

Building an open innovation platform as a part of city renewal initiatives

Parjanen Satu, Rantala Tero

This is a Final draft version of a publication
published by Taylor & Francis
in European Planning Studies

DOI: 10.1080/09654313.2021.1903397

Copyright of the original publication:

© 2021 Informa UK

Please cite the publication as follows:

Parjanen, S., Rantala, T. (2021). Building an open innovation platform as a part of city renewal initiatives. *European Planning Studies*, vol. 29, no. 12. pp. 2165-2183. DOI: 10.1080/09654313.2021.1903397

**This is a parallel published version of an original publication.
This version can differ from the original published article.**

European Planning Studies

Building an open innovation platform as a part of city renewal initiatives

Satu Parjanen^{a*} and Tero Rantala^b

^a School of Engineering Science, Lappeenranta-Lahti University of Technology LUT, Mikkulankatu 19, FI-15210 Lahti, Finland, GMS +358 40 077 9894, email: satu.parjanen@lut.fi

ORCID ID: <http://orcid.org/0000-0001-6206-274X>

^b School of Engineering Science, Lappeenranta-Lahti University of Technology LUT, Mikkulankatu 19, FI-15210 Lahti, Finland, GMS +358 40 567 5680, email: tero.rantala@lut.fi

ORCID ID: <http://orcid.org/0000-0001-6451-5546>

** Corresponding author*

Acknowledgements: The authors wish to thank the European Regional Development Fund and the Regional Council of Päijät-Häme for the opportunity of presenting their research in the European Planning Studies.

Building an open innovation platform as a part of city renewal initiatives

To increase the understanding of the role of innovation platforms as a part of smart city activities, this study examined the utilization of an open innovation platform in the context of city renewal. To shed light on the motivation for various stakeholders to participate in open innovation platforms, the study concentrated on the less studied stakeholder group, the holders of real estate, and explored what motivates their participation and what they expect from such platforms. The study also investigated the motivation for entrepreneurs in the city centre to participate in innovation platforms. According to the results, an innovation platform in the context of city renewal is a forum comprising stakeholders bound together by their individual interests in shared issues. Changes in the shopping and trading conditions of city centres during the last decade as well as the value transition of customers seem to be forces driving stakeholders to participate in innovation platforms. Open innovation platforms, as an avenue for joint development within city renewal initiatives, should highlight diverse dialogues emphasizing interaction and communication. The motivations for various stakeholders to participate seem to relate, for example, to maintaining the living conditions of the city centre.

Keywords: innovation platform; open innovation; city renewal; smart city

Introduction

One of the most important parts of a city, and in many cases the face of the city, is the city centre. Such areas have traditionally been the focus of trading, shopping, services and events. However, during the past two decades, city centres have faced many changes and challenges. For example, many city centres are losing market shares to external shopping areas and online shops and are looking for methods to win back retail and services that will make them high-quality shopping areas that are attractive to people. Although Bakıcı, Almirall and Wareham (2013) highlight the various methods that cities adopt to attract corporations and entrepreneurs, it is not clear what motivates different stakeholder groups to support city renewal and smart city projects.

The concept of open innovation makes an important contribution to the understanding of complex development processes in a society, such as those of contemporary city renewal (Mattsson & Sørensen, 2015). According to Mattsson and Sørensen (2015), open innovation in city renewal emphasizes the process of innovating rather than the specific set-up or organization of planning. Further, open innovation highlights the role of networks in innovation processes, suggesting that organizations rely heavily on interaction with users, suppliers and a range of other organizations within the innovation ecosystem (Bogers, Chesbrough, & Moedas, 2018; Bogers & West, 2010; Chesbrough, 2003; von Hippel, 2005). This implies that cities should establish active dialogue with citizens, companies and public organizations (Tukiainen, Leminen, & Westerlund, 2015).

Kummitha and Crutzen (2017) argue that an important research agenda would be to determine how to balance the different expectations of various stakeholders involved in smart city planning and execution. This study utilizes smart city initiatives as a contextual example of city renewal activities to explore the role of innovation platforms as avenues to bring various stakeholders together to execute value-adding operations and actions. In the development of a smart city, innovation platforms can be considered ‘participation platforms’ including, for example, open data strategies, crowdsourcing and co-creation platforms as well as other forms of citizen participation and ideation (Manville et al., 2014). For the purposes of this research, innovation platforms are understood as strategic approaches to building, organizing and enhancing innovation networks (Consoli & Patrucco, 2008; Ojasalo & Tähtinen, 2016; Parjanen & Hyypiä, 2018). In city renewal, there has been a shift toward a more integrated approach which link the stimulation of economic activity and environmental improvements with

social and cultural elements (Colantonio & Dixon, 2009; Parjanen et al., 2019)

indicating the need for new, innovative ideas of different stakeholders.

The aim of this study is to employ an empirical case to explore the role of an innovation platform in smart city and city renewal activities and shed light on the interests of various stakeholders in participating in these platforms. The attention of past studies has mainly been on public actors and inhabitants. There is less research on entrepreneurs, although they contribute greatly to the economic and social development of a city (Kraus et al., 2015). In particular, the results of this study will increase the understanding of the drivers and motivations of holders of real estate to participate in these platforms. In general, this is a rather small but powerful stakeholder group with the ability to affect city renewal activities through their own operations and interests. For example, these stakeholders can affect the business facilities of their own properties and also property façades, which influence people's motivation to spend time and money in the city centre. As such, this study focused on the expectations of real estate holders and entrepreneurs in the city centre regarding the utilization of open innovation platforms as part of the development activities in the smart city context. With respect to the aim of the study the research questions can be formulated as:

RQ1 - What elements do the holders of real estate and entrepreneurs in the city centre consider to be essential in building a common innovation platform as a part of smart city initiatives?

RQ2 - What motivates holders of real estate and entrepreneurs in the city centre to participate in innovation platforms as a part of smart city initiatives?

Smart city projects, which are part of city renewal activities, have expanded during the last decade and will continue to grow in the near future. Thus, we believe that many

different stakeholder groups operating with the smart city concept can utilize the findings of this study. Some previous studies explored the role of innovation activities as well as platforms in the urban development and smart city contexts (Ahlers et al., 2019; Anttiroiko, Valkama, & Bailey, 2014; Konsti-Laakso & Rantala, 2018; Schaffers, Komninos, & Pallot, 2012; Schaffers et al., 2011). However, there is scarce scientific and pragmatic knowledge of the use of open innovation platforms in the smart city context (e.g., Anttiroiko, 2016; Ojasalo & Kauppinen, 2016). The present study is an endeavour to fill this gap by increasing knowledge of elements to be considered when building an open innovation platform between a city and external actors. As the study increases the understanding of emerging explanations of city renewal tendencies by utilizing smart cities as a contextual example, its implications might attract the attention of persons interested in the development of city centres.

