1.1 Rationale
The context of demographic transition and the resulting phenomenon of population ageing are well known. Rising life expectancy has been observed in almost all European countries, so much so that mortality rates have continued to fall even at late old age in many countries. Emphasis has therefore moved to ensuring that the potential of older people is fully realised and many policy agendas now stress the need for active and healthy ageing in terms of active and healthy years added to life.

What has become clear is the need for a high-quality and independent evidence base to address how the experiences of ageing at the individual level can be combined with higher levels of activities, improved health and greater degree of activity and autonomy. The better the evidence, the easier it is to formulate policy responses and persuade the public about the need for and the benefits of a change. This Active Ageing Index project provides the quantitative evidence required for such policy reforms advocacy, and also to engage key stakeholders to influence formulation and implementation of policies and programmes that can improve the experiences of ageing, the impact towards raising the quality of life of older people and also improving the intertwined financial and social sustainability of public welfare systems in Europe.

Therefore, the core endeavour of the AAI project is to operationalize the multidimensional concept of active ageing. The purpose is to show that the rising longevity reality can become an asset for the societal progress, provided the European policy makers come up with appropriate policy responses in light of the evidence available to activate the potential of older people.

1.2 Policy context at the European level

1.2.1 Designation of 2012 as the European Year for Active Ageing and Solidarity between Generations

In September 2011, the European Union designated 2012 as the European Year for Active Ageing and Solidarity between Generations (Decision 940/2011/EU). It is expected that the EY2012 would facilitate promotion of a culture of active ageing in the European communities based on the principles of society for all ages. Within this framework, the main goal of the EY2012 was "to raise awareness of the value of active ageing, highlighting the useful contributions older people make to society and the economy, to identify and disseminate good practices, and to encourage policy makers and stakeholders at all levels to promote active ageing". At the close of 2012, the EU Social Affairs Ministers endorsed a Council declaration on the EY2012 and the Guiding Principles on Active Ageing and Solidarity Between Generations (Council of the European Union, 2012). These principles reaffirmed that active ageing need to be promoted in the three domains of employment, participation in society and independent living. The principles will serve as a checklist for national policymaking authorities and other stakeholders on what needs to be done to promote active ageing linked to their own situations and challenges.

Furthermore, active ageing is also referred to in 'Europe 2020 – A Strategy for Smart, Sustainable and Inclusive Growth', which specifically highlights the importance of meeting "the challenge of promoting a healthy and active ageing population to allow for social cohesion and higher productivity" (European Commission 2010a: 18). The Innovation Union, which is a flagship initiative under the Europe 2020 strategy, announced European Innovation Partnerships (EIPs) in 2011, so as to mobilise key stakeholders in speeding up innovative solutions to societal challenges (European Commission 2011). This EIP concept is now tested with a pilot European Innovation Partnership on 'Active and Healthy Ageing' (AHA). The EIP-AHA sets out the objective to increase the average healthy lifespan of Europeans by 2 years by 2020 (European Commission 2012). The target is admittedly ambitious, but the measures introduced to attain it will enhance the capacity and enabling environment for active and healthy ageing across the EU Member States.

Active ageing as a policy discourse, based on making use of the potential of older people, is also aligned with the social investment approach, which revolves around the idea that activating certain forward looking social policies can yield high economic and social returns. The European Commission's Social Investment Package explicitly refers to the AAI as a tool to support the implementation of this social investment orientation in social policies (European Commission 2013).

1.2.2 The second 5-year Review and Appraisal of the Implementation of MIPAA / RIS

Although MIPAA does not contain an elaborated definition of active ageing, the Political Declaration signed at the end of the 2nd World Assembly on Ageing emphasizes the two essential elements directly relevant to active ageing policy discourse: the empowerment of older persons and the promotion of their full participation. Moreover, MIPAA contains several policy recommendations concerned with the active participation of older people in society under priority issue 1 of the first priority direction of MIPAA: access to knowledge, education and training under priority issue 4 of the first priority direction; and health promotion and well-being throughout life under priority issue 1 of the second priority direction. For a discussion, see Sidorenko and Zaldí (2013).

The year 2012 also marked the end of the second 5-year cycle of review and appraisal of MIPAA and its UNECE Regional Implementation Strategy. A major event in this context took place in Vienna during September 2012: the UNECE Ministerial Conference on Ageing “Ensuring a society for all ages: promoting quality of life and active ageing”. The declaration adopted at the Vienna Ministerial conference includes crucial references to active ageing as a policy course to be promoted across the UN European countries. The Ministerial Conference has been hosted by the Austrian Government under the auspices of the Austrian Federal Ministry of Labour, Social Affairs and Consumer Protection and included the participation of NGOs and the scientific research community. The Conference has been concluded with a Ministerial Declaration, which can be seen at: http://www.unece.org/pau/ageing/ministerial_conference_2012.html The four priority goals identified are

1. Encourage longer working lives and maintaining work ability;
2. Promote participation, non-discrimination and social inclusion of older persons;
3. Promote and safeguard dignity, health and independence in older age, and
4. Maintain and enhance intergenerational solidarity.
The principal goal of the ministerial conference has been to evaluate the implementation of MIPAA/RIS in the five years since the 2007 León Conference, which marked the first 5-year cycle of review and implementation of MIPAA. Active ageing, in particular the participation of older persons in diverse forms of activities have been the focus of discussions during the ministerial segment of the Vienna 2012 Ministerial Conference. Experts and ministerial panels addressed policy questions such as how best to promote the activity of older persons but also what are the best ways to help older people to remain healthy and autonomous as they age.

