

Social Smart City - A Dream or a Reality? An Exploratory Case Study of Hamburg

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ABSTRACT

Cities in today's world face many challenges with regards to participatory governance. The smart city concept aims to provide an approach for cities to tackle the problems and provide a better and more sustainable place to live. Especially the role of smart governance has received attention in this concept, however participatory governance has changed drastically with the emergence of information and communication technology (ICT) and Web 2.0. This research paper will analyze to what extent the Free and Hanseatic City of Hamburg utilizes digital strategies to involve citizens and enterprises into the decision-making process to become a smart city. The strategies used by the city of Hamburg will be taken under investigation through two qualitative interviews with experts in the field of governance and communication. The major findings of this research are that Hamburg has adopted many smart strategies classifying it as social smart city, namely through the Transparenzportal, the Stadtwerkstatt, its broad communication channels, the participation in phase zero, the international networking projects as well the Smarticipate project. Furthermore, this study shows that three strategies adopted by Hamburg namely digital consultation strategy, crowdsourcing strategy as well as open innovation strategy are still not fully embracing the opportunity to raise the standards of living and the innovative ecosystem in Hamburg.

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Keywords

Smart city, Participatory Governance, (Smart) Governance, Digital Strategies, Innovation

1. INTRODUCTION

A trend is sweeping across the globe. People around the world are moving away from the countryside into towns, cities and metropolitan areas in the hope for better living. New technologies, greater job opportunities, better health care services as well as educational and cultural institutions provide people with great stimuli to be drawn towards urban communities (Drakakis-Smith, 2012). This profound shift known as urbanization has taken place within the last century. In the beginning of the 20th century only 12 out of 100 people lived in urban areas (Cohen, 2003). For the year 2050 it is anticipated that two-thirds of the world population will be living in cities (Niaros, 2016; World Health Organization, 2016). The urbanization rate of cities within the European Union has exceeded the estimates of two-thirds of the people living in urban areas. In the year 2010, already 75% of all EU citizens lived in urban areas and it is anticipated that in the year 2050 this number will increase to approximately 85% (Caragliu, Del Bo, & Nijkamp, 2011). From these numbers it becomes clear that metropolitan areas can be considered as an economic driver of a country and their importance is going to rise in the future.

However, rising migration implies rising challenges. With the huge amount of new city dwellers, cities have to cope with numerous complex and major problems. Particular problems arise in the topic of providing affordable living space, protecting the natural environment and its natural resources, health conditions, social cohesion and individual rights (Cohen, 2006; Gil-Garcia, Pardo, & Nam, 2015). These problems have a huge impact on a city's ecosystem and governments need to find solutions that provide inhabitants with an attractive and organized city. To solve these problems adequately, cities need to rethink their way to pursue a better future.

Here a recent approach called the smart city concept emerged and received much attention by scholars interested in sustainable and innovative city development. In a smart city new technologies and resources are connected in an intelligent and coordinated manner to develop sustainable, citizen-friendly and integrated urban centers (Barrionuevo, Berrone, & Ricart, 2012). In these urban places the resources and technologies are inherently getting connected with each other. This derives from the possibilities of the internet allowing real time tracking and fast communication networks. The concept tackles many different angles of a city and tries to establish its smartness within each angle, which ranges from connecting data and machines with each other to connecting traffic (Giffinger & Pichler-Milanović, 2007). But also, and in this paper most important connecting humans into the smart city. Within this concept governments need to interact closer with citizens and other stakeholders. So the role of the government from a leading authority to a contributory partner changes (Gil-Garcia et al., 2015). Since the world is changing in such an increasing speed, cities have to rely on new forms of cooperation and innovative tools in order to move the overall city forward and move away from the problems towards new possibilities to change. However for governments it is very difficult to keep up with new trends, due to old regulations and laws which do not support the implementation of new technologies (Kettl, 2015). Especially the internet provides a great source that facilitates connecting all involved parties with each other. Through Web 2.0 and social media people, companies and public authorities can easily connect with each other and can work closer together to create and cooperate in a way that has not been possible before (Schaffers et al., 2011). The transformation of governance will change in the future and will further move to more co-creation among all stakeholders involved (Granier & Kudo, 2015). Co-creation and interacting

with all stakeholders are all parts of a new concept called participatory governance. It mainly integrates digital strategies considering particularly the opinions of people in governmental decision-making processes. It is embedded into the smart city concept, within the smart governance dimension. The overall smart city concept has received growing attention from academics, big technological companies as well as future-oriented cities that perceive the need and wishes for new and innovative approaches. However, even academics have not realized the real potential of digital strategies and thus cannot provide fundamental support on how governments should communicate with citizens and companies effectively in order to become smarter. In Europe many well-known cities are trying to implement the smart city concept into their practices and partly have established themselves as leading examples in particular areas, e.g. Barcelona, Copenhagen, Amsterdam to name a few. One European city which implements many different strategies within its governmental structures in order to become smart is the city of Hamburg. Recently, Hamburg has been ranked in the Top 10 smart cities of the European Union by Cohen (2014) and within the study range they reached first place under all German cities. Especially in the category of smart governance Hamburg gathered remarkable credits compared to the other cities ranked (IDC, 2012) classifying Hamburg as a great benchmark. Besides that, Hamburg offers a high standard of living having been ranked under the Top 20 livable cities globally by Mercer (2016) and second highest of all German cities by Numbeo (2016). Thus it seems particularly interesting to find out how the city of Hamburg has developed their digital communication of smart governance. Therefore, the following research question is going to be taken for closer investigation:

To what extent does the city of Hamburg utilize digital strategies to involve citizens and enterprises into governmental decision making in order to become a smart city?

The aim of this research paper is threefold: Firstly, the author wants to shed light on how the city of Hamburg is currently practicing its application of smart growth and particularly in the government section. Secondly, to provide insights on what digital strategies to pursue to become smarter in governance, and thirdly develop a basis for cities who are interested in developing participation with citizens and companies into a smart(er) future.

This research paper is going to be structured as follows: Firstly, a critical literature review will be conducted as reference point for a description of key definitions and concepts as well as identifying the gaps in literature. Next, the chosen methodology for retrieving qualitative information is explained. Subsequently, the case study setting of the Free and Hanseatic city of Hamburg and its current project and motives why Hamburg is globally well-known for its good governance will be described in more detail. Fourthly, the results of the two in-depth interviews will be elaborated, followed by an analysis section in which the major findings will be presented. Finally, a conclusion and discussion section as well as limitation of this research and further recommendation will be presented.

1. LITERATURE REVIEW

2.1 Smart Cities

2.1.1 *The Smart City Concept*

In recent years a new city model, called smart city, has emerged and has gained attractiveness among many scholars (Caragliu et al., 2011; Chourabi et al., 2012; de Jong, Joss, Schraven, Zhan, & Weijnen, 2015; Granier & Kudo, 2015; Hollands, 2008; Niaros, 2016; Schaffers et al., 2011; Van den Bergh & Viaene, 2016; Zubizarreta, Seravalli, & Arrizabalaga, 2015). As Van den Bergh and Viaene (2016) have pointed out is the smart city concept closely related to existing and older concepts such as eco-city, digital city and wireless city. The concept goes even back into the year 1989 as Castells (1989) points out, where the concept of an informational city emerged, due to the launch of technology and its potential of transforming the cities. Plenty of new city categories have entered the policy discourse within the last decades, namely sustainable city, green city, livable cities, digital cities, intelligent cities, knowledge cities, information cities and resilient cities (de Jong et al., 2015).

However, one concept that is fundamentally on the rise is smart city concept, which received greater attention due to globally and nation-wide competitions and strategies in order to develop and restructure the current cities landscape. For example the European Union launched its biggest funding strategy called “Horizon 2020“ in order to create a more intelligent, sustainable and integrative economy within Europe (European Commission, 2015). The strategy contains many goals over different areas from lowering the unemployment rate, to improve education and to preserve the environment. On environmental issues its major goal is to achieve a 20% reduction in greenhouse gas emissions, a 20% improvement in energy efficiency and to generate 20% of the EU energy consumption from renewable energy sources. The objectives of the Horizon 2020 strategy are clearly defined but might create difficulties for cities to apply effectively (European Commission, 2015). Thus, an approach that provides better guidelines and recommendations to follow is needed in order to prepare and develop for the future ahead.

The smart city concept helps to resolve this problem by providing a guideline for the future. As Zubizarreta et al. (2015) point out, the smart city model helps solving the main issues of cities and attempts to avoid the new issues that will come, like population-related problems, mobility and environmental issues or energy problems. As pointed out by Network and Association (2002, 2003), the smart city concept improves the city socially, environmentally, economically and sustainably. According to this statement the smart city concept changes the city in multiple areas at the same time. Even de Jong et al. (2015) highlighted that a city has to interrelate social, economical and environmental dimensions with each other to keep the overall city in balance and create a mutually beneficial way for everyone. Hence, the objective of cities is to focus on balancing and providing mutually fitting solutions. A very holistic definition of the smart city has been provided by Caragliu et al. (2011). According to Caragliu et al. (2011, p. 70), a city can be called smart “when the investment in human and social capital and traditional (transport) and modern (ICT) communication infrastructure fuel sustainable economic growth and a high quality of life, with a wise management of natural resources, through participatory governance”. This definition highlights a holistic and integrative approach that is firmly based on human desires and actions to achieve a better living. The smart city concept is a long term approach which can not be realized in one single election term. That is why many authorities from the European Commission to the cities governments have offices being responsible for the implementation of the smart city concept into reality.

In order to achieve the goal of becoming a smart city, every city needs its own individual vision. Albino, Berardi, and Dangelico (2015, p. 1725) say that there “is neither a single template of framing it, nor a one-size-fits-all definition” on what a smart city should look like. Every city has its own unique characteristics and challenges, so there is a need for a tailored action plan on what goals should be achieved and how they will be implemented. For example smart cities in Japan are mainly focusing on a technical-intensive approach like smart grid technologies (Granier & Kudo, 2015), whereas cities in Europe, like Amsterdam, Copenhagen, Manchester and Milan are setting their focus, besides the technological side, on a more citizen-centric approach (Van den Bergh & Viaene, 2016). These examples show two different approaches of smart city initiatives that have emerged nowadays. The different focus which cities have in their vision evolves from the unique circumstances a city finds itself in. One focus of the vision is opting for high technology integration which is considered as infrastructure-intensive approach and the other one following a citizen-centric approach which aims on integrating citizens into smart decision making (Van den Bergh & Viaene, 2016).

2.1.2 *The Six Dimensions*

In order to assemble all the different approaches in one single concept, the smart city concept needs to be divided within itself. There are numerous approaches on how to break down the smart city concept in smaller categories.

According to Rathod and Zaveri (2015) the smart city concept is divided in more distinguished dimensions in order for cities to achieve competitive advantage, namely smart energy, smart mobility, smart infrastructure, smart governance, smart urban safety, smart tourism, smart heritage, smart health, smart education, smart living, smart economy and smart environment. This approach contains many different dimensions, making this approach very complex for cities to apply. Giffinger and Pichler-Milanović (2007) simplified this approach by structuring the smart city concept into six dimensions. This simple approach has been adopted by the European Union and therefore received much attention among academics, companies and governmental institutions. Giffinger and Pichler-Milanović (2007) stated that the six dimensions are a critical component to become a smart city and are connected to the regional and neoclassical theories of urban growth and development. The dimensions are based on regional competitiveness, transport and ICT economics, natural resources, human and social capital, quality of life and participation of citizens in the governance of cities (Lombardi, Giordano, Farouh, & Yousef, 2012). Not only the EU is focusing on providing help in implementing the smart city concept, even other national and international organizations and states, like the United States and the United Nations, are stressed to develop smart cities and develop standards (Anthopoulos & Fitsilis, 2014). The dimensions that have been set as basis of the European Classification Standards are **smart economy, smart people, smart living, smart governance, smart environment and smart mobility**. Due to the relevance in academic literature and the high back-up as classified European standards by the European Union this paper will use this classification as reference point for the smart city concept. Each dimension of the six dimensional model has its fundamental drivers and characteristics to achieve smartness. As Zubizarreta et al. (2015) point out that smartness can only be achieved by practices that provide added value to one of the dimensions.

This paper focuses on the dimension of smart governance. For a city it is essential to become smart within the government dimension in order to call the entire city smart. Governance is considered the link between all dimensions (Zubizarreta et al.,

2015) because many affairs of a city are managed or regulated from the governmental branch like public transportation, water supply and regulations of where new houses can be build. In order for the governmental branch to become smart, new digital technologies need to be implied. Digital smartness of a government inherently focuses on building technologies which are used to encourage citizens to participate and actively getting involved in the decision-making processes (Granier & Kudo, 2015; Niaros, 2016). It is proven that if citizens are not considered in the decision-making process, projects often do not achieve adaptation by citizens and are bound to fail (Van den Bergh & Viaene, 2016). Overall governments need to create transparency in order to raise acceptance of new projects, and include citizens into the governmental decision-making process because citizens want to be included and can help to improve the overall outcome of the project.