Open innovation platforms in the smart city context

Literature on cities and urban renewal recognizes that citizens should have a more active part in the design, construction and management of their own cities (Kummitha & Crutzen, 2017; Quick & Bryson, 2016). However, Calzada and Cobo (2015), for example, present smart cities as being based on top-down approaches, where the decision-making lies among the stakeholder groups at the top. Thus, Kummitha and Crutzen (2017) posit that the big question requiring deeper investigation concerns how everyday life will eventually be constituted in smart cities.

Marsal-Llacuna, Colomer-Llinàs and Melendéz-Frigola (2015) define *smart city* as a concept or development initiative aimed at providing more efficient services to citizens, monitoring and optimizing existing infrastructure, increasing collaboration amongst different economic actors and encouraging innovative business models in both the private and public sectors. As such, *smart city projects* can be considered an

umbrella term combining different development activities related to, for example, an increase in information technology (IT) and the internet of things in cities, the construction and development of participatory planning and frameworks, and the efficient connection of human capital to cities. Further, the smart city concept can be regarded as new and context dependent, such as country, government, natural resources, IT knowledge and capacities (cf. Ben Letaifa, 2015; Weisi & Ping, 2014). Marsal-Llacuna, Colomer-Llinàs and Melendéz-Frigola (2015) further argue that over the last few years, there has been a shift whereby cities are striving for smart city targets instead of sustainability goals. However, Ahvenniemi et al. (2017) argue that these targets are interconnected and that sustainable cities and smart cities often share common goals and initiatives.

According to Kummitha and Crutzen (2017), two overarching approaches to discussing smart cities exist – technology-driven and human-driven methods. According to the technology-driven method, IT (e.g. fibre optic networks, sensors and connected devices, open data, internet of things) will improve the standard of life in urban surroundings (cf. Albino, Bereardi, & Dangelico, 2015; Giest, 2017). However, the adoption of technology and IT, in many cases, will not be enough to achieve the desired improvements. A need exists for what Albino, Bereardi and Dangelico (2015) call ‘soft strategies’, which can enhance human capital, social inclusion and innovation activities (cf. Ahvenniemi et al., 2017; Neirotti et al., 2014). Furthermore, Dameri and Ricciardi (2015) posit that the traditional approach to studying the smart city phenomenon should be extended to include human capital, social capital, process capital and renewal capital. As this study explored the roles of innovation platforms as a part of city renewal activities, utilizing smart cities as a context, the focus remained on the human-driven side and on how smart cities utilize soft strategies. More precisely, the study focused on

the expectations of real estate holders and entrepreneurs in the city centre for the utilization of open innovation platforms as a part of the development activities in a smart city.

Smart city projects strive for the sustainability, resilience, quality of life and competitiveness of city systems (e.g. Chourabi et al., 2012; Rogerson, 1999). In a smart city, community knowledge is key to the future, and the essential strategies in developing 'smart' knowledge are innovation, collaborative networking and participative social interactions (Schaffers, Komninos, & Pallot, 2012). These ideas are highly compatible with open innovation. Open innovation literature builds on the idea that innovations do not originate from science alone but are based on knowledge from multiple sources. There is a strong need to combine knowledge from theory and practice as well as different disciplines (Melkas & Harmaakorpi, 2012, p. 2). Thus, the diversity of stakeholders in the innovation platform offers great opportunities for knowledge co-creation.

In providing more options for participation in decision-making, open innovation platforms could support citizen participation, human capital development and innovation activities among smart cities. Kummitha and Crutzen (2017) argue that another significant research avenue could be determining how to balance different expectations from the various stakeholders involved in smart city planning and execution. This further explains why open innovation is emerging as the new paradigm for building the smart city (Paskaleva, 2011). Open innovation highlights the interactive character of the innovation process, suggesting that organizations rely heavily on their interaction with users, suppliers and a range of other organizations within the innovation system (Bogers, Chesbrough, & Moedas, 2018; Chesbrough, 2003; von Hippel, 1988). For example, von Hippel (1988) discusses the democratization of innovation, proposing

the use of lead users and other stakeholders as external sources of innovation. These models further redefine the inbound innovation process by extending von Hippel's (1988) sources of innovation to include universities, suppliers and online communities (Christensen, Olesen, & Kjaer, 2005) or basically any external expert (Bogers & West, 2010).

With the increased pressure to innovate, new forms of organizing for innovation have emerged, for instance, in the form of collaborative networks, temporary organizations (Dhanaraj & Parkhe, 2006) or open innovation collaborations (Yström, Aspenberg, & Kumlin, 2010) and innovation/development platforms (Consoli & Patrucco, 2008; Cooke, 2012; Uotila, Harmaakorpi, & Hermans, 2012). The concept of an innovation platform is already widespread in urban development, and it is used to refer to many types of activities realized in the interface of public and private actors (Lehenkari, Pelkonen, & Oksanen, 2015). The democratization of innovation and platformization in business have their counterpart in the lives of territorial communities. City governments must support local business development because successful firms generate jobs and create a basis for local success. Local economic development policy is increasingly fused with technology and innovation policies, as is apparent in cities' general interest in developing various innovation ecosystems (Anttiroiko, 2016).

Open and user-oriented innovation activities can be implemented via different methods. For example, crowdsourcing (Salminen, 2015), co-creation (Harmokivi-Saloranta & Parjanen, 2019) or living labs (Salminen & Konsti-Laakso, 2010) include many practices that can be used to involve outside groups in development activities in both digital and physical environments. In the urban context, this means that cities should use the full capacity of various urban communities to provide better services and goods to the public, bringing together the administration, citizens and entrepreneurs

(Paskaleva, 2011). Bringing users and developers into the same micro-environments and engaging user communities allows for stimulating various innovation processes. In the urban context, such technological opportunities must be evaluated against the city's economic, social and environmental aims (Shaffers et al., 2012).

Generally, the platform could be any physical, technological or social base on which sociotechnical processes are built (Anttiroiko, Valkama, & Bailey, 2014). The platform is an approach for attracting other organizations and stakeholders and facilitating and orchestrating various innovation processes. Harmaakorpi (2004, p. 28; 2006, p. 1089) defines regional innovation/development platforms 'as regional resource configurations based on the past development trajectories, but presenting the future potential to produce a competitive advantage existing in the defined resource configuration'. Ojasalo (2015, p. 195) explains an innovation platform as 'an approach that systematically facilitates external actors' innovation with a purpose to develop solutions to the platform owner's problems and needs – it is an approach for attracting, facilitating, and orchestrating other organizations' innovations to solve platform owners' problems'. His definition resembles that of innovation intermediaries. Consoli and Patrucco (2008) see innovation platforms as directed networks that do not emerge and evolve spontaneously but where key nodes have a driving effect on the behaviours of the other actors and shape the evolution of the system and its aggregate performance. This also implies that innovation platforms may need various brokerage functions to emerge and survive (Parjanen & Hyypiä, 2018). Common to these definitions is that they highlight the diversity of actors involved in an innovation platform, such as firms, public organizations, expertise centres, research centres, educational organizations, users and other actors contributing to the defined platform (Harmaakorpi, 2006; Parjanen & Hyypiä, 2018).

