# ASTAHG ALPINE SPACE TRANSNATIONAL GOVERNANCE ON ACTIVE AND HEALTHY AGEING

## REPORT ON AHA IMPACT EVALUATION METRICS

D.T2.2.1

Vienna, July 2020

**WP T2**

**PARTNERS**

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**ASTAHG I Project Partners**

FVG | Autonomous Region Friuli Venezia Giulia (Italy, Lead Partner)
AREA | Area Science Park (Italy)
PAT | Autonomous Province of Trento (Italy)
AULSS1 | Local Health Authority n.1 Dolomiti (Italy)
PLUS | Centre for Ethics and Poverty Research at University of Salzburg (Austria)
European Centre | European Centre for Social Welfare Policy and Research (Austria)
PSP PACA | Professional network of home care service providers in Provence-Alpes-Côte-d'Azur (France)
NIJZ | National Institute of Public Health (Slovenia)
GINA | Geneva International Network on Ageing (Switzerland)

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**More information on the project:**

https://www.alpine-space.eu/projects/astahg

# Content

# FIGURES

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# LIST OF ACRONYMS

| | |
|---|---|
| AAF | Active Ageing Framework |
| AAI | Active Ageing Index |
| AFC | Age Friendly City Framework |
| AFCI | Age-friendly cities indicators |
| AFEE | Age-friendly environments in Europe |
| AFE-INNOVNET | Network on Innovation for Age-Friendly Environments |
| AHA | Active and Healthy Ageing |
| AS | Alpine Space |
| ASTAHG | Alpine Space Transnational Governance of Active and Healthy Ageing |
| EHLEIS | European Health and Life Expectancy Information System |
| EIP on AHA | European Innovation Partnership on Active and Healthy Ageing |
| EQLS | European Quality of Life Survey |
| EU-LFS | European Union Labour Force Survey |
| EUSALP | EU Strategy for the Alpine Region |
| EU-SILC | European Statistics on Income and Living Conditions |
| EY2012 | European Year2012 (for Active Ageing and Solidarity between Generations) |
| GAWI | Global AgeWatch Index |
| ICT | Information and Communication Technology |
| MAFEIP | Monitoring and Assessment Framework for the European Innovation Partnership on Active and Healthy Ageing |
| MCDA | Multicriteria Decision Analysis |
| MIPAA | Madrid International Plan of Action on Ageing |
| MoU | Memorandum of Understanding |
| OECD | Organisation for Economic Co-operation and Development |
| SAGE | Study on global AGEing and adult health |
| SHARE | Survey of Health, Ageing and Retirement in Europe |
| SoSe | Social Planning for Senior Citizens |

| | |
|---|---|
| TGB | Transnational Governance Board |
| UN | United Nations |
| UNECE | United Nations Economic Commission for Europe |
| WHO | World Health Organisation |
| WP | Work package |

# 1 INTRODUCTION

Demographic change constitutes a major societal challenge in most industrialised countries that requires combined efforts from different stakeholders, including public authorities, industry, academia and civil society across policy areas to support Active and Healthy Ageing (AHA) (e.g. Rechel et. al., 2013; WHO, 2002; 2013). This challenge is amplified in the Alpine Space (AS) region by its distinctive characteristics, including considerable regional variation both in demographic change and population growth projections, ultimately calling for tailored interventions to foster Active and Healthy Ageing (AHA). In addition to that, the AS area is composed of regions that belong to different countries which, thus far, has limited the scope for trans-regional and transnational cooperation to tackle the ageing challenge. Further, AHA policies are often restricted to a few areas of public service provision, such as healthcare and welfare authorities. Potential synergies from cooperation across sectors, for instance, cultural, economic or housing policies, are thus often neglected (WHO, 2012; 2013; 2017; OECD, 2015).

## 1.1 THE ASTAHG-PROJECT AT A GLANCE

The Alpine Space Transnational Governance of Active and Healthy Ageing (ASTAHG) project aims to tackle this challenge by following a *multisectoral, transnational, and multilevel* approach to improve AHA in the AS. It is *multisectoral* as it aims to facilitate innovation across sectors, such as social care, healthcare, long term care, independent living, mobility and transport, as well as culture and tourism; and it follows a *transnational* approach as it brings together stakeholders from different regions of the AS to exchange experiences, ideas and innovations, streamline strategies to address

the ageing challenge and to share knowledge and best practices across geographically and/or politically defined contexts. The project's *multilevel* approach aims at cooperation between stakeholders on local, regional, and national level to identify, implement, evaluate and improve upon successful AHA policies and to harvest potential synergies through efficient cooperation along all stages of the policy cycle.

The overall objective of the project is to improve capacities and coordinating efforts in support of AHA between sectors and different levels, and to respond with tailored initiatives to AS territorial needs. It aspires to enhance governance capacities related to regional AHA policies, foster the transfer of innovation for AHA in the AS, and to develop a social innovation framework for generating and adopting innovative solutions for AHA involving both public and private actors (ASTAHG, 2018). To achieve these objectives, ASTAHG will establish a *Transnational Governance Board* (TGB) for AHA to bring policy makers and other stakeholders in the AS together, to develop a network, and to foster the exchange of successful AHA policies, initiatives and innovations. The TGB is defined as '*an open network and the participation of members is free of charge and voluntarily*' (MoU, 2019). Whilst all ASTAHG partners are founding members of the TGB (Managing Committee), other interested organisations and stakeholders may apply to join at any time. (MoU, 2019). The TGBs main objective is '*to promote an 'age-friendly' Alpine Space Area creating synergies between interested stakeholders and governance levels and helping the Alpine Space local, regional and national authorities and other stakeholders to collaborate in promoting innovative solutions that address the needs of the ageing population'* (MoU, 2019).

To this end, ASTAHG will also develop a portfolio of good practices in AHA governance and establish an AHA innovation observatory which classifies AHA initiatives and solutions with context and efficiency indicators (ASTAHG, 2018). A framework for AHA

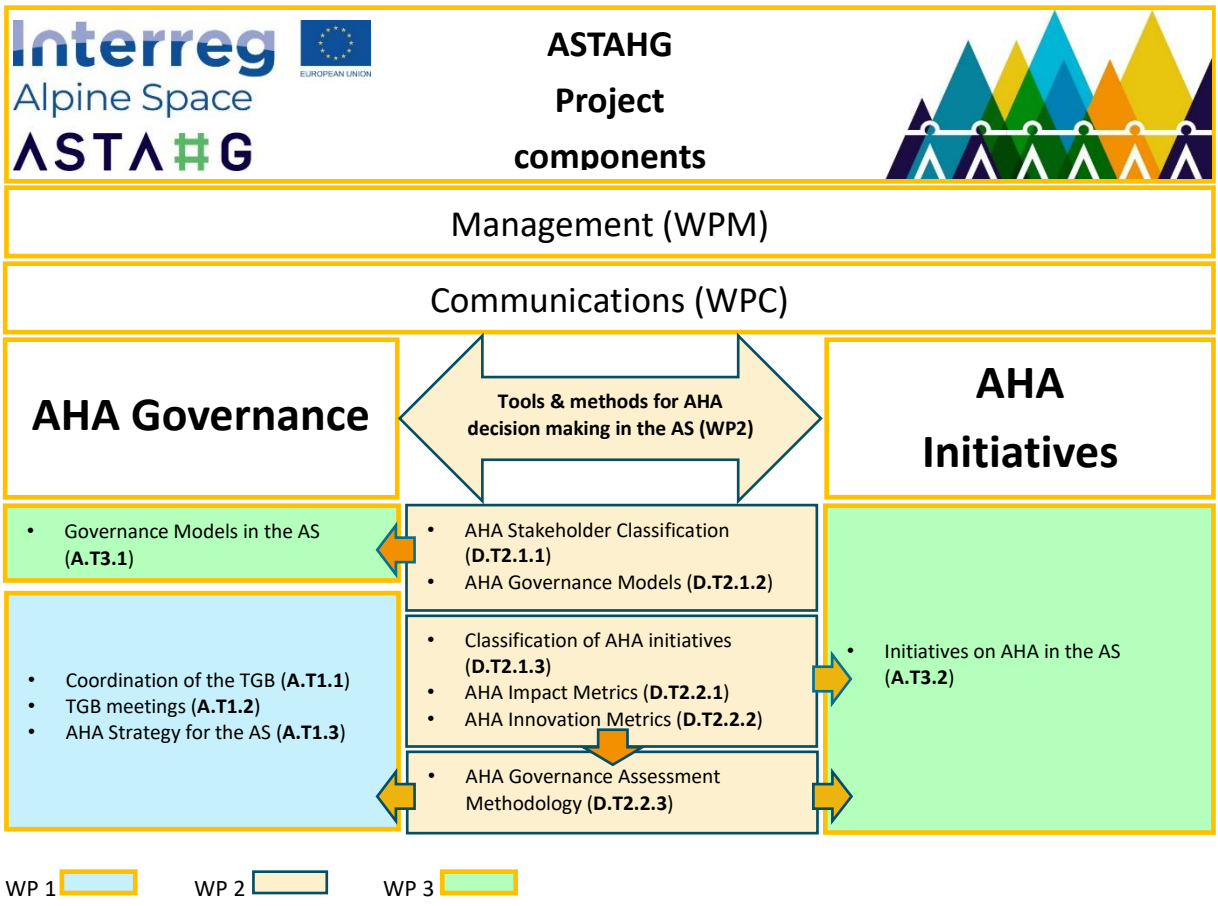
innovation based on the Quadruple Helix model (Carayannis & Campbell, 2009) will foster collaboration between different actors from local, regional and national governance, industry, as well as academia and civil society (ASTAHG, 2018). ASTAHG will also align its efforts and results with the EU Strategy for the Alpine Region (EUSALP) so to further enhance the level of transnational governance throughout the AS.

The ASTAHG project has been designed in several Work Packages (WPs), each of which contributes towards the common aim and objectives (Figure 1). Horizontal activities are concentrated in WPM (Management) and WPC (Communication). Whilst WPM is concerned with overall project management and ensures sound and smooth project implementation, internal communication between partners and with the funding organisation, WPC is dedicated to the development and execution of an efficient communication strategy, engagement with Quadruple-Helix actors in the TGB; exchange with other AHA initiatives, in particular EUSALP; dissemination of project outcomes as well as engagement with AHA stakeholders and a wider public audience.

WPs 1 to 3 are concerned with project implementation. In this context, WP1 aims to establish and manage the TGB that will be composed of public and private actors, pertaining to different levels (regional/local) and sectors as well as representing AS territorial characteristics (ASTAHG, 2018). The TGB is organised in different thematic groups and meets regularly in order to share experiences, knowledge and expertise and to develop a sustainable AHA strategy for the AS based on intersectoral, transnational and multilevel cooperation. The activities in WP1 range from the coordination of the TGB (A.T1.1) to the organisation of regular TGB meetings (A.T1.2) and to develop an AHA strategy for the AS (A.T1.3).

WP2 develops and provides tools and methods for the project, in particular a classification of AHA stakeholders (D.T2.1.1), a model for AHA governance in the AS (D.T2.1.2), a classification of AHA initiatives (D.T2.1.3), as well as AHA impact evaluation metrics (D.T2.2.1, this report), AHA innovation evaluation metrics (D.T2.2.2) and an AHA governance assessment methodology (D.T2.2.3). WP3 is concerned with the application and use of tools and methods developed in WP2: data gathering and analysis of AHA governance models (A.T3.1) and the identification and monitoring of innovation in AHA in the AS (A.T3.2).