Smart governance is a very important part of the smart city concept because government connects many branches within a city. However, the core of the smart city concept is the smart economy. This concept focuses on economic growth which will be provided through the connection of things leading to more productivity and increases the attractiveness of a city for other companies (Zubizarreta et al., 2015). All other dimensions from the European standards depend on this dimension (Zubizarreta et al., 2015). Moreover, this dimension has received much attention among companies because companies are concerned about maximizing their own profits (Hollands, 2008) by developing solutions for smart cities (Anthopoulos & Fitsilis, 2014).

It can be said that the concept of the six dimensions is a very intertwine and complex construct. Here, each dimension can not be seen separately but is connected to all the other dimensions, meaning that when you influence one, you influence all. This interrelationship among those dimensions is a defining factor of a smart city, because every area is getting more connected into the concept. So it is not possible to implement only one factor separately but rather have a holistic approach, to create the overall smartness in the bigger picture.

2.2 The Role of Governance

2.2.1. The Change of Governance

The way governments exercise its power has changed over the last decades (Granier & Kudo, 2015) from a top-down to a bottom-up approach. The “old fashioned” way of how a government saw itself was based on the way that they got elected every four years in Germany and after that they only considered the public where it was mandatory by law. The traditional participation consisted only of citizen validation of a proposed master plan which conceived a three-step approval process: master plan initial approval, master plan provisional approval and master plan final approval (Marsal-Llacuna & López-Ibáñez, 2014). This concept only agreed on existing projects and did not ask for other opinions, but rather only ratified existing plans of the government. In the 1960s, public participation has become a critical component of legitimizing, democratizing and increasing the quality of political decisions in democratically organized forms of government (Evans-Cowley & Hollander, 2010; Fedotova, Teixeira, & Alvelos, 2012). There was a growing awareness on the part of the public administration that decision making without public participation is ineffective (Vogt & Haas, 2015), so the government tried to integrate citizens more intensively into the governmental decision-making process. Regarding this new concept, Klein (2000) states that this form of governing still inherently removes citizens from the place where many decisions are being made. He argues that a public hearing process was not about getting citizens to participate in the

planning process, as much as it was about ensuring that citizens had a chance to hear about that process. So according to Klein, there is still a deficit of real engagement. Even the public hearings are typically held on weeknights or during the day where the results of the commissions are being presented, which according to Klein (2000) are insufficient time frames to follow real engagement practices and furthermore still leaves citizens only with the chance to speak either for or against plans, projects or outstanding decisions. Thus it is often presented as a “growth vs. no growth” decision (Richards & Dalbey, 2006). So there are more participation ways but they still exclude a huge group of people due to the inconvenient time frames and only ask for citizen’s approval of existing plans and projects.

This inconvenience and the reduction of the vote to a growth vs. no-growth decision, citizens are in a place, where they want to be involved more than it is required by law. Citizens have inherently the motivation to be engaged more actively and be considered as a valuable source for information and feedback and not only as formally required by law.

2.2.2. Formal & Informal Participation

Formal public participation is based on legal requirements and differs from country to country. Therefore, this paragraph will only focus on the country of Germany.

Germany has established a clear statutory obligation to involve citizens in the political decision-making process and follows legislative laws that require a minimum degree of citizen participation (§3 Baugesetzbuch/ BauGB). Citizens have to be informed through a variety of sources, such as the internet, public bulletin boards, placards or newspaper (Öffentlichkeitsbeteiligungsrichtlinien (2003/35/EG) about ongoing projects and public meetings. Once the public meetings are held, the main purpose is to inform the citizens and enable them to comment for or against the plans. This formal public participation by law is required by projects which include building public houses, deciding on the purpose of land usage and projects of environmental concern (§3 BauGB). Generally, there is a project plan which is also required by law and has to be followed step by step to guarantee the citizen’s involvement. Besides the formal participation there have evolved informal participation practices.

Informal participation includes all activities that are conducted voluntarily, that is without a statutory obligation to involve citizens in the political decision-making process (Vogt, Förster, & Kabst, 2014). Informal participation practices can be used additionally to formal practices or used separately for individual projects, but not as a replacement for formal participation (Klages & Vetter, 2013). Informal participation provides a big potential in order to meet requirements of new projects more effectively (Klages & Vetter, 2013). This way of including citizens is more discursive and cooperative because citizens are able to exchange their opinions among each other and get in touch with other stakeholders involved. There is a wide range of informal offers and tools to include citizens into the decision making such as stakeholder workshops, citizen juries, focus groups, electrical forums, web polling, public conversations, participatory budgeting, study circles and collaborative policy making (Vogt & Haas, 2015). For those informal participation tools, there is no regulation or guidance within Europe or Germany, where cities can rely on. Due to this lack of guidance, cities have developed own informal participation tools. Thus, this paper will focus on informal participation tools used by the city of Hamburg. Some informal participation tools used by Hamburg are informational meetings, workshops and working groups to engage with citizens more actively. Hamburg has much experience with especially early involvement of citizens. Considerable projects were

“Weltquartier Wilhelmsburg” (www.iba-hamburg.de) where different committed partners established and built new economical and sustainable urban development plans, the Pergolenviertel (www.forum-hebebrandquartier.de), a new town area that will be used for living purposes and the “Hamburger Deckel” (www.hamburgerdeckel.de) which tries to reduce noise of a highway going through Hamburg and shows a new concept to create new urban living space. The informal practices open up the possibility for more projects to find the right methods to incorporate heterogeneous interests of diverse stakeholders (Klages & Vetter, 2013). The usage of informal practices has increased since the 1980s, however informal practices still do not eliminate formal practices, since informal ones are still lacking behind their real potential (Klages & Vetter, 2013). A shift from formal to informal participation can be considered as a shift from hierarchical structures to a more dialog-oriented participation practices (Klages & Vetter, 2013). As companies are increasingly changing their management system to a bottom-up approach, governments attempt similar practices (Granier & Kudo, 2015; Niaros, 2016; Schaffers et al., 2011). The German Association of Cities has stated that the emphasis of cities has to be on increasing formal as well as informal participation channels (DST, 2013). There is a clear trend visible which exceeds the mandatory obligations to inform and include citizens to engage and include them earlier in the process.

Citizen participation receives more attention and value in recent years and more informal integration tools are developed. The premise for governance in smart cities is that, by having the right information at the right time, citizens will be able to make better decisions which result in an increased quality of life for residents and the overall sustainability of the city (Khansari, Mostashari, & Mansouri, 2014). Cities still struggle at which stage the citizens should get involved in political decision making (Rowe & Frewer, 2000). On formal participation the norm is to inform people. At the informal way, the public should be involved as soon as participation can reasonably be realized (Vogt & Haas, 2015). All in all, municipalities gradually realized that it is essential to include citizens into the decision-making process. For formal participation practices citizens engagement however is only limited to legislative restrictions and formats to follow, whereas informal practices provide cities with a new tool to integrate inhabitants in order to enhance the overall decision making.

2.2.3. Smart Governance

Among academic literature, which is concerned with governmental issues, the topic of smart governance has gained importance (Caragliu et al., 2011; H. J. Scholl & AlAwadhi, 2016; Hans J Scholl & Scholl, 2014). Smart governance, according to Willke (2007, p. 165), “is an abbreviation for the ensemble of principles, factors and capacities that constitute a form of governance able to cope with the conditions and exigencies of the knowledge society”. According to him, we are living in a new form of society, where knowledge is available to everyone and requires a new form of governance. In order to implement this smart governance approach and redesigning former governance, there is a need for a vision where local governments do not act in isolation but in collaboration with stakeholders (Steinert, Marom, Richard, Veiga, & Witters, 2011).

The smart governance approach is embedded in the smart city concept which connects citizens, governments and businesses in a new way. Smartness in a city’s governance refers to a progressive, future-ready, innovative, transformative, quality of life and sustainability-oriented approach to govern with more information and communication technologies at its very core (

Scholl & AlAwadhi, 2016). This new approach is closely related to new technologies, which allow a new way of communication between the government and its citizens and enable interaction among them. Public participation has already become a big part of today’s government system but still is expected to gain even more relevance in the future (Vogt & Haas, 2015). Part of the smart governance is to create transparency and acceptance and thus improve the quality of the outcome by incorporating citizen’s knowledge into public participation (Schweizer et al., 2014). If more stakeholders are involved, it makes the implementation of a plan easier (Burby, 2003; Richards & Dalbey, 2006) since everyone has been included in the decision-making process and is familiar with the concepts and the opinion of others. The concept, here described as smart governance, is also often referred as citizen-centric governance, or participatory governance. Through the process of integrating the citizen’s knowledge, the power is shifting away from the government towards the citizens and their knowledge is being integrated more intensively into the decision-making process (Granier & Kudo, 2015). Thus smart governance requires to some extent less governing because its main decisions are increasingly made by citizens, but definitely require not less governance by means of managing the diverged opinions.

If these forms of citizen-centric governance are implemented, more transparency is needed for governing to work (Schweizer et al., 2014). Creating transparency might create higher working load in the beginning, however improves the outcome of projects since everyone has the possibility to be informed. Furthermore, transparency is critical to build trust among the involved individuals (Vogt & Haas, 2015) which is a key factor of any government since its roots are its citizens. Today cities are already trying to be as transparent as possible, but in the future the concept of transparency is going to expand (Vogt & Haas, 2015), especially in regards to the open data concept. Hence, it becomes clear that the smart governance approach is not solely focusing on one particular topic, but moreover concentrates on many different aspects to achieve smartness. As stated earlier transparency and participatory governance are two of the main factors for cities which need to be implemented to be considered a smart city.

2.3 Network Participation

Important stakeholders in the smart city concept next to citizens and governments are companies and universities. Not only citizens have to be integrated in the way governments make decisions also other stakeholders like companies, investors and non-governmental organizations. The smart economy is the driving component for cities to become smart (Zubizarreta et al., 2015). Therefore cities need to create an ecosystem which attracts companies and drives innovation forward (Schaffers et al., 2011). This ecosystem can be established by creating programs such as living labs and urban development programs. This will attract further ICT companies, research scientists and policy makers to settle down (Porter, 1998). The innovative ecosystem has been called an Entrepreneurial City by Lombardi et al. (2012) and, according to him, can be considered a driving factor as well. A fundamental concept of this Entrepreneurial City is the concept of the triple helix which is a cooperation between the government, universities and businesses. This form of cooperation creates new innovative knowledge that can be applied in the smart city. Due to the highly changing and complex urban environment, it requires cities to incorporate the triple helix model to drive innovation to meet upcoming challenges better.

In addition to the triple helix model, Lombardi et al. (2012) propose a fourth dimension to be included into the triple helix,

namely the citizens. This new model, which is referred to as quadruple helix model supports a more genuine and realistic representation for supporting the smart city concept and thus improves the output. Hence, cities that want to create a smart economy need to build innovation clusters where companies, faculties and citizens can interact and collaborate, such as within the quadruple helix (Bakıcı, Almirall, & Wareham, 2013) (*see Appendix: Figure 1*). Collective intelligence and co-creation are empowered by the quadruple helix and improve the decision-making process through innovative input. In a smart city, cities rather not try to be the only driver of innovation (Schaffers et al., 2011), but engage in a trivial form of cooperation between the city, the industry and the public (Romeike, 2009). Such relevant decisions are not made by cities alone, but are found through a negotiating process where the government is definitely involved as a participant, but not deciding by themselves (Nuissl & Hilsberg, 2009). Often in practice, governments tend to use bilateral communication (Städtetag, 2013). However those bilateral communication patterns keep missing the open communication among all stakeholders, which can be seen as an important component of the smart governance model, because the interaction of citizens and companies is a big factor in creating a knowledge society (Bakıcı et al., 2013). Therefore, it is very important for cities to implement the concept of the quadruple helix to drive up innovation and share the knowledge in between all stakeholders. By sharing the individual stakeholder's knowledge collective intelligence is created and thereby contributes to a city's smartness.

2.4 Digital Strategies for Smart Cities

Web 2.0 has changed the way how people communicate nowadays (Greenhow, Robelia, & Hughes, 2009; Hoffman, Novak, & Venkatesh, 2004; Leiner et al., 2009). The information communication technology (ICT) has established many new tools like email, text message, social networks which affect the relationship how citizens engage with each other but more importantly has changed how public entities are communicating with citizens (Åström, 2001).