The concept of an innovation platform is similar to that of a cluster. A cluster is defined as a specialized concentration of business and innovation expertise and support in a localized setting. A platform is a more complex combination of clusters and non-cluster industry organizations highlighting related variety (Cooke, 2012, p. 1419; Uotila, Harmaakorpi, & Hermans, 2012, pp. 1588-1590). Owing to this related variety, a platform offers greater potential for innovation than a cluster does. The platform model celebrates the difference and cross-fertilization of ideas and practices among organizations in the same or different industries. According to Anttiroiko, Valkama, and Bailey (2014), platforms primarily carry out four main functions: (i) providing open access and encouraging broad-based stakeholder involvement; (ii) enhancing individual and collective creativity; (iii) facilitating open dialogue and sharing; and (iv) supporting convergent thinking, decision-making and policy integration. Through such functions, platforms bring added value to local knowledge processes, which are critical to the innovativeness and smartness of local economic development.

Research methodology

Background of the study

This study uses a case study as a research strategy (Yin, 2009) utilizing Lahti city centre as a case. Lahti is a city and municipality in southern Finland. With a population of 120,000, Lahti is a growing, vibrant city where environmental choices are made every day. The City of Lahti has a vision to thrive internationally as a bold environmental city for people and businesses. The strategic themes of the Lahti Region are a circular economy including biological and technical materials, design and digitalization, especially from the usability perspective, and sports and experiences related to tourism (Green Economy Region, 2016).

The City of Lahti is a member of the Clean & Smart Foundation. The foundation is turning the Helsinki region and Lahti into a world-class test platform for clean and smart solutions to reduce dependence on fossil energy. The foundation will compile and produce projects that will create business opportunities based on clean and smart solutions in the region. Especially in the city centre, smart solutions relate to electric transportation, smart traffic control, lighting, energy systems and construction projects. (Smart & Clean Lahti, 2020.)

Increasing the vitality of the city centre is also highlighted in the strategic vision for Lahti, which includes strategic goals, such as an increase in the number of new businesses, increased satisfaction of entrepreneurs with the municipality's industrial policy and measurable increased vitality of the city centre (Lahti City Strategy, 2020).

Data collection and analysis

The study examined how a novel innovation platform for development processes in the city centre can be created and how actors operating on this platform can together create value-adding innovations and novel models of action. The study focused in particular on the perspectives of holders of real estate, who represent a relatively small but powerful group of people in Lahti. The research questions concern what elements the real estate holders and entrepreneurs of the city centre consider essential in building a common innovation platform as a part of smart city initiatives, and what motivates the real estate holders and entrepreneurs in the city centre to participate in innovation platforms as a part of smart city initiatives. The empirical data sources in this study comprised semi-structured interviews, observation and written material (Figure 1). The primary data were collected by way of semi-structured interviews with holders of real estate. Semi-structured interviews were selected because they allow interviewees freedom to explain their perceptions and matters that concern them. The themes of the interviews were

business possibilities in the city centre, prospects for city development and cooperation, and knowledge sharing with the municipality and other real estate holders. Invitations to participate in the interviews were sent to 12 real estate holders, 8 of whom participated. In addition, 18 entrepreneur interviews were conducted in the city centre to assess the possibilities for an open innovation platform based on the idea of related variety (Cooke, 2012, p. 1419). The interviews focused on the vitality of the city centre, the vision for a well-functioning city centre, cooperation with other entrepreneurs and the role of the municipality and the Lahti City Association (the association for entrepreneurs in the city centre and other stakeholders). The themes of the interviews and example questions are presented in Appendix 1. The interviews were conducted by two researchers and were tape recorded. Observational data were collected in the discussions organized by the Lahti City Association. The association organizes a discussion every month about topical issues in the city centre. The role of written material was to offer background information about the smart city projects and development in Lahti.

Thematic analysis was carried out to transform the collected data into themes and to provide a basis for answering the research questions. The themes were generated inductively, allowing the data to determine the themes. To answer RQ1, the following themes were generated: collective learning, proactive development, understanding, diversity, communication, trust, brokerage functions and objectives. To answer RQ2, two main themes were identified: changes in traditional trading and shopping and changes in human/consumer behaviour. In the next phase of the analysis, a comparison of themes was performed to reveal how elements of the innovation platform and motivations of the real estate holders and entrepreneurs resonate with each other.

Insert Figure 1 about here.

Results

Elements of an innovation platform in the smart city context

The interview results highlight the real estate holders' and city centre entrepreneurs' motivations to participate in open innovation platforms in the smart city context. In the following paragraphs, based on the interviews, the essential elements of the open innovation platforms as well as the motivations for the stakeholders' participation are presented, utilizing Lahti city centre as a case example.

Understanding the different expectations

In general, the main driving force behind all stakeholders in the city centre, which also drives them towards open innovation platforms, is the common view that business development has been weak for a long time. As one real estate holder explained, 'For the last ten years, there has been a tendency that retail businesses flee to the external shopping centres'. The external shopping centres and market areas have become strong competitors of entrepreneurs in the city centre, and they share to view that they are losing customers to these market and mall areas. According to the interviewees, the external shopping centres have affected business in the city centre a great deal. In the case of Lahti, this tendency has been supported by the construction in the city centre that has pushed the flow of consumers to the external shopping areas and, although most of the construction has been completed, the people seem unwilling to return to the city centre. One entrepreneur in the city centre clarified, 'I have talked with other [names of the entrepreneurs], and they have the same situations; there are fewer customers than earlier'. In addition, in recent years, business in the city centre has suffered from a high

unemployment rate, low purchasing power and e-commerce, which are viewed as the reasons for the difficulties in the city centre. In addition, the appreciation of properties has stagnated and rental revenues have dropped. In looking at the big picture, this implies that the evolving innovation platform and the motivations of stakeholders to participate in them relate to tackling the emerging business-related challenges and balancing the perspectives of various participants.

According to interviewed stakeholders, there is a trend that is changing consumer behaviour. They called this *value transition*, meaning that there is more willingness to use services than products. There are a great many empty spaces, but physical stores will not disappear in the future. Rather, they are moving to service places. Moreover, in their interviews, entrepreneurs noted a change in customer behaviour due to digitalization. They stated that clients use the internet more to obtain information about a product and make a decision about what to buy before going to a physical store. Physical trips to stores still happen, but clients spend less time in the store and are better informed beforehand and can, therefore, make a faster selection. Clients use the online store to search for suitable products and then collect them from the store on their way to somewhere else. Changes in consumer behaviour imply that the innovation platform should be able to imagine potential futures and make use of future-oriented information and knowledge generated, for example, in foresight activities. For example, responding to the possibilities outlined in Table 1 should be done proactively rather than in a reactive manner.

Insert Table 1 about here.

