🏆 *reviewed paper*

Local Agenda 21 Plus Josefstadt: Smart Projects to Share Space, Talents, Knowledge, Objects and much more

Petra Hirschler, Sibylla Zech

(DI Dr. Petra Hirschler, Vienna University of Technology, Department of Spatial Planning, Centre for Regional Planning and Regional Development, Operngasse 11/5 1040 Wien, petra.hirschler@tuwien.ac.at)
(DI Prof. Sibylla Zech, Vienna University of Technology, Department of Spatial Planning, Centre for Regional Planning and Regional Development, Operngasse 11/5 1040 Wien, sibylla.zech@tuwien.ac.at)

1 ABSTRACT

The Local Agenda 21 Plus in Vienna is based on the principle of sustainable urban development at the district and city level. The main goal is to use the creative potential of the different stakeholders for the development of innovative ideas and projects in the district. The main focus of the Local Agenda 21 Plus Josefstadt is to transform the district into a smart, sharing district to reduce to consumption of resources. The slogan used is "Josef and Josefine take part". Concepts like the Smart City/Region have a strong focus on technological solutions and newly built structures. So there is need for smart spatial concepts and smart approaches for existing structures. One possibility of smart development in the existing structures is the sharing of space and infrastructure. Car sharing is also offered by private sector as the project Sharoo (powered by Migros subsidiary m-way AG with participation of the Swiss Mobiliar Holding AG, successfully shows (sharoo AG 2013). With exchange platforms like Napster the idea of shared economy became mainstream. But the real benefit of collaborative consumption and sharing turns out to be social. In an era of individualism, the peer-to-peer sharing "involves the re-emergence of community," says Rachel Botsman (2010) and is therefore very important in bottom-up planning process, because people learn to trust each other (ibid). Therefore the sharing concept is in line with the Local Agenda 21 Plus goals and the experiences in the Josefstadt will test the practicability of the idea.

2 SHARED CITY = SMART CITY

2.1 Effects of Sharing

Sharing is the joint use of a resources or space and also includes in a broad sense the collaborative consumption of goods and services. By sharing instead of possessing resources are saved. The possibilities for common use (e.g. vehicles, apartments, programs, homes, gardens, services) are manifold and not new. "New" technologies e.g. smartphones, however, multiply the opportunities for sharing. The actual time spirit and lifestyle makes the "we" more attractive and pushes the need for personal ownership more and more into the background. By sharing on the one hand natural and spatial resources are saved and on the other hand personal time and financial cost are reduced. For example, the laundry room revival - historically arose from infrastructural needs, now rediscovered as a resource-saving service facility. Sharing and renting is reinvented by innovative technologies.

The so called commons refer to the cultural and natural resources accessible for everybody, including natural materials such as air, water and earth. There are freely available to all potential buyers and is therefore also used and shared together. By definition, public goods can be provided by the State or by private providers (e.g. Wikipedia). Public goods and common goods are public goods by non- excludability property. The concept of "collaborative consumption" was published in 1978 (Felson/Spaeth). With the book "What's Mine is Yours" by Botsman/Rogers (2010) it rose in popularity, especially in the US. "Sharing is ... Connectivity Connectivity is progress ... It's not how smart you are ... but how connected you are!" writes the communication scientist Dominik Haller and outlines the "post -ownership" movement, currently led by innovative thinking "digital bohemians", which focus on sustainability and are not waiting for politicians and companies to change (Haller, 2013). This new attitude of "sharing instead of owning" reflects milieu bound trends, their impact on the spatial development have hardly been explored. The main effects of sharing are described as follows:

- Resources: Sharing helps to use resources more efficient and to adapt to a world with fewer resources. Botsman (2010) points out that sharing might help to achieve sustainability goals by reducing waste and pollution as well as extending the life-cycles of products. Fewer assets bought and sold means that there is more value taken from the same environmental resources as well. There is no doubt that the emergent paradigm of sharing resources will expand and flourish in future,

especially in the face of continuing economic recession, government austerity and environmental concerns.

- Social innovation and trust: Various forms of sharing amongst residents, neighbours and colleagues can strengthen communities and builds trust into the society which leads to greater resilience in times of economic and environmental stress. Even with the growing individualisation of lifestyles sharing helps to keep society values be strengthening of neighbourhood community relationships in both urban and suburban areas.

