

# The Smart City is landing! On the geography of policy mobility

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## Abstract

The aim of this paper is to provide a geographical urban policy perspective on the strategy of Smart Cities in the specific context of Czechia. Considering that the implementation of the Smart Cities (SC) concept is still relatively young in Czechia, it is highly relevant to examine the time-space diffusion of this concept in Czechia in the geographical lens: where the first initiative to build a smart city started, when the process was started and by whom; in other words, to provide basic empirical evidence of understanding the policy mobility and implementation of smart city policy into the urban development strategies. In the first of our approach, we evaluate the implementation of the term "smart city" in strategic city documents. The next step is the analysis of the strategic urban (city) and smart city documents by distinguishing conceptually distinct pillars of the SC concept and an overview of actors and policy-makers who initiate and support individual pillars of the concept of SC in Czechia. The results of the analysis highlight the differences between the implemented SC topics into city strategies which are caused by fragmented policy mobility, its modifications and influence of key actors who have found the opportunity to participate in policy-making processes at the certain spatial level.

## Keywords

Smart city,  
policy mobility,  
time-space diffusion,  
implementation,  
Czechia

Received:  
28 August 2018

Received in revised form:  
14 December 2018

Accepted:  
17 December 2018

## Highlights for public administration, management and planning:

- A smart city model should emphasize local context, conditions and role of the actors in the policy mobility, rather, than simply follow 'best practice'.
- Strategy of a smart city should involve a comprehensive holistic approach, which consists of complex pillars, characteristics and topics related to the urban development.
- The research results indicate evidence of various implementation and modifications of the smart city model into Czech urban strategic documents.

## 1 Introduction

A balanced development of regions (cities) can be achieved by harmonization of social, economic and environmental pillars of sustainable development (see 2030 Agenda for Sustainable Development, EU Cohesion Policy, and Czech Republic 2030). Smart City as an urban strategy/model thematically overlaps with some other concepts related to the development of cities such as Sustainable City, Intelligent City and Resilient City, and is criticized for too much emphasis on the environmental aspect of sustainable development (Vanolo 2014). Recently, from the perspective of urban development strategies, the relevance of the SC formulation

and its implementation is growing: "In 2017, a number of cities that rely on a comprehensive smart city plan instead of simply implementing a few separate innovative projects without an overall smart plan increased" as well as "different academics, institutions and businesses managed to produce many theoretical concepts on components and definition of the term" (Pozdniakova 2018:31). Moreover, a relevance of this research evidence is supported by the idea of Shelton et al. (2014:15) who argued that "it is more productive to focus on the implementation of smart city policies in particular places, and how the differences between these places affect the outcomes of these interventions." Therefore, the aim of policy mobility studies is not to sur-

vey the visions of best practice but to better catch (Shelton et al. 2014:15).

In line with the European Union's development strategies, the models linked to the smart city conceptualization are presented as the guides in form of concepts/strategies for urban development (Vanolo 2014; Kitchin et al. 2017; Smigiel 2018), for instance, SET Plan, Europe 2020, The Urban Agenda at the EU level. These models are designed to find a common mechanism for urban development such as through the complex mechanisms of EU research funding (Vanolo 2014). On the other hand, there are another actors, stakeholders and policy makers that initiate and support the goals of the SC model by reducing costs, improving the efficiency, effectiveness, to increasing the quality of life (Kitchin et al. 2017; Barthel & Colding 2017) and through it they represent a key element of goals promoting economic growth (Shelton et al. 2014) and creating competitiveness (Smigiel 2018). What is more, in this context various models of SC represent an orientation for forming political actions by using the policy of performance of a city according to smart city rankings (best practice of smart city models), supporting of the public-private partnerships, reduction in public funding (cost-efficiency) and legitimising (Smigiel 2018).

Considering urban development, the aim of this paper is to identify the origin and interpretation of the Smart city concept into urban development policies in the context of Czechia. In doing so, an analysis of urban policy documents and promotional materials related to the smart city is used in this research. Additionally, the analysis was enriched through monitoring of *"infrastructure of people, organizations, and technologies that interpret, frame, package, and represent information about urban policies"* (Clarke 2012:32–33). Through this study, it is necessary to consider that the implementation of the SC concept is still young in the Czechia. We aim to provide empirical evidence for time-space diffusion of the concept. In addition, we aim to present various implementations of the models of SC into urban strategies, identify key actors and related infrastructure. In other words, we aim to catch the process of policy making through the replications/reproductions of the SC model (Peck & Theodore 2010).

## 2 Where, when and by whom: from original roots to Czechia

The smart city concept has deserved increasing attention worldwide, although its definition is still subject to debate. The future of urban development has been increasingly influenced by discussions of SC and there have been numerous examples of the cities presented as smart in recent years (Giffinger 2007; Kitchin 2017). The most complex and most frequently quoted definition of the SC was published by Giffinger et al. (2007) who have argued that this wide-spread concept usually includes six main pillars: Smart Economy (competitiveness through innovation, productivity, entrepreneurship), Smart Governance (participation in decision-making, public and social services), Smart Environment (natural resources), Smart Mobility (transport and ICT), Smart Living (quality of life) and Smart People (social and human capital). Regarding to its emergence, the first reference to SC originated in the US was as a part of the Smart Growth concept, which has been designed to improve the urban environment and quality of life in cities and to reduce the growing "urban sprawl" (Schäfer et al. 2017; Vanolo 2014; Smigiel 2018). Recently, the various conceptual modifications are often obtained by replacing "smart" with alternative adjectives, for example, "intelligent" or "digital" (Hollands 2008; Kitchin 2013; Vanolo 2014; Albino et al. 2015; Lombardi & Vanolo 2015). Anthopoulos et al. (2016:2) pointed out the fact that researchers often used the SC definition linked to digital ecosystems in the urban space and argued that *"smart cities have not been limited to ICT, and they shifted to 'smart people' and their corresponding creativity"*. On the other hand, the adjective "smart" is frequently related to the concept of intelligent city being connected with urban development and technologies, e.g. Singapore labelled as an intelligent island (Hollands 2008; Vanolo 2014).