Due to the ICTs, it is easier for municipalities and citizens to communicate, consult or enter into a dialog (Medaglia, 2012). ICT provides especially citizens with a new way to create user generated content and exchange it via social media (Kaplan & Haenlein, 2010). Citizens in this concept are no longer seen as agents of ratification for the projects chosen by the authorities, but should rather be integrated, asked, and be encouraged to share their own version of the project, which then will be discussed with everyone involved. Here for governments "it is necessary to change government perspective [of the citizens] from a content consumer to a content producer" (Brabham, 2009; Ornebring, 2013; Rebillard & Touboul, 2010). ICT is considered by many scholars as a powerful means to promote and improve public participation (Granier & Kudo, 2015). There is still lots of change that needs to happen within the government because traditional modes of public participation like public meetings are, according to Evans-Cowley and Hollander (2010), limited in their scope and duration and therefore limited in their learning process. As pointed out earlier are these meetings often held on weekdays during the day, so many people cannot participate in these meetings, because they are working. This leads to the conclusion that digital public participation on ICTs, like social media or social networks, is superior to those traditional public participation meetings in order to equip citizens with the relevant knowledge to be able to participate (Evans-Cowley & Hollander, 2010). Public knowledge can enhance the outcome of projects which underlines a reason for citizen engagement (Schweizer et al., 2014).

Many cities keep improving their digital performance and move many services from offline media to online. ICTs are being integrated to involve citizens in the decision-making process (Medaglia, 2012). Often there are many new different forms of ICT initialized by many different branches of the government, and there is a lack of a central inquiry where citizens can identify all current participation opportunities (Vogt et al., 2014). The input which is generated by integrating the citizens enriches the decision-making process (Granier & Kudo, 2015) which leads to a better outcome of the project. So in today's decision-making process, ICT are already important and will become even more important in the future (Vogt & Haas, 2015).

Implementing ICT for governments is not just beneficial for the outcome of the project, it is beneficial on a monetary basis for governments as well. The old way of informing people has been expensive since printing flyers and doing all work on paper used many recourses with printers, paper and mailing costs. The new ICT strategy by using the internet provides a more cost effective way of public administration (Åström, 2001; Vogt et al., 2014). Therefore, ICTs should be implemented as soon as possible considering the tax payer's money which should be spent carefully. The ICTs in today's city support and enable the concept of smart governance (Scholl & AlAwadhi, 2016), and particularly social media plays a central role here, because it is a medium of communication with unique opportunities for public debates and exchanging opinions (Vogt et al., 2014): But many cities still lack skills of how they will implement digital communication into the governmental decision-making process in order to become smart (Dameri, 2013).

One concept that provides a guideline and helps governments to envision the way of becoming a smart city, particularly in participatory governance, has been undertaken by Effing and Groot (2016) namely the social smart city framework (*see Appendix- Figure 2*). This concept combines the degree of engagement that citizens have with government, citizen or network initiatives of a smart city that can be taken in order to improve and develop the overall city to become smart.

This framework helps cities to visualize particular strategies to undertake. Based on this framework, cities are able to check which strategies are already implied or should be improved to achieve the best outcome. Furthermore, there is lots of framework on smart city development, but current literature is lacking on studies that investigate the success factors of participatory governance among certain cities. Here it is possible to identify smart cities by looking what strategies they use in this model since one predominant success factor, analyzed by a master thesis study by Kogan and Lee (2014), has revealed that citizen engagement is the predominant success factor of smart city development. The amount of how much cities engage with their citizens can be identified as one indicator for smart governance. Furthermore, this model shows a trend from the old one-way communication way to a more modern trend of engaging citizens into governmental processes. Here, online communication technologies change the view of how people and government interact with each other from a more informal way, away from a vertical and bureaucratic relationship towards a more horizontal and egalitarian (Granier & Kudo, 2015). But not only citizens are included in this model also companies are part of it. The triple helix between academic-business-public sector partnerships also plays a big role especially on the level of network initiatives, where cities try to cooperate and hope for innovation to make the city more efficient and smarter. Furthermore, are companies part of many projects as executors to realize the plans made by the government. Here smart governments do not just try to have a conversation with citizens only, but try to engage into a conversation between the companies, citizens and the government in order to find the best

solution for everyone with the given resources. To be able to exhaust those theoretical strategies, cities are in need of a vision where ICT are implemented and citizens are included into the triple helix model. Hence, the social smart city framework supports cities to create a digital environment.

2.5. The Future

We have looked on the concept of participatory governance and which parts cities need to transform in order to become smart. Within participatory governance, the government needs to focus on implementing citizens into the governmental decision-making process. Citizens are increasingly engaged into the concept through their mobile devices which enables direct involvement (Granier & Kudo, 2015). But governments need to build the capacities to be able to manage the amount of new possibilities of participation. Cities need to adapt to the fact that citizens want to be able to actively take part into governmental decisions (Städtetag, 2013). Furthermore, it is important for cities to integrate their habitants since they are the protagonist of a city, the most important feature, and belong to the site and everything that is being done concerns them (Zubizarreta et al., 2015). Much potential lies in the process of involving citizens into governmental decision making. Cities have already implemented many online participation tools, but there is still capacity in integrating real time data from sensors and activators (Zygiaris, 2013) into participatory governance. Overall smart cities have a high interest in integrating sensors, smart devices, real time data into every aspect of human life (Cretu, 2012). Cities have often not realized the potential of participatory governance, and is still an underestimated factor (Bingham, Nabatchi, & O'Leary, 2005). Also the concept of the quadruple helix often keeps potential (Afonso, Monteiro, & Thompson, 2010). This is an important tool for a smart city to create an innovative ecosystem and co-creation. Businesses, universities and citizens need to be able to participate in the innovation processes in the future in order for a city to become smart.

2. METHODOLOGY

This research is at a very early stage of the learning curve because literature among smart governance and specifically with a German background has received few attention by academics, affecting the exploratory nature of this research. For the purpose of this paper the author has determined to conduct qualitative interviews with experts in the field of governance and digital communication in Hamburg. The motivation behind investigating the city of Hamburg has been numerous. Firstly, academic literature is lacking on investigations upon German cities and their application of the smart city concept. Furthermore, Hamburg is seen by many rankings and ratings as one of the smartest and most livable cities in Germany (Cohen, 2014; Mercer, 2016; Numbeo, 2016). More detailed information about Hamburg and its current position and innovative spirit are going to be described in the third section "Research Setting Hamburg". A case study of Hamburg has been used as empirical inquiry to investigate a contemporary phenomenon (a "case") in depth within its real-world context. Hamburg has been classified as a critical case as former research has shown, that it provides a critical reason to investigate Hamburg more intensively when this holds true according to Yin (2013). Especially when the boundaries between phenomenon and context may not be clearly evident, a case study can create new insights (Yin, 2013). The author is aware that a single case study is a risky option for business and management research to draw upon general conclusion as pointed out by Remenyi and Williams (1998), however Hamburg has established itself as such a smart and future-oriented city, that it will be used for closer

investigation. Since Eisenhardt and Graebner (2007) claimed that insights drawn from cases are among the mostly cited pieces the author has a valuable reason for undertaking his research. Through a case study of Hamburg the research gap can be filled among German cities applying smart governance. Further, Zainal (2007) states that case studies in their true essence explore and investigate contemporary real-life phenomenon through detailed contextual analysis of a limited number of events or conditions and their relationships. The reason for choosing a case study has been to examine data within the context of its use (Yin, 2013), meaning that practical information are derived within the situation in which the activity takes place. Hence, this method provides a clear and real-time examination of the status-quo of Hamburg. Secondly, the detailed qualitative responses produced in case studies often do not only help to explore or describe data in real-life environment, but help to explain the complexity of real-life situations which may not be captured through experimental or survey research (Zainal, 2007).

Hence, case studies provide a much deeper and insightful investigation of practice and can find underlying drivers and connectors in complex and newly derived concepts such as smart city development. The intensive literature review provided a sound basis which has been used for developing the questionnaire as well as seeking experts in Hamburg. The questionnaire has been developed on the basis of the social smart city framework aiming to provide evidence which digital communication methods and strategies Hamburg uses (*see Appendix A for the Questionnaire*). The interviews have been carried out with two employees connected to the smart city concept which both contribute comprehensively to the questions asked. Both interviewee can be considered highly familiar with the main concepts and have practical knowledge to exploit the potential of this research. For investigation semi-structured interviews have been chosen since it combines the benefits of unstructured interviews as well as structured interviews. These interview types serve on the one hand as an indicator for validation of literature findings (to bring forth the foreseen responses) and on the other hand opens up the possibility to add on information (to elicit new/ unforeseen responses) to explore the overall smart city (Hove & Anda, 2005). The interviews have been recorded and notes have been taken to assure that all information said are included into this paper.

3. RESEARCH SETTING HAMBURG

This case study will focus on the Free and Hanseatic City of Hamburg in Germany. The city with its historical port is located in the north of Germany and has about 1.7 million inhabitants within the state of Hamburg and 4,3 million within its metropolitan area, which makes it to the second biggest city in Germany and the eighth biggest within Europe. Hamburg has a very high standard of living due to the urban planning with many green spaces and sustainable development. With the development of the Hafencity district, Hamburg even accommodates Europe's biggest urban regeneration project. It has been ranked in the top three German cities with the highest quality of life index by Numbeo (2016) and 18th globally by Mercer (2016). Further Hamburg has been honored with the European Green Capital designation award in 2011. The high standards of living attract many new residents, which results in a growth of the city's population. According to the Federal Statistic Office of Hamburg and Schleswig-Holstein (2015) will Hamburg host 103.300 new inhabitants by the year 2030. Hamburg is gaining in smartness with its many universities, and more than 75.000 enrolled students as well as many international companies. Within Europe Hamburg has partnerships with old trade partners like Nantes in France or Copenhagen in Denmark,

which closely cooperate to push on the smart city project. Furthermore, Hamburg is part of the Eurocities project, which is a network of European cities to discuss and co-create among the topic of smart city as well as the European Innovation Partnership on Smart Cities and Communities (EIP-SCC) and EU Urban Agenda.

The first interviewee is working for Senate of Hamburg, and focuses on projects funded by the European Union. This contact person will be described in the following as Respondent 1 (R1). This person is very familiar with the smart city concept and also with the concept of participatory governance, but here more in the field of formal participation. The other interviewee will be referred to as Respondent 2 (R2), who is working for the department of urban development and environment and is the main responsible person for participatory practices between the government branch and the citizens. This person is very familiar with the smart city concept and particularly focuses on improving decision-making processes particularly through informal practices.

5. RESULTS

This section contains the results from the expert interviews. The interviews have been coded and classified under recurring themes and written down to follow a logical pattern.

Regarding the smart city concept Respondent 2 mentioned that “everybody is talking about the smart city concept, however the ultimate smart city is an utopia and does not exist”. The smart city concept is not a single concept, it includes many different ways for cities to become smart. The Senate of the Free and Hanseatic city of Hamburg passed in January of 2015 a visionary paper about Hamburg’s digital future, called “Digitale Stadt” (digital city). Within this vision it is especially important to “establish an innovation climate that enables citizens to make public data openly accessible and support companies and institutions in networking” (R1) as well as “achieving a higher quality of living” (R2). In the online communication and public services, there is lots of potential to exploit since offline communication channels are already exploited to the maximum within the city of Hamburg (R2). Thus, the internet can represent a new basis to increase the quantity of participating citizens. Further, Respondent 2 stressed that it is important for governments to work more citizen-centric and try to reach out to citizens, for example if citizens say that “if Hamburg sends a multiple-choice list on my mobile device, then I am willing to respond” (R2), then Hamburg is obligated to serve multiple choice lists in order for citizens to participate.

“The smart city approach is just a means to an end for online participation to achieve a bigger engagement of more citizens into the planning process” (R2), meaning that if the smart city concept would not be implemented citizens still want to be more integrated into the governmental decision-making process. This puts, according to Respondent 2, the city of Hamburg, due to the new circumstances in the position to go new ways in order to receive higher participation rates than the 11-16% with offline participation. As Respondent 1 points out is participatory governance helpful especially when trying to get European subsidies, such as from the European research and innovation program “Horizon 2020” that provides a total amount of €80 billion over 7 years. To receive funding, Hamburg cooperates with Nantes in France and Copenhagen in Denmark to develop and co-create digital solutions for smarter cities in Europe.

Within the last years, governance has changed and become a bottom-up approach empowering the citizens to engage actively in the decision-making process (R1). In order to facilitate the information flow and the accessibility of information the city of Hamburg has decided to implement the “Transparenzgesetz”

(transparency law) in 2012 which includes creating an online platform, the so called “Transparenzportal” (transparency portal), to give the public online access to many documents created by the government branch.