Proactive approach to development

Interviewed entrepreneurs acknowledged that e-shopping is a threat to small stores and, in that way, it is also a threat to the vitality of the city centre. Digitalization, and especially e-shopping, was mentioned several times as a reason why some entrepreneurs have closed their stores in the city centre. They explained, for example, that ‘this gets the worst all the time, because it [selling] goes to internet’ or ‘the internet is a big competitor to entrepreneurs in physical stores...’. There are several barriers to stores entering the digital economy. In particular, lack of time and necessary information and communications technology (ICT) skills are central barriers. Furthermore, some interviewees indicated that technologies and techniques are not applicable to the products and services they offer. One of the strategic themes of the region, digitalization, is poorly understood among entrepreneurs. If an innovation platform is to be considered a tool in the development of a smart city, more effort should be put into the capabilities of its members to understand the overall picture of the development. This implies that there should be more information, education and support targeted towards helping entrepreneurs understand the nature and importance of digitalization.

However, the attitudes towards digitalization are not necessarily negative. Entrepreneurs had e-stores and were using different social media channels. The potential for digitalization is huge, for example, in pharmaceutical companies. There is an opportunity to create further value from data and analytics using internal and external data sources to generate evidence about a drug’s efficacy and clinical practices. However, in general, knowledge of ICT use in the development of the city centre or in the creation of business possibilities was low. It seems that the entrepreneurs were more concerned about a shortage of parking spaces than in developing smart solutions for the problems in the city centre. The understanding of opportunities concerning city renewal

appeared quite traditional among the entrepreneurs, hindering the development of smart solutions.

Communication

Related to development in the city centre, including the development of business, development efforts are needed to foster cooperation among real estate holders and cooperation between real estate holders and the municipality. For example, the holders of real estate do not necessarily have information on the kind of development plans the others have or on potential joint projects. Interviewed real estate holders explained, for example, ‘I know very poorly [about others’ plans]’ and ‘Seldom does anyone tell about their plans; there is no genuine discussion.’ One reason might be that the fragmented structure of property ownership makes discussions difficult. Real estate holders seem to lack the setting and possibilities for open communication, which motivates them to participate in open innovation platforms focused on city renewal activities.

The interviewees highlighted that although the common development focus is shared, it should be noted that entrepreneurs are interested in varying aspects of it. In some cases, this means that there is a need to split the larger open innovation platforms into smaller development groups, as one entrepreneur suggested that ‘perhaps things of this kind could be made in smaller groups ... if there are three or four entrepreneurs who have the same kind of interest, they could go through these issues together’. However, they agreed that despite the more focused development activities, there should be communication between groups concerning what is happening in specific groups. These results imply that communication in an innovation platform has at least two functions. First, there is a need to inform internal stakeholders about what is happening on the platform. This facilitates the innovation process by strengthening commitment and the ability to obtain information about best practices and innovations adopted by others, and

provides a means of attaining knowledge that supports the functioning of the platform. Second, as the interviewees mentioned, one of the challenges is to find entrepreneurs who are willing to develop new and smart services. Thus, there is a need to inform external stakeholders about the possibilities of the development activities taking place to better involve a variety of stakeholder groups.

A common and concrete objective

Despite previous and ongoing changes in business in the city centre, the prospects for housing in the Lahti city centre are developing in a positive direction. As a real estate holder explained, ‘there seems to be more supply, and there are also new buildings in the city centre’. There does not appear to be a trend of people being unwilling to move to the city centre. In particular, new inhabitants of the city centre are people who have lived most of their lives in the suburbs and want to move nearer to the services offered in the city centre. This means that especially older adults and students are moving to the city centre and there is a need for small apartments that can accommodate one or two people. New residential buildings are being built in the city centre. The interviewees highlighted that this is a good thing that there is ‘hype’ about the construction of residential buildings in the city centre. The presence of new inhabitants also means that the need for different kinds of services will increase in the city centre. For example, one interviewee highlighted, ‘as the number of people grows, it means there will be services and businesses and the quality of them will improve’. The interviewees trusted very strongly that new buildings will be sold and this trend will continue in the future. There will only be difficulty in attracting buyers to the most expensive buildings in Lahti because of the low purchasing power in the city. This means that buyers should be attracted, for example, from the metropolitan area. This is not necessarily unequivocal, though the train connections have improved and there are plans to develop the railway

station with smart solutions. Owing to the positive development in housing in the city centre, according to the interviewees, immediate actions are needed to make the city centre more attractive and to persuade missing clients and entrepreneurs to return to the city centre. This is another major reason and driver motivating entrepreneurs to participate in open innovation platforms and city renewal activities focused on increasing the attractiveness and livingness of the city centre.

Table 1 presents a SWOT analysis of prospects of the city centre. It identifies opportunities for common development. The SWOT analysis also reveals that the problems confronted in the city centre are complex and multi-faceted, such as the dominance of e-shopping, lack of new entrepreneurs, stagnation of properties and reduction of clients in the area. Solving these problems requires a wide range of knowledge and expertise. In the context of urban renewal, solutions should correspond to the preferences of elected politicians, make life easier for public employees and entrepreneurs and create higher user satisfaction. In real life, however, different stakeholders evaluate outcomes in different ways, indicating the need for a more open and interactive development approach. The will to cooperate exists. As one real estate holder stated, ‘as far as plans and dreams resonate with neighbouring real estate and there is a good synergy and a path to results, we do discuss [common development opportunities]’. However, in practice, organization is still required.

Diversity in knowledge co-creation

The interviewees understood well that collaboration between people with expertise in different domains creates an environment that is conducive to the emergence of innovations, creating a promising base on which to build an innovation platform. Interviewees argued, for example, that there is currently a lack of stakeholders involved in development, leading to a misrepresentation of information. As such, in the

interviews, the role of local knowledge as an important contributor to development was acknowledged, and obtaining and sharing that information motivates stakeholders to participate in open innovation platforms. Local people have the best insight into the urban surroundings and their special characteristics. Interviewees also mentioned the need for scientific knowledge concerning, for instance, ‘why people come to the city centre, how they move in the centre or what are the reasons why they travel to the metropolitan area’ instead of the local city centre. In addition, there is a need for future-oriented knowledge to avoid path dependence that may reduce innovation capabilities in the long term. As the surrounding environment is changing all the time, giving weak signals of future trajectories, ‘it is not wise to lock in only one possibility’ as one interviewer pointed.

Trust building

According to interviewees, it is essential for the various participants in an innovation platform to share a common and long-term political commitment to the vision of how to develop the city centre. Several interviewees mentioned the municipality having changed decisions after a local election, thus making it difficult to plan one’s own activities, as one could not be sure of what will happen in the future. The establishment of a trustworthy development atmosphere, which helps stakeholders overcome their unwillingness to take part in an innovation process, was highlighted. Interviewees stressed the ‘need for an open mind’ in discussing that collaboration can only happen when trust is established.

The study reveals that a social distance between different stakeholders can hinder collaboration. Interviewees, for example, explained that ‘there are social tensions between people’ or that ‘the meetings have been turned into a shouting match’. At the institutional level, the lack of trust manifested, for example, in feelings of

disappointment: 'We do discuss with the municipality, but in the decision-making, our views and ideas are not taken into account'.

