Active Aging Index in the city of Madrid

October 2018

INTRODUCTION

Madrid City Council is a member of Global Network for Age-friendly Cities and Communities. Active Aging Index has been included in the evaluation of Action Plan 2017-2019, in order to have a common measure with the European Union.

 It has been considered an ideal tool for both comparison with other areas or cities and its value in long-term longitudinal follow-up.

Studies carried out in our country, where Community Autonomous of Madrid is located in the third position in the national ranking, and preliminary data portend a good result, exceeding of Spain as a whole.
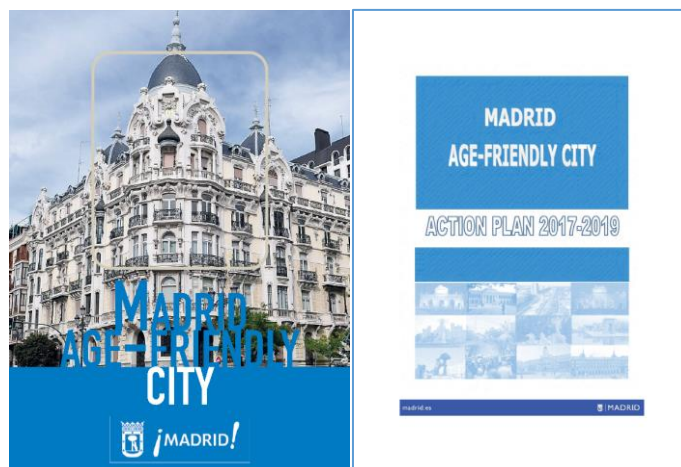
This is because Madrid is one of the wealthiest cities in Spain and it is also due to its highest life expectancy. Madrid is the largest city in the Spanish state in terms of population. Population over 55 is 1.030.955 (32% of citizens), figure much higher than the rest of the municipalities of our Community Autonomous (25,8%) and presumably their weight in the calculations made in our country, and in particular in Community of Madrid, is high.

In spite of that, we have to recognize that the construction of this index proved to be much more difficult than expected by methodological and conceptual issues.

We consider that the index is not conceptually comparable to other paradigms of active aging and it should also be noted that some methodological aspects in its construction may be questionable.

However, **we value its construction, as well as the joining of Madrid to the network, as an opportunity to sensitize technicians and leaders about the importance of including aging people in their daily work.**

Finally, we want to highlight in a very special way that **Madrid is the first European city in doing this calculation.**

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ACTIVE AGING INDEX

The index has been developed within the framework of the 2012 European Year for Active Ageing and Solidarity between Generations.

It was conceived as an opportunity to reflect on the fact that Europeans now live more and healthier than ever and to assume the opportunities that this represents:

- Stay in the labour market and share the experience.

- Continue to play an active role in society.

- Live a life as healthy and satisfying as possible.

It was also considered that it is essential to maintain intergenerational solidarity in societies in which the number of older people is rapidly increasing.

With these premises, a group of experts convened by the European Commission and the Economic Commission for Europe created the index, with a specific definition of active ageing, and made the first measurement in the countries of Europe.

The definition emphasizes what was previously stated: '**Active aging refers to the situation where people continue to participate in the formal labour market, as well as engage in other unpaid productive activities (such as providing care to family members and volunteering) and they live healthy, independent and secure lives as they age**'.

It gains an economic / productive relevance superior to that managed by the World Health Organization (WHO) following the Second World Assembly of the United Nations on Aging, held in 2002 in Madrid, in which 'Active Aging' was defined as 'the process of optimizing opportunities for health, participation and security in order to enhance quality of life as people get older' (WHO, 2002).

In a way, to the individual benefit of actively ageing, the social benefit is added.

By being healthier as a group, older people have the potential to contribute not only to their own well-being but also to sustain a growing economic and social prosperity for our nations.

These new paradigms of active and healthy ageing motivate the work of creating the index.

For its construction a series of indicators are used, which are grouped in four dimensions: employment, social participation, independent and safe living, and capacity for a healthy ageing.

It is a tool of comparison between countries that measures the potential of older people to have an active and healthy ageing.