As previously discussed, two ways of participation exist the formal and the informal participation. Formal participation is mandatory in many projects like building new public spaces or buildings. Especially in projects like these citizens want to be integrated more actively into the decision-making process than it is obligated (R1). The mandatory participation by law can thus be classified as not sufficient and not meeting the requirement of a smart city. Therefore, more informal participation tools have to be implemented in the decision-making processes. The city of Hamburg has already noticed this trend and established more informal participations which have led to positive results, like the “Weltquartier Wilhelmsburg” or the “Hamburger Deckel”. Through the early recognition one best practice has evolved over time (R2). Clearly “including citizens as early and as active as possible” (R1) even before the projects are tendered to businesses, is an essential part of a smart strategy. Respondent 2 highlighted this project as follows: It generally starts off in the phase zero (see Figure 3).



Figure 3: Hamburg’s Phase Zero

At first is an event held in which citizens can inform themselves of the plan and goals of a certain project. After that, citizens can introduce their ideas and interact in an active conversation among each other. Next, experts need to be consulted in order to verify that the discussed plans are implementable. Finally, an offline meeting where experts, the cities government and interested citizens try to find the best solution possible. The best case scenario here is to find an obliging result, that can be used as a basis of the project plan for companies to carry out (R2).

Everything regarding participation in Hamburg, including phase zero is joined in the online platform called Stadtwerkstatt. The Stadtwerkstatt “is an integral part for citizen participation” (R1), and is considered the “central place to receive information” (R1) regarding projects initiated by the government. When it comes to the usage of social media, it is very time intensive and many resources are needed which are in charge of the content and serve as a contact person. “The Senate of Hamburg is using many social media platforms and online appearances” (R1), whereas regarding decision making for special projects, it is not applicable, time consuming and often there is not enough budget to participate on social media for projects (R2).

An important part of online tools is that it empowers citizens much more than offline tools do (R2). Empowering is a very important part of a smart governance and needs to be implemented in one way or another. But as the interviews showed is in the administration of governance no real empowerment, because “real empowerment does not exist since municipalities are always in need for expert knowledge” (R2). But it is important that governments should not limit citizens in their creativity or intimidate their decision making (R2). So empowerment is important but it needs to be restricted and narrowed down by the government for the citizens in such a way that it does not disable their creativity and free expression.

Another result during the interviews was that if a group of citizens share the same opinion, they have the possibility to create citizen initiatives. Respondent 1 stated that citizen initiatives are welcome to get involved and help to find a better

long term solution. However, citizen initiatives often claim to represent everyone's opinion, while in reality it is often just a small minority representing very few (R2). Therefore, it is very difficult for the government branch to figure out the so called "citizens will" because there often is no such thing as a single opinion which fits for everyone.

Networks represent another important part of the smart city concept. Hamburg tries to encourage innovation through a variety of practices. One possibility "to encourage innovation is using the triple helix structure, which brings together companies, universities and the government" (R1). Another tool Hamburg is using to drive up innovation with companies is embedded into the Transparenzportal and provides open data for companies to use. Companies though have not yet shown much interest in this data, the only interest derives from the academic side (R2).

Following the future of the smart city concept in Hamburg there are clear trends visible. Firstly, there is the trend that more online participation tools that are added into the Stadtwerkstatt. This engagement tool is new to Hamburg and has only been used for one project so far, but many more are already planned (R2). It has especially been designed for Hamburg and citizens are able to gather ideas online. Everyone can participate and put ideas virtually in an online map, and other can comment on it. Later in an offline meeting citizens, experts and government representatives sit down and evaluate the ideas collected online and create small projects out of the best ideas. This tool holds much potential because citizens can virtually create their ideas from home, which then will be taken into reality.

Secondly, another trend which holds much potential are the partnerships and how Hamburg implements an innovative ecosystem. Companies are yet to discover the open data portal to create new solutions to tackle future problems. Further, Hamburg is in a future partnership with Rome, Copenhagen and universities under the Smarticipate project to enrich decision-making processes with real time data in order to provide citizens with direct feedback on their ideas (R2).

6. ANALYSIS

6.1. Interviews and Literature Analysis

Within the smart city concept it is important to know that there is no one-size-fits-it-all solution (Albino et al., 2015), or as one interview partner puts it, that it is an utopia to have one single smart city approach (R2). The smart city concept rather describes a loose concept where every city has to determine its own position. As we have seen in the literature review cities in Japan for example try to focus more on the technical component like the smart grid, whereas European cities including Hamburg do this on a more citizen-centric approach. The Senate of Hamburg passed the paper of the "Digitale Stadt" (digital city) to create a vision for Hamburg where all the concrete plans on how Hamburg wants to become smart are embedded. The transition to a smart city goes along with the shift from a structured approach to the more citizen-centric approach of a city (Van den Bergh & Viaene, 2016). We have seen in the interviews that Hamburg tries to engage with its citizens online on many online platforms like Stadtwerkstatt or the website of Hamburg. Furthermore, governments are in the need of creating transparency in the governmental decision-making process (Schweizer et al., 2014), which for Hamburg is implemented through the Transparenzportal.

This new bottom-up approach (Granier & Kudo, 2015; Niaros, 2016; Schaffers et al., 2011) derives from the citizens wanting to be engaged more in the decision-making process (Städtetag, 2013). Cities need to change perspective and see the role of citizens more as a content producer than a content consumer (Effing & Groot, 2016). ICTs hold a huge potential as we have

seen during the interviews for public participations and the government has the possibility to engage in an active conversation with all stakeholders. This interest derives from the intention that with offline participation tools, Hamburg has participation rates from 11-16%, and in order to rise participation, online tools are seen to still hold much potential. Also among research ICTs are considered to improve public participation (Granier & Kudo, 2015). The ICTs further influence the governmental decision-making process. Hamburg has already realized that decision making without public participation is ineffective (Vogt & Haas, 2015), especially to former experiences in which the city has neglected participant's opinions, now tries to "integrate [citizens] as early and as active as possible"(R2). It has become clear for the city of Hamburg that informal participation creates an environment where citizens are able to exchange their opinions freely among each other and get in touch with other stakeholders involved (Klages & Vetter, 2013) during the decision-making process.

For Hamburg solely engaging with citizens in informal participation tools does not make them directly smarter. Furthermore, the city needs to create an innovative ecosystem within the city. A new way of thinking which is created within the smart city concept connects governments, citizens and businesses empowering a new way of thinking such as collective intelligence and co-creation capabilities of citizens and communities (Schaffers et al., 2011). For Hamburg the concept of the quadruple helix has become a major component to become smart since the interaction and connection between companies, universities, citizens and the government has much potential and can create an innovative ecosystem which attracts other companies, boosting innovation and making Hamburg smarter.

6.2. Applying Findings to Social Smart City Framework

In the following section this paper will take a closer look on which online participation tools the city of Hamburg utilizes and then classify those tools within the social smart city framework in order to assess Hamburg's digital strategy. Since the research question is mainly focused on the government perspective and as the interviews revealed, is Hamburg opening up citizens the possibility to engage and embrace the situations of a social smart city themselves, this paper only focuses on the government initiatives and network initiatives by Effing and Groot (2016).

Hamburg is a city that has a well established online presence and tries to incorporate it even more with the vision of the digital city. There is a huge variety of tools with different purposes, which will be investigated in the following. For example, Hamburg has its own central website where everything from tourist information to political statements and information about future projects is readable. Further, the city of Hamburg created an app with the same information, but in a more comfortable surface to read on mobile devices. These tools are mainly informative nature and contain lots of information ready to use for citizens, therefore the website as well as the app would be part of the web information sharing strategy (see Table 1). Social media platforms, like Facebook, Twitter and Instagram are also used by the city of Hamburg. These tools are considered as engaging strategies, because they provide information, but furthermore give citizens the possibility to reply, ask questions or give feedback in almost real time, which enables them to engage actively. These social media tools are mostly used as a one-way communication channel, meaning that they would be, according to Effing and Groot (2016), considered as part of the web information sharing strategy. The interviews showed that the

budget restrictions limit the utilization of social media platform (R2) and prevent it to be applied as a two-way communication tool. Hence, the digital consultation strategy is not yet fully embraced by the city of Hamburg.

A limiting factor in many cities is that there is a lack of a central query portal for participation tools (Vogt et al., 2014). Here, the city of Hamburg is ahead of many cities, as it has launched the Stadtwerkstatt, where every online participation can be overviewed in one single place. On this website a new online tool is embedded where citizens can create their own ideas online, and share it with others. Respondent 1 called this new way of participation a tool which empowers citizens to create and puts cities in the place as an executive organ. Furthermore, empowers the new project “Smarticipate” the decision-making by citizens as well. Thus the Stadtwerkstatt as well as the Smarticipate project can be, according to Respondent 1, considered as part of the crowdsourcing strategy which includes the collective intelligence as an important part in the participatory governance concept. Respondent 2 added that there is no real empowerment because the government always needs to restrict the possibilities and further the ideas need to be validated by experts in a later step of the process. Therefore, even though this tool is a crowdsourcing strategy, the governmental branch still needs to be in the position of the coordinator. Within the decision-making process there always needs to be, next to the online participation in early stages, an offline component. Therefore, online tools are more an addition to the existing offline participation tools rather than a replacement.

There is one interesting tool left used by the city of Hamburg which is the Transparenzportal. On this portal the city of Hamburg publishes open data, open for everyone interested. The hope is that companies use those existing information and start creating innovations with it to help Hamburg in becoming smarter, but as the interviews showed there has not been much interest by companies in this data. This Transparenzportal is considered an open data strategy by Effing & Groot (2016). Here, is still potential by trying to cooperate with companies and use this data for new innovations, since this portal has only been paid attention to by scholars (R2).

Additionally to all digital platforms, Hamburg engages in many partnerships that enhance the network initiatives fundamentally. Here the project Eurocities, European Innovation Partnership on Smart Cities and Communities (EIP-SCC) as well as Urban agenda can be classified as open knowledge consultation strategies to enhance the network perspective

Table 1: Governmental Smart City Initiatives Embedded Into the Social Smart City Framework (Effing & Groot, 2016)

	e-enabling	e-engaging	e-empowering
Government Initiatives	Website: Hamburg.de Mobile application	Facebook Instagram Twitter	Stadtwerkstatt Smarticipate
Network initiatives	Transparenzportal (governmental documents)	<i>Eurocities</i> <i>EIP-SCC</i> <i>EU Urban Agenda</i>	Transparenzportal (Open data platform)

As seen the city of Hamburg implements many different smart initiatives to improve participatory governance and the overall social smart city (see Appendix- Table 2 for a detailed overview). There is a clear trend visible from the table where all communication platforms used by the city of Hamburg are embedded into the framework by Effing and Groot (2016). The very new platforms try to empower citizens whereas the traditional website is an informational tool. Therefore, it is to say that the trend of the city of Hamburg is trying to apply a bottom-up approach and empower its citizens.

7. Conclusion & Discussion

This last section is going to highlight the most important findings as well as reflect upon what digital strategies Hamburg has implemented to communicate with citizens and enterprises in order to become a social smart city. What stood out from this research is that the smart city concept is still considered very broad. Every city has its unique characteristics and faces its own challenges in order to carry out the smart city concept, and it is an utopia that there is one single way of how to implement the concept in Hamburg. The fundamental vision of Hamburg is called the digital city, where Hamburg tries to implement a visionary future direction. In order to gain smartness on participatory governance, Hamburg has established many tools. The most important one is the Stadtwerkstatt. The Stadtwerkstatt is a platform that creates one single place on website of Hamburger in which all participatory governance projects are hosted. Especially the new integrated tool provides citizens with the capability to not only retrieve information but rather propose their own ideas. An addition to the Stadtwerkstatt, the Transparenzportal is being used. It represents an important open platform for governmental data and documents that facilitates more transparency and enhances citizen’s trust. Besides these main platforms Hamburg has implemented numerous communication channels, such as social media sites or a mobile application in order to adopt to inhabitant needs. It becomes clear that the city of Hamburg has adopted many digital platforms and smart strategies that favor the integration of citizens into the decision-making process. The strategies used by Hamburg to communicate and interact with citizens according to Effing and Groot (2016) are web information sharing strategy, digital consultation strategy, crowdsourcing strategy as well as open data strategy. Furthermore, the integration of citizens in the early decision-making process, which in Hamburg is referred to as phase zero, as well as the increasingly used informal participation practices classify Hamburg a social smart city. It is still important to acknowledged that online participation tools are a great addition to offline tools, however do not replace an offline participation.

