National University of Political Studies and Public Administration SNSPA

Doctoral School

SUMMARY

PhD. THESIS

Supervisor

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PhD. Student,

Elena-Alexandra Dobre

Bucharest

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Smart urban ecosystems with applications in social policies

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INTRODUCTION

Public administration stands as the transforming force of smart urban ecosystems. Starting from smart cities through the lens of social ecosystems, the challenge of this work emerges - that of modeling an intelligent social ecosystem - which connects work, life and the development of the skills of the beneficiaries of social policies (in our case, the older adults), in an inclusive, sustainable and social manner.

The actuality of the researched topic

COVID-19 pandemic transformed Europe and the world in an instant. The new normal, increasing demographic aging and increased life expectancy are causing important changes in contemporary societies and will bring to the fore new challenges in the coming decades in various fields and disciplines, including public administration, education, intergenerational coexistence and social policies. There is therefore an urgent need for better, innovative and sustainable actions and solutions to adapt to changing realities and to ensure that policies are fit for purpose in an era of major demographic change. Although people are living longer, many individuals are isolated from their family members, friends and communities.

Loneliness and lack of social interaction have become particularly pronounced during COVID-19, which has acted as a magnifying glass and further exposed increased physical and social distancing, as well as age discrimination and negative discourse against the older adults. Lockdowns, restrictions, masks and sanitation measures are policies that have been adopted by many countries to stop the current pandemic. Although no one was immune to these new regulations, the older segments of society paid the greatest price, leading to high death rates and increased marginalization and loneliness of the older adults. Loneliness and reduced in-person social encounters have dangerous consequences, as they contribute significantly to physical and mental illness and poor quality of life.

In this context, there is an immediate need for research evidence and a focus on the inclusion of active aging in public policies and guidelines. Aging emerged as a major European policy issue in the early 1990s and, since then, the European Union has increased its efforts to adopt active aging as an explicit and long-term policy objective. The concept of

active aging does not only indicate individual processes of survival in good health and active participation in society, but also refers to social processes supported by sound policies and programmatic interventions that can help societies to age well. Active aging is therefore a win-win strategy that benefits both the older adults in terms of improved health and well-being, as well as societies in general. However, the conceptualization and operationalization of active aging presents some risks, one of the most common being its interpretation in a one-dimensional approach using exclusively an economic/productive framework or a strongly health-oriented perspective.

Other common risks, which can also appear in multidimensional interpretations of active ageing, are that of not taking into account the heterogeneity of the personal preferences and aspirations of the older adults, and of adopting a top-down approach to the development of active aging policies. However, in recent decades, policymakers and scientists have taken important steps by leading several international, national and regional initiatives to clarify the multidimensional nature of active ageing, adopting coherent and integrated policies to address needs, attitudes and preferences of the older adults.

Although population aging is a global problem, the aging process is more advanced in Europe than in other parts of the world, and demographic projections suggest that the aging of the European population will become even faster in the near future.

The role of the public sector in the redistribution of resources between generations has received much attention, and scientists have mainly studied aspects related to fiscal sustainability and intergenerational equity. Solidarity between generations at all levels - family, community, state - has been universally identified as being of paramount importance in a context of significant demographic and socio-economic changes.

The research opportunity

The beginning of the new millennium marked the transition to an era of integration of active ageing: several policy initiatives took place at the international level, as well as at the national and subnational level, with the aim of adapting welfare arrangements to the paradigm of active ageing. However, despite much positive policy rhetoric, it is clear that there is still considerable uncertainty about what active aging should mean in practice. In fact, within most national governments, the debate on aging issues has focused on pension and social security reforms and not on effective strategies for active ageing, which explains the research opportunity.

The number of older adults is increasing rapidly, and this demographic change is putting an increased level of strain on the various international and national public systems responsible for designing and implementing age-friendly social policies. The "age-friendly" concept has clearly attracted the attention of scholars and leading social policy experts. Outlined in particular by the World Health Organization, with the Age-Friendly Cities and Communities initiative, it has sparked a movement to create age-friendly public social policies. Now, more than ever, in an era of post-pandemics, it seems wise to create a smart ecosystem where each of the age-friendly initiatives can create synergies and additional momentum as the population continues to age. Global work is particularly important given the range of international programs and scientific groups focused on improving the lives of older adults, along with their care and support system, and the interconnectedness of the global community, but to reach global, there is the necessity to start from the local.

The purpose and tasks of the investigation

The topic of the present research is an extremely broad one, requiring the approach of all types of social policies, which would have been somewhat difficult to approach in the most profound manner that would end with concrete solutions and proposals. Thus, it was considered appropriate to restrict the research to the implementation of social policies friendly to the older adults within the smart urban ecosystems of the public administration. The purpose of the doctoral thesis is therefore the knowledge and critical analysis of active aging from the perspective of the older adults and of the central and local public authorities in the municipality of Bucharest. Thus, I considered that there are two major actors in this approach, who, through the prism of their interaction, profile the orientation of social policies from the perspective of active aging on the medium and long term:

– the older adults (who are directly involved and impacted, which implies why a very good knowledge of their needs is necessary for the purpose of a rigorous design of the future social policies that must be implemented),

– central and local public institutions (responsible for designing and implementing social policies regarding active aging).

The research follows a quantitative perspective, being applied two questionnaires in which were establish mirrored scaled questions, questionnaires that want to capture the perception of the two categories of directly interested parties.

Research questions

Starting from the challenges raised by the implementation of social policies regarding the concept of active aging within the smart urban ecosystems of the public administration in the municipality of Bucharest, we proposed to answer the following basic question: How can smart cities be planned and designed, respectively smart urban ecosystems for the older population? This question automatically generates other questions:

1. What international initiatives are being undertaken to create age-friendly smart cities and urban ecosystems?
2. What are the best practices and challenges in this area?
3. How well known is the concept of active aging in Romania, especially by the generators of social policies?
4. Do current social policies and programs from the perspective of active aging really respond to the needs of the older adults?
5. How do local and regional authorities perceive the active aging social policies they implement?