Table I shows the different indicators used. It should be noted that the maximum score is 100 and that the weights given to each dimension are different, 35 points to each of the first two, 10 to the third and 20 to the fourth.

Table I: Active Ageing Index (AAI) dimensions and indicators

Dimension	Indicator
1. Employment	1.1 Employment rate 55-59
	1.2 Employment rate 60-64
	1.3 Employment rate 65-69
	1.4 Employment rate 70-74
2. Participation in society	2.1 Voluntary activities
	2.2 Care to children, grandchildren
	2.3 Care to older adults
	2.4 Political participation
3. Independent, healthy and secure living	3.1 Physical exercise
	3.2 No unmet needs of health and dental care
	3.3 Independent living arrangements
	3.4 Relative median income
	3.5 No poverty risk
	3.6 No severe material deprivation
	3.7 Physical safety
	3.8 Lifelong learning
4. Capacity and enabling environment for active ageing	4.1 RLE achievement of 50 years at age 55
	4.2 Share of healthy life years in the RLE at age 55
	4.3 Mental well-being
	4.4 Use of ICT
	4.5 Social connectedness
	4.6 Educational attainment

A wide representation of bibliography about this project is available in
https://statswiki.unece.org/display/AAI/Active+Ageing+Index+Home

AAI METHODOLOGY

The calculation of the index for the city of Madrid has tried to replicate the methodology of the European Union in order to facilitate comparability and thus see the position where the city is located.

Data mining is one of the obstacles because not all are easily accessible, forcing us to use data surveys conducted in our city with different purposes and distinct methodologies.

Several Sources related in Table II were used to build the index.

The index suffers a lack of homogeneity in terms of the reference date for the different indicators, due, on the one hand, to the limitations of availability of the sources and, on the other one, to the attempt to approach the European AAI in order to give consistency to comparability.

We have used specific secondary data sources from Madrid: Municipal Register of Inhabitants 1.1.2017 (population register with all residents in the city) and Health Survey of the City of Madrid 2017, simple random sampling stratified by districts and post-stratification in each district by sex and age groups (8.845 interviews, 3.522 people aged 55 or older).

Primary data source (AAI City of Madrid Survey) is an interview with Computer-Assisted Telephones Interviewing system with 3.011 people over 54 years old; sample has been made considering a proportional fixation by age and sex, of resident population in February 2018. The questionnaire has tried to reproduce the original questions of the sources used in the European AAI.

Some of the sources used are household surveys, such as the LFS, the LCA or the ICT-H, whose design is oriented to obtain estimates of a higher territorial area (the Community of Madrid). So, there may be problems with sample representativeness.

Indicator about mental health has been obtained from the City Health Survey taking into account that the GHQ-12 has been applied, so that in this indicator, the comparability with the one that was elaborated in the AAI of the European Union may be relative.

Observations indicate whether the source used for the calculations is the same as the original index ('same source' green), an existing substitute source ('own source' blue) or comes from a primary source designed to calculate some indicators for which information was not available ('ad hoc source' yellow).

Table II: Sources used to build the active ageing index in the City of Madrid.

Indicator	Original source	Real source	Observations	Sample
1.1.	LFS-2016	Economically Active Population Survey (EAPS)-INE	Madrid city subsample. Annual average 2016	1.100
1.2.	LFS-2016	Economically Active Population Survey (EAPS)-INE	Madrid city subsample. Annual average 2016	
1.3.	LFS-2016	Economically Active Population Survey (EAPS)-INE	Madrid city subsample. Annual average 2016	
1.4.	LFS-2016a	Economically Active Population Survey (EAPS)-INE	Madrid city subsample. Annual average 2016	
2.1.	EQLS-2016	Survey AAI city of Madrid	March 2018	3.011
2.2.	EQLS-2016a	Survey AAI city of Madrid	March 2018	
2.3.	EQLS-2016b	Survey AAI city of Madrid	March 2018	
2.4.	EQLS-2016	Survey AAI city of Madrid	March 2018	
3.1.	EQLS-2016	Survey AAI city of Madrid	March 2018	
3.2.	SILC-2014	Survey AAI city of Madrid	March 2018	
3.3.	SILC-2014	Population register	January 1, 2017	Census
3.4	SILC-2016a	Life Conditions Survey-INE	Madrid city subsample 2016- income 2015	440
3.5.	SILC-2016	Life Conditions Survey-INE	Madrid city subsample 2016- income 2015	
3.6.	SILC-2016	Life Conditions Survey-INE	Madrid city subsample 2016- income 2015	
3.7.	ESS-2016b	Survey AAI city of Madrid	March 2018	3.011
3.8.	LFS-2016	Survey AAI city of Madrid	March 2018	
4.1.	Eurostat 2016	Population register	January 1, 2017	Census
4.2.	Eurostat 2016	Health survey of the city of Madrid + Population register	December 2017 - it applies upon 4.1.	3.522
4.3.	EQLS-2016	Health survey of the city of Madrid	2017 -own source-	
4.4.	ICT Survey 2016	TIC_H-INE	Madrid city subsample 2016- income 2017-	239
4.5.	ESS-2016a	Survey AAI city of Madrid	March 2018	3.011
4.6.	LFS-2016	Population register	January 1, 2017	Census