- Economy: Sharing leads to lower sales and in the long run possibly to a shift in production and employment structures. Some worry that sharing creates an informal economy, which lacks the safety nets of social security, health insurance, anti-discrimination, and taxation. These are aspects to be tackled with this "new" economy and sharing also creates new kinds of demand.

- Technical Innovation: The introduction of new technologies (smartphones, apps and websites) in the past years enables more opportunities for sharing and renting. A lot of innovation and development made the sharing-coordination possible through modern technology.

- Urban development: At the moment cities and agglomerations are the hubs of sharing economy. The impact of "space" sharing and sharing in general on the spatial development have hardly been research.

2.2 Smart City and Sharing

The Smart City / Region is defined by the City of Vienna as an "intelligent, sustainable city – responding to the challenges of a changing energy , mobility and economic system that aims to ensure the quality of life of citizens in the long term" (Magistrat der Stadt Wien, 2014). In recent years, numerous Smart City research projects have been carried out in Austria, a special funding programme was created (Klima- und Energiefonds, 2014), EU initiatives have been provided with substantial funds to accelerate the use of efficiency- enhancing technologies in Europe Smart Cities. As a result of this a lot of cities call themselves "Smart City" nowadays, although or because it is not clearly defined yet.

The climate scientist Boyd Cohen has developed a worldwide "Smart City Index" (Cohen, 2014), which is updated annually and is based mainly on quantitative data (Cohen, 2013). Looking at the indicators of the Smart City Index, the spatial development is not included. Most Smart Cities put technological innovations and approaches at the forefront, such as civil engineering, traffic engineering, network engineering or information and communication technology solutions. When it's about the urban environment, the Smart City Concept appears especially in development areas, e.g. in Vienna the Car-free model housing, Bike City, Marx box or the Seestadt Aspern (Magistrat der Stadt Wien, 2014). The Smart City aims to use resources in an intelligent and sustainable way. The new construction rate of buildings in Austria as well as in Germany is less than 1% per year, most of the today and future living, working and leisure space is already built. Use the existing stock, continue to build on the stock, organizing the existing stock resource efficiently - these are key challenges for the Smart City designed for smart urban development and smart renewal processes. One possible approach is the common use and sharing of resources.

2.2.1   Sharing as a spatial development concept

Cities and regions worldwide increasingly recognize the potential of sharing. In Europe, Amsterdam wants the first European Shared City and has decided at least not to ban shared economy such as Airbnb (Share NL, 2014), Urban Gardening is funded by municipalities or at least initiatives such as Bodenfreiheit for the preservation of open spaces are less hindered. Overall, the debate in Europe is still at the beginning.

The South Korean capital Seoul has declared itself a shared city in 2012 (Johnson, 2013). As one of the global megacities Seoul is facing extraordinary challenges in terms of population and mobility development, environmental impact, etc. Seoul has begun to promote shared economy companies and sets sharing initiatives. A mission statement for the "common use" has been adopted and includes the following objectives and measures:

- A label for selected sharing services to establish trust

REAL CORP SMART ME UP!

- To promote sharing companies to strengthen their perception in public and funding of 10 sharing companies with € 180,000 to build or improve their services and also to support 20-share-startups (counselling, subsidy and provision of office space) with innovative ideas and thinkers.

- Establishment of the "Shared Seoul Promotion Committee " consisting of actors of different sectors (e.g., science, law, media , transportation) to disseminate the Shared City idea in all policy

- International branding of Seoul as a Shared City and as a future-oriented innovation center. Organization of an international conference on the Shared City to exchange know-how.

- The communication between the administration and the economy should be improved through shared data and the Department of Social Innovation acts as a focal point for the Shared City Seoul.

In addition, Seoul offers 492 carsharing vehicles, opens the parking of governmental and municipal buildings outside of work hours to the public, supports common living of senior citizens and students, opens common tool boxes and bookshelves throughout the city and much more. With support of the city companies like Woozoo, a company that remodels the old houses into the shared living or SOCAR - a car-sharing company, children's clothes exchange or even a food sharing platform improve their services. The Creative Commons Korea (CCK) platform is the official partner of the city to share information and resources via an online platform.