***Figure 1: Components of the ASTAHG project and WP2 in context***



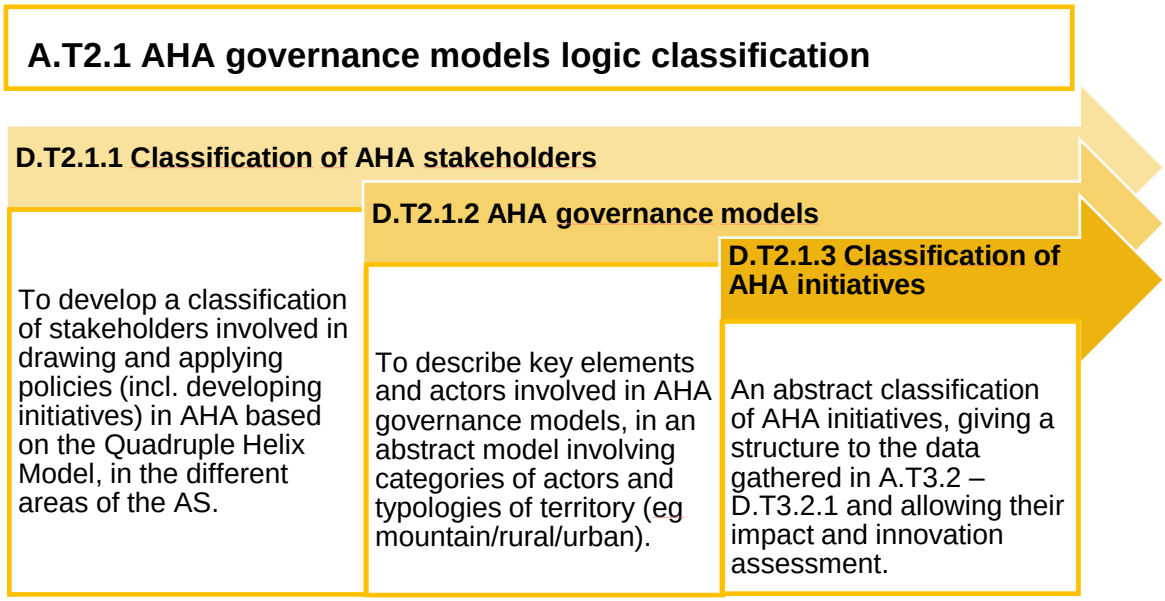

*Source: Own drawing based on ASTAHG (2018).*

## 1.2 CONTRIBUTION OF WORK PACKAGE 2

As depicted in Figure 1 above, the overall aim of WP2 is to provide tools and methods for the ASTAHG project to bridge the gap between AHA governance and AHA innovations and to enable efficient AHA decision making in the AS. WP2 thereby aims at supporting activities both in the context of implementing a Transnational Governance Board (WP1) as well as activities in WP3, which will gather data and information on AHA initiatives and governance models in the AS. Whilst deliverables D.T2.1.1 (AHA stakeholder classification) and D.T2.1.2 (AHA governance models) play a particular important role in the conceptualisation, design, and composition of the TGB by contributing both theoretical models and structuring the space of relevant stakeholders in accordance with the Quadruple Helix Model (Carayannis & Campbell, 2009), they also provide tools for WP3 to collect context specific data on relevant AHA actors and governance models prevalent in the AS region. Deliverable D.T2.1.3 (classification of AHA initiatives), on the other hand, is more concerned with developing a tool to gather information on policies, initiatives and innovations which aim at improving Active and Healthy Ageing in the AS. This tool will, in turn, provide a framework for WP3 to collect and analyse relevant information from each project region, and help structuring the evidence on cross-sectorial AHA policies, initiatives, and innovations which may have the potential to:

- support AHA of the population in the respective project regions
- improve the sustainability of social, health and care systems, as well as other areas of public service provision, and
- contribute towards the competitiveness of local economies by encouraging innovation for AHA in the AS.

*Figure 2: Deliverables in Activity T2.1 - AHA governance logic classification*

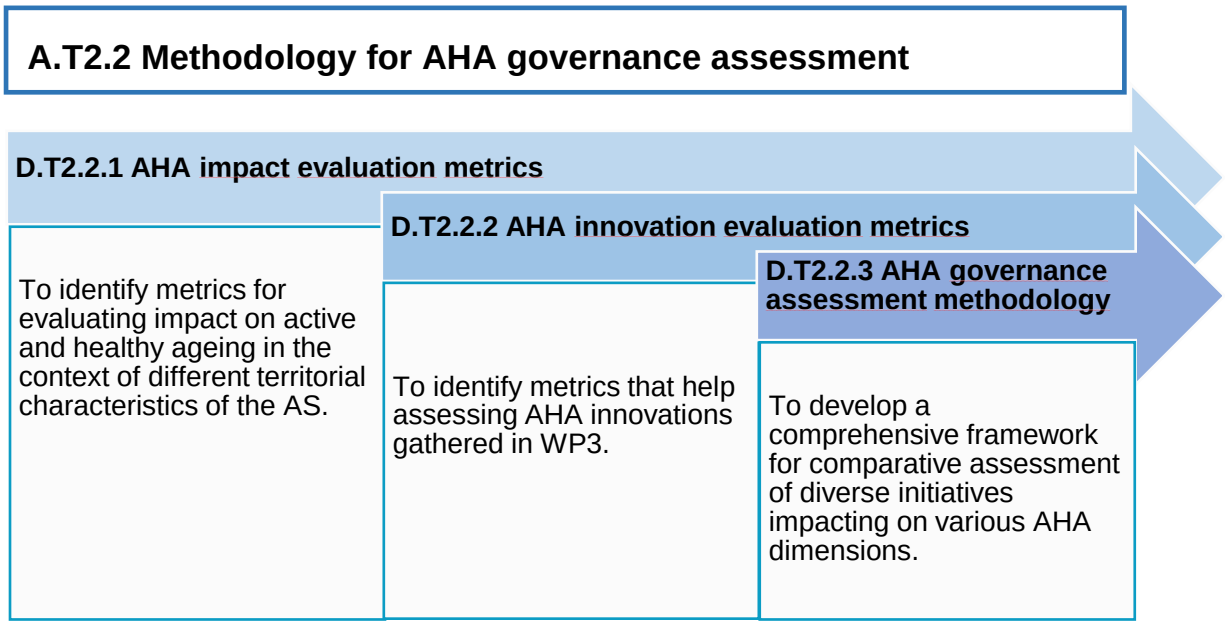



*Source: Own drawing based on ASTAHG (2018).*

Activities in A.T2.2 (Methodology for AHA governance assessment, Figure 3), are concerned with developing tools and methods for efficient cross-sectorial AHA decision making in the AS. In this context, Deliverable D.T2.2.1 (AHA impact evaluation metrics, this report) gathers indicators that may help quantifying the impact of AHA policies, initiatives and innovations on various dimensions of AHA with the aim to support decision makers identifying promising AHA interventions in their respective contexts. To better understand the innovative character of AHA policies, initiatives and innovations, deliverable D.T2.2.2 further proposes how to identify innovation evaluation metrics from the long-list of indicators gathered in Deliverable D.T2.2.1, whilst both deliverables ultimately feed into the development of an AHA governance assessment methodology (deliverable D.T2.2.3). The latter is based on the concept of multicriteria decision analysis (MCDA) and will help decision makers in prioritising amongst policy alternatives that may all lead to various favourable effects across relevant sectors but generally compete for limited resources. The three deliverables

also form the basis for data collection and analysis in WP3, with the ultimate aim to identify and monitor innovation in AHA in the AS through the development of an AHA innovation observatory.

***Figure 3: Deliverables in Activity T2.2 - Methodology for AHA governance assessment***




*Source: Own drawing based on ASTAHG (2018).*

## 1.3 AIM AND STRUCTURE OF THIS REPORT

This report (D.T2.2.1) summarizes the work carried out to identify and classify AHA impact evaluation metrics for:

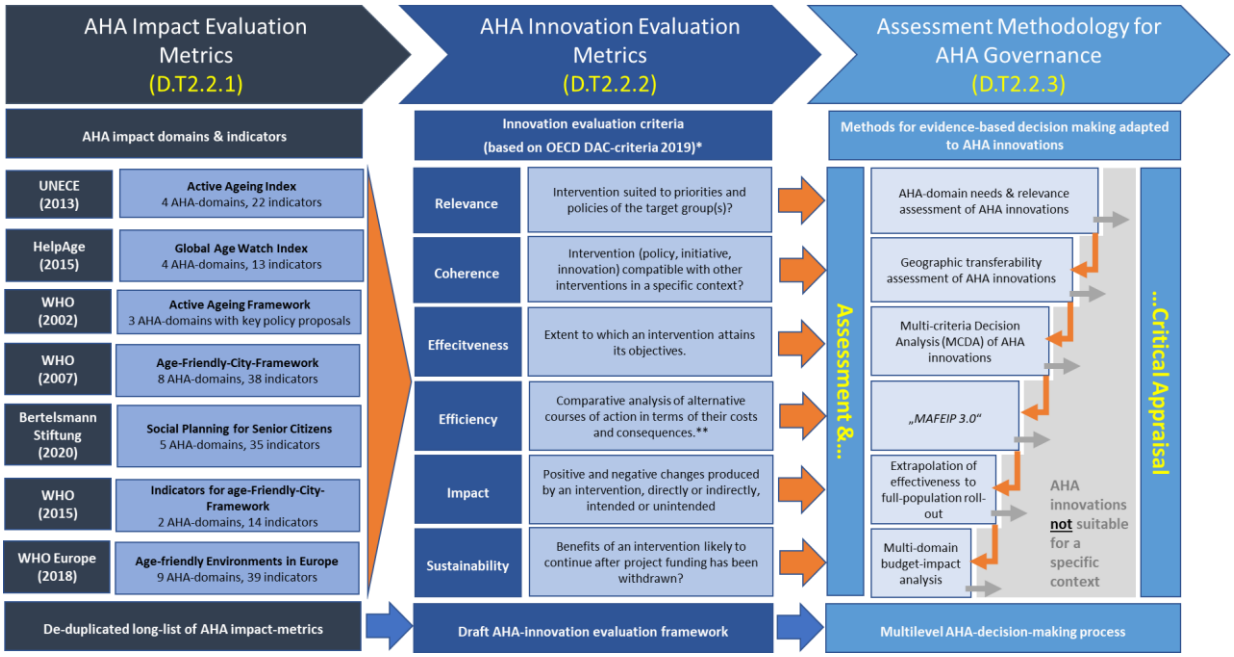
- Providing a long-list of potential indicators that may be relevant for multi criteria decision analysis of AHA innovations

- assessing the outcomes of various cross-sectorial AHA policies, initiatives and innovations with multiple and diverse effects on their respective target groups;
- Supporting the development of a comprehensive governance assessment framework to inform cross-sectoral decision making for AHA innovation (Deliverable D.T2.2.3)

Whilst evidence based decision making is a well-established process in some areas of public policy making (such as healthcare), there is still ambiguity as to how to prioritise innovations which are competing for limited public resources across traditional silos of governance, especially when innovations are likely to yield diverse (and sometimes perhaps even conflicting) outcomes. Nevertheless, it is important for AHA-stakeholders to engage in a transparent process so to identify innovations that provide not just good value for money, but are also tailored to the needs and preferences of the population in their respective target settings. This requires development of a comprehensive governance assessment methodology that rests on the principles of multi criteria decision analysis (MCDA).

An important step towards such a governance assessment framework, however, is to identify relevant AHA indicators and domains along which multiple, diverse and sometimes perhaps even conflicting outcomes of AHA innovations can be measured. There is a growing body of literature on tools and methods to assess the status quo and/or improvement of AHA in different geographical contexts, and various policy frameworks have been developed with the aim to operationalise the multidimensional concept of AHA through measurable indicators. This body of literature provides the starting point for a pragmatic review exercise with the aim to identify, de-duplicate, and categorise potentially relevant AHA indicators and to provide a long-list of impact evaluation metrics to feed into the ASTAHG governance assessment methodology.

***Figure 4: Relationship between deliverables D.T2.2.1, D.T2.2.2 and D.T2.2.3***




*Sources: Own drawing based on OECD 2002 & OECD 2019. **Drummond et al., 2005.*

Indeed, this report can be regarded as the first of three pillars upon which the ASTAHG governance assessment methodology is based (Figure 4). The following chapter reports on the methods used to identify, categorise and prioritise domains and indicators for AHA based on a pragmatic desk review of existing multidimensional AHA policy frameworks, tools, and methods. Results are then presented in Chapter 3, starting with a description of existing policy frameworks, and followed by a synthesis of identified AHA-domains and indicators within a long-list of potential AHA impact evaluation metrics. The discussion provides a brief summary on how impact evaluation metrics feed into the overall ASTAHG governance assessment methodology, and how Deliverables D.T2.2.2 (AHA innovation evaluation metrics) and Deliverable D.T2.2.3 (AHA governance assessment methodology) connect with this report.