Collective learning

Interviewees expressed appreciation that the municipal authorities have changed their ways and moved towards a more open and dialogic direction, which provides new possibilities for open innovation platforms to occur and to be effective. For example, the municipal authorities have organized sessions and workshops and held discussions about the plans in public spaces, instead of the traditional approach of providing one-way information. However, one real estate holder explained that 'although the city has had discussions with us, our arguments have no effect on the implementation'. Thus, the interviewed real estate holders felt that there remains a need for more detailed discussion, for which an open innovation platform could provide a suitable medium. In other words, common arenas that facilitate collective learning are required.

Entrepreneurs noticed the need to collaborate with other stakeholders to make the city centre more attractive. Some of them were interested in participating in discussions with other entrepreneurs, real estate holders and public employees. According to them, it would be essential to learn from others' experiences and courses of action, as collective learning is an important aspect of knowledge co-creation. Possibilities for collective learning help stakeholders understand each other's perspectives and advance common development. For example, interviewees referred to processes that had not succeeded because 'they [the city] did not give the possibility to participate', 'economic issues were not taken properly into consideration' or 'it's a little crazy when you [the city] focus on triviality and do not pull together'. It turned out that none of these processes were discussed with stakeholders afterwards.

Brokerage functions

The innovation platform would also benefit from brokerage functions. According to one interviewee, ‘there is a need for an organizer who does not have a hidden agenda’.

Whilst spontaneous cooperation between different stakeholders might occur, it appears that a broker is able to facilitate the cooperation, for example, by providing links, knowledge sources, arenas and methods to enable the stakeholders to concentrate on the effectiveness of innovation processes. An example of these kinds of brokerage functions is the role that the Lahti City Association performs. The interviews revealed that the executive manager of the association had organized a common project with some real estate owners that related to the development of the city centre. The results of their project were, for example, new convertible lighting on one street and a proposal to locate the new art and design museum with virtual possibilities to the centre of the city. Moreover, in discussions organized by the Lahti City Association, the possibilities of digitalization were raised, such as the application that concerns clients’ car parking and digital signposts.

A key factor of success for the innovation platform is that of good brokering – that is, being knowledgeable about the theme being addressed, having convening power to bring stakeholders together and being responsible for communicating the platform activities on and off the platform. In addition, an innovation broker must have some degree of neutrality. Figure 2 presents a summary of elements of the innovation platform.

Insert Figure 2 about here.

Discussion

The aim of this study was to uncover what elements holders of real estate and entrepreneurs in the city centre of Lahti consider to be essential elements in building a common innovation platform. If these elements are compared with the platform functions presented by Anttiroiko, Valkama and Bailey (2014), there are similarities. For example, both highlight the broad involvement of different stakeholders and the facilitation of open dialogue and knowledge sharing. In addition, to function properly, the innovation platform needs intangible elements, like trust, learning and understanding, and concrete objectives (cf. Buerkler, 2013). This also implies that investment in social capital is an essential prerequisite for becoming a smart city (Sauer, 2012). The importance of social relations is that they are vehicles that enable the exchange of knowledge because of mutual trust, kinship and experience (Boschma, 2005, pp. 66-67). The trustful relationships in the platform encourage innovative ideas, as the participants are able to give confidence needed to turn these ideas into successful smart city projects.

According to the results, the innovation platform could better present the future potential to produce a competitive advantage than any actor alone, as presented also by Harmaakorpi (2004; 2006). However, it is essential to understand that the benefits do not necessarily materialize instantly but in the future.

The innovation platform has been considered as a way to change traditional top-down approaches (Calzada & Cobo, 2015) and forge a path towards addressing current and future challenges. However, the role of local government in this study is interesting. On one hand, the real estate holders and entrepreneurs mistrust the local government and want a stronger commitment on its part to the long-term vision of development activities and for the ideas of entrepreneurs to be better accounted for in these activities.

On the other hand, they consider it important that the local government participates in the innovation platform, thereby offering, for example, possibilities for collective learning. Anttiroiko (2016) explains that the role of the government should be supported by sufficient common interest in the planned innovation, sufficient trust between participants and the required human and financial resources for joint learning and development. This implies that the role of the local government in the innovation platform differs according to the development focus. The role varies from supporting and enabling development to being an active participant in the innovation platform.

This study also examined the current challenges and changes in the city centre for which smart city initiatives and innovation platforms can offer solutions and what motivates real estate holders and entrepreneurs to adopt these initiatives. One of the biggest challenges that city centres face today relates to changes in traditional trading and shopping. Many city centres are traditionally built and based on trade and shopping. Now, when e-shopping has dramatically taken over the market share of traditional shopping, a growing number of physical stores exist for which new purposes must be discovered. Traditionally, entrepreneurs rented these stores from the real estate holders and, in some cases, minor decorations were undertaken to meet the entrepreneurs' requirements. In the current business environments of city centres, however, this does not seem to be enough. Holders of real estate must collaborate and interact with entrepreneurs (users of their real estate) as well as other stakeholder groups more closely than they have done before. This interaction has similar effects that have been highlighted in an open innovation and innovation platform context. As presented earlier, innovation platforms highlight the role of networks in innovation processes, suggesting that organizations rely heavily on their interaction with users, suppliers and a range of other organizations within the innovation system (Bogers & West, 2010; Chesbrough,

2003; von Hippel, 2005). Thus, the innovation platform engages various actors, and contributes to building an open innovation network, for example around a smart city initiative.

The results of this study suggest that the way in which digitalization has changed shopping and trading in the city centre can be considered a current and future problem, and the resolution demands contributions from many different stakeholder groups. It seems to be a challenge requiring new types of innovations and innovative business models and a new kind of thinking. In other words, it requires the involvement of people, enhancement of human capital and support for innovation activities, and soft smart city strategies as presented by Neirotti et al. (2014) and Ahvenniemi et al. (2017).

Another categorical change affecting city centres currently seems to be in human/consumer behaviour. The real estate holders and entrepreneurs called this shift a *value transition*. Consumers in the city centre are spending more money and time on services than on physical products. If the current trend of *value transition* continues, the city centre will slowly turn into a service area instead of a marketplace. As the focus of city centre development over the past decade has been on retaining shopping and trade, which makes city centres attractive, the current interest of smart city activities in city centres seems to be in how to get people to stay and spend time in these areas. There is a difference between focusing on people and focusing on shopping and trading conditions. This is in line with Ben Letaifa (2015), who argues that the need to balance economic growth and social development in a context of high urbanization seems to be one of the main drivers of the interest in smart cities. That is another challenge that, according to results of this study, is extremely difficult for one stakeholder group to solve. Securing the participation of relevant stakeholders could be considered an essential factor of a smart city as also pointed by Manville et al. (2014).

A new kind of innovative thinking and contributions of different stakeholder groups are needed to develop new kinds of business models that better combine shopping and services. Harmaakorpi (2004, p. 1089) defines regional innovation/development platforms as ‘regional resource configurations based on the past development trajectories, but presenting the future potential to produce a competitive advantage existing in the defined resource configurations’. Innovation platforms offer a potential solution to support the *value transition* of city centres.

