



Understanding employment participation of older workers:

Creating a knowledge base for future labour market challenges

Hans Martin Hasselhorn, Wenke Apt (Editors)



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Foreword

Common to all European countries, although with differing temporal dynamics, are rising life expectancies and a compositional shift from younger to older people. While these demographic changes are accompanied by general improvements in health, only a minority of older workers reaches the statutory retirement age while working. On the premise that more and better research could help understand why some people at higher working age are still working while others are not, the General Assembly of the Joint Programming Initiative “More years, better lives” (JPI MYBL) asked a group of forty-six scientific experts from eleven of the fifteen JPI MYBL member countries to identify new research needs that lend themselves to joint research funding activities. This report provides a synthesis of the main results.

The objective of this fast-track project “Understanding employment participation of older workers” (JPI UEP) was to define research needs with regard to the employment participation at higher working age by critically reviewing research findings, approaches and methodologies. Acknowledging the limited duration of the project

from May 2014 to December 2014, the focus of this project was on paid work of older people, meaning those aged 50+ years. Informed by insights from demography, economics, occupational health, social epidemiology, sociology, gerontology, and psychology, the JPI UEP working group applied a rigorous and comprehensive conceptual framework to analyse the determinants for early withdrawal from the labour market by domain and across the participating countries.

The JPI UEP working group applied both a challenge-driven and a research-driven perspective. The audiences of this report are, hence, researchers, research funders, as well as decision-makers in research policy, social policy and labour market policy addressing employment participation at higher working age.

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Executive summary

The aim of this report is to present a review of research and an outline of research needs in the field of employment participation at higher working age. Following a comprehensive conceptual framework, an interdisciplinary group of forty-six researchers from ten European countries and Canada collected and analysed recent research evidence by topic and country. This final project report presents their findings.

Although differing in pace and magnitude, all European countries are witnessing increasing life expectancies and a compositional shift from younger to older age groups. To sustain economic growth, prosperity and social development, many countries have recognised the need to increase the employment participation of people at higher working age. The degree of urgency is also reflected at all levels of the European policy agenda. The OECD views sustaining economic growth under conditions of population ageing by far as the most pressing global policy challenge for the next fifty years.

While stark differences in the employment levels persist, all countries included in this review display a clear upward trend towards higher participation rates of older workers. However, adjustments to the new demographic realities remain important, and it appears that the largest increases in the employment participation of older workers have to be implemented in those countries, where the magnitude of the demographic challenge is large or very large, and where current participation rates are low (i.e. Austria, Belgium, and Poland) or average (i.e. Canada, Netherlands, and Germany).

On the premise that more and better research could help understand why some people at higher working age are still working while others are not, the General Assembly of the **Joint Programming Initiative “More years, better**

lives” (JPI MYBL) asked a large group of scientific experts from eleven of the fifteen JPI MYBL member countries to identify new research needs that lend themselves to joint research funding activities. The objective of this fast-track project **“Understanding employment participation of older workers” (JPI UEP)** was to define research needs with regard to the employment participation at higher working age by critically reviewing research findings, approaches and methodologies.

The transition from work into retirement is a pressing issue in the public discourse, in policy and in research. What is often being overlooked, however, is that, in many countries, the past two decades have brought forward significant changes in retirement patterns and schemes, which means that retirement today is no clear-cut “one-off” event, but characterised by temporal and conceptual diversity. In other words: Retirement is becoming fragmented.

Further factors contribute to the complexity of retirement: Multilevel interacting influences of society, work and the individual, the processual character of retirement, the dynamism of relevant factors, framework conditions and regulatory changes, and not least the heterogeneity of the older working population.

The reference model and contextual frame of the JPI UEP project was the “lidA conceptual framework on work, age and employment”. It is based on different “domains” that influence decisions about retirement and work. Following a standardised “domain structure”, experts from the JPI UEP working group identified research needs across ten themes (i.e. domains). In parallel, for each participating country, the scientists authored national reports explicitly referring to the ten domains and concluding with specific national research needs. Each domain chapter and national

report is included as a condensed version in this report. Full versions are provided on the project's website: <http://www.jp-demographic.eu/about/fast-track-projects/understanding-employment>.

In an overall assessment of the findings, surprisingly often, similar conclusions for research are drawn across domains and countries. These research needs fall into three priority areas to advance research on the employment participation of older workers, namely to address *conceptual gaps*, close *cross-national gaps*, and fill *thematic gaps*.

Conceptual gap: Bridging the lack of a broad view

A broad view of retirement requires a conceptual framework, which locates retirement within the context of different determinants on the micro, meso and macro level and allows for a life course perspective. However, the JPI UEP working group notes that most studies do not adopt a systems view and multifactorial approach and thus may overlook the emerging theme of retirement fragmentation. This also relates to the frequent lack in specific longitudinal research approaches and the application of life course perspectives. The JPI UEP group also points to the lack of broadly conceptualised cross-national comparative settings in research and the neglect of regions outside North-Western Europe. Lastly, there is a poor coverage of important population subgroups like women, migrants or manual workers, who, in fact, should be at the centre of policy attention. For the advancement of research on the employment participation of older workers, the JPI UEP working group recommends increased multifactorial thinking, more multilevel approaches, the differentiated consideration of exit routes, the consideration of population subgroups and their distinct characteristics in terms of gender, social or occupational status, migration/ethnicity or age, and a general openness as to the selection and combination of methodological approaches.

Regional gap: Levelling of uneven cross-national coverage of research

Research on employment participation of older workers was found to be distributed very unevenly across the review countries. Across almost all domains, the countries with the highest research coverage are Norway and the Netherlands. Canada and Finland also show a high level of research activity in the field. There may be several reasons for this unequal distribution of research; one certainly is that researchers in the Scandinavian countries and the Netherlands benefit from the easy access data to register data.

Filling the thematic gaps in retirement research

There are a number of thematic gaps, which the JPI UEP working group recommends to close by adopting a differentiated view in retirement research and by considering: the role of health in the context of retirement, potential domestic and household factors, new work exposures like the increased use of technology or higher flexibility in work settings and their possible impact on retirement, the role of older women in retirement, the relation between migration and retirement, social position, the employers' perspective; the opportunities for organisational intervention, and the societal costs and gains of policy changes.

These topics listed may be regarded as urgent but exemplifying topics to close thematic gaps by applying a broad view approach and taking advantage of the opportunities for cross-national research. Research initiatives that may contribute to bridging these three gaps would (i) promote knowledge exchange, (ii) reduce duplication of research effort, (iii) maximise the use of research funds and expertise, and (iv) take advantage of the opportunities for comparative studies, and thereby transfer the aims of the JPI MYBL and its Strategic Research Agenda into research practice.

In summary, this project identified a range of gaps and limitations in terms of the available data, the conventionally adopted research approaches, and hence, the validity of existing evidence about employment participation at higher working age. In view of the increasing flexibilisation of work and the individualisation of employment histories and retirement schemes, there appears a general knowledge deficit in a central and multi-faceted phenomenon of social policy and labour market policy. Against the background of ageing and shrinking populations at working age, the regulatory level and policymakers are under increased pressure to develop innovative and socially responsible solutions for work and employment increasingly marked by globalisation, fragmentation and a far-reaching digitisation of processes and products. Forward-looking policy and governance relies on detailed and comprehensive evidence and requires, hence, the closing of this important research gap at the intersection of social policy and labour market policy.

1

Introduction to the project

The aim of this report is to present a review of research and an outline of research needs in the field of employment participation at higher working age. Following a comprehensive conceptual framework, an interdisciplinary group of forty-six researchers from eleven countries collected and analysed recent research evidence by topic and country. This final project report presents their findings. In this introductory chapter, the social relevance of employment participation among older workers is briefly described for the eleven countries covered by the project, and the structure of the report is outlined.

Although differing in pace and magnitude, all European countries are witnessing increasing life expectancies and a compositional shift from younger to older age groups. To sustain economic growth, prosperity and social development, many countries have recognised the need to increase the employment participation of people at advanced working age. The degree of urgency of this matter is reflected at all levels of the European policy agenda. This includes the Council Declaration on the European Year for Active Ageing (2012) and the declaration of the UNECE Vienna Ministerial Conference on Ageing (2012), which states that a "longer working life is encouraged and ability to work is [to be] maintained". The OECD views sustaining economic growth under conditions of demographic ageing by far as the most pressing global policy challenge for the next fifty years (among tackling rising inequality and protecting the environment).¹

Many European countries already record some initial successes to increase the employment participation and the effective retirement ages among older workers. While stark differences in the employment levels persist, all countries included in this review display a clear upward trend towards higher participation rates of older workers. For example, Germany and the Netherlands have roughly caught up with countries where extended working lives have already been common earlier such as Canada, Norway, or Sweden. Other countries, like Austria, Belgium or Poland, are still lagging behind with their relatively low employment rates of older workers. Similar trends may be noticed for the effective labour force exit age of males and females across countries, with significant increases in all countries during the period of observation and the latest exits recorded among older workers in Norway and Sweden.¹

Notwithstanding these adjustments in the labour market, current projections indicate that all review countries are faced with significant shifts in their population age structure, yet the pace and the magnitude of the demographic shifts ahead will vary. Table 1 illustrates the resulting economic challenge ahead by relating the share of the older population in employment to the projected increase in the old-age dependency ratio during the next few decades.¹¹

Following this simple classification, it appears that the largest increases in the employment participation of older workers have to be implemented in those countries, where the magnitude of the demographic challenge is "large" and "very large", and where current participation rates are "low" (i.e. Austria, Belgium, and Poland) or "average" (i.e. Canada, Netherlands, and Germany).

One way of tackling this challenge is to better understand why in most European countries today only a minority of older workers reaches pension entitlement age while working. To approach this issue, it is possible to ask why some people at higher working age are still working while others are not. An increase in the employment participation of older workers would have a "triple dividend": It would sustain labour force growth and moderate the potentially adverse effects of demographic change on economic growth; it would alleviate the strain on public finances by reducing the expenditures for early retirement while increasing the revenue from income tax receipts; and it would also help employers by extending their preparation time for necessary adjustments.²

However, social costs, which may be understood as the potential negative side-effects on the national, organisational and individual level, also need to be considered. Hence, bridging this gap of knowledge and increasing employment participation among older workers constitutes a major societal challenge that involves policy, public and private employers, science, and most importantly the individual.