We aim to answer all these questions in this thesis.

Objectives of research

The main objectives of research are:

O1. To detect the priorities and challenges of the implementation process of age-friendly social policies;

O2. To identify the positioning and coverage of local actors in the development and implementation of active aging public policies, the horizontal cooperation between the entities considered and the wider networks;

O3. To highlight the barriers that prevent the implementation of active age-friendly public initiatives in smart cities.

O4. To critically analyze the e-governance mechanisms involved in the process of designing and implementing active aging policies and how they interact at different scales (local, national and European).

The specific objectives considered from the perspective of the older adults are:

OS1 (older adults).   Knowing, with the help of the specific tools of sociological investigation, in our case quantitative research, of the problems and needs faced by the older adults in the municipality of Bucharest. We will consider the knowledge of respondents' needs from the perspective of (1) access to technology and digital skills, (2) the extent to which economic-financial factors are satisfactory or not for seniors, (3) their perception of the quality or lack of quality of government, (4) the access of the older adults in the municipality of Bucharest to quality/non-quality lifestyles, (5) living conditions – optimal or on the contrary, poor, (6) the quality or the poor quality of the community space, (7) the perception of older adults on   the accessibility or lack of accessibility of social policies, (8) the perception of older adults on the continuous improvement or lack of improvement of social policies.

The specific objectives considered from the perspective of central and local authorities are:

OS2 (local and regional authorities). Identifying the extent to which respondents believe that current social policies and programs actually respond to the needs of older adults; identifying those areas of need that remain unmet and that must be the subject of future intervention programs for this age group.

Study hypotheses

For the first research (Questionnaire 1, Appendix 2) the following hypotheses were built:

H1: There is a significant and positive relationship between access to technology and digital skills of the older adults and active aging.

H2: There is a significant and positive relationship between economic factors such as personal income, employment promotion and active aging.

For the second research (Questionnaire 2, Annex 3) the following hypotheses were built:

H1: There are differences in perception between local and central public administration authorities regarding active aging and measures to improve the quality of life.

H2: Central and local public authorities are indifferent in promoting active ageing.

The following common hypotheses were built for both researches:

H3: Social policies on active aging are unsatisfactory for the older adults.

H4: Authorities are unconcerned about creating age-friendly urban ecosystems.

H5: Community space encourages active aging.

H6: Social policies on active aging are inaccessible.

H7: The design and/or implementation of social policies on active aging are not in continuous improvement.

H8: Social policies on active aging and quality of life are difficult to implement.

Research results will be able to be used, both as empirical data but especially as recommendations in the implementation and application of social policies at the national and local level, regarding the active aging of older adults.

The structure of the doctoral thesis

The first chapter of the paper: "The current state of knowledge regarding smart urban ecosystems and social policies", focuses on the smart urban ecosystem, urban ecosystem services and the 2030 Agenda, in parallel with the digital revolutions and their role within smart urban ecosystems. The chapter also addresses the state of knowledge in the field of smart urban governance, with an emphasis on the role of public institutions in smart governance, the factors underlying smart urban governance and public-private partnerships, concluding with an overview of the closely related urban social ecosystem and social policies.

Chapter two focused on the challenges regarding the implementation of social policies within smart urban ecosystems in the public administration, starting with a brief history of age-friendly social policies, the analysis of the concept of age-friendly cities and communities (AFCC), to study further on, on the one hand, the barriers regarding the implementation of age-friendly social policies and on the other hand, examples of good practices: age-friendly smart urban ecosystems. The challenge of population aging requires innovative approaches to meet the needs of a growing number of older people. Emerging information and communication technologies (IT&C) have considerable potential to improve the quality of life of many older people by providing additional safety and security, supporting mobility,

independent living and social participation. Although this is an important line of research, in this chapter our intention is to explore how technology can contribute positively by:

- Age-friendly housing
- Age-friendly transport
- Age-friendly outdoor spaces and buildings
- Communication and information (technology) and the age-friendly city
- Respect and social inclusion in an age-friendly city
- Social participation
- Civic participation and employment
- Community support and health services to the active aging of all older people and setting seniors in the center of attention as proactive participants in a digital society, with the help of social policies and the direct involvement of central and local authorities.

Chapter three "European and national policies on active aging - a smart ecosystem model" proposes a systematization of European and national policies to increase active aging. The beginning of the new millennium marked the transition to an era of integration of active ageing: several policy initiatives took place at the international level, as well as at the national and subnational level, with the aim of adapting welfare arrangements to the paradigm of active ageing. However, despite much positive policy rhetoric, it is clear that there is still considerable uncertainty about what active aging should mean in practice. In fact, within most national governments, the debate on aging issues has focused on pension and social security reforms rather than on effective strategies for active ageing, which again underlines the opportunity for research.

The last chapter is represented by double quantitative research, which involves the most important actors in this approach, which, through the prism of their interaction sketch the orientation of social policies from the perspective of active aging in the medium and long term:

- the older adults (group of 400 respondents) (who are directly involved and impacted, which is why a very good knowledge of their needs is necessary for the purpose of a rigorous design of future social policies that must be implemented),
- central and local public institutions (group of 311 respondents) (responsible for designing and implementing social policies regarding active aging).

Statistical analyzes for both studies were performed using IBM SPSS Statistics 29.0 2023.

Research methodology

The research follows a quantitative perspective, two questionnaires built on mirror research questions being applied, questionnaires that want to capture the perception of the research participants, respectively of the two categories of directly interested parties.

