

**THE SMART CITIES MODEL: A MODERN WAY OF SATISFYING  
THE FUNDAMENTAL NEEDS OF THE CITIZENS THROUGH  
EFFICIENCY AND PARTICIPATION**

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## 1. A MATTER OF EFFICIENCY

According to the European Commission, «*a smart city is a place where traditional networks and services are made more efficient with the use of digital solutions for the benefit of its inhabitants and business*»<sup>2</sup>.

In the reported definition, the idea of smart cities refers, in the first place, to a matter of efficiency; it's not the only topic, of course, but it is the one to which - as we we'll try to demonstrate in this paper - all other issues concerning the model are, in a way or another, connected.

The «smart cities model» aims to improve the quality of the life of those who live in an urban context, in several respects (such as: sustainability, economic growth, access to public facilities and services, right balance between the private life and the working life of the citizens, participation in public decision-making processes, etc.) and through the setting of new tools, commodities and facilities or the implementation of the efficiency of the traditional ones.

In physics, the term “efficiency” indicates «*the difference between the amount of energy that is put into a machine in the form of fuel, effort, etc. and the amount that comes out of it in the form of movement*»<sup>3</sup>. In a more general way, the term refers to «*a situation in*

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<sup>2</sup> For this quotation see: [https://ec.europa.eu/info/eu-regional-and-urban-development/topics/cities-and-urban-development/city-initiatives/smart-cities\\_en#:~:text=A%20smart%20city%20is%20a,of%20its%20inhabitants%20and%20business.&text=It%20means%20smarter%20urban%20transport,to%20light%20and%20heat%20buildings.](https://ec.europa.eu/info/eu-regional-and-urban-development/topics/cities-and-urban-development/city-initiatives/smart-cities_en#:~:text=A%20smart%20city%20is%20a,of%20its%20inhabitants%20and%20business.&text=It%20means%20smarter%20urban%20transport,to%20light%20and%20heat%20buildings.)

<sup>3</sup> Both the reported definitions are taken from the Online Cambridge Dictionary (<https://dictionary.cambridge.org/dictionary/english/efficiency> - «Efficiency»).

*which a person, company, factory, etc. uses resources such as time, materials, or labour well, without wasting any».*

As it is well known, in the Italian legal system - and especially in the constitutional Chart - efficiency refers to Public Powers and, in a more specific way, to the Public Administration<sup>4</sup>.

Efficiency is a part of the so called «*buon andamento*», which is one of the leading principles behind the organization and the activity of the Public Administration<sup>5</sup>; a principle which is specifically recognised by the Italian constitutional Chart<sup>6</sup> and which requires the Administration to be able to reach the goals set by the law, to use the minimum possible

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<sup>4</sup> The improvement of the efficiency of the Public Administration is also an objective of the politics of the European Union. The eleventh thematic objective of the Cohesion Policy of the EU (for the period 2014-2020) concerns, specifically, that topic (see EU cohesion policy priorities 2014-2020: [https://ec.europa.eu/regional\\_policy/en/policy/how/priorities/2014-2020/](https://ec.europa.eu/regional_policy/en/policy/how/priorities/2014-2020/)).

<sup>5</sup> For an essential bibliography on the «*buon andamento*» see A. MORRONE, *Verso un'amministrazione democratica. Sui principi di imparzialità, buon andamento e pareggio di bilancio*, in *Dir. Amm.*, 2019, f. 2, 381 ss.; A. MARRA, *L'Amministrazione imparziale*, Torino, 2018; R. URSI, *Le stagioni dell'efficienza. I paradigmi giuridici della buona amministrazione*, Rimini, 2016; C. PINELLI, *Il «buon andamento» e l'imparzialità dell'amministrazione*, in *La Pubblica Amministrazione*, Commentario Cost. Branca-Pizzorusso, Bologna-Roma, 1994; U. ALLEGRETTI, *Imparzialità e buon andamento*, in *Dig. disc. pubbl.*, VIII, Torino, 1993; AA.VV., *Buon andamento della pubblica amministrazione e responsabilità degli amministratori: (convegno di studio, 4 e 5 maggio 1984)*, Milano, 1985; A. ANDREANI, *Il principio costituzionale di buon andamento della pubblica amministrazione*, Padova, 1979.