Project background and scope

With support of the European Commission, the **Joint Programming Initiative "More years, better lives – The potential and challenges of demographic change" (JPI MYBL)** was established in 2010 to address the major societal challenge of demographic change by coordinated research funding. The initiative was established on the

I For a detailed overview of the underlying statistics, please see: OECD (2014). „Scoreboard on older workers, 2003, 2007 and 2013.“ Online available at <http://www.oecd.org/els/emp/older-workers-scoreboard.xlsx>.

II The old-age dependency ratio measures the number of older people as a share of the working age population.

Employment rate, 55–64 years, 2013	Projected change in the old-age dependency ratio, 2015–2050			
	Small	Moderate	Large	Very large
High	Sweden	Norway		
Average		Denmark Finland United Kingdom	Canada Netherlands	Germany
Low			Austria Belgium	Poland

Table 1: Magnitude of the employment challenge ahead among the review countries*

premise that demographic change was a universal phenomenon while the bulk of national research programmes in Europe were run in an isolated way and therefore unable to tackle the underlying causes and consequences effectively on their own.

On the basis of its Strategic Research Agenda, the General Assembly of JPI MYBL asked a group of forty-six scientific experts from eleven of the fifteen JPI MYBL member countries to identify new research needs that lend themselves to joint research funding activities while exploring the potential for collaborative and comparative research. The assigned project duration was relatively short and lasted from May 2014 to December 2014.

In April 2014, the JPI MYBL launched its Strategic Research Agenda, which prioritises a range of research topics and thereby lays the foundation for joint activities and the alignment of national research programmes.³ The initial idea of the fast-track project “**Understanding employment participation of older workers**” (JPI UEP) was developed in the JPI MYBL Working Group 3 “Work & Productivity” that contributed to the creation of the Strategic Research Agenda.

The **objective** of the JPI UEP project was to **define research needs with regard to the employment participation at higher working age** by critically reviewing research findings, approaches and methodologies across the participating countries.

Informed by insights from demography, economics, occupational health, social epidemiology, sociology, gerontology, and psychology, the working group chose to focus its review on research specifically addressing the major determinants of employment participation at higher working age, covering the individual, institutional and societal reasons for early withdrawal from the labour market. In this, the working group applied both a challenge-driven and a research-driven perspective.

The audiences of this report are, hence, researchers, research funders, as well as decision-makers in research policy, social policy and labour market policy addressing employment participation at higher working age.

The focus of this project was on *paid work of older people*, meaning those aged 50+ years. In detail, the population covered in this report are those who:

- work longer (than usual, but not beyond pensionable age),
- draw their old age pension early,
- receive a disability pension, or
- leave the labour force early because of unemployment or non-employment.

Acknowledging the limited timescale of the project, the JPI UEP working group took the deliberate decision to disregard employment beyond pensionable age. The review of research includes scientific findings published in scientific publications or “grey literature” during the past ten years.^{III}

* Source: OECD (2014). “Older workers scoreboard.” Ageing and Employment Policies. Online at: <http://www.oecd.org/employment/emp/ageingandemployment-policies.htm>; United Nations, Department of Economic and Social Affairs, Population Division (2013). “World Population Prospects: The 2012 Revision.”, online database at http://esa.un.org/wpp/unpp/panel_population.htm, own calculations and representation. Note: The data were grouped based on “natural” breaks or groupings. For the employment rate, the following data categorisation was used: low (41 %–45 %), average (59 %–64 %), and high (71 %–74 %). For the projected change in the dependency ratio, the data was clustered in four groups: small (7 %), moderate (10 %–14 %), large (17 %–20 %), and very large (27 %–29 %).

This report provides a synthesis of the main results, which have emerged from the review of research and the joint collaboration within the JPI UEP working group.

Following this introduction, **Chapter 2** establishes the *complexity of retirement*. The main motivation for initiating this project was the notion that this complexity has not been adequately considered in research although both research and policy would greatly benefit from a broader view on retirement. The *conceptual basis of the project* originates from the “iidA conceptual framework on work, age and employment”, which is described in section 2.2.4.

The *core of the project* are the chapters authored by the members of the JPI UEP working group. There are ten **domain chapters** that give an overview of the multilevel determinants of employment participation. The eleven **national reports** highlight the large diversity in the state and orientation of research across the participating countries.

The main purpose of all domain chapters and national reports is to define research needs. While focussed *short versions* of these reports are included in **Chapter 3** and **Chapter 4**, the longer *full versions* may be downloaded from the project’s website at <http://www.jp-demographic.eu/about/fast-track-projects/understanding-employment>.

Chapter 5 draws the essence from all domain chapters and national reports. The **project results** offer an integrated view on the large variety of conclusions for research from the previous chapters.

The report closes with some general **conclusions** on ways to improve the evidence, enhance the methodology and use scientific findings for evidence-based policymaking in **Chapter 6**.

III Two recent European reviews in the field have been helpful for the work of the JPI UEP group: In 2005, Phillipson & Smith produced an analysis of scientific studies on extending working life published in the UK between 1999–2005 (see reference 11). In 2013 Naegele & Bauknecht edited the “WP3: Conceptual framework” report within the European MoPAct project (Mobilising the Potential of Active Ageing; see reference 22).

2

Understanding the
complexity of employment
participation at higher
working age

The assumption that retirement^{IV} is complex and requires “a broad view” to gain a deeper understanding of employment participation at higher working age was the initiating impulse of the JPI UEP project. In this chapter, the characteristics of this complexity will be presented and are followed by a brief overview of various conceptual frameworks that adopt a broad and multilevel view on employment participation at higher working age. As the reference model and contextual frame of the JPI UEP project, the “lidA conceptual framework on work, age and employment” is discussed. It is based on eleven “domains” that influence decisions about retirement and work. Four key characteristics of the framework add to the implications for research.

2.1 Capturing the complexity of retirement in research

The question of why some people at higher working age are working and others are not, has gained increased scientific attention in Europe. Various scientific disciplines deal with the issue, including gerontology, psychology, sociology, economics, social epidemiology and occupational health. In their research, the disciplines tend to focus on single factors that may influence employment participation at advanced working age, which results in two-dimensional analyses like “health and retirement”, “work factors and retirement” or “financial factors and retirement”. What is often lacking is the adequate consideration of the broadness of further relevant determinants.⁴

Also, much of the research in the field remains focussed on a single-level approach and therefore neglects the multilevel and interacting influences of society (macro level), work place and organisation (meso level) and the individual (micro level) on employment participation.^{5,6} Among the notable exceptions are, for example, an initial broad overview of the determinants of early retirement by Naegele (1992)⁷ and recent empirical studies by de Wind et al.^{8,9}

The limited views have raised concerns about the validity of currently available research findings and their relevance for policy at the organisational, industry and national level.^{5,10,11} As a consequence, there have been increased efforts to establish broader views and interdisciplinary approaches in this field of research.^{5,6,10,11}

Whether or not people at higher working age are still employed is usually a function of a complex interaction of factors. Even if only partially reflected in empirical

research, the complexity of the retirement process is acknowledged in theoretical considerations within the retirement research communities. For example, when investigating subjective health and labour market participation, Brown and Vickerstaff (2011) underline the “causal complexity” of the macro level or meso level in sociocultural, economic, and political factors that may interact with each other and manifest themselves within specific household structures and personal environments.¹² The emphasis of complexity as a core feature of employment participation at higher working age is today mainly being brought forward in the course of qualitative studies¹²⁻¹⁷, some quantitative studies^{8,9} and by overview articles.^{5,11,18}

There are five distinctive characteristics of retirement that may be conceptually distinguished and that add up to the complexity of retirement as summarised in the stylised “complexity equation” of retirement in Figure 1.

Retirement is a process

An important feature of retirement is its processual character. Early life experiences and other circumstances across the life course influence the probability of late life employment. For example, the severe musculoskeletal functional limitation of a construction worker in his mid-fifties may be the late manifestation of a long lasting and heavy physical work exposure in earlier life that is now limiting his work ability and employment chances. Another example may be a secretary at the age of 60, who has changed jobs and now experiences difficulties adjusting to a new, possibly more digitalised work environment due to a lack of up-to-date skills in information and communication technology (i.e. deskilling).

At higher working age, both distant (early) and proximal (recent) factors may cause an individual to consider his or her employment outlook and (re-) evaluate to continue working or withdraw from the labour market. This decision-making also constitutes one stage of the final employment exit process which, in fact, often lasts for years (→ section 2.2.4).

Retirement is determined by the interaction of multiple domains

Whether or not an older person is working may be attributed to a range of determinants (i.e. “domains”). Each domain combines several potentially influential factors for the retirement decision. For example, within the domain “work factors”, the factors of *heavy lifting* and *low decision*

IV As it is used here, the term „retirement“ covers the topic employment participation of people at higher working age.

