

***SMART CITY, SLOW CITY AND SMART SLOW CITY  
AS DEVELOPMENT MODELS OF MODERN CITIES***

***Eliza Farelnek, Agnieszka Stanowicka***

Department of Macroeconomics

Faculty of Economics

University of Warmia and Mazury in Olsztyn

e-mail: eliza.farelnek@uwm.edu.pl; e-mail: agnieszka.stanowicka@uwm.edu.pl

Key words: *smart city, slow city, smart slow city*, city development.

**A b s t r a c t**

The objective of the study is characteristics of two development concepts of modern cities, i.e. *smart city* and *slow city*, and showing the possibilities of combining them in the proposed *slow city* model, drawing upon the assumptions of a *smart city*, which was determined as the *smart slow city*. Conclusions mainly rely on the performed reference literature studies (using the critical literature review method), which allowed for a synthetic presentation of the characteristics of the two discussed models of development, which are the basis for an independent description of the city model that unites these two approaches. The comparison of city development models was made on the basis of the following characteristics: the genesis of the city development idea, the rate of changes and the model of life related to it, key city development factors, the main objective of changes, key actors, activity areas, specialisation, scale of urban centres, city image, level of development policy, significance of cooperation, determinants or limitations in the implementation of the city development concept.

Such an attempt of combining, by modern cities, of the potential offered by two development concepts (*smart city* and *slow city*), may contribute to the creation of an image of a modern city, the so-called *smart slow city* which, as a member of the *Cittàslow* network, considers the quality of residents' life as a priority, and uses modern technological solutions.

***SMART CITY, SLOW CITY I SMART SLOW CITY JAKO MODELE ROZWOJU  
WSPÓŁCZESNYCH MIAST***

***Eliza Farelnek, Agnieszka Stanowicka***

Katedra Makroekonomii

Wydział Nauk Ekonomicznych

Uniwersytet Warmińsko-Mazurski w Olsztynie

Słowa kluczowe: *smart city, slow city, smart slow city*, rozwój miast.

## A b s t r a k t

Celem badań była charakterystyka dwóch koncepcji rozwoju współczesnych miast, tj. *smart city* i *slow city*, oraz ukazanie możliwości ich łączenia w zaproponowanym modelu miasta *slow city* czerpiącym z założeń *smart city*, który określono jako *smart slow city*. Wnioskowanie oparto głównie na przeprowadzonych studiach literaturowych (z wykorzystaniem metody analizy i krytyki piśmiennictwa), które pozwoliły syntetycznie zaprezentować cechy dwóch przedmiotowych modeli rozwoju, będących podstawą do wykonania autorskiej charakterystyki modelu miasta, łączącego te dwa podejścia. Modele rozwoju miast porównano na podstawie następujących cech: genезy idei rozwoju miasta, tempa zmian i związanego z nim modelu życia, głównego czynnika rozwoju miasta, głównego celu zmian, głównych aktorów, obszarów aktywności, specjalizacji, skali ośrodków miejskich, wizerunku miasta, poziomu polityki rozwoju, znaczenia współpracy, uwarunkowań lub ograniczeń realizacji koncepcji rozwoju miasta.

Taka próba łączenia przez współczesne miasta możliwości, jakie dają obie koncepcje rozwoju (*smart city* i *slow city*), może się przyczynić do kreowania przez nie wizerunku nowoczesnego miasta, tzw. *smart slow city*, które jako członek sieci miast *Cittaslow* stawiającej na pierwszym miejscu jakość życia mieszkańców wykorzystuje nowoczesne rozwiązania technologiczne.

## Introduction

Modern cities are constantly facing the dilemma of choosing the right development model which would allow them to accomplish such positive effects as: increased efficiency in utilising urban resources, increased quality of city capital, improvement of residents' level of life, development of entrepreneurship, as well as growing investment attractiveness and the city's competitiveness on local, regional or even global scales. Adopting a proper city development model which takes into account its size, specific nature, and the environment in which it functions may also result in the fact that *urban resilience* will grow, i.e. the city will deal better with problems of an internal character, such as the society's ageing, social exclusion, outflow of young people, drop in economic activity, increased unemployment and urban degradation, as well as improved resistance to internal disruptions such as growing competition and global crises (DROBNIAK 2015, p. 119–143).