Finding solutions to the challenges facing the city centre calls for more open, honest and constructive ways of working together. However, building an open innovation platform is not an automatic process. The results of this study suggest that it necessitates greater co-development and interaction between stakeholders, indicating the need for brokerage functions. In addition, the innovation platform should not be considered static; the activities taking place on the platform must be continuously evaluated depending on the innovation platform’s elements. While these ongoing activities are taking place, consideration must be given to, for example, how the platform is kept open for new participants, how the balance between different expectations is maintained, how new possibilities are responded to and how various experiences are utilized in current and future development activities.

Conclusion

To increase the understanding of the role of innovation platforms, this study examined the utilization of an open innovation platform in the context of city renewal. Utilizing smart cities as a contextual example, the expectations of real estate holders and entrepreneurs in the city centre regarding the utilization of open innovation platforms as a part of city renewal activities were explored. The results of the study reveal that there are critical elements, such as the diversity of stakeholders, collective learning and a

proactive approach to development, that assist in the formation of an innovation platform in the context of city renewal. As such, an innovation platform in the context of city renewal can be considered as a forum consisting of stakeholders bound together by their individual interests in a common issue. By facilitating changes and supporting innovation processes, innovation platforms can increase interaction, negotiation and learning between stakeholders.

The results of the study further show that the contemporary challenges of city centres are mainly related to changes in shopping and trading conditions and to the *value transition* from products to services. These challenges can be considered at the level of changes that cannot be solved by a single stakeholder group. Thus, the results of the study highlight the importance of establishing innovation platforms where each stakeholder makes a contribution and also draws benefits in a win-win situation. In summary, changes in shopping and trading, as well as the *value transition* trend among customers, seem to be forces driving stakeholder groups to seek and develop new methods as a part of city renewal and smart city initiatives. The motivations of real estate holders and entrepreneurs in the city centre to participate in these initiatives, such as innovation platforms, seem to relate to maintaining the livingness of the city centre.

The results of the study also indicate that as a part of smart city initiatives in the context of city renewal, it is crucial to establish a trustworthy development atmosphere to help various actors overcome their reluctance to take part in the innovation process. Common development within the context of city renewal should highlight diverse dialogue emphasizing interaction and communication between stakeholders. The interviewed real estate holders mentioned that there are several issues that might profit from cooperation, but the capacity to coordinate the exchange of complementary pieces of knowledge between different stakeholders is low. The innovation platform, thus,

would also benefit from brokerage functions. The brokerage intervention can enhance cooperation, for example, by advising stakeholders of the advantages of cooperation, giving information, identifying opportunities, catalysing discussions between different actors or bringing organizations together.

It would be interesting for future research to examine how creative and innovative these platforms are in terms of creating new knowledge and what kind of innovations are stemming from them in smart city contexts. It would also be essential to examine what kinds of brokerage functions are needed in different phases of open innovation platform processes in smart city contexts. Further, the examined stakeholder groups highlighted that there is a need for scientific knowledge to understand why people come to the city centre and how they move in the area.

References

- Ahlers, D., Wienhofen, L. W. M., Petersen, S. A., & Anvaari, M. (2019). A Smart City Ecosystem Enabling Open Innovation. In K. H. Lüke, G. Eichler G., Erfurth, & G. Fahrnberger (Eds.) *Innovations for Community Services. I4CS 2019. Communications in Computer and Information Science, vol 1041*. Cham: Springer.
- Ahvenniemi, H., Huovila, A., Pinto-Seppä, I., & Airaksinen, M. (2017). What are the differences between sustainable and smart cities? *Cities*, 60(A), 234-245. doi.org/10.1016/j.cities.2016.09.009
- Albino, V., Berardi, U., & Dangelico, R. M. (2015). Smart cities: Definitions, dimensions, performance, and initiatives. *Journal of Urban Technology*, 22(1), 1-19. doi:[10.1080/10630732.2014.942092](https://doi.org/10.1080/10630732.2014.942092)
- Anttiroiko, A-V. (2016). City-as-a-Platform: The Rise of Participatory Innovation Platforms in Finnish Cities. *Sustainability*, 8. doi:[10.3390/su8090922](https://doi.org/10.3390/su8090922)

- Anttiroiko, A-V., Valkama, P., & Bailey, S. (2014). Smart cities in the new service economy: Building platforms for smart services. *AI & Society*, 29, 323–334. doi.org/10.1007/s00146-013-0464-0
- Bakıcı, T., Almirall, E., & Wareham, J. (2013). A smart city initiative: The case of Barcelona. *Journal of the Knowledge Economy*, 4(2), 135-148. doi.org/10.1007/s13132-012-0084-9
- Ben Letaifa, S. (2015). How to strategize smart cities: Revealing the SMART model. *Journal of Business Research*, 68, 1414-1419. doi.org/10.1016/j.jbusres.2015.01.024
- Bogers, M., Chesbrough, H., & Moedas, C. (2018). Open Innovation: Research, Practices and Policies. *Californian Management Review*, 60, 5-16. doi.org/10.1177/0008125617745086
- Bogers, M., & West, J. (2010). *Contrasting innovation creation and commercialization within open, user and cumulative innovation*. Working paper. San José: San José State University.
- Boschma, R. (2005). Proximity and innovation: A critical assessment. *Regional Studies*, 39, 61-74. doi.org/10.1080/0034340052000320887
- Buerkler, E. (2013). Critical success factors for joint innovation: Experiences from a New Zealand innovation platform. *The Innovation Journal: The Public Sector Innovation Journal*, 18(2), article 8.
- Calzada, I., & Cobo, C. (2015). Unplugging: Deconstructing the Smart City. *Journal of Urban Technology*, 22(1), 23-43. doi.org/10.1080/10630732.2014.971535
- Chesbrough, H. (2003). *Open Innovation. The New Imperative for Creating and Profiting from Technology*. Boston: Harvard Business School Press.
- Chourabi, H., Nam, T., Walker, S., Gil-Garcia, R., Mellouli, S., Nahon, K., Pardo, T., & Scholl, H. J. (2012, January). Understanding smart cities: An integrative framework. In *System Science HICSS 2012, 45th Hawaii International Conference, IEEE* (pp. 2289-2297).
- Christensen, J. F., Olesen, M. H., & Kjaer, J. S. (2005). The industrial dynamics of open innovation – evidence from the transformation of consumer electronics. *Research Policy*, 34(10), 1533-1549. doi.org/10.1016/j.respol.2005.07.002
- Colantonio, A., & Dixon, T. (2009). *Measuring Socially Sustainable Urban Regeneration in Europe*. Oxford Institute for Sustainable Development (OISD) School of the Built Environment, Oxford Brookes University.