Both investigations took place between 1.01.2023-1.03.2023. During this period, questionnaires were completed (Appendix 2 and Appendix 3). The participants in the first research were recruited starting from the database of the members of the Association of the Romanian Institute for Active Aging, an organization of seniors from Bucharest. The participants remained anonymous. All questionnaires were completed physically with the help of the researcher.

The research methodology was quantitative, using, for the first research, a multi-domain questionnaire. A 56-item questionnaire covered the areas: access to technology and digital skills – perceived benefits versus barriers (21), economic objectives of social policy (economic-financial factors) (2), governance (6), lifestyle (2), living conditions (2), community space (2), accessible social policies (4), social policies in continuous improvement (5), easy/difficult social policies to apply (3). Statistical analyzes were performed using IBM SPSS Statistics 29.0 2023.

For the second research, a mirror questionnaire (Annex 3) was used, as much as possible with questionnaire 1 (Annex 2), but it was addressed to the central and local public administrations that should ensure active aging, respectively the increase in quality life for older people and promote solutions that improve the digital skills of older people. A 63-item questionnaire covered the areas: access to technology and digital skills – benefits versus perceived barriers (16), economic objectives of social policy (economic-financial factors) (3), governance (11), lifestyle (5), living conditions (2), community space (6), accessible social policies (5), social policies in continuous improvement (5), easy/difficult social policies to apply (6).

Synthesis of the doctoral thesis

The first chapter addressed the active aging of older adults from the perspective of smart urban ecosystems and social policies, emphasizing the role of public institutions in smart governance, the factors underlying smart urban governance and public-private partnerships, closely related to the challenges of implementing social policies in the framework of smart urban ecosystems by the public administration. Thus, it could be observed that strategies for the older adults within smart cities and ecosystems must seek knowledge-based, creative and innovative solutions that respond to urban challenges with the help of digital technologies. At the same time, the increasing impact of technology in everyday life also requires adaptation of older adults to technological developments and the ability to use technology. In addition, socio-economic inequalities in urban areas are seen as a barrier to access these digital technologies for older adults. In this context, social policy can contribute to smart city and ecosystem strategies by increasing the technology use skills of specific target groups, in our case of older adults, while addressing barriers to access digital technologies. Such a smart strategy means an urban strategy where more seniors can participate in decision-making processes.

Social policy could encourage a more participatory role of older adults in the design and application of smart city strategies, in particular, regarding the insufficient knowledge of urban residents in the use of digital technologies and their difficulties in accessing these technologies.

Smart urban strategies can improve the quality of life in urban areas with a more inclusive approach. Second, based on the understanding of better conditions for social participation, an increase in the quality of individual life could also increase the quality of social life for the older adults. The fact that cities and city residents have different needs makes it difficult to specify a common standard of quality of life for all seniors in smart cities. Each city may have its own performance indicators depending on variables such as time and location. However, if these indicators include social policy indicators, they contribute to the assessment of the performance of smart metropolitan cities in social participation.

Finally, the chapter stipulates that local and central authorities can gain more information about urban and older adults' ecosystems through digital technologies and Big Data. This can help develop strategies to meet regional requirements for the well-being of older people in urban areas. To increase social participation in smart cities, the social needs of the older adults must be understood. At this time, digital technologies and big data can provide us with comprehensive information. Clearly, in order to better understand the

problems of smart cities socio-economically, to solve these problems with a participatory approach and to disseminate this participatory understanding to as many seniors as possible, more practical studies on them are needed on digital technologies, Big Data, social policy and social participation using advanced statistical methods and creative approaches. Through such studies, more creative and innovative solutions to the socio-economic problems of older adults in smart cities and ecosystems can be found in the near future.

The second chapter deals with the concept of active aging in close connection to that of age-friendly cities and communities (AFCC).

The role of smart cities in improving the quality of life, sustainability and opportunities for older people, accessibility, mobility and connectivity is growing, being recognized both in public policies and private sector strategies around the world. Starting from the eight areas proposed by the WHO where cities would face challenges and where action is needed, namely: (1) outdoor spaces and buildings; (2) transportation; (3) housing; (4) social participation; (5) respect and social inclusion; (6) civic participation and employment; (7) communication and information; and (8) community support and health services (WHO, 2007), this chapter reviewed the existing literature to identify good practice examples of age-friendly social policies within smart urban ecosystems.

In a first stage, the focus was on the built environment, which in its essence is covered by the domains of outdoor spaces and buildings, transport and housing. The built environment refers to the physical spaces created by humans for living, working and recreation. They range from buildings, public and open spaces to neighborhoods and communities, as well as streets and transport systems. The built environment has a significant impact on the well-being and quality of life of older adults.

The WHO suggests that there are strong links between different aspects of urban life (WHO, 2007). Thus, it is vital to bear in mind that not only external spaces and buildings, transport and housing are relevant to the built environment. The success of the built environment in supporting AFCC is based on other five areas, such as social participation (in decision-making about the built environment), social respect and inclusion, and community support, which should be addressed in the design, operation and management of the built environment.

For a better understanding of the concepts, one of the objectives of this chapter was to critically analyze the challenges and opportunities of AFCC. For AFCC there are key

challenges that limit impact, reach and sustainability, and this refers to: promoting work in times of economic austerity, public health crises and accelerating social inequalities; managing the AFCC work in complex organizational systems and considering the differences between socio-political conditions and cultural contexts as part of a global movement.

First, a strategic approach involving different levels of government as well as collaboration within central and local public administration is required to achieve the aspirations of the AFCC movement. However, changes in local leadership, political dynamics and pressures on resources could see age-friendly activity drop down the priority lists, at the risk of losing "the strength, momentum, credibility and enabling acceptance of staff" (Remillard-Boilard et al., 2021, p. 10).

