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LOCAL E-GOVERNANCE AND LAW: THINKING ABOUT THE PORTUGUESE CHARTER FOR SMART CITIES

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1. INTRODUCTION: OLD ISSUES, NEW IDEAS, AMAZING CHALLENGES

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The urban population continues to increase, and it is said that currently, more than 60% of the world's population lives grouped around urban centers, whether they are called cities or agglomerations, and forecasts indicate that it will reach almost 70% in 2050. Cities have a great impact on the economic and social development of countries and are beginning to occupy an untapped place on the world scene, counting on economic, political and technological power. They constitute true ecosystems where people live and work, where companies develop their activity and in which numerous services are provided. They are also great centers of resource consumption. It is estimated that they are currently responsible for 75% of the world's energy consumption and the production of 80% of the gases responsible for the greenhouse effect.

The Smart City concept emerged two decades ago to address the problems of sustainability and efficient resource management, fundamentally linked to energy efficiency and the reduction of carbon emissions. It is important to Ethics and Law to foresee solutions to the problems and challenges that cities are already facing[2].

[2] According to a study published by Ericson, which corresponds to the 23rd edition of its 2015 Sustainability and Corporate Responsibility Report, it is configurable that the use of Information and Communication Technologies can contribute to the reduction of CO2 by 15% by 2030, allowing the achievement of several of the 17 United Nations Sustainable Development Goals, including the 11th and 13th ("action against global climate change"). On the subject, it is important to highlight The New Urban Agenda (NAU), Quito Declaration on Sustainable Cities and Urban Agglomerations for All. It was approved in 2016 at the United Nations Conference on Housing and Sustainable Development (Habitat III): "the right to the city". In addition to Agenda 2030, the NAU is part of other international agreements, such as the Paris Agreement under the United Nations Framework Convention on Climate Change (UNFCCC) and the Addis Ababa Action Agenda of the Third International Conference on Financing for Development. See “Mapping Smart Cities in the EU”, Study, Directorate-General for International Policies, Policy Department Economic and Scientific Policy, 2014. See also, FONSECA, I. C., *Estudos de Direito das Autonomias Locais*, Coimbra, Gestlegal, 2020; FONSECA, I. C./PRATA,

There is no single agreed definition of what a smart city should be. On the contrary, the notion of smart city is intrinsically related to different dimensions of the right to live with quality of life in the city, and it depends on multiple factors, including the availability of ICTs, demographic, geographic and cultural aspects of the city, as well as on the political choices for the city.

Today the concept of Smart City is mainly associated with technology and innovation. The new intelligent city, impacting on its structures and procedures Information and Communication Technologies, makes use of software, algorithms and tools of artificial intelligence, leading us to foresee what is called algorithmic governance, Open & linked Government Data (O&LGD) [3] or digital governance.

The digital transition process has been gaining speed. It is a priority for Europe and for Portugal and it must also be the priority of Regions and Local Governments. In Europe, Portugal and Local Governments the goal is the same: Effective eGovernment can provide a wide variety of benefits including more efficiency and savings for governments and businesses, increased transparency and greater participation of citizens in political life, and contribute to the decarbonization and significant improvement of the environment[4].

A. R., "Smart cities vs. smart(er) governance: cidades inteligentes, melhor governação (ou não)", Questões Atuais de Direito Local, n.º 24, 2019, 19-39.

[3] See more: https://ec.europa.eu/futurium/en/content/open-government-what-value-and-what-are-barriers-and-drivers-2.

[4] See FONSECA, I. C., "Governação Pública (Local) Digital: notas breves sobre a aceleração da transição digital", in: *Direito Administrativo e Tecnologia*, Coord. FLAMÍNIO, Artur, Almedina, Coimbra, 2021, 27-57.

New technologies, digitalization, population aging, reinforcement of environmental awareness, a new culture of mobility and communication are trends that require new answers[5].

As we rely more and more on information and communication technology, cybersecurity becomes both essential and problematic to our societies. On the one hand, cybersecurity is essential to prevent cyber threats from undermining citizens' trust and confidence not only in the digital infrastructure but in policy makers and state authorities as well. On the other hand, cybersecurity is problematic because enforcing it may endanger fundamental values like equality, fairness, autonomy, or privacy[6].

This is the main purpose of this text. It aims to make known the need to design a Global Plan for the Digital Transition of Local Governments, starting from the empirical study of the intelligent cities, seeking to achieve the global definition on e.governance, open connectivity and free movement of data, respecting ethics, law and cyber security[7].

[5] On the impact of these phenomena on Administrative Law, see, AA.VV, *Le Futur du Droit Administratif /The Future of Administrative Law*, sous la direction de AUBY, J.-B., avec la collaboration de CHEVALIER, É./SLAUTSKY, E., LexNexis, Paris, 2019. See especially, C.H. HOFMANN, H., *Digitalisation and european Public Law of information* (13-27); CRAIG, P., *Challenges for Administrative Law* (77-81).

[6] For further developments, see FONSECA, I. C., "Governação Pública Digital e a Proteção de Dados Pessoais: notas breves sobre as dificuldades de harmonização", in: *Estudos de E. Governação, Transparência e Proteção de Dados*, Almedina, Coimbra, 2021, 9-35.