The key actors who have helped to shape the idea of the smart city were those in the ICT industry who recognized the possibilities of networking through the information and communication technologies (ICTs) in urban areas as a new business field and started working with cities, e.g. IBM with data collection and public administration management (Schäfer et al. 2017; Vanolo 2014; Shelton et al. 2014; Wiig 2015) or multinational companies such as Cisco in 1990s in Milan (Vanolo 2014; Shelton et al. 2014). Some authors have criticised an over-emphasis of the role of ICT (Kitchin et al.

2017) and have seen it as techno-utopian and imaginary vision of urban change (Wiig 2015). In line with this view, smart city could be perceived as a policy idea through which the technologies fix and solve urban problems. In this sense, this policy mobilizes, not surprisingly, large technology corporations which may profit by providing smart solutions (Shelton et al. 2014), and it makes the smart city concept a market-orientated concept through attractive profit for ICT businesses (Wiig 2015).

As pointed out by Barthel and Colding (2017:98) and Hollands (2008) the key question is: “Who benefits from it?”. The authors then continued that “the model is certainly attractive for the enterprisers involved in ICT solutions,” thereby contributing to self-promotion of cities in the competition of capital on the global market. As a result, this could bring a situation of ‘digital marginalization’, which is perceived as a threat of fairness and equal opportunity for the certain groups of the public, for instance, for those not skilled in digital technologies (Barthel & Colding 2017), or risk of technological lock-in through creation of monopolistic positions (Kitchin et al. 2017). Regarding the impacts of various policy concepts, the mobile policy assists cities to stand out as competitive and creative to make similar outcomes of best practices from certain local contexts adapted from far-off places (Wiig 2015).

Kitchin et al. (2017) have argued that the idea of creation the SC is connected with a rise of ‘epistemic community’ at four scales: global, supra-national, national and local. Considering the key actors, Shelton et al. (2014) have emphasised the importance of inter-organisational partnership alliances. Pereira et al. (2017) have pointed out an increase role of government agencies and external stakeholders. In this perspective we can argue that these actors should have a key role in the process of policymaking and transfer/mobility of the SC model at different spatial dimensions (Peck & Theodore 2010; Smigiel 2018), because “policy models do not exist everywhere in the same form” (Temenos & McCann 2013:344).

For example, in Europe, the notion of smart city has been popularized within the European Union complex mechanisms of EU research funding in 2008, known as a Strategic Energy Technology plan (SET Plan). According to the European Commission websites an “implementation of the SET-Plan started with the establishment of the European Industrial Initiatives (EIIs) which bring together industry, the research community, the Member States and the Commission in risk-sharing, public-private partnerships aimed at the rapid development of key energy technologies at the European level”

(SETIS 2008:[www.setis.ec.europa.eu](http://www.setis.ec.europa.eu)). For this purpose an initiative “Smart Cities and Communities” (since 2012 “The European Innovation Partnership for Smart Cities and Communities”) has arisen since 2011 targeting energy efficiency as a way to secure CO2 reductions linked with the “new European initiative - Smart Cities - the objective to create the conditions to trigger the mass market take-up of energy efficiency technologies”. From the EU point of view, member States (e.g. Czechia) are expected to use the smart cities concept to incorporate their relevant priorities and themes into their national programs, thus paving the way for financing individual projects. In addition to funding from national sources, actions under the Smart Cities and Communities initiative are also funded, for example, by the European Horizon 2020 program (EIP-SCC; Russo et al. 2014). In Czechia, the smart city concept is developed in the form of the Smart City Concept Methodology (a project under the BETA Technology Program of the Czech Republic) to guide how to approach the intelligent (smart) city (Metodika Konceptu inteligentních měst 2015).

### 3 Methodological approach

Methodology for classifying the “convenient” strategic documents (see Table 1 and Supplement 1) is based on searching the term “smart city” in urban development strategies. Although other terms, such as “intelligent” are found in the Methodology of the concept of the intelligent cities provided by the Ministry for Local Development and could be reflected in several strategies, the term “intelligent” has not been searched for as it basically expresses a different concept (see above) as claimed Hollands (2008) and Schäfer et al. (2017). On the other hand, the mentioned Methodology provided by the Ministry for Local Development offers useful knowledge - an expectation that the first initiative on smart city is created in populated, larger cities. In this way, following methodological research approach to time-space diffusion of the SC considered the administration function of the cities; therefore, it is limited on an analysis of the urban development strategic documents of the regional cities (on the territorial dimension of the regions NUTS III). The register of cities is completed with three population-wise smaller centres (cities) which are part of the initiative Czech Smart City Cluster (CSCC).

Table 1 concludes the strategies and concepts related to the SC. For a complete view, Supplement 1

represents an overview of the strategic urban documents and their year of acceptance (or update) in each selected city; the documents are available on the official websites of each city and are mentioned in the references of this paper in Source of the strategic documents.