<sup>6</sup> And especially by article 97.

amount of money and resources in the making of its activity and to be, as we were saying, efficient<sup>7</sup>.

So said, we can also add that the efficiency of the Public Administration - and the «*buon andamento*» itself - is connected to the rights and the freedoms of citizens, which (at least, some of them) need to be protected and improved by the Administration (and, broadly speaking, by the Public Powers.).

The modern concept of Public Administration is the one according to which the Administration itself is entitled with the task of guaranteeing services to citizens which have to be considered as fundamental<sup>8</sup>.

As a matter of fact, considering that the Chart sets some specific issues and goals upon the Public Administration (such as actions to be taken in order to protect the environment and the artistic and historical heritage of the Italian country or to provide for the health of the citizens) and the activity of this one is ruled by the principle of «*buon andamento*» (which we can simply translate as «*good administration*») we can say that efficiency is an instrument by which the goals set by the Chart upon the Public Administration are reached, and the rights and freedoms of citizens are effectively protected.

On the opposite, if the Administration is not efficient and is not able to effectively reach its goals, the risk for the rights of citizens not to be granted is very high.

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<sup>7</sup> It has been observed that the efficiency and the effectiveness of the activity of the Public Administration are corollaries of the principle of «*buon andamento*» (T.A.R. Lecce, (Puglia) sec. I, 4<sup>th</sup> september 2018, n. 1321; Italian State Council, sec. V, 16<sup>th</sup> October 2017, no. 4787).

<sup>8</sup> On this topic see, among others, A. GIUFFRIDA, *Il "diritto" ad una buona amministrazione pubblica e profili sulla sua giustiziabilità*, Torino, 2012, 85, who states that the essential role the Italian Constitution attributes to the Public Administration is the one concerning the provisioning of services to citizens.

Just to make an example (one that the Italian citizens can perfectly understand), in Italy the medical assistance is public and, mostly, free: everyone can have access to medical facilities; nonetheless, if the medical care, in addition to be free, is not also efficient, the right to health of citizens can easily be frustrated: consider, from this point of view, a medical examination scheduled seven, eight or nine months after the submission of the request... we cannot say that the right to health of the citizen who made the request had been completely guaranteed!

So said, we can state that the efficiency of the Public Administration is something which is clearly and directly connected with the fundamental rights of citizens, and so is the «smart cities model», which is focused - as we were saying - on the issue of efficiency.

In this scenario, considerations concerning economic and financial topics are central.

As a matter of fact, efficiency refers to the way by which money and resources are invested and spent in order to offer to citizens public services and access to facilities, or to make the Administration able to pursue its duties and to reach its goals. In fact, it refers to the whole activity of the Administration, which - in countries such as Italy or France - is very pervasive and needs to be financed by a huge percentage of the gross domestic product (GDP).

It's well known the debate concerning the role that the Public Powers should (or should not) play in the market and in the everyday life of the citizens; a lot of people and scholars (starting from the works of classical economists) think that the State and the Administration should play a small role in the dynamics of the economy and the life of the

market, while others think, on the contrary, that the presence of the Public Power has to be consistent and significant<sup>9</sup>.

Anytime, it's something which refers to a common experience that the life of a modern citizen (and especially an Italian one) is strongly connected with the activity of the Public Administration, and this is particularly true for citizens who live in an urban context: as a consequence, the sphere of Administration-citizens relations should be one of the main development paths of the «smart cities model».

## **2. THE LIFE OF THE CITIZENS IN THE URBAN CONTEXT AND THE SMART CITIES MODEL**

Nearly 68% of the world's population is projected to be urban by 2050. «Projections show that urbanization, the gradual shift in residence of the human population from rural to urban areas, combined with the overall growth of the world's population could add another 2.5 billion people to urban areas by 2050, with close to 90% of this increase taking place in Asia and Africa, according to a new United Nations data set launched today»<sup>10</sup>.