The objective of the undertaken studies was characteristics of two development concepts of modern cities, i.e. *smart city* and *slow city*, as well as showing the possibilities of uniting them in the proposed *slow city* model, drawing upon the assumptions of *smart city*, which was called the *modern slow city* or the *smart slow city* by the authors of this article. Conclusions mainly rely on the performed studies of reference literature, which allowed for a synthetic presentation of the features of the two discussed development models which form the basis for independent characteristics of the city model combining these two approaches.

### **Smart City as a City Development Concept**

A *smart city* may be defined as an area of high capacity for learning and innovation, creative, with research and development institutions, higher education, infrastructure and communication technologies, as well as a high level of management efficiency (KOMNINOS 2002, p. 1, following: STAWASZ et al. 2012, p. 98).

It is worth paying attention to the fact that the *smart city* uses the premises of the *knowledge-based cities*, which primarily focus on education, development of intellectual capital, lifelong learning, creativity, and preserving a high level of innovation, as well as the model of *digital cities*, whose development is based on advanced communication and IT technologies, and cities characterised by care for natural environment resources and use of renewable energy sources – the so-called eco-cities (STAWASZ et al. 2012, p. 99). Smart cities are therefore distinguished by a specific approach to solving social and environmental problems, and their efficient and participatory manner of city management.

The reference literature most frequently lists six dimensions making up the smart city concept (cf. e.g. STAWASZ et al. 2012, p. 100, *Smart Cities – Ranking of...* 2007, p. 10–12). These are the following areas:

- *smart economy*: which means that cities should be characterised by high productivity, an innovative climate and labour market flexibility;
- *smart mobility*: thanks to the ICT sector, the city is a network of connections with high speed, uniting all city resources;
- *smart environment*: the city develops in line with the principles of sustainable development, uses alternative energy sources and minimises emissions of pollution to the natural environment;
- *smart people*: the initiators of changes in cities are their residents, who are the greatest value of each city, and who, with relevant technical assistance, may implement activities aimed at eliminating negative environmental effects and improving the quality of life;
- *smart living*: the city provides its residents with access to technical and social infrastructure and to the necessary public services, has an appropriate cultural and entertainment offer, and a safe and natural environment of good quality;
- *smart governance*: relying on solid cooperation of the city authorities with various entities functioning in the city, and use of modern technologies.

A *smart city* is a city that has accomplished good and long-lasting effects in the economy, human potential, management, mobility, environment and quality of life, built on the combination of smart solutions encompassing subsidies and the activities of independent and conscious residents (TOMA-

SZEWSKA, GLIŃSKA 2015, p. 384). It may be stated that cities can be called *smart* if the quality of life improvement is accomplished thanks to the involvement of high quality human and social capital, modern transport and ICT infrastructure, and if the city management process relies on the participatory model and principles of sustainable development.

A city is smart when investments in human and social capital and traditional (transport) and modern (ICT) communication infrastructure fuel sustainable economic growth and a high quality of life, with a wise management of natural resources, through participatory governance (CARAGLIU et al. 2011, p. 65–82). Smart cities are all urban settlements that make a conscious effort to capitalize on the new Information and Communications Technology (ICT) landscape in strategic way, seeking to achieve prosperity, effectiveness and competitiveness on multiple socio-economic levels (ANGELIDOU 2014, p. 3). Smart cities initiatives try to improve urban performance by using data, information and information technology (IT) to provide more efficient services to citizens, to monitor and optimize existing infrastructure, to increase collaboration among different economic actors, and to encourage innovative business models in both the private and public sectors (MARSAL-LLACUNA et al. 2014, p. 611–622).

The most common characteristics of smart cities are: a city's networked infrastructure that enables political efficiency and social and cultural development; an emphasis on business-led urban development and creative activities for the promotion of urban growth; social inclusion of various urban residents and social capital in urban development and the natural environment as a strategic component for the future (ALBINO 2015, p. 13). A *smart city* is a model, that can be used by large and smaller cities (FAZLAGIĆ 2015, p. 1–11).

### ***Slow City* as a City Development Concept**

The *slow city* model is an alternative approach to the traditionally understood economic development of a city, based on building its competitiveness in a globalising world. In this approach, special attention is paid to the strategies of local economic development, which are meant to offer increased vitality, justice, equal development opportunities, and sustainability of the local community. The introduction of *slow city* principles is conducive to the improved quality of life in the city, which becomes a more friendly place to live in (MIERZEJEWSKA 2009, p. 208).

The Cittàslow movement was born in 1999 from the idea of Paolo Saturnini, mayor of Greve di Chianti in Italy and mayors of other small cities, Bra, Orvieto, Positano, and the Slow Food Association; together, they established

the Cittàslow Association – the International Network of Cities Where Living is Good. To date, this idea has found its followers in 225 member cities in 30 countries around the world (data from June 2016) (Cittàslow International Network 2016).