[7] Within the framework of mapping sources of international law in which these concerns are heeded, it is important to highlight: The UN General Assembly resolutions of 2002, 2003 and 2009 on the creation of a global culture of cybersecurity (A/RES/57/239, A/RES/58/199, A/RES/64/211), and of 2013 on the right to privacy in the digital age (A/RES/68/167). The OECD recommendations on risk management (Recommendation of the Council on Digital Security Risk Management for Economic and Social Prosperity), 2015, and on digital security of critical sectors (Recommendation of the Council on Digital Security of Critical Activities), 2020. In the European Union context, consider for example, Regulation (EU) 2019/881 of the European Parliament and of the Council of 17 April 2019 on the

2. CONTEXTUALIZATION: THE ACCELERATION OF THE DIGITAL TRANSITION IS A EUROPE AND PORTUGUESE PRIORITY

Pur Digitization is a priority for Europe and Portugal. It is in this framework that this text proposes to intends to justify the need to conceive the Digital Transition Plan for Local Governance.

European Union Agency for Cybersecurity (ENISA) and cybersecurity certification of information and communication technologies and repealing Regulation (EU) 526/2013 (Cybersecurity Regulation). Within the framework of mapping sources of portuguese law in which these concerns are heeded, it is important to highlight: the RGPD Enforcement Law, Law no. 58/2019, of 08.08, which ensures the enforcement in the national legal system of the RGPD and republishes Law no. 43/2004, of 18.08, which regulates the organization and operation of the National Data Protection Commission (CNPD), as the personal status of its members). To add also Law no. 46/2018, of 13 August, which establishes the legal regime of cyberspace security; Law no. 59/2019, of 8 August, which approves the rules regarding the processing of personal data for the purpose of prevention, detection, investigation or prosecution of criminal offences or the execution of criminal penalties; Regulation no. 24/98, of 8 August, which approves the rules regarding the processing of personal data for the purpose of prevention, detection, investigation or prosecution of criminal offences or the execution of criminal penalties; Regulation no. 24/98, of 8 August, which approves the rules regarding the processing of personal data for the purpose of prevention, detection, investigation or prosecution of criminal offences or the execution of criminal penalties. No. 303/2019, of April 1, concerning the security and integrity of electronic communications networks and services; Law No. 109/2009, of September 15, which approved the Cybercrime Law; Law No. 5/2004, of February 10, which approved the Electronic Communications Law; National Strategy for Cyberspace Security 2019-2023, approved by Council of Ministers Resolution No. 92/2019, of June 5. LADA, Law on Access to Administrative Documents (Law No. 25/2016 of 22.08).

"Imagine for a moment what life would be like in this pandemic without the digital in our lives," Ursula Von der Leyen, President of the European Commission, began by saying when she addressed the topic of technology and digital in the State of the Union on September 16, 2020 (It.insight, 27.10.2020). Assuming that "we are reaching the limit of what we can do in an analog way," it is necessary to create "a common plan for digital Europe with clearly defined goals for 2030. These goals include connectivity, digital public services, following "clear principles" such as "the right to privacy and connectivity, freedom of expression, free movement of data, and cyber security". The President of the European Commission identifies 3 areas that need focus: data, artificial intelligence and finally infrastructure.

In Europe, the Digital Single Market was conceived as an absolute priority and there are several strategies adopted. As part of the Digital Single Market objective, the European Commission has presented a series of measures including the European Action Plan (2016-2020) for e-government: accelerating the digital transformation of public administration (eGovernment & Digital Public Services), designing the unique digital platform and implementing the European cloud as part of the NextGenerationEU model. And multiple are the benefits to be achieved, it is said.

In the European context, there has been strong investment in the digital field: i) in the creation of programmes and strategies to boost the digital and economic competitiveness of businesses; ii) supporting initiatives aimed at empowering citizens with the necessary skills for the digital world and labour market and promoting the closing of the gap in participation between women and men; iii) the institutionalization of a regulatory and economic environment conducive to the use and creation of new technologies, with particular focus on the well-being and prosperity of citizens; iv) the development of a digital infrastructure that allows citizens to take advantage of the new opportunities offered by technologies. And in particular in initiatives to promote e-Government, responsible State innovation based on new technologies, the co-creation and experimentation of digital public services, the implementation of Open Administration principles and the creation of partnerships between innovation actors.

If we wanted to present a list of international and European legislation that provides solutions for the implementation of the intelligent city we would have to start with the

Agenda 2030: "Leaving no one behind" is the motto of Agenda 2030 was adopted in 2015 by the United Nations General Assembly and is structured in 17 sustainable development goals (SDS). Among them is the 11th objective to make cities and urban settlements more inclusive, safe, resilient and sustainable. Next: The New Urban Agenda (NAU), Quito's declaration on Sustainable Cities and Urban Conglomerates for All was approved in 2016 at the United Nations Conference on Housing and Sustainable Development (Habitat III): "the right to the city. In addition to Agenda 2030, the NAU integrates other international agreements such as the Paris Agreement under the United Nations Framework Convention on Climate Change (UNFCCC) and the Addis Ababa Agenda for Action of the Third International Conference on Financing for Development.