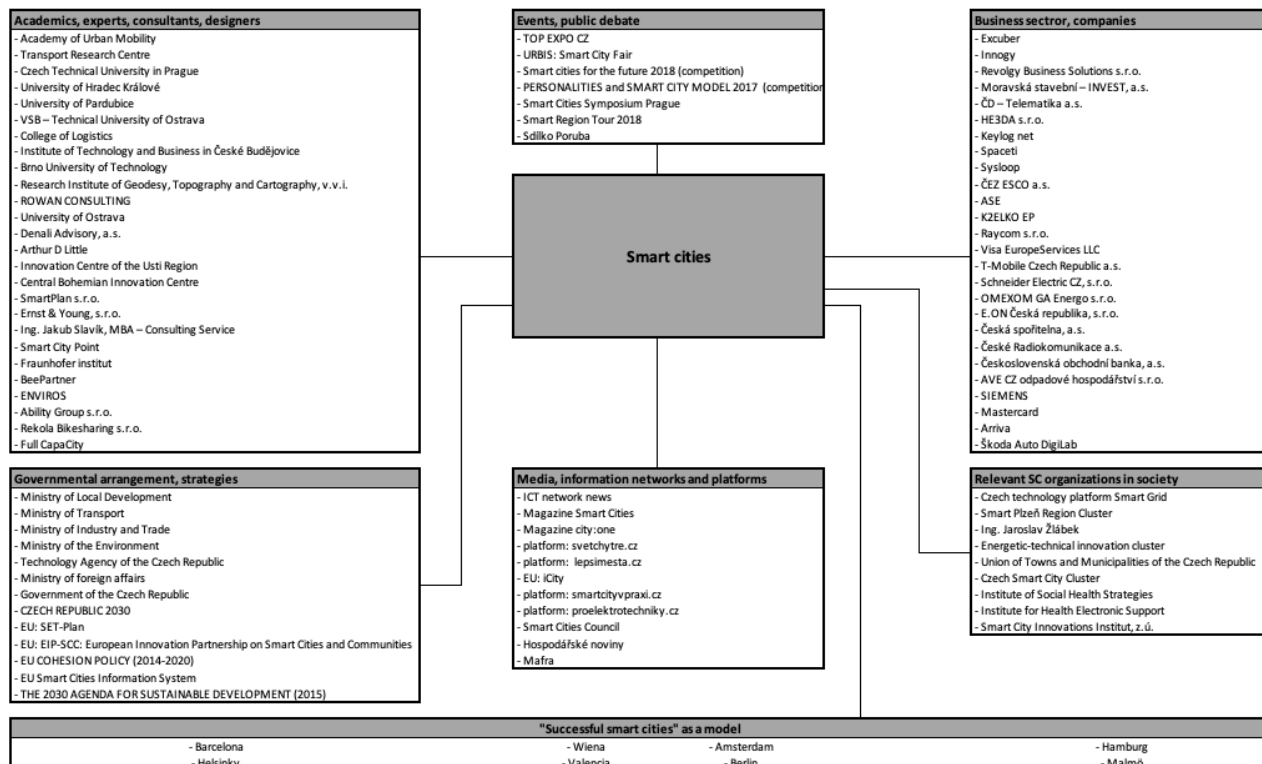
[Supplement 1](#) is organized as follow. The first part, Strategic documents of urban development includes each document related to the urban development (every city has its own development strategy). This section consists of named urban development strategies of each selected city. The second part, Strategy or Concept of smart city aims only at the SC concept and not to the city develop-

ment as a whole (mostly forms a separate annex) and shows the main aims and priorities of SC development in the part Pillars (see also in short overview the [Table 1](#)). However, in the case of implementation of the smart city concept into strategies of city development, the names of these strategies are the same in both parts, including a notice ‘implementation in’ in the second part; from this perspective, the SC concept does not form a separate annex or document. Taking into account the SC policy mobility, the various smart city implementations and modifications form different pillars (see Pillars) in each concept or strategy; in this way it may cause the different planning priorities and projects

**Table 1** The short overview of the strategic documents related to the SC concept

CITY (alpha- betically)	STRATEGY OR CONCEPT OF SMART CITY			
	Name of the documents	Approved in year	Pillars	The first initiative and actor (if any)
Brno	Smart City Brno 2050	in prep.	Smart Living, Smart Resources, Smart Governance	2015; Smart City Commission of the City Council of Brno: conception
České Budějovice	Strategic Plan of the City of České Budějovice 2017-2027	2017	Implementation in Entrepreneurial environment, Human resources, R&D, Mobility, Attractive city	2017; City of České Budějovice: conception
Hradec Králové	Smart Hradec Králové - program concept	2016	Smart economy, S. mobility, S. governance, S. environment, S. living, S. people	2016; City of Hradec Králové: conception
Ostrava	Strategic Plan for the Development of the Statutory City of Ostrava 2017-2023	2016	Implementation in: Searching for integrated and smart solutions	2016; City of Ostrava
Pardubice	Strategy Smart City Pardubice 2020	2016	Mobility, Transport, Energetic, IT, Services, Social, Cultural and Sport pillar	2016; City of Pardubice and organisation of Smart City Point <sup>6</sup> : conception
Písek	Blue-yellow book Smart Písek	2015	Smart Mobility, S. Energy and Services, Integrated Infrastructure and ICT	2013; City of Písek and consulting company SmartPlan: conception
Plzeň	Smart City Information Technology Strategy of the City of Plzeň	2017	Smart Government, Smart Education, Smart Business Support	2017; City of Plzeň: conception
Prague	SMART Prague 2014-2020	2014	Smart infrastructure, Smart specialization, Smart creativity	2014; City of Prague: Development Commission Smart Cities
	Strategic Plan of the City of Prague (2030)	update in 2016	Implementation in: Smart Governance, S. Technology, S. Infrastructure, S. People, S. Living	
Třebíč	In preparation - project “Třebíč on the way to Smart City”	in prep.	-	2016; City of Třebíč and company E.ON Czech Republic <sup>7</sup>
Zlín	Strategy of the development of the Statutory city of Zlín until 2020 - ZLÍN 2020	2012	Implementation in: energy, mobility, economy, ICT, image	2012; City of Zlín