- Consoli, D., & Patrucco, P. P. (2008). Innovation platforms and the governance of knowledge: Evidence from Italy and the UK. *Economics of Innovation and New Technology*, 17, 699-716. doi.org/10.1080/10438590701785694
- Cooke, P. (2012). From Clusters to Platform Policies in Regional Development. *European Planning Studies*, 20, 1415-1424. doi.org/10.1080/09654313.2012.680741
- Dameri, R., & Ricciardi, F. (2015). Smart city intellectual capital: An emerging view of territorial systems innovation management. *Journal of Intellectual Capital*, 16(4), 860-887. doi.org/10.1108/JIC-02-2015-0018
- Dhanaraj, C., & Parkhe, A. (2006). Orchestrating innovation networks. *Academy of Management Review*, 31, 659-662.
- Giest, S. (2017). Big data analytics for mitigating carbon emissions in smart cities: Opportunities and challenges. *European Planning Studies*, 25(6), 941-957.
- Green Economy Region. (2016). Lahden kaupunkiseudun kilpailukykystrategia. Available at <https://www.lahti.fi/tiedostot/kilpailukykystrategia/> Assessed 30 November 2020.
- Harmaakorpi, V. (2004). *Building a Competitive Regional Innovation Environment—The Regional Development Platform Method as a Tool for Regional Innovation Policy*. Doctoral dissertation series 2004/1, Espoo.
- Harmaakorpi, V. (2006). The regional development method as a tool for regional innovation policy. *European Planning Studies*, 14, 1085-1104. doi.org/10.1080/09654310600852399
- Harmokivi-Saloranta, P., & Parjanen, S. (2019, March). The knowledge-creating pattern in user-driven innovation. In *The EAPRIL 2018 Conference Proceedings* (pp. 37-51). EAPRIL European Association for Practitioner Research on Improving Learning.
- Konsti-Laakso, S., & Rantala, T. (2018). Managing community engagement: A process model for urban planning. *European Journal of Operational Research*, 268(3), 1040-1049.
- Kraus, S., Richter, C., Papagiannidis, S., & Durst, S. (2015). Innovating and Exploring Entrepreneurial Opportunities in Smart Cities: Evidence from Germany. *Creativity and Innovation Management*, 24(4), 601-616. doi.org/10.1111/caim.12154

- Kummitha, R. K. R., & Crutzen, N. (2017). How do we understand smart cities? An evolutionary perspective. *Cities*, 67, 43-52. doi.org/10.1016/j.cities.2017.04.010
- Lahti City Strategy. (2020). VISION 2030. Lahti – bold environmental city. Available at <https://www.lahti.fi/en/files/lahti-city-strategy-2030/> Accessed 30 November 2020.
- Lehenkari, J., Pelkonen, A., & Oksanen, J. (2015). *Innovaatioalustat 2015* (Innovation platforms 2015). Policy brief, MEE reports 45/2015, Ministry of Employment and the Economy.
- Manville, C., Cochrane, G., Cave, J., Millard, J., Pederson, J. K., Thaarup, R. K., Liebe, A., Wissner, M., Massink, R., & Koterink, B. (2014). *Mapping Smart Cities in the EU. Brussels*. European Parliament's Committee on Industry, Research and Energy.
- Marsal-Llacuna, M.-L., Colomer-Llinàs, J., & Meléndez-Frigola, J. (2015). Lessons in urban monitoring taken from sustainable and livable cities to better address the Smart Cities initiative. *Technological Forecasting and Social Change*, 90(B), 611–622. doi.org/10.1016/j.techfore.2014.01.012
- Mattsson, J., & Sørensen, F. (2015). City renewal as open innovation. *Journal of Innovation Economics & Management*, 1, 195-215. doi:[10.3917/jie.016.0195](https://doi.org/10.3917/jie.016.0195)
- Melkas, H., & Harmaakorpi, V. (2012). Introduction. In H. Melkas & V. Harmaakorpi (Eds.) *Practice-Based Innovation: Insights, Applications and policy Implications* (pp. 1-13). Heidelberg: Springer.
- Neirotti, P., De Marco, A., Cagliano, A. C., Mangano, G., & Scorrano, F. (2014). Current trends in Smart City initiatives: Some stylised facts. *Cities*, 38, 25-36. doi.org/10.1016/j.cities.2013.12.010
- Ojasalo, J. (2015). Open Innovation Platform in a Smart city: Empirical results. *The Journal of American Business Review*, 4, 195-202.
- Ojasalo, J., & Kauppinen, H. (2016). Collaborative innovation with external actors: An empirical study on open innovation platforms in smart cities. *Technology Innovation Management Review*, 6(12), 49-60.
- Ojasalo J., & Tähtinen, L. (2016). Integrating Open Innovation Platforms in Public Sector Decision Making: Empirical Results from Smart City Research. *Technology Innovation Management Review*, 6(12), 38-48.

- Parjanen, S., & Hyypiä, M. (2018). Innovation platforms as a solution to the proximity paradox. *European Planning Studies*, 26(7), 1312-1329.
doi:[10.1080/09654313.2018.1476469](https://doi.org/10.1080/09654313.2018.1476469)
- Parjanen, S., Hyypiä, M., Martikainen, S-J. & Hennala L. (2019). Elements of socially sustainable innovation processes in Finnish urban development. *Sustainable Development*, 27, 81–288. <https://doi.org/10.1002/sd.1886>
- Paskaleva, K. A. (2011). The smart city: A nexus for open innovation? *Intelligent Buildings International*, 3(3), 153-171. doi.org/10.1080/17508975.2011.586672
- Quick, K., & Bryson, J. (2016). Public participation. In C. Ansell, & Torbing, J. (Eds.) *Handbook on theories of governance* (chapter 12). Cheltenham: Elgar Press.
- Rogerson, R. (1999). Quality of life and city competitiveness. *Urban Studies*, 36(5/6): 969-985.
- Salminen, J. (2015). *The role of collective intelligence in crowdsourcing innovations*. Acta Universitatis Lappeenrantaensis 671, Lappeenranta University of Technology.
- Salminen, J., & Konsti-Laakso, S. (2010 June). Facilitating User-Driven Innovation through Living Lab. In *The 16th International Conference on Concurrent Enterprising*, Lugano, Switzerland, 21–23 June 2010.
- Sauer, S. (2012). Do Smart Cities Produce Smart Entrepreneurs? *Journal of Theoretical and Applied Electronic Commerce Research*, 7(3). doi.org/10.4067/S0718-18762012000300007
- Schaffers, H., Komninos, N., & Pallot, M. (2012). *Smart Cities as Innovation Ecosystems sustained by the Future Internet*. Technical Report.
- 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. In J. Domingue et al. (Eds.) *The Future Internet. FIA 2011. Lecture Notes in Computer Science*, vol 6656. Berlin: Springer.
- Smart & Clean Lahti. (2020). Smart & Clean Lahti. Available at <https://www.smartlahti.fi/smart-city-long-intro/> Accessed 30 November 2020.
- Tukiainen, T., Leminen, S., & Westerlund, M. (2015). Cities as Collaborative Innovation Platforms. *Technology Innovation Management Review*, 5, 16-23.
- Uotila, T., Harmaakorpi, V., & Hermans, R. (2012). Finnish Mosaic of Regional Innovation System—Assessment of Thematic Regional Innovation Platforms

Based on Related Variety. *European Planning Studies*, 20, 1583-1602.

doi.org/10.1080/09654313.2012.713331

von Hippel, E. (1988). *The Sources of Innovation*. New York: Oxford University Press.

von Hippel, E. (2005). *Democratizing Innovation*. Cambridge: MIT Press.