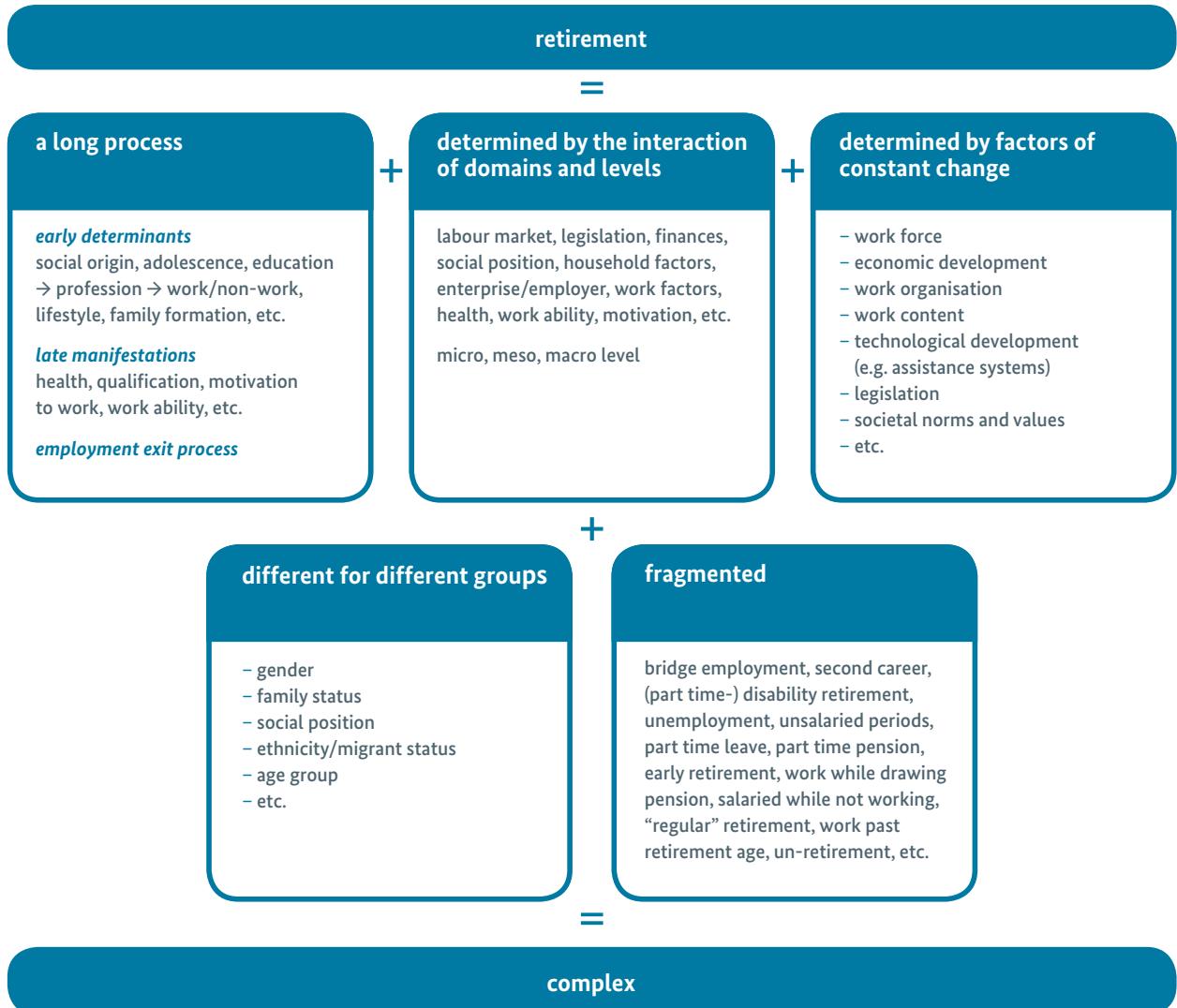


Figure 1: A stylised “complexity equation” of retirement

latitude are known as drivers and challenging work as a barrier for early departure from employment.

A retirement decision, however, is almost never based on a single factor's impact but the result of numerous simultaneous influences from different domains. These may include domestic factors like family status, family income and wealth, work organisational factors such as employers' attitudes and support, and other individual or contextual aspects in the domains of work ability, health, or social and retirement legislation.

Along these lines, several authors distinguish between individual level factors (i.e. the micro level), organisational influences (i.e. the meso level) and contextual factors such as the level of social security or the labour market situation (i.e. the macro level) and stress the emerging interdependencies (→ section 5.3.2).⁵

Retirement is determined by factors of continuous change

Another trait of the complexity of retirement is the dynamism, namely that many factors are subject to substantial, and sometimes swift, changes over time. For example, today's older workers differ substantially from earlier cohorts with respect to their biographies (e.g. higher educational attainment, different work history), norms and attitudes, as well as their composition with a higher proportion of working females, migrants, and a larger share of older age groups. The economic globalisation and developments in information and communication technologies have changed the character of work, the organisation of work and increasingly lead to the blurring of boundaries between work and leisure. New types of household and family formation lead to a greater number of people living alone and more divorced single adults at higher working age (→ Domestic and household factors).

At the same time, the increase in life expectancy shifted caring obligations towards the period of late working life. Moreover, societal norms and values related to employment and retirement are constantly changing. Lastly, older workers operate in a highly dynamic policy environment. Most governments have changed retirement regulations to effectively extend working lives. Hence, the fluidity in many contextual factors of employment participation at higher working age leads to the question whether existing research findings will stand the test of time and still be valid and of relevance in the near future (→ section 5.3.5).

Retirement varies by group

Complexity in retirement also derives from the fact that distinct social groups may undergo different processes and, hence, display varied retirement behaviour. For example, women at higher working age typically have different kinds of jobs and often lower income than men of the same age, they work substantially more often part-time, have different roles in private life, and in most countries leave work at a younger age than men. In consequence, decisions about retirement may be assumed to involve a varied set of criteria and follow different decision-making processes among women and men, which also needs to be reflected in research (→ section 5.5.1). In a similar way, this applies to groups of different occupational and social status (→ section 5.5.3) or migrant background (→ section 5.5.2). What has been largely neglected in the research thus far, is that also age groups equally differ in terms of their pathways and determinants of early departure from employment.¹⁹

Retirement is fragmented

During the past twenty years, there have been profound changes in the patterns, schemes and the conception of retirement. The transition from a full-time career job into retirement now often proceeds gradually and in multiple steps. Some evidence includes that in the United States today, bridge employment is rather the rule than the exception.³² In Norway, drawing a pension is no longer identical with leaving the labour market. In Finland and Sweden, newly introduced schemes and regulations allow for a more flexible transition from work to retirement (→ Norway; → Finland; → Sweden).

Meanwhile, in many countries, employment maintenance strategies now limit the possibilities for early retirement and redirect interested older workers into alternative exit routes (→ section 5.6.3). Hence, multiple perceptions of retirement, as well as different combinations of employment, unemployment benefits, disability pensions, retirement and un-retirement (i.e. returning to employment

after retirement) suggest an increasing “fragmentation of retirement”. This development is mostly triggered by socioeconomic trends and targeted policy interventions. The analysis and continuing operationalisation of this heterogeneity will be a challenge for future research in the field (→ sections 5.2.1, 5.3.2, 5.3.7).

2.2 Conceptual frameworks on retirement

A broad view of retirement requires a conceptual framework,^{20,21} which locates retirement within the context of different determinants on the micro, meso and macro levels and allows for a life course perspective.²⁰ Such frameworks help understand the complexity of the multilevel decision-making process about employment participation at higher working age, and may thus be to the benefit of policymakers and researchers. In recent years, several conceptual frameworks like this have been proposed.

2.2.1 Szinovacz' multilevel perspective to retirement

Szinovacz (2013) emphasises a multilevel perspective on retirement to underline the complexity of retirement processes. The target group is the research community. Her conceptual framework distinguishes between retirement conceptualisations and the prevailing structures within each level. The retirement conceptualisations cover the macro level (e.g. “retirement as institution”), the meso level (e.g. organisational retirement policies and cultures) and the micro level (e.g. individual retirement influences). Relevant structures within each level may include population structures or labour market factors on the macro level, local or regional infrastructures and labour markets on the meso level, and families, peers or social networks on the micro level. In this model, all elements of retirement conceptualisations and structures are interrelated. As a practical consequence, Szinovacz' conceptual framework on retirement requires researchers to go beyond the analysis of single level factors and, for example, also address national level determinants of retirement and their interactions with the micro and meso level.

2.2.2 The conceptual framework of MoPAct

The conceptual framework of MoPAct (Mobilising the Potential of Active Ageing in Europe) was presented by Naegele and Bauknecht in 2013.²² This concept is the most comprehensive described here. It comprises five dimensions: *external factors* (e.g. overall employment prospects, rising care obligations), *key actors* (e.g. employers, employees, national policies), their *fields of action* (e.g. health promotion, labour market mobility, pension policies),

underlying concepts and approaches (e.g. life course perspective, social innovation, intergenerational perspective) and *key prerequisites* (e.g. healthy ageing, quality of work, employability). The theoretical framework maintains a basically circular structure to show the interrelatedness of the different dimensions. The overarching objectives of MoPAct are at the core of the framework, namely extending working lives and promoting lifelong learning. Similar to the JPI UEP initiative, MoPAct produces an inventory of research. However, the overarching project objectives are somewhat different. While MoPAct aims to directly inform social and labour market policy about opportunities to promote active ageing, the JPI UEP consortium starts one step earlier, namely with identifying research themes that need further investigation and lend themselves as new priority areas for research funding.

2.2.3 The “early retirement model” by STREAM

Based on scientific literature, the research framework developed within the Dutch longitudinal Study on *Transitions in Employment, Ability and Motivation* (STREAM) conceptualises transitions in employment and work productivity by means of five groups of potential determinants, namely health, job characteristics, skills and knowledge, social factors, and financial factors.²³ In the model, these determinants take effect through three central explanatory variables, which include the ability, the motivation, and the opportunity to work. The impact of all variables and their interrelations may be moderated by individual traits like gender, age, educational level, or initial employment status. Based on the research framework, the “early retirement model” was developed. The model has recently been empirically confirmed by de Wind et al. (2014).⁹

2.2.4 The “lidA conceptual framework on work, age and employment”

The lidA Cohort Study “lidA – leben in der Arbeit. German cohort study on work, age and health” is a new large longitudinal study assessing work, age, health and employment in Germany.^{V24} The underlying “lidA conceptual framework on work, age and employment” has been developed under the assumption that a broad view is key to gain a deeper understanding of employment participation at higher working age.

The lidA framework combines eleven “domains” (→ see Figure 2) that group core determinants known to influence retirement timing. For example, the “domestic

domain” contains factors such as marital status, partners’ employment status, family formation, caring obligations, informal task and role distributions, synchronization of retirement, and household income. This domain is directly linked to the domain “social position” (see respective arrow in Figure 2). For example, families of low social status may differ substantially from families of high social status with respect to their household income and/or their distributions of informal tasks and roles. This diversity may influence decisions about employment participation at advanced working age. According to the lidA conceptual framework, the “domestic domain” also directly impacts the domain “motivation” (to continue working) by enhancing or weakening older workers’ propensity to work through circumstances at home.

The “motivation” domain, in turn, is influenced by an individual’s work, health, work ability, finances and the pension system, all denoting groupings of decision factors in the lidA model (→ see Figure 2). “Work” covers two domains in the framework, one comprising “work organisation and interventions” (such as measures of human resource management, HRM) and the other capturing so-called “work factors”, i.e. work content.