This means that the urban context will become more and more relevant for the decisions to be taken concerning economic and demographic growth, the protection of the

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<sup>9</sup> It's not possible to enucleate a bibliography concerning the specific topic (to which a lot of issues, debates and discussions can be referred). Regarding the Italian legal system, we can consider the two different models of «Stato dirigista (interventore)» and «Stato regolatore», the second one well described in the book A. LA SPINA - G. MAJONE, *Lo Stato regolatore*, Bologna, 2000. For a definition of the «dirigism» in the Italian legal framework see, among others, V. SPAGNUOLO VIGORITA, *L'iniziativa economica privata nel diritto pubblico*, Napoli, 1959, in part. 27.

<sup>10</sup> United Nations - Department of Economic and Social Affairs, News about 2018 Revision of the World Urbanization Prospect ([www.un.org](http://www.un.org)).

environment and, in the end, the very survival of the world<sup>11</sup>. The urban context will also become the place in which the majority of the people will live their lives and try to satisfy their needs.

The connection between the issue of efficiency and the challenges set by the need to imagine and create an urban context in which citizens could live satisfactorily (and the economic growth is sustainable) leads naturally to the model of smart cities. Even if it is not possible to find an unique definition of “smart city”<sup>12</sup>, we can state that the model is based upon some specific pillars, such as: digitalization<sup>13</sup>, big data<sup>14</sup>, sustainability, participation

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<sup>11</sup> As it has been observed, «*the cities consume a large amount of energy, demanding more than 75% of world energy production and generating 80% of greenhouse gas emissions*» (G.C. LAZAROIU - M. ROSCIA, *Definition methodology for the smart cities model*, in *Energy. The international journal*, oct. 2012, 1).

<sup>12</sup> «*Facing myriad definitions and mission statements offering promissory yet vague descriptions of innovative urban environment, scholars use the term “nebulous” to describe the contemporary smart city*» (G. R. HALEGOUA, *Smart cities*, MIT Press, 2020, 1). About the different meanings of the term “smart city” see also A. COCCHIA, *Smart and Digital City: A Systematic Literature Review*, in R.P. DAMERI-C. ROSENTHAL-SABROUX (eds.), *Smart City. How to create Public and Economic Value with High Technology in Urban Space*, New York, 2014, 13 ss.

<sup>13</sup> About the topic of the «digitalization» of the activity of the Public Administration see G.M. RACCA, *La digitalizzazione necessaria dei contratti pubblici: per un'Amazon pubblica*, in *DPCE online*, 45, n. 4, 2021, 4669-4706; G.M. RACCA, *La digitalizzazione dei contratti pubblici*, in R. CAVALLO PERIN, D. U. GALETTA (eds.), *Il diritto dell'amministrazione pubblica digitale*, Torino, 2020; D.U. GALETTA, J.G. CORVALAN, *Intelligenza artificiale per una pubblica amministrazione 4.0?*, in *Federalismi.it*, n. 3/2019, 2; F. CARDARELLI, *L'incidenza del processo di innovazione tecnologica sull'attività contrattuale della pubblica amministrazione. Nuovi assetti organizzativi per la realizzazione e gestione dei sistemi informativi pubblici*, relazione tenuta al 5° congresso internazionale del CED della Suprema Corte di Cassazione sul tema "Informatica ed attività giuridica", Roma, 1993, "Dalla giuritecnica all'informatica giuridica", Studi in onore di V. Frosini, Roma, 1995.

<sup>14</sup> About big data see M. TRESCA, *Lo «Stato digitale»: big data, open data e algoritmi: i dati al servizio della Pubblica Amministrazione*, in *Riv. Trim. Dir. Pubbl.*, 2021, v. 2, 545 ss.; G. DE MINICO, *L'Amministrazione e la sfida die big data*, in AA.VV., *L'Amministrazione nell'assetto costituzionale dei poteri. Scritti per Vincenzo Cerulli Irelli*, Torino, 2021, 573 ss.; R. CAVALLO PERIN, *Pubblica amministrazione e data analysis*, in R. CAVALLO PERIN (eds.), *L'amministrazione pubblica con i big data: da Torino un dibattito sull'intelligenza artificiale*, Torino,

(and we are referring to the participation of citizens not just to the life of the town or city in which they live, but to the governance and the public decision-making process, through which they can influence the definition of the asset, the development and the growth of their city or town) and on the integration of different urban policies (such as transport policies or waste management) in order to guarantee access to public facilities to citizens and to increase the sustainability of the urban life (in particular, «*a major objective of smart cities is to achieve triple sustainability in social, economic and environmental issues*»<sup>15</sup>).