First, a strategic approach involving different levels of government as well as collaboration across public sectors is needed to achieve the objectives of the AFCC movement. However, changes in local leadership, political dynamics and pressures on resources could see age-friendly activity drop down the priority lists, at the risk of losing „strength, momentum, credibility and enabled staff buy-in' for their program" (Remillard-Boilard et al., 2021, p. 10). Ensuring long-term commitment and consistent support for AFCC initiatives is particularly important to achieve "inclusive and equitable places that leave no one behind - especially the most vulnerable and here we are talking about older people" (WHO, 2018, p. v).

The challenges of political and financial support, as well as leadership, are particularly acute in times of economic austerity. While initial interest in the development of AFCCs emerged during a period of global economic growth and expansion of public sector programs, the financial crises of 2008 reversed support for this trend (Van Hoof et al., 2021). Thus, the emergence of formal AFCC initiatives, following the establishment of the WHO Global Network in 2010, coincided with a time when communities were facing significant cuts in service provision, a loss of physical and community assets, financial pressures on community organizations and from the voluntary sector and an acceleration of neoliberal policies and government devolution in many countries. These trends have contributed to greater precarity in later life for vulnerable groups of older adults, alongside rising inequalities.

The COVID-19 pandemic has further amplified the challenges of providing collective support to marginalized populations, given a combination of increasing inequality and austerity. Many of the organizations that developed or collaborated with AFCC initiatives during the pandemic were already in a precarious financial position before the pandemic.

Although some organizations have received crisis funding, questions remain about how much of this funding has been allocated to age-friendly community activities, particularly work focused on historically marginalized groups, and whether such funding will be sustained in future years.

Another challenge regarding AFCC relates to the report published by the WHO in 2018 (WHO, 2018), in which the technology is explicitly mentioned as a support for age-friendly environments. In 2019, Marston and van Hoof presented a critique of the WHO model for age-friendly cities and communities, as technology is not explicitly considered in this model. Their paper discusses WHO's technology gaps and provides insights and recommendations for scaling up the model for application in the context of countries with high Human Development Index (HDI) that want to be fully age-friendly. The question has been raised as to whether age-friendly programs and policies are preparing cities to be truly age-friendly in a world that is increasingly moving towards a digital or even smart society. Over the decades, technology has become essential to contemporary and future societies, and even more imperative as the decades go on. Podgorniak-Krzykacz et al. (2020) also called for smart cities to try to meet the needs of older citizens and promote solutions adapted to their digital literacy, digital skills and perception capacities.

AFCC's future directions are ambitious, encompassing a set of aspects of community life spanning physical, social and service environments. Progress within many domains is, in many ways, beyond the control of any other system, organization, sector or discipline level (Greenfield et al., 2022). While this scope is a defining strength of the AFCC movement, it presents challenges for organizing and tracking work in complex systems, as well as demonstrating impact. These challenges are particularly difficult in the context of program monitoring and accountability structures that have traditionally focused on single program elements, service units, and quantitative measures of change over short periods. Moreover, the broad focus of the AFCC movement raises both opportunities and questions about how AFCC efforts fit with other campaigns, such as those related to the social determinants of health, environmental sustainability, smart cities, economic development (Ahn et al., 2020).

The all-encompassing geographic scope of the AFCC movement presents simultaneous opportunities alongside challenges. The profound differences between sociopolitical landscapes—both between and within countries and continents—make it difficult to develop a unified model of how to achieve AFCC change. Additionally, cultural notions of aging, older adults, and intersectional social positions add further complexity to the

conceptualization of AFCC initiatives, particularly in the context of oppressive social structures such as ageism, racism (Yeh, 2022).

Vârstnicii sunt excluşi din statisticile privind învăţarea adulţilor, deoarece se presupune că sunt generaţia post-muncă. Cu toate acestea există studii care arată faptul că învăţarea ulterioară şi bunăstarea psihologică este benefică vârstnicilor şi în concluzie bunăstarea mentală este una dintre cele mai importante capacităţi de rezervă. Socializarea este astfel un obiectiv esenţial pentru a asigura implementarea politicilor şi programelor potrivite pentru vârstnicii de pe tot globul.

Chapter 3 deals with a current topic, namely the development of policies in the field of active aging both from the perspective of European political and legislative discourses and of the Romanian regulation.

The European Union promotes active aging and thus increases healthy life expectancy. The problem is that an increasing number of older people are reaching an age where their declining physical and mental health makes them dependent on the help of others. Here, aggressive policies and measures must be taken to give them the opportunity to continue their lives by accessing affordable and good quality long-term care services, especially home care and community services. Active aging is the European Commission's policy aimed at helping people stay in charge of their own lives as long as possible as they age and, where possible, contribute to the economy and society. The call for active aging in contemporary societies has had a global reach, with particular emphasis on a greater involvement of the elderly in the political processes that directly affect them. Thus, active participation benefits the well-being of seniors, the improvement of the quality of life, the effectiveness and efficiency of public measures and the promotion of innovative solutions, especially in terms of social assistance and pension insurance.

Despite several positive aspects, a serious difficulty regarding the concept of active aging is the transition from theory to practice, as the application of the concept at the level of policy and programs is often considered difficult (Walker et al., 2013; Pop et al., 2021). The academic literature highlights the main challenges that should be addressed to avoid misinterpretations in policy development and implementation (Foster, 2015; UNECE, 2012; Zaidi, 2017; Schmitt et al., 2015; Falanga et al., 2021).

In order to deal with policy making in this area and not to neglect the many interconnected aspects, national applications of the concept of active aging should be in

accordance with an adequate and strong comprehensive international framework to ensure its homogeneity and success at the level nationally and then internationally.