The idea of the international Cittàslow movement is to promote a culture of good and harmonious living in smaller cities, being an alternative to big city rush and progressing globalisation. Cities associated in the network aim for sustainable development, i.e. a conscious urban policy ensuring proper relations between economic growth, care for the natural environment, and improvement in the quality of residents' life. The most important objectives of the Cittàslow movement include: the sustainable development of towns making use of local resources, improvement in the quality of residents' life by the establishment of proper urban infrastructure and leisure and recreation venues, environmental protection and promotion of pro-environmental stances among residents, care for historical city areas, renovation of monuments and aesthetic appearance, promotion of local products, local handicraft and cuisine, eliminating architectural barriers that make the mobility of people with disabilities difficult, drawing upon the accomplishments of modernity and new technologies in a scope which may be used for the implementation of the objectives of cities "where living is good", streamlining the work of local administration and adjusting the work of institutions to the residents' needs (Polish Cittàslow Network 2016).

The manifesto of cities that belong to the Cittàslow Network emphasises that life in such cities, as well as their management, is "a certain way of life, a characteristic feature for living daily life in a manner that is different from the dominant one; a slow mode, confident, less abrupt and less focused on efficiency, but definitely more humane and ecologically correct, more compliant with the present and future generations, respecting the local in a world that is becoming more and more global and internally communicated (...). Generally speaking, life in one of the SLOW cities, as well as its management, entails giving yourself time to create quality in all areas of urban life, slowing down the pace of life and reducing tension, in order to become aware, now and forever, of the value of the flavours, colours and scents of the city and the world" (*Życie powoli: inna strona nowoczesności...* 2016, p. 1–2).

The Polish Cittàslow Network currently has (June 2016) twenty-five members (Barczewo, Bartoszyce, Biskupiec, Bisztynek, Działdowo, Dobre Miasto, Gołdap, Górowo Iławeckie, Jeziorany, Kalety, Lidzbark, Lidzbark Warmiński, Lubawa, Murowana Goślina, Nidzica, Nowe Miasto Lubawskie, Nowy Dwór Gdański, Orneta, Olsztynek, Pasym, Prudnik, Rejowiec Fabryczny, Reszel, Ryn, Sępólno) and one supporting member, i.e. the Marshal's Office of Warmia and Mazury Province. The Network associates cities where the number of residents does not exceed 50,000. In the verification process,

a candidate city has to fulfil a minimum of 50% of the criteria specified in the charter, which refer to seven key areas of development: energy and environmental policy, infrastructural policy, urban quality policy, agricultural, tourism and handicraft policy, hospitality policy, policy of awareness and education, and social integration and partnership. It is necessary to fulfil at least one parameter in each area (*Międzynarodowy statut miast Cittaslow* 2014, p. 25–29).

It is necessary to pay attention to the fact that the criteria are compliant with the premises of sustainable development, as to a significant degree they focus on the so-called *three E*, i.e. they take into account *environment, equity* and *economy* (MIERZEJEWSKA 2009, p. 209). Cittaslow complies with the principles of sustainable development not only by valorisation of the natural environment, but also by focusing on the role of the endogenous capital of the member cities (focus on locality, authenticity, tradition, regional products, activation of residents) (ZADĘCKA 2015, p. 180).

In spite of the fact that each of the cities that belongs to the Cittaslow network pursues distinct and individual objectives, they are united by the necessity of protecting their unique character and the city's community. Benefits for the member cities include: the possibility of attaching the network's logo in the form of an orange snail to their own visual designation, the possibility of making the logo available for public and private activities and initiatives consistent with the objectives of the movement, and the possibility of participating in activities organised as part of the movement, allowing for the acquisition of knowledge, exchange of experience and promotion of good practice in cities belonging to Cittaslow.

"The functioning of a city in a slow style does not mean slowing its development down; on the contrary, it entails development via ongoing improvement of the residents' quality of life, increasing the city's attractiveness and, at the same time, its competitiveness thanks to the possessed own resources, without concurrent violation of the surrounding ecosystem" (AUGUSTYN 2011, p. 745). The *Slow City* designation is a quality brand for smaller communities. Being *slow* does not mean being backwards. On the contrary, it means using new technologies in a manner to make towns and cities ideal places to live (Polish Cittaslow Network).