Another insight is that Hamburg is willing to create an innovative ecosystem by engaging with companies, universities and citizens in the quadruple helix. An innovative ecosystem is an important driver for Hamburg in order to make the overall city more attractive for companies and future citizens. However, as said by the interviews did the Transparenzportal not find much attention by companies yet, but only from academics. Further, has the research shown that company’s main role is to increase the smartness of a city through innovation, but companies are not considered in decision making, unless they are directly affected by the decision itself. From the company’s perspective it can be said that the city of Hamburg is trying to adopt the open data strategy as well as the open innovation strategy into their smart city. Up to this point of time both strategies are a driver of the smart city approach, however they seem to be neglected and provide Hamburg with more capacity to drive the overall smartness forward. Lastly, this research revealed that it is highly important for Hamburg to stay innovative through partnerships, such as Eurocities, EIP-SCC to learn and cooperate with other cities among similar problems to drive smart governance into a digital future.

In the future Hamburg will keep up with the trend to engage and empower citizens and is advised to leverage the digital consultation strategy and crowd sourcing strategy further. There are already plans to enrich the decision making with real time

data. This project is called Smarticipate and is a cooperation between European cities and private institutions. In addition, Hamburg is advised to use the new engagement tool in the Stadtwerkstatt more frequently and further will adopt to the citizens needs.

All in all, this paper reveals that Hamburg uses many different online participation strategies and platforms in order to integrate citizens and enterprises into the smart city concept and especially governmental decision-making process. Hence, the city of Hamburg can be called a social smart city. In the future it is still important to recognize that Hamburg should focus on implementing new technologies and develops existing tools further that are oriented towards citizen's and enterprise's behalf. Additionally, Hamburg is advised to leverage and utilize online tools next to offline participation, since they vary in their effectiveness in participatory governance. As Alan Curtis Kay an American scientist once stated: "The best way to predict the future is to invent it". This implies for Hamburg to envision their future themselves and maintain the status of the innovative and smart European capital they are today.

8. LIMITATIONS & FUTURE RESEARCH

Even though this research has produced incredible insights and practice-based experience, this research has to be seen with limitations. Firstly, this study focuses on a single case study by the Free and Hanseatic City of Hamburg. Thus, this research is lacking on external validity in order to generalize the findings to other German or European cities. Due to time restrictions and the scope of this research the qualitative interviews have been limited to two expert interviews in Hamburg. Thus, for future purposes regarding this research setting more qualitative

responses should be used to receive more appropriate and underpinned results. In order to derive at more generalization issues the author suggests to carry out more quantitative researches about participatory governance such as satisfaction surveys among stakeholder to embrace and receive visual prove of certain strategies. Additionally, other German cities such as Munich, Berlin, Frankfurt, Cologne, Düsseldorf should be investigated more in-depth or particularly a comparison study among them should be applied to receive more comparable insights on the implementation of smart digital strategies. Further, the author suggests to take some of the major findings into closer empirical investigation, such as the debate about open data portals, which are stressed by academics in theory, however in practice companies seem to neglect them, as well as real potential of networking (theory vs. practices).

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10. REFERENCES

1. Afonso, Ó., Monteiro, S., & Thompson, M. J. R. (2010). A growth model for the quadruple helix innovation theory.
2. Albino, V., Berardi, U., & Dangelico, R. M. (2015). Smart cities: Definitions, dimensions, performance, and initiatives. *Journal of urban technology*, 22(1), 3-21.
3. Anthopoulos, L. G., & Fitsilis, P. (2014). Smart cities and their roles in city competition: A classification. *International Journal of Electronic Government Research (IJEGR)*, 10(1), 63-77.
4. Åström, J. (2001). Should democracy online be quick, strong, or thin? *Communications of the ACM*, 44(1), 49-51.
5. Bakıcı, T., Almirall, E., & Wareham, J. (2013). A smart city initiative: the case of Barcelona. *Journal of the Knowledge Economy*, 4(2), 135-148.
6. Barrionuevo, J., Berrone, P., & Ricart, J. E. (2012). Smart Cities, Sustainable Progress. *IESE Insight*, 14, 50-57.
7. Bingham, L. B., Nabatchi, T., & O'Leary, R. (2005). The new governance: Practices and processes for stakeholder and citizen participation in the work of government. *Public administration review*, 65(5), 547-558.
8. Brabham, D. C. (2009). Crowdsourcing the public participation process for planning projects. *Planning Theory*, 8(3), 242-262.
9. Burby, R. J. (2003). Making plans that matter: Citizen involvement and government action. *Journal of the American Planning Association*, 69(1), 33-49.

10. Caragliu, A., Del Bo, C., & Nijkamp, P. (2011). Smart cities in Europe. *Journal of urban technology*, 18(2), 65-82.
11. Castells, M. (1989). *The informational city: Information technology, economic restructuring, and the urban-regional process*: Blackwell Oxford.
12. Chourabi, H., Nam, T., Walker, S., Gil-Garcia, J. R., Mellouli, S., Nahon, K., . . . Scholl, H. J. (2012). *Understanding smart cities: An integrative framework*. Paper presented at the System Science (HICSS), 2012 45th Hawaii International Conference on.
13. Cohen, B. (2006). Urbanization in developing countries: Current trends, future projections, and key challenges for sustainability. *Technology in Society*, 28(1-2), 63-80.
doi:<http://dx.doi.org/10.1016/j.techsoc.2005.10.005>
14. Cohen, B. (2014). The 10 Smartest Cities In Europe. Retrieved from <http://www.fastcoexist.com/3024721/the-10-smartest-cities-in-europe/8>
15. Cohen, J. E. (2003). Human Population: The Next Half Century. *Science*, 302(5648), 1172-1175.
doi:10.1126/science.1088665
16. Commission, E. (2015, 26 November 2015). Europa 2020- Strategie für Wachstum. Retrieved from http://ec.europa.eu/europe2020/index_de.htm
17. Cretu, L.-G. (2012). Smart cities design using event-driven paradigm and semantic web. *Informatica Economica*, 16(4), 57.
18. Dameri, R. P. (2013). Searching for Smart City definition: a comprehensive proposal. *International Journal of Computers & Technology*, 11(5), 2544-2551.
19. de Jong, M., Joss, S., Schraven, D., Zhan, C., & Weijnen, M. (2015). Sustainable-smart-resilient-low carbon-eco-knowledge cities; making sense of a multitude of concepts promoting sustainable urbanization. *Journal of Cleaner Production*, 109, 25-38.
20. Drakakis-Smith, D. (2012). *Urbanisation, housing and the development process*: Routledge.
21. DST. (2013). Thesen zur Bürgerbeteiligung. *Städtetag aktuell*, 9/13, 6-7.
22. Effing, R., & Groot, B. P. (2016). Social Smart City: Introducing digital and social strategies for participatory governance in smart cities. In *Electronic Participation: 8th IFIP WG 8.5 International Conference, eGov 2016 (Forthcoming)*.
23. Eisenhardt, K. M., & Graebner, M. E. (2007). Theory building from cases: Opportunities and challenges. *Academy of management journal*, 50(1), 25.
24. Evans-Cowley, J., & Hollander, J. (2010). The new generation of public participation: Internet-based participation tools. *Planning, Practice & Research*, 25(3), 397-408.
25. Fedotova, O., Teixeira, L., & Alvelos, H. (2012). E-participation in Portugal: evaluation of government electronic platforms. *Procedia Technology*, 5, 152-161.
26. Giffinger, R., & Pichler-Milanović, N. (2007). *Smart cities: Ranking of European medium-sized cities*: Centre of Regional Science, Vienna University of Technology.
27. Gil-Garcia, J. R., Pardo, T. A., & Nam, T. (2015). What makes a city smart? Identifying core components and proposing an integrative and comprehensive conceptualization. *Information Polity*, 20(1), 61-87.
28. Granier, B., & Kudo, H. (2015). How are citizens involved in smart cities? Analysing citizen participation in Japanese "Smart Communities". *Information Polity*(Preprint), 1-16.
29. Greenhow, C., Robelia, B., & Hughes, J. E. (2009). Learning, teaching, and scholarship in a digital age Web 2.0 and classroom research: What path should we take now? *Educational researcher*, 38(4), 246-259.

30. Hoffman, D. L., Novak, T. P., & Venkatesh, A. (2004). Has the Internet become indispensable? *Communications of the ACM*, 47(7), 37-42.
31. Hollands, R. G. (2008). Will the real smart city please stand up? Intelligent, progressive or entrepreneurial? *City*, 12(3), 303-320.
32. Hove, S. E., & Anda, B. (2005). *Experiences from conducting semi-structured interviews in empirical software engineering research*. Paper presented at the Software metrics, 2005. 11th iee international symposium.
33. IDC. (2012). IDC Smart Cities Benchmark 2012: Hansestadt Hamburg ist die smarteste Stadt Deutschlands. Retrieved from <http://idc.de/de/ueber-idc/press-center/56542-idc-smart-cities-benchmark-2012-hansestadt-hamburg-ist-die-smarteste-stadt-deutschlands>
34. Kaplan, A. M., & Haenlein, M. (2010). Users of the world, unite! The challenges and opportunities of Social Media. *Business horizons*, 53(1), 59-68.
35. Kettl, D. F. (2015). *The transformation of governance: Public administration for the twenty-first century*: JHU Press.
36. Khansari, N., Mostashari, A., & Mansouri, M. (2014). Impacting sustainable behavior and planning in smart city. *International Journal of Sustainable Land Use and Urban Planning (IJSLUP)*, 1(2).
37. Klages, H., & Vetter, A. (2013). *Bürgerbeteiligung auf kommunaler Ebene: Perspektiven für eine systematische und verstetigte Gestaltung* (Vol. 43): edition sigma.
38. Klein, W. R. (2000). Building consensus. *The practice of local government planning*, 3, 423-438.
39. Kogan, N., & Lee, K. J. (2014). Exploratory research on success factors and challenges of Smart City Projects. *Asia Pacific Journal of Information Systems*, 24(2), 141-189.
40. Leiner, B. M., Cerf, V. G., Clark, D. D., Kahn, R. E., Kleinrock, L., Lynch, D. C., . . . Wolff, S. (2009). A brief history of the Internet. *ACM SIGCOMM Computer Communication Review*, 39(5), 22-31.
41. Lombardi, P., Giordano, S., Farouh, H., & Yousef, W. (2012). Modelling the smart city performance. *Innovation: The European Journal of Social Science Research*, 25(2), 137-149.
42. Marsal-Llacuna, M.-L., & López-Ibáñez, M.-B. (2014). Smart Urban Planning: Designing Urban Land Use from Urban Time Use. *Journal of urban technology*, 21(1), 39-56.
43. Medaglia, R. (2012). eParticipation research: Moving characterization forward (2006–2011). *Government Information Quarterly*, 29(3), 346-360. doi:<http://dx.doi.org/10.1016/j.giq.2012.02.010>
44. Mercer. (2016). Quality of living ranking Retrieved from <https://www.imercer.com/content/mobility/quality-of-living-city-rankings.html - list>
45. Network, S. G., & Association, I. C. C. M. (2002). *Getting to smart growth: 100 policies for implementation*: Smart Growth Network.
46. Network, S. G., & Association, I. C. C. M. (2003). *Getting to Smart Growth II: 100 more policies for implementation*: Smart Growth Network.
47. Niaros, V. (2016). Introducing a taxonomy of the “smart city”: Towards a commons-oriented approach?
48. Nuissl, H., & Hilsberg, J. (2009). *Good Governance auf lokaler Ebene: Ansätze zur Konzeptualisierung und Operationalisierung*. Retrieved from
49. Numbeo. (2016). Quality of Life Index 2016. Retrieved from <http://www.numbeo.com/quality-of-life/rankings.jsp>
50. Ornebring, H. (2013). THE CONSUMER AS PRODUCER* OF WHAT? User-generated tabloid content in The Sun (UK) and Aftonbladet (Sweden). *The Future of Newspapers*, 142.
51. Porter, M. E. (1998). Cluster and the new economics of competition.