While the content of the “health domain” will be obvious, its impact on the employment participation of older workers is not as clear-cut as one might think (→ section 5.4.1). In the framework, “work ability” refers to whether someone is able to get a specific job done. The arrows in the framework indicate that this capacity is related to the work itself as well as the worker’s knowledge and skills, health status, and also motivation to work. It is noteworthy that a worker may exhibit a high level of work ability despite a relatively low health status; what matters is whether the job fits the worker’s functional, cognitive and motivational capabilities.

In the model, not only work, health, work ability and the domestic background influence the motivation to remain in employment or retire, also financial factors and legislation equally exert an important influence (see direct arrows). In many European countries, financially attractive regulations from the 1990s led to the early retirement of large cohorts of older workers. Today, however, even if a 60 year-old worker has a high degree of motivation to retire, it is likely that legislative and financial factors will now thwart his or her retirement plans.

This interactive system of influencing factors is set in the “labour market” domain, which represents labour

V lidA is funded by the German Federal Ministry of Education and Research. For more information on the study see Hasselhorn et al 2014 (Ref. list)

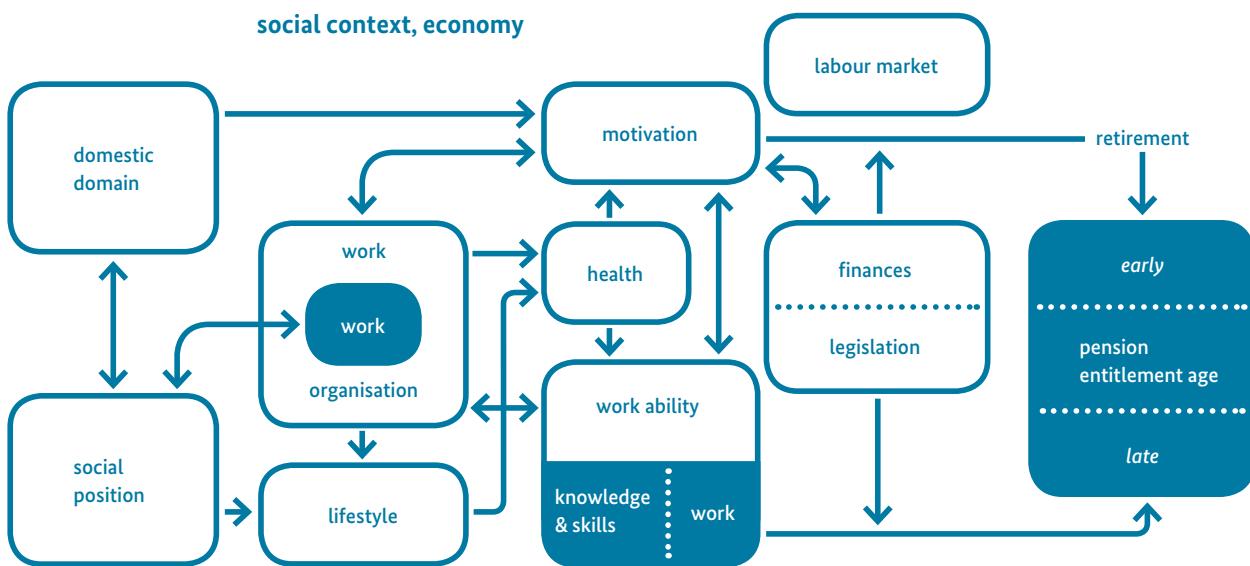


Figure 2: The “lidA conceptual framework on work, age and employment” (adapted to JPI UEP)
(source: Hasselhorn & Peter 2013²⁵, Peter & Hasselhorn, 2013⁴⁹; modified)

supply and labour demand. To cite from the respective domain chapter in this project: “Supply factors relate to the number of older workers looking for employment, the number of hours they want work, and the skills they carry with them. Demand factors relate to the general economic composition and its development over time, and to employers’ behaviour when dealing with older workers”
([→ Labour market, online full version](#)).

In summary, the “lidA conceptual framework” captures the complexity of the decision-making process to retire (early) or not. It illustrates that this process is not determined by solely one factor or domain, but is rather a complex interaction of various factors linked to different domains. To really understand employment participation and retirement of older workers, research needs to apply such a broad view that covers the multitude of factors from different domains and their interaction.

The “lidA framework” may provide some conceptual guidance for such a broad research approach (see below). By focussing on specific “domains” known to determine employment participation at higher working age, the framework was found to be suited for a structured and interdisciplinary analysis of the issue. To that effect, the JPI UEP working group applied the “lidA framework” and reviewed state-of-the-art research by domain to identify research needs on employment participation in Europe and Canada.

The framework also illustrates four characteristics of employment participation at higher working age.

It indicates that retirement is:

- ↳ complex,
- ↳ a process,
- ↳ influenced by factors on the *individual level*, and
- ↳ affected by factors on the *structural level*.

These four main characteristics of the retirement process are now explained in more detail.

Retirement complexity owed to interaction of determinants

The multitude of domains in the framework and their relations among each other shed light on the causal complexity of employment participation at higher working age. These mechanisms are at work within a *social context* ([→ see Figure 2](#)). Hence, older workers are not isolated individuals making autonomous decisions but rather embedded in a system of social relations that also influence their reflections and important decisions; a notion reflected by the concept of linked lives.²⁶ This retirement complexity ([→ section 2.1](#)) was the driver for the development of the “lidA framework”.

Process of retirement

The “lidA conceptual framework” also implies that retirement is not a discrete event or a “one-off occurrence”²⁷ but a “process that unfolds over a period of time that will vary depending on the circumstances of each individual”.⁶ There are three ways of conceptualising retirement as a “process” ([→ see Figure 3](#)):

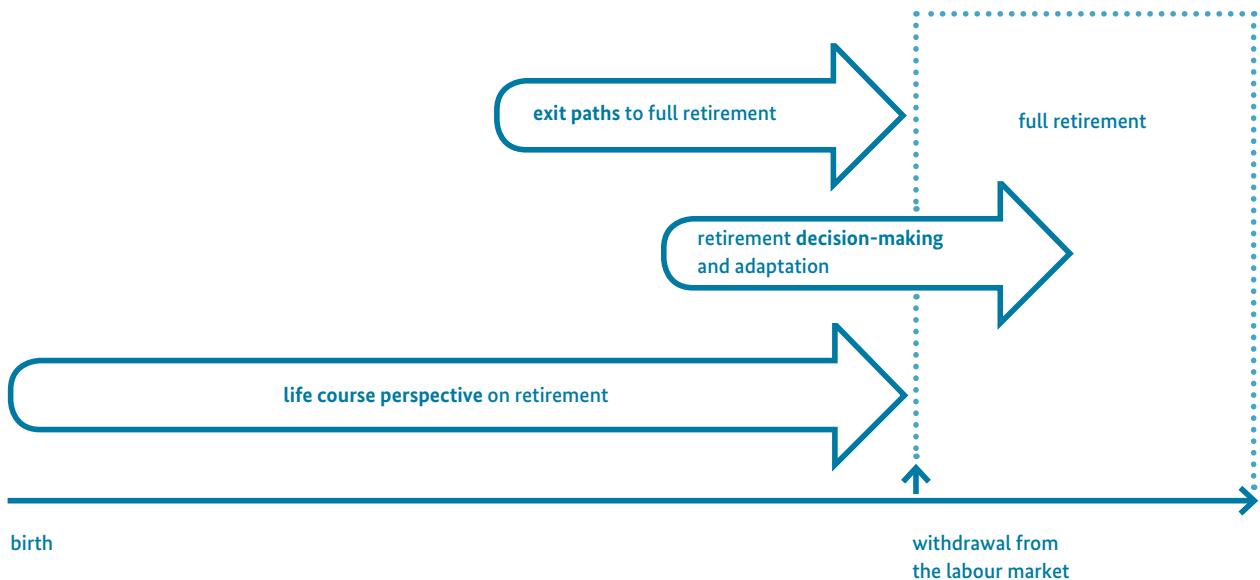


Figure 3: Conceptions of the “process of retirement”

a) Exit paths to full retirement

One way to perceive retirement as a process is to consider the gradual exit from a career job to the complete withdrawal from the labour market, which may last ten years and more, e.g. when leaving through bridge jobs, or only few months or days, e.g. when leaving at pension entitlement age or in case of health shocks.

The term “fragmentation of retirement” (→ section 2.1, and, in detail, section 5.2.1, below) suggests an increasing temporal and conceptual heterogeneity in retirement. This development is partly triggered by socioeconomic trends but also by policy shifts, such as the tightening of the eligibility criteria for early retirement pensions, the elimination of early retirement incentives, the abolishment of the mandatory retirement age, the introduction of flexible pension time schemes, and the encouragement of continued employment when drawing a pension (→ Austria; → Canada; → Norway; → United Kingdom).

b) The process of retirement decision-making and adaptation

Another possibility to conceptualise retirement as a process is to trace the *process of retirement decision-making*.⁶ Beehr, in his often quoted publication from 1986, distinguishes between *thinking about retirement* (and developing a preference to retire), assessing the available options and expressing an *intention to retire* (decision), and implementing the decision by carrying out the *act of retirement* (all represented in the motivation domain of the “lidA framework”). He also adds a post-employment *phase of adaptation* that may not be completed until several years after the entry into retirement.²⁸

c) A life course perspective of employment participation

The “lidA framework” conceptualises a third characteristic of the *process character of retirement*, namely the life course perspective. At higher working age, the known determinants of early exit from employment, such as health, work ability and motivation to work, may be regarded as late outcomes of early life exposures. The “lidA framework” includes a domain “social position” that depicts early in life factors that are linked to the social origin of an individual as potentially decisive for employment participation at higher working age. Numerous of the national reports, produced throughout the JPI UEP project, indicate that people of lower social status tend to leave the labour market earlier than those from higher social strata.