AAI IN MADRID: RESULTS

Regardless of the methodological differences, similarities in indicators allow us to compare our score with other cities, communities or countries, as Figure I shows.

We can consider our result as very good, as preliminary data announced. This score exceeds that of Spain as a whole and also several countries with higher punctuation than Spain.

Figure I: Comparison of the Active Ageing Index of Madrid with other European indexes.

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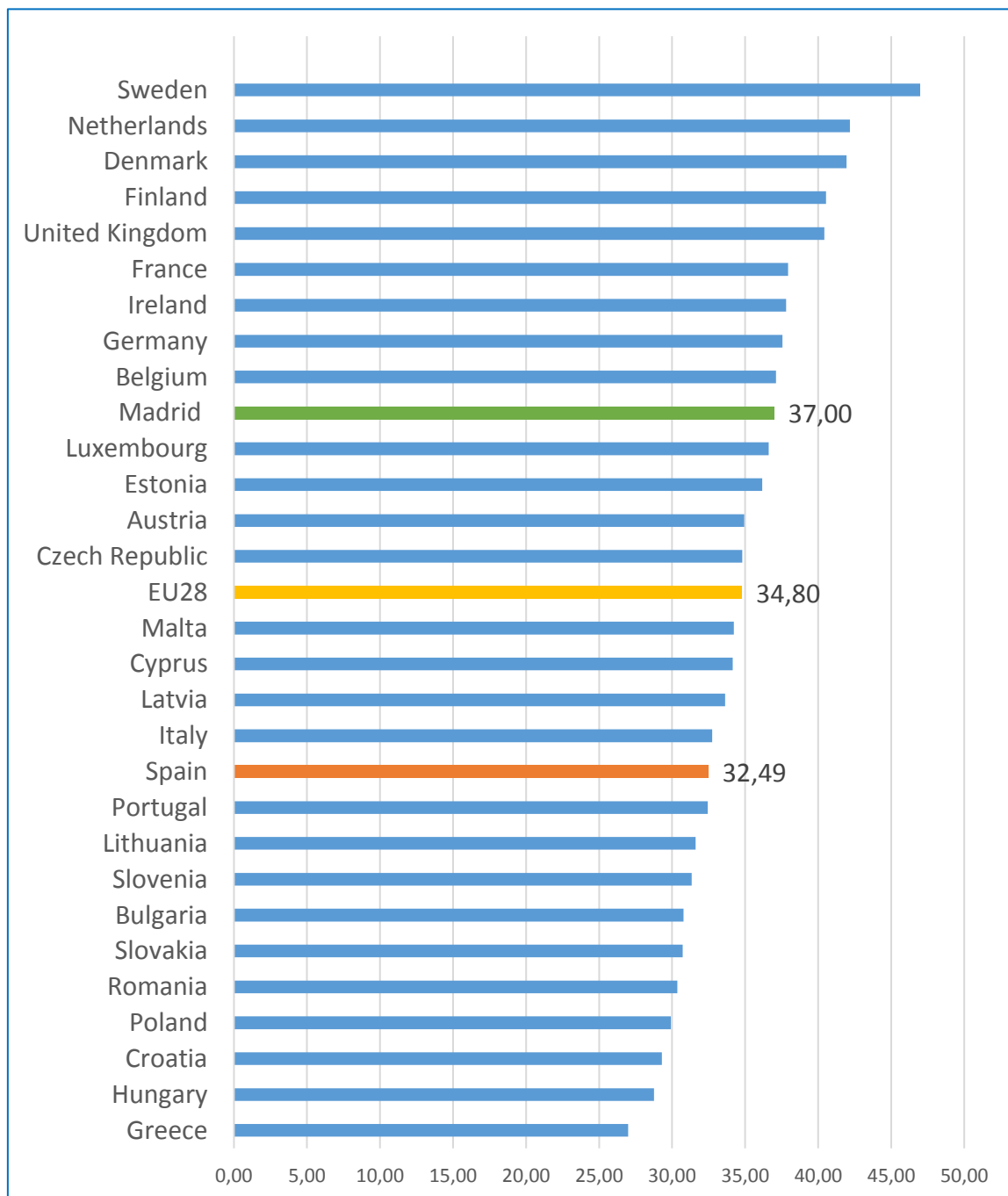T. +34 91 588 07 53
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Table III shows a comparison with the data of Spain and of the Europe of the 28 as a whole. The lowest score in domain 3 in the city is due to an increased risk of poverty and concern for security in the city. The first question can be explained by the high per capita income of Madrid and the second one may make the difference between a large city and other environments.