52. Rathod, J. N., & Zaveri, A. (2015). USE OF MULTIPLE AGENTS FOR MAKING THE SMART CITY. *Development*, 2(4).
53. Rebillard, F., & Touboul, A. (2010). Promises unfulfilled? 'Journalism 2.0', user participation and editorial policy on newspaper websites. *Media, Culture & Society*, 32(2), 323-334.
54. Remenyi, D., & Williams, B. (1998). *Doing research in business and management: an introduction to process and method*: Sage.
55. Richards, L., & Dalbey, M. (2006). Creating great places: The role of citizen participation. *Community Development*, 37(4), 18-32.
56. Romeike, N. (2009). Urban Governance in Augsburg. Eine Bilanz lokaler Partizipations- und Vernetzungsprozesse. Diplomarbeit im Fach Geographie, Universität Augsburg, Fakultät für Angewandte Informatik, Institut für Geographie.
57. Rowe, G., & Frewer, L. J. (2000). Public participation methods: A framework for evaluation. *Science, technology & human values*, 25(1), 3-29.
58. Schaffers, H., Komninos, N., Pallot, M., Trousse, B., Nilsson, M., & Oliveira, A. (2011). Smart Cities and the Future Internet: Towards Cooperation Frameworks for Open Innovation. *Future internet assembly*, 6656(31), 431-446.
59. Schleswig-Holtstein, F. S. O. o. H. a. (2015). Bevölkerungsentwicklung in Hamburg 2014. Retrieved from http://www.statistik-nord.de/fileadmin/Dokumente/Statische_Berichte/andere_statistiken/A_V_1_H_gebiet_flaeche/A_V_1_j14_HH.pdf
60. Scholl, H. J., & AlAwadhi, S. (2016). Creating Smart Governance: The key to radical ICT overhaul at the city of munich. *Information Polity*(Preprint), 1-22.
61. Scholl, H. J., & Scholl, M. C. (2014). Smart governance: A roadmap for research and practice. *iConference 2014 Proceedings*.
62. Schweizer, P.-J., Renn, O., Köck, W., Bovet, J., Benighaus, C., Scheel, O., & Schröter, R. (2014). Public participation for infrastructure planning in the context of the German "Energiewende". *Utilities Policy*.
63. Städtetag, D. (2013). *Culture of Participation in Integrated Urban Development: Working Paper of the Working Group on Public Participation by the German Association of Cities*: Deutscher Städtetag.
64. Steinert, K., Marom, R., Richard, P., Veiga, G., & Witters, L. (2011). Making cities smart and sustainable. *The Global Innovation Index, 2011*, 87-95.
65. Van den Bergh, J., & Viaene, S. (2016). Unveiling smart city implementation challenges: The case of Ghent. *Information Polity*(Preprint), 1-15.
66. Vogt, S., Förster, B., & Kabst, R. (2014). Social Media and e-Participation: Challenges of Social Media for Managing Public Projects. *International Journal of Public Administration in the Digital Age (JPADA)*, 1(3), 85-105.
67. Vogt, S., & Haas, A. (2015). The future of public participation in Germany: Empirical analyses of administration experts' assessments. *Technological Forecasting and Social Change*, 98, 157-173.
68. Willke, H. (2007). *Smart governance: governing the global knowledge society*: Campus Verlag.
69. WorldHealthOrganization. (2016). Global report on urban health: equitable, healthier cities for sustainable development. In W. H. Organization (Ed.).
70. Yin, R. K. (2013). *Case study research: Design and methods*: Sage publications.
71. Zainal, Z. (2007). Case study as a research method. *Jurnal Kemanusiaan*, 9.
72. Zubizarreta, I., Seravalli, A., & Arrizabalaga, S. (2015). Smart City Concept: What It Is and What It Should Be. *Journal of Urban Planning and Development*, 04015005.

73. Zygiaris, S. (2013). Smart city reference model: Assisting planners to conceptualize the building of smart city innovation ecosystems. *Journal of the Knowledge Economy*, 4(2), 217-231.

11. APPENDIX

Figure 1: Quadruple Helix Framework

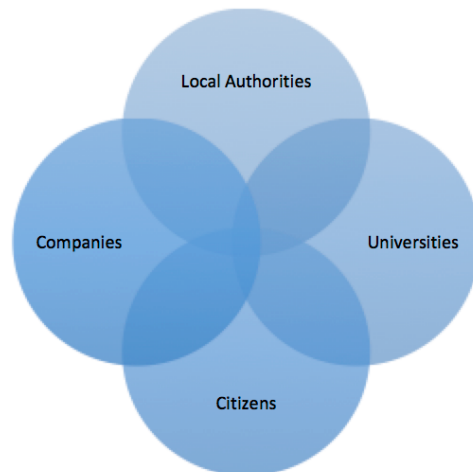


Table 2: Governmental Smart City Initiatives in Hamburg

Applications of Hamburg	Description of the initiatives
Transparenzportal Hamburg <i>(including open data + governmental documents)</i> http://transparenz.hamburg.de	This portal contains all major documents (geographical, construction plans, academic studies, statistics, information from the Senate) to create more transparency among the city
Stadtwerkstatt <i>(including general participative information + an integrated engagement tool)</i> http://www.hamburg.de/stadtwerkstatt/	A central digital platform that contains all major information and news for citizens that are willing to engage in governmental decision making. Besides the general information has an interactive tool been added in which citizens can express and add their thoughts directly into a planning map and encourage discussion and new idea generation (established for the project "Ohlsdorf 2050")
Partnerships improve Networking Eurocities http://www.eurocities.eu European Innovation Partnership on Smart Cities and Communities (EIP-SCC) https://eu-smartcities.eu/ EU Urban Agenda http://urbanagenda.nl	<p>Hamburg connects and collaborates with other European cities about the smart city topic</p> <p>Initiative by the European Commission to improve the smartness in cities in collaboration with industries, SMEs, banks, researchers and other smart city actors</p> <p>Is a program that helps cities in implementing EU policies and expertise into practice</p>
Smarticipate http://www.smarticipate.eu	New online platform that provides citizens with a direct function of receiving feedback and stimulate idea generation in decision-making based on open data, laws and restrictions
Broad band communication channels http://www.hamburg.de , <i>App-hamburg.de</i> , Facebook, Twitter Instagram: "Hamburger Senat" & "Hamburg – meine Stadt"	The city administration has established a broad variety of communication channels to be engaged with citizens (Website, Apps, Social Media sites – Facebook, Twitter, Instagram)

Figure 2: Social Smart City Framework (retrieved from Effing & Groot, 2016)

stage \ leadership	e-enabling	e-engaging	e-empowering
government initiatives	web information sharing strategy	digital consultation strategy	crowdsourcing strategy
citizen initiatives	digital e-literacy and digital access strategy	e-petitioning strategy	change movement support strategy
network initiatives	open data strategy	open knowledge consultation strategy	open innovation strategy (co-create)

Figure 2: Social Smart City Framework (Retrieved from Effing & Groot, 2016)

Appendix A:

Interview Report

Respondent 1 (R1) from the Senate of Hamburg

Field of duties: Communication, European Policy-Making and International Project Development

Job responsibilities: Improve transnational cooperation among partner cities and develop and execute projects together in the fields of economy, environment and social well-being.

Respondent 2 (R2) from Behörde für Stadtentwicklung und Umwelt (Public Authority for city development and environment)

Field of duties: Participation Practices and the Stadtwerkstatt

Job responsibilities: Internal function for consulting in participatory practices for all projects run by civil servants to improve and establish better participatory practices and increase citizen engagement

Question 1

How familiar do you consider yourself with the concept Smart City on a scale from 1-5 (1- poor, 5- excellent)? / Wie familiär sind Sie mit dem Konzept der Smart City auf einer Skala von 1-5 (1- sehr wenig, 5- sehr hoch)?

R1: Das Konzept "Smart City" ist ein viel umfassender Begriff und beinhaltet viele Aspekte, um zukunftsfähiges und nachhaltiges Wachstum zu schaffen. Das Wachstum und insbesondere die Stadtentwicklung sind besondere Themengebiete, die mich bei meiner tagtäglichen Arbeit beschäftigen. Meine Arbeit umfasst die innere sowie die externe Entwicklung der Freien und Hansestadt Hamburg und zunehmend der Aufgabenbereich der Kooperation mit Partnerstädten in Europa zu intensivieren und zu verbessern. Mein Wissensstand über das Konzept würde ich als hoch deklarieren, deshalb eine "5".

R2: Das Smart City Konzept ist ein weitverbreiteter Begriff und in vielen Experten Munde. Jedoch ist das ultimative Konzept einer Smart City eine Utopie und existiert in dem Sinne gar nicht. Die Freie und Hansestadt Hamburg hat sich zur Aufgabe gemacht das Konzept der "Digitalen Stadt" umzusetzen. Insbesondere basiert das Konzept auf der Aufnahme das Stadtleben durch eine höhere Lebensqualität zu steigern. Ich selbst sehe meine Arbeit diesbezüglich als eine zentrale Rolle zur Bürgerintegration an und bin ein zentrales Bindeglied zwischen Smart City und zukunftsorientiert Governance durch Bürgerbeteiligung. Da das Konzept der Smart City aber ein viel umfassender Begriff ist und viele Komponenten beinhaltet von denen ich weniger Ahnung habe, denke ich, dass eine "4" mich beim Smart City Konzept gut beschreibt.

Question 2

How familiar do you consider yourself with the concept of participatory governance on a scale from 1-5 (1- poor, 5- excellent)? / Wie familiär sind Sie mit dem Konzept der partizipativen Governance auf einer Skala von 1-5 (1- sehr wenig, 5- sehr hoch)?

R1: Der Bereich des partizipativen Governance ist in zwei große Bereiche aufgeteilt. Zum einen die formelle Bürgerbeteiligung sowie die informelle Bürgerbeteiligung. Ich bin besonders gut über den formellen Sektor informiert, in welcher Bürgerbeteiligung einen integralen Bestandteil in die Richtlinien vom Senat und Kommunenrechte darstellt. Im Bereich der informellen Bürgerbeteiligung jedoch ist mein Wissensstand weniger ausgeweitet, da hier vielerlei Arbeit betrieben wird, um Bürger noch intensiver und früher mit in Entscheidungsprozesse zu integrieren. Aufgrund Ihrer Orientierung zu den eher informellen Wegen zur Bürgerintegration in Ihrer Bachelorarbeit, würde ich mich selbst auf einem Wissensstand bei 4 einordnen wollen.

R2: Bürgerbeteiligung ist meine Fachkompetenz und macht meine Arbeit in der Behörde Stadtentwicklung und Umwelt aus. Meine

Hauptaufgabe ist es andere Beamten und Kollegen bei Projekten in denen Partizipationsverfahren genutzt werden aktiv zur Seite stehen. Meine beratenden und unterstützenden Tätigkeiten werden von der anfänglichen Idee bis zur finalen Umsetzung während Projekten gebraucht. Da partizipatives Governance meine Kernkompetenz darstellt, können Sie mich auf Ihrer Skala bei "5" eintragen.

Question 3

Is the city of Hamburg interested in becoming smarter? If so, what vision does it have?/ Ist die Stadt Hamburg daran interessiert smarter (intelligenter/klüger) zu werden? Wenn ja, welche Vision hat die Stadt Hamburg?

R1: Die Freie und Hansestadt Hamburg hat ein großes Interesse smarter in der Zukunft zu werden. Insbesondere wichtige Faktoren für uns sind hierbei konkurrenzfähig zu sein im nationalen wie auch internationalen Umfeld als auch internes Interesse unser eigenes Potenzial weiter auszuweiten und auszuschöpfen. Zudem sind wir insbesondere bestrebt weitere Fördermittel der Europäischen Union zu bekommen, gerade im Bezug auf "Horizon 2020". Die Fördermittel der Europäischen Union sind beträchtlich und motivieren uns im Konzept Smart City weiter auszuweiten. Im nationalen Vergleich ist die Freie und Hansestadt Hamburg die fortschrittlichste Stadt in der Umsetzung des Smart City Konzeptes. München kann auch als Mitstreiter gesehen werden, jedoch hat die Stadt ganz andere Herausforderungen und Fragestellungen als wir. Unsere Vision der Stadt Hamburg ist die große Stadt Hamburg maßgeblich in allen Bereichen zu digitalisieren. Mit dem Projekt einer "Digitalen Stadt" streben wir ein Innovationsklima in der Stadt Hamburg an, das sowohl Informationen leichter zugänglich macht, wie auch Unternehmen und Institutionen besser miteinander vernetzt. Hierbei umfasst das Konzept "Digitale Stadt" mehr als die bisherigen E-Government und IT-Strategien, da sich sowohl in der Wirtschaft Wertschöpfungsketten immer mehr digitalisieren wie auch der Alltag der Hamburginnen und Hamburgern, sodass wir gefordert sind die Entwicklung aktiv mitzugestalten und zur Steigerung der Wirtschaftskraft und Lebensqualität nachhaltig beizutragen. Viele Städte im Europäischen Umfeld gelten als Vorreiterstädte, z.B. Amsterdam in Bürgerbeteiligung unter dem Motto "City of People" und Helsinki im Smart Mobility Bereich. Im Smart Governance Bereich haben wir derzeit jedoch keine Vorbilder, die uns als Leitbild dienen. Hamburg ist aufgrund von vielfältigen Projekten gut vernetzt (Urban Agenda, European City Partnership, Urban Platforms, Eurocity), die es uns ermöglichen gemeinsam innovativer und zukunftsfähiger zu sein. Um jedoch innovativer zu werden, ist es jedoch immer eine Frage von wie hoch ist die Nachfrage von Bürgern und wiehoch ist das Angebot von Firmen (Demand and Supply oriented).

