

Zbigniew ORBIK¹

1. ON THE AXIOLOGICAL FOUNDATIONS OF THE SMART CITY CONCEPT

1.1. Introduction

The concept of a smart city is a multi-dimensional project. It is based on various assumptions about the nature of the world, the role and place of man in it, the model of civilization development, etc. There are various interpretations of the smart city concept². The research conducted so far on the way of understanding the concept of smart cities by various entities involved in the implementation of this idea seems to be insufficient³. There is a lack of coherence in the numerous published empirical studies, but also in theoretical considerations. So far, it has not been possible to work out a commonly accepted definition of a smart city⁴, or a uniform model for the implementation of this concept. Depending on the adopted definition, various functions are emphasized that a smart city is to fulfil, ranging from improving the quality of life of residents through supporting civic activity, accepting ICT in urban systems, focusing on human capital or supporting innovation and striving for sustainable development of urban areas. The very concept of a smart city has undergone an evolution that has been going on for decades. Its result is the smart city model assuming the evolution of cities towards such development of their physical and legal infrastructure that supports economic development, while ensuring social integration and environmental protection. The implementation of such a defined model of urban development assumes actions that must be taken by politicians, managers, business leaders, scientists, planners, architects and

¹ Silesian University of Technology, Faculty of Organization and Management, Department of Applied Social Sciences, Zabrze, e-mail: zbigniew.orbik@polsl.pl.

² See Chrisidu-Budnik A., Przedańska, J.: Smart City: From Concept To Implementation. *Wroclaw Review of Law, Administration & Economics*, Vol. 9, No. 2, 2019, pp. 24–39.

³ Desdemoustier J., Crutzen N., Cools M., Teller J.: Smart City appropriation by local actors: An instrument in the making. *Cities*, Vol. 92, 2019, pp. 175–186.

⁴ Artur Pawłowski lists them, for example, see Pawłowski A.: *Rozwój zrównoważony: idea, filozofia, praktyka*. Monografie Komitetu Inżynierii Środowiska PAN, Vol. 51, Komitet Inżynierii Środowiska, Lublin 2008.

representatives of other professional groups in such areas as economy, education, energy, environment, finance, health, management, security, recreation, waste management, telecommunications, innovation, transport, spatial planning, water resources⁵. The most important moment in the long history of the development of the smart city concept was the adaptation to its needs. According to this approach, a smart city is one that is characterized by its sustainable development, as it was stated in the 1987 Brundtland Commission report entitled “Our Common Future”.

In the light of this report, sustainable development is one that, while meeting the needs of today's inhabitants, does not reduce the ability to meet the needs of future generations. It is to take place on three levels: environmental, social and economic. The concept of sustainable development found its expression in a document called Agenda 21. It is a program document relating to the way of implementing sustainable development programs in local conditions. It was formulated at the conference “Environment and Development” organized at the initiative of the United Nations in Rio de Janeiro in 1992. It is the most complementary, on the international scale, approach to the issue of sustainable development. It covers social and economic issues related to human resource management, sustainable development of various social groups, the role of science and the possibilities of implementing this concept. In the light of this concept, the development of the city towards a smart city is to be sustainable development. As the smart city concept develops, attention is paid not only to technological development, but also to its impact on residents⁶. The growing importance of the social factor, as well as the universal nature of the concept under discussion, which covers all spheres of human life, also raises questions about the axiological structure of this development.

1.2. The issues of axiology of sustainable city development

The concept of smart city understood in the 21st century as the idea of sustainable urban development is a paradigm of a new perspective for the development of civilization⁷. One of the most important elements of any culture is underlying its value system. The issues of values, their ontological status, types, hierarchies, and mutual relations have been present in the area of European culture since ancient times. Values

⁵ Eremia M., Toma L., Sanduleac M.: The smart city concept in the 21st century. *Procedia Engineering*. Vol. 181, 2017, pp. 12–19.

⁶ Masik G., Studzińska D.: Ewolucja koncepcji i badania miasta inteligentnego. *Przegląd Geograficzny*, Vol. 90, No. 4, 2018, pp. 557–571.