The Shareable Cities Resolution was adopted by the US Conference of Mayors in June 2013 (Collaborative Consumption, 2013). This resolution, supported by 15 mayors (including San Francisco and New York City), "states that mayors resolve to make their cities more shareable, encourage better understanding of the sharing economy, and create local task forces to review and address regulations that may hinder participation in the sharing economy" (ibid).

3 SPATIAL POTENTIAL OF A SHARED CITY

3.1 Sharing goods and services

The service platform Task Rabbit (Task Rabbit, 2014), especially available in American cities, has developed a sophisticated system. Based on the principle of neighbourly help, Task Rabbit offers help for supermarket shopping, assembling of furniture or small repairs locate in the neighbourhood. Task Rabbit is based on trust between people, which is built up by background checks, personal profiles as well as ratings and reviews. Unlike traditional barthering circles, for example in a number of regions in Austria work with their own currency or time accounts, the Task Rabbit is paid after the task is fulfilled online by credit card.

This model allows easy neighbourhood assistance and inspires trust, but without dependence and fits individual lifestyles. The task rabbits develops a virtual trust value by the ratings and reviews over time - similar to online shops. The experiences of Task Rabbit show that employees with high trust levels are booked more often. According to Botsman / Rogers (2010), this trust value could be similar to the credit rating in the future and uses as an integral part of a personal portfolio, if it's provided platform independent.

In Vienna the platform "Frag nebenan - ask next door" (https://fragnebenan.com/, 30.03.3016) links interests, recommendations and neighbourhood help within the house, block and the neighbourhood. The service is for free and was invented by seven active Viennese citizens with to goal to support a community platform in a dynamically growing city. Sharing goods became also popular with shops to borrow things, exchange platforms and repair workshops.

3.2 Crowdfunding and Crowdsourcing

A small revolution in the field of software development was started by open source programs. The Internet community develops - jointly and transparently - different software applications that are available for free. Start -ups discovered the possibility of crowdfunding and crowdsourcing for innovative projects, which become financed through many small amounts. This offers a new dimension for innovations as probably these projects would not have been financed by banks.

Crowdsourcing of spatial data in planning processes - the entering, updating of data and collections of ideas – gets more and more popular. The number of applications of online-based participation tools grows increasingly. In Vienna 8,500 people discussed about – their wishes, concerns, needs and ideas - "Living together in Vienna" in 651 Charter groups. The results were put together in the "Vienna Charter" (Wiener

Charta, 2013). On www.muenchen-mitdenken.de citizens were involved in the revision of urban development plan ("Perspektive München"). www.muenchen-mitdenken.de was viewed more than 180,000 times within the period of three months. On www.schau.auf.linz.at anyone reports on problems, deficiencies and opportunities for improvement on site using an online portal. The following information is available for everybody: when a message was delivered and how long did it take until the defect has been fixed (Stadt Linz, 2014).

Crowdfunding is also used for secure and design open spaces. The association Bodenfreiheit in Vorarlberg is looking for people who are willing to spend each month, an amount of at least 10 euros to buy open spaces which are already dedicated residential areas. When these areas are bought, the will not be built up and are made accessible by the public (Bodenfreiheit, 2014).

3.3 Sharing space

The possibilities to share space are manifold such as living space, working spaces, gardens, sports facilities, meeting halls, parking lots, garages, storage rooms, courtyards, streets and squares.

The so-called "shared space" is a planning approach to minimise demarcations between different modes of transport by removing features such as curbs, road surface markings, traffic signs and regulations (FGM, 2014). The principle behind this is quite simple: all road users feel fundamentally insecure and therefore the attention is increased massively. Experiences and surveys show that this leads to a reduction of road accidents and an increase of use as well as quality of public space.

Fig. 1: VIENNA, Mariahilfer Straße: In a citizen survey in March 2014 (with a stake of almost 80% of the voters) the inhabitants of the neighbouring districts were in favour of the traffic calming Mariahilfer Straße with 53.2%. Shared space or pedestrian zone covering a distance of 1.6 km. Picture Credits: stadtland.

Not only in the public space but also in the private space, there are numerous examples of common usage, especially for touristic use. Examples are: couchsurfing, an Internet- based guest network for the exchange of accommodation with 7 million members in more than 100,000 towns (couchsurfing, 2014) worldwide, private renting of rooms like Airbnb, founded in August 2008 with headquarters in San Francisco, another worldwide community for private accommodation (Airbnb, 2014) or houses and home exchange. One

exchange of living space in Vorarlberg – announced by the exchange platform of Radio Vorarlberg - has become a pilot project in the country of Vorarlberg (ORF, 2013). A young family of five people from Wolfurt had offered their too small apartment in exchange for a house and the change was successfully completed.