R2: Das Hauptthema unter dem die Stadt Hamburg smart werden will ist, Hamburg- "Die Digitale Stadt. In meinem Bereich Governance und Kommunikation, da ist das Thema enorm wichtig und insbesondere in wie wie man das Governance noch ausweiten kann gerade quantitativ, da andere Kanäle bereits völlig ausgelastet sind. Die Mehrheit der Menschen hat weder Zeit noch Lust 3 Stunden sich in eine Turnhalle zu setzen. Gerade durch das Internet haben wir die Möglichkeit mehr Menschen zu erreichen und ohne störende Einflüsse von außen beteiligen können. Es ist besonders wichtig, weil wir immer mit dem Problem zu kämpfen haben, dass wir nur kleine Beteiligungsgruppen haben und Beteiligungsfernegruppen nur schwierig und aufwendig zu erreichen und integrieren können. Um überhaupt in allen Bevölkerungsgruppen einen Response zu bekommen ist das Internet sehr gut geeignet, weil es einen gleichberechtigten Zugang ermöglicht, sofern man online ist. Jeder Bürger kann in seinem Rahmen sich zu Dingen äußern, ohne Hemmungen zu haben sie vor anderen zu äußern. Zudem ist es einfach transparenter und man kann in Echtzeit sehen was in einem Verfahren passiert. Der Hauptantrieb um smart zu werden ist vorallem um wirtschaftlich stärker zu werden. Gerade auch der aktuelle Termin mit Cisco verfolgt wirtschaftliches Interesse um Hamburg nach vorne zu bringen, mehr Fachkräfte anzuziehen, den Wachstumsmarkt zu besetzen und einfach innovativer zu sein. Da Industrie 4.0 eine hohe technische Komponente hat, sind wir erlegen, mehr in der Richtung zu machen. Für Partizipation hingegen ist das smart werden vielmehr ein Mittel zum Zweck um mehr Menschen in die Planung ein zubinden.

Question 4

In my bachelor thesis I particularly concentrate on the concept of smart governance, which pays attention on the involvement of citizens. How important is governance for cities to become smart? / In meiner Bachelorarbeit beschäftige ich mich insbesondere mit dem Konzept von Smart Governance, welches sich mit der Einbindung der Bürger in den Entscheidungsprozess beschäftigt. Wie wichtig ist der Bereich Governance für eine Smart City?

R1: Ich erachte den Bereich Governance als essentiellen Bestandteil einer jeden Stadt, egal ob es sich als eine Smart City sieht oder nicht. Zudem erachte ich eine bürgernahe Entscheidungsprozesse und eine Integration von Bürgern als äußerst wichtig für ein demokratisches Land. Gerade im Europäischen Bereich ist der Trend dahin gehend zu erkennen, weg von hierarchischen Strukturen und hin zur aktiven Miteinbeziehung von Bürgern. Vielfach ist auch von Top-down Approach hin zu einer Bottom-up Approach die Rede. Da insbesondere heute vieles online zur Verfügung gestellt wird, ist unser Transparenzportal elementares Element um unsere Verwaltung zukunftsfähiger zu gestalten. Die Stadt Hamburg schafft durch das Transparenzportal, welches durch das Transparenzgesetz (HmbTG) in Kraft getreten ist, eine zentrale Zugangsort für Bürger und Bürgerinnen sowie für andere Akteure um aktuelle Daten und Informationen zur Hamburger Verwaltung zu bekommen, die nicht als vertraulich gehandhabt werden. Gerade eine online Bereitstellung von Daten und Information ist besonders in der heutigen Zeit von hoher Wichtigkeit.

R2: Mir ist es wahnsinnig wichtig, anderen ist jedoch nicht wichtig genug. Bei Stadtplanern jedoch hat sich die Erkenntnis durchgesetzt, dass Bürgerbeteiligung kein Hemmnis ist, sonder einfach zur Planung dazugehört und einen Mehrwert bieten, indem es den Planungsprozesse nachhaltig durch zusätzlichen Input verbessert. In anderen Bereichen jedoch, wie z.B. die Flüchtlingsdebatte jedoch geht es vorallem um das Tempo bei Entscheidungen, sodass sogar formelle Prozesse verkürzt, geschlankt aus ausgehebelt werden. Bei Smart Governance sollte man zudem eine hohe Transparenz bewahren, hierbei kommt uns das Internet sehr zu Gute, denn ohne das Internet wäre das Transparenzportal nicht möglich gewesen. Eine Premise der Stadt Hamburg ist es bevölkerungsferne Gruppen mehr in Bürgerbeteiligung zu integrieren, und sich nicht nur damit ab zu finden, "wer kommt der kommt", sondern über das derzeitige ungenutzte Potenzial hinauszugehen ist das Ziel. Wenn wir rufen und niemand kommt, dann müssen wir zu halt zu ihm kommen. Wir können uns nicht damit zufrieden geben, dass sich nur ein geringer Anteil von Bürger beteiligt (ca. 11-16%) und wir dann von einer Volksmeinung sprechen. Diese 11% sind vielfach die gleichen Person und wir können Sie schon mit Namen begrüßen in den jeweiligen Stadtteilen. Unser Ziel sollte es sein, den Kreis der Beteiligten zu erweitern und unsere Kommunikation komplett den Bürgern anzupassen. Bei der Umsetzung dieses Ziels haben wir bereits auf Mileu Analyse zurück gegriffen, um die Bevölkerung nach Lebenswelten zu sortieren und das Ergebnisse ist gewesen, dass die Stadt

Hamburg ihre Bedürfnisse an die Menschen anpassen muss. Zudem sollte es weiterhin daran gearbeitet werden die Abwesenheit von 90% der Bevölkerung zu verringern. Eine weitere Erkenntnis aus der Milieu Analyse war, dass Menschen vielfach Ihre Informationen anders aufbereitet haben- "wenn Ihr mir eine Multiple-Choice-Liste per Handy zuschickt, dann will ich das wohl machen." Diese Aussage sagt es doch schon aus, wenn Bürger die Informationen anders haben wollen, dann müssen wir es einfach machen. Die Stadt muss sich anpassen und neue Wege gehen, damit man auf lange Sicht nicht nur 11-16% der Bevölkerung abdeckt, sondern mehr. Zudem ist ein sehr geläufiger Irrtum, dass Bevölkerungsgruppen ab 50 Jahren mit dem Internet nicht erreicht werden. Vielfach erreichen wir nämlich genau diese Menschen auch mit dem Internet, da die meisten Menschen gebildet und die nötige Zeit zu Verfügung haben um sich aktiv mit den Materialien auseinander zusetzen. Hingegen gestaltet sich die Beteiligung von jüngeren Menschen um die 25 viel schwieriger, weil Sie oftmals den Themen kein Interesse entgegen bringen.

Question 5

Hamburg does many things in the field trying to integrate citizens. In what project areas does the city of Hamburg specifically draw upon the involvement of citizens? Die Stadt Hamburg hat viele Initiativen, um Bürger in den Entscheidungsprozess mit einzubinden. Bei welcher Art von Projekten setzt die Stadt Hamburg speziell auf Bürgerbeteiligung?

R1: Bei formellen Projekten ist es gesetzlich vorgesehen, dass eine Bürgerbeteiligung stattfindet, d.h. bei Bauleitplanungen ist es Pflicht Bürger mit zu integrieren. Hierbei bleibt uns leider keine andere Möglichkeit, um alternative Wege zu gehen. Bei informellen Projekten jedoch, können wir auf aktive und frühzeitige Bürgerdiskussion und Beteiligung hoffen, d.h. bei Stadtentwicklungsplanungen, bei der Flüchtlingspolitik, die sich jetzt wieder normalisiert hat. Hierbei stellt die "Stadtwerkstatt" ein zentrales Bindeglied für Bürgerbeteiligung da.

R2: Bei allen Planungsvorhaben setzen wir auf Bürgerbeteiligung. Die gesetzliche orientierte Bürgerbeteiligung entspricht jedoch in keinstem Sinne das was Menschen heute haben möchten. Bei Stuttgart 21 haben sich zum Beispiel die Menschen komplett ausgeschlossen gefühlt, selbst in Hamburg ist das im Jahr 1998 auch passiert, sodass es heutzutage einer intensivere Beteiligungsmöglichkeiten gibt durch informelle Bürgerbeteiligung. Vergleichen wir damalige Zeiten mit den heutigen, hat ein deutlicher Paradigmenwechsel stattgefunden. Bürgerbeteiligung muss bei Planungsprozessen heutzutage so früh und so umfassend wie möglich ansetzen. Bürgerbeteiligung eignet sich besonders gut bevor Wettbewerbe stattfinden. Bürgerbeteiligung schafft hier eine sehr gute Wettbewerbsgrundlage. Insbesondere sind Fokusgruppen wichtig, um Bevölkerungsgruppen anzusprechen und zu berücksichtigen im Vorhaben - **aufsuchende Beteiligung** ist vielfach wichtig und zeigt nochmal ein besonderes Interesse für die Befindlichkeiten von einzelnen Bevölkerungsgruppen auf wird immer häufiger heutzutage durchgeführt.

Question 6

In what stages of projects do you consider it most effective to integrate citizens and companies into the policy making? Why?/ In welchen Projektstadien ist es besonders sinnvoll und effektiv Bürger und Unternehmen mit einzubeziehen? Warum?

R1: Ich denke, dass eine frühzeitige Bürgerbeteiligung bei Planungsprojekten besonders sinnvoll ist, da hierdurch ein größerer Input generiert wird und schlussfolgernd zu einer besseren Akzeptanzsteigerung der Ideen bei Bürgerinnen und Bürgern kommt. Während der einzelnen Projektstadien sollte man die Bürgern informieren über den aktuellen Stand der Dinge, da hierdurch das Vertrauen der Bürger zur Stadt bewahrt wird. Unternehmen kann man leider nicht während unterschiedlichen Stadien mit in den Prozess integrieren. Insbesondere wenn es sich um formelle Prozesse handelt, bedarf es einer Ausschreibungspflicht der Freien und Hansestadt Hamburg worauf sich Unternehmen bewerben können. Sobald eine Partnerschaft zu Stande kommt, werden keine anderen Unternehmen mehr integriert und es wird alles vertraglich festgehalten, sodass kein Mehrwert entsteht. Die Partnerschaften sind vielfach unter dem Namen "Public-Private Partnership" bekannt. Um Innovation zu fördern konzentrieren wir uns vielfach auf die Triple Helix Struktur, d.h. wir bringen Universitäten, Unternehmen und Regierung/Verwaltung zusammen.

R2: Bürgerbeteiligung setzt bereits dann ein, wenn noch gar nicht fest steht was genau geplant werden soll. Oftmals reden wir dann von der Phase 0. Mit der Zeit haben sich aber folgende Best Practice- Beispiele herausgestellt: 1) Auftaktsitzung in welcher über das Planungs- und Beteiligungsverfahren informiert wird, 2) Arbeitsphase durch Workshops, 3) Qualifizierungsphase zeichnet sich durch Zwischenpräsentation und Expertenwissen aus, welches im Idealfall zu einer Qualifizierung führt und 4) ein verbindliches Ergebnis.

Question 7

To what degree does the city of Hamburg support citizen initiatives, and are these initiatives seen as a driver or a burden of the project?/ In wie weit unterstützt die Stadt Hamburg Projekte welche von Bürgerinitiativen mit eingebracht werden, und sind diese eher eine Bürde oder ein positiver Einfluss?

R1: Wir halten Hamburger Bürgern die Möglichkeit offen selbst und eigenständig Bürgerinitiativen zu gründen und Ihr Anliegen kund zu geben, aber direkte Unterstützung leisten wir nicht. Bürgerinitiativen hatten einen positiven Einfluss bei dem Projekt Gängeviertel (<http://das-gaengeviertel.info/>), in welchem eine Bürgerinitiative den kompletten Stadtteil gerettet hat. Ein negative Beispiel hingegen war, dass ein Grundstück für Bürogebäude vorgesehen war und Bürger sich eingesetzt haben, das dort Wohnungen entstehen anstatt ein Bürokomplex. Demzufolge sind Bürgerinitiativen aus arbeitstechnischer Sicht oft als Bürde zu bezeichnen, doch können inhaltlich positiv zum Gesamtkonzept beitragen. Meine Erfahrungen haben gezeigt, dass das Potenzial von Bürgerbeteiligung vielfach unterschätzt werden.