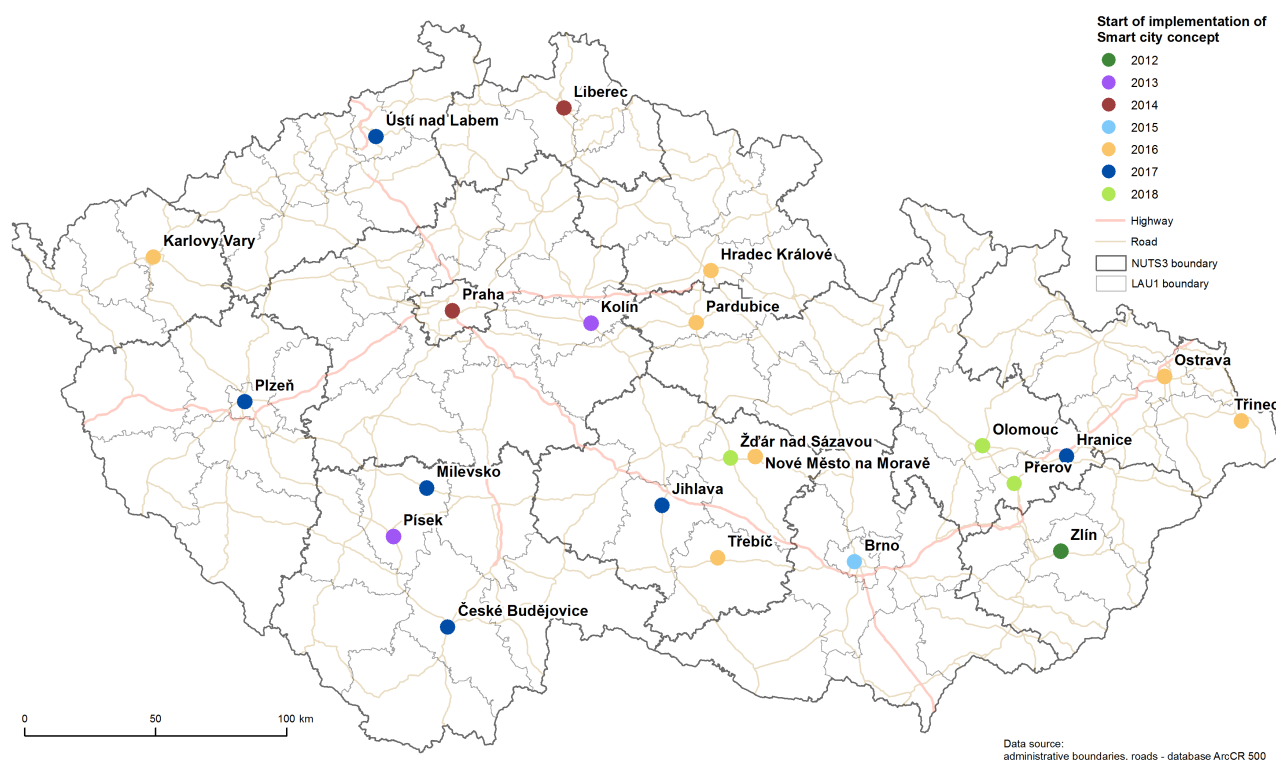
**Fig. 1** Smart cities infrastructure in Czechia Source: own elaboration, author: Alexandr Nováček

in Czech cities. The sections Approved in year indicate the year of the official approval the strategic documents and their publishing. The first initiative and actor (if any) points to a year of the first effort to build SC (according to available online sources) and includes actors who are interested in or collaborate with the city.

## 4 Results of the analysis of strategic documents

In addition to the short analysis of these strategic documents and promotional materials (online sources), the following part includes additional information which is not recorded in Table 1 and Supplement 1. But most importantly is that finding the term "smart" in strategies of city development indicates the existence of the SC implementation. However, some strategies consist of pillars (priorities) which may seem like the smart city concept through basic elements, although the term smart was not used. More concretely, in the Strategic Plan of Development of the City of Jihlava until 2020 (Supplement 1) priorities were included for Sustainable development of the city and activities such as Energy Saving Measures - Reducing the energy

intensity of city buildings, despite that adjective "smart" was missing. On the contrary, e.g. Zlín has implemented the concept of smart cities in its strategy already in 2012, but in practice it appeared in 2015 as e.g. a system that recognizes the trolleybus delay and then adjusts the traffic light signals so that the delayed vehicle does not have to stop and can cut the delay (www.zlin.idnes.cz). Another example is from Ostrava; although Ostrava's Strategic Plan includes the concept SC hidden under the pillar "Searching for integrated and smart solutions", its own SC concept does not exist. In contrast, Olomouc has no elaborated SC concept or its implementation, but as smart considers the intelligent stops built since 2007, ticket and parking payment via text message (www.olomouc.eu). In connection with findings related to the research question where and when, the first approved conceptualization or strategy of building the SC has been implemented in Zlín in 2012 (see Approved in year in the part Concept of Smart City), following the capital city Prague in 2014 and the smaller city Písek in 2015. Hradec Králové and Pardubice published and Ostrava implemented the SC concept in 2016; České Budějovice, Plzeň and Třebíč in 2017. In contrast, the part First initiative and actor (see Supplement 1 and Fig. 2) offers also the year of an intention to build SC, but the differ-



**Fig. 2** Time-space diffusion of the Smart City concept in Czechia

ence between the first initiative and an approval (see Approved in year) is in its year of the official published documents related to the SC. For instance, the first initiative to build SC Brno appeared in 2015, however the conceptualization is still in preparation and will be official published in the following years, and in; or Kolín a few smart solutions have been used since 2013, however without any strategy.

But most important in the part First initiative and actor (if any) is not the year, but rather the actors who led to answering to the question by whom? As our result shows, the interest in building smart cities in Czechia is mostly based on the collaboration between the city (or the established smart city commission) and the consulting company e.g. Smart City Point and Smartplan, further the private company E.ON in Třebíč, or the university – Jan Evangelista Purkyně University (UJEP) in Ústí nad Labem. Otherwise, there are initiatives shown by consultancy services or specific (international) companies offering smart solutions for the city without any strategy or conceptualization, for instance, Liberec does not have the SC strategy elaborated, nor it is not mentioned in its urban development plan in any way, but the initiative to build smart solutions exist through the co-operation between

the city and the company ČD Telematika, e.g. smart parking from 2016 ([www.liberec.cz](http://www.liberec.cz)).

To sum up, the holistic approach to implementation of the smart city strategies is missing in all cases. For instance, the Smart City Pardubice concept highlights the fact that Action plans for individual Smart City areas must be coordinated and implemented always in line with the other documents and concepts of the city of Pardubice, which is not the case, however. Another example is the city of Kolín ([Supplement 1](#)), which does not have any smart conception and perceives the smart city as the separate projects or group of smart solutions arising from only one or two pillars (as it often happens in other smart conceptions). Therefore, the city is labelled as “smart” on the basis of several projects such as smart parking, smart traffic lights, bike-sharing, smart card, referred to as smart technological solutions. The above mentioned projects are supported and implemented without any anchor into the development aims of the city and with the risk of underestimating the remaining pillars. Thereby, these projects threaten the basic idea of the sustainable development associated with the smart cities. In contrast, the conception Smart Hradec Králové is more close to the building of a more compact and complex smart city ([Table 1](#)).