# 2 METHODS

Impact evaluation metrics for the ASTAHG project were elicited from existing policy frameworks that aim to operationalise AHA using measurable indicators. In order to identify frameworks, we conducted a pragmatic desk review. From the literature identified, we abstracted AHA indicators and domains, together with information on potential data sources and methods of analysis. If applicable, we also took note of weight elicitation methods for the construction of composite indicators. AHA indicators and domains were subsequently de-duplicated and arranged within a novel framework using content analytic methods.

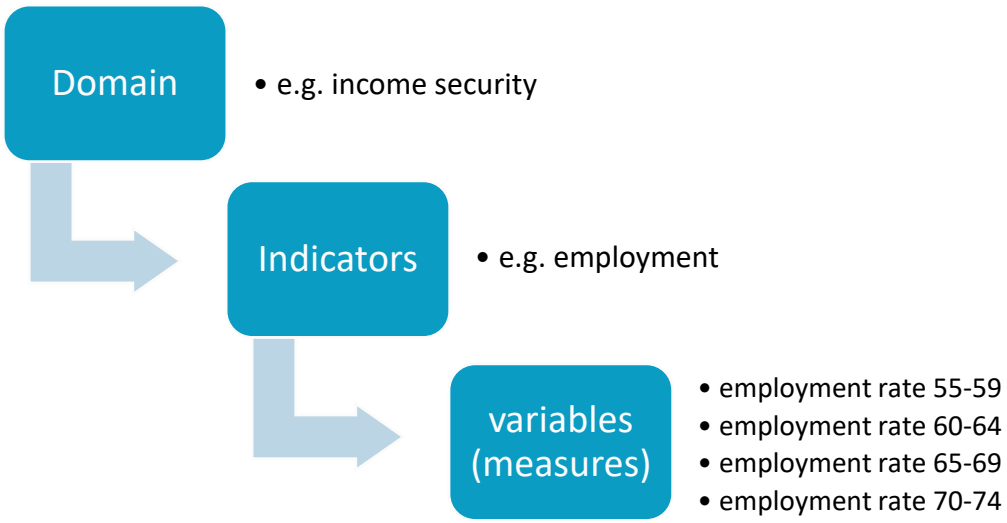
The pragmatic desk review was conducted within a two-step process. First, we gathered information from project partners on existing AHA policy frameworks they are aware of, such as the Active Ageing Index (AAI) or the Global Age Watch Index (GAWI). We then followed up relevant literature using a pragmatic search strategy, essentially tracing citations and identifying additional literature through keyword searches in relevant databases. Relevant publications were then retrieved and reviewed in full text, and information on respective AHA domains and indicators were abstracted using a data abstraction form implemented in MS Excel.

The resulting database of AHA domains and indicators was then de-duplicated before we used a content-analytic approach to identify groups of indicators and categorise them in respective impact domains. This can best be described as an iterative process of grouping indicators, building categories, and regrouping them. If there were significant overlaps or problems assigning indicators to domains, we developed new domains and repeated the process until a comprehensive set of domains and indicators within them emerged. As a result, we obtained an indicator system with mutually

exclusive domains that also accord broadly with sectors of public policy making involved in AHA.

Within each AHA domain emerging from the process described above, we subsequently grouped similar indicators identified from different policy frameworks and highlighted those for which the literature provides clear variable definitions, as for some indicators, sources only provided recommendations for action, but no variable definitions or clear data sources. If similar indicators were sourced from different AHA policy frameworks but they varied in terms of their respective variable definitions, we generally kept those indicators for which variables were defined on a more disaggregated level. The resulting framework consists of three levels: AHA domains, indicators and variables (Figure 5).

***Figure 5: ASTAHG domains, indicators and variables (example)***

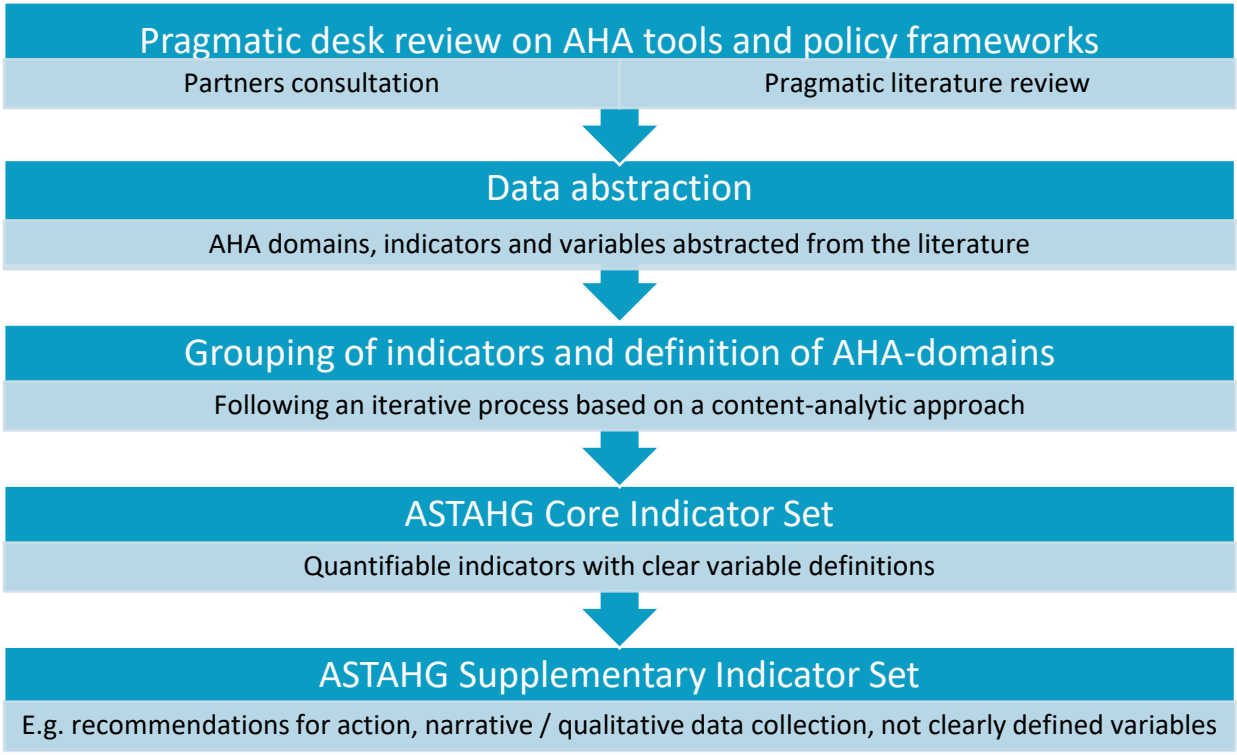



*Source: Own drawing based on Zaidi et al (2013, p. 8).*

We thereby divided the space of potentially relevant indicators into a core indicator set (for which quantifiable variables have been defined) and a supplementary indicator set, which consists of non-quantifiable indicators and/or those that rely on narrative /

qualitative data but still encode important aspects of active and healthy ageing. The **ASTAHG Core Indicator Set** provides the primary reference point for innovation assessment (as further described in deliverables D.T2.2.2 and D.T2.2.3). **ASTAHG Supplementary Indicators,** on the other hand, may be useful for innovation assessment at local level, and stakeholders may decide to use subgroups of indicators as they see fit to complement their respective assessment activities. The methods used for developing AHA impact evaluation metrics are also summarized in Figure 6Figure 6 below.

***Figure 6: Methods for identifying ASTAHG impact evaluation metrics***




*Source: Own drawing.*

# 3 RESULTS

This chapter first presents the AHA tools and policy frameworks identified through the pragmatic desk review exercise described above. After that, the ASTAHG impact evaluation metrics framework is presented with its respective indicators grouped in AHA domains and divided into a set of AHA core indicators and supplementary AHA indicators.

## 3.1 AHA TOOLS AND FRAMEWORKS

Through the pragmatic desk review, we identified 7 unique tools and policy frameworks which operationalise AHA and provide information on potential AHA domains, indicators and variables. These are:

- Active Ageing Framework (AAF, WHO);
- Active Ageing Index (AAI, UNECE);
- Global Age-Watch Index (GAWI, HelpAge International);
- Age Friendly City Index (AFC, WHO);
- Tool for Social Planning for Senior Citizens (SoSe, Bertelsmann Stiftung),
- Measuring the age-friendliness of cities (AFCI, WHO); and
- Age-friendly environments in Europe (AFEE, WHO)

The AHA domains within which these frameworks group respective indicators are summarized in Figure 7 below.

*Figure 7: AHA tools and frameworks / overview*

| | |
|---|---|
| WHO | **Active Ageing Framework (AAF)**<br>• Health<br>• Participation<br>• Security |
| UNECE | **Active Ageing Index (AAI)**<br>• Employment<br>• Participation in Society<br>• Independent, Healthy and Secure Living<br>• Capacity and Enabling Environment for Active Ageing |
| HelpAge International | **Global AgeWatch Index (GAWI)**<br>• Income security<br>• Health status<br>• Employment and Education<br>• Enabling Environment |
| WHO | **Age Friendly City Framework (AFC)**<br>• Outdoor Spaces and Buildings<br>• Transportation<br>• Housing<br>• Social Participation<br>• Respect and Social Inclusion<br>• Civic Participation and Employment<br>• Communication and Information<br>• Community and Health Service |
| Bertelsmann Stiftung | **Social Planning for Senior Citicens (SoSe)**<br>• Demographic and Socio-structural Data<br>• Participation and Civic Engagement<br>• Housing and Lifestyle<br>• Education and Culture<br>• Health and Care |
| WHO | **Measuring the age-friendlyness of cities (AFCI)**<br>•Accessability of the physical environment<br>•Inclusiveness of the social environment |
| WHO | **Age-friendly envirnoments in Europe (AFEE)**<br>•Outdoor environments<br>•Transport and mobility<br>•Housing<br>•Social participation<br>•Social inclusion and non-discrimination<br>•Civic engagement and employment<br>•Communication and information<br>•Comunity and health services<br>•Health and well-being of older people |

*Source: Own drawing based on WHO (2002), UNECE (2019), Zaidi et al (2013), Mihnovits et al (2015), WHO (2007), Bertelsmann Stiftung (2020), WHO (2015) and WHO Europe (2018).*

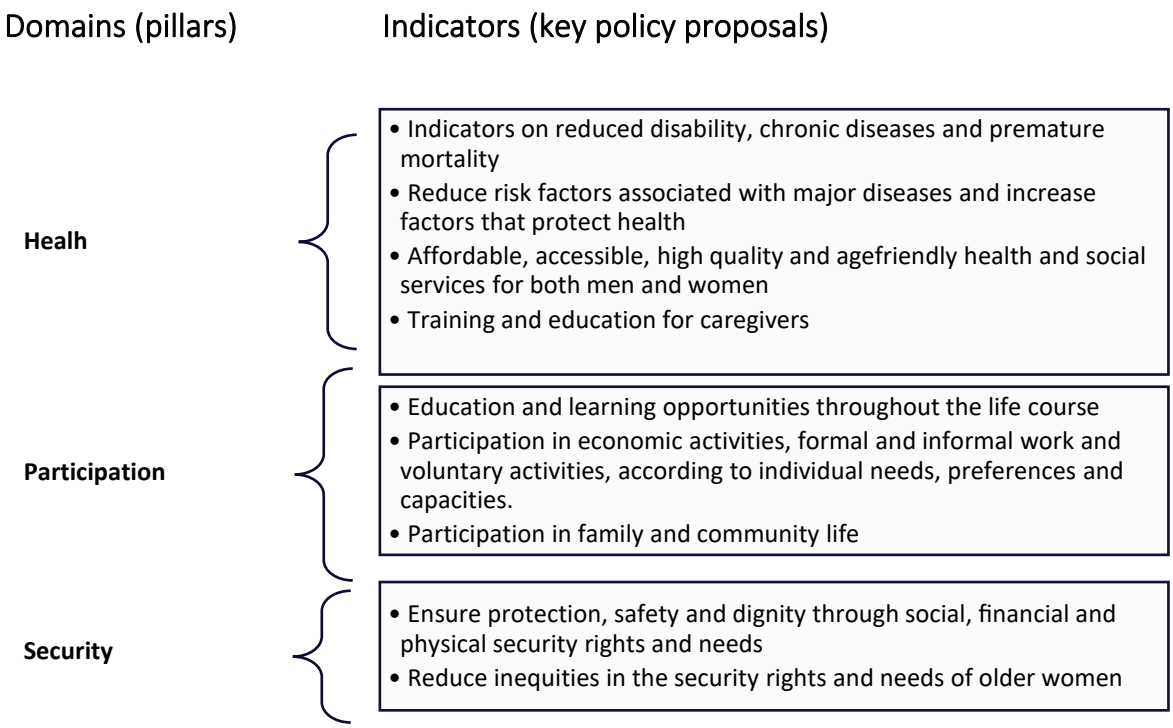
### 3.1.1 Active Ageing Framework (AAF)

The WHO Active Ageing Framework (AAF) is built upon the UN principles of "*independence, participation, dignity, care and self-fulfilment*" and focuses on the recognition and promotion of equal opportunities and equal treatment in all areas of life (WHO, 2002, p.13). AHA is defined as "*the process of optimizing opportunities for health, participation and security in order to enhance quality of life as people age"* (WHO, 2002, p.12). Respectively, AHA innovations should address healthy options and living conditions during the entire life course (WHO, 2002).

