

2018 Active Ageing Index



Analytical Report

October 2019



Co-funded by the



2018

Active Ageing

Index

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NOTE

This report is prepared within the framework of a joint project by the United Nations Economic Commission for Europe (UNECE) and the European Commission's Directorate General for Employment, Social Affairs and Inclusion (DG EMPL).

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May 2016, and benefits from findings of a number of project's pilot studies undertaken at subnational level and/or addressing AAI outcomes for specific population subgroups as well as from discussions at the Second international seminar on AAI in September 2018 and various national seminars and other events.

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Executive summary

This report provides a range of examples on how the Active Ageing Index (AAI) can be used as a practical tool by policymakers, researchers and other interested parties to identify areas where appropriate policies can realise the active potential of older people. To this end, the conceptual framework underlying the AAI follows a multidimensional perspective. It takes into account the different forms through which older persons contribute to society and economy – by means of paid or voluntary work, informal care, political participation, or by keeping healthy, informed and independent lifestyles even at an advanced age. It also considers environmental factors which enable them to be more active (such as, for instance, the educational and care systems, or the different infrastructures promoting well-being, social cohesion and digitalisation).

Reflecting this approach, the AAI consists of twenty-two indicators grouped into four domains: Employment; Participation in society; Independent, healthy and secure living; and Capacity and enabling environment for active ageing. While the first three domains aim to capture experiences and achievements, the fourth tries to quantify the contextual conditions enabling or hindering active ageing. By doing so, the AAI compels us to look at population ageing in a comprehensive and multifaceted way, thus preventing unilateral and limiting – if not discriminatory – approaches. As a result, it contributes to making older people's contribution to society more visible, and also helps policymakers and other stakeholders understand which areas present more challenging situations, thus requiring more effective interventions to accomplish a societally more balanced ageing experience.

What is included in this report?

Building on the experience gained from the first Analytical Report (UNECE/European Commission, 2015), the findings presented in

section 1.1 offer a detailed analysis of the latest 2018 AAI results. These refer to the most recently released data (available for the year 2016) and show the achieved scores in the overall AAI as well as in each of the four domains for the 28 European Union (EU) Member States. The individual country scores achieved in each of the four AAI domains provide the basis to group countries into four clusters, characterised by similar situations in terms of domain-specific achievements and performances. This approach – which is followed throughout the report – allows the identification of core challenges affecting each cluster in a more structured and simpler way, thus providing an at-a-glance overview of the policy areas requiring more urgent intervention in a comparative perspective. An analysis of the gender gaps existing at an overall level and for each AAI domain by country cluster, completes the first part.

Section 1.2 focuses on the subnational level and provides overall and individual domain values, as well as information concerning the gender gap. This offers different practical examples of how the AAI can be used to analyse intra-national or regional differences in terms of active-ageing-related phenomena.

Section 2.1 summarises how AAI scores have developed over time in EU countries (and in the four clusters in which they have been grouped). Here, key trends observed between 2008 and 2016 are analytically investigated, highlighting domain-specific developments during this eight-year period, differentiated between men and women.

In **section 2.2**, which specifically addresses inequalities in active ageing, the association existing between the AAI and key economic and social measures such as the Gross Domestic Product (GDP) per capita, life satisfaction and wealth distribution is examined. Also, inequalities are investigated within selected countries through the analysis of AAI results by sex, educational level and living place.

Part 3 illustrates an example of how to link AAI results with the recommendations emerging from existing policy-monitoring international frameworks in the field of ageing across the EU and beyond. In this report, the European Semester, carried out by the EU, and the Regional Implementation Strategy (RIS) of the Madrid International Plan of Action on Ageing (MIPAA) for the 56 countries covered by the United Nations Economic Commission for Europe are taken into account.

The **Conclusions** provide some final remarks aimed at reorganising the wealth of information presented in the previous chapters into an encompassing, comprehensive understanding of how the AAI can be practically used to support policymaking at different levels. At the same time, they point out its limitations while highlighting a set of challenges for future research, in order to enhance this tool's usability by all stakeholders interested in advancing active ageing in our societies.

Key findings

Current situation in the EU

Results for the latest available year show that the overall 2018 AAI ranged between 27.7 and 47.2 points (EU average: 35.7) across the 28 EU countries. Variations from the EU average benchmark were stronger for the domains of Employment (EU average: 31.1; range: 20.2-45.4) and Social participation (EU average: 17.9; range: 9.7-27.0). The variation was less similar in the other two domains: Independent living (EU average: 70.7; range: 57.7-79.2) and Capacity and enabling environment (EU average: 57.5; range: 44.6-71.2).

The country clusters built on the basis of the domain-specific scores identify four main groups of countries, each of them characterised by a particular set of active ageing policy challenges:

1. Green cluster: composed of Central European and Mediterranean Member States only, this

cluster faces challenges across all domains, but especially in the area of social participation (it includes: Bulgaria, Croatia, Greece, Hungary, Italy, Poland, Romania, Slovakia, Slovenia and Spain);

2. Red cluster: spread across Continental Europe and Mediterranean islands, this group reports quite low employment rates in older age groups (Austria, Belgium, Cyprus, France, Luxembourg and Malta);
3. Blue cluster: symmetrically opposite to the red cluster, this more geographically-dispersed cluster reports (with some exceptions) below average scores in all domains except in that of employment, with a problematic situation especially concerning the area of social participation (Czech Republic, Estonia, Germany, Ireland, Latvia, Lithuania and Portugal);
4. Yellow cluster: this "Nordic" cluster presents well above average results in three domains, and only slightly higher values in the domain of Independent living (Denmark, Finland, Netherlands, Sweden and the United Kingdom).

In terms of gender gap (i.e. the difference between the AAI value found for women compared to that for men), the social participation domain is the only one in which on average (with a few exceptions) women outperform men. The largest gap is in the employment domain. As for the overall score, only three countries stand out for their recording of a positive gender gap (Estonia, Finland and France), with men having higher results than women in all the other countries.

Examples of the AAI application at subnational level

Prompted by the initial AAI results at EU level, initiatives to apply the AAI at subnational and/or local level abound in the research community as well as among policymakers. This report draws on four studies which computed and analysed AAI results at the NUTS 1 (in Italy), the NUTS 2 (in Poland) and the NUTS 3 (in Germany and in

the Biscay Province of Spain) levels. The studies demonstrate the diversity of regional outcomes and ongoing overall and domain-specific trends, indicating the areas that call for policymakers' attention. For instance, the analysis conducted in Italy (subdivided into three macroregions) shows that AAI values are higher in the northern area and lower in the south. Between 2007 and 2016, AAI values in Italy increased in all three areas, yet this trend was much less pronounced in the south than elsewhere, thus widening the already existing gap. In the same country, the gender gap is in favour of men in all three areas, and more pronounced in the south. In Poland, south-eastern regions had the highest values in 2013. However, two years later, AAI scores had increased throughout the regions, in most of them quite fast, thus narrowing or bridging the gap between the regions. The German study focusing on local areas showed that those in the south-west region had higher AAI scores, while values were lower in central German local areas and especially in the east; the gender gap was in favour of women in just one local area. The study carried out in Biscay registered an increase in AAI scores between 2014 and 2018, with a widening gender gap in favour of men.

Trends at EU level in 2008-2016

In the eight years separating 2008 and 2016, the overall AAI score increased from 32.1 to 35.7 points for the EU average. This growth of roughly over 10 per cent is the combined result of differentiated developments taking place in the 28 EU countries. At the cluster level, the lowest average growth (+2.7 points) was observed in the green cluster compared to the highest increase (reaching +4.9 points) recorded by the red cluster, with the other two groups scoring an intermediate rise. The upward trend for all four clusters followed a very similar and rather steady pattern over time, and the gap between the results of the green cluster and those of the other three grew slightly wider over the period under consideration.

When results are differentiated by gender, the increase in the overall AAI score for women over

the 2008-2016 period exceeds that of men in most countries, with few exceptions (Austria, Hungary, Luxembourg, Malta, the Netherlands and Portugal). Moreover, three countries in the green cluster show a negative development for men over time: Greece, Romania and Slovenia (with men's scores in Croatia, also part of this cluster, remaining virtually unchanged). Thus, overall, the gender gap has narrowed.

Inequalities in active ageing

The analysis of AAI results in relation to GDP per capita, income inequality (Gini index) and life satisfaction of older people highlighted a strong positive correlation between AAI scores, on the one hand, and GDP per capita and life satisfaction, on the other hand (i.e. the higher the former the higher the latter, and vice versa). The correlation between AAI scores and income inequality was weak, though generally indicating a negative link between presence of economic inequalities and AAI scores. Inequalities in active ageing were also explored in selected countries (Germany, Italy and Poland) for within-country differences in relation to gender (though not in Germany), educational level and living place.

The results underline the presence of high inequalities in active ageing based on the level of education and on gender of older people, with highly educated people and men showing higher AAI values. However, while the gender gap in active ageing is slowly narrowing, in all investigated countries the educational gap in active ageing is widening. AAI differences based on the living place are less pronounced, though older people living in urban areas seem to have more opportunities for active ageing.

Linking the AAI to the European Semester (ES) and the UNECE Regional Implementation Strategy (RIS) of the MIPAA

Challenges and monitoring gaps can be identified in all EU countries across the four different clusters. While most problematic issues pointed out by the AAI concern the domains of Employment and Social participation, the ES Country-Specific

Recommendations mainly address Employment and Independent living issues. Instead, the MIPAA/RIS reports (UNECE, 2017) primarily focus on commitments 4 (social protection), 5 (labour market) and 7 (quality of life and independent living). Gender gap issues (identified by the AAI as a major challenge in the field of employment) are not specifically addressed in the last monitoring round of both policy frameworks.

For any policy intervention to be effective, it is fundamental to understand the dynamics behind changes in each domain-specific value. Therefore, findings concerning all 22 indicators composing the AAI are illustrated in the third part of this report. The scrutiny of four selected countries, each representing one of the four clusters grouping the 28 EU Member States (green cluster: Hungary; red: Belgium; blue: Lithuania; yellow: the Netherlands), helped to identify the main factors underlying country-specific results across the four AAI domains. Finally, an in-depth examination of countries with comparatively high AAI scores

(i.e. belonging to the yellow cluster) showed that, even for this set of countries, the insights provided by the indicators composing the AAI can help to improve and refine their political interventions in the area of active ageing.

Final remarks

The examples of the AAI application at the national and subnational levels illustrated in this report show that this tool can help to monitor whether and to which extent active ageing is experienced and progressing in different contexts. By comparing data cross-nationally and across clusters, analysing trends over time and across different AAI domains, this report is offering a glimpse of the wealth of information that the AAI can deliver. Despite some methodological limitations, the AAI currently remains one of the few and most rigorous monitoring instruments available internationally to support policymakers and other stakeholders in the difficult task of identifying and implementing the best strategies to promote active ageing in our societies.

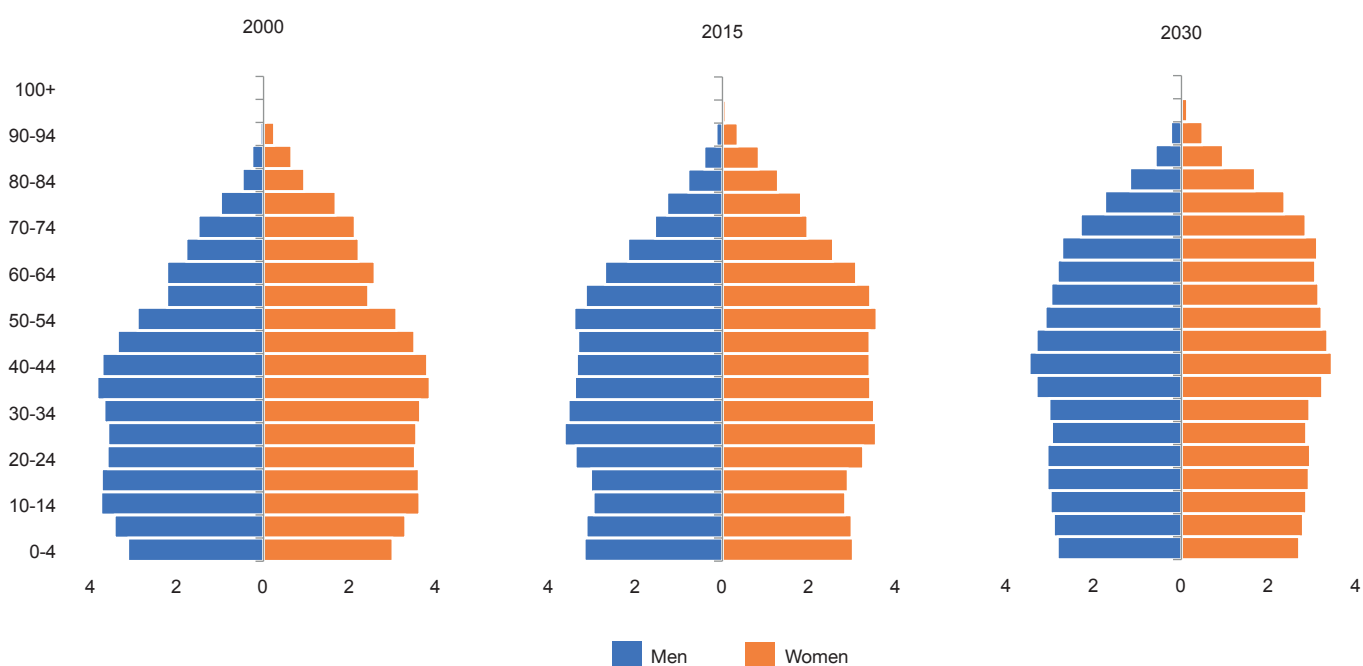
Introduction

Challenges posed by population ageing and the role of “active ageing”

The world’s population is ageing due to a number of concomitant factors. This is particularly true for countries characterised by low/falling fertility

rates and an increase in life expectancy. These demographic trends are progressively transforming the traditional population age pyramid into a tree-shaped form (see an example for the region of the United Nations Economic Commission for Europe (UNECE) in Figure 1).

Figure 1: Population pyramids of the UNECE region, 2000, 2015, 2030 (in per cent of the total population)



Source: Based on the United Nations, Department of Economic and Social Affairs, Population Division (2017). *World Population Prospects: The 2017 Revision, DVD Edition*.

Note: For 2030 data refer to mid-year population estimates (medium fertility variant)

This phenomenon reflects, on the one hand, the effects of positive developments in health and socio-economic progress which increased life expectancy and refocused fertility onto fewer, better-educated children, and should, therefore, certainly be welcomed. On the other hand, it is undeniable that it simultaneously leads to a series of partly interconnected societal challenges for the years to come, which policymakers need to tackle through synergic, systematic strategies. One of those most largely debated challenges concerns the sustainability of pension systems, threatened by the contemporary increase in the number of retirees and the drop in the size of the

working-age population. In addition to the financial sustainability challenge, there is also one of shortage of manpower to sustain economic growth and ensure that the social assistance can continue being provided. This challenge has been addressed by many governments through measures that primarily attempted to increase the employment rates of older workers, such as raising the (effective) retirement age, aligning the retirement age to changes in life expectancy, and restricting early retirement options; ; some countries have also adapted benefit levels and coverage. In addition, ageing is highly linked to the provision of essential care for older people, health and long-term care. Countries are

considering measures in relation to pensions and developing ways of providing services via the community. All this is feasible within a culture of active ageing.

Indeed, public savings similar to those required to make pension sustainable would be needed to tackle the challenge posed by the increasing number of frail older people in need of long-term care. This latter trend is partly explained by the fact that the above-mentioned positive effects on life expectancy per se are only to a limited extent due to an increase in the number of healthy life years (healthy life expectancy), and are rather due to gains in later life characterised by chronic diseases and limitations in the ability to perform activities of daily living by a growing number of citizens (Luijben, Galenkamp and Deeg 2014). The need to find proper strategies to address these developments by means of strengthened investments in the health and long-term care systems is, therefore, another widely-debated issue and high on national and international policy agendas.

The areas confronted with the consequences of population ageing are not limited to those mentioned above, however, and include the overall functioning of society in its entirety, well beyond the boundaries of the labour market or of the formal care sector. Other societal spheres, such as the family and the community, for example, represent crucial institutional actors that call for an increasing adaptation of social structures to take into account that more and more people are experiencing a longer life. This is reflected by the need to consider how to best recognise and integrate the contribution that older citizens and family members already make or can make, for example in terms of informal help or by volunteering in several fields of life (social, cultural, sport-related etc.). A crucial aspect is represented by the capacity to live independently in older age, not only in terms of housing but also in economic terms. These aspects are highly correlated with education, e-literacy and (physical and mental) health, often developed in the earlier stages of life. So the life-course

perspective should be taken into account when analysing active ageing.

While this report does not aim to provide an exhaustive list of the areas affected by population ageing, it is important to stress that, within this context the multidimensional concept of “active ageing” has been developed in the attempt to better understand the circumstances under which the process of population ageing can also offer opportunities to our societies. In this regard, policymakers should avoid a top-down approach with the risk that older individuals may feel active ageing as an obligation and offer a range of opportunities instead, to be selected according to older individuals’ motivations, expectations and aspirations. This would allow them to freely choose whether, to what extent and how they can age in an active manner. This also has necessarily to do with creating the proper environment conditions that enable and promote active ageing. In this regard, empirical evidence shows – just to give an example in relation to labour market participation – that, it is not enough to raise the retirement age and restrict early retirement options to achieve an increase in the employment rate in later adulthood (e.g. Principi, Fabbietti and Lamura, 2015). In parallel, measures to improve the employability and working conditions of older workers are needed, as well as additional measures aimed at making labour market participation more attractive in the eyes of older people themselves (Principi et al., 2018). A similar approach should be applied to all societal spheres and life domains, so that people can truly become ‘architects of their future’, by retaining control of the different, multidimensional components affecting their well-being as they age (economic, social, cultural, health-related, leisure-related, etc.).

In this regard, a particular role is played by health (this term includes both the physical and cognitive functionality and well-being of individuals), as reflected by the definition of active ageing provided by the World Health Organization, which identifies it as the “process of optimising opportunities for health, participation and security, in order to enhance quality of life as people age” (WHO,

2002). This implies a two-sided relationship, as highlighted by findings emerging from several studies. On the one hand, active ageing is positive for both physical and mental health. This suggests that active ageing should be promoted at policy level, with positive effects on the reduction in public spending for health services and products, and the overall increase in healthy life expectancy. On the other, poor health conditions may represent a barrier to active ageing, and this suggests that particular policy efforts should be dedicated to creating conditions for active ageing among older people in poor health. Making work and the urban environment safe and secure, is also a prerequisite for old-age activity and independence. Sufficient incomes that allow older people to live in dignity are also a prerequisite; so is access to learning opportunities.

The latter reflections highlight the need to keep in mind the different underlying levels characterising active ageing, to be conceptualised holistically as a threefold micro-meso-macro-linked effort at individual, organisational, and societal levels (Foster and Walker, 2013). As such, this approach can represent a “win-win” situation, benefiting all parties concerned, but only if we accept the call for a change in the underlying paradigm: from an image of older age as a passive phase of life mainly characterised by care needs and social marginality, to a vision of older individuals as actors of their own future and as strategic resources for the whole society (Walker, 2011).

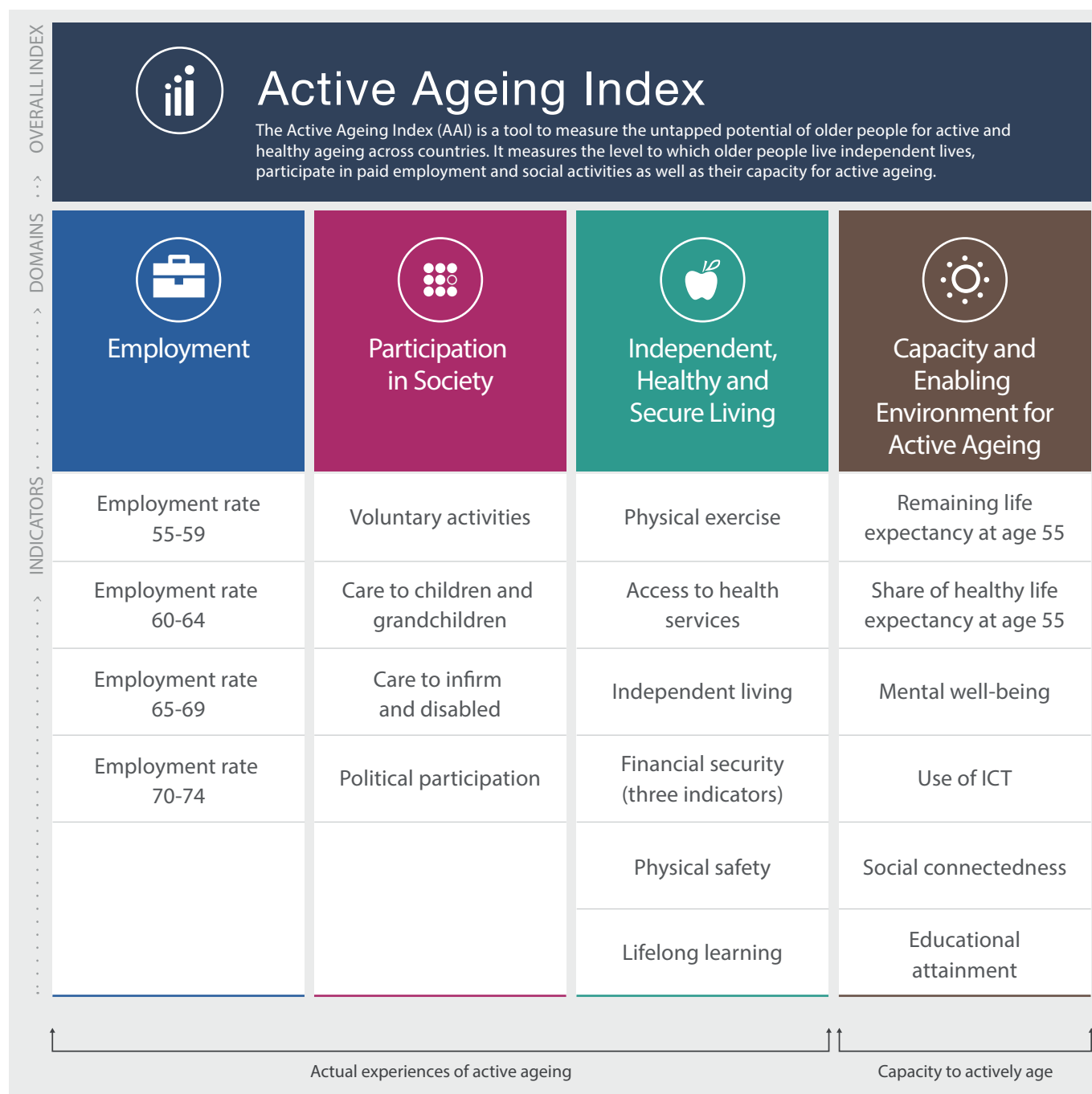
Measuring active ageing

Within the context described above, active ageing has represented a concept widely used to identify an explicit, long-standing strategic policy aim at European Union (EU) and international levels (United Nations, 2002; European Council, 2010; European Commission, 2018b). Only recently, however, more systematic efforts have been undertaken under the leadership of the United Nations Economic Commission for Europe (UNECE) and the European Commission (EC) to develop and provide an evidence-based tool for supporting policymaking in this field. The aim is to help promote and implement active ageing at regional (UNECE, European Union), national and local levels.

Following the line of reasoning described in the previous paragraph, these efforts aimed at constructing a tool capable of capturing the multidimensionality of the phenomenon including, on the one hand, the societal and economic contribution of older people in different life domains and, on the other, the environmental factors that enable active ageing to properly take place. As a result, the “Active Ageing Index” (AAI) was developed and launched in 2012, in collaboration with the European Centre for Social Welfare Policy and Research in Vienna and with the support of the multi-stakeholder Expert group on AAI (see Figure 2).¹

1 Details on the indicators used to develop the AAI are reported in the Annex.

Figure 2: The Active Ageing Index (AAI)



Source: *Active Ageing Index project*. <https://statswiki.unece.org/display/AAI/Active+Ageing+Index+Home>

The AAI includes 22 indicators grouped into four domains (employment; participation in society; independent, healthy and secure living; and, the capacity and enabling environment for active ageing), readily available for EU Member States and some other European countries. The index also provides the possibility to measure active ageing in various territorial/administrative contexts, provided the 22 indicators are available, estimated or proxied. The indicators used for the first

domain are the employment rate for four 5-year age groups, from 55 to 74 years. Indicators in the “participation in society” domain concern informal care provision (to children, grandchildren, but also to adults in need of care), voluntary activities and political participation. The third domain includes physical exercise, access to health services, being able to live independently, financial security, physical safety and lifelong learning. The last domain is devoted to the capacity and enabling

environment for active ageing, and considers aspects such as (healthy) life expectancy, mental well-being, internet use, active relations with friends and family and education.

While the research community increasingly employs the index at different territorial levels in EU and non-EU countries (Zaidi, Harper, Howse, Lamura and Perek-Białas, 2018), in some countries, the use of the AAI for policy purposes has already become a reality, for instance: in Malta, where the AAI has been used to define the National Strategic Policy for Active Ageing for the period 2014-2020; in the Czech Republic, this tool has been mentioned in documents such as the National Action Plan for Positive Ageing for 2013-2017; in Poland, it has been employed in programmes aimed at boosting the contribution and potential of older people (Breza and Perek-Białas, 2014; European Commission, 2016; Vidovićová, 2018).

Structure of this report

The report is structured as follows. Part 1 deals with the application of the AAI in the EU and is divided into two parts. The first focuses on the EU28 countries, analysing the most recent overall AAI and domain scores (2018 AAI), in total and separately for men and women. The second part examines the subnational application of the AAI in some countries, with an analysis of the Italian,

Polish and German cases, as well as that of the Biscay Province of Spain.

Part 2 concentrates on trends and inequalities concerning active ageing. In subsection 2.1, trends in AAI values are analysed for the 2008-2016 time span (data years for 2010 AAI – 2018 AAI, respectively), with particular emphasis on changes in the scores of the EU28 countries, overall and in each of the four AAI domains. Section 2.2 focuses on differences in the EU28 countries in terms of AAI scores with respect to economic and social indicators such as the GDP per capita, Gini index and life satisfaction. In addition, inequalities in active ageing are also scrutinised in selected countries in terms of specific population groups (e.g. divided by sex, education or living area).

In part 3, policy messages to promote active ageing are provided by linking the challenges identified through AAI results to monitoring activity by way of EC country-specific recommendations in the European Semester, and of the review and appraisal process concerning the UNECE Regional Implementation Strategy (RIS) of the Madrid International Plan of Action on Ageing (MIPAA).

The last part offers some reflections on the way in which the AAI could be useful to support policymaking in this field, in light of the increasing experience (9 years now, from 2008 to 2016) in using it, and the increased data availability in terms of trends.

Part 1: Active Ageing in European Union

1.1 2018 AAI in the EU countries

latest available data (2016), are illustrated in Table 1.²

The most recent results of the AAI, calculated for EU countries on the basis of the

Table 1: 2018 AAI for EU28 countries (overall and by domain)

Country	Domain-specific scores				Overall score
	Employment	Social participation	Independent, healthy & secure living	Capacity & enabling environment	
Belgium	23.8	27.0	73.3	62.8	37.7
Bulgaria	30.5	9.7	66.2	55.9	31.8
Czech Republic	34.2	16.2	71.4	58.7	36.5
Denmark	40.6	21.7	78.4	66.5	43.0
Germany	39.4	15.9	74.9	63.6	39.6
Estonia	44.5	14.3	66.5	53.2	37.9
Ireland	35.4	18.8	75.0	63.2	39.1
Greece	20.6	11.8	63.9	50.0	27.7
Spain	25.7	16.2	71.6	59.7	33.7
France	26.9	26.2	75.4	62.2	38.6
Croatia	21.2	15.8	64.2	49.4	29.3
Italy	28.0	17.3	68.0	55.9	33.8
Cyprus	30.8	19.4	71.5	54.9	35.7
Latvia	37.9	17.8	57.7	50.2	35.3
Lithuania	37.9	11.1	65.3	48.5	33.4
Luxembourg	20.2	23.8	74.2	62.2	35.2
Hungary	27.5	11.6	65.6	51.0	30.5
Malta	25.6	20.9	70.6	60.5	35.4
Netherlands	36.3	26.6	77.3	64.7	42.7
Austria	27.2	18.8	77.7	60.0	35.8
Poland	26.5	13.1	66.1	52.7	31.0
Portugal	33.4	11.9	67.7	54.2	33.5
Romania	28.9	13.6	63.7	44.6	30.2
Slovenia	21.3	15.7	71.0	55.5	31.1
Slovakia	26.3	16.1	69.2	52.9	32.3

² Countries are listed according to the protocol order of EU Member States, reflecting the alphabetical order based on the country name as expressed in each country's own official language. The term "2018 AAI" refers to data collected in 2016 (and the same rule applies to all previous years: "2016 AAI" refers to data collected in 2014, etc.).