The acceleration of the digital transition process is also a commitment of the Portuguese authorities. The Action Plan for the Digital Transition (Resolution of the Council of Ministers no. 30/2020, of 21.04:2020) was approved, with the purpose of accelerating Portugal, without leaving anyone behind, and projecting the country in the world, aiming at convergence with Europe, in the digital domain. This Action Plan for the digital transition is based on 3 pillars: empowerment and digital inclusion, the digital transformation of the business fabric and the digitalization of the State (and central and local public administrations).

This Digital Transition Action Plan is based on 3 pillars: empowerment and digital inclusion, the digital transformation of the business fabric and the digitalization of the State (and central and local public administrations). And it translates, in fact, another stage in the journey of administrative modernization and simplification, the strengthening of digital public services and the achievement of connectivity and openness of data held by Public Administrations[8].

[8] The Strategy for Innovation and Modernization of the State and Public Administration 2020 -2023 (Resolution of the Council of Ministers No. 55/2020 of 31.07.2020) develops around 4 axes and 14 strategic objectives: Investing in people, with three strategic objectives: i) developing and renewing leadership; ii) mobilizing and training workers, and iii) involving workers in cultural change; Develop management, with four strategic objectives: i) strengthen performance management to improve the

Precisely, the digitalization of the State is the third pillar of the Action Plan for the Digital Transition of Portugal. At this level, the Plan includes three measures, among which instituting a connected and open Regional and Local Administration is only briefly listed.
Therefore, it is important to continue to develop the study of the Local Government digital transition process, to which the Action Plan for the digital transition of Portugal will soon be referred, and to conceive in this research project the Definition and Implementation of the Global Strategy of Smart Cities: From Smart Cities to Smart Nation, to Smart EU.

Scanning is also a priority for Portugal. And this is proven by the Digital Transition Plan for the Nation, which is in line with the European strategy. The Portuguese Digital Transition Plan presupposes strategic action on three main focuses: people, companies and Public Administrations.
Naturally, at the level of people's empowerment, the strategy goes through Digital Education, Professional Training, requalification and inclusion and digital literacy. The Plan aims to develop and implement the INCoDe.2030 program, as an inter-ministerial initiative that aims to respond to three major challenges: ensuring digital literacy and inclusion for the exercise of citizenship; stimulating specialization in digital technologies and applications for the qualification of employment and producing new knowledge in international cooperation.

quality of public services; ii) plan human resources in an integrated manner; iii) invest in administrative simplification, and iv) promote innovation in public management; To exploit technology, with three strategic objectives: i) to strengthen the global governance of technology; ii) to improve interoperability and service integration, and iii) to manage the data ecosystem with security and transparency; (IV) Strengthen proximity, with four strategic objectives: i) promote integration and inclusion in the service; ii) encourage citizen participation; iii) deepen the decentralization of competencies to local authorities, and iv) strengthen proximity public services, namely through the deconcentration of public services to the regional level.

From the point of view of the transformation of companies, the national strategy involves entrepreneurship and investment attraction, focuses on the business fabric, focusing on SMEs, and the transfer of scientific and technological knowledge to the economy.

Finally, pay attention now to how to achieve State digitalization. It goes through the digital public services, it goes through the whole Public Administration of the State, seeking to achieve, an agile and open central administration, and includes the Regional and Local Public Administration. This has to be connected and open. Therefore, the digitalization of the State is the third level of action for the digital transition. And it translates, on one hand, the continuity of programs for simplification and dematerialization of procedures (continuing the Simplex and TIC 2020 programs) and aims at instituting connected and open Public Administration (to include Local Governance).

Thus, as for public services, the Digital Transition Plan considers that facilitating citizens' access to public services and simplifying and dematerializing administrative procedures continue to be identified as ways for the State to better serve citizens, thus ensuring the reconversion of processes to the digital universe, their multi-lingual translation, as well as investing in training and valuing workers in information technology and digitalization.

The Digital Transition Plan aims to expand the supply of digitized public services, with 25 online procedures and the promotion of public services connected to each other and open, in the sense that they have reusable information. The Cloud Measure for Public Administration is one of the most measured measures, following the proposal of the Cloud Strategy for Public Administration, in 2019, by the Council for Information and Communication Technologies in Public Administration.

All measures, included in the XXII Constitutional Government Program, aim to ensure simplification and online access to at least the 25 most used administrative services, ensuring their dematerialization and that everyone has access to public digital services. Pay attention to the expected benefits: this measure will actively contribute to the reduction of bureaucratic obstacles in public services, optimize other channels of contact at a distance with the Public Administration and contribute to the decarbonization and significant improvement of the environment.

Finally, regarding the connected and open regional and local Administration, the strategy to which the Digital Transfer Plan summarily refers is the definition and implementation of the

National Strategy of Smart Cities (From Smart Cities to Smart Nation) and the Inventory and streamlining of the territory coordination through the initiative of the Single Building Counter.

