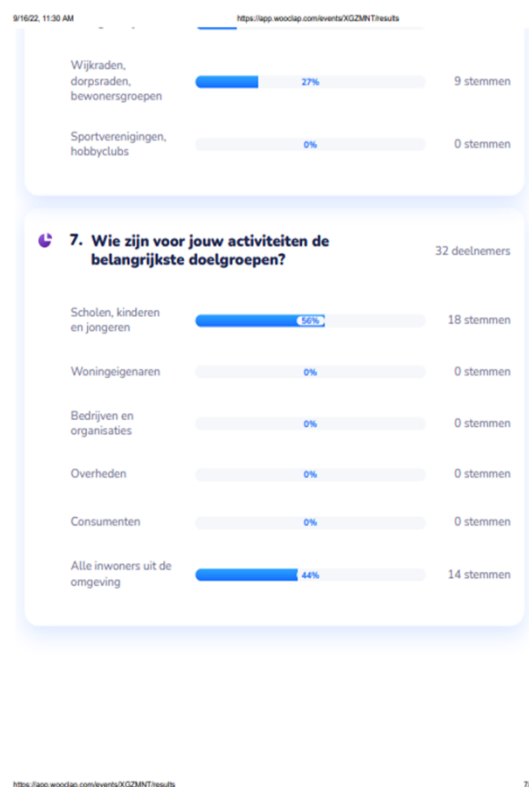


Figure 20: Picture 7/7 Mentimeter results

D List of respondents

Table 6: Overview of the interviews conducted

NME	Date of interview (dd/mm/yy)	Respondents and their role	ACT team members who conducted the interview
CNME, Maastricht	29/9/2022	Anouk Viegen: Director	Zoë, Eudald, and Tara
		Nelle Driessen: Project leader greening schoolyards	
NMCX, Centrum voor Duurzaamheid, Haarlemmermeer	3/10/2022	Anneke van Gijzen: Project leader	Annabelle, Eudald, and Sharmin
	6/10/2022 (MS Teams)	Mariken Straat: Project leader	
De Groene Belevnis, Leusden	6/10/2022	Henriëtte Former: Project leader and co-director	Zoë and Tara
Een plek voor iedereen – Duurzaamheidscentrum, Assen	10/10/2022 (MS teams)	Joep Kwak: Team manager	Sharmin and Tara
		Loes van Zoggel: employee	
Ulebelt – Natuur- en milieueducatie & kinderboerderij, Deventer	10/10/2022	Jorrit de Jong: Chair Estella Franssen: Project manager	Annabelle and Jori