Policymakers should focus their attention and efforts on the heterogeneity and diversity of experiences, based on conceptual frameworks in which this diversity is modeled as the result of the life-long interaction between a set of intrinsic capacities of individuals and the social environment in which they live (Zaidi, 2017). In this perspective, specialists should support a holistic approach, arguing that multiple aspects of the elderly's activities, especially participation, health, safety, psychological well-being, lifestyle and financial resources intertwine to determine the quality of the aging experience and that each of these aspects is essential in achieving and maintaining well-being in later life (Buys et al., 2012).

In Romania, we believe that the legislation in force, although it deals with the challenges induced by demographic aging, offers only partial solutions. At the same time, we believe that the elderly have not captured much of the authorities' interest in encouraging active aging, despite the Government's approval, on December 14, 2022, of the the National Strategy on Long-Term Care and Active Ageing for 2023-2030. Thus, we consider it necessary to improve and adapt the legislative provisions to the needs of the seniors, especially post-pandemic.

Also, at the national level, active aging policy requires greater participation of older citizens in the social, economic and political fields. Despite emerging evidence of initiatives involving older citizens in social activities, little is known about the use of participatory approaches in the design and/or implementation of policies that matter to old citizens.

Active aging is not new for Romanian researchers. As this chapter shows, numerous researches have been writting about the valences of aging in Romania, either from a strictly national perspective or from a comparative perspective. The academic literature analyzed is rich and addresses a variety of topics, from the respect and social inclusion of the seniors, to the analysis of community support and health services, studies on social participation, the investigation of care structures, as well as multiple studies that explore aspects of an active aging or well-being among seniors. Considering the multitude of results and solutions launched by academics, it is imperative that legislators and relevant actors use these resources in order to prepare the active aging measures for the coming years. Thus, they could provide solutions for creating inclusive and intelligent ecosystems that increase the well-being of seniors.

The fourth chapter started from the consideration that there are two major actors in this approach, who, through the prism of their interaction, profile the orientation of social policies from the perspective of active aging in the medium and long term:

- the older adults (who are directly involved and impacted, which is why a very good knowledge of their needs is necessary for the purpose of a rigorous design of the future social policies that must be implemented),
- central and local public institutions (responsible for designing and implementing social policies regarding active aging).

The research follows a quantitative perspective, the themes taken in consideration being:

1) Access to technology and digital skills – benefits versus perceived barriers
2) The economic objectives of the social policy (economic-financial factors)
3) Governance
4) Lifestyle
5) Community space
6) Continuous improvement of social policies
7) Accessibility of social politics
8) Application of social politics

(1) From the perspective of the access to technology and digital skills – perceived benefits versus barriers, the findings suggest that the internet use among older adults tends to become more common in future generations, with attitudes already being more positive towards computers, technology already being considered accessible by older adults. In general, older people are receptive to the use of these technologies, especially if the use of these devices, systems and applications increases their potential to remain independent.

Regarding the respondents' perceptions of the benefits of digitization, as perceived by the two groups of respondents, it was observed that, depending on the importance given by both types of respondents, digitization is important and beneficial because it provides:

Table no. 1. The benefits of digitization for the older adults. Comparative view

The benefits of digitization for the older adults from the perspective of seniors	The benefits of digitization for the older adults from the perspective of central and local public authorities

Ability to connect with loved ones (family) (71.5%)	Access to more public services (66.9%)
Enriched recreation and entertainment (71.0%)	Access to more government information (health, transport, culture, etc.) (63.3%)
Access to more information about life (70.3%)	Access to several courses for reintegration into work (61.1%)
More government information (61.3%)	Other (50.2%)
More learning opportunities (60.8%)	
Larger circle of friends (socialization) (59.8%)	

Source: prepared by the author based on the research results

The research revealed that the perceptions of the two groups of respondents are in unison, the benefits of digitization being perceived in a similar way. The only difference is the perception of digitization as a benefit for reintegration into work. Older adults do not see digitization as offering more job opportunities (49.3%) nor as leading to increased income (47.3%). Based on these observed aspects, we are also of the opinion that central public bodies and especially local authorities, which have a direct impact on the active aging of older residents, as well as on stimulating the emergence of the business-friendly ecosystem and other active stakeholders in the silver economy, must be involved. A smart urban ecosystem means, among others, local authorities willing to consider the need to advance IT&C implementation in order to empower citizens, including through new job opportunities.

Table no.2. Digitalization barriers for older adults. Comparative view

Barriers to digitization for older adults from the perspective of seniors	Barriers to digitization for older adults from the perspective of central and local public authorities

Poor health of older adults (51.0%)	Poor health of older adults (72.0%)
Infrastructure (The need for other family members to access the computer or other digital technologies (53.8%))	Infrastructure (68.8%)
	Lack of programs for the digitization of older adults (68.5%)
	Financial (64.3%)
	Managerial (63.3%)

Source: prepared by the author based on the research results

From the perspective of digitalization barriers, the two groups of respondents believe that the real barriers are poor health of older adults and problems related to the infrastructure of digital technologies. To these, the representatives of the central and public authorities add the lack of programs for the digitization of the older adults (68.5%), financial difficulties (64.3%) and managerial problems (63.3%).

(2) Regarding the economic objectives of the social policy (economic-financial factors), it was noted that both older adults and the central and local public authorities agree with the lack of promotion of the employment of older adults people (50.3% of the older adults/53% of the public authorities).

Social policy on active aging emphasizes three basic tasks, namely the promotion of productive ageing, creative ageing, and an age-friendly environment. Most importantly, social policies on active aging transform older people into human resources for work. Active aging policy mainly targets older people who are physically active and able to work and contribute to the labor force, as opposed to inactive older people. Given that it seems that the employment of older people is not promoted in our country, therefore, the focus of the national active aging policy must be on productive ageing, which is concerned with productivity in the later stage of life, including the employment of older people who are already retired, but still able to contribute to the labor market. Creating opportunities for

productive aging would allow older people who are retired but still physically active to re-engage in the labor market. Older retirees, who are still healthy and able to actively participate in the labor market, are therefore very different from middle-aged workers. Thus, by creating opportunities for productive aging, these older retirees can be treated the same as regular workers and could still be employed for another 5-10 years.