For years now, the public sector in Portugal has been changing its operating model, adapting to new technological realities and the challenges of the so-called e-government[9]. For example, the Simplex+ Program, launched in 2006, already includes more than a thousand administrative and legislative simplification measures to make life easier for citizens and companies in their relationship with the Administration, as well as to contribute to increase the internal efficiency of public services. Reinforced in 2016, the Program

[9] LabX - Public Administration Experimentation Laboratory, created in 2017, with the purpose of designing innovative solutions for public services based on citizens' needs. Designed to design and test new solutions that improve public services and the daily lives of citizens and businesses, LabX is an open space that works in collaboration with service users, public administration officials and leaders, and the scientific and business community; The ICT2020 Strategy, Strategy for Digital Transformation in Public Administration, published in 2017 by the Resolution of the Council of Ministers No. 108/2017, has contributed to strengthen the transparency of the public sector and the participation of citizens, consolidating the use of ICT as a central tool for the process of modernization of the State, presenting a series of measures grouped into three axes of action: integration and interoperability; innovation and competitiveness; sharing of resources. Know The Agency for Administrative Modernization, which is the public institution responsible for the promotion and development of administrative modernization in Portugal, promoted, in May 2018, the creation of the National Open Administration Network. With regard to the circular economy of data, the First Action Plan of the National Open Administration Network (RNAA) is structured on four main axes, namely: Open Data, promoting the availability and reuse of information generated by the Public Administration; Transparency, promoting access to public information and administrative documents from the public sector; Use of Information and Communication Technologies and Digital Inclusion, disseminating new relationship channels between the Public Administration and citizens/companies and standards of accessibility and assisted access to public services; and Public Participation, stimulating the use of processes of public consultation and participatory democracy.

includes 255 measures of administrative and legislative simplification and modernization of public services.

The entry into force of the Public Procurement Code in 2008, which placed Portugal at the forefront of public procurement through exclusively electronic means, it is also possible to consult online all contracts resulting from the public procurement process through the Public Procurement Portal (Portal BASE), managed by the Institute for Public Markets and Construction (IMPIC). Subsequently, in 2009, it was established the obligation of electronic public procurement as well as the creation of a private market of certified service providers of public procurement platforms, two pioneering and innovative solutions worldwide.

The e-procurement system adopted by the Portuguese Government is based on the promotion of a private market for e-procurement services, by companies under a regulated competition regime, managing the corresponding electronic platforms[10]. In 2015, Law no. 96/2015 of 17.08.2015 updated the legal regime for electronic procurement platforms in Portugal, having transposed article 29 of Directive 2014/23/EU, article 22 and Annex IV of Directive 2014/24/EU and article 40 and Annex V of Directive 2014/25/EU. This diploma contains, namely, the rules regarding the use and availability of electronic platforms, as well as all the conditions to which they must be subject, including the obligation of interoperability with the Public Procurement Portal and also with other systems of public entities. In general terms, the new legal framework has brought three major innovations: 1. licensing requirements for the activity of management and operation of electronic platforms and other requirements to

[10] Currently, and according to the information available on the BASE portal, five electronic platforms are licensed: ACINGOV (Academia de Informática, Lda.), ANOGOV (ano - Sistemas de Informática e Serviços, Lda.), Electronic Platform for Public Procurement COMPRASPT (Miroma - Serviços e Gestão de Participações, Lda.), SAPHETYGOV (Saphety Level - Trusted Services, S.A.) and VORTALGOV (Vortal, Comércio Electrónico Consultadoria e Multimédia, S.A.).

the managing entities, namely greater duties and functional, technical and security requirements; 2. Interoperability and compatibility requirements; 3. introduction of a penalty system.

The electronic public procurement platforms thus constitute a fundamental and indispensable instrument in the dematerialisation of public procurement procedures, and the contracting entity must make available there the following elements: the procedure notice: tender notice or invitation; the tender documents, of which the tender specifications are an example; the clarifications and rectifications of the procedure documents, lists of errors and omissions identified by the competitors in those documents, as well as the decision that will fall on them; the competitors' proposals; the qualification documents of the successful bidder; the list of competitors and the list of candidates; the preliminary and final reports and the drafts and the respective contracts.

The creation of the National Public Administration Open Data Portal, launched in 2011 and reformulated in 2018, which aggregates, references and hosts open data from different bodies and sectors of the Public Administration, being the central catalog of open data in Portugal. This portal allows citizens and companies to access, study and (re)use the data produced by the State. The data.gov is an open portal, i.e. any user can create an account and upload data to be shared with the community under open licenses.

Reference should also be made to the recent amendment to the Administrative Procedure Code (approved by Decree-Law No. 4/2015 of January 7), which introduced important novelties in this field, consecrating, from the outset, the principle of "electronic administration", with a view to reinforcing procedural simplification and respective digitalization, including in procedures in which local authorities are involved.

The Portuguese Participatory Budget (OPP), launched in 2016, is a paradigmatic case of participative democracy powered by technology. The OPP is a deliberative democratic process, through which people present investment proposals and choose, through voting, which projects should be implemented in different areas of governance. The implementation of the OPP aims to build a citizen participation project that brings people closer to politics and promotes greater connection and integration between territories through nationwide projects.