The AAF describes determinants of AHA operating at different levels; each can play an individual role and they can mutually interact. AHA is defined by personal, physical, behavioural, social and economic determinants as well as determinants of the health and social services systems (WHO, 2002, p.19). The AAF therefore underlines the importance of cross-sectoral actions, the consideration of marginalised groups, special conditions in rural areas, and it emphasizes that age-friendly policies should benefit not only the older persons but rather everyone. The framework places special attention to issues such as equity and equal opportunities regardless of age, and it also recognises 'cross-cutting determinants' such as culture and gender (WHO, 2002).

According to the AAF, the determinants of AHA shape three pillars of policy actions: health, participation, and security (WHO, 2002). A per-domain set of indicators operationalised through nine key policy proposals was developed to measure policy progress. These key proposals indicate possible fields of action for decision-makers, and even though the framework does not provide concrete, measurable variables, its pillars and key policy proposals provide invaluable input to the ASTAHG AHA impact evaluation metrics (Figure 8).

***Figure 8: AAF - domains and indicators***




*Source: Own drawing based on WHO (2002, p. 47-53).*

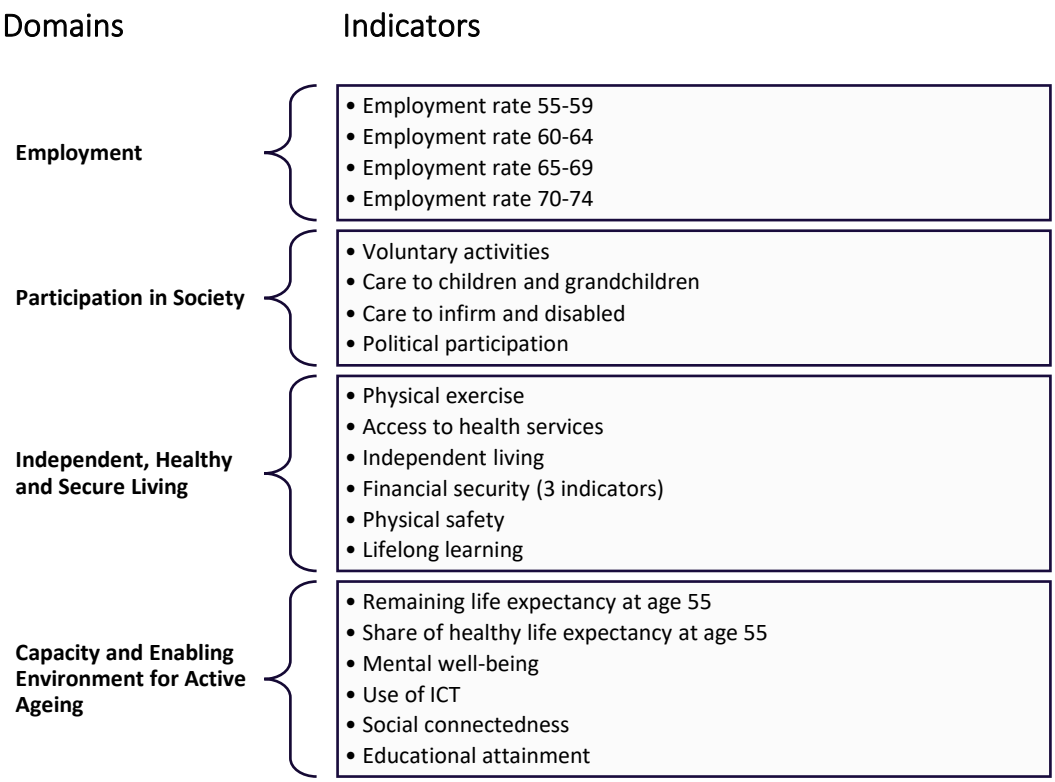
### 3.1.2 Active Ageing Index (AAI)

The Active Ageing Index (Zaidi et al, 2013) is a composite indicator which consists of four domains with 22 measurable indicators. Its development was stipulated by the European Year for Active Ageing and Solidarity between Generations (EY2012). The tool is based upon the WHO (2002) definition of AHA and it bridges between the Madrid International Plan of Action on Ageing (MIPAA) and the UNECE Regional Implementation Strategy of the MIPPA.

An advantage of the AAI is that its indicators feed from internationally comparable statistics, ensuring high comparability between the EU27. However, since its launch, the AAI has evolved also towards countries outside the EU and to measure AHA not just on national, but also at subnational (regional and local) levels.

The four AHA domains with its 22 indicators are depicted in Figure 9. Besides clearly defined variables and indicators, the AAI-framework also provides guidance on the selection of data from sources such as the EU-LFS 2010, EQLS 2011, SILC 2010 or EHLEIS (UNECE, 2019). However, the AAI has also been criticised, for instance because of the static expert-based weights upon which the composite AAI score is built (e.g. Boehler et al., 2018). According to Boehler et al. (2018), weights for the AAI should reflect stakeholder preferences and potential trade-offs between indicators, and they should adjust with the level of achievement along each indicator, reflecting diminishing marginal utility from further efforts to improve scores of a particular indicator.

***Figure 9: AAI - domains and indicators***




*Source: Own drawing based on UNECE (2019).*

The AAI does not rely on process indicators or descriptive information and when constructing the instrument, particular attention was placed on the future availability of data to ensure that, besides cross-national comparison, tendencies over time may also be monitored with the instrument (Zaidi et al, 2013). AAI indicators only take into account spatial relativity, but the instrument does not take a life course perspective. Thus, it may be used to assess the current situation of the older population, but not to evaluate possible effects of the current situation on future older generations. Finally, all indicators are also stratified by gender so to enable gender-specific evaluation (Zaidi et al, 2013).

The literature also provides examples for subnational adaptation of the AAI framework. In this context, some of the recurring challenges refer to the availability of data on local or regional level, and / or problems in retrieving gender-specific data, therefore variables often have to be replaced or filled with national-level data. (Karpinska/Dykstra, 2015; Rodriguez-Rodriguez et al, 2017). For data collection, Zaidi et al (2013) illustrate the importance of data quality and that the data need to meet statistical quality criteria (such as accuracy, reliability and validity). Furthermore, they underline the advantage of access to micro-data during data collection.

### 3.1.3 Global AgeWatch Index (GAWI)

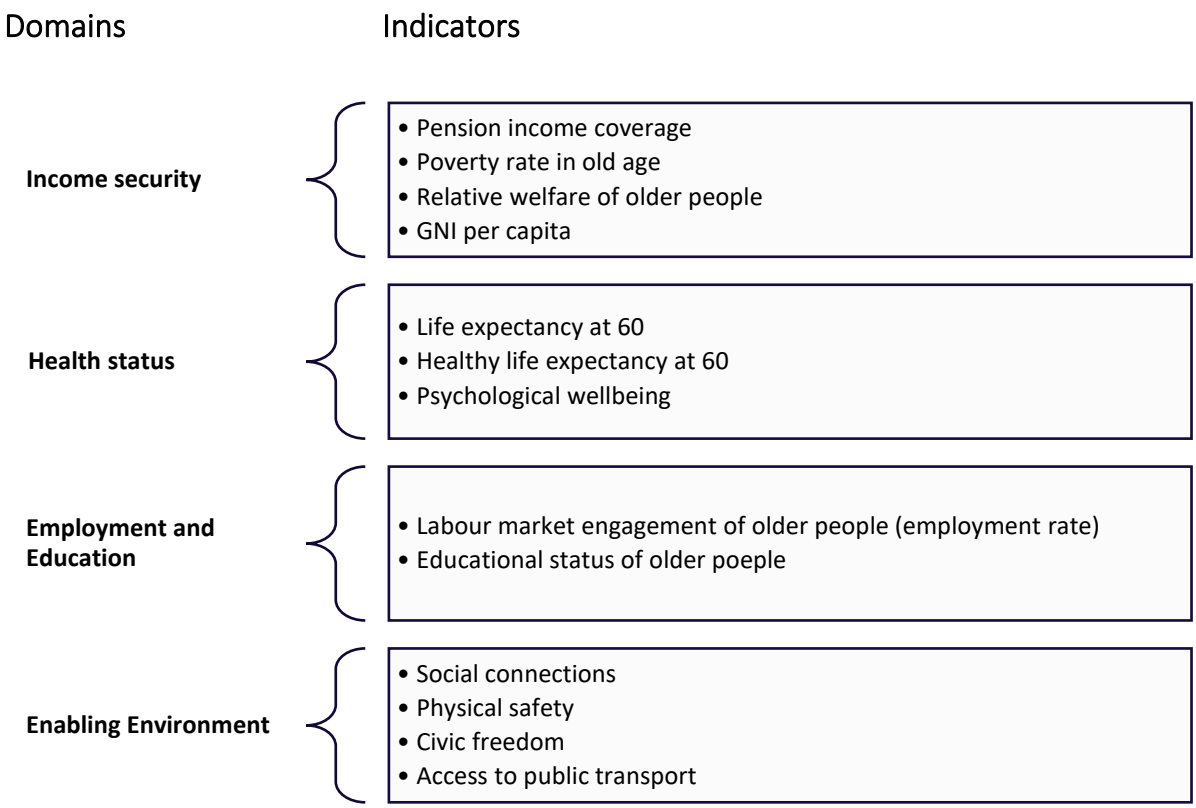
The Global AgeWatch Index (GAWI) forms part of the HelpAge International's Global AgeWatch Programme and according to Zaidi (2013, p.4), it provides "*the first analytical framework that uses the latest comparative and quantitative data available internationally to measure and monitor key aspects of the economic and social wellbeing of older people globally.*"

The instrument aims to promote AHA policies and initiatives and to improve the "*quality of life and well-being"* of older people today and in the future through comparable data on AHA to support policy-making (Zaidi, 2013, p.5). The instrument follows a multi-dimensional approach based on the AAI methodology adapted for global application through the use of comparable and internationally available data (Zaidi, 2013).

The conceptual development of the GAWI was based on approaches to measure the well-being of older people, with reference to Amartya Sen's capability approach and based upon the AAI framework (Zaidi, 2013; Mihnovits/Zaidi, 2015). The framework consists of four AHA domains: income security, health status, employment, as well as education and enabling environment (Figure 10). Each domain is equipped with a set of measurable indicators, and the framework provides guidance on objectives, definition and data source (Mihnovits/Zaidi, 2015). Data collection is based on internationally comparable and publicly available data sets, e.g. from the World Bank or the WHO (Mihnovits/Zaidi, 2015; Zaidi, 2013).

Zaidi (2013) highlights that, whilst the index may be useful to indicate the potentials and constraints of policies and initiatives, it cannot be used to decide upon which policies and initiatives are actually needed. This would require more additional qualitative and quantitative data and analytical work at national and regional/local levels (Mihnovits/Zaidi, 2015).