## 5 Discussion and conclusions

In reference to the research papers, an appropriate discussion about actors and stakeholders as initiators has been opened by [Kitchin et al. \(2017\)](#) who argued that the creation of the concept smart city is supported by a rise of new set of urban technocrats (e.g. project managers, consultants, academics), stakeholders (e.g. private sector, politicians, lobby groups) and also events (e.g. Smart City Expos, workshops, conferences). Related to this argument key actors and initiators of SC conceptualization were found in Czechia (see [Fig. 1](#)); in other words the ‘epistemic community’: Czech Smart City Cluster by creating a partnership among companies, government, municipalities, knowledge institutions, and urban citizens, and the consulting companies such as Smart City Point (e.g. Smart City Pardubice 2020), Smartplan (e.g. Blue-yellow book Smart Písek). Moreover, smart city discourse has been increasingly shaped by new platforms such as the magazines and promotional materials and videos (Smart Cities<sup>1</sup>, city:one<sup>2</sup>), public debates (Sdíleko Poruba 2018<sup>3</sup>), conferences (SMART CITIES and sustainable development<sup>4</sup>, EXPO Smart Cities 2018<sup>5</sup>) and by large private sector companies. Thereby, the importance of these infrastructures is rising and makes pressure to implement, use, *„frame, package and represent information about urban policies, ‘best practices’ and ‘successful cities’“* ([Clarke 2012:33](#)).

The smart city model, like other urban policy models, is not transferred as a complex package, but rather in the form of fragmented policy ([Peck & Theodore 2010](#)). During its journey it was modified and replicated by various actors in Czech cities; in other words, the model of smart city has evolved through mobility. The recognised actors are thus those who have found the opportunity to participate in policy-making processes; mostly they are part of the “epistemic community” at the certain spatial level, and they are rooted in the mobility of policy. In this study, the aim was to provide the basic empirical evidence of the implementation of the smart city concepts and strategies in the context of Czechia. The findings of the research are inclined to the view that the concept of a smart city should be in a comprehensive holistic approach, which consists of complex pillars, characteristics and topics. The process of the time-space diffusion of the smart city concept in Czechia is firstly influenced by the population size of the cities and the cities’ administrative function; secondly by creation of the SC conceptualizations, strategies and their

implementation into the urban development strategies, and thirdly by the role of initiators and actors who show the interest in the formation of smart city models, conceptualization and topics. As the result, this policy mobility has caused the effect of making the smart strategies different from each other in the cities in Czechia, and placing different pillars of the SC in the foreground.

## Notes

- <sup>1</sup> [scmagazine.cz/casopis\\_locale\\_cs/](http://scmagazine.cz/casopis_locale_cs/)
- <sup>2</sup> [cityone.cz/o-projektu-city-one/t6624](http://cityone.cz/o-projektu-city-one/t6624)
- <sup>3</sup> [sdilkoporuba.cz/](http://sdilkoporuba.cz/)
- <sup>4</sup> [cma.cz/konference-smart-cities-a-udrzitelny-rozvoj-2/](http://cma.cz/konference-smart-cities-a-udrzitelny-rozvoj-2/)
- <sup>5</sup> [www.top-expo.cz/smart-city/smart-city-2018/](http://www.top-expo.cz/smart-city/smart-city-2018/)
- <sup>6</sup> [czechsmartcitycluster.com/codeless\\_portfolio/smart-city-pardubice/](http://czechsmartcitycluster.com/codeless_portfolio/smart-city-pardubice/)
- <sup>7</sup> [chytratrebic.cz/o-projektu/o-projektu-chytra-trebic/](http://chytratrebic.cz/o-projektu/o-projektu-chytra-trebic/)

## Acknowledgement

The authors acknowledge support from the The Ministry of Education, Youth and Sports through a research grant “SMART technologies to improve the quality of life in cities and regions” (no. CZ.02.1.01/0.0/0.0/17\_049/0008452).

We would like to thank Jan Ženka, Alexander Nováček and Petr Rumpel for their helpful comments and suggestions. Any errors and omissions remain the authors’ responsibility. The early version of the paper was presented and discussed at the SEDER Conference - Social and economic development regional policy, held at UJEP Ústí nad Labem in June 2018.

## References

- Albino V, Berardi U, Dangelico RM (2015) Smart cities: Definitions, Dimensions, Performance and Initiatives. *Journal of Urban Technology* 22: 3–21.
- Anthopoulos L, Janssen M, Weerakkody V (2016) A Unified Smart City Model (USCM) for smart city Conceptualization and Benchmarking. *International Journal of Electronic Government Research* 12(2): 77–93.
- Barthel S, Colding J (2017) An urban ecology critique on the Smart City model. *Journal of Cleaner Production* 164: 95–101.
- Clarke N (2012) Urban policy mobility, anti-politics, and histories of the transnational municipal movement. *Progress in Human Geography* 36(1): 25–43.
- Giffinger R, Fertner C, Kramar H, Kalasek R, Pichler-Milanović N, Meijers E (2007) Smart cities - Ranking of European medium-sized cities, Vienna University of Technology. Vienna.
- Hollands RG (2008) Will the real smart city please stand up? *City* 12(3): 303–320.
- Kitchin R (2014) The real-time city? Big data and smart urbanism. *GeoJournal* 79(1): 1–14.
- Kitchin R, Coletta C, Evans L, Heaphy L, Mac Donncha D (2017) Smart cities, urban technocrats, epistemic communities and advocacy coalitions. *The Programmable City Working Paper* 26: 1–22.