Table 1: 2018 AAI for EU28 countries (overall and by domain), cont.

Country	Domain-specific scores				Overall score
	Employment	Social participation	Independent, healthy & secure living	Capacity & enabling environment	
Finland	35.7	22.6	77.6	63.1	40.8
Sweden	45.4	26.0	79.2	71.2	47.2
United Kingdom	39.3	20.7	75.3	63.9	41.3
EU average	31.1	17.9	70.7	57.5	35.7

This table shows both the domain scores and the overall AAI value. The range of values characterising each domain varies according to the different scales adopted for each: between 20.2 and 45.4 points for Employment, 9.7-27.0 for Social participation, 57.7-79.2 for Independent living, and 44.6-71.2 for Capacity and enabling environment. The reported data make it possible to observe that there is a large deviation from the average EU score in each domain across countries.

One of the main aims of this analytical report is to show AAI results in a format that is easily understandable and usable for both monitoring and political purposes. Moreover, it aims to link AAI results with the situation, opportunities and

policy orientation in countries. To do this, in the following sections, countries will be aggregated and presented in “clusters” (or groups) of countries characterised by similar challenges, potentially requiring similar action at policy level. This allows to summarise and convey the emerging trends and messages in a more compact and straightforward manner.

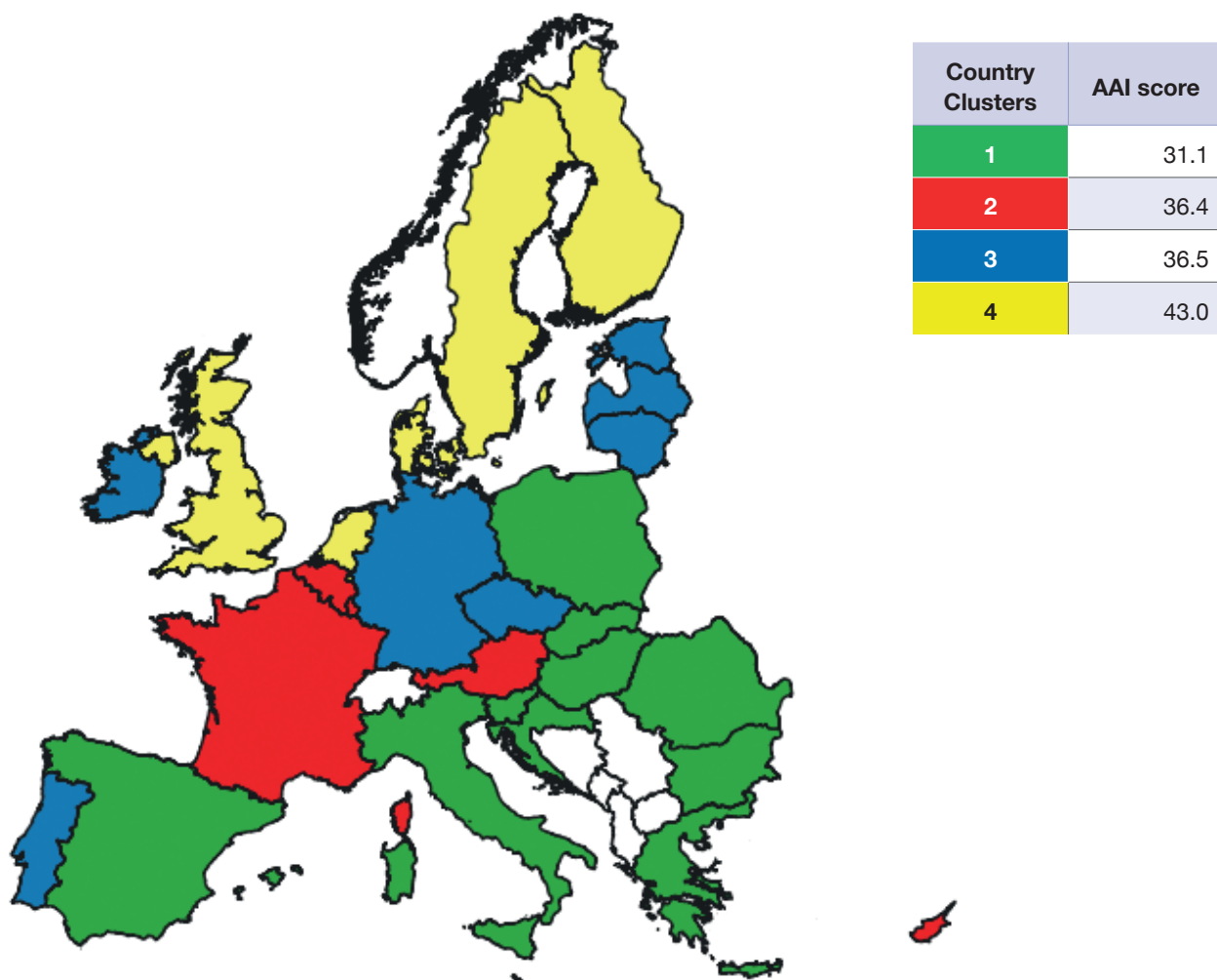
1.1.1 Clustering of countries

In order to identify countries presenting similar profiles, a clustering technique was employed which, by following the methodology illustrated in Box 1 below, has considered the four AAI domain-specific scores of each country to group them into four clusters (see Figure 3 and Table 2).

Box 1: Methodology used to identify country clusters

A hierarchical cluster analysis methodology was used to identify country groups. This analysis was initially carried out with the aim of detecting, within the 28 EU Member States, the presence of groups of cases that are both similar (i.e. presenting “maximum similarity”) within each group and, at the same time, as different as possible from the other groups (i.e. reflecting the “highest diversity” between clusters). Subsequently, as this method does not allow the identification of a predefined number of clusters, the *k-means* method was applied to determine an “ideal” number of groups into which the “population” (in this case the set of 28 Member States) can be subdivided. The aggregative algorithms used by this method groups the countries in order to minimise the diversity existing within clusters and maximise the diversity between them. The indicators used for this analysis were the four weighted AAI domain-specific scores calculated for each country: Employment; Social participation; Independent, healthy and secure living; and, Capacity and enabling environment. To identify the ideal number of clusters, the possibility of alternatively grouping countries into three, four, five and six groups was tested. The four-cluster solution was finally preferred, as out of the considered options it turned out to be the one with the smallest number of “outliers” (i.e. of countries reporting scores that are distant from those characterising the other countries belonging to the same cluster).

Figure 3: Map of country clusters



Note: Colours refer to the clusters identified in Table 2.

Table 2: 2018 AAI by country clusters, overall and domain-specific average scores within cluster

Country clusters*	Domain-specific scores				Overall
	Employment	Social participation	Independent, healthy & secure living	Capacity & enabling environment	
1	25.6	14.1	66.9	52.8	31.1
2	25.7	22.7	73.8	60.4	36.4
3	37.5	15.1	68.3	55.9	36.5
4	39.4	23.5	77.6	65.9	43.0
Total	31.1	17.9	70.7	57.5	35.7

*: Clusters contain following countries (colours refer to those shown in Fig. 1):

1. Bulgaria, Croatia, Greece, Hungary, Italy, Poland, Romania, Slovakia, Slovenia, Spain (green);
2. Austria, Belgium, Cyprus, France, Luxembourg, Malta (red);
3. Czech Republic, Estonia, Ireland, Germany, Latvia, Lithuania, Portugal (blue);
4. Denmark, Finland, Netherlands, Sweden, United Kingdom (yellow).

N.B.: for mean standard deviation values see Table A2 in the Annex

The first cluster (green) is the largest and includes 10 Eastern European and Mediterranean countries. The second one (red) embraces six countries geographically belonging to two different areas: Western-Continental Europe (Austria, Belgium, France and Luxembourg) and two EU Mediterranean island States (Cyprus and Malta). The third cluster (blue) includes a mixture of Baltic countries (Estonia, Latvia and Lithuania) and Continental Member States (Czech Republic and Germany), with the addition of Ireland and Portugal, for a total of seven countries. Finally, we find what we might call a “Nordic” cluster (yellow), the smallest one (five nations), consisting of three Scandinavian countries (Denmark, Finland and Sweden), the Netherlands and the United Kingdom.

The clustering of the 28 EU countries enables a more straightforward and compact identification of the core challenges characterising each group of countries. As summarised in Table 3, the green cluster is faced by strong challenges in the area of social participation, where the mean cluster score lies over 20 per cent below the EU average. At the same time, these countries report significantly lower performances in terms of employment rates, and a higher (although still below average) positioning in the remaining domains of Independent, healthy and secure living (hereinafter: Independent living) and of




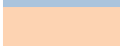


Capacity and enabling environment. Countries belonging to the red cluster are facing one main, strong challenge: low employment rates in older age groups. As such, they are characterised by a condition symmetrically opposite to that describing those belonging to the blue cluster, reporting below average performances in all domains except that of employment (with a problematic situation especially concerning the area of social participation). Results for the yellow Nordic cluster point to above average results in the first, second and fourth domains, and only slightly above the mean in the third domain. While this does not mean that countries belonging to the yellow cluster do not have room for improvement in realising the potential of older persons, they certainly present a comparatively more encouraging status quo in this regard. Their policies might therefore be aimed at catching up with each other within the clusters (as they each have relative strengths and weaknesses), or at identifying which sub-areas, within individual domains, might deserve more careful policy-targeting (see Part 3 for some examples in this regard).

The overall AAI score reflects the weighted domain-specific results described above, leading to a situation in which the green cluster lies over 12 per cent below the EU average, the yellow cluster almost 20 per cent above it, and the other two clusters just above it.

Table 3: Difference between the average country clusters' overall 2018 AAI and domain-specific scores and the EU average (expressed as a percentage of the latter)

Country clusters	Employment	Social participation	Independent, healthy & secure living	Capacity & enabling environment	Overall
1	-17.5	-21.2	-5.3	-8.3	-12.8
2	-17.3	26.9	4.4	5.0	1.9
3	20.7	-15.3	-3.3	-2.8	2.1
4	26.9	31.6	9.8	14.5	20.3
EU average	31.1	17.9	70.7	57.5	35.7

Legend:

	Over 20% above EU average
	Between 10% and 19.9% above EU average
	Up to 9.9% above EU average
	Up to -9.9% below EU average
	Between -10% and -19.9% below EU average
	Under -20% below EU average

Clustering helps identify similar situations, features and behaviours. Generally, countries within clusters can learn well from one another, and borrow effective policies that have proven their worth in similar circumstances. Nevertheless, there are also relevant differences within clusters, and these can call for specific approaches and policy interventions. To this purpose, a more in-depth,

country-based analysis is needed, for which it is necessary to acquire more detailed information, such as that reported in Table 4, for instance. The latter offers an overview of the specific positioning of each EU Member State with regard to the four domains considered for the clustering approach used here.

Table 4: Countries by clusters: 2018 AAI domain-specific scores and difference from EU-average (expressed as a percentage of the latter)

Clusters	Countries	Domain-specific scores				Overall	Difference from EU-average			
		Employment	Social participation	Independent, healthy & secure living	Capacity & enabling environment		Employment	Social participation	Independent, healthy & secure living	Capacity & enabling environment
1	Greece	20.6	11.8	63.9	50.0	27.7	-33.8	-33.8	-9.5	-13.1
	Croatia	21.2	15.8	64.2	49.4	29.3	-31.8	-11.4	-9.2	-14.1
	Romania	28.9	13.6	63.7	44.6	30.2	-7.1	-23.7	-9.8	-22.6
	Hungary	27.5	11.6	65.6	51.0	30.5	-11.5	-35.1	-7.1	-11.3
	Slovenia	21.3	15.7	71.0	55.5	31.1	-31.6	-12.3	0.4	-3.6
	Poland	26.5	13.1	66.1	52.7	31.0	-14.8	-26.9	-6.5	-8.5
	Bulgaria	30.5	9.7	66.2	55.9	31.8	-1.9	-46.0	-6.3	-2.9
	Slovakia	26.3	16.1	69.2	52.9	32.3	-15.4	-10.2	-2.0	-8.0
	Italy	28.0	17.3	68.0	55.9	33.8	-10.0	-3.0	-3.8	-2.8
	Spain	25.7	16.2	71.6	59.7	33.7	-17.5	-9.6	1.3	3.7
2	Luxembourg	20.2	23.8	74.2	62.2	35.2	-35.1	33.1	5.0	8.0
	Malta	25.6	20.9	70.6	60.5	35.4	-17.7	16.7	-0.1	5.1
	Cyprus	30.8	19.4	71.5	54.9	35.7	-1.0	8.6	1.3	-4.6
	Austria	27.2	18.8	77.7	60.0	35.8	-12.7	4.9	10.0	4.3
	Belgium	23.8	27.0	73.3	62.8	37.7	-23.4	51.0	3.8	9.1
	France	26.9	26.2	75.4	62.2	38.6	-13.6	46.8	6.7	8.0
3	Lithuania	37.9	11.1	65.3	48.5	33.4	21.9	-38.1	-7.6	-15.7
	Portugal	33.4	11.9	67.7	54.2	33.5	7.3	-33.3	-4.2	-5.8
	Latvia	37.9	17.8	57.7	50.2	35.3	22.0	-0.4	-18.3	-12.7
	Czech Republic	34.2	16.2	71.4	58.7	36.5	10.1	-9.6	1.0	2.0

Table 4: Countries by clusters: 2018 AAI domain-specific scores and difference from EU-average (expressed as a percentage of the latter), cont.

Clusters	Countries	Domain-specific scores				Overall	Difference from EU-average			
		Employment	Social participation	Independent, healthy & secure living	Capacity & enabling environment		Employment	Social participation	Independent, healthy & secure living	Capacity & enabling environment
3	Estonia	44.5	14.3	66.5	53.2	37.9	43.1	-19.8	-5.9	-7.6
	Ireland	35.4	18.8	75.0	63.2	39.1	13.7	5.3	6.1	9.8
	Germany	39.4	15.9	74.9	63.6	39.6	26.7	-11.1	5.9	10.6
4	Finland	35.7	22.6	77.6	63.1	40.8	14.9	26.6	9.8	9.7
	United Kingdom	39.3	20.7	75.3	63.9	41.3	26.2	15.9	6.6	11.0
	Netherlands	36.3	26.6	77.3	64.7	42.7	16.6	48.6	9.4	12.5
	Denmark	40.6	21.7	78.4	66.5	43.0	30.6	21.4	11.0	15.6
	Sweden	45.4	26.0	79.2	71.2	47.2	46.0	45.5	12.1	23.8
EU average		31.1	17.9	70.7	57.5	35.7				

Legend:

- Over 20% above EU average
- Between 10% and 19.9% above EU average
- Up to 9.9% above EU average
- Up to -9.9% below EU average
- Between -10% and -19.9% below EU average
- Under -20% below EU average

The information provided in this table allows, just to give a few examples, the observation that, within the **green cluster (1)**, Greece would require specific attention to address the challenges highlighted in the employment and social participation domains, Romania's results call for interventions in the area of capacity and enabling environment, while Spain and Italy show only slightly below (or even above) average results outside of the field of employment.

Within the **red cluster (2)**, Belgium and Luxembourg stand out for a relatively low performance in terms of employment rates, albeit largely compensated by high outcomes in the field of social participation (the latter feature being shared also by France). Cyprus, which is on the contrary almost in line with the EU average in terms of employment rates, is this group's only Member State reporting a below average situation with regard to Capacity and enabling environment.

The symmetrically opposite situation of the countries belonging to the **blue cluster (3)** could be summarised by the performances of Lithuania and Portugal, both well positioned with regard to older adults' labour market participation, but not as strong in terms of their citizens' social participation in later life. Their low performance in the other two domains (especially true for Lithuania) contributes to making this cluster the most heterogeneous, ranging from a country like Ireland (presenting above average scores in all domains), to Germany and Estonia (where scores concerning social participation are particularly

low), and Latvia (with the lowest value among all Member States in the Independent living domain, and a quite fragile position also in terms of Capacity and enabling environment).

Finally, even within a more uniform and largely high-performing **yellow cluster (4)**, it is visible that Finland and the Netherlands have the lowest cluster-specific employment rates, the United Kingdom has the lowest outcomes in terms of social participation, and all countries report results that are less strong (albeit always above average) in the area of Independent living.

1.1.2 Gender gap in Active Ageing

As both experiences of and opportunities for ageing actively might differ between men and women, Table 5 offers an overview of the gender gap, expressed as the difference between the AAI score of women and that of men, distinguishing results by domain, country and cluster. The findings show that the gender gap is largest on average in the employment domain (with Malta outstanding for the highest difference in favour of men, and Estonia as the only country with a positive value). The social participation domain is the only one where women outperform men (with a few exceptions, Austria and Luxembourg being the most remarkable). As for the overall score, only three countries stand out for recording a positive gender gap (Estonia, Finland and France); in all the other countries men have higher results than women. As for clusters, the red reports the highest overall negative gap and the yellow group the lowest, with the other two clusters in between.

Table 5: 2018 AAI overall and domain-specific gender gap by country and cluster (expressed as difference between women's and men's AAI scores)

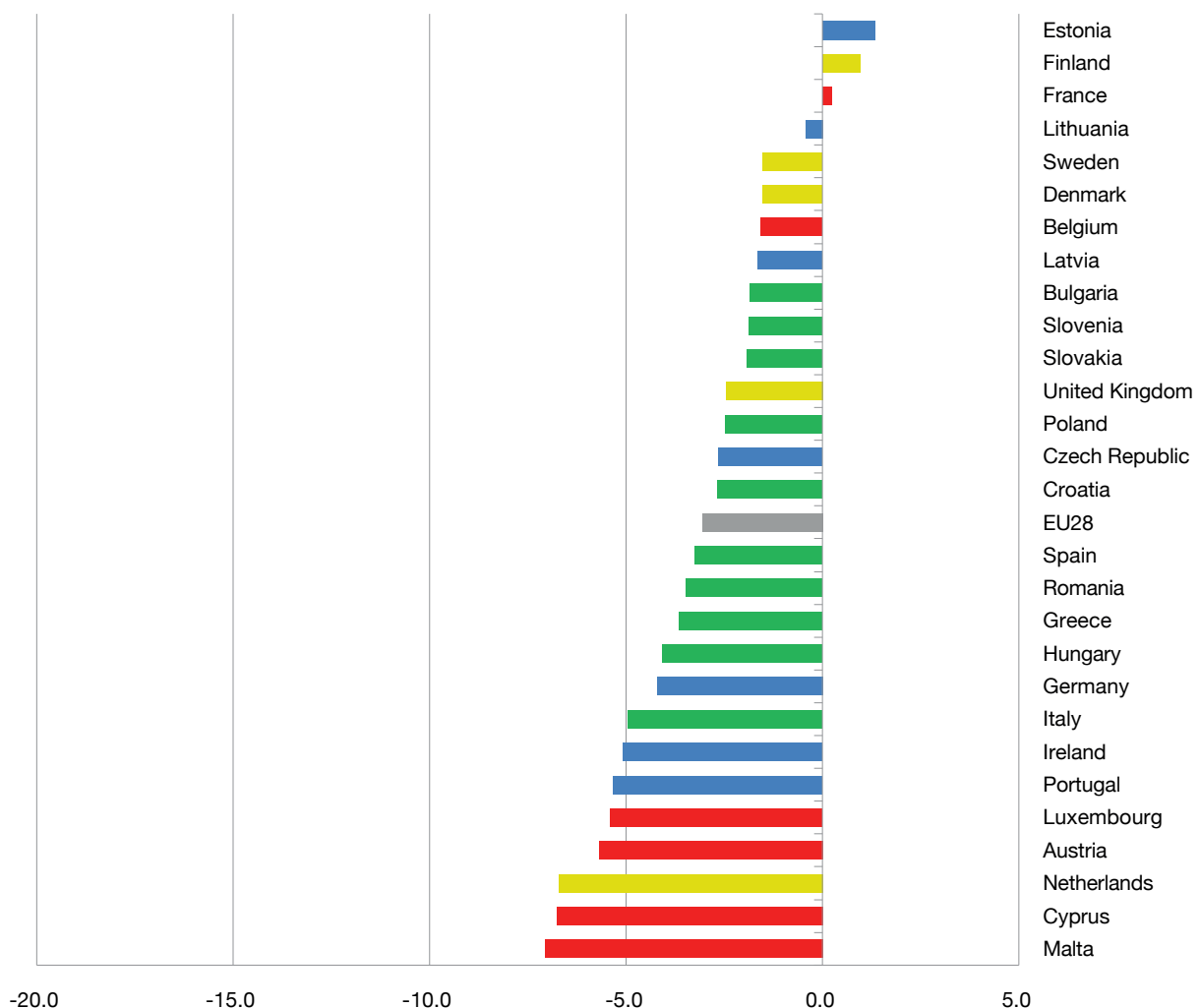
Clusters	Countries	Domain				Overall score by	
		Employment	Social participation	Independent, healthy & secure living	Capacity & enabling environment	country	cluster
1	Bulgaria	-5.7	2.1	-6.6	0.4	-1.8	-3.0
	Slovenia	-5.2	2.1	-4.5	-1.6	-1.9	
	Slovakia	-6.3	1.8	-2.2	-0.5	-1.9	
	Poland	-12.2	5.2	-4.5	2.1	-2.5	
	Croatia	-8.5	1.4	-1.7	-0.1	-2.7	
	Spain	-7.0	-0.4	-2.3	-2.2	-3.2	
	Romania	-11.1	4.0	-4.6	-2.6	-3.5	
	Greece	-10.7	2.4	-3.2	-2.1	-3.6	
	Hungary	-10.0	-1.6	-1.1	0.5	-4.1	
	Italy	-14.0	1.5	-1.6	-2.1	-5.0	
2	France	-2.5	3.2	-3.2	1.5	0.2	-4.4
	Belgium	-6.7	2.8	-2.1	0.1	-1.6	
	Luxembourg	-7.7	-6.0	-4.0	-1.0	-5.4	
	Austria	-9.8	-5.3	-3.7	-0.5	-5.7	
	Cyprus	-12.6	-3.3	-3.0	-4.5	-6.8	
	Malta	-20.5	1.1	-0.6	-1.5	-7.1	
3	Estonia	2.8	-0.6	-3.8	4.8	1.4	-2.6
	Lithuania	-3.3	3.3	-12.8	4.3	-0.4	
	Latvia	-1.2	-3.0	-4.3	1.3	-1.6	
	Czech Republic	-11.3	3.7	-1.8	1.0	-2.6	
	Germany	-8.2	-2.6	-3.4	-0.5	-4.2	
	Ireland	-13.8	-1.3	-2.3	2.3	-5.1	
	Portugal	-11.7	-1.7	-3.3	-1.5	-5.3	
4	Finland	-1.1	3.0	-1.1	2.1	1.0	-2.2
	Sweden	-5.3	1.0	-1.9	0.8	-1.5	
	Denmark	-9.8	5.1	0.0	0.6	-1.5	
	United Kingdom	-10.1	4.1	-2.8	-0.4	-2.5	
	Netherlands	-14.0	-3.0	-3.1	-2.3	-6.7	
	EU28	-8.5	0.7	-3.2	-0.1	-3.1	

In order to visualise more effectively how cross-country differences in the AAI gender gap scores are distributed across clusters, country performances are listed in Figures 4 to 8 from the highest AAI positive score (reflecting a situation of women outperforming men) to the lowest.

For the overall AAI score, Figure 4 clearly shows that, as anticipated, only Estonia, Finland and France lie on the positive side of the graph, with all other countries reporting negative scores. Four of

the five lowest performers belong to the red cluster (Malta, Cyprus, Austria and Luxembourg), the fifth being the Netherlands, which is the only country in the yellow cluster that is not placed in the first half of this specific ranking. Eastern European and Mediterranean countries belonging to the green cluster are all centrally positioned, while countries in the blue cluster are spread across the ranking list, reflecting a differentiated situation that can be observed also in terms of domain-specific results.

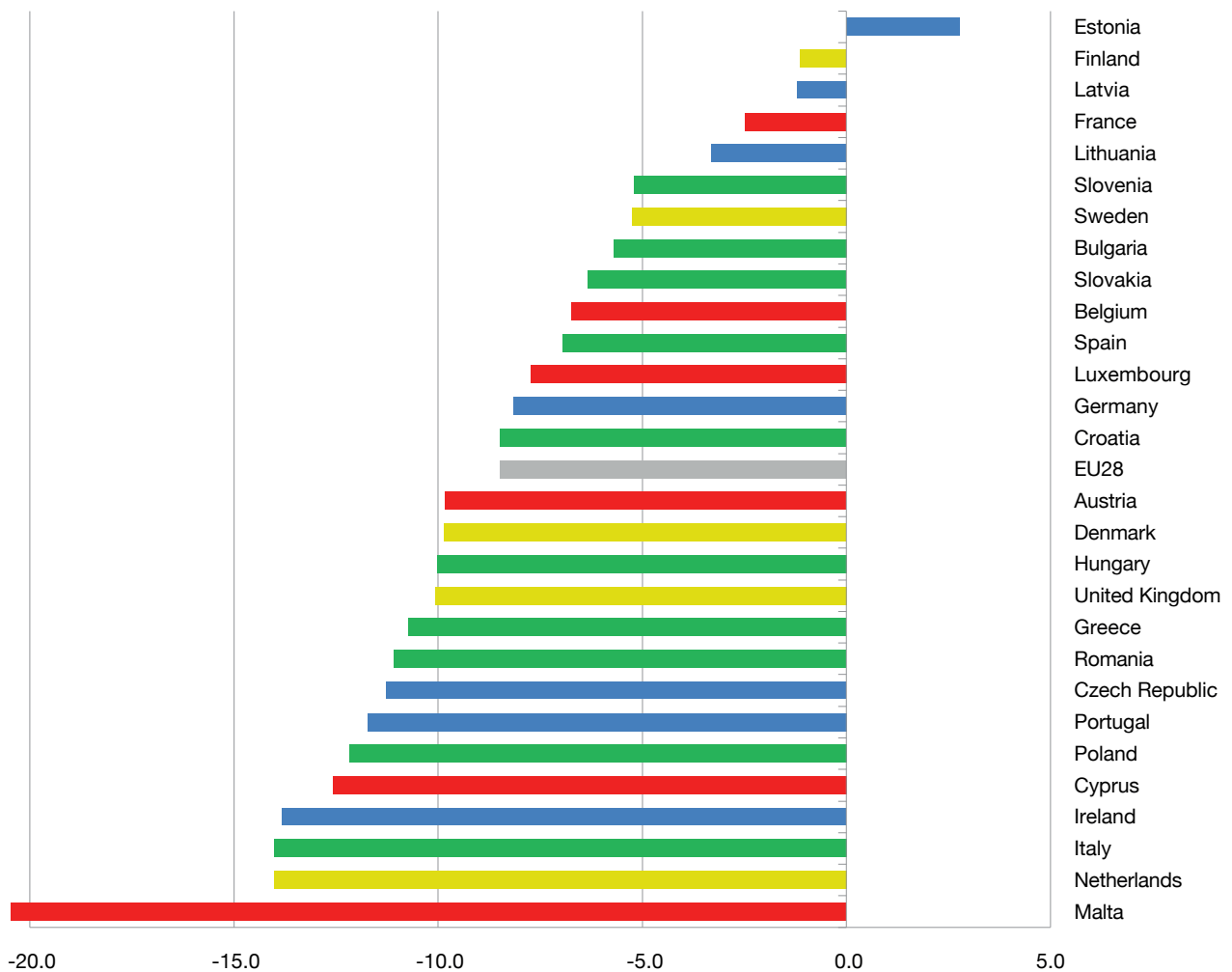
Figure 4: Gender gap in the overall 2018 AAI score (expressed as a difference between women’s and men’s scores), by country and cluster



The analysis of the state of affairs in the employment domain (Figure 5) shows that this area clearly contributes to Estonia’s top position in the overall AAI gender gap ranking, as the only country with a positive score in this respect. Secondly, it can be noted that the Baltic states occupy three out of the first five positions, thus reflecting a situation of a relatively gender-balanced labour market. A third observation that can be made concerns the fact that, in addition to the Netherlands,

two other countries in the yellow cluster find themselves lower than the EU average in this area: Denmark and the United Kingdom. The final and most general remark concerns the fact that half of all EU Member States report a gender gap of 10 or more points between women and men in employment rates (with Malta reaching 20 points), thus highlighting that the need for more effective gender-sensitive policies is strongest in this area. This applies to all clusters, with no exception.