***Figure 10: GAWI - domains and indicators***




*Source: Own drawing based on Zaidi (2013) and Mihnovits/Zaidi (2015).*

### 3.1.4 Age Friendly City Framework (AFC)

The Age Friendly City Framework is based upon the idea that age-friendly cities "*encourage active ageing by optimizing opportunities for health, participation and security in order to enhance quality of life as people age*." (WHO, 2007, p. 72)

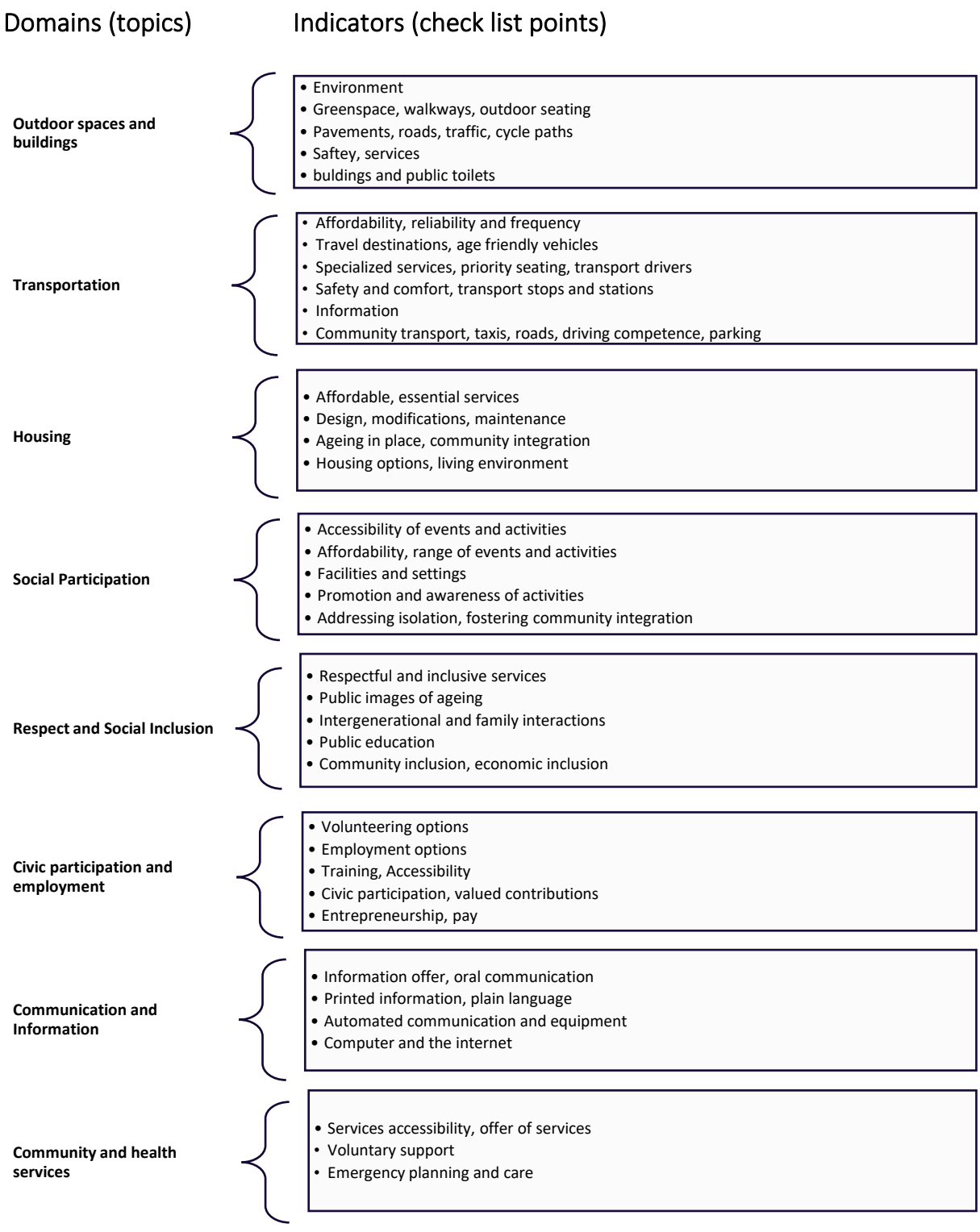
In contrast to the other instruments described above, the AFC follows an approach that spans over all phases of life, and it takes into account the entire population with their respective abilities, highlighting that AHA activities should be beneficiary for the entire population. Another important point is the establishment of policies to reduce economic inequalities in the use of services. It also points out that promoting age-

friendliness is essential especially for communities in peripheral and remote areas with high levels of emigration, such as those of the Alpine Space (WHO, 2007).

The development of the framework involved 35 cities from all continents, including small towns and regional centres as well as six mega-cities with over ten million residents. A bottom-up participation approach included people aged 60 years and older in the creation of the framework who were regarded as good informants based on their daily experiences. Information was elicited through 158 focus groups, with a total of 1485 older people from lower- and middle-income areas. In addition, 750 caregivers and service providers were asked to report on age-friendly features in their respective cities and the challenges they encounter from daily interaction with older people. (WHO, 2007).

The identified topics (domains) include: outdoor spaces and buildings, transportation, housing, social participation, respect and social inclusion, civic participation and employment, communication and information, community support and health services (WHO, 2007). Each domain consists of a checklist with a total of 37 items, and though they are no measurable indicators, they aim to provide recommendations for action for decision-makers. Indeed, the WHO (2007, p.11) emphasizes, that "*the age-friendly features checklist is not a system for ranking one city's age-friendliness against another's; rather, it is a tool for a city's self-assessment and a map to chart progress.*" The recommendations should be regarded as a starting point for further research and development activities for communities and networks on ageing.

***Figure 11: AFC - domains and indicators***




*Source: Own drawing based on WHO (2007).*

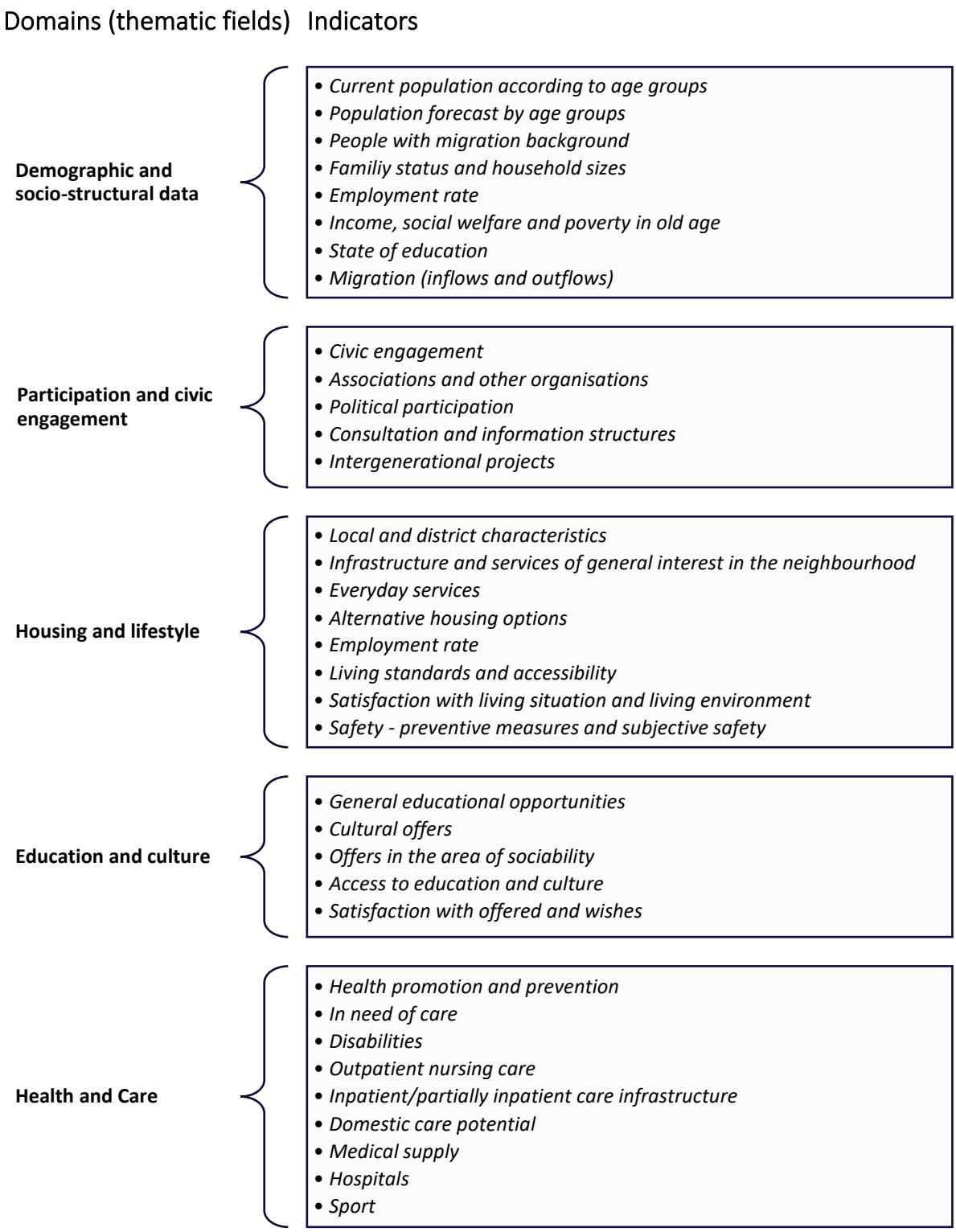
### 3.1.5 Social Planning for Senior Citizens (SoSe)

Social Planning for Senior Citizens (SoSe) is an instrument developed and practice tested, evaluated and revised over many years by the German Bertelsmann Foundation. Rather than serving an academic purpose, the tool focusses on practical matters and important aspects of AHA for implementation in a municipal context (Bertelsmann Stiftung, 2020). SoSe aims to offer an assessment instrument for responsible and future-orientated senior citizens' policy making.

The tool consists of five thematically structured fields (listed as domains), a description of the 35 indicators, defined variables, and in some cases even a range of options for action. Bertelsmann Association (2020, II. SoSe - planning aid for a senior citizens' policy concept) identified the indicators based on their relevance and data accessibility (Figure 12). Alternative options to collect data are provided by the developers, together with checklists and questionnaires for primary data collection. Guidance is also provided with respect to the frequency of data collection and municipals' options to take action.

However, the developers also recognise that the tool provides a time-consuming and resource-intensive approach for social planning and AHA policy making in communities. They advise to use external support for data collection, e.g. from research institutes or universities (Bertelsmann Stiftung, 2020, II. SoSe - planning aid for a senior citizens' policy concept). Ultimately, a demographically responsible senior citizens' policy should be small-scale and geared towards the respective problems of the people living in municipalities.

***Figure 12: SoSe - domains and indicators***




*Source: Own drawing based on Bertelsmann Stiftung (2020).*

### 3.1.6 Indicators for Age-friendly Cities (AFCI)

According to the WHO (2015, p.3) an age-friendly city is an *"[…] inclusive and accessible community environment that optimizes opportunities for health, participation and security for all people, in order that quality of life and dignity are ensured as people age."* The Age Friendly City Framework (AFCI) with its proposed indicators builds upon this definition and was developed in the context of a comprehensive literature review, expert consultations, peer review and pilot testing (WHO, 2015).

The developed guidebook aims to provide orientation for the selection of indicators, a long-list of indicators to evaluate the age-friendliness of cities and assistance for appropriate local indicator development (WHO, 2015). In addition to instructions for indicator selection, the guidebook offers different types of indicators and distinguishes between input, output, outcome and impact indicators (WHO, 2015). Selection criteria for indicators are also provided, as they should be measurable, valid, replicable, sensitive to change, allow for disaggregation, align with local goals and targets, can be linked to action, are within local influence, easy to collect and socially acceptable (WHO,2015; p24). These characteristics are also further discussed in Deliverable D.T2.2.2.