### ***Smart Slow City as an Attempt at Combining Two City Development Concepts***

The individual city development models provide information which factors and directions of implemented activities may offer positive social, economic or spatial effects, contribute to solving problems accumulated in urban areas and

thence be conducive to sustainable development of the whole city. There is no single universal city development model; therefore, attempts at combining and drawing knowledge from various concepts and models are made (MIERZEJEWSKA 2015, p. 10). Such a synthetic approach is exemplified by the simultaneous use of the smart city concept and the slow city concept. Characteristics of features and attributes of a city relying in its development on the premises of the Cittàslow philosophy and using the possibilities offered by the *smart city* in this respect are presented in Table 1.

The above approach to the development of a city in the slow concept, which takes into account the *smart city* model, shows the possibility of applying the instruments characteristic for intelligent cities for the purpose of accomplishing the effects of residents' quality of life, and the development of social and cultural capital and local entrepreneurship, characteristic for slow cities. Modern technological, organisational and infrastructural solutions (which concern the municipal services, reduction of crime, integration of different form of transport, high-quality of ICT infrastructure, water and energy economy, promotion of cultural and sporting events, integration of residents etc.) may contribute to the development of a city compliant with the Cittàslow philosophy, as well as solidify the slow city image (yet not backwards), the image of a *modern slow city* – or even a *smart slow city*. This model of development of the city is addressed to small and medium-sized cities where the number of residents does not exceed 50,000. The basis for economic development of this cities may be cultural tourism and local services.

The growing popularity of the *smart city* concept results in the fact that relying on a marketing strategy for it offers the cities few chances for being distinguished; thence, they are forced to look for features other than *smart* that can distinguish them. “Even though the *smart city* idea is attractive, it has to be remembered that in the modern world cities are practically forced to be smart. In the longer perspective this direction is more of a necessity than a long-term competitive advantage; therefore, it is worth building the core of a city's brand relying on the specific DNA of the place” (*Przyszłość miast...* 2013, p. 80). Building the image of a *modern slow city* or even a *smart slow city*, based on the unique character and resources of cities that belong to the Cittàslow network, in Poland and around the world (vide BALL 2015, p. 571–578), seems to be an answer for the recommendations listed above. An important problem is for example that the small and medium sized cities compete for resources against larger and better-equipped cities; therefore they are less likely to be able to receive or afford the necessary funds for smart city projects (GIFFINGER et al. 2010, p. 299–312).

Table 1

Comparison of the *smart city* and *slow city* development concepts

Specification	<i>Smart city</i> 2	<i>Slow city</i> 3	<i>Slow city</i> with elements of <i>smart city</i> ( <i>Smart slow city</i> ) 4
Genesis of city development idea	Civilisation development and growing needs of societies with respect to the quality of transport, information and safety services; market economy, knowledge-based economy, technological and organisational progress, development of advanced IT and ICT, emphasis on increased efficiency of activities	Socio-economic development of countries and increase in ecological awareness of communities; market economy and consumption; increased affluence of societies; rapid speed of life and the necessity of "slowing down" and focus on the quality and contemplation of life; standardisation of production resulting in the necessity of protecting products and services of unique, individual and local character	Rapid speed of life and the need of "slowing down" with simultaneous access to high quality infrastructure, in particular information, conscious consumption of high quality products and local services produced or distributed with the use of modern technologies; advanced technological solutions in transport, energy, safety and social infrastructure facilities
Speed of changes and the model of life related to it	Very rapid, dynamic and changing; <i>smart living</i>	Slower and without so many changes; <i>slow life</i>	Thoughtful <i>slow life</i> with elements of <i>smart living</i> (e.g. smart mobility, smart governance)
Key city development factor	Technology and high quality human capital	Local cultural and social capital	Technology used to shape the quality of "slow" living and which allows the inclusion of citizens in the creation of the city
Main objective of changes	Increased efficiency, decrease in labour-intensity, decrease in costs of activity; improvement of the quality of life via technological progress	Increasing the quality of residents' life, care for local cultural and social capital	Improved quality of residents' life, care for local cultural and social capital, also with the use of modern technical solutions