(3) The quality of governance was further analyzed. Governance is not seen as being qualitative, the only exception being the item stating that: authorities design programs that develop and maintain the functional capacity of older people in their communities (51.3% from the perspective of older adults).

Table no.3. Quality of governance. Comparative view

Strongly and partially disagree from the perspective of the older adults	**Strongly and partially disagree from the perspective of central and local public authorities**
-	Authorities design programs that develop and maintain the functional capacity of older people in their communities. (50.2%)
Health facilities and community services are easily accessible. (50.3%)	Health facilities and community services are easily accessible. (53.7%)
I am satisfied with the services and social assistance. (50.5%)	The older adults are satisfied with the services and social assistance. (56.3%)
The authorities involve and empower the older adults. (50.8%)	The authorities involve and empower the older adults. (53.7%)
I trust the state institutions and public administration. (55.3%)	Authorities enact laws to protect against age discrimination, amend or repeal those that discriminate directly or indirectly. (51.8%)
	Public authorities offer health education

	programs for older people. (54.3%)
	The older adults are satisfied with the Social Insurance system and their services. (52.0%)

Engaging older citizens in policy issues that directly affect them highlights the need and opportunities to increase the quality of life for older people in a rapidly aging population. Involving older people in development processes can help build societies that are cohesive, peaceful, equitable and secure. Excluding them from these processes not only undermines their well-being and contributions, but can have a strong impact on the well-being and productivity of other generations. For example, older people make many social and economic contributions to their families, communities and society, such as assisting friends and neighbors, mentoring peers and young people, caring for family and community members, and as consumers, workers and volunteers. Summing up, enabling older people to participate must therefore be a central objective of socio-economic development, and ensuring that they can engage in and benefit from these processes is essential.

At the same time, community services and health facilities must be designed according to the needs and preferences of older people, in order to increase their accessibility. This can best be achieved by involving them in the planning of facilities and services.

On the other hand, long-term care systems should be based on an explicit partnership between older people, families, communities, other care providers and both the public and private sectors. A key role for government is to manage these partnerships and build consensus on the most appropriate system.

(4) Both groups of respondents believed that lifestyle does not encourage active ageing. Environments and lifestyles are the contexts in which people live their lives. Environments that are friendly to older people help promote healthy aging in two ways: by supporting the building and maintenance of intrinsic capacity throughout life, and by enabling greater functional ability so that people with different levels of capacity can do the things they value the most.

Actions to create age-friendly environments can target different contexts (e.g. home or community) or specific environmental factors (such as transport, housing, social protection,

streets and parks, social amenities, health and long-term care, social attitudes and values) and can be influenced at different levels of government (national, regional or local). In order to build an age-friendly ecosystem, it is necessary to connect central and local authorities to the Global Network for Age-friendly Cities and Communities (GNAFCC) established by WHO, so that starting from the examples of good practices offered by the communities in this network, the authorities in Romania can successfully implement such practices locally. The network brings together municipalities around the world that, through multisectoral actions, make their environments better places for older people to live.

By taking the needs and preferences of seniors as a starting point for shaping age-friendly environments, local and central authorities would thus ensure that specific approaches are relevant to local populations. In this regard, policy makers should avoid a top-down approach, instead striving to select the right social policies according to their motivations, expectations and aspirations. This would allow older adults to freely choose whether, to what extent and how they can age in an active manner. Only by applying a bottom-up approach could authorities create the right environmental conditions to enable and promote active ageing.

(5) On the community space, opinions were different. Thus, the majority of the older adults believe that the community space encourages active aging, unlike the respondents from the central and local public authorities, who disagree on 3 of the items. Thus, the older adults believe that their social relations are characterized by helping, solidarity, tolerance (50.5%) and that personal merits are recognized. On the contrary, respondents from the authorities totally or partially disagree with the following statements (> 50%)

- Actions by authorities to create age-friendly environments target different contexts (e.g. home or community) or specific environmental factors (such as transport, housing, social protection, streets and parks, social facilities, health and long-term care, social attitudes and values).
- Public authorities promote collaboration, age diversity and inclusion in work environments.
- Public authorities are part of the global network of age-friendly cities.

(6) From the perspective of the continuous improvement of the social policy objectives for older adults, it was discovered that the majority of respondents from the two groups did not agree with the following aspects:

Table no.4. Continuous improvement of social policy objectives for older adults. Comparative view

Strongly and partially disagree from the perspective of the older adults	Strongly and partially disagree from the perspective of central and local public authorities
(51.8%) Staff in public institutions provide health care services, promote and provide social assistance to the older adults (courses, recreational activities, volunteering, etc.)	**(53.7%)** Staff in public institutions provide health care services, promote and provide social assistance to the older adults (courses, recreational activities, volunteering, etc.)
(54%) There is a permanent collaboration with the public authorities regarding the needs of older adults.	**(52.1%)** There is a permanent collaboration with the public authorities regarding the needs of older adults.
(55.8%) There are specific Agencies/Councils/Departments dealing with the problems of the older adults.	**(undecided, neither agree, nor disagree)** There are specific Agencies/Councils/Departments dealing with the problems of the older adults.
(50.5%) Authorities are closely monitoring unmet health care needs to identify gaps in the provision of medical services for older adults.	**(57.6%)** Authorities are closely monitoring unmet health care needs to identify gaps in the provision of medical services for older adults.

Source: prepared by the author based on the research results

It was noticed that the respondents from the group of public authorities are in agreement with the seniors.