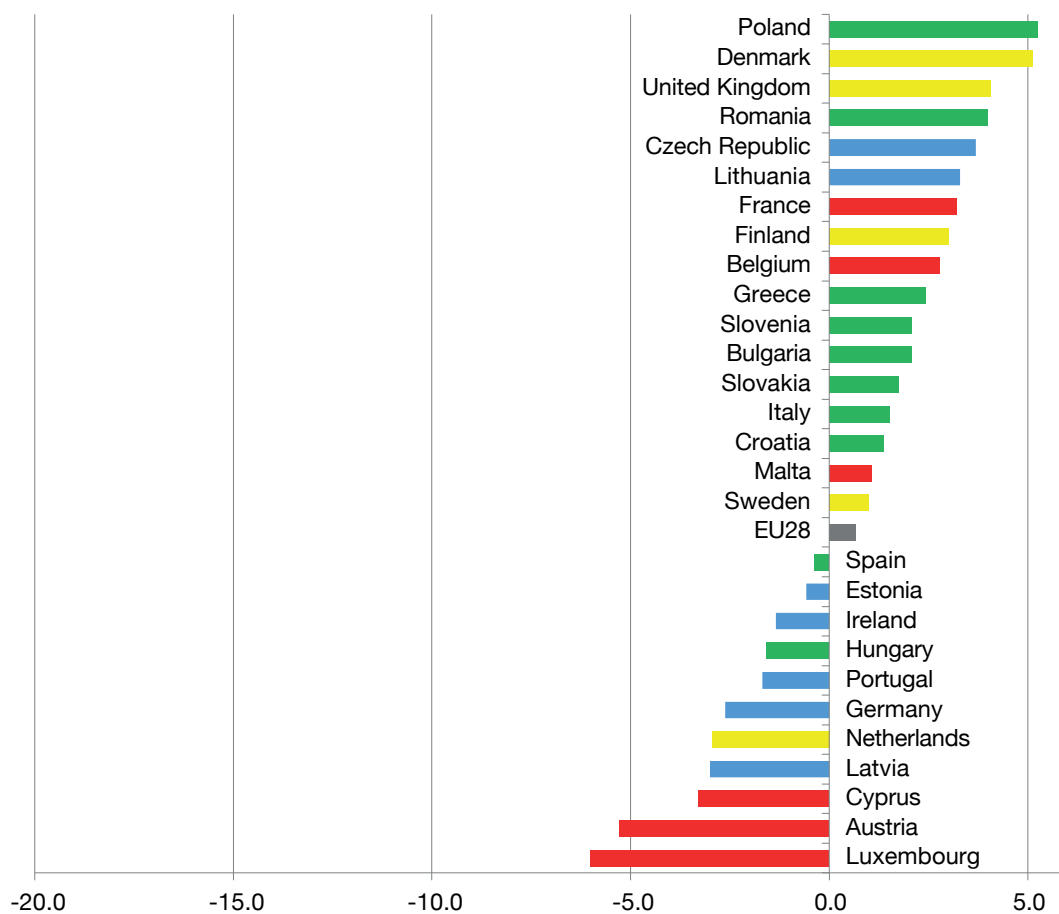
Figure 5: Gender gap in the 2018 AAI score for the domain “Employment” (expressed as a difference between women’s and men’s scores), by country and cluster



Results concerning the social participation domain (Figure 6) reflect, as anticipated, that the gender gap in this area is the lowest overall, and even slightly positive at the EU average level. The factor behind this pattern – which would require a more in-depth analysis, along the lines of what is discussed later in Part 3 – is noticeably higher care-related indicators for women, while political participation is normally more widespread among men. Among the additional noteworthy patterns, it should be stressed that the majority of Eastern European and Mediterranean countries belonging to the green cluster (1) are generally above the EU average (exceptions: Spain and Hungary).

The same is true for the yellow cluster (4), with the exception of the Netherlands (this being a country-specific pattern that is encountered across all domains). The red (2) and blue (3) clusters, on the contrary, split into two subgroups each: one visibly above (including, for instance, the Czech Republic and Lithuania in the blue cluster) and one clearly below the EU average (involving the lowest performers – Luxembourg, Austria and Cyprus – in the red cluster). This confirms that, to be effective, policies aimed at reducing the gender gap in this domain will have to go beyond cluster-based considerations, and identify subtler country-specific dynamics operating at subcluster level.

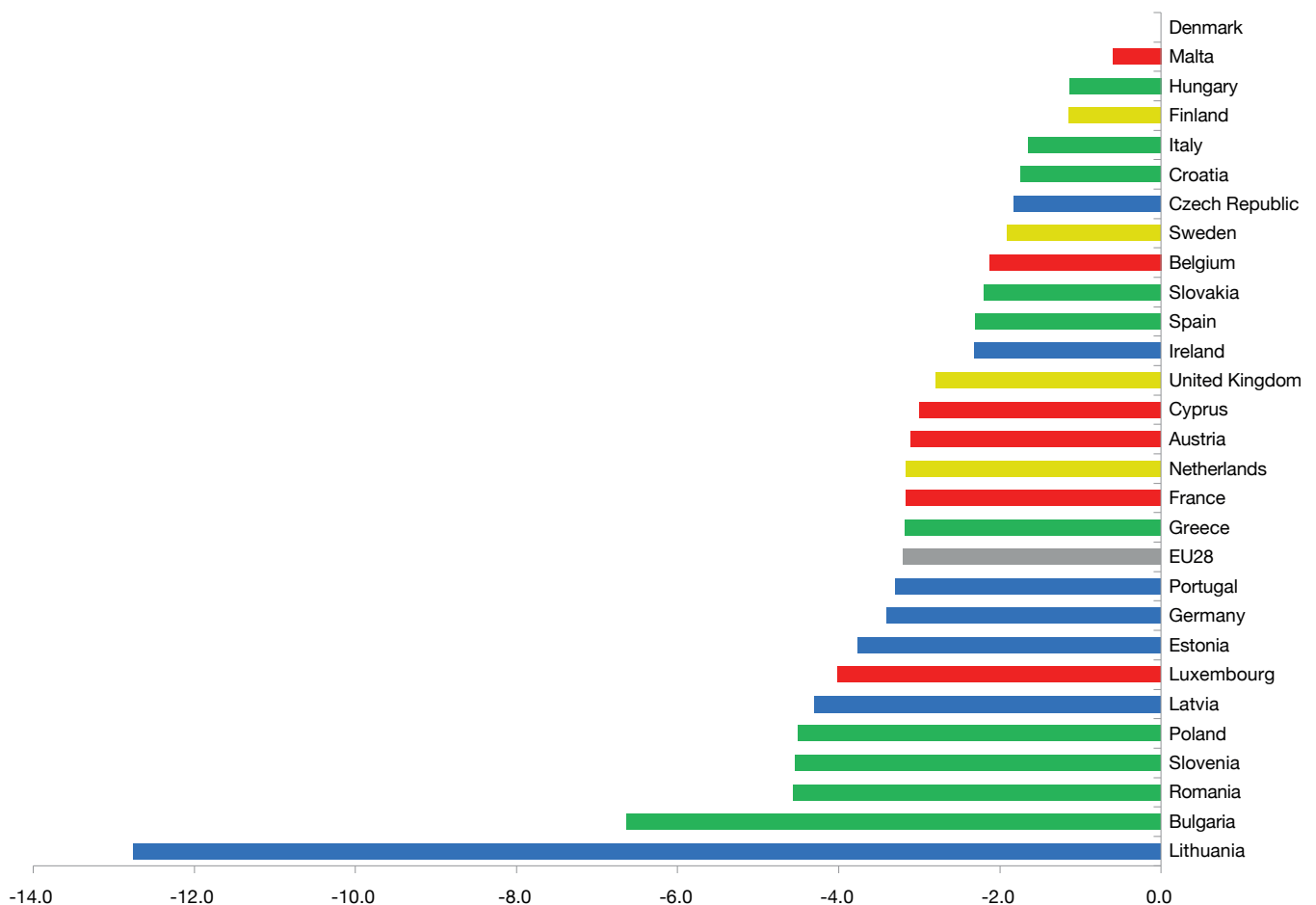
Figure 6: Gender gap in the AAI 2018 score for the domain “Social participation” (expressed as a difference between women’s and men’s average scores), by country and cluster



The Independent, healthy and secure living domain (Figure 7) reports gender gap results which only partly follow those described for the previous two domains. Apart from Denmark, all other countries report a negative gender gap that resembles the pattern observed in the employment domain. The positioning of the countries within this specific ranking, however, shows a unique configuration compared to that highlighted by the other domains: countries belonging to the green cluster are characterised by a polarisation featuring some of them (especially the Mediterranean ones) as top performers, and

some of them with the least gender-balanced situation. Another feature is that Baltic countries (blue cluster) report three out of the eight largest negative gender gaps in this domain (with Lithuania striking particularly low in this regard), while red-cluster countries remain (with the exception of Malta) in intermediate positions. Only a more in-depth, country-specific scrutiny of the underlying AAI indicators would allow a more precise identification of which factors need to be addressed, in order to promote a gender-sensitive approach when implementing active ageing policies at country level in this area.

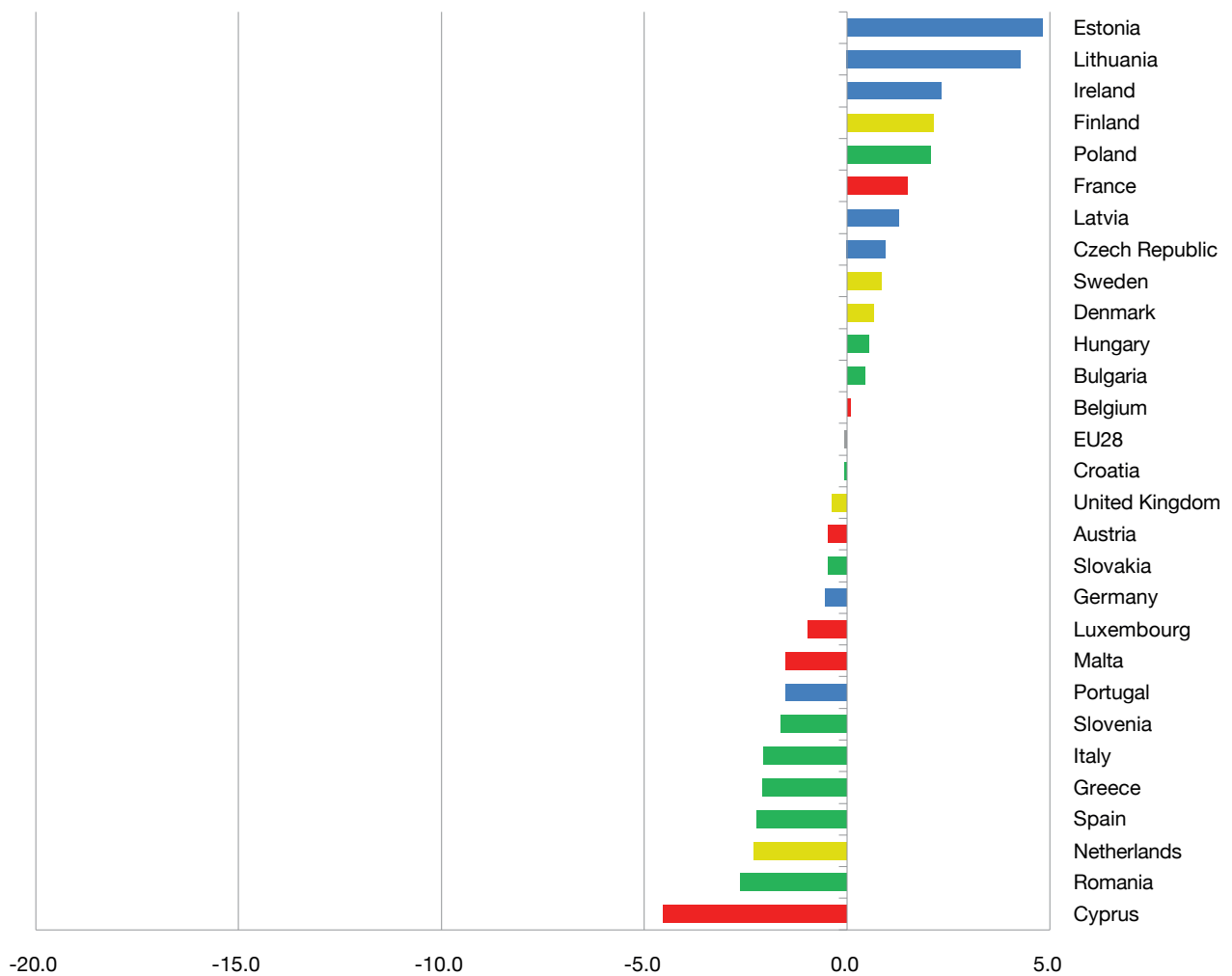
Figure 7: Gender gap in the 2018 AAI score for the domain “Independent living” (expressed as a difference between women’s and men’s scores), by country and cluster



Finally, results emerging from the analyses concerning the area of Capacity and enabling environment (Figure 8) show, in the first place, that the position of Baltic countries is completely reversed compared to that just observed for the previous domain, since they belong to the

highest performers in this specific ranking. A second noteworthy finding concerns the – again, diametrically opposite – situation characterising most Mediterranean States belonging to both the green and the red clusters, now listed among those reporting the largest negative gender gap.

Figure 8: Gender gap in the 2018 AAI score for the domain “Capacity and enabling environment” (expressed as a difference between women’s and men’s scores), by country and cluster



1.2 Subnational AAI

The main aim of this section is to illustrate how the AAI could be applied to policymaking at different territorial/administrative levels. While in Section 1.1 the index was used at country level (NUTS³ O), this Section 1.2 provides application examples at the levels of NUTS 1 in Italy, NUTS 2 in Poland, and NUTS 3 in Germany. These examples are taken from three respective studies undertaken within the AAI project: for Italy (UNECE/European Commission, 2019), Poland (UNECE/European Commission, 2017b) and Germany (UNECE/European Commission, 2016).

ITALY

Figure 9: Overall AAI in Italy, 2016



The Italian study was conducted at the NUTS 1 level. Italy has four NUTS 1 areas; however, in this study, the North-East and North-West macroregions were merged into the “North”.

The North consists of the Piedmont, Valle d’Aosta, Liguria, Lombardy, Trentino-Alto Adige, Veneto,

Global AAI results and the overall gender gap for Italy and Germany are shown in corresponding maps, while further results for the four AAI domains, including the gender gap, are provided in the form of tables. Due to the limited availability of data at subnational level, less information for Poland is provided in this respect. In addition to the cases of cross-regional analysis, this section offers an example of the AAI application in the Biscay Province of Spain (NUTS 3). The latter is based on the study by Bacigalupe *et al.* (2015).

Table 6: AAI overall and by domain in Italy, 2016

	North	Centre	South
Overall AAI Italy	35.9	35.0	30.9
1 Employment	29.6	31.2	23.9
2 Participation in society	18.9	16.5	15.3
3 Independent living	72.6	69.9	66.2
4 Capacity for active ageing	58.3	56.6	52.5

Legend

	Highest value (by row)
	Intermediate value (by row)
	Lowest value (by row)

Friuli-Venezia Giulia and Emilia-Romagna regions. The regions of Tuscany, Umbria, Marche and Lazio formed the Centre, while Abruzzo, Molise, Campania, Puglia, Basilicata, Calabria, Sicily and Sardinia were included in the South. AAI values are higher in Northern Italy and lower in Southern Italy. The low AAI value in the South reflects structural

well-known and long-lasting territorial gaps. The Italian study analysed AAI at four different points in time. In the period under consideration (2007-2018), the AAI values increased in all three areas, with a significantly more pronounced increase in the North and in the Centre than in the South. This indicates that the geographical divide in terms of active ageing is widening in Italy and

Figure 10: Overall AAI in Italy, gender gap 2016



Overall, the gender gap is in favour of men in all the three areas (Figure 10), and more visibly so in the South of Italy. Although Southern Italy shows a lower gender gap in the domains of participation in society and independent living (Table 7), there is a high gender gap in employment which, given the weight of the employment dimension, considerably impacts on the overall AAI gender gap.




Based on an agreement between the Department for Family Policies at the Presidency of the

that policymakers should devote more efforts toward addressing this disparity. As Table 6 shows, Southern Italy denotes lower AAI scores in every domain while the highest values characterise Northern Italy, apart from the employment domain where the Centre has the highest score due to a higher employment rate of older workers in the public sector than in other areas.

Table 7: AAI overall and by domain, gender gap in Italy

	North	Centre	South
Overall AAI Italy	-5.5	-5.6	-6.6
1 Employment	-12.8	-13.1	-16.1
2 Participation in society	-0.5	-0.3	-0.2
3 Independent living	-3.4	-3.5	-2.7
4 Capacity for active ageing	-2.5	-2.8	-3.3

Legend

	Highest gender gap (by row)
	Intermediate gender gap (by row)
	Lowest gender gap (by row)

Council of Ministers and the Italian National Institute of Ageing (IRCCS-INRCA) regarding a three-year project aimed at a multilevel participatory coordination of policies on active ageing in the country, an investigation based on the AAI at NUTS 2 level is to start in 2019 in order to support the 20 Italian regions in active ageing-related policymaking.⁴ Some regions (e.g. the Marche Region⁵) specifically mentioned the AAI as a support and monitoring tool in their regional laws which focus on active ageing.

4 <http://www.politichefamiglia.it/it/notizie/notizie/notizie/politiche-a-sostegno-dell-invecchiamento-attivo-accordo-di-collaborazione-con-l-inrca/>

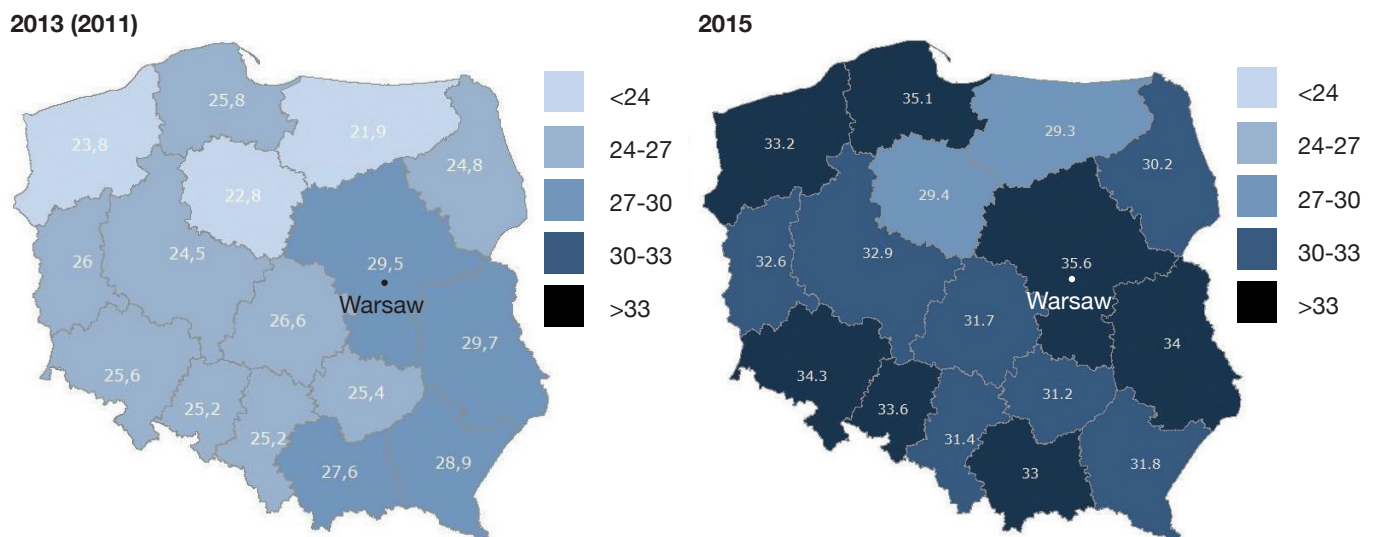
5 http://www.consiglio.marche.it/banche_dati_e_documentazione/leggi/dettaglio.php?arc=vig&idl=2078

POLAND

Even if the subnational level was not specifically investigated in the above-mentioned Polish study, this still provided a brief overview of the results of the work implemented in Poland since 2013. At the request of the Ministry of Family, Labour and Social Policy, the AAI has been calculated three times so far (2013, 2014 and 2015) at the NUTS 2 level (Perek-Białas, Mysińska, 2013, and Perek-Białas, Zwierzchowski, 2014, 2016). The purpose was to identify differences among the regions (voivodships) in terms of active ageing and to support regional policymakers with information

so that they can better design and implement adequate active ageing policy measures, in line with the Government Programme for the Social Participation of Senior Citizens (ASOS – for 2014-2020). Results were presented to the presidents of the 16 regions (voivodships) at the Special Session of the Regional Convention held in Krakow in April 2017 and, since it is planned that the work will continue, also during the national seminar held at the Ministry of Family, Labour and Social Policy in June 2018. Regional results for the overall AAI are presented below.

Figure 11: Overall AAI in Poland, by voivodships, 2013 (2011) and 2015



Note: Elaborations by Perek-Białas and Zwierzchowski (2019) based on analysis of AAI for 2013 (published in 2013) and 2015. Data used for 2013 AAI analysis refer to 2011.

The study evidenced that the region of Mazowieckie (which includes Warsaw, the capital city) with 29.5 points, showed one of the highest AAI scores across all regions in 2011, together with other south-eastern regions. This can mostly

be attributed to the employment of older workers which is higher than in other regions. Even in such a short period of time (2011-2015), the level of overall AAI and of its four domains increased in all Polish regions (Figure 11).

GERMANY

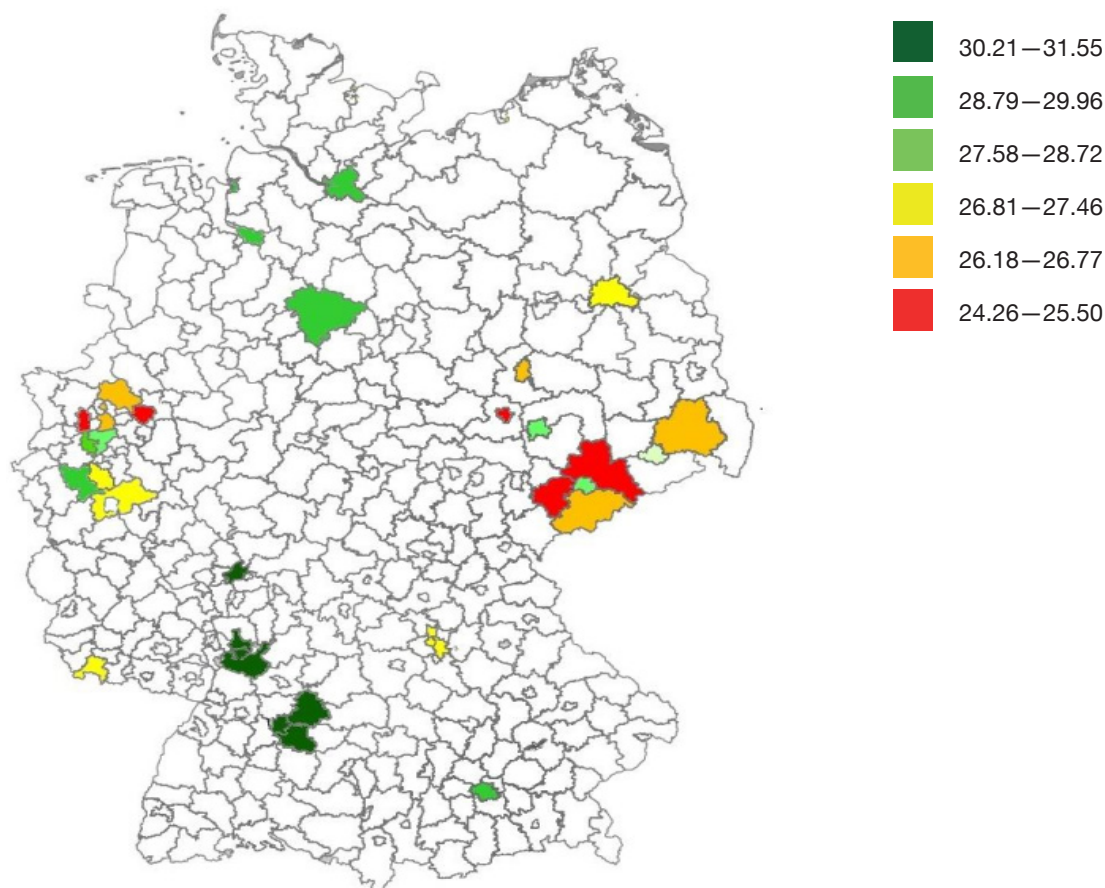
The German subnational study focused on an even lower territorial level to reflect the fact that crucial preconditions of active ageing are often created at the local level and that with age, the importance of the local area increases in the lives of individuals. For this reason, it is important to develop local actions to support active ageing.

The German study was developed on the NUTS 3 level i.e. counties (Landkreise) or Special regional associations (Kommunalverbände besondere Art), and cities that do not belong to a county (Kreisfreie Städte) or independent cities (Stadtkreise). The study covered 30 of the 402 NUTS 3 German territories. The methodological

reasons for this are explained in the respective report. The study provides a useful example of how the index can be used at the local level and also offers a methodological approach that is

different to other studies, where each indicator was formed based on more variables coming from different surveys. The summary of results can be seen in Figure 12.

Figure 12: Overall AAI in 30 German territories (2012-2015 data)



The figure shows that the South-Western part has higher AAI values, for example Esslingen, Stuttgart, Rems-Murr and Rhein-Neckar. This area is characterised by high values especially in the employment and Independent living domains (Table 8). In the central part, especially in the East, AAI results tend to be lower (Mittelsachsen and Zwickau). Very low values characterise

independent living and the capacity for active ageing domains in the latter area. In cities of the Ruhr area (Dortmund and Duisburg) and the county of Recklinhausen, AAI values are quite low especially in the first three domains of employment, participation in society and independent living. AAI values are rather high in the North-West (Hannover and Hamburg).

Table 8: AAI overall and by domain in 30 German territories, 2012-2015 data

	Overall AAI	Employment	Participation in society	Independent living	Capacity for active ageing
Bautzen (Region)	26.8	24.7	17.1	31.1	45.0
Berlin	27.2	24.6	15.9	33.6	48.3
Bremen	28.8	24.6	15.6	51.5	47.9

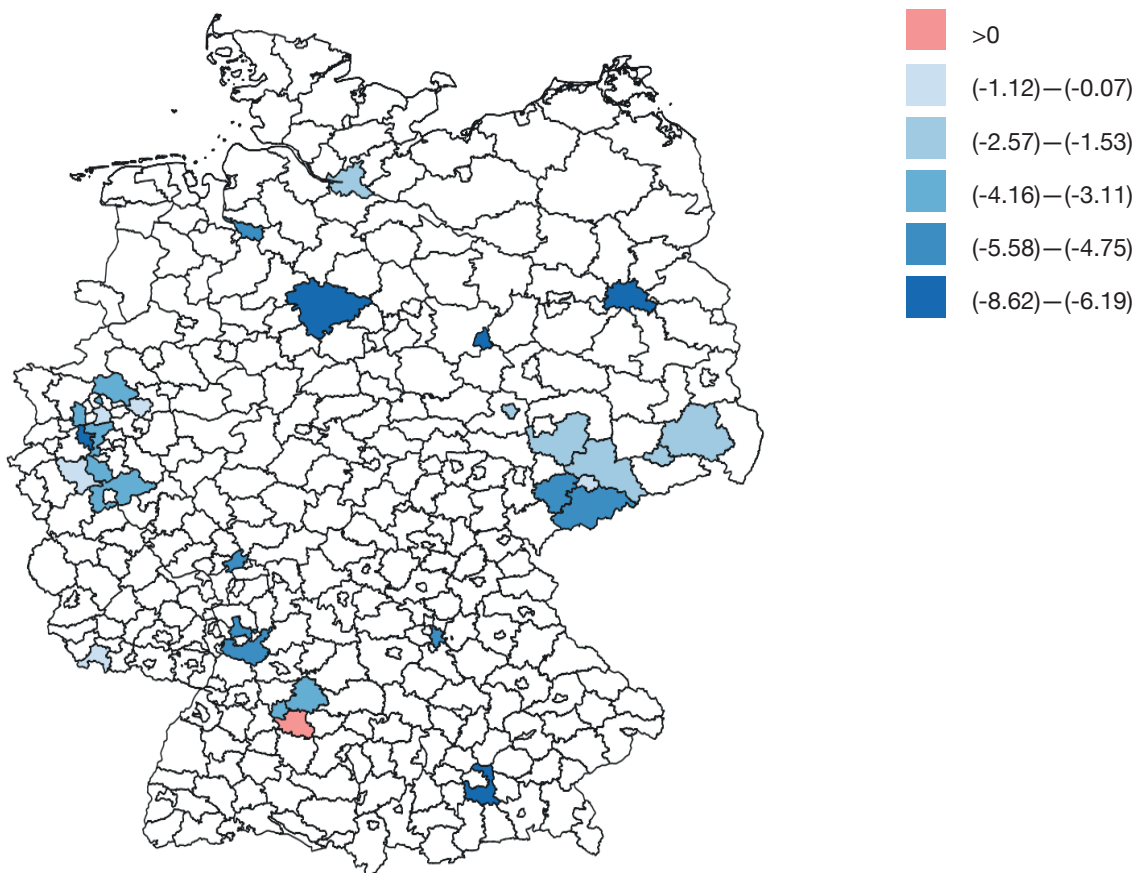
Table 8: AAI overall and by domain in 30 German territories, 2012-2015 data, cont.