All the “goals” considered above need, in order to be reached, the existence of at least three conditions: a) ideas and plans set by politicians (or suggested to them by citizens, according to the «bottom up approach» about which we will talk later) in order to translate those “goals” in specific and defined actions and projects, according to the model set by the Italian constitutional Chart (which states that politicians set the goals and the Administration provides concrete action in order to reach those goals); b) an Administration made of persons who have the right skills to actuate the directives the politics send to them (in accordance with the model set by the Italian legal framework); c) resources and money to be invested in defined actions and projects.

All those things are, obviously, connected.

The kind and number of actions, plans and projects that can be undertaken depend on the amount of money and resources that can be invested on them; resources are also fundamental in order to increase the knowledge and the skills of the public employees... so, even from this point of view, we can affirm that the main topic concerns something which is related to efficiency, and especially to the task of an accurate and clever use of resources;

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*Quaderni del Dipartimento di Giurisprudenza dell'Università di Torino*, 2021, 11-18; B. RABAI, *Big Data in the digital ecosystem: between economic freedom and protection of rights*, *Amministrare*, 2017, 2, 405 ss.

<sup>15</sup> H. SONG, R. SRINIVASAN, T. SOOKOOR, S. JESCHKE, *Smart Cities. Foundations, Principles, and Applications*, John Wiley & Sons Inc., 2017, 2



resources which have to be invested in order to develop instruments and technologies which can improve the participation of the citizens to the life of their own town and to the decision-making process.

### **3. THE “PARTICIPATION ISSUE”: SMART CITIES AS A «BOTTOM-UP» MODEL OF PUBLIC DECISION-MAKING PROCESSES**

The effectiveness of the participation of citizens in the public decision-making process is strongly connected with the democratic principle, which is - as it is well known - the most important principle of the whole Italian constitutional Chart, the one around which everything is built, and especially the structure, the organization and the scopes of the Public Administration and Public Powers widely considered.

It's known that “the city” is a context in which the democratic principle is, more or less, effective: the Italian model of Comuni (municipalities) - which, according to the Chart, are the Public Authorities to which public functions and public tasks have to be entrusted as a general rule<sup>16</sup> - is structured upon the direct election of the major and of an assembly (Consiglio) which directly represents the citizens.

Nevertheless, the model of smart cities can play a main role in the improvement of another kind of democratic participation: we are referring to direct participation of citizens in procedures that lead to public decisions, which can be strongly improved by the spread of technologies and the affirmation of the model of smart cities<sup>17</sup>.

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<sup>16</sup> See article 118 of the Italian constitutional Chart.

<sup>17</sup> About the relationship between participation of citizens and the spread of technologies see D. MORANA, *Lo «Stato digitale». Partiti e partecipazione politica nell'era digitale: la prospettiva costituzionale*, in *Riv. Trim. Dir. Pubbl.*, 2021, 2, 489 ss.

It has been observed that the development path of smart cities is a «bottom-up» one<sup>18</sup>.

The bottom-up approach - referred to a specific organization (such as a group, a company, a city, a society) - is the opposite of a «top-down» one.

The second kind of approach «refers to a process that is fostered or lead by actors of an organizational upper level in a hierarchical structure and that is progressively diffused and implemented by involving actors of lower levels. Such an approach is likely to be based on a central authority and control. The process management is orchestrated by an actor with authority and risks not to take into account the plurality of all involved stakeholders»<sup>19</sup>.

A «bottom-up» perspective, on the contrary, is focused on the propulsive thrust which come from the citizens and - broadly speaking - from the members of the civil society.

Those are usually not part of the structure entitled with the task of making decisions which affect the whole community (or a part of it), so, on the ordinary, they can participate in the decision-making but cannot take part to the final part of that process.