3. THE (NEW) SMART CITY CONCEPT

In this time of accelerated digital transition, designing the smart city is a challenge. It is a challenge for the policy maker in the international community and especially in Europe and is an ongoing task for the State and Local Governments. In particular, it is a strategic issue of strengthening the power of Regions in Europe and the autonomy of Local Government.

And by All it has in fact been welcomed as the greatest contribution to the achievement of the United Nations' 11th Sustainable Development Goal (SDS): "to make cities and urban settlements more inclusive, safe, resilient and sustainable" and the 13th ODS: Action Against Global Climate Change[11].

In fact, according to a study, the use of Information and Communication Technologies contributes significantly to the reduction of CO2, being expected to be reduced by 15% by 2030. Ericsson published the 23rd edition of its Sustainability and Corporate Responsibility Report 2015, which details the company's performance in three areas: business responsibility, energy, environment and climate change and communication for all. The report also highlights how Information and Communication Technologies (ICT) can enable the United Nations' 17 Sustainable Development Goals, and explains their potential as an accelerator to achieving them.

The new Smart City, impacting on its structures and procedures Information and Communication Technologies (ICT), and making use of software, algorithms and tools of artificial intelligence, makes us believe that the new Algorithmic Governance or local digital governance will be environmentally friendly.

It is certain that today there is less consensus on the definition of what Smart City should be. On the contrary, the notion of smart city is intrinsically related to the available technology, demographic and geographic aspects of the city, local cultural aspects and the policies primarily accepted for the city. It should be noted that it is common in the speech to make

[11] See ORGANIZATION OF THE UNITED NATIONS. 17 UN Sustainable Development Goals. 2015. Available at: https://nacoesunidas.org/conheca-os-novos-17-objetivos-dedesenvolvimento-sustainable- (last access on: 16.10.2020).

references to multiple dimensions of Smart City, being very diversified the projects that allow their implementation. Thus, there is talk of smart economy, smart living, smart environment, smart mobility, smart buildings, among other possibilities. Because it is a transversal phenomenon, the concept has been achieved through dialogue between the various branches of knowledge and science[12].

Today, that concept has been evidenced associating Smart City to Intelligent Governance, whose decision is based on more updated information, in the sense that it is faster and more direct, i.e. efficient, being able to attract companies, create more jobs and allow human development, being, at bottom, synonymous with productivity, competitiveness and quality

[12] For further developments, see GÓMEZ JIMÉNEZ, M. L.., "Smart cities: inexistencia de una definición jurídica", in VIII Congreso Internacional de Ordenación del Territorio, de Derecho Urbanístico: Nuevos tiempos, nuevos objetivos, Asociación Canaria de Derecho Urbanístico, 2016. GÓMEZ JIMENÉZ, M. L., "Smart cities vs. Smart governance: dos paradigmas de interrelación administrativa no resueltos aún?", Parte I, in Revista de Derecho Urbanístico y Medio Ambiente, número monográfico sobre Smart Cities, ano XLIX, n.º 300, septiembre-octubre 2015, pp. 53 e segs.; GÓMEZ JIMENÉZ, M. L., "«Smart cities»: una aproximación desde la gobernanza pública y la innovación social", in Políticas Locales de clima y energía: teoría e práctica, GALERA RODRIGO, S./GÓMEZ ZAMORA, M. (EDS.), Instituto Nacional de Administración Pública, Madrid, 2018. GIL-GARCIA, J. R./ PARDO, Th. A/NAM, T., "What makes a city smart? Identifying core components and proposing an integrative and comprehensive conceptualization", In: Information Polity 20, 2015, pp. 61–87 61.

of life[13]. For this reason, the document drafted by the European Parliament advocates a minimum concept of an intelligent city[14].

Thus, "the idea of Smart Cities is rooted in the creation and connection of human capital, social capital and information and Communication technology (ICT) infrastructure in order to generate greater and more sustainable economic development and a better quality of life"[15]. In a certain sense, Smart City is the one whose government is able to collect data, plan and decide based on them, direct and supervise in real time through Information and Communication Technologies and Big Data, through the Cloud software and algorithms[16].

[13] For further developments, see CAVALLO PERIN, R./RACCA, G. M., „Smart Cities for an Intelligent Way of Meeting Social Needs", in: *Le Futur du Droit Administratif /The Future of Administrative Law*, sous la direction de AUBY, J.-B., avec la collaboration de CHEVALIER, É./SLAUTSKY, E., LexNexis, Paris, 2019, 431-439.

[14] European Union. Mapping Smart Cities In The EU. Policy department: A Economic and Scientific Policy. Bruxelas: 2014, p. 18. Available at: https://www.europarl.europa.eu/RegData/etudes/etudes/join/2014/507480/IPOL-ITRE_ET(2014)507480_EN.pdf (last access on 16.10.2020).