It seems worthwhile considering that, under circumstances of low social mobility, children born into families of lower social status may, in fact, be predisposed to exit from the labour market relatively early. Also Naegele & Sporkert (2010) follow a life course perspective when defining three risk factors for employment at higher working age, namely *health risks*, *qualification risks* and *motivation risks*. They emphasise that these risks are late manifestations of early exposures in life (or lack of exposures).²⁹ In a slightly different approach, Loretto and Vickerstaff (2012) differentiate between “long-run influences”, such as patterns of paid and unpaid work across the life course, and “temporally proximal factors” like health shocks or job loss that may, separately or in combination, have an impact on the employment outlook of older workers.¹⁵

The process-related character of retirement adds to the complexity of retirement (→ section 2.1) by introducing

a temporal dimension. This “temporal complexity” challenges the traditional connotation of retirement among policymakers, prevention advisors and – not least researchers. For them, the adoption of a life course perspective will require a shift from single-point observations and interpretations (“what is?”) to the identification of changes over time, processes, and of life course and retirement trajectories (“what happens?”) (→ see Roe 2008³⁰ for his plea for an increased consideration of the role of “time” in applied psychological theory and behavioural research). From such an approach of “temporalism”³⁰, more and novel evidence on employment participation may be expected, as well as a considerable innovative input for policy on the national and organisational level. (→ section 5.3.3)

Individual level

The “lidA framework” demonstrates that retirement is largely determined by characteristics inherent in each older worker. Yet, this “individual level” of retirement does not imply an autonomous or independent decision-making process. Instead, it indicates that many of the factors influencing the retirement process lie within an individual and his or her life circumstances. This micro level view of employment at higher working age is reflected in several domains of the “lidA framework”, such as “health”, “motivation”, “domestic domain” and “financial factors”. It implies that retirement is never the same for two people and that research should not neglect micro level factors.

While *macro level* estimates may indicate the effect size of national policy measures (how many people in a group will retire later?), the consideration of *individual level* factors may shed light on who within that group retires later and why. Such knowledge is not only of relevance for scientific research and policymaking, but also for preventive action at the meso level, namely in organisations.

Structural level

At the same time, however, the question of employment participation at advanced working age is embedded in an overarching context on the macro level. The core domains in the underlying framework of “lidA” and JPI UEP, which represent this *structural level*, are the “financial factors”, “legislation” and the “labour market”. The respective domain chapters as well as several national reports clearly show how legislative and regulatory factors, e.g. retirement schemes or labour market policies, may effectively shape retirement behaviour and work exit rates. In view of the ongoing policy changes for retirement and the labour market, researchers have to set their findings in the relevant policy context to detect impacts or interactions and consider their multiple effects (see below).

2.3 The lidA framework as the basis for the JPI UEP work

The complexity of retirement and its illustration in the “lidA framework” should now be obvious. For the JPI UEP project, the framework was adapted and limited to ten domains that should provide a structural frame to the project. For this, the original domains of health and lifestyle were collapsed.

The “domain structure” was used for a unified and standardised identification of research needs across themes, disciplines, research communities and countries. A matrix-like approach (i.e. an investigation of each domain by all countries and investigation of each country by all domains) secured a broad, interdisciplinary and cross-national view on employment at higher working age in the researchers’ group. Following an iterative procedure, an online platform facilitated the mutual exchange about the draft versions of each chapter.

For each of the ten framework domains, experts from the JPI UEP consortium produced **domain chapters** based on a thorough analysis of the available research in the domain, following the uniform objective to detect research gaps and formulate research needs (→ Table 2, left column). Each chapter is included as a condensed version in the following chapter. The full versions are available on the project’s website at <http://www.jp-demographic.eu/about/fast-track-projects/understanding-employment>.

In parallel, for each participating country, the JPI UEP scientists authored a **national report** explicitly referring to the ten domains and concluding with specific national research needs (→ Table 2, right column). The condensed versions of these reports can be found in chapter 5, national reports of the present report. The full versions are again available on the project web site.

The next two chapters feature the short versions of the ten domain chapters and the eleven national reports. They are followed by the project results (→ chapter 5) where – connecting the findings of all 21 reports – 19 distinct research needs across disciplinary and national boundaries are discussed.

JPI UEP Domain chapters (→ Domain chapters)	JPI UEP National reports (→ National reports)
Labour market J. Oude Mulders, E. Wadensjö	Austria I. Mairhuber, E. Prammer, U. Waginger, B. Steinbauer
Legislation and its implementation I. Mairhuber	Belgium A. Jousten, L. Salanauskaite
Financial factors D. Lain	Canada A. Bélanger, Y. Carrière, P. Sabourin
Social position N. Riedel	Denmark O.M. Poulsen
Domestic and household factors S. Vickerstaff	Finland E.P. Takala, J. Seitsamo, L. Henriksson, M. Härmä, P. Husman, R. Gould, S. Nivalainen, S. Kuivalainen
Human resource management and interventions A.I. Hilsen, T. Midtsundstad	Germany M. Ebener, H.M. Hasselhorn
Work factors A. Pohrt, H.M. Hasselhorn	Netherlands S. van den Heuvel, A. de Wind, E. Beudeker, J. Oude Mulders
Health and health-related behaviour S. van den Heuvel, A. de Wind	Norway T. Midtsundstad, A.I. Hilsen
Work ability E.P. Takala, J. Seitsamo	Poland D. Żołnierczyk-Zreda
Motivation to work U. Waginger	Sweden M. Albin, T. Bodin, E. Wadensjö
	United Kingdom D. Lain, S. Vickerstaff (G. Shukla contributed to the full version)

Table 2: Overview of JPI UEP domain chapters and national reports and authors

3

Domain chapters

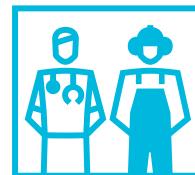
3.1 Labour market

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Executive summary

Although employment participation of older workers and their timing of (early) retirement is often modelled as an individual-level decision, the opportunities for late career employment, and restrictions that older workers potentially face, are largely shaped by labour market contextual factors. These may include labour market regulations and policies, attitudes of employers, as well as other dynamics between employers and employees and/or their associations. Much of the research in this field focuses on the supply side of the labour market. That is, when and why older workers want to continue working, and what the effects of policy changes are on the supply side. Although growing in importance, there is less understanding of how employers' attitudes and behaviour affect employment participation rates of older workers.

Core findings

- Older workers are less likely to lose their job than younger workers, but when they do, they are much less likely to find reemployment. When they do find reemployment, they are often faced with wage cuts. Some older workers move from unemployment into self-employment.
- Employers in countries with strong deferred compensation schemes, e.g. steep wage-tenure profiles or increasing wages with seniority, are less likely to hire older workers than employers in countries with more equal compensation schemes.
- Many companies employ, but do not hire older workers. That is, they hire them when they are young and employ them into old age, but they are much less likely to hire older workers out of the labour market.
- The opportunities for older workers to work past normal retirement age are very limited. Many countries do not have explicit policies for this, and employers appear very reluctant to offer these opportunities to older workers that wish to continue working.
- Self-employment is quite common among older workers. However, there are different reasons why people move into self-employment. Some choose this form of employment because they would like to remain active, possibly working part-time, after their career job. Meanwhile others move into self-employment because they cannot find employment with a decent income.
- Planned migration of older workers, e.g. to Southern Europe, or migration of immigrants back to their countries of origin can affect the timing of retirement and the transition into self-employment or bridge jobs.
- Early retirement provisions significantly shortened the employment participation of older workers in the past. Not only those wishing to retire early could afford to do so, also many of those with the intention to remain in the labour force could be pressured to leave by their employers.
- Most countries have, by now, implemented policies that largely discourage or prevent early retirement. In addition, most "alternative pathways" to early retirement, often covered by disability insurance funds or unemployment benefits, have been largely closed. This has effectively risen the retirement age in most countries.

Analysis of research

- Given that the labour market is so complex, many of the studies have a rather limited focus, and often do

not directly have individual employment participation as an outcome variable.

- The majority of studies in the field originates from economics. Economists use concepts of labour demand and labour supply or perform macro-level policy analyses.
- In the analysis of labour market contextual effects on the employment participation of older workers, the use of quantitative methods is very common, while qualitative methods are very rare. Many studies take a macro-level perspective and use register data or data from large surveys such as SHARE. There are also quantitative studies about employers' attitudes and behaviour that use smaller national datasets.

Consideration of the cross-national diversity

- There are reports on national labour market contexts published by the OECD. For example, a large comparative cross-national report was published in 2006, and a new one has been announced.
- Most of the research originates from North-Western Europe. There is also a lot of intriguing research from the U.S., yet the conclusions drawn are not always applicable to Europe.

Research needs

- Work participation among older female workers appears under-researched. Much of the existing research focuses on men. The question why there is such a large difference in the employment participation among older women remains largely unanswered.
- More cross-national comparative research is needed to understand how labour supply varies as a result of available alternatives to employment or other income sources, considering e.g. the pension level and the eligibility for disability or unemployment benefits.
- More focus is needed on the sectorial differences in the employment of older workers. For example, are there differences in employers' perceptions of older workers by sector or industry? What are the implications for employers' behaviour? How are employers in the various sectors and industries affected by collective labour agreements?
- Equally lacking is longitudinal research about employers' attitudes and their behaviour towards older work-

ers, both inside their firm, in terms of retaining older workers, and outside their firm, in terms of hiring older workers. Cross-national studies in this field would help understand the effects of national labour market institutions and regulations.

- There are also gaps in cross-national comparative research investigating the effects of labour market policies, like anti-age discrimination laws or incentive programs targeted at employers.

Research policy options

Given the significant differences in labour market institutions and regulations across Europe and the limited understanding of employers' attitudes and their behaviour, there is a need for a cross-national and longitudinal survey of relevant variables on the employer side.

The full version of this report is available on the project's website at:
→ www.jp-demographic.eu/about/fast-track-projects/understanding-employment

This report is published as part of:

→ Hasselhorn HM, Apt W (2015) Understanding employment participation of older workers: Creating a knowledge base for future labour market challenges. Research Report. Federal Ministry of Labour and Social Affairs (BMAS) and Federal Institute for Occupational Safety and Health (BAuA). BMAS/BAuA, Berlin, 120 pages

3.2 Legislation and its implementation

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Executive summary

A large body of economic literature has analysed early retirement behaviour from a labour supply perspective. In this context, legislation or institutional arrangements are of great importance given that they do not only refer to the conditions of pension insurance and the criteria of early or statutory retirement.

Decisive factors influencing the labour market participation of older workers are the availability and the conditions of benefits in the event of ill health, (partial) disability or unemployment, as well as employment taxes or tax benefits. The effects of labour demand on early retirement or the question of involuntary early retirement have received far less attention. In this context, anti-age discrimination and employment protection legislation are of major interest.