The index is composed of a set of core and supplementary indicators (WHO, 2017), which are further categorized in different AHA domains (Figure 13). In addition, an equity dimension is included in the framework (WHO, 2017, not listed in Figure 13), which is operationalized as:

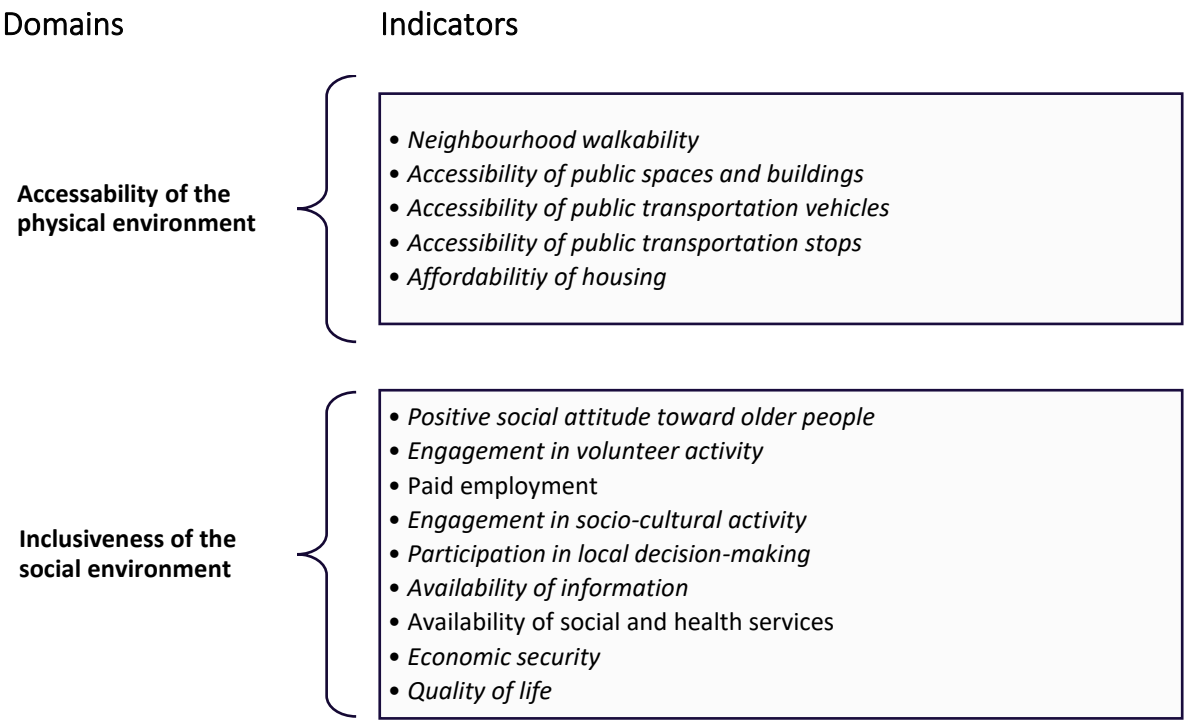
- The difference between population average and highest attainable level of outcome and
- The difference between two reference groups.

Hence, this measure entails notions of "*equity, accessibility and inclusiveness*" (WHO, 2015, p.28) and it should be considered for all indicators in order to reveal possible inequalities and their change over time. Disaggregation of indices may be based, for instance, on administrative sectors or population characteristics such as gender, age categories or income.

The frameworks domains, *"accessibility of the physical environment"* and *"inclusiveness of the social environment"* consist of 14 indicators in total. For each indicator, two types of definitions are provided (WHO, 2015, p.28): a general definition and a definition using self-reported data. To ensure the adaptability of indicators, some of them are not strictly standardised. Indicator definitions are supplemented by proposals for data sources and data collection, e.g. local authorities, health care providers, or surveys amongst older residents. In addition, for each indicator there is a section with comments, providing more detailed information and references to relevant literature.

The guidebook emphasizes that indicators should not be regarded as a rigid framework, but rather as a basis for adaptation to different settings in a way that is best suited to the location of interest. First results and experiences from local application of the framework are available from piloting the instrument in five regions within Kenya, Spain, Australia, China and the USA.

***Figure 13: AFCI - domains and indicators***




*Source: Own drawing based on WHO (2015).*

### 3.1.7 Age-friendly Environments in Europe (AFEE)

The Age-friendly Environments in Europe (AFEE) project was led by the WHO Regional Office for Europe and the European Commission's Directorate-General for Employment, Social Affairs and Inclusion (WHO Europe, 2018). The guidance published in the context of the project comprises a tool for local policy-makers and planners (WHO Europe, 2016) and a handbook of domains for policy action (WHO Europe, 2017).

The tool for local policy-makers and planners describes principles of age-friendly environments, such as participation, equity, intersectoral collaboration, a life-course approach and multi-level governance, and it also deals with strategic planning, practical implementation and the evaluation and monitoring process (WHO Europe,

2016). The handbook of domains for policy action refers to networks such as the European Innovation Partnership on Active and Healthy Ageing (EIP on AHA) [1], the Global Network for Age-friendly Cities and Communities [2] and the Network on Innovation for Age-Friendly Environments (AFE-INNOVNET) [3]. It also provides information on different aspects of respective domains and practice examples for AHA policy interventions and initiatives (WHO Europe, 2017).

The AFEE handbook for Indicators, monitoring and assessments offers additional references and tools for indicator selection, AHA monitoring and evaluation, and it illustrates possible procedures for data collection and participatory processes for AHA policy making, advocating a mixed-methods approach (WHO Europe, 2018). The indicator framework is essentially categorized in three core areas: municipal services, physical environment and social environment. A total of nine domains with respective indicators are listed in the AFEE (see Figure 14). The domains relate primarily to the Age-friendly City Framework (AFC), which after examination was considered appropriate for use within a European context (WHO Europe, 2018). The framework also provides information on measurement and data sources (WHO Europe, 2018).

The 39 indicators are merged from five different guidelines: AFCI, AAI, healthy ageing profiles, Public Health Agency of Canada's Age-friendly community's evaluation guide: using indicators to measure progress and standard indicator definitions from the new UNECE Recommendations on ageing-related statistics (WHO Europe, 2018). The indicators listed in AFEE (WHO Europe, 2018) refer to inputs, intermediary outputs or outcomes. For economic evaluation, the framework makes reference to other tools,

[1] Further information: https://ec.europa.eu/eip/ageing/home_en (21.05.2020)

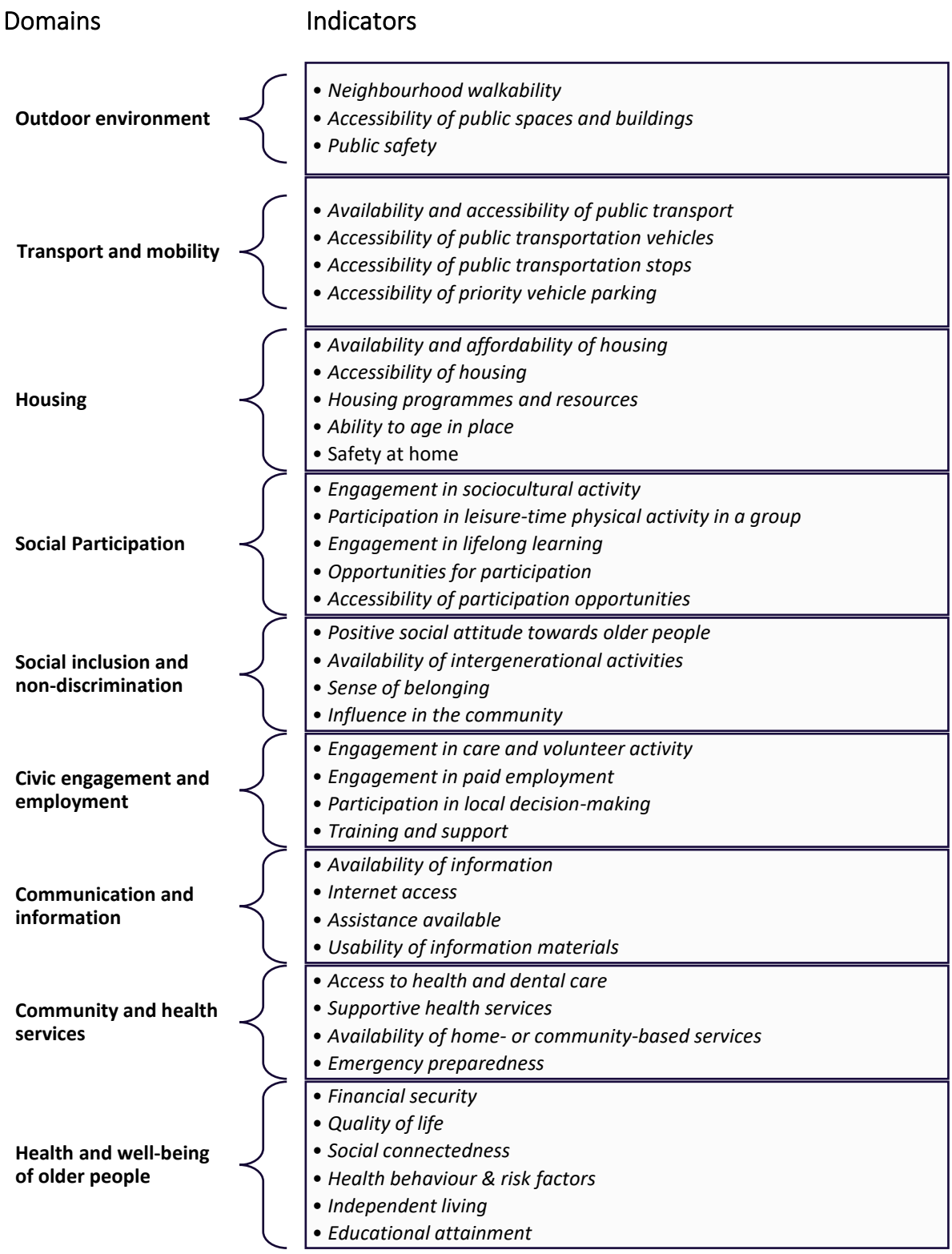
[2] Further information: https://extranet.who.int/agefriendlyworld/who-network/ (21.05.2020)

[3] Further information: http://www.afeinnovnet.eu/ (21.05.2020)

such as the monitoring and assessment framework for the EIP on AHA (MAFEIP). Indicators generally require adaptation to the respective local context and existing governmental structures (WHO Europe, 2018).

WHO Europe (2018) states that existing studies and their respective instruments may be used for data collection in local areas, e.g. by following and adapting their questionnaires and procedures. Examples include the European Quality of Life Survey, the European Statistics on Income and Living Conditions (EU-SILC), the Survey of Health, Ageing and Retirement in Europe (SHARE) and the Study on global AGEing and adult health (SAGE). Data for indicators should be stratified by age and gender (WHO Europe, 2018), and the authors highlight that a key principal for AHA policy design is the *person-environment approach* and especially with a view to empowerment, that the target group of older people and all relevant stakeholders *"*(…) *should be included in all stages of a project (development, implementation and evaluation*)" (WHO Europe, 2018, p. 36).

***Figure 14: AFEE - domains and indicators***




*Source: Own drawing based on WHO Europe (2018).*

## 3.2 SUMMARY OF FINDINGS

Through the pragmatic desk review, we were able to find a number of AHA policy frameworks and tools with well-defined domains and indicators, and often supplemented with detailed variable descriptions, concrete data sources and / or tools for primary data selection. Also, we observed a certain genealogy of tools and methods, as many of them were developed or build upon each other. This results in a certain degree of convergence in AHA domains and indicators between the tools under review.

Whilst all tools under review provide invaluable information on respective AHA domains and indicators, none of them was developed for evaluating AHA innovations in a comparative fashion. Rather, their use is generally limited to assess the status quo of AHA in a particular setting, to raise awareness on AHA-related issues, and to integrate AHA into all policies and processes of decision-making. The various indicators and variables are intended to provide guidance, inspiration and stimulation. In addition, the information can be used to identify possible gaps, to measure progress and to enable the exchange of good practice examples and possible approaches with other regions.

Some similarities among the tools under review could be observed, perhaps partially related to the above-mentioned genealogy. For instance, all tools contain domains on health, participation and security, and all tools generally emphasize the importance of equity, and they generally propose data collection stratified by gender, age and income. The tools under review generally propose adaptation of their respective methodology and indicator sets to local settings, so that they should not be regarded as rigid frameworks. For data collection, most tools provide clear guidance and make

explicit reference to appropriate data sources (mostly on national level using international statistics, Figure 15). Some tools even provide additional methods for primary data collection, such as questionnaires, and some of them endorse a mixed methods approach and propose qualitative methods such as expert interviews of focus groups, especially for local level data collection.

- The **Active Ageing Framework (AAF)** provides a useful overview of important topics and describes individual key policy proposals in detail. It is particularly important to note that sustainable AHA policies can only be tackled in intersectoral cooperation and that special attention must be paid to marginalised groups and to gender and culture (WHO, 2002). A major drawback is that no concrete measurable variables are available.
- The **Active Aging Index (AAI)** suggests a set of measurable outcome indicators which have been already recorded over years. Importance was placed on the international comparability of data between the EU27 countries. The AAI was applied at national and sub-national level, though subnational application is not straightforward due to a general lack of data availability. Another drawback is the use of expert-based static weights for the composite indicator.
- The **Global AgeWatch Index (GAWI)** is a multi-dimensional approach with focus on the wellbeing of older people. For each indicator, a concrete definition and public data sources are available. While the index may disclose the potential and weaknesses of a region's policies and initiatives with respect to AHA, more qualitative and quantitative data and analytical work would be required to determine which initiatives are needed in the future (Zaidi, 2013; Mihnovits/Zaidi, 2015).