Particularly in the age group 50 + there are innovative examples, when it comes to share living space. On the one hand, the costs are reduced by sharing and on the other hand it is more possible to stay in the community. Nevertheless, the focus is again projects with new constructions. However, many older people live in large flats over 100 m², the general these units could be easily converted to residential communities, corresponding individual and communal areas. This has two effects: more exchange of the inhabitants and resources saving (e.g. space, energy, heating). The combination with thermal renovation this community housing project causes higher energy efficiency than thermal renovation alone. Increasing only the higher occupation density brings an energy-saving effect (Brandl, 2012, P. 111). Moreover, mobile services are organized easier and more cost-efficient, if needed. There is variety of models possible - from small apartments including bathroom in a shared large apartment up to a family house with common areas. This ensures privacy and takes advantage of the common facilities.

Urban Gardening is a popular trend for several years where people join together for gardening. The organization forms are very different. Partially located on public or private space, organized with access restriction or simply accessible for all, such as on tree slices and green stripes in the road space or flower beds in the park. Urban Farming , also known as "City Farming", in neighbourhood gardens ("Community Gardens") in a public space, to semi-public or private green on buffer stripes and on former agricultural and fallow land (incl. Brownfields) increased the diversity of green features in the city. It allows a "Do it yourself" urban nature experience and strengthens the relation to food production. The City of Vienna promotes neighbourhood gardens. The Municipal Department 42 lists 20 supported garden projects (February 2014), more gardens are in the planning stage. Urban Gardening seems to be optimal entry into the sharing of space.

4 LOCAL AGENDA 21 PLUS JOSEFSTADT: A SHARED DISTRICT

The sustainable use of space and resources is a fundamental principle of spatial planning and legally anchored at all levels – European spatial development, the Austrian Spatial Development Perspective, spatial laws of the provinces, urban development plans and regional and local development concept. The Local Agenda 21 Plus is based on the principle of sustainable urban development at the district and city level. It's governance model fosters new forms of cooperation and communication between citizens and politicians and allows a common policy making on the district level. The results achieved show that a variety of topics are put forth and dealt with by the residents and that some of the solutions developed by agenda groups evolve into role models for solving similar situations. The participants appreciate the possibilities of working on projects within a remarkable framework, they gain new experience and expand their skills (Verein Lokale Agenda 21, 2016).

In the district concept for Local Agenda 21plus Josefstadt (2015-2019) the guiding principle is "Sharing" with diverse areas of action. The goal is to improve the quality of life and to achieve sustainable development in the district, facing major challenges like heavy traffic, conflicts between individual groups of users of public spaces, green space shortage, migration of purchasing power and vacant shops.

The Local Agenda 21 Plus is a form of participatory democracy and in line with the idea of the positive effects of sharing. Nonetheless, challenges do exist such as the difficulty in achieving a broad participation process; the lengthy periods until projects are realised due to administrative procedures; the trouble communicating the specific quality of the work of the agenda groups and of the whole process to people not involved; the fact that it is hardly possible to measure improvements of the mostly highly localized agenda projects by the usual sustainability categories.

Traditionally spatial planning attempts to minimize conflicts by the spatial separation and compatible mix of uses as well as moderate densities. Sharing as a principle for spatial planning means a paradigm shift. Space is not distributed anymore but commonly shared and used. The balancing of private interests (land ownership and individual use) and public interests (regulatory and development planning) needs participatory and negotiation-based planning processes focused on this new common perspective. Sharing is done by

individuals, companies, ad-hoc groups or associations, often in variable, rapidly changing forms of organization and involved parties. Within this system the "users" of planning are a fuzzy, moving, a more or less loose community, so the participant's circle (e.g. by voting rights) is not conventionally clearly identified or defined anymore.