R2: Bürgerinitiativen werden mit eingebracht, sowohl wenn es von der Verwaltung angestoßen wird als auch durch externe Bürgerinitiativen. Bürgerinitiativen können sowohl aus einem konstruktiven wie auch einem reaktiven Zusammenhang entstehen, man sollte Ihnen aber nichtdestotrotz Anlass und Anstoß zur Beteiligung geben. Langfristig haben Bürgerinitiativen einen positiven Anreiz, da sie bewirken, dass die Stadtplaner das Konzept anders sehen und informelle Bürgerbeteiligung sich zu einem Standard entwickelt. Auf kurze Sicht jedoch gestalten sich Bürgerinitiativen immer schwierig, da sich Bürger immer als der Einzelbürger sehen, aber dennoch unterschiedliche Interessen vertreten. Beispiel die Überdeckung der A7: Kleingärtner melden sich, weil ich Gebiet weichen muss, Anwohner haben Angst, dass Ihr Grundstücke an Wert verlieren, da ist es oftmals unsere Aufgaben, die Anliegen genau zu hinterfragen und zu unterscheiden. (Ohne Dach ist Krach) + Gutachter wird ausgewählt, damit man einheitliches Feedback bekommt.

Question 8:

What methods or platforms are used by the city of Hamburg to communicate with citizens online and offline? Welche Kommunikationswege werden von der Stadt Hamburg benutzt um mit den Bürgern in Kontakt zu treten, sowohl online als auch offline?

R1: Jede Fachbehörde betreibt seine eigene Kommunikation. Im folgenden eine Auflistung mit allen Kanälen die von der Stadt Hamburg benutzt werden, um mit Bürgern zu kommunizieren. Diese Auflistung ist durch gemeinsames Brainstorming entstanden. Die online Medien die die Stadt Hamburg verwenden: Facebook, Twitter, Google+, Instagram, Hamburg App sowie die offizielle Website (www.hamburg.de). Offline werden die Bürger durch folgende Wege angesprochen: Informationsveranstaltung, Bürgerdialog, Printmedien (Plakate, Briefe, Anzeigen, Flyer, Zeitschriften). Bei den Online Medien wird nur die offizielle Website als aktives Tool zur Bürgerintegration benutzt, wobei die Sozialen Medien zur Verbreitung der Informationen dienen. Die Hamburg App komprimiert die Informationen auf das wesentliche und stellt die wichtigsten Informationen mobil bereit (Wetter, Nachrichten, Verkehrsinformationen, Nahverkehrsverbindungen (HVV), Behörden etc.). Die Sozialen Medien dienen hauptsächlich zur Verbreitung von Informationen von aktuellen Veranstaltungen, Events oder besondere Ereignisse, hierbei wird lediglich auf bevorstehende Projekte oder Beteiligungsverfahren hingewiesen. Potential sehe ich vor allem in der Ausweitung von interaktiven Tools im Online Bereich und im Offline Bereich besteht enorm viel Potenzial in der Ausweitung von Bürgerdialogen (z.B. der aktuelle Bürgerdialog zu Schengen, europäische Freiheit und Perspektiven der EU in der Flüchtlingskrise).

R2: Offline kommunizieren wir vor allem durch folgende Instanzen: Veranstaltungen, Presseartikeln, Postsendung, Flyer, Plakate. Hierbei sind die meisten Kommunikationswege nur one-way, auch wenn Sie uns durch Anrufe, E-Mail oder auf dem Postweg erreichen können. Dies kommt aber in den seltensten Fällen vor. Langanhaltend fehlt uns jedoch eine direkter Kommunikationsweg um mit Hamburger Bürgerinnen und Bürgern in Kontakt zu stehen. Also kein temporäres Tool sondern ein langanhaltend und integratives Beteiligungstool. Online Beteiligung wird nur ganz punktuell benutzt, jedoch haben alle Projekt eine online Komponente auf der Website von Hamburg und in der Stadtwerkstatt. Hier hat jeder die Möglichkeit sich online zu informieren und so an Projekten teil zu haben. Soziale Medien sind für die Verwaltung eher schwierig, da oftmals die Ressourcen für Kommunikation fehlen- gerade auch hier in Hamburg. Soziale Medien sind sehr zeitaufwendig und es bedarf Ressourcen, die die Taten einpflegen, verwalten und als Ansprechpartner dienen. Hinzu kommt, dass nur Pressesprecher mit der Bevölkerung kommunizieren dürfen und es anderen Behörde Mitarbeitern (72.000) nicht gestattet ist sich öffentlich über Ihre Aktivitäten zu äußern. Haupt Hemmnis ist hier wirklich die Ressource meiner Meinung nach, hätten wir genug Arbeitskräfte könnte man auch die Soziale Medien benutzen.

Punktuell benutzen wir Soziale Medien hingegen bei Großprojekten, ansonsten benutzen wir die Redaktion von Hamburg.de, die Social Media Accounts haben und bereiten dann den Inhalt auf und Sie verbreiten die Informationen dann an die Hamburgerbevölkerung. Die Umweltbehörde nutzt Twitter, weil sich das mit wenig Ressourcenaufwand erledigen lässt, anders als z.B. ein Facebookauftritt. Verwaltung ist mit der Umsetzung von Social Media wirklich schwierig, in der Wirtschaft herrscht der Vorsatz: Wenn du es nicht gut machen kannst, dann mach es gar nicht. Ich glaube daran hält sich die Stadt Hamburg momentan noch sehr dran fest.

Question 9

Introduce the interviewee to the concept of informative, interactive and empowering communication channels. Can you distinguish the digital methods between informative, interactive and empowering channels? Nun würde ich Sie gerne mit dem Konzept der informierenden, interaktiven und ermächtigten (empowering) Kommunikationskanäle vertraut machen. Können Sie die oben genannten digitalen Methoden jeweils zu einem der drei Kanäle zuordnen?

R1:

Informative / Informierend	Enabling / Ermöglichen	Empowering / Ermächtigen
- Website (www.hamburg.de) (*1) - Hamburg App	- Facebook (*1) - Twitter - Instagram	- interaktives Beteiligungstool in der Stadtwerkstatt(Ohlsdorf 2050)

* 1 Der jeweils wichtigste Kanal in jeder Spalte

R2:

Informative / Informierend	Enabling / Ermöglichen	Empowering / Ermächtigen
alle Kanäle sind informativ	- interaktives Beteiligungstool bei Ohlsdorf (2050)	

In Offline Kanäle wie Veranstaltungen können zwar angedeutet werden, das man die Menschen ermächtigt durch die Informationen, jedoch ist es meines erachtens nicht der Fall, weil viele sich nicht trauen und sich zurück halten. Bei online Kanälen ist das jedoch anders, da trauen sich die Menschen mehr Ihre Meinung zu äußern und wird durch niemanden eingeschränkt (natürlich nicht komplett Empowerment!). In der Verwaltung gibt es kein richtiges Empowerment, weil wir niemanden die Power in die Hand geben können, wir können Ihnen nur den Rahmen öffnen, und sagen, dass er sich in diesem Rahmen äußern kann. Komplet in Richtung Empowerment wird es nicht gehen, da man keine Projekte ohne Expertenwissen umsetzen würde. Die Frage ist eher wie bringe ich Leihen und Experten zusammen, sodass sie sich gegenseitig befruchten können und sich durch Ihre unterschiedlichen Ansichten bereichern können. Ein wichtiger Faktor hier ist es zu schaffen die Bürgerinnen und Bürger nicht zu sehr in Ihrer Kreativität einzuschränken und einzuschüchtern aber dennoch in grüne Bahnen zu leiten. Es ist kein Ersätzen von, sondern eher ein zusammen führen unterschiedlichen Perspektiven. Das einzige was wir machen können ist, das Maximum an Zugang und Planung zu schaffen und das Uneingeschränkte einbringen von Ideen, Kritik, Fragen. Zudem ist es wichtig sowohl Online als auch Offline Tools zusammen zu nutzen, da hiermit die komplette Bandbreite abgedeckt wird. Eine Stadtwerkstatt die Wissen sowohl von Bürgern und Experten beinhaltet kann online nicht aufgebaut werden, da es oftmals ein hohes Diskussionsaufkommen ist. Dazu bedarf es offline Tools. Dembezüglich bauen online und offline aufeinander auf und müssen so auch effektiv zusammen genutzt werden.

Question 10:

An important feature of a smart city is innovation. How does the city of Hamburg encourage innovation with companies through open data and open innovation?/ Ein wichtiger Schritt hin zur Smart City ist Innovation. Wie versucht Hamburg hier die Kooperation/Mitgestaltung durch Firmen mit open data und open innovation zu fördern?

R1: Durch das Transparenzportal schaffen wir die Grundlage für Innovationsbereitschaft in Hamburg. Wir veröffentlichen dort alle Daten die uns zu Verfügung stehen und schaffen hiermit die Zukunft des Wissens und treiben Innovation nach vorne. Zudem kooperieren wir mit Hochschulen und Firmen, sodass wir gemeinsam Innovationen nach Vorne treiben.

R2: Wenn Firmen eine Rolle spielen bzw. betroffen sind, werden Sie mit in den Entscheidungsprozess eingebunden. Firmen sind zudem vielfach nicht bereit Ihre Anliegen öffentlich kund zu tun, sondern es wird darauf bestanden zusammen mit dem Industrieverband, gesonderte Termine zu bekommen. Dies wird dann in Fokusgruppen näher erarbeitet. Seitens Hamburg ist das Angebot an Open Data Plattformen da, durch das Transparenzportal, welches als zentrales Tool genutzt wird. Wie gut es jedoch funktioniert, dazu müssten Sie die Wirtschaftsbehörde fragen. Nach meiner Wahrnehmung ist die Nachfrage nicht so groß, wie es alle am Anfang erwartet haben und bahnbrechenden Ideen wurden durch Veröffentlichung der Daten auch nicht erzielt. Jedoch haben sich die Pilotprojekte, die zusammen mit Cisco in einem Memorandum of Understanding (MoU) vereinbart worden, bisher zu innovativen Pilotprojekten geführt, die aber weniger mit dem Bereich Governance zu tun haben, eher mit Mobilität. Was wir jedoch über die Zeit festgestellt haben, ist ein sehr großes Interesse von akademischer Seite her. Wir sind derzeit in mehrere Forschungsprojekte involviert wie zum Beispiel das Smarticipate Projekt, welches durch Europäische Universitäten und dem Fraunhoferinstitut näher erarbeitet wird. Bei diesem Projekt geht es darum Bürgerbeteiligung durch Echtzeitdaten anzureichern. Planungsvorhaben können gemacht werden und dann bekommt der Benutzer (Bürger) ein direkten Rückschluss, ob das funktioniert, welche Konsequenzen das hat, was es für die Konsequenzen für die Verschattung hat, ob Sicherheitsabstände eingehalten werden und vieles mehr. Alles was wir an Daten vorhanden haben wird in das Beteiligungstool eingespeist. Wenn ich sofort eine Rückmeldung bekommen kann ich meine Idee anpassen bis mir das System sagt, ja das funktioniert! So werden Projekte verschnellert und man muss keine Wochen abwarten bis man Feedback auf seinen Vorschlag von Experten bekommt. Das Projekt Smarticipate ist jedoch ein reines Forschungsprojekt.

Question 11

Currently the project of „Ohlsdorf 2050“ is running. Which methods are used to integrate citizens here?/ Momentan läuft das Projekt der Stadt Hamburg „Ohlsdorf 2050“. Welche digitalen Methoden werden benutzt, um Bürger zu integrieren?

R1: Das Innovative an dem neuen Konzept ist die Plattform. Sie ermöglicht es Hamburger Bürgerinnen und Bürger direkt mit in die Planung mit einbeziehen und Ihre Ideen und kund tun können. Die Plattform basiert auf einer 2D Projektion. Die Idee der Zukunft ist es jedoch ein 3-D Plattform zu erstellen. Das derzeitige Forschungsprojekt „Smarticipate“, basiert auf der Ideen, dass Bürger direkt Ihre Ideen und Anregungen umsetzen können auf der online Plattform und sofort Feedback bekommen, ob das Projekt den Richtlinien befolgt und welche Probleme es möglicherweise geben könnte, sodass notwendige Veränderungen direkt getroffen werden können.

R2: Die Methode Leute online zu integrieren ist komplett neu und wurde vorher noch nicht benutzt. Das Tool wird dafür eingesetzt um Befindlichkeiten, Ideen und Kritik bei den Bürgern abzuholen, was die Zukunft von Ohlsdorf betrifft. Aufgrund des breiten Interesse von Hamburgerinnen und Hamburgern, sowie von vielen auswärtigen Bürgern, da der Friedhof vielfach bekannt ist, ermöglicht es allen sich mit der Zukunft von Ohlsdorf auseinanderzusetzen. Durch das Online Tool erreichen wir eine breite Interessengruppen, und sind gespannt auf die vielen Ideen und Vorschläge von Bürgern was mit den 400 ha großen Gelände in Zukunft passieren soll.