A «bottom up» approach, instead, requires the definition of a new role for the citizens, definition made possible by the spreading of technologies and their diffusion within the public<sup>20</sup>.

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<sup>18</sup> Cf. R. P. DAMERI, *Searching for Smart City definition: a comprehensive proposal*, in *International Journal of Computers & Technology*, 2013 v. 11, n. 5, 2544 ss.

<sup>19</sup> M. ALVERTI, D. G. HADJIMITSIS, P. KYRIAKIDIS, K. SERRAOS, *Smart city planning from a bottom-up approach: local communities' intervention for a smarter urban environment*, Proc. SPIE 9688, Fourth International Conference on Remote Sensing and Geoinformation of the Environment (RSCy2016), 968819 (12 August 2016), 6.

<sup>20</sup> As remarkably observed by R. CAVALLO PERIN and G.M. RACCA (*Smart Cities for an Intelligent Way of Meeting Social Needs*, in J. B. AUBY (directed by), *Le Future du Droit Administratif/The Future of Administrative Law*”,

We are not talking about a model (similar to the one of the ancient Athens) in which citizens make decisions by their own, bypassing the institutions; nonetheless, we are referring to an asset in which the presence of citizens in decision-making processes is real and effective, and cannot be ignored by institutions and Public Authorities (the term which express the concept the most is the one of «*open government*»<sup>21</sup>).

It's easy to predict that the definitive affirmation of the model of smart cities will lead to the development of modern models of participation of citizens in the decision-making process, such as the ones inspired to the «notice-and-comment»<sup>22</sup> or the so-called «*arene deliberative*»<sup>23</sup>: those models refer not just to the participation of citizens (into the decision-making process), but even to the “public decision” itself and, in fact, to the general government of the urban context (and the set of public policies concerning the city such as: urban development, mass transit, waste management, etc.). The development of those models

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*Lexis Nexis*, 2019, 433, «*as providing objective information, big data and data analysis should enable us to identify rules and legitimate administrative solutions*».

<sup>21</sup> Cf. A. PAPA, *Smart city and open government data*, in G. OLIVIERI, V. FALCE (eds.), *Smart cities e diritto dell'innovazione*, Milano, 2016, 21 ss.

<sup>22</sup> About the «notice and comment» model in the italian legal system see, among others, G. SGUEO, *Le forme della partecipazione tra adjudication e rulemaking procedures*, in *Diritto.it*, 2008 e S. CASSESE, *Il procedimento amministrativo tra modello partecipativo e modello “neoclassico”*, in L. TORCHIA (eds.), *Il procedimento amministrativo: profili comparati*, Padova, 1993, 1 ss.

<sup>23</sup> See V. MOLASCHI, *Le arene deliberative. Contributo allo studio delle nuove forme di partecipazione nei processi di decisione pubblica*, Napoli, 2018.

of participation of citizens should play a central role in the process of integration of communities, even at the european level<sup>24</sup>.

This for the “main path” of the public decision-making, the one which is entrusted by the law and formally assigned to different Public Authorities (according to the “scheme” set by the Constitutional Chart).

In addition to that, we can state that the model of smart cities fits perfectly the provisions set by par. 5 of the article 118 of the italian Chart: we are talking about the so called «sussidiarietà orizzontale», a principle which set upon the Public Powers the task of promote the initiatives of the citizens concerning activity of interest for the whole community: according to this principle, Public Authorities and citizens (considered as single or as associations of citizens) should dialogue and collaborate for the achievement of purposes and goals which are of interest for both of them. Public Authorities should support citizens - even in a financial way - whom, with their initiatives, in some way can replace the role of the Authorities.

The model of smart cities is central for the development of a bottom-up approach and of a model in which citizens are part (in a more incisive way) of the public decision-making process, due to its specific characteristics: ICT made simple (to use), accessible and affordable to the citizens; the structure of the Internet itself - projected and built in order to be a “non hierarchical” and “free” space - and the issue of efficiency, applied to public services and facilities, which can promote the participation of the citizens to the life of the city.

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<sup>24</sup> About the integration processes set at the italian and at the european level see R. CAVALLO PERIN - G.M. RACCA, *The Plurality and Diversity of Integration Models: the Italian Unification of 1865 and the European Union Ongoing Integration Process*, in *The changing administrative law of an EU member State*, Cham, Springer, Torino, Giappichelli, 2021, 5-22.