[15] On this subject, for further developments, see RANCHORDAS, S., "Nudging Citizens through Technology in Smart Cities*", University of Groningen Faculty of Law Legal Studies Research Paper Series*, No. 1/2019 1-44. Available at https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3333111 (last access on 18.04.2019). See DIREÇÃO GERAL DO TERRITÓRIO (DGT). Portugal. Cidades analíticas. Acelerar o desenvolvimento das cidades inteligentes em Portugal. DGT:2015, p. 27. https://www.dgterritorio.gov.pt/sites/default/files/publicacoes/Cidades_Analiticas_2015.pdf.
OLIVEIRA, A./CAMPOLARGO, M., "From smart cities to human smart cities", *48th Hawaii International Conference on System Sciences* (HICSS), Washington, DC: IEEE Computer Science, 2005, p. 2336– 2344.

[16] As KITCHIN, R., says: "big data consists of massive, dynamic, varied, detailed, inter-related, low cost datasets that can be connected and utilised in diverse ways, thus offering the possibility of studies shifting from: data-scarce to data-rich; static snapshots to dynamic unfoldings; coarse aggregation to

In short, smart city is the result of the application of science and technology in local governance, allowing to solve the problems of cities in the XXI Century, such as the rationalization in the use of resources, the neutralization of environmental externalities and the mitigation of risk factors of climate change, providing services with an undeniable added value, allowing human development and social inclusion[17].

The city government is currently confronted with a challenging reality that the pandemic has vitally highlighted: the concept of "urban resilience"[18]. A "resilient city" is one that "has a competent, inclusive and transparent local government that is concerned with sustainable urbanization and invests the necessary resources for capacity building for municipal management and organization before, during and after an adverse event or natural threat[19].

high resolution; relatively simple hypotheses and models to more complex, sophisticated simulations and theories". KITCHIN, R. (2013, p.5). "The Real-Time City? Big Data and Smart Urbanism". 1-20. Available at: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2289141 (last access on 16.04.2019).

[17] For further developments, see MORISON, John, „ Understanding the Smart City:Framing the challenges for law and good governance", in: *Le Futur du Droit Administratif /The Future of Administrative Law*, sous la direction de AUBY, Jean-Bernard, avec la collaboration de CHEVALIER, Émilie/SLAUTSKY, Emmanuel, LexNexis, Paris, 2019, 377-391.

[18] See SCHWAB, K., *A quarta revolução industrial. Portugal*: Levoir, 2017, p. 66. And see also AYRES, Ian; BRAITHWAITE, J., Responsive Regulation. Transcending the Deregulation Debate. New York: Oxford University Press, 1992. See also about "smart regulation", GUNNINGHAM, N.; GRABOSKY, P.; SINCLAIR, D. *Smart Regulation: Designing Environmental Policy*, Oxford: Oxford University Press, 1998; BALDWIN, R./ BLACK, J., "Really responsive regulation", In: Modern Law Review, 71 (1), 2008.

[19] See United Nations Office for Disaster Risk Reduction (UN ORGANIZATION, 2013, p. 11. Available at: https://www.unisdr.org/files/26462_guiagestorespublicosweb.pdf (last accessed on: 16.10.2020).

The digital transition is not only bringing about the 4th Industrial Revolution, or also known as Industry 4.0, corresponding to the automation and exchange of data in production processes through the implementation of cyberphysical systems ("CPS"), it is also being requested by citizens or consumers.

Thus, from a technocratic perspective of Smart City (although without forgetting the Rights), Smart Local Governance must offer itself to its citizens on digital platforms, so that, much like commercial platforms — Apple Itunes or Google Play, which allow immediate contact between applications and their respective consumers —, be able to provide information, allow connection with other National and European digital platforms, offer digital tools for the exercise of participatory citizenship, allow the most widely used procedures to be activated online to reach quick decisions in certain specific areas of the exercise of public powers, according to their own conditions of use, within the privacy and security rules of their infrastructures.

The Smart City concept must take into account the evolution towards an increasingly inclusive and democratic digital society, endowed with public services that better serve communication accessibilities, providing everyone, and in particular people with disabilities, conditions to access the opportunities that are created by new digital technologies[20].

At the heart of the scientific issue is the need to address connectivity and openness of data in local governments, to prepare public officials for the application of Open Data and Data Protection law, in particular with regard to the protection of personal data and Cyber Security. In this scenario, the new IoT products, the current Information and Communication Technology tools and the access to Big Data (or set of data and information of great volume and variety that the Local Government may have in its possession) demand the Ethics and

[20] For further developments, see CAPORALE, M./MORCILLO MORENO, J., „Smart Cities and disability: digital accessibility as a precondition“, in: *Le Futur du Droit Administratif /The Future of Administrative Law*, sous la direction de AUBY, J.-B., avec la collaboration de CHEVALIER, É./SLAUTSKY, E., LexNexis, Paris, 2019, 391-411.

Law regulation of the administrative structure that will make the appropriate use of its functionalities and procedures foreseen or yet to be conceived for this purpose.

Considering this panorama, we understand that it is the University's role to foster ethical reflection and debate on current and challenging topics, with an impact on several branches of knowledge, especially in the legal universe, promoting economic and social development, with consequent improvement in the quality of life in cities, through knowledge[21].