1.3 Key elements of the active ageing agenda

In order to fully appreciate the emphasis on the active ageing strategy, distinctions need to be made between ‘individual’ and ‘collective’ forms of population ageing as well as between ‘demographic’ ageing and ‘social’ ageing.

- The demographic ageing aspects can be either chronological ageing (i.e. a change in age that people of all ages experience; often measured by median ‘retrospective age’ or the years lived) or ‘prospective ageing’ (as defined by remaining life years to be expected, see Sanderson and Scherbov 2007, 2010).
- ‘Social ageing’ is a social construct involving expectations as well as institutional constraints about how older people work and live as they age. It takes into account prospective age, changes in health, life expectancy, survival, morbidity, mortality, cognitive capacity, (dis)ability, workability, life course rescheduling behaviour, ‘age inflation’ and ‘lifetime indexing’ (these different aspects are discussed in detail in Marin 2013). In effect, social age can be defined as much by the stage in the life course and the remaining years of life than by the years lived.

The active ageing policy discourse links specifically with the social ageing phenomenon in which, with rising life expectancy on average, it is important to realise the potential of older people. This can be achieved by enabling them to continue to participate in the labour market as well as in other non-market productive social activities and to stay independent and healthy as long as possible.

The active ageing policy agenda calls for adjustment of retirement age in line with rising life expectancy, i.e. for higher chronological, but constant to lower prospective age and the abolition of mandatory retirement age, as already demanded in MIPAA’s RIS, agreed in Berlin during 2002. There are also requirements of adjustments in the work environment adapted to the ageing workforce so as to extend the working careers (see UNECE 2012a and EUROSTAT 2011). The agenda goes beyond the promotion of paid work: in fact, it demands a proper facilitation and acknowledgement of other social activities, such as unpaid, non-marketed activities that older people undertake, in the form of voluntary activities, care provision and political participation (for arguments, see e.g. European Commission 2002; Walker 2010 and Zaidi and Zólyomi 2012). In particular, the contribution of older people as informal carers for their own parents or spouses and their children and grandchildren needs to be properly acknowledged.

Independent and autonomous living and enabling environment in combination with improvements in health capacity are also important ingredients for active ageing, where access to health care and to assisted technologies are being identified as important facilitators for successful ageing (IOM 2007). For instance, the Danish Presidency of the Council of the European Union inaugurated the EY2012. The main theme of this opening conference of the EY2012 was innovation and how innovation can bring new solutions to the challenges of an ageing society in Europe within the fields of employment, social affairs and health. The principles defined to foster active ageing included supporting Europeans to live healthy, physically active lives, enhance their capacity to live independently through training, rehabilitation and the use of new technologies and to create age friendly environments that aim to empower older citizens (Haekkerup 2012).

Thus, health maintenance activities are an integral part of the experience of healthy and active ageing, and most notably they point not just to the physical health but also to mental well-being and social connectedness. These wider aspects of activity and health have been emphasised in particular by the most widely quoted formal definition of active ageing that comes from World Health Organisation's Ageing and Life Course Programme, included in the document to the 2nd World Assembly on Ageing, Madrid, April 2002 (World Health Organisation 2002). Box 1 provides a narrative on this formal definition of active ageing from WHO.

Following the WHO 2002 definition, active ageing is best measured with a dashboard of indicators that can capture diverse and specific aspects of active ageing. For instance, when measuring health there are several factors that would capture specific aspects of active ageing but without fully measuring all-encompassing active ageing outcomes towards it. Take the example of the healthy life expectancy indicator, which could be seen as the closest outcome indicator to measuring healthy living of people when they reach old-age. And yet, because older people can and are willing to remain active even if hampered by less than perfect health, the healthy life expectancy indicator alone would fail to properly account for the differences in the enabling environment across different institutional settings for people with limitations in activities due to health. For a recent account of employment propensities and living conditions of people with activity limitations across EU Member States, see Zaidi (2011).
The WHO's concept of active ageing is indeed strongly policy-oriented and points to three important domains of active ageing (as highlighted in Box 1). However, the challenge of constructing an index to assess and monitor progress in terms of active ageing is to select those individual indicators that are simple and understandable and yet they provide a useful way of guiding public policies by highlighting areas of unrealised potential of older people. As discussed below, the strands of the EY2012 provided us more convincing guidelines towards the choice of domains to be covered in the measurement of the active ageing index.