Core findings

The issue of legislation is mostly tackled in international comparative research studies and in a quantitative manner. Within research, there is a focus on the influence of the detailed regulations of the pensions system, including the benefit level, actuarial neutrality and early-exit options) on the retirement behaviour of older workers. Core findings are:

- More generous retirement systems facilitate early retirement. This may mean, for example, that relatively high replacement rates lead to lower-than-average participation rates of older workers. Lower replacement rates, on the contrary, can increase the participation rates of older workers. However, this evidence seemed to be more applicable to planned retirement age than to effective retirement age. There is also a strong

correspondence between exit from the labour market and the age at which early retirement benefits can be claimed.

- Retirement regulations are characterised by a considerable degree of diversity given the continuing pension reforms across European and OECD countries over the last decades. Due to this complexity and the uncertainty related to potential future reforms, it is not clear to what extent individuals are, in fact, capable of forming realistic expectations and informed opinions about their future entitlements.
- Occupational pension schemes, potentially increasing the total pension income, were found to promote early retirement of older workers.
- Relatively easy access to social transfer programmes, e.g. related to unemployment or disability, has a positive effect on early exit from the labour market. These programmes often substitute early retirement schemes. However, there are large transnational differences that result from the varying details in the national regulations.
- Some studies at the national level, e.g. those focusing on Belgium and Norway, show the positive influence of tax reductions or tax benefits on the labour market decisions of older workers. Only one study about Austria addresses the positive impact of a tax layoff on the labour demand side.
- Generous early retirement provisions do not only make voluntary early retirement more attractive for older workers. They also seem to induce employers to convince or force older employees to (involuntarily) withdraw from their jobs and retire early.

- Very few studies at the national level, e.g. those dealing with the situation in the United Kingdom and Belgium, specifically address anti-age discrimination legislation related to the European Union Directive (2000/78/EC). Hence, the strict enforcement of the statutory retirement age can also contribute to involuntary retirement.
- An important aspect to be considered when dealing with age discrimination is the gender dimension. To quote from one study: "There is evidence that stereotypical beliefs about gender and age combine to form a 'double jeopardy' for women" (Walker et al. 2007: 38, see full version for reference).

Analysis of research

- The dominant discipline assessing the impact of legislation or other institutional arrangements on the labour market participation of older workers is economics.
- Most studies use econometric micro data analysis alongside micro simulations and are based on micro data either from SHARE or the European Labour Force Survey.
- Qualitative studies, which assess the effect and interaction of different social security transfer programmes or the impact of tax legislation on the demand and supply side of older workers, are largely missing.
- The majority of studies investigates early retirement behaviour from the perspective of older workers, i.e. labour supply. Only a few studies adopt the entrepreneurial view of employers, i.e. the demand side.
- Institutions or social security legislation taken into consideration as influencing factors include: the pension system, unemployment schemes, and regulations or benefits related to ill health and invalidity. Some studies only consider the role of the pension system in shaping labour market decisions of older workers. As a result, they do not depict potential interactions between all of these contextual factors, i.e. the inactivity of older persons due to unemployment or health limitations is hardly taken into account.
- Some studies at the national level investigate the influence of tax legislation on the employment participation of older workers, yet they do not consider the interaction between taxes and social security benefits. Only one study examines the effect of a layoff tax on labour demand for older workers.

- Very few studies consider legislation related to employment protection.
- With regard to anti-age discrimination legislation, only a small number of descriptive or theoretical studies were found at the national level. These were mostly carried out by political scientists or sociologists. One national qualitative study specifically investigates female age discrimination.

Consideration of the cross-national diversity

- Research at the intersection of employment participation and legislation differs widely between countries included in the review. In this context, it has to be considered that social security systems, tax laws and, particularly, pension systems differ greatly between countries.
- One common issue appears to be the high level of "gender blindness". Accordingly, only very few studies distinguish between women and men in their results or deal with the gender-specific impact of social security legislation.
- Analyses of the impact of legislation on the labour market participation of older workers only exist for some countries, including Belgium, the Netherlands and Austria. Many of these quantitative studies focus on the pension system and largely disregard other pathways out of the labour market, i.e. other social security transfer programmes.
- The effect of taxes or tax benefits on employment participations has been investigated in Belgium and Norway, as well as in Austria, where the impact of a layoff tax on labour demand has been examined.
- Only research about the United Kingdom appears to consider the implementation of the European Union Directive (2000/78/EC) and the impact of other anti-age discrimination legislation on employment participation.

Research needs

- There is a need for qualitative studies on the different pathways through which older workers leave the labour market. This would help to better understand the interplay of different social security transfer programmes and the array of employment or retirement options available to older workers in a given national context.

- It would also be necessary to conduct in-depth qualitative research on the impact of legislation and the other factors (e.g. health, work ability, caring responsibility) on the decision-making of older workers about continuing to work or entering into retirement. This would help to better understand the outcomes of existing quantitative research.
- Equally important are more contemporary studies that investigate the impact of legislation or institutional arrangements on entrepreneurial labour demand. This would shed more light on employers' perspectives on early retirement of older workers.
- Gender- and class-specific analyses are worthwhile to disentangle the varying effects of legislation and other institutional arrangements on women and men, blue- and white-collar workers, or low- and high-income workers. This also applies to issue of age discrimination.

Research policy options

Changes in legislation or institutional arrangements do not only impact labour force participation of older workers but often also affect benefit levels, e.g. the amount of an early retirement pension. Hence, it would be very important to monitor the changes in early retirement schemes and other social security transfer programmes and investigate their effects on benefit levels and the risk of poverty for older workers, including gender- and class-specific variables.

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3.3 Financial factors

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Executive summary

Financial factors and pensions have been central for explaining the employment and retirement behaviour of older people. The main finding from this review is that financial incentives do influence employment in older age, as evidenced by recent increases in work following pension reforms in a number of countries. However, this influence is complicated by the individual's health, gender and household context, as well as their financial understanding and awareness. Furthermore, research needs to consider the broader policy contexts within countries, which influence whether financial incentives to take pensions or other benefits and payments necessarily result in exit.

Core findings

The review reveals that across the countries examined most research on this topic is quantitative rather than qualitative. There is also a strong emphasis on exploring incentives within pensions and other benefits to cease employment. Core findings are that:

- Previous research has found a strong correlation between employment among older people and the age at which pension or equivalent benefit becomes available. Incentives to leave work to get a pension, rather than work another year, also increase employment exit.
- Microsimulation analysis has predicted that restricting admission to state pensions and benefits reduces early exit. Germany and Austria are examples of the countries that have made significant reforms limiting early access to pensions and seen employment increases.
- Despite the above conclusions, pension receipt does not necessarily lead to employment exit. In the United Kingdom, U.S. and Norway, people can take their state pension in full and continue working. In Norway, reforms to earning limits, which increase potential earnings whilst receiving a pension, appear to have increased employment. Restrictions in the United Kingdom on individuals accessing occupational pensions while working have also been relaxed in the United Kingdom, with many older workers receiving pensions.
- Evidence from the United Kingdom suggests that people with defined contribution pensions retire later than those with defined benefit pensions, raising the question of what will happen in other European countries with the spread defined contribution pension schemes.
- Drawing conclusions about the financial situation of people working is difficult, because different influences pull in different directions (for example, pension incentives versus ill-health). The measure of financial position used may also influence the findings. You are likely to get different results depending on the type of income or wealth measured. It is therefore important to consider a variety of financial resources.
- There is some evidence that outstanding financial responsibilities, for example an outstanding mortgage or dependent children, increase employment likelihood.
- There is less systematic research looking at how employment rates vary across different economic segments within countries. The evidence from the United Kingdom, however, suggests that people working in older age come from financially diverse backgrounds, as do those leaving work early. The richest and poorest are most likely to leave early for differing reasons, i.e. pension incentives versus ill-health. After state pension age the numbers working decline considerably, and it is the

richest segment that is most likely to remain in work. As the numbers of people working past state pension age increases, this group may be expected to become more financially diverse. Middle wealth people in the United Kingdom appear to be most likely to leave work at state pension age, and it has been suggested that this group is potentially most receptive to financial incentives to continue working. More research is needed on other countries.

- There appear to be gender differences in the influence of finances on employment in a number of countries. For women in couples, especially in male breadwinner or modified male breadwinner households, employment often seems to be influenced more by the resources of their husbands than their own, but research is needed on whether this varies across countries.

Analysis of research

- Economics and sociology are the leading disciplines examining this issue.
- Quantitative methods are most common, often using large-scale surveys to assess the influence of incentives within pensions to leave work early. This includes, for example, microsimulation methods that examine the impact of alternative policy arrangements. A key research concern is assessing the impact of pension policy on aggregate employment levels, and estimating the potential consequences of policy reforms.
- There is little qualitative research. However, this would be useful for gaining a better insight into how subjective understandings of retirement incomes influence decision-making about employment. As many older workers do not seem to fully understand the financial details of their pensions, qualitative research would help understand how decisions are made from a position of uncertainty.
- Research on this topic often includes health as a control variable. Financial incentives have less impact on employment for those with health problems. However, other domains such as the household and family situation are typically neglected.

Consideration of the cross-national diversity

In some countries, such as the United Kingdom and Germany, there is a greater emphasis on understanding how employment rates vary for different economic segments of the population. This is likely to be the result of the

varying availability of large surveys to compare different subgroups. Otherwise, the research needs noted below apply to all countries.

Research needs

- As most research focuses on the individual or macro level, there is a need for research that takes a broader view and places financial influences on individual work and retirement behaviour in a broader family and household context. This should examine the influences of household incomes and other resources and how these are distributed and managed in the household. Likewise, it would help detect the influence of inter-generational transfers and financial responsibilities (including dependent children) on employment, and how this varies between countries.
- More research is needed at the workplace level examining how employers and social partners use financial resources such as pensions and early retirement incentives to influence employment of older people, and how this varies between countries.
- There is a need for research on the extent to which employment is associated with financial needs in many of the countries. It is important that this research takes a broader perspective on how different financial resources interact to influence employment. For example, people with high housing equity and a generous pension may be nevertheless working for financial reasons if they have a large outstanding mortgage.
- The subjective influence of finances on employment is also an area where there is only patchy research coverage across countries. More qualitative research is needed about how subjective understandings of financial resources (including lack of knowledge) influence employment. This would include the influence of subjective attitudes about what constitutes sufficient retirement income, and how this varies between countries.
- Equally worthwhile is a more systematic analysis across countries on how gender, marital status and employment histories interact with financial incentives to work.
- There is a need for more research on how changes in wealth (or wealth shocks) influence employment both within and between countries.
- In the context of an increasing demographic heterogeneity across Europe, more research is necessary on the relationship between ethnicity, finances and work.