	Overall AAI	Employment	Participation in society	Independent living	Capacity for active ageing
Chemnitz	27.7	24.8	18.2	31.8	47.4
Dortmund	25.2	23.0	14.7	30.4	44.9
Dresden	28.0	25.8	16.4	34.8	48.8
Duisburg	24.7	22.7	13.3	28.9	46.1
Düsseldorf	27.1	25.5	15.3	32.3	48.0
Erfthkreis (Region)	29.0	27.4	15.5	38.7	50.5
Erzgebirgs administrative district	26.2	24.2	15.2	34.7	44.6
Essen	26.2	23.4	14.5	32.5	48.4
Esslingen (Region)	31.6	27.8	16.6	56.8	51.7
Frankfurt am Main	30.2	25.9	15.5	58.6	49.3
Halle (Saale)	25.5	23.0	15.1	28.2	46.8
Hamburg	30.0	26.6	16.5	47.7	50.6
Hannover (Region)	29.1	26.1	18.3	36.1	49.9
Köln/ Cologne	28.7	25.8	17.7	32.1	51.5
Leipzig	27.6	25.2	16.5	35.5	47.2
Magdeburg	26.7	23.3	16.3	32.7	47.5
Mettmann (Region)	28.0	26.1	14.5	36.9	50.3
Mittelsachsen (Region)	25.4	24.3	13.7	29.5	45.8
München/ Munich	29.2	26.9	16.5	37.2	51.4
Nürnberg	27.1	23.6	16.3	33.7	49.0
Recklinghausen (Region)	26.5	20.7	16.5	36.7	49.1
Rems-Murr administrative district	30.5	27.1	16.4	54.1	49.2
Rhein-Neckar administrative district	30.3	25.9	16.1	56.7	49.9
Rhein-Sieg administrative district	26.8	25.9	12.4	36.3	48.9
Saarbrücken (Regional association)	27.5	25.8	15.4	35.1	47.7
Stuttgart	30.8	27.5	15.2	57.8	50.5
Zwickau (Region)	24.3	23.4	11.6	29.6	45.2

Legend

	Higher values (by column)
	Intermediate values (by column)
	Lower values (by column)

Figure 13: Overall AAI in 30 German territories, gender gap (2012-2015 data)



The gender gap analysis (Figure 13) shows that the only territory where the overall AAI gender gap is in favour of women (i.e. Esslingen) is also the place with the highest AAI value (Table 8). For the rest, to different degrees, the gender gap is in favour of men. When individual domains are considered, the

gender gap is in favour of women in several cases. In Table 9, lighter cells represent values with the gender gap in favour of women, while values in the other cells represent a gender gap in favour of men. Those with a particularly high gap in favour of men are reported in blue colour.

Table 9: AAI overall and by domain, gender gap in 30 German territories, 2012-2015 data

	Overall AAI	Employment	Participation in society	Independent living	Capacity for active ageing
Bautzen (Region)	-2.2	-6.9	2.6	-4.2	-1.4
Berlin	-7.1	-15.5	-2.7	-5.5	-1.0
Bremen	-4.9	-4.4	-7.7	-6.4	-0.1
Chemnitz	-1.1	-2.6	-0.3	-5.4	2.1
Dortmund	-1.0	-2.5	4.9	-7.5	-5.6
Dresden	-2.5	-3.0	-3.1	-6.7	1.7
Duisburg	-4.2	-7.9	-2.6	-3.9	-0.5
Düsseldorf	-6.2	-17.3	2.9	-9.4	-1.1
Erfkreis (Region)	-0.9	-5.6	5.6	-8.0	-0.3
Erzgebirgs administrative district	-5.2	-10.4	-2.7	-4.4	-0.9

Table 9: AAI overall and by domain, gender gap in 30 German territories, 2012-2015 data, cont.

	Overall AAI	Employment	Participation in society	Independent living	Capacity for active ageing
Essen	-0.7	1.1	-3.8	-1.0	1.9
Esslingen (Region)	0.4	5.3	-1.3	-2.3	-3.8
Frankfurt am Main	-5.6	-10.6	-3.0	-5.8	-1.2
Halle (Saale)	-1.5	-2.4	-0.5	-3.7	-0.7
Hamburg	-2.5	-5.9	0.3	-4.3	-0.3
Hannover (Region)	-6.2	-6.4	-9.1	-6.2	-1.0
Köln/ Cologne	-3.3	-8.1	-0.3	-6.4	1.7
Leipzig	-2.6	-4.3	-1.6	-6.2	0.6
Magdeburg	-6.5	-13.6	-2.9	-3.6	-1.6
Mettmann (Region)	-3.5	-5.2	-1.1	-17.2	2.3
Mittelsachsen (Region)	-1.7	-2.6	-1.3	-5.4	1.0
München/ Munich	-8.6	-17.6	-3.3	-7.1	-3.0
Nürnberg	-5.5	-7.3	-3.3	-9.8	-3.9
Recklinghausen (Region)	-3.3	-1.9	-3.7	-8.4	-2.4
Rems-Murr administrative district	-3.6	-6.5	-1.2	-6.9	-1.3
Rhein-Neckar administrative district	-5.3	-2.3	-11.4	-3.7	-0.6
Rhein-Sieg administrative district	-3.1	-8.8	-6.1	-6.8	-1.8
Saarbrücken (Regional association)	-0.1	-2.7	3.7	0.3	-2.2
Stuttgart	-3.2	-5.4	-3.1	-11.0	4.5
Zwickau (Region)	-4.7	-6.3	13.8	-9.1	-1.1

Legend

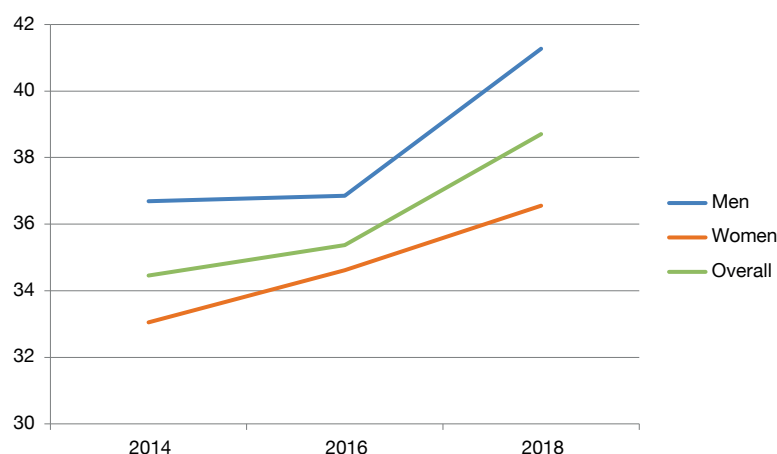
	Highest male predominance (by column)
	Intermediate gender gap (by column)
	Highest female predominance (by column)

BISCAY PROVINCE OF SPAIN

The study conducted in Biscay allows the analysis of trends in active ageing (overall and separately for men and women) over three points in time: 2014, 2016 and 2018. As shown in Figure 14, men

have noticeably higher AAI scores than women. The AAI increased for both sexes over the years, with the gap in favour of men widening between 2016 and 2018.

Figure 14: Overall AAI in Biscay, trend 2014-2018



The AAI increase over time was not always constant in three domains – Participation in society, Independent living and Capacity for active ageing (Table 10). The score decreased between 2014 and 2016 in the Participation in society and

Capacity for active ageing domains, whereas the score of the Independent living domain remained unchanged between 2016 and 2018. Apart from the 2014 and 2016 Participation in society domain, the gender gap was in favour of men.

Table 10: AAI overall and by domain in Biscay and gender gap, in 2014, 2016 and 2018

	2014		2016		2018	
	Value	Gender gap	Value	Gender gap	Value	Gender gap
Overall AAI	34.5	-3.6	35.4	-2.2	38.7	-4.7
AAI Employment	23.2	-10.2	27.5	-5.7	28.9	-9.6
AAI Participation	20.9	0.8	19.1	1.6	24.4	-1.2
AAI Independent	65.3	-2.7	70.8	-0.4	70.8	-2.9
AAI Capacity	62.5	-0.4	60.0	-3.8	64.9	-3.1

The examples provided in this section clearly demonstrate the AAI potential for use in policymaking at various subnational levels,

including by municipalities at the local level (LAU⁶ 2), provided that the needed indicators are available.⁷

⁶ Local administrative unit

⁷ Guidelines for the calculation of the AAI in non-EU countries and at subnational level (UNECE/European Commission, 2018) offer instructions on how to approach AAI calculations in the context of limited data availability https://statswiki.unece.org/download/attachments/76287849/AAI_Guidelines_final.pdf?version=2&modificationDate=1549618259083&api=v2

Part 2: Where are we heading: progress over eight years

2.1 AAI trends in 2008-2016

2.1.1 Overall trends

In the eight years separating from 2008 (i.e. the starting year of the period under consideration) and 2016 (i.e. the year data for which were used to calculate the 2018 AAI for EU countries), the average overall AAI score increased from 32.1 to

35.7 points (Table 11). This growth of roughly 10 per cent reflects a general positive trend (though varied in its amplitude) across EU countries, with the only exception of Greece. In order to better capture differences and similarities in the patterns of change occurring across EU Member States, and in line with the approach already adopted in Section 1.1, the following analysis will mainly refer to the previously identified four country clusters.

Table 11: Evolution of the overall AAI score in the EU countries between 2008 and 2016, by cluster

Cluster	Country	Year					Change 2008-16
		2008	2010	2012	2014	2016	
1	Greece	28.9	29.2	27.7	27.4	27.7	-1.2
	Romania	29.5	29.6	29.9	30.9	30.2	0.7
	Slovenia	30.1	30.5	29.9	31.0	31.1	1.0
	Croatia	27.5	31.2	31.7	29.4	29.3	1.8
	Spain	30.3	32.6	32.8	32.4	33.7	3.4
	Italy	30.1	33.8	34.1	33.0	33.8	3.8
	Poland	27.0	27.2	28.2	30.4	31.0	4.0
	Bulgaria	27.7	29.4	29.9	31.1	31.8	4.1
	Hungary	26.2	27.5	28.4	28.9	30.5	4.2
	Slovakia	26.9	27.8	28.6	30.7	32.3	5.5
2	Cyprus	32.5	35.6	34.1	34.3	35.7	3.2
	Luxembourg	32.0	35.2	35.6	36.5	35.2	3.2
	Austria	30.8	33.4	33.9	34.9	35.8	5.0
	Belgium	32.4	33.2	33.8	37.2	37.7	5.3
	France	33.0	34.2	35.8	37.9	38.6	5.5
	Malta	28.3	30.7	31.6	34.7	35.4	7.1
3	Portugal	32.5	34.3	34.3	32.9	33.5	1.0
	Latvia	32.2	29.8	31.7	34.3	35.3	3.1
	Lithuania	30.2	30.8	31.5	31.8	33.4	3.2
	Ireland	35.9	38.7	38.7	37.6	39.1	3.2
	Estonia	33.5	33.0	34.7	36.6	37.9	4.3

Table 11: Evolution of the overall AAI score in the EU countries between 2008 and 2016, by cluster, cont.

Cluster	Country	Year					Change 2008-16
		2008	2010	2012	2014	2016	
3	Germany	34.4	34.5	35.6	37.5	39.6	5.1
	Czech Republic	31.2	33.9	34.5	34.9	36.5	5.3
4	United Kingdom	38.1	39.8	39.9	40.6	41.3	3.2
	Finland	36.9	38.4	39.0	40.2	40.8	3.9
	Netherlands	38.5	39.0	39.8	41.5	42.7	4.1
	Denmark	38.7	39.9	40.3	41.8	43.0	4.2
	Sweden	42.3	43.6	44.5	46.6	47.2	4.9
EU average		32.1	33.5	33.9	34.9	35.7	3.7

As illustrated in Table 11, and also visualised in graphic form in Figure 15, a first observation is that countries belonging to the green cluster (1) experienced the lowest average growth of +2.7 points, compared to +4.9 points recorded by the red cluster (2), with the other two groups scoring intermediate increases. Not surprisingly, within each cluster there are cross-country

differences in growth that might be even larger than those recorded on average between country-groups. At cluster level, as shown in Figure 15, the increase in the overall AAI score for all four country groups follows a very similar and rather steady pattern over time, with a slightly growing gap between the green cluster and the other three.

Figure 15: Evolution of the overall AAI score in the EU country clusters between 2008 and 2016

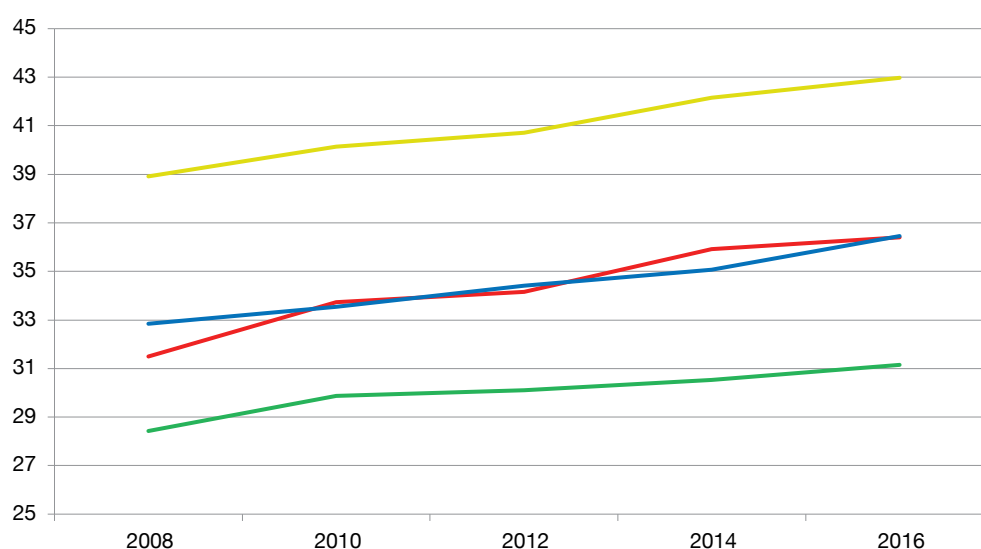


Figure 16 visualises the change that occurred in the overall AAI score over the 2008-2016 period across countries (coloured according to cluster) and differentiates results by gender. While the highest score increases are observed in most countries belonging to the red cluster

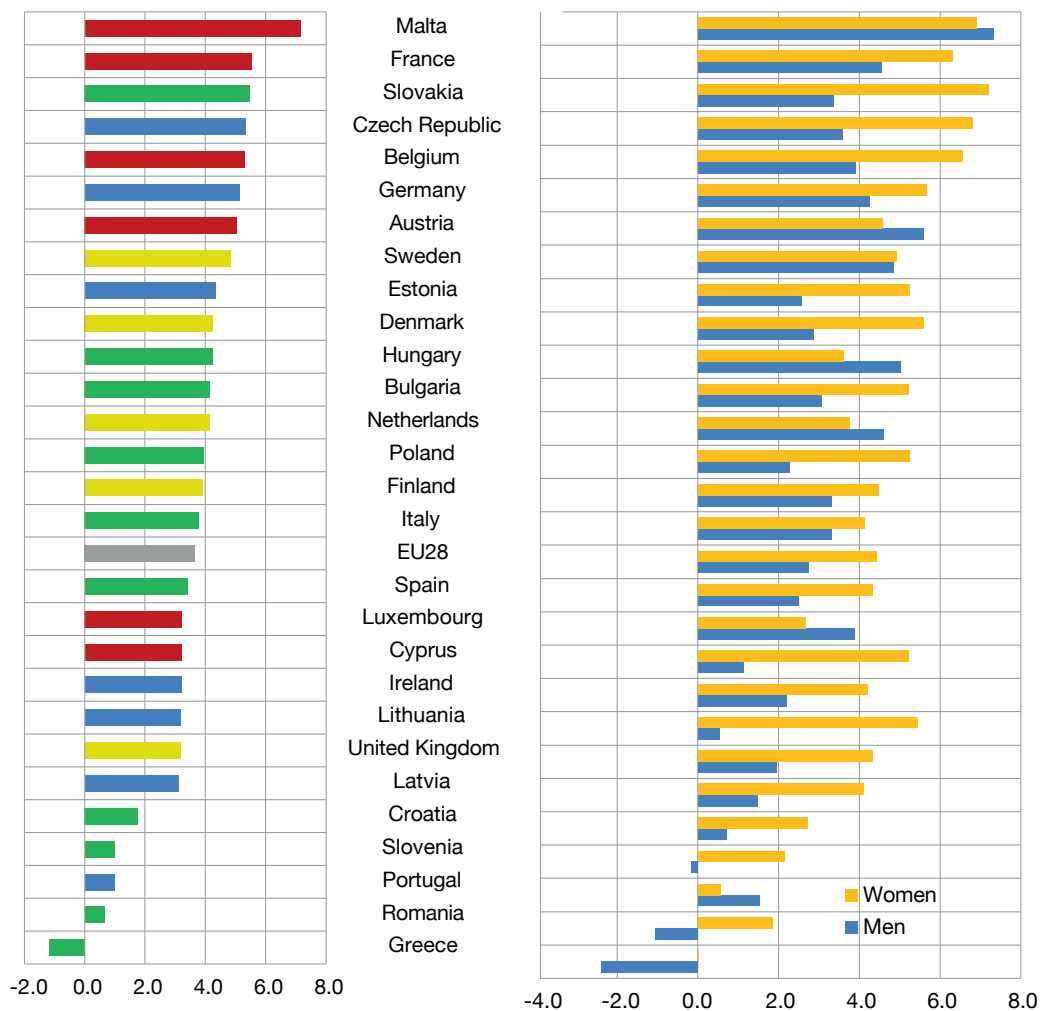
(with the exception of Cyprus and Luxembourg), the increment in the yellow cluster's AAI score deviates the least from the EU average (with the United Kingdom being the only country in this cluster scoring below the EU mean). In turn, both the green and the blue clusters include

countries from the top six performers in terms of AAI increase (Slovakia, and Czech Republic and Germany, respectively) as well as from the six lowest.

The right-hand side of Figure 16 identifies the 8-year change recorded for men and women in each country. In the vast majority of countries, the increase in the overall AAI score of women has exceeded that of men, with few exceptions (Malta, Austria, Hungary, the Netherlands,

Luxembourg and Portugal). Three countries show a negative development for men (Romania, Slovenia and Greece, all green-cluster countries), a trend that has contributed – together with a relatively poor performance for women – to making their overall AAI change the lowest of all. Another country in the same green cluster, Croatia, is in a similar position, with an almost stagnant AAI score for men over the period under consideration.

Figure 16: Change in the AAI score in the EU countries between 2008 and 2016 (colours reflecting clusters of membership), overall and by gender, points



2.1.2 Employment

The 2008-2016 changes in scores for individual domains vary noticeably. Data presented in Figure 17 illustrate a rather peculiar development in the different clusters as regards score dynamics for the employment domain. This consists in the catching-up process of the blue cluster which, after

a remarkable drop related to the global financial crisis in 2008-2010, has regained and even surpassed pre-crisis levels, increasingly narrowing the gap with the yellow cluster. The other two clusters show a very similar evolution over time, characterised by a much slower but steadier growth over the considered period.

Figure 17: Evolution of the AAI domain-specific score for “Employment” in the EU between 2008 and 2016, by country clusters

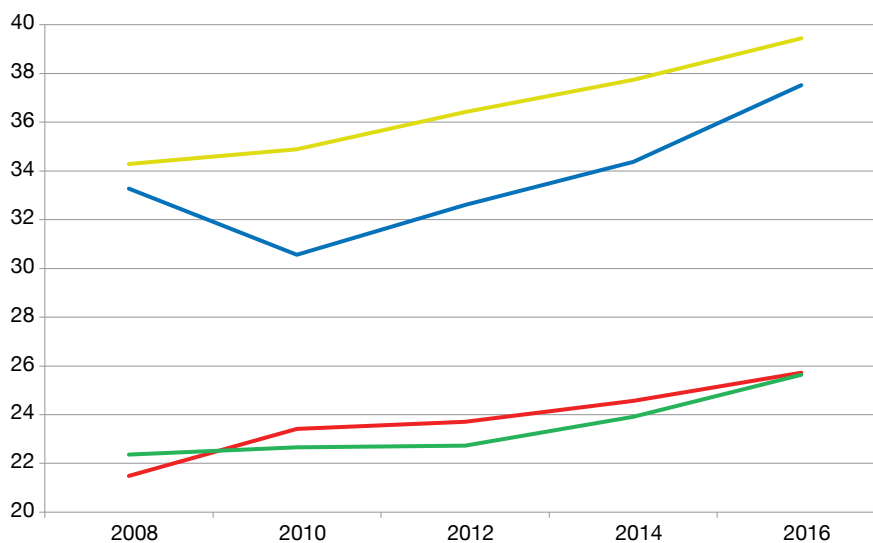


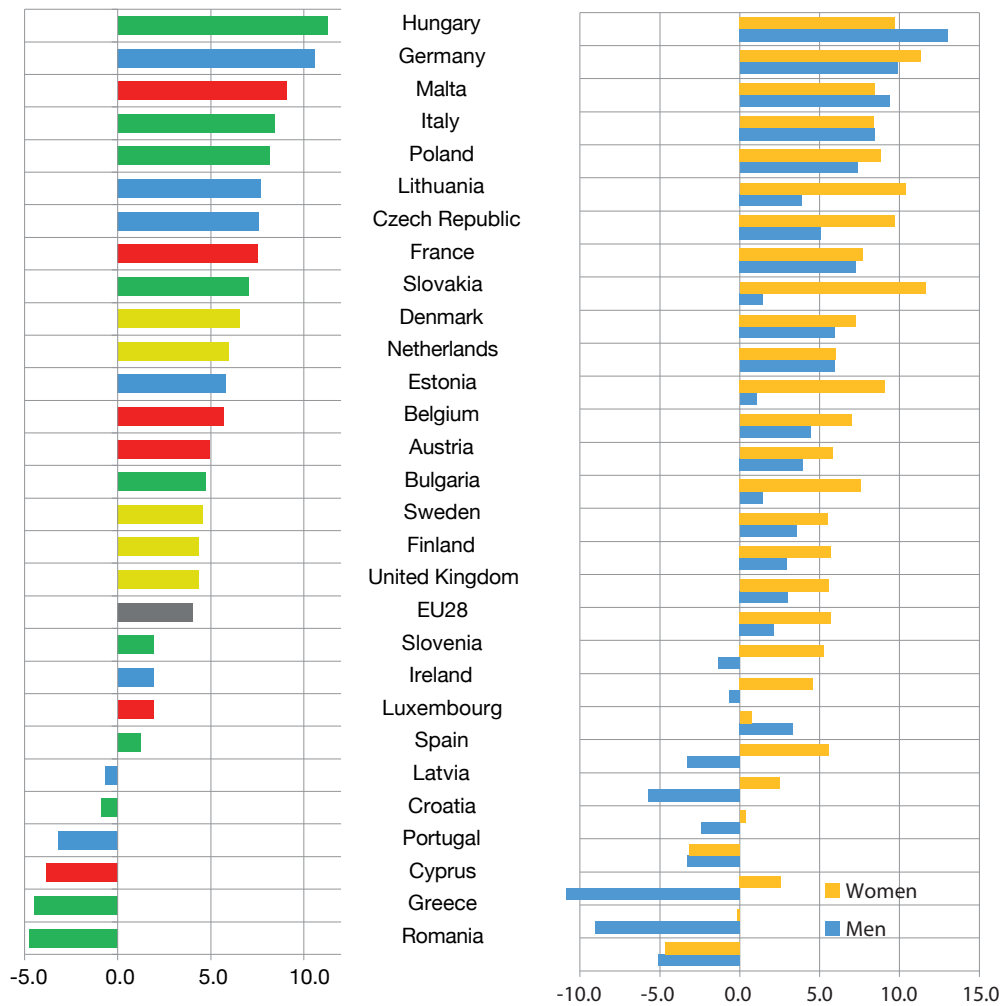
Figure 18 helps to understand how individual country developments have contributed to cluster trends. For instance, the positive performance over time of the yellow cluster in the employment domain is primarily the result of a quite homogeneous growth, just slightly above

EU average, which occurred in the five Member States in this group. The other three clusters, on the contrary, comprise countries with diverging trends, including countries with both fast and slow increase.

In terms of gender, only three countries report a noticeably stronger growth in the employment domain score for men rather than for women (Hungary, Malta and Luxembourg). In nine countries – and, not surprisingly, all those showing an overall drop in the employment domain-specific

score – the considered period was characterised by declining scores for men, with particularly strong drops in Latvia, Cyprus, Greece and Romania. Romania and Portugal were the only two countries that saw a similar reduction in the employment score for women.

Figure 18: Change in the AAI domain-specific score for “Employment” in the EU countries between 2008 and 2016 (colours reflecting clusters of membership), overall and by gender, points

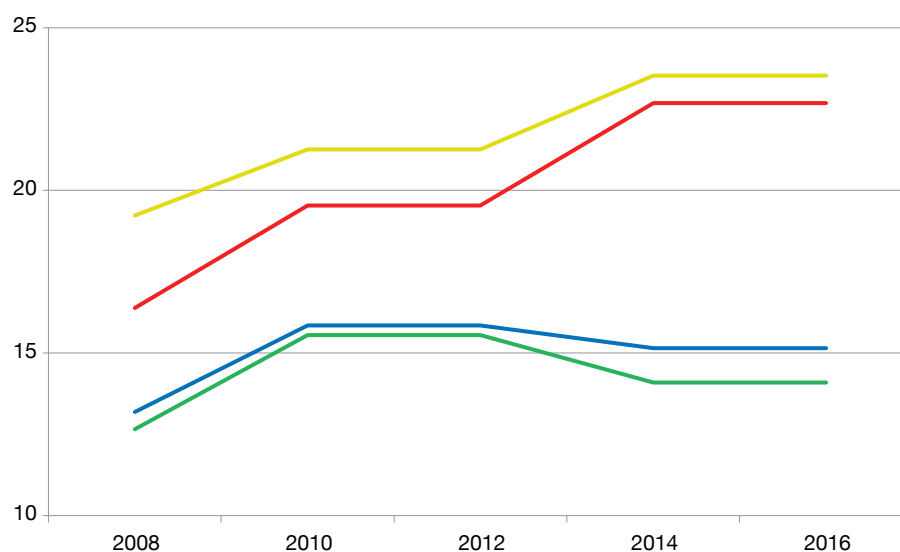


2.1.3 Social participation

Evolution in the social participation domain (Figure 19) was somewhat different from that observed in the employment domain, as there

appear to be two diverging patterns: whereas all clusters grew at more or less the same pace until 2012, the red and yellow clusters continued to grow in the following years, while the blue and green clusters stagnated and even decreased slightly.