- The **Age Friendly City Framework (ACF)** takes a life-course approach and highlights benefits for the entire population. The framework was developed in a participatory fashion with the extensive involvement of cities worldwide. Different fields of action were identified and presented in form of recommendations for actions.
- The **Social Planning for Senior Citizens (SoSe)** tool offers comprehensive methods for possible data collection, including sample questionnaires etc. The tool should be adapted to local settings through identification of suitable indicators, methods, and data sources. The developers highlight the time and resource requirements of using the tool in practice.
- The **Age-friendly Cities Index (AFCI)** provides clear definitions of respective indicators with their variables and possible data sources. It emphasizes the importance of equity, accessibility and inclusiveness in the collection of data and its analysis, and it provides respective procedures for data analysis (WHO, 2015). The framework also provides instructions to differentiate the types of indicators and criteria for indicator selection.
- **Age-friendly Environments in Europe (AFEE)** provides a set of potential AHA indicators, together with accompanying material for policy decision making in a regional context (WHO Europe, 2016; 2017). The domains were constructed according to the AFC, and the indicators were selected from five frameworks. The AFEE also states that the indicators should be regarded as a starting point and adapted to the respective circumstances, which in turn makes a test survey indispensable. The developers stress the importance of a participatory process with mixed methods in AHA policymaking, the consideration of the person-environment approach and the specification of age groups and gender in data collection and evaluation (WHO Europe, 2018).

*Figure 15: AHA tools and frameworks - overview*

| AHA tool | Active Ageing Framework | Active Ageing Index | Global AgeWatch Index | Age Friendly City Framework | Social Planning for Senior Citiziens | Age-friendly Cities Index | Age-friendly Environments in Europe |
|---|---|---|---|---|---|---|---|
| **Acronym** | AAF | AAI | GAWI | ACF | SoSe | AFCI | AFEE |
| **Published by** | WHO | UNECE | HelpAge International: (Zaidi 2013; Mihnovits/Zaidi, 2015) | WHO | Bertelsmann Stiftung | WHO | WHO Europe |
| **Year of publication** | 2002 | published in 2013, last modified 2019 | 2013, methodology update 2015 | 2007 | 2020 | 2015 | 2015, 2017, 2018 |
| **Number of domains** | 3 (pillars) | 4 | 4 | 8 (topics) | 5 (thematic fields) | 2 | 9 |
| **Number of indicators** | 9 (key policy proposals) | 22 | 13 | 37 (check list items) | 35 | 14 | 39 |
| **Measurable variables provided** | no | yes | yes | no | yes | yes | yes |
| **Qualitative indicators provided** | - | no | yes | - | yes | yes | yes |
| **Level of data collection** | - | developed and published for EU28 tested in non-EU-countries and at subnational level | focus on international comparison, additional data for regional/ local level required | - | Developed for regional and local level: communities, community associations, regions | developed and published for (major) cities, worldwide | tool for local policy-makers and planners from the community to the regional level |
| **Tools for data gathering provided** | - | no | no | - | yes | no | no |
| **Data sources provided (with examples)** | - | EU-LFS, EQLS, EU-SILC, ESS, Eurostat ICT survey, EHLEIS | World Bank, OECD, Eurostat, Gallup Analytics | - | Survey of the population/ institutions, municipal data, offer analysis | Survey of older residents, administrative data, statistics | EU-SILC, Survey of Health, Ageing and Retirement in Europe (SHARE), Study on global AGEing and adult health (SAGE) |

*Source: Own drawing based on WHO (2002, 2007, 2015), WHO Europe (2018), UNECE (2019), Zaidi et al (2013), Mihnovits et al (2015), Bertelsmann Stiftung (2020).*

## 3.3 ASTAHG IMPACT EVALUATION METRICS

The desk review revealed a number of tools and policy frameworks to assess the status quo of AHA in different contexts. Whilst they differ in some aspects, such as data sources or the weighting of indicators, they show significant overlap in terms of AHA domains and indicators included. Thus, we compiled all AHA indicators in a single database and applied a content analytic methods to regroup them, and develop a new domain and indicator system for the purposes of ASTAHG.

The approach may best be described as an iterative process of grouping and regrouping, defining categories, and continuing the process until a framework emerged with mutually exclusive AHA domains and indicators. In a second step, we took stock of the variables and data sources defined in original frameworks and distinguished between quantifiable and non-quantifiable indicators. As a result, we obtained two long-lists of ASTAHG indicators for AHA impact evaluation metrics, one with measurable quantitative indicators (the **"core-list"**) and one with indicators relying on qualitative data collection and / or requiring further specification within a local context (the **"supplementary list"**).

The resulting core set of AHA impact evaluation metrics is displayed in Figures 15 and 16, and the accompanying supplementary indicators in Annex 1. The long list includes 7 domains, 57 indicators and 120 variables. Note that, for the ease of reporting, figures only contain domains and indicator specifications. However, the Excel sheet that accompanies this report also provides detailed information on variable level, i.e. specifying how indicators could be measured and where to obtain data from, etc. This information is available from the authors upon request.

***Figure 16: ASTAHG Core Indicator Set (1/2)***

| Domains | Indicators |
|---|---|
| **Demographic & social structural data** | • *Current population according to age groups*<br>• *Population forecast by age group*<br>• *People with migration background*<br>• *Familiy status and household sizes*<br>• *State of education*<br>• *Migration (inflows and outflows)*<br>• *Educational attainment* |
| **Civic engagement & Social Participation** | • *Voluntary activities*<br>• *Care to children / grandchildren*<br>• *Social connectiveness*<br>• *Engagement in paid employment*<br>• *Positive social altitude toward older people*<br>• *Engagement in sociocultural activity*<br>• *Participation in leisure-time physical activity in a group*<br>• *Lifelong learning*<br>• *Participation in politics and local descision-making* |
| **Mobility & transport** | • *Access to public transport*<br>• *Availability and accessibility of public transport*<br>• *Accessibility of public transportation vehicles*<br>• *Accessibility of public transportation stops*<br>• *Accessibility of priority vehicle parking*<br>• *Mobility* |
| **Communication, information & ICT** | • *Availability of information*<br>• *Internet access*<br>• *Assistance available*<br>• *Use of ICT* |
| **Housing, outdoor spaces & enabling environment** | • *Independent living*<br>• *Accessibility of housing*<br>• *Ability to age in place*<br>• *Living standards and accessibility*<br>• *Neighbourhood walkability*<br>• *Accessibility of public spaces and buildings*<br>• *Affordability of housing* |

*Source: Own drawing based on WHO (2002, 2007, 2015), WHO Europe (2018), UNECE (2019), Zaidi et al (2013), Mihnovits et al (2015), Bertelsmann Stiftung (2020).*

*Figure 17: ASTAHG Core Indicator Set (2/2)*

| Domains | Indicators |
|---|---|
| **Health & care** | • *Physical exercise*<br>• *Quality of life*<br>• *Remaining life expectation*<br>• *Healthy life expectancy*<br>• *Access to health and dental care*<br>• *Psychological wellbeing*<br>• *In need of care*<br>• *Disabilities*<br>• *Inpatient/partially inpatient care infrastructure*<br>• *Domestic care potential*<br>• *Medical supply*<br>• *Availability of home- or community-based services*<br>• *Emergency preparedness* |
| **Security & safety** | • *Employment rate*<br>• *Physical safety*<br>• *Public safety*<br>• *Safety at home*<br>• Income security<br>• *Poverty rate in old age*<br>• *No severe material deprivation rate*<br>• *Relative welfare of older people*<br>• *GNI per capita*<br>• *Paid employment*<br>• *Civic freedom* |

*Source: Own drawing based on WHO (2002, 2007, 2015), WHO Europe (2018), UNECE (2019), Zaidi et al (2013), Mihnovits et al (2015), Bertelsmann Stiftung (2020).*

# 4 DISCUSSION AND CONCLUSION

This report reviewed existing tools and policy frameworks for operationalising the multidimensional concept of AHA and to measure the status quo and progress of AHA in a particular context. It provides a comprehensive account of AHA domains and indicators previously developed and reported in various projects, and thereby lays the foundation for developing AHA impact evaluation metrics in the context of ASTAHG.

An important question that remains is how the long-list of AHA domains, indicators and variables reported in Figures 15 and 16, Appendix 1 and the Excel sheet accompanying this report should be used in practice. This question is at the core of Deliverables D.T2.2.2 (AHA innovation evaluation metrics) and D.T2.2.3 (AHA governance assessment methodology).

In brief, the domains and indicators reported in this Deliverable D.T2.2.1 provide a long-list that requires further adaptation in order to assess AHA innovations in a particular context. Choosing appropriate domains, indicators and variables from this long-list for innovation assessment in a particular context, however, requires further guidance. For this matter, Deliverable D.T2.2.2 is structured in three parts:

- **Part 1 of D.T2.2.2** introduces OECD DAC evaluation criteria (OECD 2002 & OECD 2019) and thereby provides a conceptual framework for AHA innovation assessment, which is at the core of Deliverable D.T2.2.3. Based on evaluation criteria such as relevance, coherence, effectiveness, efficiency, impact and sustainability, we construct a governance assessment methodology for AHA innovation assessment that can be further adapted to local settings.

- **Part 2 of D.T2.2.2** introduces theories of change to provide local AHA stakeholders with a theoretical framework for choosing, from the long-list of indicators presented in this report, those that are particularly relevant for assessment purposes in their respective contexts.
- **Part 3 of D.T2.2.2** provides further guidance on indicator selection by explaining quality indicator properties for innovation evaluation, such as validity, reliability, timeliness, sensitivity to change etc.

In this sense, Deliverable D.T2.2.2 bridges between the long-list of AHA impact evaluation metrics presented in this report, and the AHA governance assessment methodology presented in Deliverable D.T2.2.3. The latter report aims to provide a comprehensive assessment framework for innovation to support AHA decision-making in a multisectoral context. It is based upon the OECD DAC-evaluation criteria and provides a stepwise approach where AHA innovations funnel through until only those remain that are relevant, coherent, effective, efficient, provide impact and are financially sustainable in a particular setting. The core of the assessment framework is a Multi Criteria Decision Analytic approach that incorporates:

- relevant indicators (drawn from the long list provided in this report and selected along the theories and indicator properties explained in Deliverable D.T2.2.2), and
- Relevance weights for indicators based on AHA stakeholder needs and preferences

Ultimately, this will enable comparative assessment of AHA innovations with multiple and diverse outcomes and help local decision-makers identifying the most beneficial technologies available for their respective geographic settings.