It is a fact that the first demands and challenges that smart cities and the digital transition have been calling for concern the law, and are focused on solving three types of problems: 1. The adoption of digital technologies in the management of public organizations, a process that is often referred to as the digital transition; 2. The promotion of intelligent cities, that is, cities where technologies are an integral part of the urban fabric and social practices, including matters concerning public bodies and labour relations between them and their employees[22]; 3. The solution of problems related to the treatment of data, in a logic of difficult balance between the opening (or circular economy of data) and the protection of citizens' privacy and secrets[23].

[21] By following SCHUURMAN, D., BACCAENE, B., DE MAREZ, L., and MECHANT, P.," Smart ideas for smart cities: investigating crowdsourcing for generating and selecting ideas for ICT innovation in a City context" (2012), journal of theoretical and applied electronic commerce research. 7(3). p.49-62; VEECKMAN, C./GRAAF, S. VAN DER, "The City as Living Laboratory: Empowering Citizens with the Citadel Toolkit", Technology Innovation Management Review, mar. 2015, v. 5, n. 3, p. 6–17; GIL-GARCIA, J. R./ PARDO, T. A./ NAM, T., "What makes a city smart? Identifying core components and proposing an integrative and comprehensive conceptualization", Information Polity, 2015, v. 20, n. 1, p. 61–87.

[22] LÓPEZ FOLGUES, A. ET AL. (2017, 24): "La innovación social digital colectiva y la administración en el entorno de la Ciudad Inteligente". GAPP. Nueva Época, 18, 23-42.

[23] See FONSECA, I. C. (2020): "E.governação, transparência e protecção de dados: a caótica perspectiva portuguesa (rectius europeia)", in: *Cidades Inteligentes, humanas e sustentáveis: II*

That is why the scientific issue begins by thinking about the Ethics and Law that serves as an "umbrella" for city governance, covering the various domains of smart cities, in particular smart mobility (of people, goods and data), since in the future, urban mobility will be dematerialized in terms of data, multimodal, electrical, shared and autonomous, in terms of people and things[24].

This reflection exercise does not ignore the complex theme of urban planning models (municipal master plans) that currently do not integrate the concepts of smart cities, including the theme of mobility of people (through public electric transport and other low-carbon fuels, or through other active modes such as walking and cycling, and individual transport (here there is more and more immediate space for autonomous cars). Nor does it ignore urban micrologistics and access to urban centers, the supply of businesses, commercial and catering services and consumer traffic, urban waste (separating and reusing), promoting circular

Encontro de Direito Administrativo Contemporâneo e os Desafios de Sustentabilidade, Cood. PIRES, L. R. G. M., Belo Horizonte, Arraes Editores, 2020, pp. 45 ss.

[24] On the challenges of local public procurement and the digital transition, it is important to follow FERRARI, G. F., „ Smartness and cities“, in *Joint Public Procurement and Innovation. Lessons Across Borders*, Collection Droit Administratif -Administrative Law, 27, Eds. RACCA, G. M./ YUKINS, Ch. R., Bruylant, 2019, 173-187.

economy[25], according to sustainable solutions[26]. We are also talking about the form of regulation itself, i.e. the new intelligent cities will demand intelligent regulation.

But there is no doubt that the main idea of this scientific article is to reveal that one Strategy for the Global Digital Transition of Cities needs to be conceived, fulfilling the specific scientific objectives: 1. Promotion, through the study, of a regulatory environment that allows the exploitation of the potential of Information and Communication Technologies and the circular economy of data, respecting principles of ethics, privacy and cyber security[27]; 2. With regard to the circular economy of data, promotion through the study, the possibility of reducing legislative and bureaucratic barriers to the free flow of data, without prejudice to the provisions in force concerning information subject to special security measures, including classified information, in line with Regulation (EU) 2018/1807 of the European Parliament and of the Council, or in line with the European Directive 2019/1024 on open data and reuse of public sector information and on this subject the Law on Access to Administrative Documents; 3. With regard to Regulation, Privacy, Cyber-security and Cyber-defense,

[25] On BIM methodologies and their benefits from the point of view of public works and local public procurement, allowing to embrace the principles of sustainability and efficiency, see DI GIUDA, G. M/RACCA, G. M, „ From Works Contracts to Collaborative Contracts: the challenges of Building Information Modeling (BIM) in public procurement“, in *Joint Public Procurement and Innovation. Lessons Across Borders*, Collection Droit Administratif - Administrative Law, 27, Eds. RACCA, G. M./YUKINS, Ch. R., Bruylant, 2019, 223-271.