Table III: Comparison of data of Madrid with those of Spain and EU-28.

Both genders	1. Employment	2. Participation in society	3. Independent, healthy and secure living	4. Capacity and enabling environment for active ageing	AAI
Madrid	30,0	17,2	69,2	67,8	37,0
Spain	23,1	16,2	71,9	57,8	32,5
EU-28	29,1	18,0	71,4	55,9	34,8

As Table IV shows, women score below men in Madrid as in other places.

Table IV: Comparison of the AAI of the city of Madrid by gender.

AAI 2017 Dimension	Total	Men	Women
	37,0	38,6	35,8
1. Employment	30,0	32,9	27,6
2. Participation in society	17,2	17,6	17,0
3. Independent, healthy and secure living	69,2	72,2	67,6
4. Capacity and enabling environment for active ageing	67,8	68,8	67,2

One of the main reasons is inequality in employment, but many other issues also contribute, such as political participation, exercise, feelings of insecurity or the use of technology. We must also highlight the lower level of education of women.

On the other hand, women are more involved in care, they have more learning concerns and social relationships. They have also a greater life expectancy, although not exactly in good health.

All the indicators are in the following tables.

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Table V shows the data of the city of Madrid and the following ones (VI, VII and VIII) the comparison between Spain and the European Union.

Table V: Data of the AAI in the city of Madrid.

Dimension	Indicator	Madrid		
		Total	Men	Women
1. Employment	1.1 Employment rate 55-59	68,5	76,4	61,5
	1.2 Employment rate 60-64	41,1	42,5	39,9
	1.3 Employment rate 65-69	8,6	10,3	7,4
	1.4 Employment rate 70-74	1,9	2,6	1,5
2. Participation in society	2.1 Voluntary activities	4,4	4,3	4,5
	2.2 Care to children, grandchildren	27,4	27,2	27,6
	2.3 Care to older adults	17,7	17,5	17,9
	2.4 Political participation	19,6	22,1	17,9
3. Independent, healthy and secure living	3.1 Physical exercise	31,6	37,7	27,6
	3.2 No unmet needs of health and dental care	96,3	97,3	95,7
	3.3 Independent living arrangements	62,3	63,2	61,8
	3.4 Relative median income	93,9	97,3	95,6
	3.5 No poverty risk	89,0	93,2	86,2
	3.6 No severe material deprivation	99,5	99,1	99,8
	3.7 Physical safety	49,8	63,3	40,8
	3.8 Lifelong learning	10,5	10,0	10,9
4. Capacity and enabling environment for active ageing	4.1 RLE achievement of 50 years at age 55	64,0	58,0	69,0
	4.2 Share of healthy life years in the RLE at age 55	61,8	68,0	57,4
	4.3 Mental well-being	83,1	87,4	79,9
	4.4 Use of ICT	66,6	74,8	60,7
	4.5 Social connectedness	78,4	77,9	78,8
	4.6 Educational attainment	48,9	54,3	44,7

Table VI: Data of the AAI in the city of Madrid, Spain and EU-28.