cont. Table 1

1	2	3	4
Key actors	High importance of private entities applying new technological solutions, generating innovations; city authorities involved in public and private partnership during implementation of large and modern infrastructural projects	High importance of involvement of the local community, with the initiating, activating or coordinating function of city authorities	High importance of involvement of the local community, with coordinating function of city authorities and possible participation of the innovative private sector (e.g. SMEs)
Main areas of activity	Transport, energy, water management, waste management, health protection, safety	Gastronomy, handicraft, tourism, culture	Modern technological solutions for development of tourism and environmental protection (water management, waste management), but also transport, health protection and safety
Specialisation	Smart specialisation (especially thematic activity, theme cities, e.g. cities of design, cities of media arts, cities of film)	Local specialisations relying on the unique endogenous potential of cities (local products and services, tradition and identity of a place)	Domination of local cultural capital as the main factor for the city's development
Scale of urban centres	Large cities, metropolises, smart city networks	Small urban centres; Cittaslow network (where the number of residents does not exceed 50,000)	Smaller urban centres, possibly united in networks (e.g. the Cittaslow network, where the number of residents does not exceed 50,000), cooperation of cities of various sizes – slow and smart cities
City image	Consistent concept of the smart city image, expressed mainly via broad use of modern technological, organisational and infrastructural solutions	<i>Slow city</i> image resulting from the adopted vision of development, consistent with the slow movement philosophy	The image of a <i>slow city</i> (yet not a backwards city) is created with the use of smart solutions; the image of a modern slow city or a smart city

cont. Table 1

1	2	3	4
Level of development policy	<ul style="list-style-type: none"> <li>- international level: sectoral policy implemented at EU level</li> <li>- national level: urban and innovation policy of the country</li> <li>- regional level: innovation development strategy, smart specialisations</li> <li>- local level: smart infrastructural solutions, companies as innovation creators, smart city image and policy of city authorities</li> </ul>	<ul style="list-style-type: none"> <li>- international level: international association of Cittaslow and <i>Slow Food</i></li> <li>- national level: national Cittaslow and <i>Slow Food</i> networks</li> <li>- regional level: regional development strategy, support of regional authorities</li> <li>- local level: initiatives and projects implemented in individual cities, policy of city authorities and image of a slow city</li> </ul>	<ul style="list-style-type: none"> <li>- international level: international association of Cittaslow and <i>Slow Food</i></li> <li>- national level: national Cittaslow and <i>Slow Food</i> networks</li> <li>- regional level: regional development strategy, innovation development strategy, support of regional authorities</li> <li>- local level: initiatives and projects implemented with the use of modern solutions, <i>smart slow city</i> policy and city image</li> </ul>
Significance of cooperation	High	High (mandatory condition for city development)	High (mandatory condition for city development)
Major determinants or restrictions for implementation of the city development concept	Technological, organisational and financial restrictions	Participation and awareness of residents (its absence), acceptance and identification with the development concept of a city as slow, and financial restrictions	Participation and awareness of residents (its absence), acceptance and identification with the development concept of a smart slow city, and technological, organisational and financial restrictions

Source: authors' own study.

## Recapitulation

The number of models and concepts for the development of urban centres testifies to the fact that there is no single, universal model for city development which would, in a comprehensive and full manner, explain the problems of social, economic or spatial spheres of a city's operation and its relations to the environment. Cities constitute unique systems, functioning in a specific and changing environment (domestic, regional and local), so choosing the path of sustainable development is an individual issue for each of them. This individual character of cities and the dynamics of changes occurring in their environment require flexibility and creativity in the process of planning their long-term development. Therefore, choosing the right concept of development is a very important issue; such a concept, being an answer to the diverse needs of cities, may draw upon various, supplementary models of development. An example of such an approach may be the implementation of the model based on the *slow city* concept, with simultaneous use of the tools characteristic for the *smart city* model. Such an attempt at combining the possibilities offered by both development concepts may contribute to creating an image of a modern city that belongs to the Cittàslow network: a *modern slow city* or even a *smart slow city*, which puts the residents' quality of life in first place, using modern technological solutions. *Smart slow city* model can be useful to define the further objectives and tools of local policy of cities, which are members of Cittàslow network. This model can be considered as the next level in the development of *slow cities*.