⁷ See Gawor L.: Idea zrównoważonego rozwoju jako projekt nowej ogólnoludzkiej cywilizacji. *Diametros*, Vol. 9, 2006, pp. 84–104.

seem to accompany all human experiences⁸. For all human decisions, choices and judgments presuppose the choice of certain values. This applies not only to the activities of individuals, but also to all projects of a social nature.

The science of values – axiology is not only a purely theoretical knowledge of various types of values. Its social role becomes apparent in the moments of local or global social crises. This is because there are often conflicts of values at their roots. Besides, it should be remembered that axiology is not the only science of values. Alongside it, one can indicate specific disciplines dealing with the issues of values, such as, for example, aesthetics dealing with values related to aesthetic experiences, ethics analysing issues of morality, or economics studying values related to the production, exchange and consumption of goods. Also other disciplines not directly related to the study of values, such as psychology, anthropology, sociology, political science or history, assume the existence of specific values. Due to the fact that axiology is the most general science that studies values, the results achieved in its field are also important for other disciplines involved in values study in any way.

There is no single axiology resp. philosophy of sustainable development. Andrzej Papuziński explains this fact in the following words: “Differences in approaches to sustainable development, including to the axiology of that programme, are determined by many different causes. Among them we may list ignorance, particularistic interests, the vagueness and ambiguity of the categories used to define sustainable development, as well as controlling ideas of humanity, world views, value systems and methodological approaches that determine any picture of reality”⁹. It seems that the outlined above situation is largely caused by the fact that the concept of sustainable development, despite the fact that it is the subject of numerous and intense research efforts, is still not a fully mature concept in terms of its theoretical foundations.

An attempt to answer the question about the values underlying the concept of smart city development understood as its sustainable development should be preceded by the question about its very definition. And here again, it is difficult to talk about unanimity both among researchers dealing with this issue and those involved in its implementation. In the literature on the subject, you can, inter alia, find the following definition of sustainable development as: a category understood intuitively as a certain set of concepts defining the development of cities towards smart cities, a synonym for eco-development or its features, a synonym for the development of the natural environment or unconventional development, which transcends the development of this environment

⁸ Bahm A.J.: *Axiology: the science of values*. Vol. 2, Rodopi, 1993.

⁹ Papuziński A.: *The Axiology of Sustainable Development: An Attempt at Typologization (Aksjologia zrównoważonego rozwoju: próba typologizacji)*. *Problemy Ekorozwoju/Problems of Sustainable Development*, Vol. 8, No. 1, 2013, p. 7.

towards the creation of a specifically human way of being in the world. There are also definitions of sustainable development as complementary to durable development ensuring its durability or as a certain process reflecting dynamic changes taking place in the natural environment. There are also concepts of sustainable development that deny that it is any development at all¹⁰. The conclusion can be drawn that the concept of sustainable development is a vague concept. This is by no means a feature that eliminates its use in scientific discourse. The vast majority of names (concepts) functioning in the broadly understood humanities, or even more broadly in natural language, are vague names¹¹. The concept of sustainable development fulfils the function of integrating various types of activities, the common denominator of which is focusing on developing such a model of city functioning that will be able to provide optimal living conditions for its inhabitants to the greatest extent, while at the same time taking care to preserve the natural environment in the best possible condition.

By accepting the view that the concept of smart city is an exemplification of the idea of sustainable development, we come closer to the theoretical approach to its philosophical and axiological foundations contained in eco-philosophy (eco-ethics). One can distinguish three basic types of philosophical discourse devoted to the issues of sustainable development: pragmatic, systemic, and conservational¹². The foundation of the pragmatic version of the philosophy of sustainable development is the belief that its essence is striving to maintain a balance between economic growth and the state of the natural environment. In this approach, it is also assumed that a person is a being guided by the principle of rationalism, manifested by a tendency to change behaviour if it is in any way unfavourable for him. The basic assumption of the systemic philosophy of sustainable development is the principle of biocentrism expressed in the attitude of human responsibility for the entire natural environment. It results from the acceptance of the ontological principle of realism, which recognizes human existence as rooted in an objectively existing reality. Conservational philosophy, in turn, takes an extremely anthropocentric point of view. It recognizes the primacy of economic growth over the condition of ecosystems and the quality of human life. This concept also assumes that man is characterized by constant moral progress. The environment is important, but only in the perspective of economic development.