[26] See WALKER, J. et. Al., “Citizen centric services for Smart cities. University of Southampton”, in. http://smartcityinnovation.eu/wp-content/uploads/2019/06/7389-Final-Smarter-Cities-web-B.pdf (16.10.2020)

[27] By following VALERO TORRIJOS, J. (2017, 1025-1026): “El acceso y la reutilización de la información del sector público desde la perspectiva de la reforma de la administración electrónica”, in: MARTÍN DELGADO, I. (dir.), La reforma de la Administración electrónica: Una oportunidad para la innovación desde el Derecho, 443-458.

promotion, through the study, the modes of training and organizational adjustment of the local Data Protection Officer structure, in order to ensure the protection of personal data and the preservation of privacy of citizens, in accordance with the European Regulation on Personal Data Protection and the Portuguese Law on Enforcement of the Regulation. Finally, it is important to think about the digitization of the 5 local public services most used by citizens and companies, one that presupposes a previous empirical analysis of the most frequent services and the mapping of the observations made by those. 4. In this context, it is important to promote and boost the creation of local collaborative platforms and encourage the use by small local economic operators of public procurement platforms[28].

4. SOME IDEAS JUSTIFYING THE DRAFTING OF A PROPOSED PORTUGUESE CHARTER FOR SMART CITIES: CHALLENGES

In this context, it is important to configure the Smart City Charta, which recognises the National Digital Transition Plan, the Strategy for Innovation and Modernisation of the State and Public Administration 2020-2023, the National Urban Development Policy, EU Urban Agenda (Amsterdam Pact) and New Urban Agenda of the United Nations. It can only be stated that the Charter should support the implementation of the national and European Sustainability Strategies and the achievement of the Sustainability Goals of the United Nations Agenda 2030 (Sustainable Development Goals).

[28] On the challenges of local public procurement and the digital transition, it is important to follow FERRARI, G. F., „ Smartness and cities", AUBY, J.-B., „Public Contracts and Smart Cities", in *Joint Public Procurement and Innovation. Lessons Across Borders*, Collection Droit Administratif -Administrative Law, 27, Eds. RACCA, G. M/YUKINS, Ch. R., Bruylant, 2019, 187-195.

This Charter should be preceded by a broad process of dialogue between representatives of the State (through the Agency for Administrative Modernisation, I.P, the General Directorate of Local Authorities, the North Regional Coordination and Development Commission, the Council for Information and Communication Technologies in the Public Administration), Municipalities (through the National Association of Portuguese Municipalities), the Intermunicipal Communities, and the Parishes. Besides these, representatives of several scientific, business and social organisations and local associations will be invited to participate.

A public platform for dialogue should be created, since we only conceived the creation of the Portuguese Smart City Charter in the framework of a lot of idea sharing, inter-diciplinary dialogues and after a lot of participation of the different public and private actors as well as the civil society. It would aim to develop normative guidelines for the digital transformation of municipalities action recommendations for the implementation of these guidelines.

We are following the German model, Smart City Charta model (Digitale Transformation in den Kommunen nachhaltig gestalten), adopted by the German Government (Federal Ministry for the Environment, Nature Conservation, Building and Nuclear Safety (BMUB), in 2017.

The Charter for the Smart City should come to set the normative standard for a forward-looking smart city. According to this framework, a Smart City is:

i) liveable - puts people's needs at the centre of actions, supporting local initiatives

ii) diverse and open - uses digitalisation to increase the power of integration, offset demographic challenges, social and economic imbalances and exclusion. It aims to ensure the functioning of democratic structures and processes.

iii) participatory and inclusive - realises integrative models for the participation of all in social life, facilitating their access to digital offerings

iv) adopts the goals of climate neutrality and efficiency in the use of resources, encouraging ecological concepts of mobility, energy, thermal, sanitation and waste, thus contributing to the municipality being CO2 neutral, green and healthy.

v) competitive and prosperous - uses digitalisation in a targeted way, aiming to strengthen the local economy and the new processes of value aggregation, making available adequate infrastructure options. As can be concluded, digital transformation - the transition of cities to

Smart Cities - means pursuing the goals of sustainable European cities by applying the resources of digitalisation.

vi) Open and innovative - develops solutions that ensure compliance with municipal obligations, reacts quickly to processes of change and elaborates, in a participatory manner, innovative local solutions.

vii) responsive and sensitive - uses sensor technology, data acquisition and processing, new forms of interaction in order to achieve constant improvement of community processes and services.

viii) secure and freedom preserving - provides citizens with secure digital spaces, private and public, where everyone can move around without their right to freedom being usurped by surveillance methods.

In this process, the following four guidelines that are essential:

1. digital transformation requires goals, strategies and structures, seeking to integrate digitalisation into urban development, identify application areas and adapt the organisational structures of the municipality

2. digital transformation requires transparency, participation and democracy, ensuring digital participation, integration and inclusion at the level of empowering people and companies

3. digital transformation requires infrastructure, data and services, making it necessary to ensure access to digital infrastructure and to collect and process data responsibly

4. digital transformation requires resources, skills and cooperation, requiring the necessary resources in municipal administration, developing digital skills and promoting lifelong learning.

As can be concluded, the digital transformation of cities - id est: the transition from cities to Smart Cities - means pursuing the goals of sustainable European cities, applying the resources of digitalisation to Local Governance[29].

[29] *Smart City Charta, Digitale Transformation in den Kommunen nachhaltig gestalten,* Bundesministerium für Umwelt, Naturschutz, Bau und Reaktorsicherheit (BMUB), Bonn, 2017.