Lombardi PL, Vanolo A (2015) Smart City as a Mobile Technology: Critical Perspectives on Urban Development Policies. Transforming City Governments for Successful Smart Cities. Springer International Publishing, Cham, pp. 147–161.

Peck J, Theodore N (2010) Mobilizing policy: Models, methods, and mutations. *Geoforum* 41: 169–174.

Pereira GV, Cunha MA, Lampoltshammer TJ, Parycek P, Testa MG (2017) Increasing collaboration and participation in smart city governance: a cross-case analysis of smart city initiatives. *Information Technology for Development* 23: 526–553.

Pozdniakova AM (2018) Smart City Strategies London-Stockholm-Vienna-Kyiv: In search of common ground and best practices. *Acta Innovations* 27: 31–45.

Russo F, Rindone C, Panuccio P (2014) The process of smart city definition at an EU level. In: *Sustainable City* 9: 979–989.

Shelton T, Zook M, Wiig A (2014) The ‘actually existing smart city’. *Cambridge Journal of Regions, Economy and Society* 8: 13–25.

Schäfer M, Wendort G, Keppler D, Hempel L (2017) Smart City: Zur Bedeutung des aktuellen Diskurses für die Arbeit am Zentrum Technik und Gesellschaft, Unpublished. DOI: 10.13140/RG.2.2.31614.38721.

Smigiel C (2018) Urban political strategies in time of crisis: A multiscale perspective on smart cities in Italy. *European Urban and Regional Studies*, 2018 : 1–13.

Temenos C, McCann E (2013) Geographies of Policy Mobilities. *Geography Compass* 7: 344–357.

Vanolo A (2014) Smartmentality: The Smart City as Disciplinary Strategy. *Urban Studies*, 2014 : 51: 883–898.

Wiig A (2015) IBM’s smart city as techno-utopian policy mobility. *City* 19: 258–273.

#### *Sources of the strategic documents and online sources*

Brno: Strategy Brno 2050 <[http://brno2050.cz/pdf/Strategie\\_BRNO\\_2050\\_strategicka\\_cast\\_FINAL\\_web\\_12\\_12\\_2017.pdf](http://brno2050.cz/pdf/Strategie_BRNO_2050_strategicka_cast_FINAL_web_12_12_2017.pdf)>.

Brno: Smart City Brno 2050 <<https://www.brno.cz/sprava-mesta/volene-organy-mesta/rada-mesta-brna/komise-rady-mesta-brna/smart-city-brno/>>.

Czech Republic 2030. Strategy. URL: <<https://www.cr2030.cz/>>.

CSCC: Czech Smart City Cluster. URL: <<http://czechsmartcity-cluster.com/projekty/>>.

České Budějovice: Strategic Plan of the City of České Budějovice 2017–2027 <[http://www.c-budejovice.cz/sites/default/files/obsah/Odbory/ORVZ/Strategicky-plan/strategicky\\_plan\\_mesta\\_ceske\\_budejovice\\_na\\_obdobi\\_let\\_2017\\_-2027\\_-\\_finalni\\_verze\\_dokumentu\\_po\\_hodnoceni\\_sea.pdf](http://www.c-budejovice.cz/sites/default/files/obsah/Odbory/ORVZ/Strategicky-plan/strategicky_plan_mesta_ceske_budejovice_na_obdobi_let_2017_-2027_-_finalni_verze_dokumentu_po_hodnoceni_sea.pdf)>.

ČSÚ (Czech Statistical Office): Total number of Population in Czech Republic in 1. 1. 2017 <<https://www.czso.cz/csu/czso/pocet-obyvatele-v-obcich-k-112017>>.

EU: EIP-SCC: European Innovation Partnership on Smart Cities and Communities. URL: <<https://eu-smartcities.eu/>>.

EU: EU COHESION POLICY (2014–2020). URL: <[https://ec.europa.eu/info/business-economy-euro/economic-and-fiscal-policy-coordination/eu-economic-governance-monitoring-prevention-correction/european-semester/framework/europe-2020-strategy\\_en](https://ec.europa.eu/info/business-economy-euro/economic-and-fiscal-policy-coordination/eu-economic-governance-monitoring-prevention-correction/european-semester/framework/europe-2020-strategy_en)>.

Hradec Králové: Strategic Development Plan of the City of Hradec Králové until 2030 <[https://m.hradeckralove.org/file/353\\_1\\_1](https://m.hradeckralove.org/file/353_1_1)>.

Hradec Králové: Smart Hradec Králové – program koncept <[https://www.hradeckralove.org/file/13119\\_1\\_1/](https://www.hradeckralove.org/file/13119_1_1/)>.

Hradec Králové: Smart Hradec Králové – Smart Mobility <[https://www.hradeckralove.org/file/13121\\_1\\_1/](https://www.hradeckralove.org/file/13121_1_1/)>.

Hradec Králové: Smart Hradec Králové – Smart Environment <[https://www.hradeckralove.org/file/13122\\_1\\_1/](https://www.hradeckralove.org/file/13122_1_1/)>.

Hradec Králové: Smart Hradec Králové – Smart Connectivity <[https://www.hradeckralove.org/file/13120\\_1\\_1/](https://www.hradeckralove.org/file/13120_1_1/)>.

Jihlava: Strategic Plan of the Statutory City of Jihlava for 2020 <[https://www.jihlava.cz/assets/File.ashx?id\\_org=5967&id\\_dokumenty=500101](https://www.jihlava.cz/assets/File.ashx?id_org=5967&id_dokumenty=500101)>.

Karlovy Vary: Strategy Karlovy Vary° (2020) <[https://mmkv.cz/sites/default/files/dokumenty/strategiekvdeg-zkracena\\_verze.pdf](https://mmkv.cz/sites/default/files/dokumenty/strategiekvdeg-zkracena_verze.pdf)>.

Kolín: Integrated development plan 2008–2015 <[http://www.mukolin.cz/prilohy/Temp/n\\_37\\_iprm%20schv-elen-u%2030.1.2012.pdf](http://www.mukolin.cz/prilohy/Temp/n_37_iprm%20schv-elen-u%2030.1.2012.pdf)>.