It is worth noting that the distinguished philosophical paradigms of sustainable development refer to two different anthropological concepts of man. In pragmatic and

¹⁰ Fiut I.S.: *Obraz zrównoważonego rozwoju na łamach Problemów Ekorozwoju/Problems of Sustainable Development. Problemy Ekorozwoju*, Vol. 6, No. 2, 2011, pp. 93–100.

¹¹ Kohl M.: *Bertrand Russell on vagueness. Australasian Journal of Philosophy*, Vol. 47, No.1, 1969, pp. 31–41.

¹² Orbik Z.: *O filozoficznych podstawach koncepcji zrównoważonego rozwoju. Zeszyty Naukowe Politechniki Śląskiej. Organizacja i Zarządzanie*, Vol. 85, 2015, pp. 383–393.

systemic philosophies, it is assumed that man is a personal being. This implies, *inter alia*, a thesis that he possesses individuality, rationality and freedom that every human being a person is entitled to¹³. In the personalistic approach, man is characterized by transcendence (superiority) in relation to nature and society. In relation to nature, it manifests itself through intellectual cognition, freedom and love. In relation to society, it is expressed as subjectivity towards the legal order, completeness and dignity¹⁴. The human being understood this way is the subject of actions undertaken by him, for which he is responsible. In his relations with others he is guided by moral principles. In conservational philosophy, man is understood as the subject of various undertaken by him activities within social relations (e.g. subject of work or subject of consumption). The motives of the activity of such a subject are individualism, egoism and the belief that rights take precedence over good. The theoretical description of the subject understood this way is not so much the concept of a person but of an individual. Man is reduced here to the role of an individual being, the essence of which is determined by the ability to conclude various types of contracts (e.g. service provider or recipient of various types of services).

The outlined above perspectives of the philosophical approach to the concept of sustainable development are the exemplifications of certain general philosophical assumptions. These are theses of a metaphysical, epistemological, historiosophical, anthropological, and axiological nature. Leszek Gawor describes them in the following words: “The fundamental metaphysical theses of the philosophy of sustainable development undoubtedly include naturalistic monism, which requires us to perceive reality as a dynamic ontic unity. (...) In the field of epistemological reflection, the idea of sustainable development is based on views adopted by modern science, mainly natural science, but also social sciences. Thus, the view of epistemological critical realism with regard to partial Spencer's like agnosticism is widely accepted. (...) In the domain of historiosophy, the foundation of sustainable development is the idea of humanity as the only subject of the social world and subjected to historical changeability. (...) Another fundamental assumption of sustainable development is the thesis in the field of philosophical anthropology about the rationality of human nature. (...) The axiological realm of the concept of sustainable development is made up of values existing on three levels: social, economic, and ecological”¹⁵. Obviously, the above quotation does not contain a complete list of philosophical assumptions underlying the concept of

¹³ Gryżenia K.: Etyczne implikacje (nie) osobowego traktowania człowieka. *Forum Pedagogiczne*, Vol. 1, No. 2, 2011, pp. 71–96.

¹⁴ Krąpiec M.A.: *Człowiek jako osoba*. Polskie Towarzystwo Tomasza z Akwinu, Lublin 2009.

¹⁵ Gawor L.: *Filozofia zrównoważonego rozwoju: preliminaria*. *Problemy Ekorozwoju: studia filozoficzno-sozologiczne*, Vol. 5, No. 2, 2010, pp. 69–76.

sustainable development, *resp.* smart city. The presented theses imply a whole range of statements about the nature of the world, man's place in it, his relationship to the environment in which he lives, the way of knowing it, and the motives of the undertaken actions. From the point of view of the subject matter discussed in this text, theses of an axiological nature are important.