Research policy options

In view of the results of this review it is recommended that major research programmes proceed along three lines:

- Aim for a better understanding of the influence of household or family financial context on employment, and how this varies across countries. This requires qualitative research alongside quantitative to grasp how subjective understandings of finances influence employment.

- Place increased attention on how financial influences are differentiated across different subgroups of the population, e.g. with respect to wealth level, gender, marital status and ethnicity. This requires that many countries invest in large-scale surveys that measure financial, household and work-related circumstances of individuals.
- Foster research exploring how changes over time, in wealth and other circumstances, influence employment. This would require longitudinal panel study analysis.

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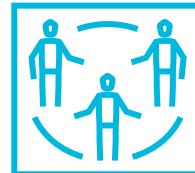
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3.4 Social position

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Executive summary

There is evidence for considerable social variation in employment participation among older workers both across and within European countries. Research in this domain mainly originates from two disciplines: Occupational health research and social science research. Occupational health studies indicate that psychosocial and physical work factors can mediate the association between an individual's social position and their risk of disability pension. These studies, hence, focus on the link between the meso level (work context) and the micro level (employee). Meanwhile, social science research emphasises the class-specific impact of macro level factors, such as institutional arrangements related to work, social welfare and retirement as well as the functioning of educational and health care systems, which may influence older workers' employment opportunities and their timing of retirement. From a social epidemiological viewpoint, research in this domain may be advanced by drawing on both occupational health research and social science research, and substantiating a multilevel systems view on the determinants of employment participation. Such a conceptual framework of research would require an innovative mix of quantitative and qualitative methods.

Core findings

Lower social positions seem generally associated with involuntary an earlier labour market exit. Social position is captured by resources like educational attainment, occupational skill level, assets or income, as well as hierarchical position. These sub-dimensions appear to be causally inter-related. For instance, the potential effect of low education on disability retirement can be mediated by the individual's occupational position (e.g. skilled manual worker) and the resultant low level of income. A bi-directional or reverse relationship of social position

and employment participation is also possible in the event of health-induced downward mobility.

Findings based on occupational class may vary by spatio-temporal context given the differences and changes in class definition, occupations per se, occupation-specific working conditions or retirement schemes. Gender differences in the association between social position and employment participation seem to be attributable to occupational class, health-related mechanisms, or policies. This overall picture is drawn from quantitative analyses based on large data sets in both occupational health and social science research. More observations from these two lines of research are as follows:

Occupational health research

- This research focuses on disability pension as a negative, health-related indicator of employment participation.
- Analyses seek to quantify work- and health-related factors that explain the association between social position and disability pension, i.e. the meso-micro-link.
- The strength of the association between social position and disability pension, as well as the mediating effect of work-related factors may vary by the health-related cause of disability.
- Events and predispositions from an individual's earlier life, such as like childhood experiences associated with the (parental) social position, may contribute to the risk of disability pension.
- Most studies originate from Scandinavian countries, which is not surprising given their research tradition on work ability.

Social science research

- Respective research conceives social inequalities in employment participation, financial security, or the timing of retirement as a result of class-specific market constraints and the class-specific access to education and life-long learning, employment protection, retirement schemes and other pension entitlements.
- Transformations of the welfare regimes across Europe have an impact on employees' health development, their employment opportunities across the life course and their retirement.
- Most studies in this field adopt a comparative approach using representative data from international and national studies.

Analysis of research

- Considering their research objectives, both lines of research apply appropriate methods. These include, for example, sophisticated statistics like multivariable and multilevel regression analyses to estimate class-specific risks of early retirement or disability pension and to compare effect sizes between variable groups. The question arises whether the existing research objectives should be broadened. If so, this may demand new methodological approaches.
- For the purpose of identifying or disentangling the pathways of an all-cause or a cause-specific disability pension in occupational health, by way of example, quantitative methods may need to be complemented by qualitative methods that may shed light on critical time spans or turning points across the employment biography.

Multifactorial explanations are a key characteristic of social inequalities research.

- Yet, occupational health research predominantly focuses on work factors. This is in contrast to the life course perspective, which ranks factors from other domains, like financial background or the domestic domain, as being more important than work factors on the micro and meso level. Moreover, occupational health research primarily assesses the isolated effects of physical and psychosocial work factors. Instead, modeling the cumulative or interaction effects may help better understand the impact of social position on an individual's life course.

- Social science research may also benefit from considering the sub-national context and regional differences within countries more comprehensively. This would acknowledge the influence of regional and local labour markets, and the local welfare.

Consideration of the cross-national diversity

- The assessment of cross-national variation is a major objective of comparative social science research. Authors in occupational health research are usually aware of national peculiarities associated with the labour market or welfare policies when they transfer their findings and conclusions to other contexts or populations.
- For instance, inclusive policies that cover vocational training and other initiatives of work humanisation for socially disadvantaged target groups may help buffer the adverse effect of low qualification on individual outcomes.

Research needs

- Both lines of research may profit from explicating the links between the macro, meso, and micro level in a joint effort.
- Interdependencies between macro, meso, and micro factors might be understood best by adopting a systems view on social inequalities and their implications for individuals' employment opportunities and early labour market exits. Such a research approach is sensitive to systemic changes and feedback loops between and within levels, possibly induced by external forces, interventions and their unintended effects over time.

Research policy options

For an implementation of the research needs, research policy should aim at promoting interdisciplinary initiatives suitable for a combination or integration of different methodological approaches.

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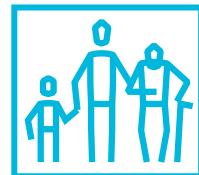
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3.5 Domestic and household factors

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Executive summary

Labour market behaviour and retirement trajectories are often conceptualised as individual decisions for the purposes of research. There is increasing agreement, however, that peoples' aspirations for extending working life or pathways for entering retirement are rooted in households and immediate social networks. Quantitative research on retirement trajectories has increasingly modelled for marital status, household income, caring responsibilities and relationship breakdowns. The results indicate that retirement timing is an effect of joint rather than individual planning and responses to circumstances.

The domestic context can be defined more broadly as the various factors associated with partnerships, marriage, family and gender roles, the latter referring to the manner in which members of a household divide up responsibility for market and family work across the life course. This introduces a dynamic element into the analysis as we would expect gender roles or ideologies to vary across generations and national contexts. Whilst researchers have been accustomed to hypothesize the impacts of the labour market and welfare state system (or changes therein) on older workers' employment trajectories, there has been less concentration on family or household structures and respective changes over time.

A review of the literature on domestic or household factors indicates substantial research needs concerning this area, in particular the following gaps need further work: The impact of the household is highly gendered and more research on women in households is needed. Family formation and breakdown and its impacts on later working lives receives little scientific attention. The impact of grand parenting on later life work participation is underdeveloped as a field of study. More comparative

research on the interactions between welfare state policies appears worthwhile. Further attention should be directed to changes in household formation and gender regimes in inhibiting or encouraging later working.

In terms of cross-country coverage, there is not an even spread of research on domestic or household factors across different countries. Norway and the United Kingdom accounted for the bulk of studies, but the review also considered the notably more developed U.S. literature.

Core findings

The review is based on 65 studies including literature from the United States and Australia it also included some relevant literature concerned more generally with the impact of gender on labour market participation, which was not focused specifically on older workers.

Research on household effects thus far has concentrated on four main dimensions of which the first two are the most developed:

- Propensity to work and retirement timing
- The impact of caring responsibilities on labour market participation at older ages
- Family formation and breakdown
- Community, friends and social climate.

The retirement decision is affected by household characteristics. Having a partner in work strongly increases the likelihood of being in employment in older age. There is evidence for gender asymmetry in joint decision-making; with men's trajectories typically exerting a greater influ-

ence on retirement timing. Yet, this appears to be dependent upon the particular gendered division of labour in the household. It is clear from this research on couple decision-making that it is important to understand gender roles and the impacts of different and changing household regimes, in particular the move from a male breadwinner to a modified male breadwinner model to dual provider households and the implications of these changes for propensities to extend working lives.

It is well researched that caring responsibilities impact upon labour market participation and that women typically bear the major responsibilities for child and elder care. However, with increasing female participation in paid employment traditional male breadwinner models and gender roles continue to change. In addition, there is considerable variation comparatively with respect to the availability of affordable child care and the impacts of different health care regimes.

The health of a partner influences employment but research from the US indicates that the effect of husbands' ill-health on the female partner's labour supply is complex, for example that it is also affected by the particular health condition. More generally, caring responsibilities for different generations of the family have an important impact upon people's ability to continue working in older age. An emerging area of research interest is the influence of grand parenting. There is, to date, however, relatively little research on the impact of life course caring events on later propensity to work. There seems to be no systematic consideration of the impact of caring for elderly parents on older worker labour market participation in the reviewed literature.

Divorce rates are increasing as are patterns of single parenthood. More people are choosing to live alone whether in a long-term relationships or not. Research on extending working lives has only recently begun to consider the implications of these changes in family structure. Divorce and widowhood are less studied than other spousal interaction affects. In some countries but not all, divorced or single women are more likely to work longer than married women. Comparative differences suggest a need to better understand how the impacts of family dissolution vary from country to country because of variations in social policies.

Less studied is the wider influence of extended family and friends on work or retirement decisions, this despite the fact that in many studies spending time with family and friends and engaging in leisure pursuits or hobbies are given by respondents as pull factors for early retirement.

Analysis of research

- The dominant disciplines assessing the domestic or household context and its effects on later life working are sociology and economics.
- The main sources for research on the household domain have been longitudinal data sets (e.g. SHARE, ELSA, HRS, HILDA) and cross sectional surveys. There is a tradition in labour and health economics of modelling retirement behaviour covering models of dual earner families and tracking spousal effects.
- The possibility of using register data (as in the Norwegian case) allows tracking a range of family formations, but this research possibility is not available in many countries.