Dimension	Indicator	Total		
		Madrid	Spain	EU-28
1. Employment	1.1 Employment rate 55-59	68,5	54,0	63,8
	1.2 Employment rate 60-64	41,1	33,0	34,7
	1.3 Employment rate 65-69	8,6	4,3	11,9
	1.4 Employment rate 70-74	1,9	1,1	6,2
2. Participation in society	2.1 Voluntary activities	4,4	3,3	8,7
	2.2 Care to children, grandchildren	27,4	34,2	26,0
	2.3 Care to older adults	17,7	17,4	18,5
	2.4 Political participation	19,6	7,8	18,7
3. Independent, healthy and secure living	3.1 Physical exercise	31,6	15,7	16,0
	3.2 No unmet needs of health and dental care	96,3	88,0	87,7
	3.3 Independent living arrangements	62,3	76,4	85,8
	3.4 Relative median income	93,9	100,0	87,8
	3.5 No poverty risk	89,0	94,7	93,4
	3.6 No severe material deprivation	99,5	97,6	91,2
	3.7 Physical safety	49,8	78,7	71,4
	3.8 Lifelong learning	10,5	3,3	4,9
4. Capacity and enabling environment for active ageing	4.1 RLE achievement of 50 years at age 55	64,0	60,0	54,6
	4.2 Share of healthy life years in the RLE at age 55	61,8	53,9	52,6
	4.3 Mental well-being	83,1	68,3	68,7
	4.4 Use of ICT	66,6	38,0	48,0
	4.5 Social connectedness	78,4	69,0	49,4
	4.6 Educational attainment	48,9	31,8	62,5

Table VII: Data of the AAI in the city of Madrid (same as table VI) in men.

Dimension	Indicator	Men		
		Madrid	Spain	EU-28
1. Employment	1.1 Employment rate 55-59	76,4	61,7	70,5
	1.2 Employment rate 60-64	42,5	38,6	41,5
	1.3 Employment rate 65-69	10,3	5,3	15,3
	1.4 Employment rate 70-74	2,6	1,4	8,6
2. Participation in society	2.1 Voluntary activities	4,3	5,1	9,5
	2.2 Care to children, grandchildren	27,2	33,8	24,7
	2.3 Care to older adults	17,5	15,2	16,3
	2.4 Political participation	22,1	10,1	21,0
3. Independent, healthy and secure living	3.1 Physical exercise	37,7	23,1	17,9
	3.2 No unmet needs of health and dental care	97,3	88,6	88,1
	3.3 Independent living arrangements	63,2	75,7	85,9
	3.4 Relative median income	97,3	100,0	91,1
	3.5 No poverty risk	93,2	96,1	94,8
	3.6 No severe material deprivation	99,1	98,1	92,7
	3.7 Physical safety	63,3	85,3	80,4
	3.8 Lifelong learning	10,0	2,6	4,2
4. Capacity and enabling environment for active ageing	4.1 RLE achievement of 50 years at age 55	58,0	55,0	49,9
	4.2 Share of healthy life years in the RLE at age 55	68,0	58,7	56,1
	4.3 Mental well-being	87,4	76,8	71,9
	4.4 Use of ICT	74,8	44,0	51,5
	4.5 Social connectedness	77,9	70,5	48,8
	4.6 Educational attainment	54,3	36,7	66,7

Table VIII: Data of the AAI in the city of Madrid (same as table VI) in women.