(7) The research revealed that social policies are accessible from the perspective of the older adults/authorities because they offer:

- Access to digital technologies. (82.5% older adults)

\- Free public transport cards/identifications/passes given to older people have a positive effect on their social participation   (67% older adults and 53.7% public authorities)

At the same time, however, the respondents are dissatisfied for various reasons, considering social policies inaccessible. So:

- 87.3% of seniors state they have unsatisfied healthcare needs due to distance, waiting times or financial reasons, while respondents from the authorities group agree with older adults by 59.8%.
- 53.5% of older adults and 51.8% of the authorities believe that the health system and public health policies are not accessible,
- 50.3% of older adults and 55.7% of the authorities consider that social participation of older adults in governance processes is low. Furthermore, the respondents from the group of public and local authorities were in total or partial disagreement with the fact that public authorities provide access to digital technologies. (57.3%)

(8) Social policies regarding active aging and quality of life are not easily applicable, according to older adults. Thus, at the item "the national legislation with a role in increasing the quality of life for the older adults is easy to apply" -59.5% of the seniors neither agree nor disagree, which could mean that the respondents are not aware of the national legislation that has a role in increasing the quality of life of the older adults. At the same time, the item "central and local authorities with a role in increasing the quality of life are accessible to the older adults", registered a disagreement of 58%. The majority of respondents disagree (60.5% of all respondents) with item 3, therefore agencies established with a role in increasing the quality of life are not accessible to the older adults, according to the respondents. And the authorities' respondents partially or totally disagree with the following 4 items:

- National legislation with a role in increasing the quality of life for the older adults is easy to apply. (54.7% partially or totally disagree)
- Central and local authorities with a role in increasing the quality of life are accessible to the older adults. (58.2% partially or totally disagree)
- Effective governance of healthy aging relies on the development of evidence-based legislation, policies and plans, either as stand-alone documents or integrated into the health and other sectors, that pay explicit attention to equity and the inherent dignity and human rights of older people. (58.9% partially or totally disagree)

– At the central and local level, there are effective coordination and accountability mechanisms to ensure the implementation of social policies for the older adults. (50.5% partially or totally disagree)

Continuing the comparative look, there will be presented below the final results of the research, namely how (1) older adults in the municipality of Bucharest and (2) central and local public authorities have experienced and described active ageing, which is based on: governance (improvement, accessibility, applicability/implementation), lifestyle, community space. The categories and subcategories of the results are presented in the following table, which was intended to be a mirror of the opinions of older adults compared to the opinions of the central and local public authorities. Of the eight hypotheses, 6 were common, precisely to observe the differences in perception between the two groups of respondents.

Table no.5. Comparative view validation/invalidation of Hypotheses from a double perspective: older adults / central and local public authorities

Hypotheses - Older adults	Total Items/ Confirmed Items	Hypotheses - Central and local public authorities	Total Items/ Confirmed Items	Theme
There is a significant and positive relationship between access to technology and digital skills of the older adults and active ageing. *Confirmed (H1)*	21	There are differences in perception between local and central public administration authorities regarding active aging and measures to improve the quality of life. *Confirmed (H1)*	3/-	Access to technology and digital skills – benefits versus perceived barriers
There is a significant and positive relationship between economic factors such	2	Central and local public authorities are indifferent in promoting active	8/-	The economic objectives of the

as personal income, employment promotion and active ageing. *Confirmed (H2)*		ageing. *Confirmed (H2)*		social policy (economic-financial factors)
The hypotheses were confirmed by both groups of respondents (H2)				
Social policies on active aging are unsatisfactory for older adults. *Partially confirmed (H3)*	6/5	Social policies on active aging are unsatisfactory for older adults. *Confirmed (H3)*	11/11	Governance
The hypothesis was confirmed by both groups of respondents (H3)				
Authorities are unconcerned about creating (age-friendly) urban ecosystems for active ageing. *Partially confirmed (H4)*	4/3	Authorities are unconcerned about creating (age-friendly) urban ecosystems for active ageing. *Partially confirmed (H4)*	6/5	Lifestyle
The hypothesis was partially confirmed by both groups of respondents (H4)				
Community space encourages active aging.	2/2	Community space encourages active aging.	5/0	Community space
Confirmed (H5)		**Denied (H5)**		

The design and/or implementation of social policies on active aging are not in continuous improvement. *Confirmed (H6)*	4/4	The design and/or implementation of social policies on active aging are not in continuous improvement. *Confirmed (H6)*	5/4	Improvement
The hypothesis was confirmed by both groups of respondents (H6)				
Social policies on active aging are not easily accessible. *Partially confirmed (H7)*	5/3	Social policies on active aging are not easily accessible. *Partially confirmed (H7)*	5/4	Accessibility
The hypothesis was partially confirmed by both groups of respondents (H7)				
Social policies on active aging and quality of life are difficult to implement. *Confirmed (H8)*	3/3	Social policies on active aging and quality of life are difficult to implement. *Partially confirmed (H8)*	6/4	Implementation / Applicability
The hypothesis was confirmed by both groups of respondents (H8)				

Source: prepared by the author based on the research results

Of the six common hypotheses (see table 16), five were confirmed by both groups, which means that the perception of both older adults and of the central and local public authorities is similar, respectively:

- Social policies on active aging are unsatisfactory for the older adults.

– Authorities are unconcerned about creating (age-friendly) urban ecosystems for active ageing.

– The design and/or implementation of social policies on active aging are not in continuous improvement.

– Social policies on active aging are not easily accessible.

– Social policies on active aging and quality of life are difficult to implement.

In the face of such vehement perceptions, not only the quality but even the existence of age-friendly smart urban ecosystems, in Romania, are put under the sign of doubt.