Sharing is facilitated and support by the hype of online tools providing more capacity of self-organization. The apps give the advantage of omnipresent access. Possessing, hoarding and collecting of space and objects are not so much in the foreground of a successful lifestyle anymore. The Local Agenda Team developed a virtual and phisical platform to collect ideas for projects in the field of sharing within the district. Everybody is invited to share her or his ideas.
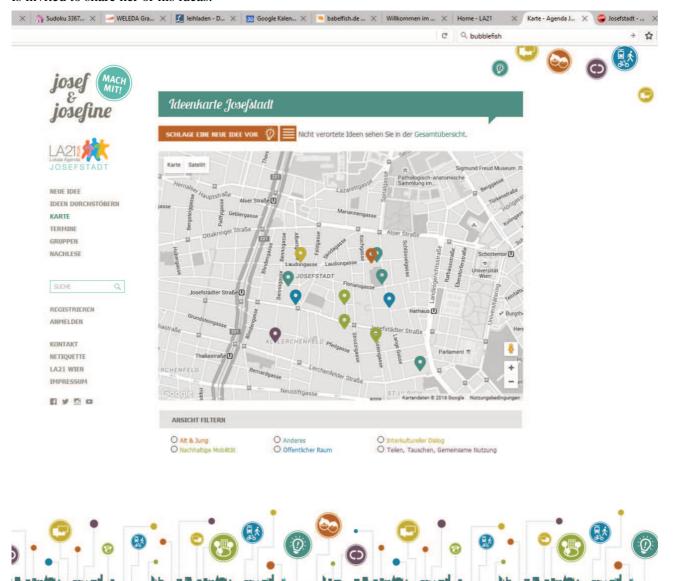

Fig. 2: Local agenda 21plus Josefstadt: Map of ideas for sharing projects within the district on the irtual platform to share ideas for development. Picture Credits: ARGE JosefStadtDialog, https://agenda-josefstadt.at/karte/ (30.03.2016)

For some people sharing seems to be antiquated and socially too romantic - it is reminiscent of commune, cooperative and clubs. Others fear "forced" sharing and therefore a limitation of personal freedom. However, experience shows that this is hardly the case. On the contrary, the social profit is in the foreground, which also coincides with the individual profit. "The reduction of ownership brings us more access: to people, to experiences and to stuff. And that makes us happy and makes us more sense, ..." explains Lena Sönnichsen, Head of PR & Social Media by Airbnb (quoted in Haller, 2013). Money loses significance, personal relationships are built up and trust strengthens the community. The environmental impact is reduced due to the lower production and disposal of goods and resources.

Far too little recognized and researched is the potential of the house and apartment sharing. Advice in social processes is needed, such as in revitalization of single family house settlements (abandoned because of the generation change), community use large apartments especially in "Gründerzeit" buildings and the reuse and conversion of commercial estates. Knowledge could be obtained from experience of building communities (see Noack, 2013) - the experience in jointly planned and built settlements and houses. Housing subsidies should be available not only for construction, but rather on the efficient use and reuse of the existing building stock.

One good pracitce example is the the project "Living for Help" was started in Erlangen (Amt für Soziales, Arbeit und Wohnen, 2014) in 2011. The basic idea is to provide assistance in everyday life for the provided living space. The project is aimed primarily at residential partnerships between seniors / families / singles and students. The additional costs of living are paid and the assistance such as help with housework, gardening, shopping, walks together, tuition for kids, babysitting are arranged individually. Only any kinds of care services are excluded. The city proposes one hour assistance per month in exchange of one m² living space (Ibid). The number of students interested in this project is very high in Erlangen, because affordable housing is hardly available. The website of the Amt für Soziales, Arbeit und Wohnen brings is the link to establish the residential partnerships (mitwohnen.org is a search engine for housing providers and housing seekers). It is particularly interesting that in this example the city itself is active in shared living. This "public" support the offer is very trustworthy and speaks out to thus users, which might not have considered such a flat model in other circumstances.

For models of the space sharing trust is an essential core value among stakeholders. In particular by sharing between strangers on the Internet through P2P platforms (peer -to-peer , such as the above-mentioned services platform Task Rabbit) as well as sharing F2F, in which the users face-to-face their immediate circle, such as a neighbourhood garden, a house or share an apartment. A master thesis at the Department of Spatial Planning at the TU Vienna developed proposals for a platform to share of vacant or under - used private garage spaces in the densely built-up urban area to enlarge public space (Stoeger , 2013).