Weisi, F, & Peng, P. (2014). A Discussion on Smart City Management Based on Meta-Synthesis Method. *Management Science and Engineering*, 8(1), 68-72.

Yin, R. (2009). *Case study research. Design and methods*. Applied social research methods series, volume 5. Third edition. Thousand Oaks: Sage Publications.

Yström, A., Aspenberg, H., & Kumlin, A. (2015). Exploring the creative climate in an open innovation arena. Identifying challenges and possibilities. *European Journal of Innovation Management*, 18, 70-85. doi.org/10.1108/EJIM-08-2013-0085

Insert Appendix 1 about here.

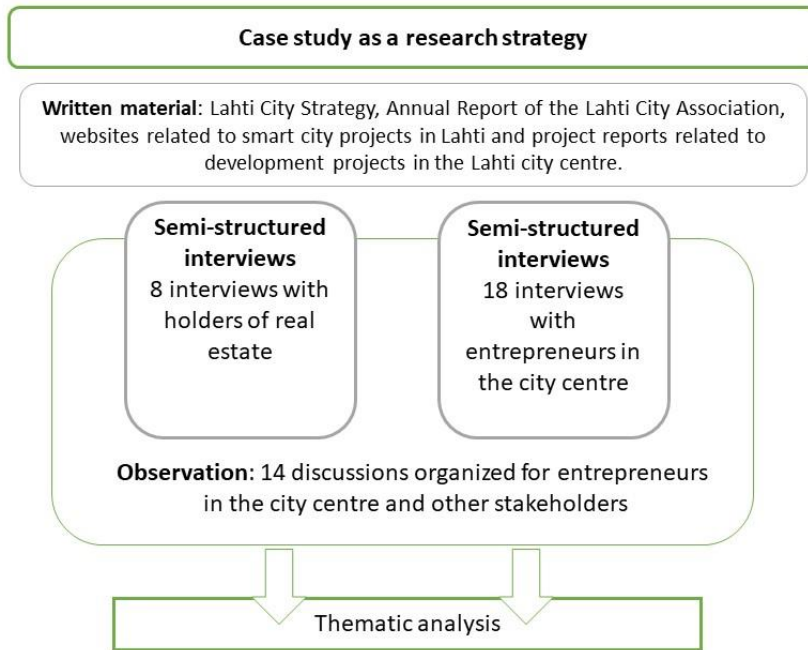


Figure 1. Research strategy and methods.

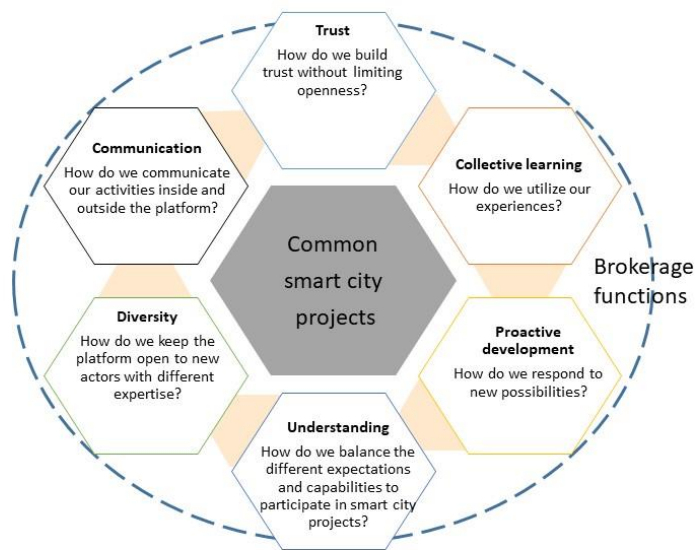


Figure 2. Elements of the urban innovation platform in the smart city context

Table 1. SWOT analysis of the development in the city centre

<p>Strengths</p> <ul style="list-style-type: none"> • There is still a great number of stores in the city centre • Restaurants, night clubs and entertainment venues are in the city centre • Market days, events • Good traffic connections and accessibility 	<p>Weaknesses</p> <ul style="list-style-type: none"> • Too many empty business premises • Ongoing construction works lessen contentedness with the city centre • External shopping areas reduce the number of clients in the city centre • Appreciation of the properties has stagnated • It is challenging to find new entrepreneurs
<p>Opportunities</p> <ul style="list-style-type: none"> • New residential buildings will increase the number of inhabitants in the city centre. • This will increase the need for services and business will strengthen. • Empty business premises will be put to use by new entrepreneurs. • New business concepts will be modelled as combinations of business, service and experience. 	<p>Threats</p> <ul style="list-style-type: none"> • More land is planned for external business premises. • The dominance of e-shopping will close stores in the city centre and the possibilities for digitalization will not be discovered. • People will rediscover the city centre too slowly (or not at all) after the construction work is complete. • There are not enough buyers or renters for new residential buildings and business premises.

Appendix 1. Interview questions

Interview questions for holders of real estate	
<i>Theme</i>	<i>Example questions</i>
Housing and business in the city centre	<p>How will housing in the city centre develop?</p> <p>What kinds of houses are built or needed?</p> <p>Who will move to the city centre in the future?</p> <p>How do you see the development now?</p> <p>How would you estimate the development in the future?</p>
Impact of shopping trips to the metropolitan area	<p>What kinds of effects do shopping trips to the metropolitan area have on local business?</p> <p>Why do people travel to the metropolitan area?</p> <p>What could the entrepreneurs themselves do to attract people to use more local services?</p>
Impact of the current construction projects	<p>What is the impact on business in the city centre of the travel centre construction?</p> <p>How does the new travel centre change people's behaviour?</p> <p>What is the impact on business in the city centre of the Ranta-Kartano area construction?</p> <p>What types of services are needed?</p>
Collaboration between different stakeholders	<p>Do you collaborate with other holders of real estate?</p> <p>How well do you know the plans of the other real estate holders?</p> <p>How well do you know the plans of the City of Lahti?</p>
Plans for the future (investments)	<p>Do you have any investment plans in the near future?</p> <p>Does the current situation motivate you to make investments?</p>
Interview questions for entrepreneurs	
Location in the city centre	<p>How would you describe the location of your business?</p> <p>How long have you been located here?</p> <p>Why did you choose this location?</p> <p>What are the strengths and weaknesses of this location?</p> <p>How do your clients reach your premises (on foot, by bike or car)?</p>
Future of the city centre	<p>What kinds of changes are needed in your surroundings?</p> <p>In the city centre?</p> <p>What is your vision for a well-functioning city centre?</p> <p>What can the entrepreneurs themselves do to be better prepared for the future?</p>

<p>Collaboration with other entrepreneurs and different stakeholders</p>	<p>Do you collaborate with other entrepreneurs? Who do you collaborate with? On which issues? What do you think about events in the city centre? Do you participate? What is the impact of these events on your business? How do you get information about matters and topics concerning the city centre? Are you satisfied with the activity of the city? How well do you know the activities of Lahti City Association? Would you like to send greetings to the City of Lahti or Lahti City Association?</p>
--	--