As stated above, the values underlying the concept of sustainable smart city development relate to three dimensions: social, economic and ecological. The concept of smart city development assumes that this development includes three basic elements: human resources, economy and the environment. Other components of this development, such as quality of life, management, innovation, and mobility seem to be of less importance. This is in line with the approach of the European Commission. In its 2011 report we read: "European cities should be locations where advanced social and environmental progress is taking place, while maintaining economic attractiveness and economic growth based on an integrated approach that takes into account all aspects of sustainable growth"¹⁶. Many researchers in their attempts to define smart city indicate that the distinguished areas in the development of smart cities are related¹⁷. As far as the issue of values is concerned, it should be noted that they are not assigned to only one of the distinguished areas of city development, but they most often apply to all of them. This leads to greater effectiveness of actions taken in relation to the inhabitants, the economy and the environment. Values become a factor that integrates these activities. Awareness of this also helps to mitigate potential conflicts that may arise between man, economy and the environment¹⁸.

Cities as the most complex and at the same time the most perfect territorial forms of social life organizations are the subject of numerous analyses of various sciences. Due to the complexity of the cities structure and their dynamic nature, these analyses are among the most difficult and are necessarily interdisciplinary. Among the many functions assigned to cities, one is value creation. These are, of course, different values when we consider the long history of urban development. In an article devoted to the city as a place of value creation, Michał Kudłacz lists, after Roman Ingarden, five types of them: artistic, aesthetic, social, moral and economic. The mentioned author, trying to make

¹⁶ As cited in: Szczech-Pietkiewicz E.: Smart city – próba definicji i pomiaru. Prace Naukowe Uniwersytetu Ekonomicznego we Wrocławiu. Vol. 391, 2015, pp. 71–82.

¹⁷ See e.g. Caragliu A., Del Bo Ch., Nijkamp P.: Smart Cities in Europe. Journal of Urban Technology, Vol. 18, No. 2, 2011, pp. 65–82.

¹⁸ Franciszek Piontek points out that the acceptance of the principles of sustainable development (also city development) is able to ensure "a lasting improvement in the quality of life of modern and future generations through the appropriate shaping of the proportions between the various types of capital: economic, human and natural", Piontek F.: *Ekonomia, a rozwój zrównoważony. Teoria i kształcenie*. Vol. 1, Wydawnictwo Ekonomia i Środowisko, Białystok 2001.

a general characterization of these values, states: “Each of these elements is a value, so it should be assumed that in the 21st century the values in cities are those qualities that are developmental, city-forming, regardless of the nature, direction or range of impact. Values defined this way may be both material and intangible, but their common feature is a positive impact on the functional or morphological character of the city”¹⁹. The values created by cities change along with their historical development. At the same time, a certain regularity can be noticed, which is manifested in the tendency to more and more emphasize the factors (values) which favour: (a) the functionality of using the space of urbanized areas for residents, entrepreneurs and tourists; (b) stopping the processes degrading the environment and emphasizing the importance of cultural and historical heritage; (c) increasing the quality of life of the inhabitants and multiculturalism; (d) compliance with the law and improvement of safety; (e) increase in the level of knowledge, innovation and development of modern technologies. A smart city does not only produce values, but also becomes their consumer. It is also worth noting that despite some variability of values resulting from the historical development of cities, some of them are universal in nature (they can be found in all periods of cities development and in all their types). By pointing to a few turning points in the history of urban development, M. Kudłacz notices them in the emergence of ancient metropolises, Renaissance cities, industrial revolution cities, and Ebenezer Howard's garden cities. According to this author, modern cities are characterized by: globalization, metropolization, digitization and the increasing importance of services and intangible factors of their development, such as knowledge or culture²⁰.

It is noticeable that the author of the concept presented above uses a subjective understanding of value as a feature assigned to a given object by a specific subject. We read: “Values depend on specific features (an individual set of developmental determinants, i.e. uncontrollable conditions and controllable factors). They can be perceived differently, e.g. in an industrial or post-industrial city (where the value is e.g. a green area), and differently in a tourist city (where uncrowded streets may be of value)”²¹. There seems to have been a confusion here of the notion of a thing (object) to which a value is assigned with that value itself. Obviously, this does not discredit the presented analyses, on the contrary, they bring a new look at the development of cities from the perspective of things or phenomena considered valuable in them. This remark is only intended to draw attention to the fact that this article seeks the axiological basis of the concept of a smart city as a set of certain values understood objectively, i.e. as certain ideal entities defining the goals of activities undertaken in the urban environment.