Translated by ALICJA BRODOWICZ  
Proofreading by PETER FOULDS

Accepted for print 30.12.2016

## References

- ALBINO V., BERARDI U., DANGELICO R.M. 2015. *Smart Cities: Definitions, Dimensions, Performance and Initiatives*. Journal of Urban Technology, 22(1): 3–21.
- ANGELIDOU M. 2014. *Smart City Policies: A Spatial Approach*. Cities, 41: 3–11.
- AUGUSTYN A. 2011. *Idea Cittàslow jako koncepcja zrównoważonego rozwoju małych miast*. Zeszyty Naukowe Ostrołęckiego Towarzystwa Naukowego, 25: 745–757.
- BALL S. 2015. *Slow Cities*. In: *Theme Cities: Solutions for Urban Problems*. Ed. W.K.D. Davies. Springer, New York.
- CARAGLIU A., DEL BO C., NIJKAMP P. 2011. *Smart Cities in Europe*. Journal of Urban Technology, 18(2): 65–82.
- Cittàslow International Network. 2016. [http://www.cittaslow.org/download/DocumentiUfficiali/CITTA\\_SLOW\\_LIST\\_-\\_June\\_2016.pdf](http://www.cittaslow.org/download/DocumentiUfficiali/CITTA_SLOW_LIST_-_June_2016.pdf) (access: 23.09.2016).
- DROBNIAK A. 2015. *Koncepcja "urban resilience": narzędzie strategicznej diagnozy i monitoringu miast*. Ruch prawniczy, ekonomiczny i socjologiczny, 1: 119–143.

- FAZLAGIĆ J. 2015. *Jak wykorzystać koncepcję Smart Cities oraz pokrewną Smart Specialization do wsparcia rozwoju mniejszych miast w Polsce?* Ekspertyzy i opracowania NIST, 1: 1–11, <http://www.nist.gov.pl/nauka-i-badania/ekspertyzy-i-opracowania-nr-1,87.html> (access: 23.09.2016).
- GRIFFINGER R., HAINDLMAIER G., KRAMAR H. 2010. *The Role of Rankings in Growing City Competition*. *Urban Research and Practice*, 3: 299–312.
- KOMNINOS N. 2002. *Intelligent Cities: Innovation, Knowledge System and Digital Spaces*. Spon Press, London.
- MARSAL-LLACUNA M.L., COLOMOER-LLINÀS J., MELÉNDEZ-FRIGOLA J. 2015. *Lesson in Urban Monitoring Taken from Sustainable and Livable Cities to Better Address the Smart Cities Initiative*. *Technological Forecasting and Social Change*, 90: 611–622.
- MIERZEJEWSKA L. 2009. *Rozwój zrównoważony miasta. Zagadnienia poznawcze i praktyczne*. Wydawnictwo Naukowe Uniwersytetu Adama Mickiewicza, Poznań.
- MIERZEJEWSKA L. 2015. *Zrównoważony rozwój miasta – wybrane sposoby pojmowania, koncepcje i modele*. *Problemy Rozwoju Miast*. *Kwartalnik Naukowy Instytutu Rozwoju Miast*, XII(III): 5–11.
- Międzynarodowy statut miast Cittaslow*. 2014. [http://cittaslowpolska.pl/images/PDF/miedzynarodowy\\_statut\\_cittaslow.pdf](http://cittaslowpolska.pl/images/PDF/miedzynarodowy_statut_cittaslow.pdf) (access: 23.09.2016).
- Polska Krajowa Sieć Miast Cittaslow. 2016. <http://cittaslowpolska.pl/index.php/pl/idea> (access: 02.10.2016).
- Przyszłość miast, miasta przyszłości*. ThinkTank. 2013. <http://mttp.pl/pobieranie/RaportMiastoPrzyszlosci.pdf> (access: 11.09.2016).
- Smart Cities – Ranking of European Medium Sized Cities (Report)*. 2007. Vienna University of Technology, [http://www.smart-cities.eu/download/smart\\_cities\\_final\\_report.pdf](http://www.smart-cities.eu/download/smart_cities_final_report.pdf) (access: 12.09.2016).
- STAWASZ D., SIKORA-FERNANDEZ D., TURAŁA M. 2012. *Koncepcja Smart City jako wyznacznik podejmowania decyzji związanych z funkcjonowaniem i rozwojem miasta*. *Zeszyty Naukowe Uniwersytetu Szczecińskiego. Studia Informatica*, 721(29): 97–109.
- TOMASZEWSKA E., GLIŃSKA E. 2015. *Budowanie marki miasta inteligentnego*. *Marketing i rynek*, 10: 382–388.
- ZADĘCKA E. 2015. *Małe miasto jako podmiot marketingu terytorialnego*. In: *Marketing terytorialny. Nowe obszary i narzędzia*. Ed. A. Szromnik. Edu-Libri, Kraków-Legionowo.
- Życie powoli: inna strona nowoczesności. Manifest miast SLOW dla nowego humanizmu bycia i mieszkania*, [http://cittaslowpolska.pl/images/PDF/Manifest\\_miast\\_Cittaslow.pdf](http://cittaslowpolska.pl/images/PDF/Manifest_miast_Cittaslow.pdf) (access: 02.10.2016).