Figure 19: Evolution of the AAI domain-specific score for “Social participation” in the EU between 2008 and 2016, by country cluster

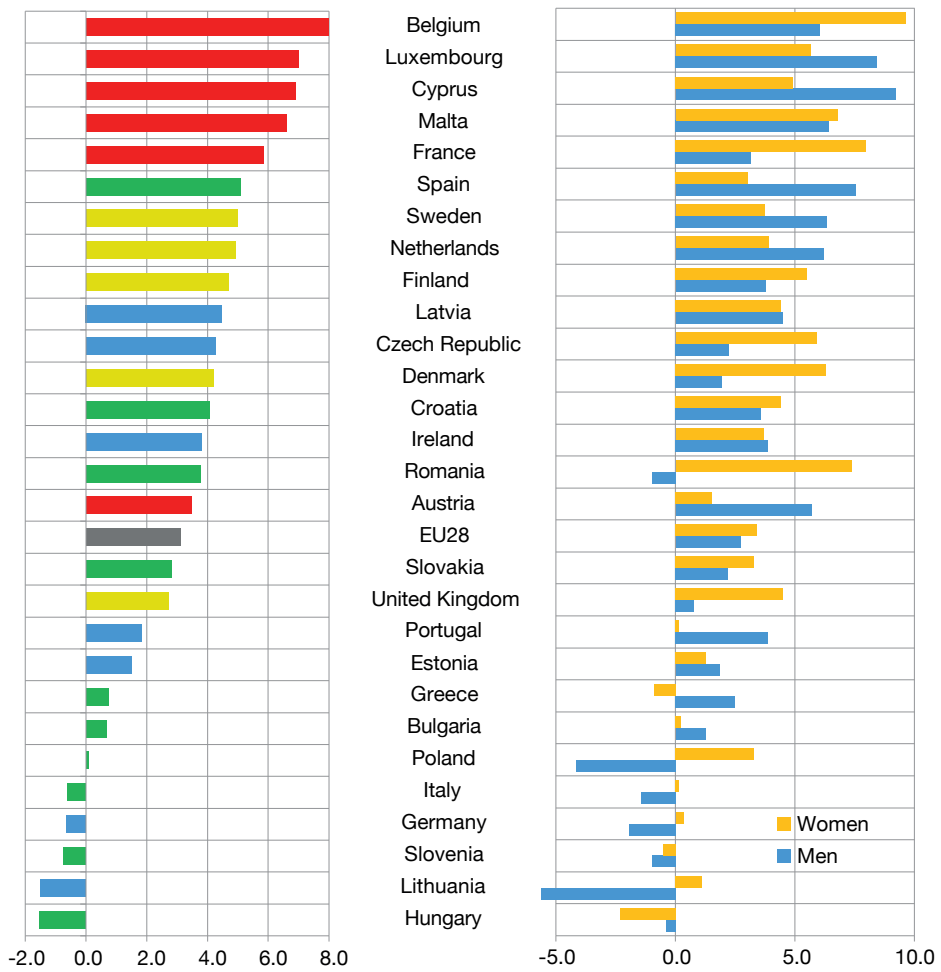


This quite remarkable evolution is also highlighted by the country data in Figure 20, illustrating that all members of the red cluster (with the exception of Austria) saw the largest score increase in this domain, and that all countries in the yellow clusters (with the exception of the United Kingdom) have been growing at a rate well above the EU average in the considered period. The opposite has been observed for a large number of

countries belonging to the two remaining clusters, even with negative changes recorded by Hungary, Lithuania, Slovenia, Germany and Italy.

As far as gender differences are concerned, by contrast to what was observed in the employment domain, almost half of EU Member States recorded higher growth in the social participation domain score for men rather than for women, and this trend is common across all clusters.

Figure 20: Change in the domain-specific score for “Social participation” in the EU countries between 2008 and 2016 (colours reflecting clusters of membership), overall and by gender, points

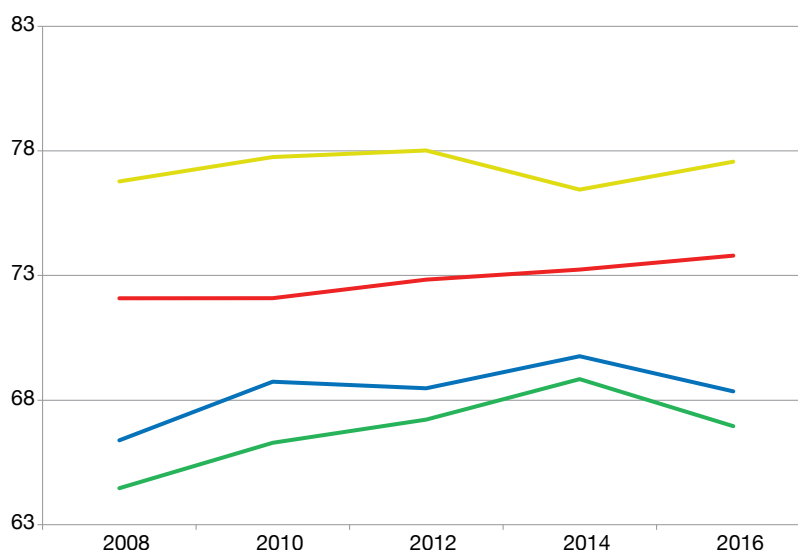


2.1.4 Independent, healthy and secure living

Figure 21 demonstrates a predominantly converging trend across clusters in this domain until 2014, which was interrupted in the last two years. This convergence was mainly due to a drop in the score recorded by the yellow cluster, and a corresponding increase in the green and blue clusters, while no major change occurred in the red cluster. A more detailed analysis based on the individual indicators making up this domain – a task that goes beyond the scope of this report and is therefore only marginally addressed here, using the data reported in the Annex – would show that this convergence is mainly due to two trends. The first, concerning the drop in the yellow cluster between 2012 and 2014, is primarily due to a deterioration in accessing health and dental care (reflected by

a decrease in the share of the population aged 55+ reporting no unmet need for medical and dental examinations, see Tables A5 and A6 in the Annex), and to a reduction in the percentage of persons aged 75+ living in single or couple households (see Tables A7 and A8 in the Annex). The second trend – the increase in the green and blue clusters – is due to divergent reasons in the two groups. In the green cluster, this development is primarily driven by the increase in the share of those aged 75+ living alone or as a couple (*ibidem*), and to an improvement in the three indicators reflecting financial security (relative median income, no poverty risk and no material deprivation, see Tables A9-A14 in the Annex). In the blue cluster, the (albeit slight) increase is observed for all indicators, except for that concerning health and dental care access.

Figure 21: Evolution of the AAI domain-specific score for “Independent, healthy and secure living” in the EU between 2008 and 2016, by country cluster



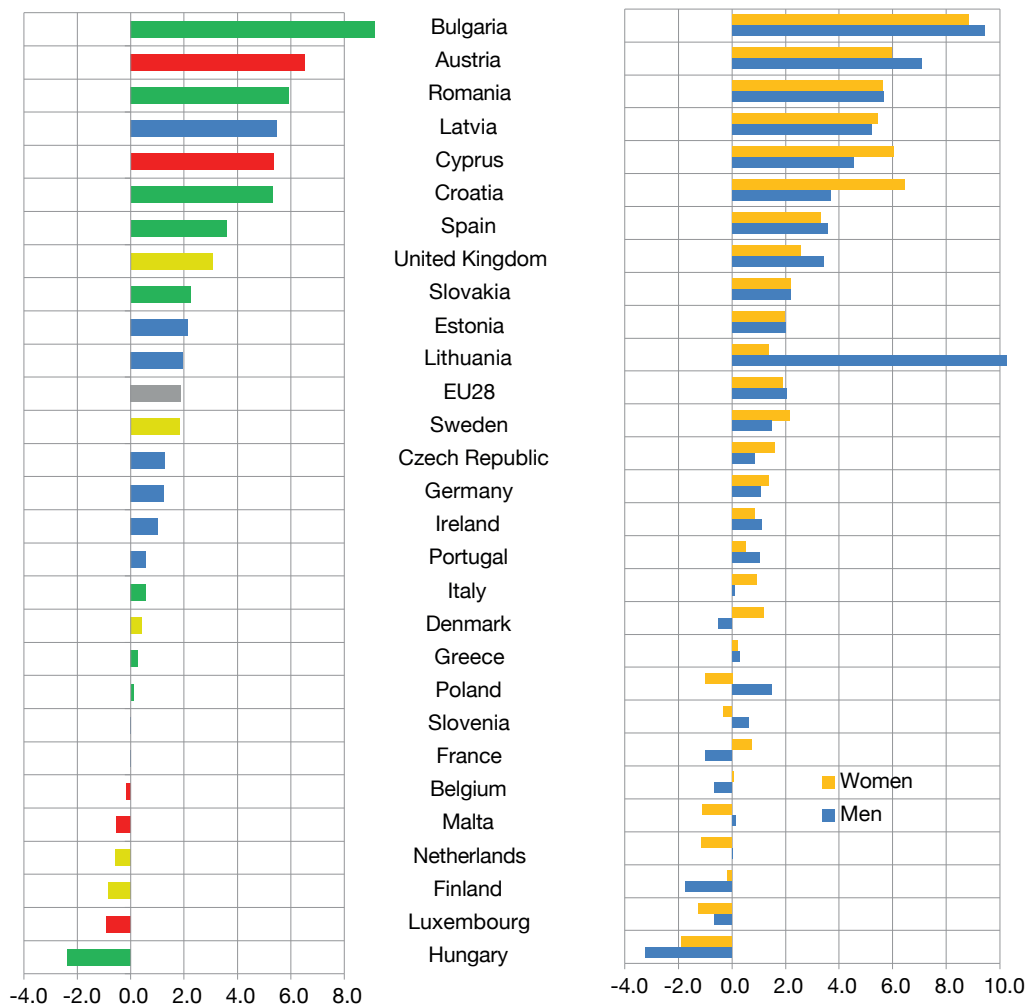
Data by country (Figure 22) portray this evolution in greater detail, highlighting that only the United Kingdom, out of all the countries in the yellow cluster, reported an above EU-average increase in the domain-specific score for this area. Two out of the four lowest performers in terms of change are represented by other members of this cluster (Netherlands and Finland). Many of the countries with an above-average increase belong to the green cluster, while red-cluster countries belong to both

top and low performers. As for gender, the change of the score for women was again outpaced by that of men in several cases, becoming negative in a higher number of countries than those observed in the previous two domains. The latter result is primarily due to the higher increase in the number of men practising physical exercise or sport on a regular basis compared to what is observed for women (see Tables A3, A4 and, for selected countries, A19 in the Annex). As for the unusual

result for Lithuania (where an increase of 10 points in the men’s score compared to a minimal change for women is recorded), this is to a large extent due to a strong improvement in the feeling of safety (i.e. in the percentage of people aged 55+ who feel it is safe to walk after dark). This has grown among men to an extent that it has almost doubled over that of women, the latter also reporting a negative

development in terms of the regular practice of physical exercise and sport (see Table A20 in the Annex). To complete the set of data concerning the evolution occurred in the different countries and clusters for this domain, Tables A17 and A18 in the Annex provide detailed information also on the share of people aged 55-74 who receive education or training.

Figure 22: Change in the AAI domain-specific score for “Independent, healthy and secure living” in the EU countries between 2008 and 2016 (colours reflecting clusters of membership), overall and by gender, points

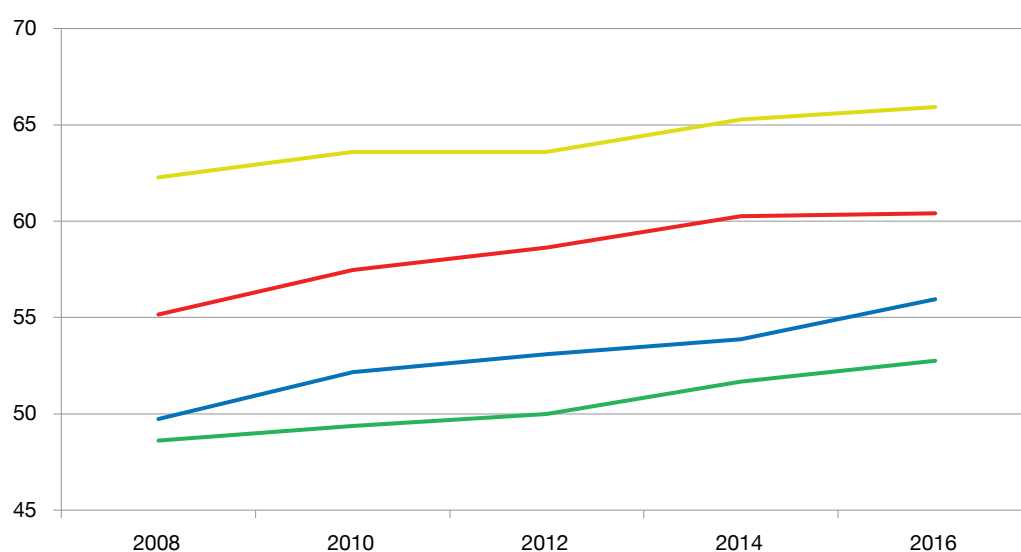


2.1.5 Capacity and enabling environment for active ageing

This is the domain that shows the least change in 2008-2016 across the four clusters, all characterised by a common, steady and small growth in the domain-specific score (Figure 23).

The main difference in this regard, compared to the observations for other domains, is that the green cluster is alone (i.e. not accompanied by any cluster – either red or green) in its path of lower performance, compared to that of the other clusters.

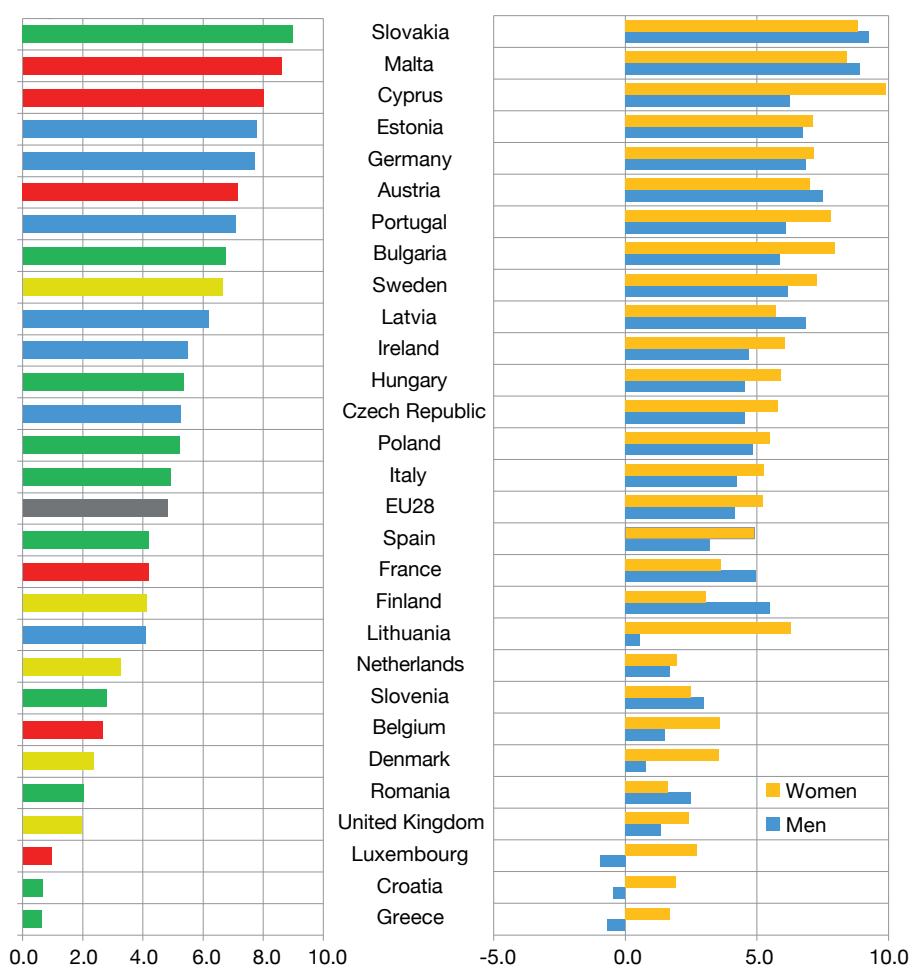
Figure 23: Evolution of the AAI domain-specific score for “Capacity and enabling environment” in the EU between 2008 and 2016, by country cluster



According to Figure 24, and contrary to developments observed in other domains, no country reported a drop in their score in terms of Capacity and enabling environment. Countries belonging to the yellow cluster are mainly among those with below-EU average development over

time. As for gender, it is interesting to note that this is the only domain in which no country reported a negative change for women, and that this only occurred among men in three cases (Luxembourg, Croatia and Greece), and to a very limited extent.

Figure 24: Change in the AAI domain-specific score for “Capacity and enabling environment” in the EU countries between 2008 and 2016 (colours reflecting clusters of membership), overall and by gender, points



2.1.6 Gender gap

The findings reported in Table 12 indicate that the gap between the scores of women and men in terms of overall AAI decreased in the 2008-2016 period, down from -4.7 to -3.1 as the EU average. This development is underscored by the fact that,

while no country reported a positive gender gap in 2008, three demonstrated such a result in 2016 (Estonia, Finland and France). Also, if the highest gender gap in 2008 surpassed 10 points (in Cyprus, with 10.8), eight years later it dropped to 7.1 points (in Malta).

Table 12: Evolution of the gender gap in the overall AAI score in the EU countries between 2008 and 2016

Countries	2008			2016			Change 2008-16		
	Men	Women	Gender gap	Men	Women	Gender gap	Men	Women	Gender gap
Belgium	34.6	30.3	-4.2	38.4	36.9	-1.6	3.9	6.5	2.6
Bulgaria	29.8	25.8	-4.0	32.9	31.0	-1.8	3.1	5.2	2.2
Czech Republic	34.3	28.4	-5.9	37.9	35.2	-2.6	3.6	6.8	3.2
Denmark	40.9	36.6	-4.2	43.7	42.2	-1.5	2.9	5.6	2.7

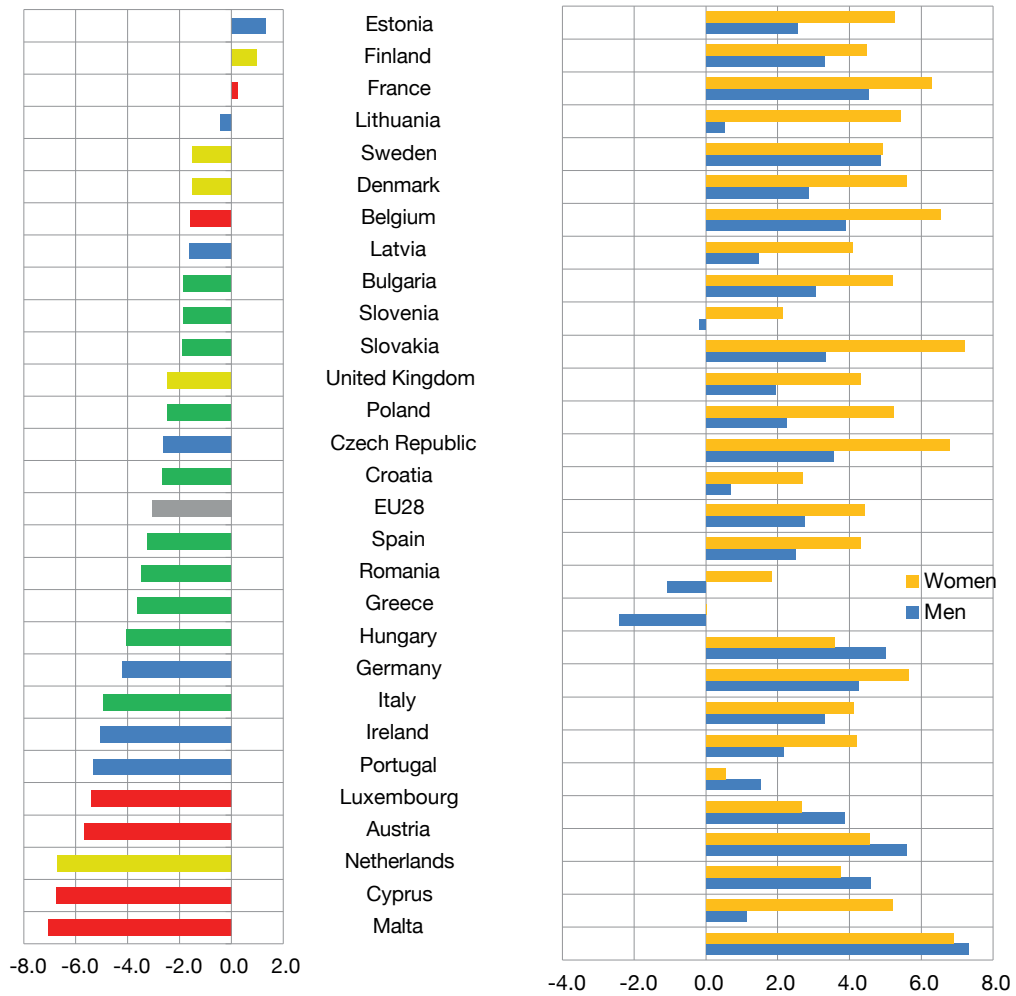
Table 12: Evolution of the gender gap in the overall AAI score in the EU countries between 2008 and 2016, cont.

Countries	2008			2016			Change 2008-16		
	Men	Women	Gender gap	Men	Women	Gender gap	Men	Women	Gender gap
Germany	37.4	31.8	-5.6	41.6	37.4	-4.2	4.3	5.6	1.4
Estonia	34.4	33.1	-1.3	37.0	38.4	1.4	2.6	5.3	2.7
Ireland	39.5	32.4	-7.1	41.7	36.6	-5.1	2.2	4.2	2.0
Greece	32.0	26.0	-6.0	29.6	26.0	-3.6	-2.4	0.0	2.4
Spain	32.9	27.9	-5.1	35.4	32.2	-3.2	2.5	4.3	1.8
France	33.9	32.3	-1.5	38.4	38.6	0.2	4.5	6.3	1.8
Croatia	30.0	25.4	-4.7	30.7	28.1	-2.7	0.7	2.7	2.0
Italy	33.1	27.3	-5.8	36.4	31.5	-5.0	3.3	4.1	0.8
Cyprus	38.1	27.3	-10.8	39.2	32.5	-6.8	1.1	5.2	4.1
Latvia	35.0	30.7	-4.3	36.4	34.8	-1.6	1.5	4.1	2.6
Lithuania	33.4	28.1	-5.3	34.0	33.5	-0.4	0.5	5.4	4.9
Luxembourg	34.2	30.0	-4.2	38.0	32.6	-5.4	3.9	2.7	-1.2
Hungary	27.7	25.1	-2.6	32.7	28.7	-4.1	5.0	3.6	-1.4
Malta	31.7	25.0	-6.7	39.0	31.9	-7.1	7.3	6.9	-0.4
Netherlands	41.6	35.7	-5.9	46.1	39.4	-6.7	4.6	3.8	-0.8
Austria	33.3	28.6	-4.7	38.9	33.1	-5.7	5.6	4.6	-1.0
Poland	30.0	24.6	-5.4	32.3	29.8	-2.5	2.3	5.2	3.0
Portugal	34.9	30.5	-4.3	36.4	31.1	-5.3	1.5	0.5	-1.0
Romania	33.0	26.7	-6.3	32.0	28.5	-3.5	-1.1	1.8	2.9
Slovenia	32.3	28.1	-4.2	32.1	30.3	-1.9	-0.2	2.1	2.3
Slovakia	30.0	24.3	-5.8	33.4	31.5	-1.9	3.3	7.2	3.9
Finland	37.0	36.8	-0.2	40.3	41.3	1.0	3.3	4.5	1.2
Sweden	43.1	41.5	-1.6	47.9	46.4	-1.5	4.8	4.9	0.1
United Kingdom	40.6	35.8	-4.8	42.5	40.1	-2.5	1.9	4.3	2.4
EU28	34.6	29.9	-4.7	37.3	34.3	-3.1	2.7	4.4	1.7

Nevertheless, the gender gap deteriorated over the considered period in six countries – Luxembourg, Hungary, Malta, Netherlands, Austria and Portugal – due to a stronger AAI score increase for men than for women. This can also be observed in Figure 25 which, on the right-hand side, shows that Greece, Romania and, but to an almost imperceptible extent, Slovenia were the only EU Member States affected by a negative change in the AAI score for men. The left-hand side of this Figure indicates that the most

pronounced gender gap is found in red-cluster countries (with the exception of Belgium and France) which, together with the Netherlands, occupy four of the last five positions of this specific ranking. Another noteworthy observation is that almost all countries reporting a gender gap below the EU average (i.e. positioned in the upper part of the Figure) have seen a remarkable catching-up process by women (with the only exception of Sweden, as this country already featured a low gender gap back in 2008).

Figure 25: Overall AAI in the EU countries: gender gap in 2016, and change between 2008 and 2016 by gender, points

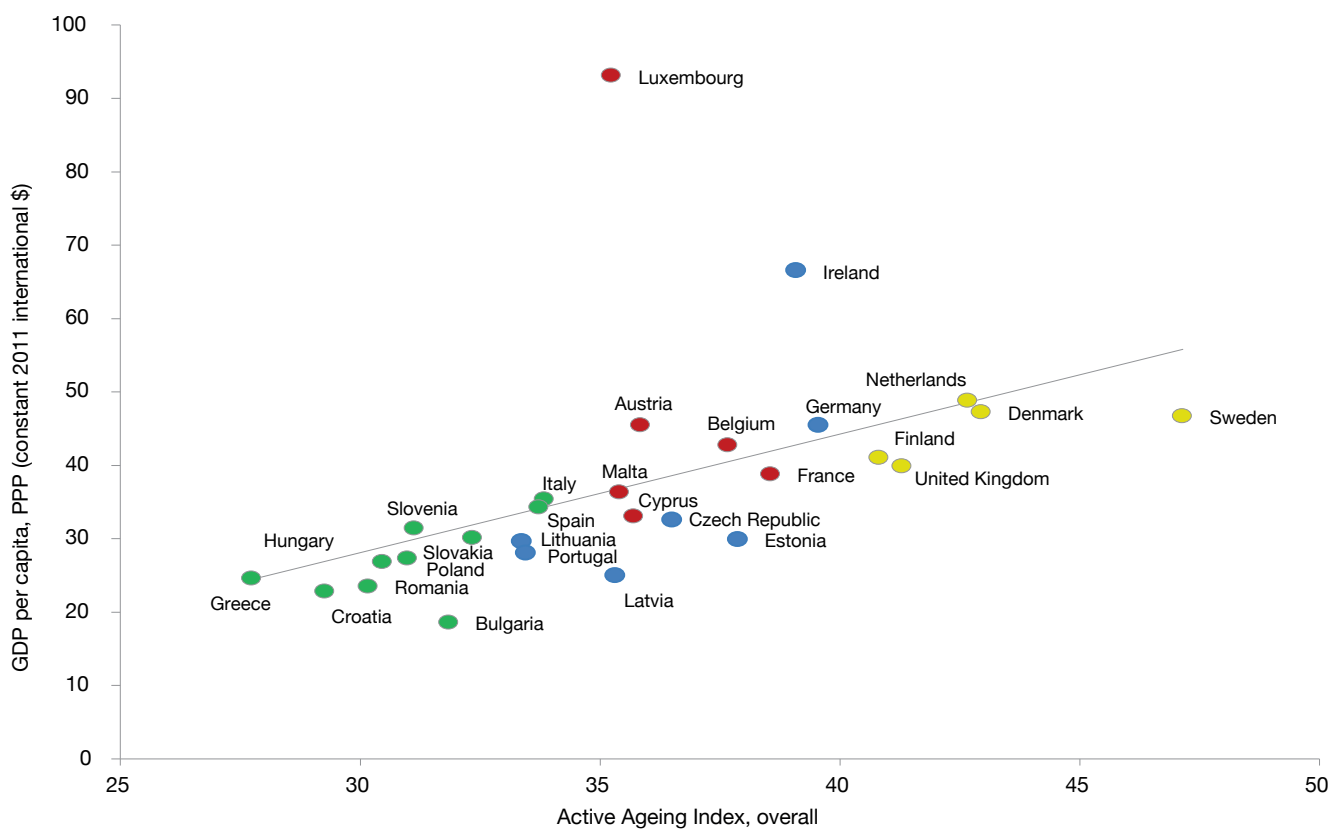


2.2 Inequalities in active ageing

Inequalities in active ageing can be identified by relating AAI values to other socio-economic indicators and characteristics of older people. In the first part of this section, countries' AAI scores will be connected to the GDP per capita, Gini index and life satisfaction of older people in the EU28. The clustering adopted in Section 1.1 will be considered in this analysis. In the second part

of this section, inequalities in active ageing will be explored in the national contexts of Germany, Italy and Poland, by summarising some of the results from three reports published by UNECE/European Commission (2017a; 2019; 2017b). While national results in these studies cannot be compared directly due to the index's country-specific adaptations (methodological details of these are available in the cited reports), the AAI is still useful to study within-country inequalities.