¹⁹ Kudłacz M.: Miasto jako miejsce wytwarzania wartości. Zarządzanie Publiczne, Vol. 39, 2017, p. 103.

²⁰ Kudłacz M.: Miasto jako miejsce wytwarzania wartości. Zarządzanie Publiczne, Vol. 39, 2017, p. 110.

²¹ Kudłacz M.: Miasto jako miejsce wytwarzania wartości. Zarządzanie Publiczne, Vol. 39, 2017, p. 112.

1.3. Values founding the smart city concept

Behind each of the distinguished philosophical perspectives there are certain values considered fundamental. So far, it has not been possible to reach a consensus on the set of values constituting the axiological foundation for the development of a city implementing the smart city postulate. Their hierarchy was also not established. However, various approaches to this issue are linked by the conviction that it is necessary to take into account three orders in the conducted analyses: environmental (ecological), social and economic²².

Piotr Domeracki and Włodzimierz Tyburski in their work on shaping social awareness in the spirit of sustainable development point to the value of life, health, responsibility, moderation, solidarity, and justice as the key to this concept. Scholars write: “The axiology of sustainable development proposes a set of universal values such as: life, health, justice, which have the advantage that every person is ready to accept them, and that is why people around the globe can be united around them”²³. Therefore, they rightly point out that the choice of universal values has a function that motivates people to obey them. The acceptance of these values results in more detailed principles regulating the social order, such as: the principle of solidarity, social egalitarianism, balanced and fair consumption, distributive justice, progress (intellectual and moral), subsidiarity, democratization of life and socialization of decisions, adherence to human rights, recognition of the quality of life as the main goal of socio-economic development and retributive justice²⁴.

Leszek Gawor, in turn, in his attempt to grasp the axiological system underlying the concept of sustainable development refers to three groups of values: 1. rudimentary (initial); 2. teleological (intentional) and 3. instrumental (helpful)²⁵. The rudimentary ones include, first of all, pacifism and freedom. The group of teleological values include: dignity, egalitarianism, justice and life. The third group – instrumental values constitute:

²² Papuziński A.: The Axiology of Sustainable Development: An Attempt at Typologization (Aksjologia zrównoważonego rozwoju: próba typologizacji). *Problemy Ekorozwoju/Problems of Sustainable Development*, Vol. 8, No. 1, 2013, p. 9.

²³ Domeracki P., Tyburski W.: Podstawy edukacji i kształtowania świadomości społecznej w duchu zrównoważonego rozwoju. [In:] Tyburski W. (ed.): *Zasady kształtowania postaw sprzyjających wdrażaniu zrównoważonego rozwoju*, Wydawnictwo Naukowe Uniwersytetu Mikołaja Kopernika, Toruń 2011, p. 236.

²⁴ These principles are not discussed because the text deals with the issue of the values themselves and not the resulting rules and principles of conduct. Domeracki P., Tyburski W.: Podstawy edukacji i kształtowania świadomości społecznej w duchu zrównoważonego rozwoju. [In:] Tyburski W. (ed.): *Zasady kształtowania postaw sprzyjających wdrażaniu zrównoważonego rozwoju*, Wydawnictwo Naukowe Uniwersytetu Mikołaja Kopernika, Toruń 2011, p. 236.

²⁵ Gawor L.: Filozofia zrównoważonego rozwoju: preliminaria. *Problemy Ekorozwoju: studia filozoficzno-socjologiczne*, Vol. 5, No. 2, 2010, p. 72.

community, responsibility and moderation. Interestingly, the author of the typology did not classify the value of life as rudimentary, while he recognizes pacifism as such, that is, a value whose goal is the protection of life and freedom. Although the scholar points out that the rudimentary values are such for the “human social world”, it seems that life is, however, superior to the two mentioned. Especially that it is difficult to separate the concept of the “social world” and its good from the good of the individuals who constitute this world.