5 CONCLUSION

To sum up sharing has great potential for an economically, socially and environmentally sustainable urban and regional development. Even if sharing has already reached a certain level of popularity and can be seen as hype for small parts of the population (about carsharing, couchsurfing, urban Gardening), it needs encouragement of civil society and economic efforts through a bunch of incentives. A successful implementation of the sharing model therefore includes the anchoring in strategy papers and planning instruments of provinces, cities and communities. The local level (the community, the village, the quarter) needs expert support, motivation and promotion as well as first-hand experiences and knowledge "on the spot", which should be integrated in the strategic approach on the higher level (Zech et al., 2011, P. 17). Sharing is promoted by smart communication as well as supported by smart technologies in construction and reconstruction of settlements, buildings, open spaces and transport infrastructure. However, the primary challenge is not the technical solution, but the smart combination of technical and social innovations. This includes planning- and process-know-how to raise awareness and participation, steering and cooperation skills within smart governance of diverse stakeholders from economy, civil society and policy.

6 REFERENCES

Airbnb (2014), Finde eine Unterkunft. Übernachte in über 34.000 Städten und 192 Ländern, https://www.airbnb.at/ (28.2.2014), San Francisco.

Amt für Soziales, Arbeit und Wohnen, Abteilung Wohnungswesen - Stadt Erlangen (2014), Wohnen für Hilfe - Wohnraum gemeinsam nutzen, http://www.erlangen.de/desktopdefault.aspx/tabid-1447/112_read-23626/ (28.2.2014), Erlangen.

Bodenfreiheit - Verein zur Erhaltung von Freiräumen (2014), Wir halten Boden frei & zugänglich, http://www.bodenfreiheit.at/aktuell.html (1.3.2014), Bregenz.

Botsman, R., Rogers, R. (2010), What's Mine Is Yours: The Rise of Collaborative Consumption, HarperBusiness, New York.

Brandl, F. (2012), Neues Wohnen im Alter – gemeinschaftliches Wohnen im Bestand. Dissertation an der Technischen Universität Wien.

Charim, I. (2014), Im "shared space" schafft Deregulierung Ordnung, in Der Standard, Kommentar der anderen, am 17. Februar 2014, http://derstandard.at/1389860737229/Im-shared-space-schafft-Deregulierung-Ordnung (1.3.2014), Wien.

Cohen, B. (2013), Smart City Wheel. http://www.boydcohen.com/smartcities.html (25.2.2014), Santiago.

Cohen, B. (2014), The 10 Smartest Cities in Europe. http://www.fastcoexist.com/3024721/the-10-smartest-cities-in-europe (25.2.2014).

Collaborative Consumption (2013), Shareable Cities Resolution: Passed, Posted in Latest News on 26 June 2013, http://www.collaborativeconsumption.com/2013/06/26/shareable-cities-resolution-passed/ (31.03.2014).

Couchsurfing International (2014), Share your life, https://www.couchsurfing.org/n/about (28.2.2014), San Francisco.

Ebay (2008), Facts and Figures zur neuen Dachbodenstudie, Pressemitteilung Dienstag, 04.03.2008, http://presse.ebay.de/pressrelease/2492 (28.2.2014), Kleinmachnow.

Felson, M., Spaeth J. L. (1978), Community Structure and Collaborative Consumption: A routine activity approach, in American Behavioral Scientist, 21 (March–April), S. 614–24.

FGM Forschungsgesellschaft Mobilität (2014), Shared Space Österreich. Mobilitätsraum für alle, http://www.sharedspace.at (1.3.2014), Graz.

Haller, D. (2013), Sharing Economy – das neue Zeitalter des Social Webs, in eStrategy-Magazin Ausgabe 02 / 2013, http://www.estrategy-magazin.de/sharing-economy-das-neue-zeitalter-des-social-webs.html (1.3.2014), Rosenheim.

Johnson, C. (2013), Is Seoul the Next Great Sharing City? July 16, 2013, http://www.shareable.net/blog/is-seoul-the-next-great-sharing-city (28.2.2014), San Francisco.

Kleedorfer, J. (2010), Einfach-Mehrfach, ein partizipativ angelegtes Erfolgsmodell der Stadt Wien, in Schrenk, Manfred, Popovich, Vasily V., Zeile, Peter (Ed.), Proceedings REALCORP 2010, http://www.corp.at/archive/CORP2010_232.pdf (1.3.2014), Schwechat.