A concrete application of what we have just reported above can be found in the topic of the capacity of the citizens to have access to information, data and documents owned by the Public Administration<sup>25</sup>.

#### **4. THE ACCESS TO DATA AND INFORMATION AND THE PROBLEM OF THE «DIGITAL DIVIDE»**

Access to data, documents and informations is the first component of the participation: no effective participation is possible if citizens don't have access to data, documents and information which can help them to become aware of the problems, projects and perspective of the place in which they live (the city or their neighbourhood) and allow them to think about innovative solutions.

In the recent years, we have developed important tools that can be used by citizens in order to obtain access to data and informations: we are talking about the so called FOIA («accesso civico generalizzato» in the Italian legal framework) and the implementation of ICT, due to which citizens can gain information on the internet or simply sending an e-mail to the Public Authority that own the requested information<sup>26</sup>.

According to a notorious definition, «*smart cities are [...] places where digital media are strategically integrated as infrastructure and software to collect, analyze, and share data to manage and inform decisions about urban environments and activities*»<sup>27</sup>.

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<sup>25</sup> G. R. HALEGOUA, *Smart cities*, cit., 10: «*urban system thinking from the 1960s imagined cities as series of complex, nonlinear, interactive systems in which urban activities could be thought of as information*».

<sup>26</sup> F. CARDARELLI, *L'accesso alle informazioni pubbliche attraverso sistemi informatici e telematici*, Lettera Ipaccri, 1993, n.3.

<sup>27</sup> G. R. HALEGOUA, *Smart cities*, cit., 8.

If the Information and Communication Technologies (ICT<sup>28</sup>) and the digital media should play a central role in the developing of the model of smart cities (considering that the range of human activities that are affected by digitalization increases every day) the first problem that has to be solved is the one connected with the so called “digital divide”, which refers both to the skills of citizens concerning the use of the ICT and to the capacity of the citizens themselves to afford the bought of computers and an internet connection.

This issue had spread dramatically due to the pandemic, during which a lot of students were not able to participate properly to their classrooms on platforms such as zoom, teams, etc.

Those episodes offer a lesson worth learning: we cannot seriously think about the implementation of the smart cities model, which is based on the ICT, the use of the internet and the integration between infrastructures and software, without solving - one among others - the problem of the «digital divide» (described as the existing gap between those who have access to the Internet and those who don't<sup>29</sup>) and this is particularly true considering that another pillar of the model is represented by the participation of the citizens to the public decision making process: a city is considered “smart” if its inhabitants can take part to the mentioned process, and in order to reach that goal we need for technologies to spread, because only with the use of technologies we can imagine to set of new models of participation which are efficient and effective.

For this, it's fundamental that all citizens (the inhabitants of a specific town) can take part in the decision-making process; if this would not happen, the democratic principle would be frustrated, and the model of smart cities would become an instrument by which

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<sup>28</sup> G. BAROZZI REGGIANI, *Le ICT, gli Open data e l'innovazione della P.A. alla luce della recente riforma del Codice dell'Amministrazione digitale*, in G. AVANZINI - G. MATUCCI (a cura), *L'informazione e le sue regole*, Napoli, 2016, 307 ss.

<sup>29</sup> L. SARTORI, *Il digital divide*, Bologna, 2006 and J. VAN DIJK, *The digital divide*, Cambridge, UK, 2020.

some citizens (the youngest, the richest and the ones with a high level of scholarship) prevail over others or, at least, make decision which affect the life of other citizens who are not part of the decision making process.

This is exactly the opposite of the goal the model of smart cities aims to reach, which is an idea of inclusion, participation and improvement of everyday life and working life of the citizens.

## **5. CONCLUDING REMARKS**

When the described problems will be solved (and particularly the ones concerning the digital divide) we will be able to project properly the smart city of the future, whit the development of new features and tools which can make our life easier and more sustainable (such as the implementation of forms of smart working, which can positively affect the problem of pollution connected to mass transit).