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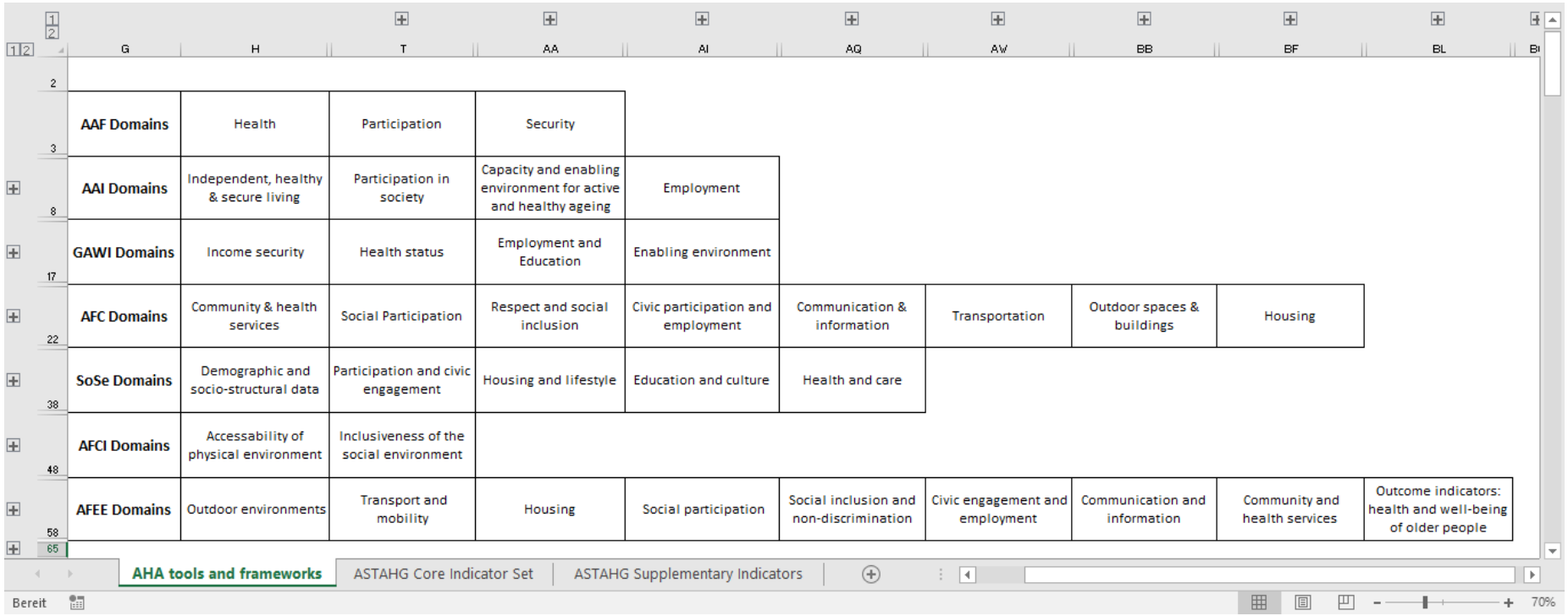
## 6.1 ANNEX 1

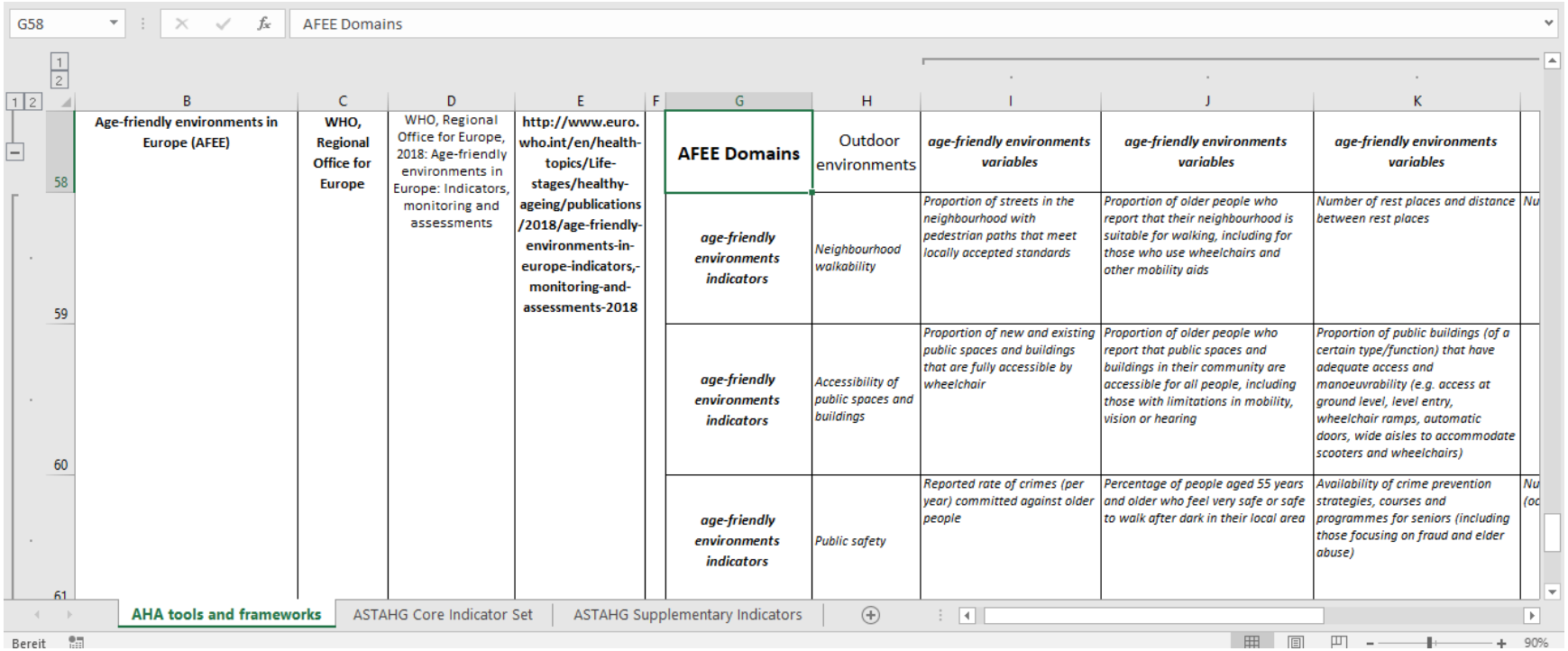
***Figure 18: Overview AHA tools and frameworks with domains***



| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **AAF Domains** | Health | Participation | Security | | | | | | |
| **AAI Domains** | Independent, healthy & secure living | Participation in society | Capacity and enabling environment for active and healthy ageing | Employment | | | | | |
| **GAWI Domains** | Income security | Health status | Employment and Education | Enabling environment | | | | | |
| **AFC Domains** | Community & health services | Social Participation | Respect and social inclusion | Civic participation and employment | Communication & information | Transportation | Outdoor spaces & buildings | Housing | |
| **SoSe Domains** | Demographic and socio-structural data | Participation and civic engagement | Housing and lifestyle | Education and culture | Health and care | | | | |
| **AFCI Domains** | Accessability of physical environment | Inclusiveness of the social environment | | | | | | | |
| **AFEE Domains** | Outdoor environments | Transport and mobility | Housing | Social participation | Social inclusion and non-discrimination | Civic engagement and employment | Communication and information | Community and health services | Outcome indicators: health and well-being of older people |

*Source: Screenshot AHA tools and frameworks based on WHO (2002, 2007, 2015), WHO Europe (2018), UNECE (2019), Zaidi et al (2013), Mihnovits et al (2015), Bertelsmann Stiftung (2020).*

***Figure 19: Excel database – AFEE tool in detail view***



| | B | C | D | E | F | G | H | I | J | K |
|---|---|---|---|---|---|---|---|---|---|---|
| 58 | **Age-friendly environments in Europe (AFEE)** | **WHO, Regional Office for Europe** | WHO, Regional Office for Europe, 2018: Age-friendly environments in Europe: Indicators, monitoring and assessments | **http://www.euro.who.int/en/health-topics/Life-stages/healthy-ageing/publications/2018/age-friendly-environments-in-europe-indicators,-monitoring-and-assessments-2018** | | **AFEE Domains** | Outdoor environments | ***age-friendly environments variables*** | ***age-friendly environments variables*** | ***age-friendly environments variables*** |
| 59 | | | | | | ***age-friendly environments indicators*** | *Neighbourhood walkability* | *Proportion of streets in the neighbourhood with pedestrian paths that meet locally accepted standards* | *Proportion of older people who report that their neighbourhood is suitable for walking, including for those who use wheelchairs and other mobility aids* | *Number of rest places and distance between rest places* |
| 60 | | | | | | ***age-friendly environments indicators*** | *Accessibility of public spaces and buildings* | *Proportion of new and existing public spaces and buildings that are fully accessible by wheelchair* | *Proportion of older people who report that public spaces and buildings in their community are accessible for all people, including those with limitations in mobility, vision or hearing* | *Proportion of public buildings (of a certain type/function) that have adequate access and manoeuvrability (e.g. access at ground level, level entry, wheelchair ramps, automatic doors, wide aisles to accommodate scooters and wheelchairs)* |
| 61 | | | | | | ***age-friendly environments indicators*** | *Public safety* | *Reported rate of crimes (per year) committed against older people* | *Percentage of people aged 55 years and older who feel very safe or safe to walk after dark in their local area* | *Availability of crime prevention strategies, courses and programmes for seniors (including those focusing on fraud and elder abuse)* |

*Source: Screenshot AHA tools and frameworks, Age-friendly environments in Europe based on WHO Europe (2018).*

***Figure 20: ASTAHG Supplementary Indicators (1/3)***

| Domains | Indicators |
|---|---|
| **Civic engagement & Social Participation** | • Provide education and learning opportunities throughout the life course.<br>• Recognize and enable the active participation of people in economic development activities, formal and informal work and voluntary activities as they age, according to their individual needs, preferences and capacities.<br>• Encourage people to participate fully in family community life, as they grow older.<br>• Intergenerational and family interaction<br>• cultural offers<br>• offers in the area of sociability<br>• civic engagement<br>• Community inclusion<br>• associations and other organisations<br>• Promotion and awareness of activities<br>• Opportunities for participation<br>• Accessibility of participation opportunities<br>• Respectful and inclusive services<br>• Public images of ageing<br>• Economic inclusion<br>• Training<br>• Accessibility<br>• Valued contribution<br>• political participation<br>• satisfaction with offered and wishes<br>• Sense of belonging<br>• Volunteering options |
| **Mobility & transport** | • mobility<br>• Affordability<br>• Availability and accessibility of public transport<br>• Community transport<br>• Reliability and frequency<br>• parking<br>• Travel destinations<br>• Accessibility of public transportation stops and stations<br>• Age friendly vehicles<br>• Specialized services<br>• Priority seating<br>• Transport drivers<br>• Safety and comfort<br>• Information<br>• Taxis<br>• Roads<br>• Driving competence |

*Source: Own drawing based on WHO (2002, 2007, 2015), WHO Europe (2018), UNECE (2019), Zaidi et al (2013), Mihnovits et al (2015), Bertelsmann Stiftung (2020).*

*Figure 21: ASTAHG Supplementary Indicators (2/3)*

| Domains | Indicators |
|---|---|
| **Communication, information & ICT** | • Information offer<br>• Oral communication<br>• Automated communication and equipment<br>• Computers and the internet<br>• consultation and information structures<br>• availability and usability of information |
| **Housing, outdoor spaces & enabling environment** | • local and district characteristics<br>• Housing options<br>• alternative housing options<br>• Living environment<br>• Environment<br>• Greenspace and walkways and outdoor seating<br>• Pavements and cycle paths<br>• traffic and roads<br>• Public toilets<br>• Satisfaction with living situation and living environment<br>• Availability and affordability of housing<br>• Accessibility of public spaces and buildings<br>• living standards and accessibility<br>• Infrastructure and services of general interest in the neighbourhood<br>• everyday services<br>• Design<br>• Modifications<br>• Maintenance<br>• Ageing in place<br>• Community integration |

*Source: Own drawing based on WHO (2002, 2007, 2015), WHO Europe (2018), UNECE (2019), Zaidi et al (2013), Mihnovits et al (2015), Bertelsmann Stiftung (2020).*

*Figure 22: ASTAHG Supplementary Indicators (3/3)*

| Domains | Indicators |
|---|---|
| **Health & care** | •Prevent and reduce the burden of excess disabilities, chronic disease and premature mortality.<br>•Reduce risk factors associated with major diseases and increase factors that protect health throughout the life course.<br>•Develop a continuum of affordable, accessible, high quality and age-friendly health and social services that adress the needs and rights of women and men as they age.<br>•Provide training and education to caregivers.<br>• Services accessibility<br>• Offer of services<br>• voluntary support<br>• Emergency planning and care<br>• health promotion and prevention<br>• outpatient nursing care<br>• Hospitals<br>• sport<br>• Supportive health services<br>• inpatient/partially inpatient care infrastructure<br>• Availability of home- or community-based services |
| **Security & safety** | • Ensure the protection, safety and dignity of older people by addressing the social, financial and physical security rights and needs of people as they age.<br>• Reduce inequities in the security rights and needs of older women.<br>• income, social welfare and poverty in old age<br>• Employment options<br>• employment rate<br>• Enterpreneurship<br>• Pay<br>• Safety - preventive measures, public and subjective safety |

*Source: Own drawing based on WHO (2002, 2007, 2015), WHO Europe (2018), UNECE (2019), Zaidi et al (2013), Mihnovits et al (2015), Bertelsmann Stiftung (2020).*