Klima und Energiefonds (2014), Smart City Demo. Das Programm. https://www.ffg.at/smart-cities-das-programm (25.2.2014), Wien.

Landeshauptstadt München, Referat für Stadtplanung und Bauordnung (2012), Dialog zur "Perspektive München", http://www.muenchen.de/rathaus/Stadtverwaltung/Referat-fuer-Stadtplanung-und-Bauordnung/Stadtentwicklung/Perspektive-Muenchen/Dialog-zur-Perspektive-M-nchen.html (1.3.2014), München.

Magistrat der Stadt Wien (2013), Wiener Charta. https://charta.wien.gv.at/start/charta/ (1.3.2014), Wien.

Magistrat der Stadt Wien (2014), Smart City Wien, https://smartcity.wien.at/site/die-initiative/strategie/ (17.02.2014), Wien.

Magistrat Linz (2014), Schau auf Linz. http://schau.auf.linz.at/ (1.3.2014), Linz.

Noack, B. (2013), Baugemeinschaften: Ein Wohnbaumodell mit Zukunft für das Vorarlberger Rheintal?, Diplomarbeit am Department für Raumplanung, Fachbereich Regionalplanung und Regionalentwicklung, Technische Universität Wien.

ORF, Radio Vorarlberg (2013), Wohnungstausch über Tauschbörse: Pilotprojekt, http://vorarlberg.orf.at/radio/stories/2566383/ (13.3.2014), Dornbirn.

Share NL (2014), Amsterdam embraces sharing economy, 14 February 2014, http://sharenl.nl/2014/02/14/amsterdam_embraces_sharing_economy/ (28.2.2014).

sharoo AG (2014), über uns, https://sharoo.com/landing_page?locale=de#home (17.02.2014), Glattbrugg.

Software Manufaktur Robert Reithofer e.U. (2014), carsharing24/7. Teilen verbindet. Die Plattform für privates Carsharing. https://carsharing247.com/ (25.2.2014), Graz.

Statistik Austria (2004), Gebäude und Wohnungszählung 2001, Hauptergebnisse Österreich, Wien.

Statistik Austria (2012), Haushaltsprognose 2012. Erstellt am 11.12.2012. http://www.statistik.at/web_de/static/privathaushalte_2001-2060_nach_bundeslaendern_023529.pdf. Wien.

Statistik Austria (2013a), Haushaltsprognosen. http://www.statistik.at/web_de/statistiken/bevoelkerung/demographische_prognosen/haushalts_und_familienprognosen /index.html#index2 (28.2.2014), Wien.

Statistik Austria (2013b): Registerzählung 2011: Wohnungen sind durchschnittlich 93,4 m2 groß und haben 4,3 Wohnräume. Pressemitteilung: 10.674-250/13. http://www.statistik.at/web_de/presse/074327 (11.03.2014), Wien.

Stöger, P. (2014), Shared Parking – ein Modell zur Aufwertung des öffentlichen Straßenraums durch die bessere Ausnutzung von privaten Garagenparkplätzen, gezeigt am Beispiel des 8. Wiener Gemeindebezirks, Diplomarbeit am Department für Raumplanung, Fachbereich Regionalplanung und Regionalentwicklung, Technische Universität Wien.

TaskRabbit (2014), Your to-do's, done. Find safe, reliable help in your neighbourhood. https://www.taskrabbit.com/ (25.2.2014), San Francisco.

Uniiverse (2013), Internet service to share private spaces https://www.uniiverse.com/space (12.11.2013)

Verein Lokale Agenda 21 (2016), Local Agenda 21 Plus Vienna http://archiv.la21wien.at/welcome-to-la-21-vienna (30.03.2016)

Walsh, B. (2011), The 10 ideas to change the world, in: Time Magazine, online, http://content.time.com/time/specials/packages/article/0,28804,2059521_2059717_2059710,00.html, Mar. 17, 2011, Tampa.

Zech, S., Kail, E. (2011), The Strategy of Planning and Implementing Public Space in Vienna. In: „Le piéton dans la Ville. L´espace public partagé. Walking in the City. Sharing Public Space", Jean-Jacques Terrin (Ed.), Editions parenthèses, GIP AIGPPAU, Paris 2010, 172–191.