Interesting comments are included in the work of three authors, published last year, which is a comparative study conducted on a global scale²⁶. It is devoted to the relation of smart city societies to the values they accept. The main subject of the research were the inhabitants of the cities of Malaysia and Indonesia, whose views were confronted with the inhabitants of cities located in selected countries situated on several continents. These countries are: Australia, the United States, Germany, China, Brazil, Pakistan, Nigeria and Iran. It turns out that regardless of cultural differences in all countries, there is a trend of moving away from material values towards post-material ones²⁷. The value enjoying the least recognition was politics (52.81% of the respondents). In all countries, the family was considered to be the highest value (98.87%). In further places, the value of work (89.61%) and friendship (89.49%) were indicated. Religion and free time were, respectively, indicated by 70.84% and 84.42% of the respondents. It should be noted that religion achieved the highest position in Indonesia and Malaysia, i.e. countries where Islam is the dominant religion (99.9% and 91.1% respectively). In turn, politics was indicated as a significant value in these countries by 44.2% and 51.2% of respondents. In countries outside of Asia, the greatest number of respondents agreed with the opinion that family and leisure time are values more important than others. If we consider that free time is a certain manifestation of the desire for freedom, then respondents from non-Asian countries such as Nigeria, Brazil, the United States and Germany indicate it as a value that reflects freedom to a greater extent than other values. The position of politics is highest in relation to other values in the United States and Germany. On the other hand, in these countries and in Australia, i.e. countries where the income is the highest, religion and work have the lowest positions. In the highest-income societies, in turn, values (qualities) such as tolerance, independence, determination and imagination rank high in the hierarchy. Geographical location turns out to be a relatively insignificant criterion in the choice of value. The authors of the article recognize the need for greater

²⁶ Lim S.B., Malek J.A., Yigitcanlar T.: Post-Materialist Values of Smart City Societies: International Comparison of Public Values for Good Enough Governance. *Future Internet*, Vol. 13, No. 8, 2021, pp. 1–13.

²⁷ By material values, the authors of the aforementioned work understand those that are related to the meeting of basic physiological needs necessary for survival and the need for security. As defined, post-material values are related to satisfying “higher order” needs built on top of the former (e.g., freedom of speech).

civic involvement, which would be manifested by a higher position of values related to the common good and its management, as one of the main conclusions resulting from the research when it comes to building smart cities areas. The technological aspect of transforming city into its intelligent form is its inherent feature, but it should not be treated as its goal in itself, but only a mean to achieve it.

These studies show preferences regarding the selection of values considered important on a global scale. They show that despite the differences resulting from different cultural conditions, income levels or geographic location, some regularities indicated above can be found. According to the author, this proves the possibility of finding an axiological foundation on which it is possible more effectively develop intelligent cities that are friendly to residents and the environment.

The author of these words proposes to refer to the Platonic triad of values which are: good, truth, and beauty supplemented with the value of freedom and justice. These values should be considered not only universal, but also fundamental to all spheres of human activity. Anastasia Seoul distinguishes two aspects of the famous triad: horizontal and vertical. The first indicates the social conditions of human development, the fullest manifestation of which is the common concern for good, truth, and beauty. The second is the transcendental dimension of these values²⁸. She also refers to the words of John Paul II, who points out that, as we know from history, democracy not based on values easily turns into open or camouflaged totalitarianism²⁹.

Freedom is one of the basic axiological and metaphysical categories that have been the subject of analyses by thinkers since ancient times. It is most often understood as the lack of enslavement and the possibility for the subject to make undetermined choices. A supporter of philosophical liberalism, Isaiah Berlin distinguishes between two types of freedom: 1. positive freedom, the so-called freedom to ... (or the right to: live, express opinions, work, etc.) and 2. negative freedom – freedom from ... (from persecution, coercion by the authorities, hunger, etc.). He characterizes both concepts of freedom in the following words: “The first of these political senses of freedom or liberty (I shall use both words to mean the same), which (following much precedent) I shall call the ‘negative’ sense, is involved in the answer to the question ‘What is the area within which the subject – a person or group of persons – is or should be left to do or be what he is able to do or be, without interference by other persons?’ The second, which I shall call the positive sense, is involved in the answer to the question ‘What, or who, is the source of

²⁸ It is worth remembering that good (*bonum*), truth (*verum*) and beauty (*pulchrum*) are referred to as transcendental, or universal properties of being. On the history of the concept of transcendentals. See, e.g., Maryniarczyk A.: *Transcendentalia w perspektywie historycznej (Od arché do antytranscendentalistów)*. *Roczniki Filozoficzne*, Vol. XLIII, No. 1, 1995, pp. 139–164.