Dimension	Indicator	Women		
		Madrid	Spain	EU-28
1. Employment	1.1 Employment rate 55-59	61,5	46,5	57,3
	1.2 Employment rate 60-64	39,9	27,8	28,3
	1.3 Employment rate 65-69	7,4	3,4	8,9
	1.4 Employment rate 70-74	1,5	0,8	4,5
2. Participation in society	2.1 Voluntary activities	4,5	1,7	8,1
	2.2 Care to children, grandchildren	27,6	34,5	27,1
	2.3 Care to older adults	17,9	19,4	20,4
	2.4 Political participation	17,9	5,8	16,7
3. Independent, healthy and secure living	3.1 Physical exercise	27,6	9,6	14,5
	3.2 No unmet needs of health and dental care	95,7	87,5	87,4
	3.3 Independent living arrangements	61,8	76,9	85,8
	3.4 Relative median income	95,6	99,7	84,9
	3.5 No poverty risk	86,2	93,6	92,4
	3.6 No severe material deprivation	99,8	97,2	90,3
	3.7 Physical safety	40,8	72,2	63,7
	3.8 Lifelong learning	10,9	3,9	6,3
4. Capacity and enabling environment for active ageing	4.1 RLE achievement of 50 years at age 55	69,0	65,1	59,3
	4.2 Share of healthy life years in the RLE at age 55	57,4	49,0	49,1
	4.3 Mental well-being	79,9	64,8	61,6
	4.4 Use of ICT	60,7	33,0	44,8
	4.5 Social connectedness	78,8	67,4	50,2
	4.6 Educational attainment	44,7	27,4	58,7

COMMENTARY

In spite of the advantage of having a tool that allows to establish a cross-border comparison between different countries or areas, regions or cities, in order to help them to establish improvements, we need to keep in mind some issues that limit the comparability.

The first one is conceptual, because by the definitions used, the most appropriate denomination of the index may be 'index of participation' or an 'index of sustainability related to population ageing'.

A significant fact is the weights granted to formal labour market and other productive activities, such as care of family or volunteering, and it is surprising that only one of the index items could be linked to people who need care. Indeed there are not items directly associated with social protection.

It is also important to recognize that high scores on the Active Ageing Index do not necessarily imply a high degree of well-being in older population. The normative value judgement of 'the higher the better' should not be applied.

Two examples are useful to demonstrate these: care provision and employment. A high rate of familiar care provision should not be viewed as positive when a lack of public resources exists. Moreover, high levels of care provided by family members are characteristic of societies with lack of public care services. Also, we can emphasise that a high figure of employment rate after the normal retirement age might indicate a positive climate towards the employment of older people but, in some areas, the extension of paid work is merely a reflection of insufficient pensions.

Another interesting point is that the social context is not taken into account. The index positively considers living alone or as a couple. This leads to think that a Nordic family model is better than a Mediterranean one. This fact, only by itself, little contributes to the concept of active ageing. It may be more correct to ask whether the type of coexistence has been chosen or imposed by personal or family circumstances.

Another important consideration is purely methodological. There are a number of indicators that have the lower limit of age in 55, but are not bounded above. Age range width is very important because it can be assumed that many of the activities measured can have less representation in older people. The younger pyramids of population are in advantage.

Maybe we need to introduce a correction factor connected with demographic pattern. In this case, Madrid, a city with one of the highest life expectancy of the world, will increase their rate.

Because of that, we are wondering if it is possible to suggest to the expert group the use of a correction factor related to demographic pattern and also the inclusion of several indicators of social protection and services.

These reflections, as a result of the construction of the index, lead us to question their usefulness in the evaluation of the measures implemented in our city because of the plan. And also, to what extent it may work as internal comparator.

It can be difficult to modify AAI introducing our measures, we know. We think that the AAI can only give a broad picture of outcomes. It can't replace other kind of evaluation of individual policies and projects.

On the other hand, the framework for the Action Plan 2017-2019 revolves around the Paradigm of Active Ageing, following WHO definition that focuses on other domains.

The word 'active' refers to continuing participation in social, economic, cultural, spiritual and civic affairs, not just the ability to be physically active or to participate in the labour market.

In any case, the index construction, as well as the joining of Madrid to the network, has been an opportunity to sensitize technicians and leaders about older people importance. Both bring a strong encouragement to keep on working with and for citizens. We can't forget that an age-friendly city is not only 'friendly with older citizens' but with all citizens, regardless of their age, gender, needs or capabilities.

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