The main conclusions of the doctoral thesis

- It is believed that the most effective approach in this regard would be *the integration of the objectives of social policies* regarding the older adults in the form of programs and partnerships in the activity of public institutions in the field of health, or within the policies and legislative frameworks of other sectors, for example those that deal with of housing, transport, education and employment. Such engagement can establish the broad political and operational platform that enables and legitimizes effective multidimensional action. A central responsibility in this will be to ensure that older people and their representative organizations are informed, consulted and actively involved in the formulation, implementation and monitoring of policies and laws that affect them.

- *Governance* in the case of the present research extends to its relationship with the private sector, non-governmental organizations and civil society. However, as the ultimate guardian of ensuring that people live long and healthy lives, the government, at its various administrative levels, has a responsibility to put in place appropriate social policies, financial arrangements and accountability mechanisms, regardless of sector and level of government. Thus, *clear and evidence-based national and regional strategies or policies addressing aging and health* are needed. Effective governance of healthy aging also requires the development of legislation, policies and plans, either as stand-alone documents or integrated across health and other sectors, which pays explicit attention to the equity, dignity and rights of older people. They must adopt a rights-based approach to development and systematically incorporate the views of older people. As such, these plans must be linked to effective coordination and accountability mechanisms to ensure their implementation and can be strengthened by a strong civil society, especially

associations of older people and families and carers, which can help create more effective and responsible policies, laws and services for healthy ageing.

- A major issue observed as a result of the research was *the need to consult beneficiaries*, in our case the older adults, to ensure that strategies and legislative proposals are evidence-based, according to their needs. Thus, decision-makers must be aware of the main needs of those for whom social policy measures are drafted and include these needs in policy-making. This will require *more effective mechanisms to bridge the gap between the real needs of the older adults and those addressed by the government in their social policies*. These mechanisms include: consideration of the political context, such as the role of institutions, political will, ideas, interests; facilitating the creation of evidence and knowledge that is relevant and conducting or using relevant research on active aging for use in that policy context, including cost-effective interventions in the health system, infrastructure, etc., applicable to the environment and local communities; better communication and making research findings and good practice from other countries available to policy makers by synthesizing and packaging the evidence in a way that policy makers can use. Another mechanism for promoting this transfer of knowledge, respectively of the real needs of older adults in policy and practice are policy dialogues that bring together the existing evidence and assess its relevance to national priorities. It is considered very important to involve civil society in these processes, to shape the development and implementation of policies in accordance with their social expectations.

- Another major aspect to consider is *the environment* in which older adults live. Age-friendly environments help to promote active ageing, and actions to create age-friendly environments can target different contexts (home or community, for example) or specific environmental factors (such as transport, housing, social protection, streets and parks, social amenities, health and long-term care, social attitudes and values) and can be influenced at different levels of government (national, regional or local). When the actions also take into account social exclusion and the possible barriers that the older adults may encounter, these efforts can be more targeted and, consequently, the results can be much more effective. When age-friendly actions are coordinated across sectors and levels, they can improve certain functional abilities, including the „ability" to meet basic needs; to be mobile; continue to learn, grow and make decisions; to build and maintain relationships; and contribute. When multiple sectors and stakeholders share a

common goal of promoting functional skills and shaping development in ways that promote these specific skills, this can help ensure that older people age safely in a place that is right for them, they are safe from poverty, can continue to develop personally and contribute to their communities, while maintaining their autonomy and health. It is therefore necessary for central and local public authorities to outline approaches to maximize the participation of older people, with a focus on promoting autonomy and facilitating their engagement. As multi-sector action is required to achieve them, how sectors can work together effectively for the greatest impact is of great importance. Thus, most policies, systems or services have a direct impact on the ability of older people to experience active ageing. How they are delivered is also likely to have differential impacts on older people and their families. No single sector can boost the functional capacity of older people.

- *The National Strategy on Long-Term Care and Active Ageing for 2023-2030, approved by the Government on 14 December 2022*, can provide a framework for action by relevant stakeholders. However, concrete and concerted action must be taken within and across sectors if these frameworks are to have a positive impact on the functional capacity of older people. In addition, these efforts must encompass the various multisectoral programs and initiatives that are needed to promote functional skills, including developing and sustaining social protection systems, improving access to adequate housing, facilitating lifelong learning, providing effective health and long-term care and promoting the contributions of older people in the workforce, through volunteering and other social roles. The implementation of this strategy and other programs and initiatives in the same field will naturally vary from one framework to another, between levels of government and depending on the situation. The collection and use of information disaggregated by age and socio-economic characteristics is important to document inequalities and address inequities and to assess the effectiveness and gaps of existing social policies, systems and services in meeting the needs and rights of all older people.

- Research on *smart urban ecosystems for older adults* has revealed that they *are perceived as mechanisms or interventions designed to cross disciplinary and sectoral boundaries,* being developed to provide holistic solutions to complex problems while promoting collaborative work between professional, academic and experiential groups, in our case the seniors. At the same time, it was observed that within smart urban

ecosystems, digitization is seen as leveraging the strengths of various partners to create a responsive and efficient ecosystem to support the needs of older adults.

- Another important aspect of *the ecosystem approach is that it is community-based.* Thus, communities within smart urban ecosystems need to be motivated to engage in various age-friendly activities, and such engagement can help different dimensions of the ecosystem to interconnect and further support the community. A negative aspect discovered would be that *the complex interconnections between systems make planning smart urban ecosystems for the older adults complicated.*

- At the same time, a defining characteristic of smart urban ecosystems for the older adults found in the research consists in the notion of *interconnection*, more precisely interconnection for health and social interaction. Connectivity is a means of facilitating the well-being of older populations, whether it means the interconnectivity between individuals, groups of people or between services and organisations. For these reasons, it is necessary for initiatives to focus on the inclusion of families, neighborhoods and an umbrella support system involving a collaborative environment between various entities such as governmental or non-governmental organizations and formal and informal stakeholders.

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