Figure 26: 2018 AAI scores (overall) and GDP per capita in the EU28



Source: World Bank, Development Research Group. GDP per capita data for 2017. (<https://databank.worldbank.org/data/reports.aspx?source=2&series=NY.GDP.MKTP.PP.KD&country=>)

Note: Colours denote clusters as defined in part 1

2.2.1 Situation in the European Union

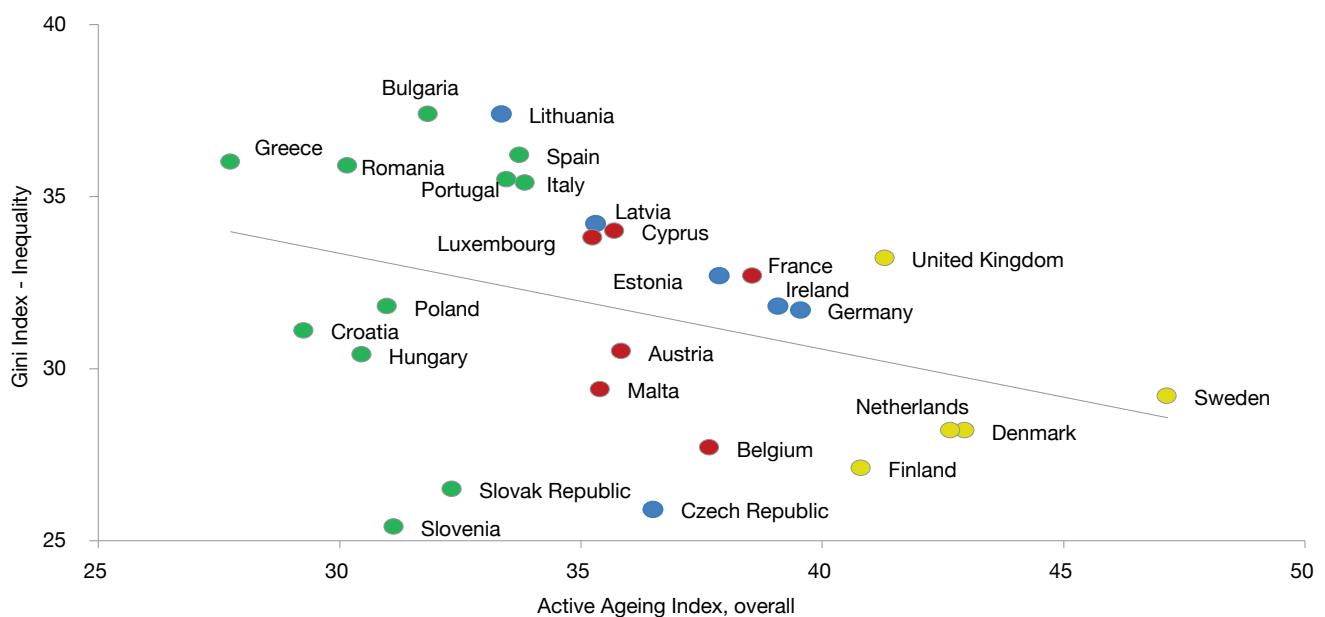
As can be seen from Figure 26, higher AAI scores generally correlate with higher GDP per capita, suggesting that the same underlying factors are prevalent. There are however exceptions/outliers. The correlation between AAI scores and GDP per capita may be due to very different reasons, depending on the country and on the

welfare regime. There are cases where economic prosperity pairs with the presence of strong policies supporting employment in older age and with a very good provision of services (e.g. Sweden and countries belonging to the social-democratic welfare regime). The opposite situation is observed for Greece and some Eastern European countries.

In other cases, strong policies encouraging/prolonging employment may determine an important AAI score level despite moderate scores in the other three AAI domains and a relatively low level of GDP per capita (e.g. Estonia). Looking at the identified clusters, in general countries belonging to the yellow cluster tend to show a higher GDP per capita and higher AAI scores, while countries belonging to the green cluster

(low social participation and low employment rate) show a lower level of GDP per capita and overall AAI score. Countries belonging to the red and blue clusters are in the middle, with the blue ones more spread out (some of them e.g. Portugal and Lithuania closer to the green group; some of them e.g. Germany and Ireland closer to the yellow group) than the red ones (where the only exception is Luxembourg).

Figure 27: AAI scores (overall) and income inequality measured by Gini index in EU28, 2018



Source: World Bank, Development Research Group

(<https://databank.worldbank.org/data/reports.aspx?source=2&series=SI.POV.GINI&country=>).

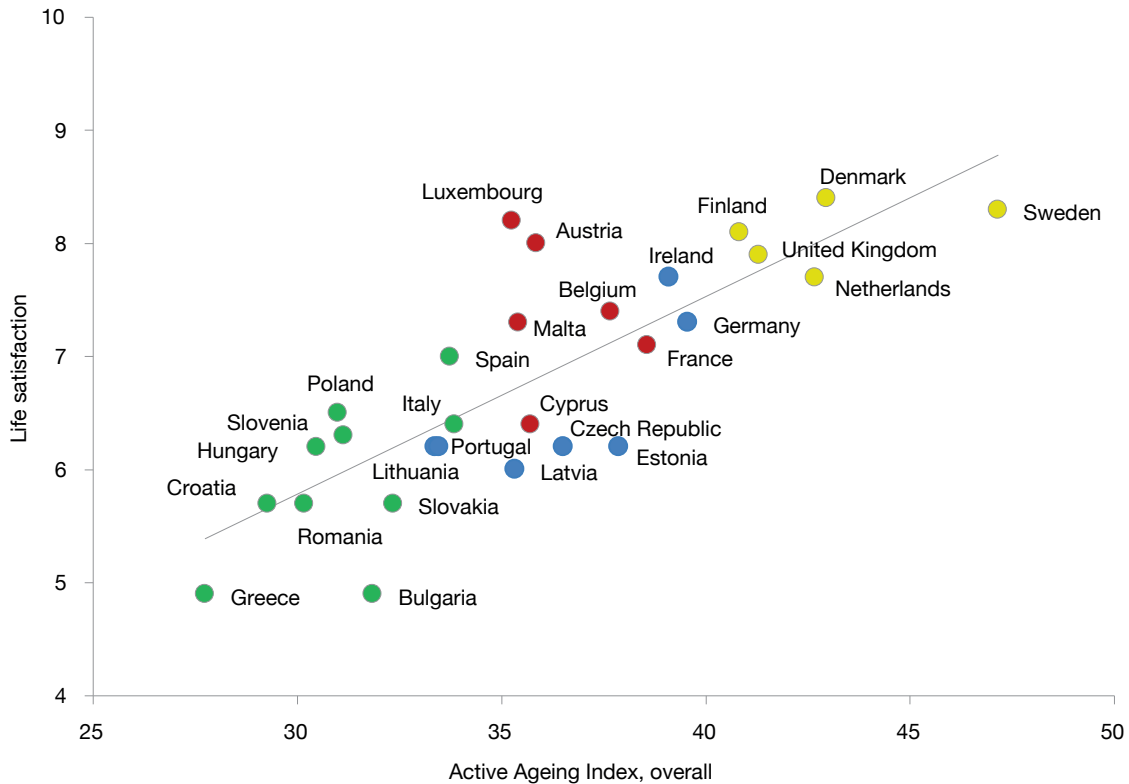
The Gini index measures the distribution of wealth in a country (the higher its value, the higher the inequality among inhabitants). In Figure 27, this index is placed in relation to countries' overall AAI scores. It can be observed that the general picture (straight line) seems to indicate that the lower the economic inequalities in a country, the higher the AAI score. However, the correlation is very weak since country values are seldom placed close to the line. There are cases where economic inequalities are low (level of wealth is not high in general among all the population groups, see also Figure 26 above concerning GDP per capita), but AAI scores are also relatively low (e.g. the case of Slovakia), and there are cases with quite high AAI values in the face of considerable economic inequalities. For example,

the high overall AAI score in the United Kingdom is considerably driven by a high employment rate of older persons which, against a backdrop of high inequality, may be seen as a forced choice due to economic hardship among the older population. Even if, in general, the distribution of countries based on the clusters resembles the distribution of the previous Figure 26 (e.g. low inequalities and a high AAI score for the yellow cluster), given the weak correlation we can see that within-cluster differences are wide in terms of inequalities. This is especially true in the green (e.g. low inequalities in Slovenia and Slovakia, high inequalities in Bulgaria and other countries) and in the blue (e.g. low inequalities in the Czech Republic and high inequalities in Lithuania) clusters, while in the

yellow cluster the exception is represented by the United Kingdom. The latter situation is not really surprising given the nature of its liberal-market

welfare regime compared to the social democratic nature (strong services provided by the state) of most of the other yellow-cluster countries.

Figure 28: AAI scores (overall) and life satisfaction among 65+ in EU28, 2018



Source: *European Quality of Life Survey Integrated Data File, 2003-2016*
(<https://www.eurofound.europa.eu/data/european-quality-of-life-survey>)

Figure 28 relates countries' AAI scores to the life satisfaction expressed by European people aged 65+. It can be clearly observed that there is a strong direct correlation between the two elements, suggesting that happier people are more active or, conversely, that activity makes people happy. Older people living in yellow-cluster countries (with high overall AAI scores) expressed high levels of life satisfaction. It can also mean that there are underlying causes, and health could be one of them; healthier people are both happier and more active. The situation for other clusters is less clear-cut. The green cluster shows quite low AAI scores and life satisfaction levels. With few exceptions (e.g. Germany, Ireland and Cyprus), life satisfaction is higher in the red (characterised by a low employment rate and above average results in the three other domains) than in the blue cluster (characterised by a high employment rate but low

scores in the other three domains). Correlation does not entail causation and the picture may be due either to people becoming more active where they are more satisfied with life or vice-versa; possibly, activity and satisfaction go hand in hand.

2.2.2 Inequalities in selected countries

As mentioned earlier, within the framework of the AAI project, three national studies (in Germany, Italy and Poland) were conducted aiming to compute the AAI for relevant population subgroups. They all consistently point to education as the main driver of active ageing, although other factors also play a role. To illustrate this, the analysis below will focus on existing inequalities in active ageing based on educational level as well as on the place of living (urban-rural divide) and, wherever possible, on gender differences for active ageing outcomes.

GERMANY

The German study (UNECE/European Commission, 2017) focused on the educational level, the living

place and the socio-economic status (the combination of the education level and income).

Figure 29: Overall AAI by educational level in Germany, trend 2008-2014

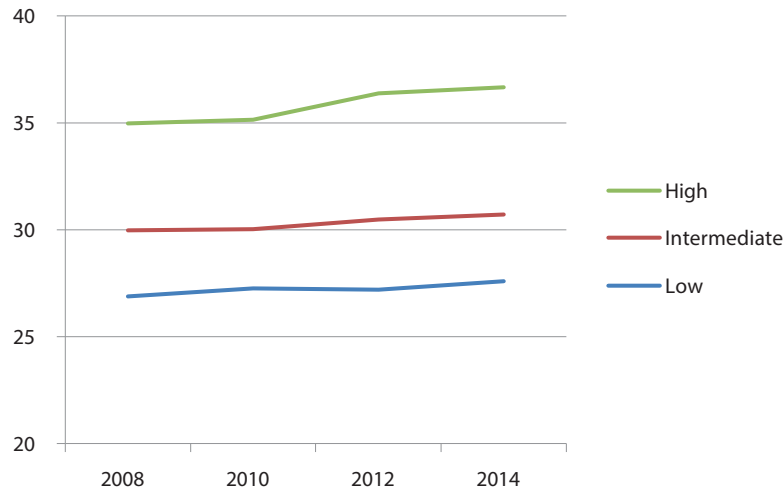
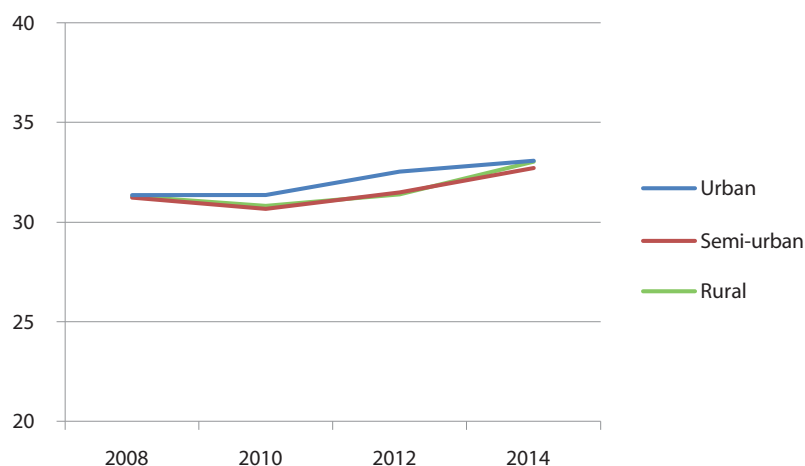


Figure 29 shows that although the Active Ageing Index score increased from 2008 to 2014 regardless of the level of education, older people with a high education always show higher AAI scores in comparison with other categories and especially with older people having a low education level. The increase in the high-education group is

also steeper than in the other educational groups, indicating that inequalities in active ageing according to the differences level may be widening. Results concerning the socio-economic status (data not shown) are generally following the same trend as in education.

Figure 30: Overall AAI by living place in Germany, trend 2008-2014



Note: the five categories mentioned in the German study have been grouped into three categories (by merging rural/very rural and urban/very urban, and by labelling "medium" as semi-urban).

Figure 30 shows that the living place has a very limited impact in determining AAI scores in Germany, since differences between groups divided according to this criterion are small. Active ageing levels until 2012 were slightly higher in the

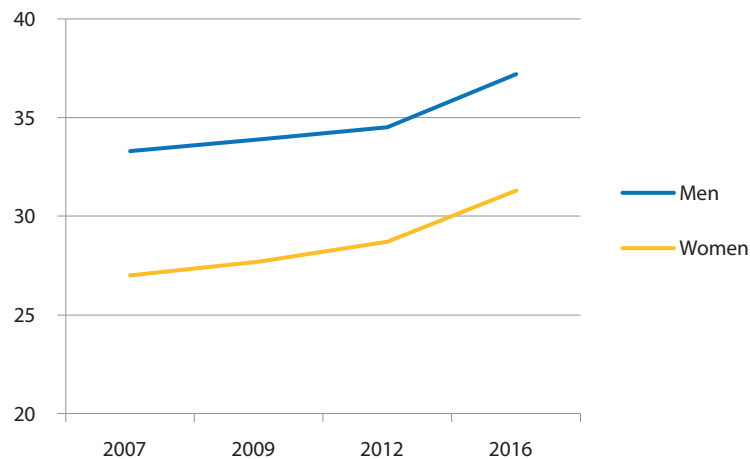
urban context, but AAI results for all areas were at the same level in 2014. In general, there was a moderate increase across all areas, with somewhat different paths but ultimately leading to the same level of AAI.

ITALY

The study conducted in Italy compared AAI scores by sex, geographical macroarea, educational level, income, family context and type of living

area. Results on the latter four variables were also provided by sex and geographical macroarea (UNECE/European Commission 2019).

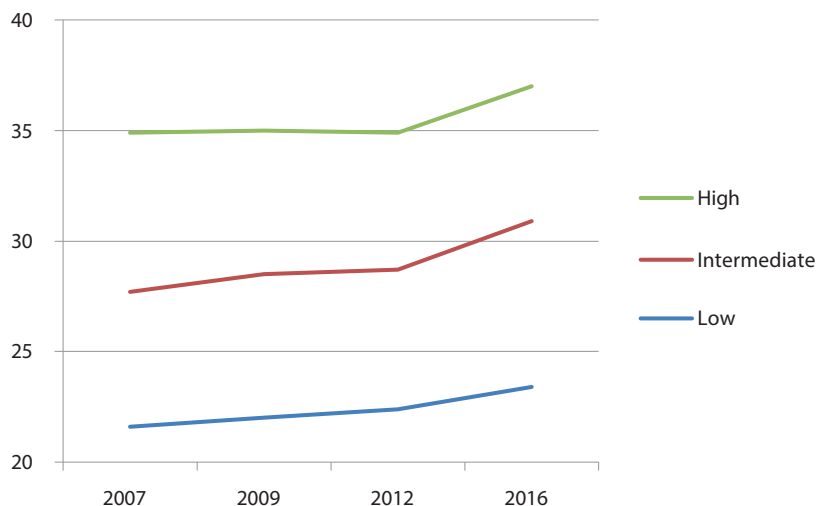
Figure 31: Overall AAI by sex in Italy, trend 2007-2016



In Figure 31 it is possible to observe that the potential of Italian older women and men is not realised in an equal manner. Women have lower AAI scores than men. An upward AAI trend over

time is visible for both sexes, with a slightly steeper increase for women, indicating that the AAI gender gap is decreasing, albeit slowly.

Figure 32: Overall AAI by educational level in Italy, trend 2007-2016

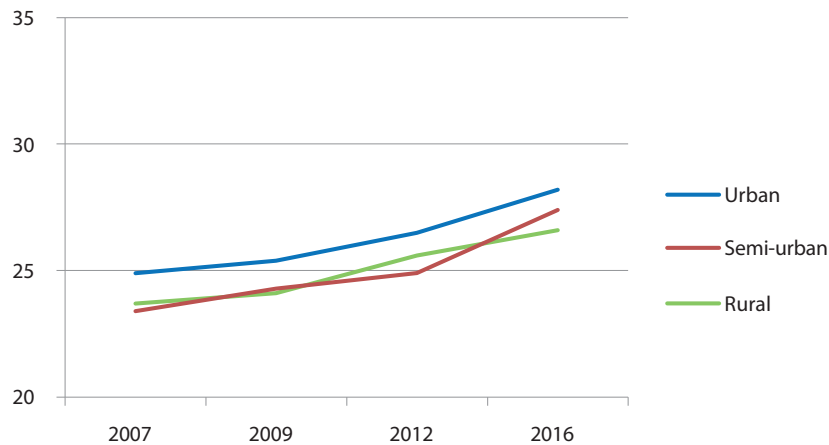


The higher the educational level (Figure 32), the higher is the AAI. The trend of increasing AAI values is similar across the three educational groups, but it is less pronounced in the low education group, signalling a widening gap – as in the German study.

The AAI upward trend is also visible in all three living areas considered (Figure 33). However,

while AAI scores for urban areas (i.e. cities) have been steadily growing during the period under consideration and remain in the lead, AAI scores for semi-urban areas (i.e. town and suburbs, in the original study) have been catching up perceptibly since 2012. Meantime, the AAI gap between urban and rural areas seems to be widening gradually.

Figure 33: Overall AAI by living place in Italy, trend 2007-2016



POLAND

The study conducted in Poland in 2017 investigated AAI values in relation to sex, living place, educational level, socio-economic conditions (a combination of the educational

level and income, as in the German study) and income. As in Italy, AAI values for Polish women are lower than for men, with the gender gap narrowing between 2013 and 2015 (Figure 34).

Figure 34: Overall AAI by sex in Poland, trend 2007-2015

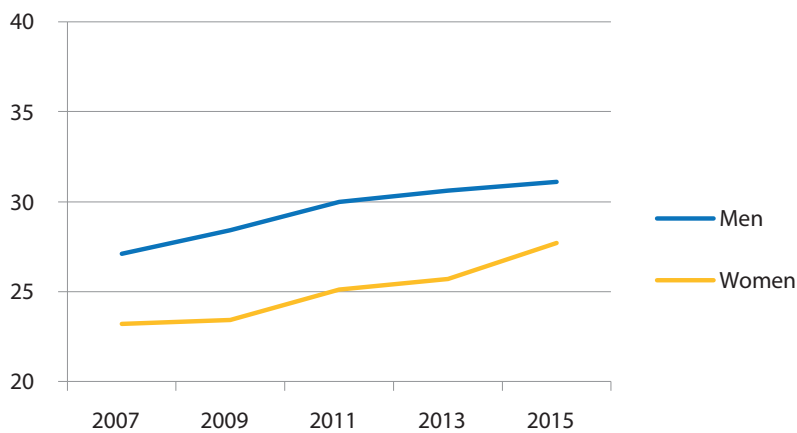
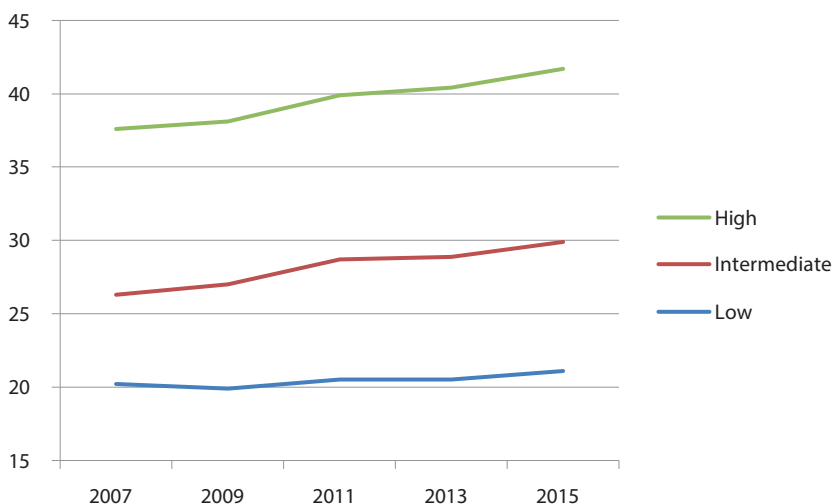


Figure 35: Overall AAI by educational level in Poland, trend 2007-2015

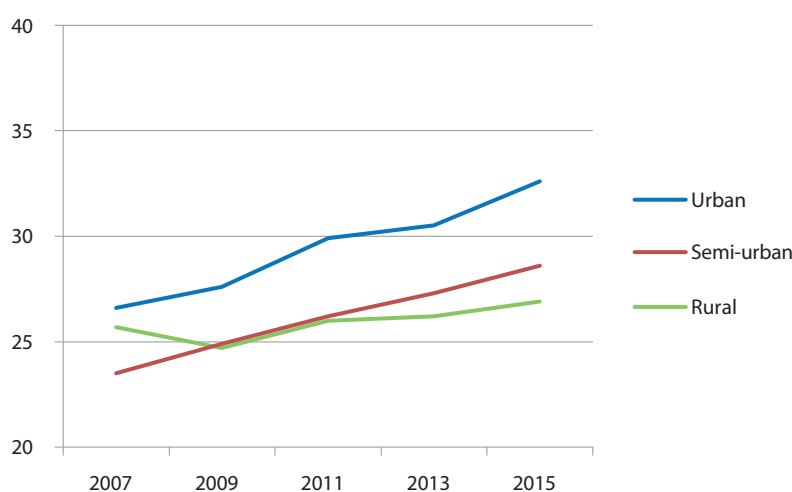


Inequalities in active ageing according to educational levels are clearly visible in Poland (Figure 35) and seem to be widening particularly in relation to high and low education groups. In 2015, the AAI score for the high education group was nearly double that of the low education group and almost 1.5 times higher than for the intermediate education group. In the Polish study,

these differences were noticeably larger than in the German and Italian studies.

Also in Poland, the urban context seems to be offering more opportunities for active ageing (Figure 36). Though following somewhat different paths, AAI has been growing in all areas since 2009. However, the increase in rural areas is slower than in the other two areas.

Figure 36: Overall AAI by living place in Poland, trend 2007-2015



To conclude, the three countries analysed show a common pattern. Lower AAI values are found among people with a lower educational level, women (although data disaggregated by sex were not available for Germany), and people living in rural and semi-urban contexts, although differences based on the living place are not as large as those based on sex and (especially) the level of education.

The current cohorts of older people are gradually being replaced by cohorts with higher levels of education. In this context, AAI levels are likely to rise in the next decades. However, as the population ages, this may be insufficient to ensure that society will continue to be as active, healthy and cohesive as it currently is. More may be needed to improve health and to raise education levels, as well as to prepare the living environment for an active life throughout.

Part 3: Evidence base for policymaking

3.1 Linking AAI results with existing policy frameworks

This section attempts to link AAI results with recommendations emerging from existing policy coordination processes aimed at monitoring and guiding interventions to promote active ageing across the EU and beyond. Two policy frameworks stand out in this regard, i.e. the European Semester for EU countries and the Madrid International Plan of Action on Ageing and its Regional Implementation Strategy (MIPAA/RIS) for the 56 countries of the region covered by the United Nations Economic Commission for Europe (UNECE).

The European Semester (ES) provides a framework for yearly monitoring and for coordinating economic policies across the EU. It starts from an assessment of EU national governments' plans which, focussing on areas highlighted in the previous year, gives rise to a set of country-specific recommendations (CSRs) on the background of priorities identified at EU level. The European Council then debates and adopts the recommendations, which identify what can realistically be achieved by each Member State over the next 12-18 months and are the basis for the following year's assessment. As such, the European Semester only applies to the 28 EU countries, and is primarily focused on economic goals, mainly concerning issues such as employment, economic growth and public finances. Nevertheless, social, as well as environmental, goals are also pursued.

In comparison, the MIPAA/RIS has a larger spectrum of countries involved and a more specific (active) ageing focus in terms of policy areas covered. The RIS, adopted in Berlin in 2002, highlights the ten commitments⁸ which

UNECE member States agreed to focus on when implementing the MIPAA, and has so far concluded three five-year cycles of review and appraisal of progress made: 2002-2007; 2007-2012; and 2012-2017.

A structural difference between the European Semester and the MIPAA/RIS is that the latter is, by definition, more focussed on ageing-related matters. Furthermore, the Semester adopts a broad view of a country's economic and social needs and focusses on the most pressing ones, recognising that a country has to set priorities in its reforms. This means that, for instance, even if two countries had the same need for developing an older-worker-friendly labour market, this would only be highlighted for one of them, if the other had more pressing reform needs in other areas. For instance, up until 2018, Greece was not assessed within the European Semester framework as it was under a stability support programme which focussed almost exclusively on reforming public expenditure towards reducing its debt. As a result, the situation of older people in Greece was not assessed until 2018/2019 by this monitoring tool.

Hereafter, reference will be made to the last round of recommendations made available by the two policy frameworks (i.e. 2018 for the ES-CSRs and 2012-2017 for the MIPAA/RIS), in order to point out how the evidence produced by the last available AAI findings can be used to integrate and support the monitoring and advisory role played by them in the future. To this purpose, it has to be noted that, while the ES-CSRs provide indications almost exclusively referring to the domains of employment and of independent living, the MIPAA/RIS reporting offers indications on the progress made by countries in a range of commitment areas spread across all four AAI domains, as summarised in Table 13.

8 Available from <http://www.unece.org/population/ageing.html>.

Table 13: Correspondence between AAI domains and MIPAA/RIS commitments

2017 MIPAA/RIS areas of commitment*	AAI domains			
	Employment	Participation in society	Independent, healthy & secure living	Capacity and enabling environment
2. Full integration and participation of older persons		x		
3. Equitable and sustainable economic growth			x	
4. Adjusted social protection systems	x			
5. Responsive labour markets	x			x
6. Lifelong learning and education			x	x
7. Quality of life, independent living, health and well-being			x	x
8. Mainstreaming gender	x	x	x	x
9. Supporting families providing care and promoting intergenerational solidarity		x		

*: The remaining two MIPAA/RIS commitments are cross-cutting and are therefore not considered in the analysis carried out here:

1. To mainstream ageing in all policy fields with the aim of bringing societies and economies into harmony with demographic change to achieve a society for all ages.
10. To promote the implementation and follow-up of the Regional Implementation Strategy through regional cooperation.

3.2 Challenges highlighted by the 2018 AAI and recommendations by the European Semester and MIPAA/RIS 2012-2017

identified in the last monitoring rounds performed by the ES in 2018 and by the MIPAA/RIS in the 2012-2017 period. The analysis that can be carried out with the help of this table is illustrated in Box 2 below, taking the case of Romania as an example.

Table 14 recapitulates the challenges highlighted by the 2018 AAI and compares them with those

Box 2: How to use this table: the example of Romania

Romania presents below average values especially in the two domains of Social participation and Capacity and enabling environment (as detailed in Table 4 in Section 1.1 of this report), as well as in terms of gender gap for the employment domain (see Figure 5 in the same section). This situation is not captured by the ES-CSRs for Romania, while it is only partially evidenced by its MIPAA/RIS national report: indeed, the latter recognises the existence of challenges with regard to Social participation and Capacity and enabling environment in relation to MIPAA commitments 4, 5 and 7, but fails to do so with regard to gender gap issues in the field of employment (which would have also been required to be mentioned under commitment 8). Based on this analysis, it is therefore recommended (see last two columns) that both monitoring frameworks should consider the mentioned challenges for the three domains in the future, especially (this being highlighted by the cells in red) when this has not occurred in the last round of the reviewing process.