²⁹ Seul A.: *Prawda. Dobro. Piękno*. *Wrocławski Przegląd Teologiczny*, Vol. 27, No. 1, 2019, pp. 97–122.

control or interference that can determine someone to do, or be, this rather than that?’ The two questions are clearly different, even though the answers to them may overlap”³⁰. Berlin recognizes only negative freedom as its proper form. Freedom in the smart city community would fulfil two basic functions manifested primarily in the social sphere: (1) expressed in the expanding area of civil liberties and freedom of beliefs of the residents; (2) related to the positive understanding of freedom as “the right to ...”. Freedom understood this way would constitute the basis of broadly conceived human rights.

In the above approach, good in the smart city project and various activities undertaken within its framework would function as a value that determines the basic goal of all forms of activity. The scope of this concept would include both the good of the anthroposphere and the entire biosphere³¹.

Beauty in ancient Greek philosophy was considered inseparable from good. The implementation of a smart city project would be expressed not only in its architectural structure. Let us reach for the Greek ideal of *kalokagathia* (καλοκαγαθία), (Greek: καλὸς – beautiful, ἀγαθός – good), postulating harmonious human development. Its main task would be to provide people with the possibility of comprehensive development in line with their lives goals. In practice, the point is to create, for example, an education system at all levels that would solve the problems of social exclusion or unemployment. Generally speaking, the good in social (public) life is manifested in the broadly understood safety (including social one) and its protection³². Its purpose is to provide the individual with the possibility of comprehensive physical and spiritual development.

Truth, which is most often understood as the logical value of propositions (next to the opposite falsehood) of a specific language or, more broadly, a feature of all information expressed in a non-linguistic way (by means of images, thoughts, symbols) is also a value that guarantees order, both in our individual and social life. Truth is also an autotelic value which constitutes the ideal goal of all cognition³³. Cognition, on the other hand, is a typically human form of existence in the world that also enables the functioning of all institutions, inter alia, scientific or political. Truth as an absolute

³⁰ Berlin I.: Two concepts of liberty. In *Four essays on liberty*, London: Oxford University Press, 1969, p. 118.

³¹ It is an extremely important issue in the conducted deliberations. Zdzisława Piątek, for example, states directly: “Replacing anthropocentrism with biocentrism is a breakthrough in this field of philosophy, which concerns the relationship of the human species to nature”. See Piątek Z.: *Filozoficzne podłoże zrównoważonego rozwoju. Problemy Ekorozwoju: studia filozoficzno-sozologiczne*, Vol. 2, No. 1, 2007, p. 14.

³² See on this topic, e.g. Sierpowska I.: *Bezpieczeństwo socjalne jako dobro publiczne. Zeszyty Naukowe Państwowej Wyższej Szkoły Zawodowej im. Witelona w Legnicy*, Vol. 16, No. 3, 2015, pp. 45–58.

³³ Lipiec J.: *Przyjaźń i prawda*, 2009, p.335. Available online:

https://ruj.uj.edu.pl/xmlui/bitstream/handle/item/151550/lipiec_przyjazn_i_prawda_2009.pdf?sequence=1&isAllowed=y (accessed on: 5 May 2022).

(universal) value is structurally linked to other values: good, justice and freedom³⁴. It is also the foundation of both individual and social life based on the principles of peace and solidarity.

Justice, which is the subject of analyses dating back to the beginnings of European culture, is linked to the ideas of equality, human dignity and democracy³⁵. The meaning of this concept was most often identified with the principle of the distribution of goods and social roles as well as the law of reciprocity referring to the rule of compensating for the harm. As such, it should become an essential element, first of all, of the social structure of a smart city, but also of the effective implementation of the goals set in this concept. In the social sphere, in modern countries, justice is expressed mainly in three areas: education, health care and social assistance. The full expression of the idea of justice would be, on the one hand, its application to the entire biosphere, on the other hand, in accordance with the guiding principle of sustainable development, building a fair social environment of a smart city, economic living conditions for its inhabitants and ensuring the optimal state of natural resources also for future generations (intergenerational justice).