Liberec: Updated the development strategy of Statutory city Liberec 2014–2020: <<https://www.liberec.cz/files/dokumenty/odbor/odbor-strategickeho-rozvoje-dotaci/aktualizace-strategie-rozvoje-statutarniho-mesta-liberec-2014-2020.pdf>>.

Liberec: Pilotní projekt sledování obsazenosti parkovacích míst (2016) [online] . URL: <<https://www.liberec.cz/cz/radnice/dalsi-organy-mesta/zastupitelstvo-mesta/clenove-zastupitelstva/tomas-kysela/aktuality-kysela/pilotni-projekt-sledovani-obsazenosti-parkovacich-mist.html>>.

Ministerstvo pro místní rozvoj (Ministry for local development): Metodika Konceptu inteligentních měst <[https://www.mmr.cz/getmedia/b6b19c98-5b08-48bd-bb99-756194f6531d/TB930MMR001\\_Metodika-konceptu-Inteligentnich-mest-2015.pdf](https://www.mmr.cz/getmedia/b6b19c98-5b08-48bd-bb99-756194f6531d/TB930MMR001_Metodika-konceptu-Inteligentnich-mest-2015.pdf)>.

Olomouc: Strategic Development Plan of the City of Olomouc <[http://www.olomouc.eu/administrace/repository/gallery/articles/88\\_8828/navrhova-cast-sp-olomouc.cs.pdf](http://www.olomouc.eu/administrace/repository/gallery/articles/88_8828/navrhova-cast-sp-olomouc.cs.pdf)>.

Olomouc: Olomouc se představila jako „chytré město“ na Smart Region Tour 2018 (2018) [online] . URL: <<https://www.olomouc.eu/aktualni-informace/aktuality/22510>>.

Ostrava: Strategic Plan for the Development of the Statutory City of Ostrava 2017–2023 <<http://fajnova.cz/wp-content/uploads/2017/03/Strategicky-plan-Ostrava.pdf>>.

Pardubice: Strategic Urban Development Plan of Pardubice for 2014–2025 <<http://www.pardubice.eu/par-dubicich/strategicky-plan/strategicky-plan-2014-2025-aktualizace-2017/>>.

Pardubice: Smart City Pardubice 2020 <<http://www.pardubice.eu/urad/radnice/rada/zapisy-z-jednani/2018/zapis-ze-101-schuze-rmp-konane-dne-19-03-2018/?file=39889&page=4454753&do=download>>.

Písek: Strategic development plan for the city of Písek until 2025 <[http://www.mesto-pisek.cz/assets/File.ashx?id\\_org=12075&id\\_dokumenty=12533](http://www.mesto-pisek.cz/assets/File.ashx?id_org=12075&id_dokumenty=12533)>.

Písek: Blue-yellow book Smart Písek <[http://www.mesto-pisek.cz/assets/File.ashx?id\\_org=12075&id\\_dokumenty=5399](http://www.mesto-pisek.cz/assets/File.ashx?id_org=12075&id_dokumenty=5399)>.

Plzeň: Strategic Plan of the City of Plzeň <<https://ukr.plzen.eu/cz/rozvoj-mesta/strategicky-plan-mesta-plzne/strategicky-plan-mesta-plzne.aspx>>.

Plzeň: Smart City Information Technology Strategy of the City of Plzeň <[https://smartcity.plzen.eu/wp-content/uploads/2014/03/SITMP\\_Smart\\_City\\_Strategy\\_final.pdf](https://smartcity.plzen.eu/wp-content/uploads/2014/03/SITMP_Smart_City_Strategy_final.pdf)>.



Prague: Smart Ciy Prague 2030 <<http://www.iprpraha.cz/clanek/308/smart-cities>>.

Prague: SMART Prague 2014-2020 <[http://praha-fondy.ami.cz/userfiles/File/budoucnost2014plus/Smart\\_Prague/SMART\\_Prague\\_2014-01-27.pdf](http://praha-fondy.ami.cz/userfiles/File/budoucnost2014plus/Smart_Prague/SMART_Prague_2014-01-27.pdf)>.

Prague: Strategic Plan of the City of Prague (2030) <[http://www.iprpraha.cz/uploads/assets/dokumenty/ssp/SP/STRATEGICKY\\_PLAN\\_HLAVNIHO\\_MESTA\\_PRAHY\\_AKTUALIZACE\\_2016.pdf](http://www.iprpraha.cz/uploads/assets/dokumenty/ssp/SP/STRATEGICKY_PLAN_HLAVNIHO_MESTA_PRAHY_AKTUALIZACE_2016.pdf)>.

Prague: Strategy of Management and Development of the capital City of Prague until 2020 <[http://www.praha.eu/public/3a/1d/60/2093667\\_706670\\_Strategie\\_rizeni\\_a\\_rozvoje\\_Magistratu\\_hlavniho\\_mesta\\_Prahy\\_do\\_roku\\_2020.pdf](http://www.praha.eu/public/3a/1d/60/2093667_706670_Strategie_rizeni_a_rozvoje_Magistratu_hlavniho_mesta_Prahy_do_roku_2020.pdf)>.

SETIS (2008): SET-Plan. URL: <<https://setis.ec.europa.eu/about-setis/set-plan-governance>>.

THE 2030 AGENDA FOR SUSTAINABLE DEVELOPMENT (2015). URL: <<https://sustainabledevelopment.un.org/post2015/transformingourworld>>.

Třebíč: Strategic plan development of the city Třebíč for the period 2015-2019 <<http://trebic.cz/aktualizace-strategicky-plan-rozvoje-mesta-pro-nbsp-obdobi-2015-2019/d-25879>>.

Třebíč: "Třebíč on the way to Smart City" <<http://trebic.cz/trebic-na-cestech-smart-city/d-35784>>.

Ústí nad Labem: Urban Development Strategy of the City of Ústí nad Labem 2015-2020 <[http://www.usti-nad-labem.cz/files/unl\\_strategie\\_final\\_v2.pdf](http://www.usti-nad-labem.cz/files/unl_strategie_final_v2.pdf)>.