Table 14: Comparison of the challenges highlighted by the AAI, the 2018 ES-CSRs and the 2017 MIPAA/RIS national reports, by cluster, country and AAI domain

Cluster	Country	AAI domain	Challenges highlighted by:										According to the AAI results, this dimension should be addressed by next monitoring round of (S):						
			AAI		2018 ES-CSRs (sorted by AAI domains)			2017 MIPAA/RIS national reports° (sorted by area of commitment)											
			total*	as gender gap^	E	S	I	C	gender gap	2	3	4	5	6	7	8	9	ES-CSRs	MIPAA/RIS national reports
1	Greece	Employment	1	1														X	X
		Social participation	1															X	X
		Independent living									1								
		Capacity etc.	1															X	X
1	Croatia	Employment	1		1													X	X
		Social participation	1															X	X
		Independent living					1											X	X
		Capacity etc.	1															X	X
1	Romania	Employment	1															X	X
		Social participation	1															X	X
		Independent living																X	X
		Capacity etc.	1															X	X
1	Hungary	Employment	1	1														X	X
		Social participation	1															X	X
		Independent living																X	X
		Capacity etc.	1															X	X
1	Slovenia	Employment	1		1													X	X
		Social participation	1															X	X
		Independent living																X	X
		Capacity etc.	1															X	X
1	Poland	Employment	1	1	1													X	X
		Social participation	1															X	X
		Independent living																	
		Capacity etc.																	
1	Bulgaria	Employment			1														
		Social participation	1															X	X
		Independent living																	
		Capacity etc.																	

Table 14: Comparison of the challenges highlighted by the AAI, the 2018 ES-CSR and the 2017 MIPAA/RIS national reports, by cluster, country and AAI domain, cont.

Cluster	Country	AAI domain	Challenges highlighted by:										According to the AAI results, this dimension should be addressed by next monitoring round of (€):						
			AAI		2018 ES-CSR (sorted by AAI domains)				2017 MIPAA/RIS national reports° (sorted by area of commitment)										
			total*	as gender gap^	E	S	I	C	gender gap	2	3	4	5	6	7	8	9	ES-CSR	MIPAA/RIS national reports
1	Slovakia	Employment	1															X	X
		Social participation	1															X	X
		Independent living										1	1						
		Capacity etc.									1	1	1						
	Italy	Employment	1	1														X	X
		Social participation																	
		Independent living				1							1	1					
		Capacity etc.										1	1	1					
	Spain	Employment	1														1		X
		Social participation	1				1											X	X
		Independent living						1						1	1				
		Capacity etc.											1	1					
2	Luxembourg	Employment	1															X	X
		Social participation																	
		Independent living						1											
		Capacity etc.																	
	Malta	Employment	1	1	1													X	X
		Social participation																	
		Independent living					1							1					
		Capacity etc.											1	1					
	Cyprus	Employment		1														X	X
		Social participation																	
		Independent living												1					
		Capacity etc.											1	1					
Austria	Employment	1	1	1													X	X	
	Social participation																		
	Independent living						1												
	Capacity etc.												1	1					

Table 14: Comparison of the challenges highlighted by the AAI, the 2018 ES-CSRs and the 2017 MIPAA/RIS national reports, by cluster, country and AAI domain, cont.

Cluster	Country	AAI domain	Challenges highlighted by:										According to the AAI results, this dimension should be addressed by next monitoring round of (§):							
			AAI		2018 ES-CSRs (sorted by AAI domains)				2017 MIPAA/RIS national reports° (sorted by area of commitment)											
			total*	as gender gap^	E	S	I	C	gender gap	2	3	4	5	6	7	8	9	ES-CSRs	MIPAA/RIS national reports	
2	Belgium	Employment	1	1	1									1				X	X	
		Social participation																		
		Independent living												1						
		Capacity etc.												1						
	France	Employment	1																X	X
		Social participation																		
		Independent living												1						
		Capacity etc.												1						
3	Lithuania	Employment	1		1															
		Social participation	1															X	X	
		Independent living		1			1											X	X	
		Capacity etc.	1											1	1			X	X	
	Portugal	Employment	1		1														X	X
		Social participation	1																X	X
		Independent living																	X	X
		Capacity etc.																	X	X
Latvia	Employment																			
	Social participation																			
	Independent living	1																X	X	
	Capacity etc.	1																X	X	
Czech Republic	Employment	1		1														X	X	
	Social participation	1																X	X	
	Independent living																	X	X	
	Capacity etc.																	X	X	
Estonia	Employment																			
	Social participation	1																X	X	
	Independent living																			
	Capacity etc.																			

Table 14: Comparison of the challenges highlighted by the AAI, the 2018 ES-CSR and the 2017 MIPAA/RIS national reports, by cluster, country and AAI domain, cont.

Cluster	Country	AAI domain	Challenges highlighted by:														According to the AAI results, this dimension should be addressed by next monitoring round of (§):				
			AAI		2018 ES-CSR (sorted by AAI domains)					2017 MIPAA/RIS national reports° (sorted by area of commitment)											
			total*	as gender gap^	E	S	I	C	gender gap	2	3	4	5	6	7	8	9	ES-CSR	MIPAA/RIS national reports		
3	Ireland	Employment	1															X	X		
		Social participation							1												
		Independent living											1								
		Capacity etc.				1								1							
		Employment			1																
		Social participation	1																X	X	
4	Germany	Independent living																			
		Capacity etc.																			
		Employment																			
		Social participation																			
		Independent living																			
		Capacity etc.																			
4	Finland	Employment																			
		Social participation																			
		Independent living					1														
		Capacity etc.																			
		Employment																			
		Social participation																			
4	United Kingdom	Independent living																			
		Capacity etc.																			
		Employment																			
		Social participation																			
		Independent living																			
		Capacity etc.																			
4	Netherlands	Employment																			
		Social participation																			
		Independent living																			
		Capacity etc.																			
		Employment																			
		Social participation																			
4	Denmark	Independent living																			
		Capacity etc.																			
		Employment																			
		Social participation																			
		Independent living																			
		Capacity etc.																			
4	Sweden	Employment																			
		Social participation																			
		Independent living																			
		Capacity etc.																			
		Employment																			
		Social participation																			
Total (=number of countries)			21	16	11	0	14	2	0	5	1	10	12	4	21	1	3				

Notes to Table 14

*: highlights a value of 10% or more below the EU28 average (see data in Table 4 in section 1.1, rounded up to the nearest whole number).

^: highlights a value exceeding 10 points (i.e. reflecting an AAI domain-specific score for women that is 10 points or more below that scored by men, see data in Figures 5-7 in section 1.1, rounded up to the next whole number).

°: as summarised in Table 3 on page 10 of the UNECE Synthesis Report on the implementation of the MIPAA in the ECE region between 2012-2017. (http://www.unece.org/fileadmin/DAM/pau/age/Ministerial_Conference_Lisbon/Practical_infos/Synthesis_report_MIPAA15_Room_Document_with_Annex.pdf), highlighting three areas requiring improvement.

§ (cells in red in the last two columns): this domain was not addressed by the last monitoring round (either at all or with regard to the gender gap challenge highlighted by the AAI-based analysis).

#: ES-CSRs for Greece were not available, as this country is already subject to enhanced policy surveillance under an economic adjustment programme; MIPAA/RIS national reports for Croatia and Poland were not available when the UNECE Synthesis Report (on which this table is based) was drafted.

Following a similar approach, challenges and monitoring gaps can be identified for all EU countries across the four different clusters. On the whole, it can be observed that, while most problematic issues pointed out by the AAI concern the domains of Employment and Social participation, the ES-CSRs mainly address Employment and Independent living issues, with the MIPAA/RIS reports focussing primarily on commitments 4 (social protection), 5 (labour market) and 7 (quality of life and independent living). Finally, it is important to stress that gender gap issues (identified by the AAI as a major challenge in the field of employment) have not been given the necessary attention in the last monitoring round of the two policy frameworks. This suggests that more consideration should be paid to this issue in the future, also in light of the high gender pension gap existing in Europe (European Commission 2018a).

3.3 Evidence-based support for policy interventions at country level according to the 22 AAI indicators

As the four domains composing the AAI are themselves the result of the weighted combination of a set of indicators, all identified as covering a crucial component of active ageing, the implementation of country-specific policies in this field can benefit from the information provided

by the AAI when all 22 indicators composing this index are considered. This is made possible by the availability of regularly updated values for each of these indicators for all 28 EU countries. In order to provide an example on the informative power of this set of data, an excerpt concerning four countries – Belgium, Lithuania, Hungary and the Netherlands, each representing a typical situation of a different cluster – has been proposed in Tables 15 and 16.

Table 15 restates the average values recorded across the different domains for each of these countries, and the relative positioning compared to the EU average: Hungary ranks at the bottom in all domains, Belgium at the bottom in the first domain only, Lithuania is above average but only in the first domain, and the Netherlands ranks above average in all domains. However, for any political intervention to be effective it is necessary to understand what is behind these mean aggregated values. To this end, the indicator values summarised in Table 16 enable a more-detailed identification of the dynamics taking place behind each domain's synthesised score. Firstly, it can be observed that the employment-related challenge of a below-average rate – common to the green and red clusters – already starts with the 55-59-year-old group in Belgium, while in Hungary it affects only the population aged 60 and older. Keeping the focus on this domain, Lithuania does not seem to present any particular problem in this regard,⁹

⁹ Since the AAI has a macro-level approach and, therefore, cannot provide information concerning the micro level (i.e. the individual perspective), these data cannot indicate whether people choose to work longer, or rather feel obliged to do so because of the lack of sufficient income.

while both the Netherlands and Hungary present a remarkable gender gap in this area.

As for *Social participation* – a domain in which the green and the blue clusters are weaker – in Lithuania this is true for all considered indicators (voluntary work, children and adult care and political participation), while in Hungary the involvement of older persons in child care provision is high. Again, since the AAI by its construct does not inform on the factors behind the monitored phenomena (as it is based on outcome and not on input indicators), these data alone do not provide an indication as to whether this high score is due, for instance, to the strength of intergenerational ties, or rather, to the lack of child care facilities. Nevertheless, the information is certainly clear enough to highlight strong cross-national differences.

With regard to *Independent living*, Hungary stands out for its rather low results in terms of physical

exercise among its older population, the high rate of unmet needs for health and dental care and the limited involvement in lifelong learning. The last issue also represents a challenge in Belgium (together with the lack of physical exercise), and in Lithuania (accompanied here by a remarkable lack of physical safety), but not in the Netherlands (see also Tables A15 and A16 in the Annex for more details).

Finally, with regard to the domain of *Capacity and enabling environment*, the most critical component for older Hungarians is the lack of social connectedness (together with issues, albeit less pronounced, of lower life expectancy and health in older age, as well as of ICT usage). This is similar to what can be observed in Lithuania, where the situation is however somewhat more critical across a number of indicators, including that capturing mental well-being.

Table 15: 2018 AAI domain-specific scores for four selected countries belonging to different clusters and deviation from EU-average (expressed as a percentage of the latter)

Clusters	Countries	Domain-specific scores				Overall	Deviation from EU-average			
		Employment	Social participation	Independent, healthy & secure living	Capacity & enabling environment		Employment	Social participation	Independent, healthy & secure living	Capacity & enabling environment
1	Hungary	27.5	11.6	65.6	51.0	30.5	-11.5	-35.1	-7.1	-11.3
2	Belgium	23.8	27.0	73.3	62.8	37.7	-23.4	51.0	3.8	9.1
3	Lithuania	37.9	11.1	65.3	48.5	33.4	21.9	-38.1	-7.6	-15.7
4	Netherlands	36.3	26.6	77.3	64.7	42.7	16.6	48.6	9.4	12.5
	EU average	31.1	17.9	70.7	57.5	35.7	-	-	-	-

Legend:

- Over 20% above EU average
- Between 10% and 19.9% above EU average
- Until 9.9% above EU average
- Until -9.9% below EU average
- Between -10% and -19.9% below EU average
- Under -20% below EU average

Note: The data presented here are an excerpt of those reported in Table 4 in section 1.1.

It should finally be stressed that countries showing an overall well-positioned situation in terms of AAI scores (such as those belonging to the yellow cluster) can still use the detailed information provided by the underlying AAI indicators to improve and refine their policy interventions. Table 17 shows, for instance, that Finland has a comparatively lower score in terms of the share of *older population without unmet needs for medical and dental examinations* (indicator 3.2), thus pointing to room for improvement as regards the access to care in these areas. This issue is likely to also be related to the below-average values observed in Finland with respect to the share of healthy life years after the age of 55 (indicator 4.2). Apart from the above-mentioned concern regarding the gender gap seen in the Netherlands in three out of four domains, another interesting observation concerns the relatively low values reported by all yellow-cluster countries in terms of provision of care to children and grandchildren (indicator 2.2), in particular in Denmark and the United Kingdom.

This result *per se* might simply be interpreted as reflecting a general, culturally-grounded attitude to commodify child care, so that this task is often provided by external services (as a component of the well-developed welfare state existing in these countries). However, the fact that a large number of older people do not provide child care even once a week might also reflect a situation of age segregation and lack of intergenerational contacts, which could prevent and jeopardise a fully satisfying active ageing experience.

Finally, it is somewhat surprising that four out of the five countries composing this cluster (with the exception of the United Kingdom) record below

average scores in terms of the (national) relative median income of older persons (indicator 3.4), especially in Denmark and Sweden. However, in combination with the other two indicators defining financial security in the AAI (no poverty risk: indicator 3.5; and no severe material deprivation: indicator 3.6), these countries are above the EU average as regards financial independence in later life.

These latter findings seem to suggest that the welfare system in these countries (with the exception of the United Kingdom in terms of poverty risk) are partially able to compensate for income inequalities that cumulate over the life course, thus ensuring – in addition to the mechanisms put in place by the pension system alone – decent living standards in later life. In terms of active ageing, it would be interesting to combine these objective data with more subjective sources, to check for instance whether older people prefer to experience a condition of freedom from poverty already prior to welfare interventions (i.e. to make ends meet without receiving support from public sources). While a number of studies and measures address the “well-being” and preferred choices of older persons, most of them usually do not analyse it through the lens of active ageing in a comprehensive manner. Therefore, more focussed research would be needed, connecting the objective macro-level indicators provided by the AAI with more subjective micro-level information. However, in order to be methodologically rigorous, such an attempt should not only be limited to one domain and, rather, follow a holistic approach, thus providing evidence concerning all the different fields that are interconnected with active ageing, as highlighted in more detail in the concluding section of this report.

Table 16: Deviation from the EU average of the 2018 AAI values for all 22 indicators in four selected countries belonging to different clusters (expressed as percentage for all indicators, and as points for the gender gap)

Cluster	Country	Employment					Social participation					Independent, healthy and secure living									Capacity and enabling environment for active ageing						
		1.1 Rate 55-59	1.2 Rate 60-64	1.3 Rate 65-69	1.4 Rate 70-74	Gender Gap (points)	2.1 Voluntary activities	2.2 Care to children, grand-children	2.3 Care to older adults	2.4 Political participation	Gender Gap (points)	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	Gender Gap (points)	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	Gender Gap (points)
1	Hungary	4.2	-16.6	-57.6	-57.1	-10.0	-88.3	13.4	-51.7	-65.1	-1.6	-73.5	-33.4	-0.3	16.5	5.5	-3.1	9.9	-62.0	-1.1	-12.4	-10.9	9.5	-5.3	-66.7	13.3	0.5
2	Belgium	-5.9	-34.5	-62.4	-67.0	-6.7	76.4	11.1	91.5	45.8	2.8	-1.1	11.5	5.4	-11.3	1.9	5.7	7.3	-42.7	-2.1	4.3	8.8	24.4	18.3	-12.2	0.1	
3	Lithuania	12.9	30.2	52.7	5.5	-3.3	-71.5	-38.1	-22.7	3.3	6.9	0.2	0.2	-17.8	-7.8	-10.7	-25.3	-55.6	-12.8	-10.9	-17.7	-13.5	-27.6	-56.0	36.2	4.3	
4	Netherlands	8.6	37.2	4.7	-1.1	-14.0	197.2	-2.6	37.4	70.5	-3.0	91.3	5.3	13.8	-3.9	6.7	13.9	72.8	-3.1	3.2	-1.0	14.4	56.0	48.2	-3.2	-2.3	
EU28		67.2	38.6	12.5	6.1	-8.5	8.4	26.0	18.5	18.6	0.7	15.8	84.3	86.0	85.8	92.0	92.6	72.6	5.1	-3.2	55.0	53.4	73.0	53.9	49.3	65.2	-0.1

Legend (only data below average have been highlighted by different nuances of colour):

Up to -9.9% below EU average

Between -10% and -19.9% below EU average

Under -20% below EU average

Table 17: Deviation from the EU average of the 2018 AAI values for all 22 indicators in the countries belonging to cluster 4, by country (expressed in absolute points)

Cluster	Country	Employment	Social participation	Independent, healthy and secure living	Capacity and enabling environment for active ageing																								
4	Finland	1.1 Rate 55-59	8.4	8.8	1.3	0.0	7.4	4.7	-5.6	8.2	12.7	2.3	31.5	-8.5	10.5	-3.1	5.6	5.7	19.6	8.4	2.1	2.2	-3.8	15.1	23.1	8.7	9.0	2.2	
		1.2 Rate 60-64	6.2	13.2	8.8	4.4	-1.6	3.4	5.7	-7.0	1.8	13.2	3.4	3.9	6.9	7.3	3.1	6.2	6.5	2.5	0.4	2.0	5.2	4.7	27.1	13.7	1.9	-0.3	
		1.3 Rate 65-69	5.7	14.4	0.6	-0.1	-5.5	6.9	16.7	-0.7	6.9	13.2	-3.7	14.4	4.5	11.8	-3.4	5.0	6.2	10.0	3.7	0.1	1.8	-0.5	10.5	30.1	23.8	-2.1	-2.2
		1.4 Rate 70-74	13.4	15.4	6.5	2.7	-1.3	0.6	11.0	-8.0	0.6	14.5	4.4	12.0	4.4	13.2	-10.9	6.6	6.6	15.9	14.2	3.2	0.6	6.8	14.5	33.1	17.2	5.1	0.7
		Gender Gap (points)	16.0	28.9	9.3	2.9	3.3	0.3	9.3	-4.2	3.0	29.8	0.3	21.9	4.5	12.9	-8.6	3.1	7.1	16.2	12.7	1.3	3.2	25.5	10.2	32.1	17.9	7.5	0.9
	Denmark	2.1 Voluntary activities	67.2	38.6	12.5	6.1	-8.5	8.4	26.0	18.5	18.6	0.7	15.8	84.3	86.0	85.8	92.0	92.6	72.6	5.1	-3.2	55.0	53.4	73.0	53.9	49.3	65.2	-0.1	
		2.2 Care to children, grand-children																											
		2.3 Care to older adults																											
		2.4 Political participation																											
		Gender Gap (points)																											
	Sweden	3.1 Physical exercise																											
		3.2 No unmet needs of health and dental care																											
	EU28	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																											
	United Kingdom	3.8 Lifelong learning																											
		Gender Gap (points)																											
		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																											
Netherlands	4.4 Use of ICT																												
	4.5 Social connectedness																												
	4.6 Educational attainment																												
	Gender Gap (points)																												
	EU28																												

N.B.: cells in yellow highlight a value below the EU average showed in the bottom row.

Part 4: Conclusions and challenges for the future

The examples of the AAI application to EU Member States and to selected subnational contexts illustrated in this report have shown various possibilities to use this tool as a practical support in monitoring experiences and progress in the implementation of active ageing policies. By highlighting similarities and differences across countries and clusters of countries sharing common features, trends over time, domain-specific and regional specificities, this document provides a glimpse of the wealth of information and empirical evidence that the AAI can deliver through (nationally, regionally or locally) comparable datasets, to support policymakers and other stakeholders in identifying the best strategies to promote active ageing in diverse settings. To this end, a specific attempt was made in Part 3 to highlight the challenges which, on the backdrop of AAI findings, should ideally be addressed at country level in the next monitoring rounds of the internationally most relevant policy frameworks existing in this field: the European Semester's Country Specific Recommendations for the EU, and the MIPAA/RIS national reports for the UNECE region.

Following the suggestions for improvement formulated after the publication of the first AAI Analytical Report (UNECE/European Commission, 2015) – and partly also emerging from events such as the Second International Seminar on the AAI held in Bilbao, Spain, in 2018 (<http://www.unece.org/index.php?id=49105>), as well as from the Expert Group that has been supporting the project since its inception in 2012 – this report has attempted to overcome some of the shortcomings and to reinforce the strengths identified in the past. Among the issues specifically addressed in this report is, first of all, the suggestion – backed by a series of practical examples – to go beyond a mere ranking of country averages and to use, for instance, clusters of countries sharing similar features as an analytical tool. This approach was used throughout the report, in order to focus on countries' common challenges (and eventually

on the identification of the strategies to tackle them), rather than on ranking-based comparisons. Another analytical approach, in this regard, was that of focussing on intra- or subnational areas to identify active-ageing-related inequalities and/or strengths at subnational level, i.e. where some of the political governance can more effectively act to promote change.

4.1 How this study could be expanded

In line with this request of going beyond average data, some users of the earlier rounds of AAI results expressed the wish to have a stronger focus on the inequalities that could lead to the marginalisation of particularly vulnerable groups in our ageing societies. These include older persons characterised by socio-economic deprivation in its different forms (such as a lower educational level and income); those suffering from poorer health (a condition often highly correlated with socio-economic deprivation); or belonging to ethnic minorities or having a migration background; not to forget gender-based inequalities. While this report could provide more detailed findings with regard to the relationship between the AAI and some of these features – such as gender gaps across AAI domains, income distribution, educational levels and rural-urban differences, either cross-nationally or within selected countries (see in this regard especially section 2.2.) – less could be delivered with regard to many other features, due to the lack of detailed data. For instance, the topic of migration-related inequalities has hardly been investigated so far in relation to the AAI application, even though it is becoming more and more relevant as migrants make up a progressively larger share of the older population in many countries. Therefore, it would be strategic for future research to address this theme more substantially (also considering possible challenges in the longer-term, such as the naturalisation of migrants, which might prevent their identification through statistics once they acquire local nationality).

Another priority for strengthening empirical evidence for policymaking, suggested in the past but not yet adequately addressed, concerns the need to pay more attention to the oldest age groups by using more detailed, age-disaggregated AAI-related data, in order to avoid the trap of considering all older people as a homogeneous group. The rationale behind this is that, in order to be effective, policies to promote active ageing should be based on comprehensive information explaining what it means to age at 65, 75 or 85, since good health and access to care for the oldest groups are often preconditions for remaining active in other fields. In addition to investing in age-disaggregated data for AAI indicators, the use of cohort analysis and of longitudinal data to identify which life-course events and trajectories are likely to facilitate active ageing can be seen as another methodological challenge with which future AAI applications may have to deal.

Furthermore, evidence from numerous studies and some of the findings highlighted in this report show that accessibility and affordability of health, social and long-term care services become more important the older the person gets. Hence, the availability of good-quality data in this regard, including that of older persons in institutions, becomes crucial. Presently, however, comprehensive data on what is occurring in institutional care settings are not available, as these are not included by most surveys on the older population. Therefore, the understanding of what active ageing means and what can be done to encourage activities in older age in these settings is lacking.

Another suggestion made in the past concerns the improvement of clarity and accessibility of the method and assumptions on which the AAI is based. The underlying idea is to encourage users to learn about the tool, by experimenting with different weights for individual domains and indicators when building their “personalised AAI” (or even adding additional, missing indicators). This possibility, while conceptually building on the instrument’s core multidimensional components, would allow users to take into

account different cultural perspectives and policy priorities, and to adjust AAI calculations accordingly. To this end, the recently prepared guidelines on how to calculate the AAI in different contexts have made available a set of helpful and user-friendly instructions (UNECE/European Commission 2018). They allow users to more easily understand how to proceed when data are lacking, but also on how to make the interpretation of AAI results clearer, its use easier, more flexible and transparent, and at the same time more appropriate to fit national or regional policy goals, by identifying the most suitable weighting methods. This is likely to reduce the risk of AAI data manipulation, as more users will know how to manage them. In the longer-term, the proposed room for flexibility in adapting the AAI to subnational levels may also contribute to enhancing its acceptance as the practical tool many have been looking for to serve policymakers, civil society organisations and researchers interested in promoting active ageing in everyday life. This goal should be further facilitated by the (currently ongoing) development of a web-based data visualisation tool, allowing users to change the weights of different domains and indicators online, in order to build the AAI for specific subgroups and to visualise its development over time. While these developments are likely to support policymaking tasks within specific individual contexts, more caution might nevertheless be required when the purpose of analyses is to compare the situation in different geographical areas (i.e. AAI values calculated by using different weights and/or indicators).

4.2 A cautionary tale

To counter the risk of the AAI being seen as a sort of normative, top-down tool, additional research focussing on the relation between the AAI – an instrument reflecting *per se* the macro-level perspective – and individual well-being at micro level would be useful. More rigorous findings in this regard would allow, among others, to clarify whether, and to which extent, the benefits for society as a whole – i.e. those made more visible by

the AAI by showing older people's contribution in various fields – also represent advantages for the ageing individuals themselves. A valuable way to start using AAI results according to this perspective would be that of bringing closer the institutional (macro), the organisational (meso) and the individual (micro) levels, through a stronger cooperation among the different governance levels and policy actors that are relevant for active ageing outcomes. A useful approach would be that of adopting an ongoing strategic consultation and co-decision process which systematically involves relevant stakeholders, for instance in the setting of objectives concerning AAI goalposts by topic. This would promote a bottom-up perspective allowing the identification of what is “good” – in terms of AAI scores – in a more culturally-sensitive and people-centred way, considering older people's individual health and well-being but also their values and attitudes.

In this regard, while the AAI measures the “degree of active ageing” achieved at the macro level in the indicated domains, it **is not constructed** to capture preferences or aspirations at the individual level. Therefore, caution is needed when the purpose of policymakers is to promote the activities considered by the composite index, without taking into account the needs and wishes of older individuals (see in this regard São José, Timonen, Amado and Santos, 2017). A fruitful strategy to use this tool in this regard would be that of systematically involving our society's core stakeholders in the analysis and interpretation of its results. On the one hand, this would make it possible to consider the diversity of individual and cultural perspectives, to be acknowledged also with regard to activity and social participation in older age (Walker and Maltby, 2012). On the other, it would leverage stakeholder involvement

in the identification of priority policy goals, up to identifying the areas so far left out of the AAI, but possibly important for specific older subgroups (such as leisure activities: Principi *et al.*, 2018).

This approach would also facilitate dealing with inequalities in active ageing across population groups through policymaking. The possibility of analysing AAI data disaggregated by sex, socio-economic status, living place, health conditions etc. in a given geographical context (UNECE/European Commission 2017a; UNECE/European Commission 2017b), would indeed make it possible to address more specifically the most disadvantaged groups in terms of active ageing, through appropriate ad-hoc interventions. First experiences in this respect have already started in some countries, such as Italy, where in 2019-2022 the Presidency of the Council of Ministers plans to use the AAI to monitor the progress made by Italian regions in implementing active ageing policies, via a multilevel shared coordination mechanism operating at national level and based on a systematic stakeholder involvement (Principi and Lattanzio, 2019).

Progressing on the many – and certainly not always easy to solve – issues mentioned above will allow the AAI to play the role it deserves, showing that the ageing of societies is not a negative process per se, given the remarkable contribution of older people in different areas. This will necessarily require the collaborative efforts of policymakers, researchers and other stakeholders to ensure that a data-driven, user-centred monitoring approach is used. This will serve to unveil and address inequalities that undermine not only the pursuit of active ageing goals, but ultimately also the fundamental principle of “leaving no one behind”, endorsed by the United Nations' 2030 Agenda for Sustainable Development.

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Annex

Table A1: AAI – indicators, sources and variables

	Indicator	Source	Variable / survey question
EMPLOYMENT			
1.1	Employment rate 55-59	EU-LFS	Employment rate. Who during the reference week performed work, even for just one hour a week, for pay, profit or family gain. Who were not at work but had a job or business from which they were temporarily absent because of, e.g., illness, holidays, industrial dispute or education and training
1.2	Employment rate 60-64	EU-LFS	See 1.1
1.3	Employment rate 65-69	EU-LFS	See 1.1
1.4	Employment rate 70-74	EU-LFS	See 1.1
PARTICIPATION IN SOCIETY			
2.1	Voluntary activities	EQLS	Please look carefully at the list of organisations and tell us, how often did you do unpaid voluntary work through the following organisations in the last 12 months? a. Community and social services (e.g. organisations helping the elderly, young people, disabled or other people in need); b. Educational, cultural, sports or professional associations; c. Social movements (for example environmental, human rights) or charities (for example fundraising, campaigning); e. Other voluntary organisations (share of 55+ who answered at least once a week)
2.2	Care to children and grandchildren*	EQLS	In general, how often are you involved in any of the following activities outside of paid work? a. Caring for and/or educating your children; b. Caring for and/or educating your grandchildren (share of those 55+ who answered at least once a week)
2.3	Care to infirm and disabled*	EQLS	In general, how often are you involved in any of the following activities outside of paid work? d. Caring for disabled or infirm family members, neighbours or friends under 75 years old; e. Caring for disabled or infirm family members, neighbours or friends aged 75 or over (share of those aged 55+ who answered at least once a week)
2.4	Political participation	EQLS	Over the last 12 months, have you ...? a. Attended a meeting of a trade union, a political party or political action group; b. Attended a protest or demonstration; c. Signed a petition, including an e-mail or on-line petition; d. Contacted a politician or public official (other than routine contact arising from use of public services) (share of those aged 55+ who answered yes)
INDEPENDENT, HEALTHY AND SECURE LIVING			
3.1	Physical exercise	EQLS	Percentage of people aged 55 years and older undertaking physical exercise or sport almost every day.
3.2	Access to health services	EU-SILC	Percentage of people aged 55 years and older who report no unmet need for medical and dental examination or treatment during the 12 months preceding the survey.
3.3	Independent living arrangements	EU-SILC	Share of persons aged 75 and older living in single or couple households
3.4	Relative median income	EU-SILC	Ratio of the median equivalised disposable income of people aged 65 and above to the median equivalised disposable income of those aged below 65

Table A1: AAI – indicators, sources and variables, cont.