The above-outlined proposal to build the axiological foundation of the smart city concept requires, of course, to be developed towards specific principles of the functioning of its various components. The values mentioned above, which constitute this concept, seem to be the best answer to the question about the shape of the value system on which the three basic elements of a smart city should be based: social, economic and environmental.

1.4. Summary

The concept of a smart city is a multidimensional idea. The project of building smart cities can be treated as an exemplification of the concept of urbanized areas sustainable development. This implies, *inter alia*, a thesis on the common axiological basis of smart city and sustainable development. Among many definitions of a smart city, some of them emphasize the importance of technological aspects of its development, while others

³⁴ Dołęga JM.: Systemy wartości w zrównoważonym rozwoju. *Problemy Ekorozwoju: studia filozoficzno-socjologiczne*, Vol. 2, No. 2, 2007, p. 47.

³⁵ Wróbel P.: Postulat sprawiedliwości społecznej a idea sprawiedliwości. *Studia Socialia Cracoviensia*, Vol. 5, No. 1, 2013, p. 135.

emphasize social issues³⁶. Each of these approaches, however, presupposes an *implicit* or *explicitly* defined system of values.

Research conducted in various countries where smart city projects are implemented in different cultural, social, economic and geographical realities shows that there is a general tendency to be observed. It is expressed in the process of departing from material values towards post-material ones. The preferred values are influenced mostly by factors such as the level of religiosity and the degree of wealth. The geographical location is relatively insignificant. One can also notice the universal values mentioned by respondents living in various regions of the world. There is also a clear tendency to rank post-material values higher by younger respondents than by mature and older people. The most important conclusion from the research is the need to build civil societies within smart cities' communities. This can be done by increasing the residents' participation in matters related to the smart cities' management. The condition for this is, however, a higher position in the hierarchy of values relating to the political inhabitants' commitment. In my opinion, the authors of the aforementioned work rightly point out that technology must be involved in the smart city construction project, but it cannot be reduced to it. Its social and axiological dimension is an equally important issue.

So far, no single axiology of sustainable development of a smart city has been developed. Most of the proposals in this regard are aimed at taking into account the three orders that constitute this concept: social, economic (economic) and environmental (ecological). The differences concern the very choice of specific values, but also their mutual relations.

At the end of these considerations, the question arises about the effectiveness of axiology in shaping the social world in which, on the one hand, actions are taken on the basis of fundamental values, and on the other hand, actions non-compliant with these values are abandoned. According to the views of great ancient philosophers such as Socrates, Plato, Aristotle and the Stoics, the task of ethics (axiology) is to lead man to happiness, which they equate with a good life. It seems that over the centuries, the tasks assigned to ethics have changed significantly. Contemporary axiological theories abandoned the ambitious task of showing people paths to happiness through moral improvement long time ago³⁷. Andrzej Papuziński notices, "they influence the reality by mobilizing people, that is making them adopt a specific attitude. They generally contain three components: a long-range autotelic goal, an instrumental goal, and the means to

³⁶ Pichlak M.: Inteligentne miasta w Polsce – rzeczywistość czy utopia?. Zeszyty Naukowe Politechniki Śląskiej. Organizacja i Zarządzanie. Vol. 127, 2018, p. 194.

³⁷ It is pointed out by, for example, the outstanding Polish ethicist Maria Ossowska. See Ossowska M.: Podstawy nauki o moralności. Państwowe Wydawnictwo Naukowe, Warszawa 1957.

achieve this goal”³⁸. The strength of this influence, in my opinion, depends largely on the choice of values, but also on their actual implementation in the planned and undertaken activities aimed at creating a symbiosis of the social world with the environment of which it is an integral part.

It seems that the optimal proposition of an axiological foundation on which a just social order of a smart city can be built, also taking into account its economic and environmental dimensions, is a return to the classic triad: good, truth, and beauty supplemented with the values of freedom and justice. These values have the status of ideals – constitutive values on which practical values are based.

³⁸ Papuziński A.: The Axiology of Sustainable Development: An Attempt at Typologization (Aksjologia zrównoważonego rozwoju: próba typologizacji). *Problemy Ekorozwoju/Problems of Sustainable Development*, Vol. 8, No. 1, 2013, p. 18.