In this task, an important role should be played by Public Powers: in order to make the smart cities model effective, we will have to invest on the training of the public employees and on the implementation of technologies (in terms of structures, hardwares and softwares) which represent, as we said, the mail pillar of the model.

Luckily, the Italian government choose to invest an important amount of money (we are talking about 5-6 billion euros) of the so called PNRR (Piano Nazionale di Resistenza e Resilienza) in the ICT, and this represent a very important chance for the smart cities model to be improved and, due to this, for the affirmation of an effective citizenship. In addition to that, we can mention an important initiative of the European Union concerning, specifically, the smart cities: we are talking about the «*The European Innovation Partnership for Smart Cities and Communities*» which is «*an initiative supported by the European Commission combining Information and Communication Technologies (ICT), energy management and*

*transport management to come up with innovative solutions to the major environmental, societal and health challenges facing European cities today»<sup>30</sup>.*

The challenge is a hard one, and the development lines cannot be easily predicted.

The fact is that an effective implementation of the «smart cities model» would produce general effects upon the relationship between Public Powers and citizens, shaping new ways of participation (of citizens) in the public decision-making process.

The «bottom-up» approach can hardly be matched with the actual organization of the Public Administration, which is, in fact, a hierarchical one or, at least, correspondent to a model in which all the decision are taken by Public Authorities, while citizens can just take part to the procedures, with no real possibilities to influence effectively the decision-making process.

In this scenario, we have to consider another possible outcome of the development of the «smart cities model», an outcome which looks like a paradox.

In order to do that, we have to talk (again) about efficiency, cause - as it has clearly been observed - in the smart cities model efficiency is connected with an issue of legitimacy of the public decision-making processes. As it has been said, «*from the smart city point of view, inability to achieve results, thus failure in fulfill certain functions, leads to the loss of legitimacy [...] In this scenario, data analysis-based solutions may lead to an “algorithm government” and perhaps bring the need of consultation and event politics to an end»<sup>31</sup>.*

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<sup>30</sup> <https://e3p.jrc.ec.europa.eu/articles/european-innovation-partnership-smart-cities-and-communities>.

<sup>31</sup> R. CAVALLO PERIN – G.M. RACCA, *Smart Cities for an Intelligent Way of Meeting Social Needs*, cit., 433. About the topic concerning algorithms and public decision-making processes see D. U. GALETTA, *Algoritmi, procedimento amministrativo e garanzie: brevi riflessioni, anche alla luce degli ultimi arresti giurisprudenziali in materia*, in *Riv. It. Dir. Pubbl. Com.*, 2020, 3, 501 ss.; L. PREVITI, *Regulation issues of algorithmic administrative decisions: looking for an italian legislative model*, in *Ius Publicum Network Review*, 202, v. 1, ss.; G. AVANZINI, *Decisioni*



In fact, we are talking about the replacement of the traditional schemes of “representation” with a new one in which the legitimacy of the government of the city is ensured by the efficiency. A scheme in which technocrats will lead the government of the cities and the science-based decision will prevail on the one made by politics (who are the representatives of the people).

It’s an “almost shocking” conclusion, but one which we have to take into account.

The evolution of technologies is unpredictable (just consider, as an example, the spread of the social media!) and so are the forms that the participation of citizens in the decision-making processes would assume; we cannot exclude that we will be able to find a way of combine representation and the “science-based approach”.

One thing is for sure: a lot of changes on the horizon are going to happen.

In this scenario, there is a single steady point: the central role that efficiency will play in the development of the «smart cities model».

**Abstract.** *The idea of smart cities implies the efficiency of public authorities and, more specifically, of public administration, which has the task of guaranteeing citizens’ services that must be considered fundamental. The contribution aims to analyse the role played by smart cities in the direct participation of citizens in public decision-making, focusing on the issue of the right of access and the digital divide.*

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*amministrative e algoritmi informatici. Preordinazione analisi predittiva e nuove forme di intelligibilità, Napoli, 2019 and J. MORISON, Algorithmic governance in the smart city: the end of politics and the beginning of a new governamentality? Workshop in the conference The future of administrative law, Paris, June 21<sup>st</sup> and 22<sup>nd</sup>, 2018.*

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