	Indicator	Source	Variable / survey question
3.5	No poverty risk	EU-SILC	Share of people aged 65 years and older who are not at risk of poverty (defined as those with an equivalised disposable income after social transfers below the at risk-of-poverty threshold, which is set at 50 per cent of the national median equivalised disposable income after social transfers)
3.6	No severe material deprivation	EU-SILC	Share of people aged 65 years and older who are not severely materially deprived. Severe material deprivation refers to a state of economic and durable strain, defined as the enforced inability to afford at least four out of the following nine items: to pay their rent, mortgage or utility bills; to keep their home adequately warm; to face unexpected expenses; to eat meat or proteins regularly; to go on holiday; a television set; a washing machine; a car; a telephone.
3.7	Physical safety	ESS	How safe do you – or would you – feel walking alone in this area (respondent's local area or neighbourhood) after dark? (share of those aged 55 years and older feeling safe or very safe)
3.8	Lifelong learning	EU-LFS	Did you attend any courses, seminars, conferences or received private lessons or instructions within or outside the regular education system within the last 4 weeks? (share of people aged 55-74 who answered yes)

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4.1	Remaining life expectancy at age 55	Eurostat life tables	Remaining life expectancy at 55 divided by 50 to calculate the proportion of life expectancy achievement in the target of 105 years of life expectancy
4.2	Share of healthy life expectancy at age 55	Eurostat life tables & EU-SILC	The proportion of years spent free of activity limitation caused by health problems in the remaining life expectancy at 55.
4.3	Mental well-being	EQLS	Share of people aged 55+ scoring above 13 (not included) points in the WHO-5 questionnaire. The latter includes five statements: 1) I have felt cheerful and in good spirits; 2) I have felt calm and relaxed; 3) I have felt active and vigorous; 4) I woke up feeling fresh and rested; 5) My daily life has been filled with things that interest me with which respondents agree or disagree on a scale from 5 to 0. For more details see http://www.who-5.org/ .
4.4	Use of ICT	Eurostat ICT Survey	How often on average have you used Internet in the last 3 months? (share of those aged 55-74 who answered “at least once a week” or more often)
4.5	Social connectedness	ESS	How often socially meet with friends, relatives or colleagues? (share of people aged 55+ who answered “at least once a week”, or more often)
4.6	Educational attainment	EU-LFS	Share of those aged 55-74 with upper secondary or tertiary educational attainment (ISCED 3 or higher)

*: The original EQLS questions on which the indicators 2.2 and 2.3 are based have been changed throughout EQLS waves. For details see Methodology section of the AAI wiki (<https://statswiki.unece.org/display/AAI/Active+Ageing+Index+Home>).

Table A2: 2018 AAI by country cluster, overall and domain-specific average scores within cluster (and mean standard deviation)

Country cluster*	Domain-specific score				Overall AAI
	Employment	Social participation	Independent, healthy & secure living	Capacity & enabling environment	
1	25.6 (3.5)	14.1 (2.5)	66.9 (2.9)	52.8 (4.3)	31.1 (1.9)
2	25.7 (3.6)	22.7 (3.5)	73.8 (2.6)	60.4 (2.9)	36.4 (1.4)
3	37.5 (3.8)	15.1 (2.9)	68.3 (6.1)	55.9 (6.0)	36.5 (2.5)
4	39.4 (3.9)	23.5 (2.6)	77.6 (1.5)	65.9 (3.2)	43.0 (2.5)
Total	31.1 (7.3)	17.9 (5.1)	70.7 (5.5)	57.5 (6.4)	35.7 (4.7)

* Clusters contain following countries:

1. Bulgaria, Greece, Croatia, Romania, Hungary, Slovenia, Poland, Slovakia, Italy, Spain (green);
2. Luxembourg, Malta, Cyprus, Austria, Belgium, France (red);
3. Lithuania, Portugal, Latvia, Czech Republic, Estonia, Ireland, Germany (blue);
4. Finland, United Kingdom, Netherlands, Denmark, Sweden (yellow).

Table A3: Percentage of people aged 55 years and older undertaking physical exercise or sport almost every day (AAI indicator 3.1) in the period 2008-2016, by cluster¹⁰

Cluster	2008	2010	2012	2014	2016
1	6.5	6.5	6.5	6.6	6.6
2	19.4	19.4	19.4	17.4	17.4
3	14.1	14.1	14.1	15.6	15.6
4	31.4	31.4	31.4	32.5	32.5

Table A4: Percentage of people aged 55 years and older undertaking physical exercise or sport almost every day (AAI indicator 3.1) in the period 2008-2016, by country

Country	2008	2010	2012	2014	2016
Bulgaria	0.8	0.8	0.8	1.8	1.8
Greece	6.6	6.6	6.6	7.6	7.6
Spain	15.8	15.8	15.8	16.1	16.1
Croatia	7.4	7.4	7.4	2.2	2.2
Italy	5.4	5.4	5.4	4.3	4.3
Hungary	5.4	5.4	5.4	4.2	4.2
Poland	7.0	7.0	7.0	6.3	6.3
Romania	1.3	1.3	1.3	1.6	1.6

¹⁰ For data sources for the indicators presented in the tables A3–A18 see table A1.

Table A4: Percentage of people aged 55 years and older undertaking physical exercise or sport almost every day (AAI indicator 3.1) in the period 2008-2016, by country, cont.

Country	2008	2010	2012	2014	2016
Slovenia	9.7	9.7	9.7	16.9	16.9
Slovakia	5.3	5.3	5.3	5.3	5.3
Belgium	16.4	16.4	16.4	15.6	15.6
France	22.5	22.5	22.5	13.5	13.5
Cyprus	14.1	14.1	14.1	14.2	14.2
Luxembourg	24.3	24.3	24.3	20.6	20.6
Malta	16.8	16.8	16.8	16.4	16.4
Austria	22.2	22.2	22.2	23.7	23.7
Czech Republic	4.9	4.9	4.9	6.1	6.1
Germany	12.3	12.3	12.3	18.3	18.3
Estonia	19.8	19.8	19.8	24.6	24.6
Ireland	25.4	25.4	25.4	21.5	21.5
Latvia	11.9	11.9	11.9	12.2	12.2
Lithuania	18.5	18.5	18.5	16.9	16.9
Portugal	6.0	6.0	6.0	9.4	9.4
Denmark	25.2	25.2	25.2	27.8	27.8
Netherlands	23.3	23.3	23.3	30.2	30.2
Finland	49.0	49.0	49.0	47.3	47.3
Sweden	42.7	42.7	42.7	37.7	37.7
United Kingdom	16.9	16.9	16.9	19.7	19.7

Table A5: Percentage of population aged 55+ who report no unmet need for medical and dental examination (AAI indicator 3.2) in the period 2008-2016, by cluster

Cluster	2008	2010	2012	2014	2016
1	83.0	84.1	84.7	87.1	78.5
2	93.2	92.2	93.6	90.3	92.5
3	85.9	87.1	85.3	89.8	84.1
4	93.6	92.8	91.7	81.7	86.7

Table A6: Percentage of population aged 55+ who report no unmet need for medical and dental examination (AAI indicator 3.2) in the period 2008-2016, by country

Country	2008	2010	2012	2014	2016
Bulgaria	67.3	76.8	79.6	98.5	68.9
Greece	85.6	86.0	82.1	90.3	73.9
Spain	89.4	89.4	89.5	76.4	83.9
Croatia	79.9	79.9	87.5	90.1	75.5
Italy	84.5	85.5	86.7	89.4	82.0
Hungary	84.9	88.8	86.9	89.0	56.1
Poland	81.5	77.1	77.1	96.1	83.3
Romania	66.3	68.5	70.2	81.0	77.5
Slovenia	98.9	98.1	97.4	71.2	94.0
Slovakia	92.0	90.7	90.4	89.2	89.6
Belgium	96.9	97.2	95.6	87.3	94.0
France	91.8	91.2	91.2	87.9	85.7
Cyprus	87.8	84.8	88.0	94.7	90.4
Luxembourg	95.6	95.3	95.3	84.0	95.3
Malta	96.9	91.6	95.3	94.3	91.1
Austria	89.9	93.1	96.4	93.8	98.3
Czech Republic	93.8	93.0	93.4	86.3	91.2
Germany	91.5	91.2	92.1	87.1	96.5
Estonia	79.5	89.1	81.4	91.5	72.8
Ireland	95.4	95.1	92.6	86.9	94.4
Latvia	68.5	65.5	68.2	88.7	71.8
Lithuania	84.4	91.8	91.1	91.6	84.5
Portugal	88.6	84.0	78.5	96.8	77.4
Denmark	95.8	95.1	92.1	93.2	88.7
Netherlands	97.7	97.6	97.6	64.5	88.8
Finland	95.8	89.3	88.3	77.0	75.8
Sweden	84.2	86.5	86.3	76.4	88.8
United Kingdom	94.3	95.7	94.1	97.2	91.2

Table A7: Percentage of persons aged 75 and older living in single or couple households (AAI indicator 3.3) in the period 2008-2016, by cluster

Cluster	2008	2010	2012	2014	2016
1	83.0	84.1	84.7	87.1	78.5
2	87.6	85.8	86.9	89.8	89.2
3	83.8	84.6	84.6	86.2	86.3
4	96.8	97.0	97.0	96.9	97.2

Table A8: Percentage of persons aged 75 and older living in single or couple households (AAI indicator 3.3) in the period 2008-2016, by country

Country	2008	2010	2012	2014	2016
Bulgaria	70.5	71.5	72.2	75.3	83.6
Greece	75.4	77.9	76.0	79.8	79.3
Spain	71.4	71.5	73.5	76.4	76.9
Croatia	47.4	75.1	79.9	77.4	74.6
Italy	81.3	82.0	83.1	84.3	84.4
Hungary	79.1	79.5	84.3	85.8	85.7
Poland	72.6	68.9	69.2	65.1	63.9
Romania	74.2	75.7	75.9	78.4	75.4
Slovenia	74.8	84.2	83.9	84.4	84.4
Slovakia	77.1	72.9	72.6	72.1	74.2
Belgium	91.3	88.2	91.8	91.9	90.6
France	93.6	94.1	95.8	96.8	95.6
Cyprus	87.5	84.9	83.9	89.3	90.3
Luxembourg	88.2	85.1	87.9	89.6	84.7
Malta	84.7	79.9	78.2	85.3	87.0
Austria	80.1	82.8	83.6	85.7	87.2
Czech Republic	84.7	86.1	87.4	88.7	89.5
Germany	94.8	96.0	96.7	96.2	96.2
Estonia	83.2	83.7	83.8	84.1	85.5
Ireland	90.1	88.0	86.2	91.6	92.2
Latvia	71.6	74.0	74.1	79.1	75.7
Lithuania	82.1	83.6	83.9	84.1	86.1
Portugal	79.8	80.5	79.9	79.7	78.7
Denmark	99.5	99.2	99.2	98.8	99.2
Netherlands	98.0	97.5	97.3	98.0	97.8

Table A8: Percentage of persons aged 75 and older living in single or couple households (AAI indicator 3.3) in the period 2008-2016, by country, cont.

Country	2008	2010	2012	2014	2016
Finland	93.4	94.5	96.1	96.2	96.5
Sweden	98.9	99.0	98.4	99.0	98.9
United Kingdom	94.4	94.6	94.0	92.6	93.3

Table A9: Ratio of the median equivalised disposable income of people aged 65+ to the median equivalised disposable income of those aged below 65 (AAI indicator 3.4) in the period 2008-2016, by cluster

Cluster	2008	2010	2012	2014	2016
1	84.6	87.5	91.0	94.9	93.8
2	80.9	84.8	86.2	87.5	87.4
3	72.5	83.0	82.7	81.0	76.3
4	75.3	79.3	81.6	83.2	81.2

Table A10: Ratio of the median equivalised disposable income of people aged 65+ to the median equivalised disposable income of those aged below 65 (AAI indicator 3.4) in the period 2008-2016, by country

Country	2008	2010	2012	2014	2016
Bulgaria	66.2	73.8	73.7	81.7	79.6
Greece	86.0	84.1	100.0	99.8	100.0
Spain	82.6	88.0	96.4	100.0	100.0
Croatia	78.2	78.2	84.4	88.5	83.7
Italy	88.0	91.7	95.7	98.9	100.0
Hungary	100.4	100.0	96.2	100.0	100.0
Poland	96.6	92.9	94.9	99.0	96.9
Romania	84.6	96.6	100.0	100.0	97.4
Slovenia	84.5	87.0	87.4	90.5	89.0
Slovakia	79.0	83.2	81.4	90.8	91.4
Belgium	74.2	74.5	74.3	77.1	76.1
France	95.2	97.8	100.0	100.0	100.0
Cyprus	58.7	65.4	69.6	74.8	79.5
Luxembourg	96.8	100.0	100.0	100.0	100.0
Malta	73.0	81.2	80.1	77.4	72.2
Austria	87.6	89.8	93.4	95.5	96.9
Czech Republic	78.7	81.5	83.6	84.4	78.6

Table A10: Ratio of the median equivalised disposable income of people aged 65+ to the median equivalised disposable income of those aged below 65 (AAI indicator 3.4) in the period 2008-2016, by country, cont.

Country	2008	2010	2012	2014	2016
Germany	87.2	88.5	87.9	89.6	84.4
Estonia	61.6	73.3	71.8	62.6	60.2
Ireland	73.9	84.8	85.9	88.9	85.5
Latvia	53.1	77.6	79.8	70.8	63.5
Lithuania	69.7	92.9	78.1	77.2	70.6
Portugal	82.9	82.1	91.7	93.6	91.1
Denmark	70.5	71.5	74.8	77.7	74.9
Netherlands	83.6	87.1	89.7	89.4	82.4
Finland	72.2	78.2	77.7	79.4	82.7
Sweden	76.4	78.6	77.7	82.4	77.2
United Kingdom	73.8	81.3	88.2	86.9	88.9

Table A11: Percentage of people aged 65+ who are not at the risk of poverty using 50% of the national median equivalised disposable income as the poverty threshold (AAI indicator 3.5) in the period 2008-2016, by cluster

Cluster	2008	2010	2012	2014	2016
1	88.5	89.9	91.4	92.7	91.8
2	89.8	90.7	92.5	94.2	93.4
3	86.3	94.6	94.3	92.4	88.3
4	93.1	94.3	94.9	95.4	95.7

Table A12: Percentage of people aged 65+ who are not at the risk of poverty using 50% of the national median equivalised disposable income as the poverty threshold (AAI indicator 3.5) in the period 2008-2016, by country

Country	2008	2010	2012	2014	2016
Bulgaria	81.7	77.9	82.6	88.1	88.0
Greece	87.7	90.4	92.2	92.2	93.1
Spain	84.9	89.0	92.8	94.7	94.0
Croatia	80.8	80.8	83.5	85.7	82.8
Italy	88.5	92.1	93.1	93.9	92.5
Hungary	98.5	98.6	97.7	98.1	97.0
Poland	94.8	93.2	93.5	94.5	93.7

Table A12: Percentage of people aged 65+ who are not at the risk of poverty using 50% of the national median equivalised disposable income as the poverty threshold (AAI indicator 3.5) in the period 2008-2016, by country, cont.

Country	2008	2010	2012	2014	2016
Romania	83.8	90.2	92.1	90.8	89.0
Slovenia	87.6	88.6	89.2	90.9	89.6
Slovakia	97.1	97.8	97.2	98.2	98.5
Belgium	91.2	92.2	92.5	93.5	93.7
France	97.5	96.2	96.2	97.1	97.7
Cyprus	75.1	78.2	86.3	91.2	91.4
Luxembourg	97.8	96.9	97.6	97.3	93.3
Malta	87.6	90.5	91.0	94.2	91.1
Austria	89.5	90.2	91.1	91.6	93.4
Czech Republic	98.4	98.7	98.6	98.2	98.4
Germany	92.5	93.0	91.6	90.9	90.6
Estonia	82.8	96.3	95.7	92.0	83.5
Ireland	93.8	94.0	91.3	92.6	93.7
Latvia	62.8	93.9	94.5	89.9	77.1
Lithuania	85.5	96.3	94.9	91.7	84.8
Portugal	88.3	89.9	93.4	91.3	90.3
Denmark	97.0	94.5	97.0	97.2	98.6
Netherlands	95.7	97.9	97.4	97.2	97.0
Finland	93.1	95.3	94.5	96.2	97.6
Sweden	95.1	95.9	94.9	96.2	95.1
United Kingdom	84.7	87.9	90.7	90.2	90.0

Table A13: Percentage of people aged 65+ not severely materially deprived (AAI indicator 3.6) in the period 2008-2016, by cluster

Cluster	2008	2010	2012	2014	2016
1	80.3	82.5	82.2	85.0	86.7
2	95.9	96.6	96.5	96.3	97.4
3	89.7	89.2	88.9	90.4	92.5
4	98.6	99.0	99.1	98.9	99.0

Table A14: Percentage of people aged 65+ not severely materially deprived (AAI indicator 3.6) in the period 2008-2016, by country

Country	2008	2010	2012	2014	2016
Bulgaria	39.0	41.9	46.8	59.7	62.5
Greece	85.2	87.6	85.7	84.5	84.8
Spain	98.1	97.8	97.1	97.6	97.5
Croatia	84.3	84.3	84.5	85.3	85.5
Italy	93.3	93.7	87.3	91.2	88.9
Hungary	85.6	85.9	81.4	83.5	89.8
Poland	79.2	83.5	85.2	90.3	94.1
Romania	61.0	67.6	71.5	73.5	77.5
Slovenia	92.6	93.7	93.4	93.3	94.2
Slovakia	84.7	88.9	89.2	90.8	92.0
Belgium	96.8	97.2	97.2	97.6	97.9
France	96.7	96.6	97.6	97.6	97.1
Cyprus	89.1	92.7	92.5	92.6	94.6
Luxembourg	100.0	99.9	100.0	99.9	99.8
Malta	96.9	95.0	93.6	91.9	96.4
Austria	95.6	98.1	98.1	98.0	98.8
Czech Republic	93.6	95.7	94.0	94.9	97.0
Germany	97.9	97.9	97.2	96.8	97.3
Estonia	94.2	93.4	92.9	93.6	94.6
Ireland	97.8	98.5	97.2	97.1	97.6
Latvia	71.3	72.5	73.6	78.0	85.1
Lithuania	82.9	76.0	75.9	82.2	82.7
Portugal	89.9	90.4	91.6	90.2	93.3
Denmark	99.1	99.1	99.4	99.1	99.2
Netherlands	99.6	99.7	99.3	99.0	98.8
Finland	96.8	98.3	98.5	98.3	98.3
Sweden	99.1	99.0	99.6	99.8	99.7
United Kingdom	98.6	98.7	98.6	98.1	98.8

Table A15: Percentage of people aged 55 years and older who are feeling safe to walk after dark in their local area (AAI indicator 3.7) in the period 2008-2016, by cluster

Cluster	2008	2010	2012	2014	2016
1	67.0	69.0	69.6	70.7	68.9
2	70.6	70.2	69.3	72.4	74.4
3	60.2	61.4	62.1	63.6	66.6
4	75.8	80.5	82.4	83.3	86.2

Table A16: Percentage of people aged 55 years and older who are feeling safe to walk after dark in their local area (AAI indicator 3.7) in the period 2008-2016, by country

Country	2008	2010	2012	2014	2016
Bulgaria	50.1	53.0	58.7	58.7	58.6
Greece	48.7	46.7	46.7	46.7	46.7
Spain	72.1	73.6	70.4	79.1	83.3
Croatia	83.3	87.3	87.3	87.3	87.2
Italy	65.6	65.6	65.9	65.9	57.3
Hungary	62.3	61.6	67.9	67.6	79.8
Poland	73.6	82.5	79.5	83.5	74.9
Romania	66.0	66.0	66.0	66.0	66.0
Slovenia	83.2	91.6	95.0	93.0	58.7
Slovakia	64.7	62.5	58.7	58.7	76.8
Belgium	77.5	76.4	74.5	77.2	77.8
France	69.4	65.9	65.8	69.4	73.4
Cyprus	71.5	73.7	71.6	71.6	71.4
Luxembourg	62.5	62.5	62.5	62.5	62.4
Malta					
Austria	72.3	72.3	72.3	81.4	87.0
Czech Republic	66.2	66.5	65.7	67.1	69.5
Germany	71.4	73.3	73.2	74.1	70.0
Estonia	56.3	65.9	59.8	62.4	77.7
Ireland	75.2	72.5	77.3	71.6	76.1
Latvia	41.9	41.9	41.9	41.9	41.9
Lithuania	43.3	43.3	44.7	52.3	54.2
Portugal	66.9	66.6	71.9	75.9	77.0
Denmark	75.7	84.4	85.8	88.5	88.5

Table A16: Percentage of people aged 55 years and older who are feeling safe to walk after dark in their local area (AAI indicator 3.7) in the period 2008-2016, by country, cont.

Netherlands	78.3	80.9	81.9	81.8	82.6
Finland	83.9	86.7	89.8	88.8	92.2
Sweden	80.7	81.5	83.6	84.6	88.8
United Kingdom	60.6	69.0	71.1	72.8	79.1

Table A17: Percentage of persons aged 55-74 who received education or training in the 4 weeks preceding the survey (AAI indicator 3.8) in the period 2008-2016, by cluster

Cluster	2008	2010	2012	2014	2016
1	1.4	1.6	1.7	1.6	1.7
2	2.8	3.3	3.4	4.7	5.2
3	1.7	1.7	2.8	2.5	3.3
4	12.7	13.4	13.4	14.1	13.4

Table A18: Percentage of older persons aged 55-74 who received education or training in the 4 weeks preceding the survey (AAI indicator 3.8) in the period 2008-2016, by country

Country	2008	2010	2012	2014	2016
Bulgaria					
Greece	0.2	0.3	0.4	0.4	0.6
Spain	4.4	4.7	4.8	3.3	3.1
Croatia	0.2	0.2	0.2	0.1	0.2
Italy	1.6	1.9	2.3	3.3	3.8
Hungary	0.2	0.3	0.4	0.7	1.9
Poland	0.4	0.8	0.6	0.8	0.8
Romania	0.3	0.3	0.3	0.2	0.2
Slovenia	4.5	5.5	5.6	4.9	4.2
Slovakia	0.7	0.5	0.8	0.8	0.8
Belgium	2.5	3.1	2.8	3.0	2.9
France	1.8	1.5	2.0	9.6	9.7
Cyprus	2.9	2.7	2.9	2.5	3.0
Luxembourg	2.0	4.3	4.4	4.5	6.0
Malta	2.9	2.4	2.6	3.1	3.1
Austria	4.7	5.5	5.5	5.5	6.3
Czech Republic	1.9	1.8	3.2	2.9	2.5

Table A18: Percentage of older persons aged 55-74 who received education or training in the 4 weeks preceding the survey (AAI indicator 3.8) in the period 2008-2016, by country, cont.

Country	2008	2010	2012	2014	2016
Germany	2.1	2.0	2.0	2.0	2.4
Estonia	3.0	3.4	4.1	3.8	7.4
Ireland	3.0	2.7	2.8	2.6	2.4
Latvia	1.4	1.0	2.9	1.7	2.7
Lithuania	0.2	0.2	1.5	1.7	2.2
Portugal	0.7	0.9	3.3	3.0	3.7
Denmark	21.6	23.8	22.9	22.7	19.3
Netherlands	7.1	7.0	7.0	8.0	8.8
Finland	11.2	11.2	12.1	12.9	13.5
Sweden	13.5	15.0	16.5	18.1	17.8
United Kingdom	10.3	9.9	8.4	8.7	7.6

Table A19: Values and changes 2008-2016 in the domain-3 indicators, by gender and by country (only for countries reporting a more negative trend for women than for men in the AAI domain of Independent, healthy and secure living in the considered period)

Year & gender	Country	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	Domain average
2008 men	Netherlands	22.5	97.5	97.9	85.0	96.1	99.4	89.6	6.6	79.0
	Slovenia	9.4	98.5	73.9	91.4	93.8	94.3	92.5	3.7	73.0
	Luxembourg	25.0	95.1	90.9	96.4	98.3	100.0	76.0	2.1	77.0
	Malta	19.0	97.2	81.5	72.7	86.7	97.8		2.8	70.7
2008 women	Netherlands	24.0	97.8	98.1	83.6	95.4	99.7	68.2	7.6	77.0
	Slovenia	10.0	99.1	75.2	78.9	83.6	91.6	75.7	5.2	69.4
	Luxembourg	23.7	96.1	86.1	97.4	97.3	100.0	51.1	2.0	73.6
	Malta	14.9	96.6	86.8	73.4	88.3	96.2		2.8	71.4
2016 men	Netherlands	36.2	89.9	96.9	85.2	96.9	98.6	91.3	8.4	79.0
	Slovenia	21.7	94.5	84.2	96.2	94.1	95.9	67.9	2.7	73.6
	Luxembourg	25.8	94.9	85.2	100.0	94.9	99.8	76.0	6.8	76.4
	Malta	20.9	91.2	84.7	74.4	91.3	96.6		2.7	70.9
2016 women	Netherlands	25.1	87.8	98.5	81.6	97.1	98.9	74.5	9.1	75.9
	Slovenia	12.9	93.7	84.6	84.3	86.4	93.1	51.9	5.5	69.1
	Luxembourg	15.8	95.7	84.3	100.0	92.0	99.7	51.0	5.0	72.3
	Malta	12.3	90.9	88.7	70.3	90.9	96.2		3.5	70.3
Change men	Netherlands	13.7	-7.6	-1.0	0.2	0.8	-0.8	1.7	1.9	0.0
	Slovenia	12.4	-4.0	10.3	4.8	0.3	1.6	-24.6	-1.0	0.6
	Luxembourg	0.8	-0.2	-5.7	3.6	-3.4	-0.2	0.0	4.7	-0.6
	Malta	1.9	-6.0	3.2	1.7	4.6	-1.2	0.0	0.0	0.2

Table A19: Values and changes 2008-2016 in the domain-3 indicators, by gender and by country (only for countries reporting a more negative trend for women than for men in the AAI domain of Independent, healthy and secure living in the considered period), cont.

Year & gender	Country	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	Domain average
Change women	Netherlands	1.1	-9.9	0.4	-2.0	1.7	-0.8	6.3	1.4	-1.1
	Slovenia	2.9	-5.4	9.4	5.4	2.8	1.5	-23.8	0.3	-0.3
	Luxembourg	-7.9	-0.4	-1.8	2.6	-5.3	-0.3	-0.1	3.0	-1.3
	Malta	-2.7	-5.7	1.9	-3.1	2.6	0.0	0.0	0.7	-1.1
Gender gap change	Netherlands	12.6	2.3	-1.4	2.3	-0.9	0.0	-4.6	0.4	1.1
	Slovenia	9.4	1.5	0.9	-0.6	-2.5	0.1	-0.7	-1.3	0.9
	Luxembourg	8.7	0.1	-3.9	1.0	1.9	0.1	0.1	1.7	0.7
	Malta	4.6	-0.3	1.3	4.8	2.0	-1.2	0.0	-0.8	1.3

N.B.: cells in yellow (last four rows) highlight an increase of over 4 points in the gap in favour of men in 2008-2016

Table A20: Values and changes 2008-2016 in the domain-3 indicators, by gender, Lithuania

Year	Gender	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	Domain average
2008	Men	12.8	86.5	83.2	78.0	93.1	86.5	48.8	0.2	65.9
	Women	21.9	83.2	81.5	66.4	81.6	81.0	39.9	0.2	62.0
2016	Men	15.3	87.3	88.0	77.5	92.0	86.3	63.7	2.2	76.1
	Women	17.9	82.9	85.4	66.7	81.2	81.0	48.4	2.2	63.4
Change 2008-16	Men	2.6	0.8	2.5	-0.5	-1.1	-0.2	14.9	2.1	+10.2
	Women	-4.0	-0.3	3.0	0.3	-0.4	0.0	8.4	2.1	+1.4