Zlín: Strategy of the development of the Statutory city of Zlín until 2020 - ZLÍN 2020 <<http://www.zlin.eu/clanky/dokumenty/2800/05e7fb05-0-strategie-zlin-2020-navrhova-cast-1-0.pdf>>.

Zlín: Lidé ve Zlíně mohou sledovat polohu trolejbusů. Zjistí, jestli má wifi (2015) [online]. URL: <[https://zlin.idnes.cz/informace-opoloze-a-vybaveni-trolejbusu-a-autobusu-ve-zline-a-otrokovicich-177-zlin-zpravy.aspx?c=A151105\\_163337\\_zlin-zpravy\\_ras](https://zlin.idnes.cz/informace-opoloze-a-vybaveni-trolejbusu-a-autobusu-ve-zline-a-otrokovicich-177-zlin-zpravy.aspx?c=A151105_163337_zlin-zpravy_ras)>.

**Supplement 1** - The urban strategic documents related to the smart cities and the overview of actors

CITY (alpha- betically)	TOTAL POPULATION (1.1. 2017)	STRATEGIC DOCUMENTS OF URBAN DEVELOPMENT		STRATEGY OR CONCEPT OF SMART CITY			
		Name of the documents	Approved in year	Name of the documents	Approved in year	Pillars	The first initiative and actor (if any)
Brno	377 973	Part Visions and Strategy #brno2050 (in preparation: Strategy Brno 2050 )	2017	Smart City Brno 2050	in prep.	Smart Living, Smart Resources, Smart Governance	2015 Smart City Commission of the City Council of Brno: conception
České Budějovice	93 470	Strategic Plan of the City of České Budějovice 2017-2027	2017	Strategic Plan of the City of České Budějovice 2017-2027	2017	Implementation in Entrepreneurial environment, Human resources, R&D, Mobility, Attractive city	2017 City of České Budějovice: conception
Hradec Králové	92 929	Strategic Development Plan of the City of Hradec Králové until 2030	2013	Smart Hradec Králové - program concept	2016	Smart economy, S. mobility, S. governance, S. environment, S. living, S. people	2016 City of Hradec Králové: conception
				Smart Hradec Králové - Smart Mobility	2017		
				Smart Hradec Králové - Smart Environment	2017		
				Smart Hradec Králové - Smart Connectivity	2017		
Jihlava	50 559	Strategic Plan of the Statutory City of Jihlava for 2020	2013				2017 City of Jihlava
Karlovy Vary	49 046	Strategy Karlovy Vary <sup>8</sup> (2020)	2014				2016 City of K. Vary
Liberec	103 853	Updating the development strategy of Statutory city Liberec 2014-2020	2014				2014 City of Liberec
Olomouc	100 378	Strategic Development Plan of the City of Olomouc	2017				2018 City of Olomouc
Ostrava	291 634	Strategic Plan for the Development of the Statutory City of Ostrava 2017-2023	2016	Strategic Plan for the Development of the Statutory City of Ostrava 2017-2023	2016	Implementation in: Searching for integrated and smart solutions	2016 City of Ostrava
Pardubice	90 044	Strategic Urban Development Plan of Pardubice for 2014-2025	update in 2017	Strategy Smart City Pardubice 2020	2016	Mobility, Transport, Energetic, IT, Services, Social, Cultural and Sport pillar	2016 City of Pardubice and organisation of Smart City Point <sup>8</sup> : conception
Plzeň	170 548	Strategic Plan of the City of Plzeň 2018-2035	2018	Smart City Information Technology Strategy of the City of Plzeň	2017	Smart Government, Smart Education, Smart Business Support	2017 City of Plzeň: conception
Prague	1 280 508	Strategy of Management and Development of the capital City of Prague until 2020	2015	SMART Prague 2014-2020	2014	Smart infrastructure, Smart specialization, Smart creativity	2014 City of Prague: Development Commission Smart Cities
				Smart City Prague 2030	2017	Mobility of the future, Smart buildings and energy, Non-waste city, Attractive tourism, People and the urban space, Data area	
				Strategic Plan of the City of Prague (2030)	update in 2016	Implementation in: Smart Governance, S. Technology, S. Infrastructure, S. People, S. Living	
Ústí nad Labem	92 984	Urban Development Strategy of the City of Ústí nad Labem 2015-2020	2014				2017 ÚJEP and Region Ústí n. Labem: Development of the SMART research team and popularization of SMART topics in the Region Ústí n. Labem <sup>9</sup>
Zlín	75 117	Strategy of the development of the Statutory city of Zlín until 2020 - ZLÍN 2020	2012	Strategy of the development of the Statutory city of Zlín until 2020 - ZLÍN 2020	2012	Implementation in: energy, mobility, economy, ICT, image	2012 City of Zlín
Others:							
Kolín	31 123	Integrated development plan 2008-2015	update in 2012			E-city-office, Transport and Parking, Kolín in mobile, Energetic Management	2013 City of Kolín: smart solutions without strategic plan <sup>10</sup>
Písek	29 966	Strategic development plan for the city of Písek until 2025	2015	Blue-yellow book Smart Písek	2015	Smart Mobility S. Energy and Services, Integrated Infrastructure and ICT	2013 City of Písek and consulting company SmartPlan: conception
Třebíč	36 330	Strategic plan develop ment of the city Třebíč for the period 2015-2019	2015	In preparation - project "Třebíč on the way to Smart City"	in prep.		2016 <sup>11</sup> City of Třebíč and company E.ON Czech Republic

<sup>8</sup> [http://czechsmartcitycluster.com/codeless\\_portfolio/smart-city-pardubice/](http://czechsmartcitycluster.com/codeless_portfolio/smart-city-pardubice/); <sup>9</sup> <http://smart-mateq.cz/projekty/projekty-smart/smart-iti/>; <sup>10</sup> <http://www.mukolin.cz/cz/o-meste/smart-city-kolin/>; <sup>11</sup> <https://www.chytratrebic.cz/o-projektu/o-projektu-chytra-trebic-/>