1.4 Domains of the active ageing index, AAI
On the basis of a literature review (in particular WHO 2002; Walker 2010; Eurostat 2011; UNECE 2012a, 2012b; OECD 2008), and also consultations with the UNECE and the European Commission and the Expert Group, a conceptual and empirical framework has been developed to aid the selection and organisation of active ageing indicators into specific domains.

Let us first stipulate the definition of active ageing which has been adopted as a guideline for the empirical work undertaken in the Active Ageing Index project. The definition, as mentioned in Box 2, is drawn from the considerations of key elements of active ageing mentioned above, but also in the light of the definition of WHO and the discussions of the two meetings of the Expert Group, during 10-11 May 2012 and 11-12 October 2012.

**BOX 2
DEFINITION ADOPTED FOR THE ACTIVE AGEING INDEX 2012**

Active ageing refers to the situation where people continue to participate in the formal labour market as well as engage in other unpaid productive activities (such as care provision to family members and volunteering) and live healthy, independent and secure lives as they age.

This definition and the EY2012 strands complemented our choice that the empirical work of the AAI measurement would fall within the following four domains:

1. Contributions through paid activities: **Employment**
2. Contributions through unpaid productive activities: **Participation in society**
3. **Independent, healthy and secure living**
4. **Capacity and enabling environment for active ageing**

In view of diversities across European countries and across subgroups, the approach adopted here assesses not just how countries and subgroups fare in terms of actual experiences of active ageing but also measure the unrealised potential of older people that can be tapped to improve their quality of life and to make public welfare systems more sustainable. The first three domains of actual experiences of active ageing are drawn from the strands of the EY2012 (as mentioned on the EY2012 webpage):

*Employment* – as life expectancy increases across Europe, pension ages are rising, but many fear that they will not be able to stay in their current jobs or to find another job until they can retire on a decent pension. We must give older workers better chances in the labour market.

*Participation in society* – retiring from one’s job does not mean becoming idle. The contribution of older people to society as carers for others, typically their own parents or spouses and their grandchildren is often overlooked and so is their role as volunteers. The European Year seeks to ensure greater recognition of what older people bring to society and create more supportive conditions for them.

*Independent living* – our health declines as we grow old, but a lot can be done to cope with this decline. And quite small changes in our environment can make a big difference to people suffering from various health impairments and disabilities. Active ageing also means empowering us as we age so that we can remain in charge of our own lives as long as possible."

Following the discussions during the first meeting of the Expert Group (May 2012), it was also agreed to include a fourth domain on active ageing that will capture the capacity and enabling environment aspects of active and healthy ageing. This novelty is inspired by Sen’s capability focussed conceptual framework, in which capabilities are defined as substantive opportunities and empowerments to enhance well-being and quality of life, such as life expectancy, health, education, social participation and so forth (see, e.g., Sen 1985, 1993, 2009). This domain is therefore considered as measuring:

- **human assets** by outcome indicators such as remaining life expectancy;
- **health capital** with the healthy life expectancy and mental well-being indicators; and
- **human capital** aspects by educational attainment indicator.

When presenting the distribution of indicators within domains, the 4th domain will therefore be presented as a foundation of the first three domains.

Following this measurement framework, the AAI is divided into two dimensions:

1. Actual experiences of active ageing (containing 1st, 2nd and 3rd domain); and
2. Capacity and enabling environment for active ageing (4th domain).

Each of the indicators used in the four domains are further subdivided by gender and they are subsequently used in constructing the gender-specific as well as domain-specific indices (more details of the methodology used are provided in Chapter 3). This step-wise method of constructing the indices allows us the calculation of improvement potentials in each domain of active and healthy ageing and for men and women separately.

The selection and specification of indicators that are capable of assessing active ageing have been driven by the following aims:

- Ability to capture the multidimensional aspects of ageing, as depicted e.g. in the active ageing framework of WHO (discussed in Box 1) and the definition adopted in the AAI project (mentioned in Box 2); and
- Ability to provide not only a ‘league table’ assessment of active ageing outcomes, but also to formulate policy advice on the basis of the comparative position of countries with respect to active ageing indicators and different domains that comprise active ageing.
Next, Chapter 2 provides a detailed discussion on the criteria used in selecting individual indicators, and also gives the exact definition of the indicators chosen (in Box 3). Figure 1.1 displays the hierarchy for systematically deriving a quantitative overall index for active ageing using a dashboard of indicators and their respective four domains.

Figure 1.1: The domains and indicators of the aggregated Index, AAI

- Financial security aspects are captured by three different indicators: (1) Relative median income of 65+ relative to those aged below 65 (2) No poverty risk for older persons and (3) No severe material deprivation rate (see Box 3 and Annex A.3 for a detailed specification of all individual indicators).