Consideration of the cross-national diversity

- Research evidence is not evenly spread across the countries contributing to this project. Norway, the United Kingdom, and the Netherlands account for the main studies, with Sweden and Poland providing a few, with relatively little existing research in this domain from Germany, Canada, Finland, Denmark or Belgium.
- It is clear that there are differences in family formation and gender regimes from country to country, and the prevailing welfare state may reinforce or inhibit certain divisions of labour of market and non-market work within the family. More comparative research could yield interesting insights into the interactions between macro, meso and micro level factors in conditioning propensity to work later in life.

Research needs

- There is a need to establish whether existing longitudinal data sets can be used more extensively to model household behaviours around extending working life or retirement.
- Whilst survey-based analysis can identify the predictors of labour market behaviour qualitative methods are needed in conjunction to explore how in detail these patterns are worked through in specific domestic and household contexts.

Research policy options

The uneven spread of research from country to country in this domain calls for European wide research promotion initiatives in the field of work and retirement cross-fertilising national research activity in Central, Eastern and Southern Europe.

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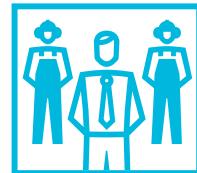
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3.6 Human resource management and interventions

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Executive summary

Human resource management (HRM) and human resource interventions cover initiatives and measures by the employer or the respective human resource personnel, which are aimed at facilitating work and strengthening older workers' preference for work over retirement, i.e. improving the "stay" factors in employment and/or counteracting potential "push" factors into retirement. Research focusing on such measures mainly originates from the Nordic countries, where a largely positive economic situation leads to a stable demand for labour. The majority of qualitative case studies across Europe stems from large corporations and companies that recognize the threat of losing key competence if employees retire early. Overall, research shows that there are many kinds of interventions that can be introduced at the workplace level to promote longer careers, but the effect of the different measures is less clear. Hence, more research is needed about the effects of human resource interventions.

Core findings

The domain is well analysed in the Nordic countries, particularly by studies from Norway. Research about the prevalence of age management strategies and programmes mainly originates from Norway, the United Kingdom, the Netherlands, Denmark, and Germany. There are also comparative studies on the European level. However, these studies do not directly link the access to human resource interventions to the prevalent retirement patterns, with the exception for studies from Norway. There equally exist many case studies and "best practice" studies from across Europe, but again, the results are rarely connected to retirement "outcomes". The existing research that covers the effect of HRM and interventions is mainly quantitative and based on large-scale register data or survey data sets,

although there are also some smaller-scale qualitative studies.

- Drivers motivating the implementation of HRM and interventions can be the short-term need for labour, the limited availability of labour, training costs for specialised personnel, the overall economic situation of companies, company size, as well as attitudes of managers towards older workers.
- Managers' attitudes towards older workers are important given that unappreciated workers tend to leave the work force earlier. This may also stem from an indirect discrimination in that managers, who believe older workers to be less competent or willing than their younger colleagues, may provide fewer opportunities for professional development.
- HRM and different types of interventions are related to the wellbeing at work, health status, work ability and workers' attitudes towards retirement and expected (self-reported) retirement behaviour.
- Most studies from Norway find little or none effect of HRM measures. However, few of them establish a positive association between older workers having extra days off and the time of their transition to retirement.

Analysis of research

There are extensive quantitative, as well as some qualitative, studies in this field. However, only a few specifically relate HRM and other work place interventions to actual retirement outcomes or older workers' labour market participation. In most studies, HRM and different types of interventions are related to the overall wellbeing at work, health status, work ability and attitudes towards retire-

ment or expected (self-reported) retirement behaviour. Yet, register-based studies also find effects of HRM interventions on retirement behaviour. In view of this current state of analysis, more research is needed to identify the effect of the different types of interventions.

There is also little research on HRM and interventions in small and medium size enterprises (SMEs). Existing analyses based on survey data find that interventions and initiatives to promote longer working lives are less likely available to employees in private sector SMEs. Yet, although the prevalence of HRM and interventions seems higher in large (and public) enterprises, this does not guarantee for a successful implementation at the operational or local level.

Consideration of the cross-national diversity

HRM and interventions are highly dependent on the national context. The motivation for introducing such measures seems to depend on whether employers perceive the expertise of older workers as vital and in demand by the company. The economy also appears an important determinant of the prevalence of interventions aimed at retaining older workers. As a result, intervention seems to be most extensively used in the Nordic welfare states and across some larger corporations in Europe.

Research needs

- More studies about the effect of programmes and interventions are needed. This would lead to a better understanding of retirement behaviour in response to various types of HRM and interventions.
- There is an overall lack of knowledge about HRM and interventions in SMEs.
- Welfare state provisions differ from country to country. Moreover, sector-specific working conditions seem to influence the effect of HRM and interventions on work participation. Accordingly, sectors with physically demanding work or a high level of emotional stress have special challenges, and any HRM measures must consider and target these challenges to have any effect. For studies to be comparable across borders and welfare state regimes, this specific context of analysis must be made clear.
- Comparative studies of “best [or good] practice” can serve as an inspiration of existing age-friendly HRM and interventions but can rarely substitute scientific, empirically-grounded research about the employment

participation of older workers. Nevertheless, such practical evidence is necessary to better understand the effects and correlations identified in large-scale quantitative studies.

- Despite the perceived advantages of phased retirement, specific measures that promote a smooth transition between full employment and full retirement are rare in most countries. Even if such measures are in place, research about their effects is mostly lacking. In one study from Norway, there has been no effect of such measures on early retirement.
- Large-scale longitudinal studies and survey- or register-based studies are crucial to link older workers attitudes towards early retirement and age management strategies with their actual retirement behaviour. This would give better insight into the relationship between retirement *intentions* and retirement *behaviour*. Studies show that HRM and interventions of different kinds can positively influence retirement intentions of older workers that wish to retire. However, less is known about the true effect on their actual retirement behaviour. While some research exists in Norway, both based on longitudinal and survey or register data, more research is needed for other countries and their specific contexts.

Research policy options

Wherever HRM and interventions are in place, further analyses about the effects of these measures are necessary.

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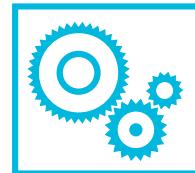
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3.7 Work factors

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Executive summary

Work content factors are commonly believed to influence labour market participation at higher working age. The following review is based on the results of two reviews and 29 publications from cohort studies assessing the impact of work factors on early exit from work. The major finding is that only the factors (high) physical work demand and (low) job control have consistently been shown to be associated with disability retirement.

The analysis revealed substantial research needs in terms of the integration of work factors in the broader context of (early) retirement, the advancement of related research methodology and the regional extension of research across Europe. In short: Research largely focusses on a few traditional work risk factors and their impact on disability retirement and notably not on the most frequent early exit path, which is non-disability retirement. The context of further influential determinants for early exit from work is almost never considered, nor is a differentiated view by socioeconomic sub-groups applied.

The application of a life course perspective, e.g. following work exposures and their changes over time, may substantiate existing findings and have a greater impact on organisational and national policies. There also appears a substantial mismatch in the amount of research originating from Scandinavia (25 of 29 studies) and other European countries (4 of 29 studies).

Core findings

Several studies included in this review only considered psychosocial factors, mostly job strain or job control. Other studies investigated both psychosocial and physical factors, the latter usually being physical workload and

ergonomic demands. Researchers in Denmark, Finland, Sweden and Norway frequently linked questionnaire data to register data for assessing objective retirement behaviour. The core findings are:

- The association of work factors and employment participation was the main subject of a total of two reviews and 29 prospective primary studies. 26 of the 29 studies considered disability retirement. Four studies focussed on non-disability early retirement. Two studies covered labour market participation in general. Several studies provided more than one measure. Only four studies did not originate from Scandinavia, with two studies being published respectively in the Netherlands and in Germany.
- The work factors investigated were limited and primarily related to physical work load, job control or job strain. Social support and ergonomic demands were also considered.
- If assessed, high physical work load was found to be a significant predictor for disability retirement, as was low job control.
- As for non-disability early retirement, low job control, conflicts at work and high physical demands have been shown to be predictors in a few studies.

Analysis of research

- Occupational epidemiology and social epidemiology are the leading disciplines that investigate the relationship between work factors and early retirement.
- In terms of methodology, large national surveys and sometimes job exposure matrices (i.e. inferred work expo-

sure data) are commonly linked to national register data. A few qualitative studies also exist (but are not included in this review).

- Non-disability retirement is rarely assessed.
- New and emerging work factors, like the permanent availability, required flexibility and arising conflicts between work and family obligations, have not been adequately considered.
- The timing of the exposure assessment and the follow-up often depends on the availability of data and resources rather than scientific considerations. However, it is important to note that the measurement of exposure may yield different results depending on the stage in the life course or work life, take for example the reduced exposure to hazardous work factors in old-age bridge jobs.
- The possibility of linking survey data with register data allows for a complete follow-up of the study participants. It also opens up unique research opportunities and provides new relevant evidence.
- In most studies that adjusted for the socioeconomic status of older workers, work factors were usually regarded as mediators for the risk of an early exit from the labour market.
- The context of other domains, like the domestic background or financial situation, is usually not considered. Sometimes there is an adjustment for workers' health status.

Consideration of the cross-national diversity

- Research evidence is largely limited to Scandinavia, i.e. Finland with nine studies published, Denmark with seven studies, Norway with five and Sweden with four studies. Respectively two studies were published by researchers from the Netherlands and Germany. English publications from other European countries were not found, which suggests a widespread research gap in Central, Eastern and Southern Europe.
- Despite the national differences in terms of access to disability and non-disability retirement or benefit level, there is no indication for inconsistent findings or variable associations across countries.

Research needs

- Substantially more studies are needed that assess the impact of work on (non-disability) early retirement, which is the most frequent early exit path among older workers, as well as other exit paths, including bridge employment, unemployment, or non-work.
- Reliable indicators are necessary and the basis for comparability. They should reflect the broad work content as well as the new emerging working conditions.
- The positive impact of work factors that promote longer working lives and help retain workers should be given greater attention in retirement studies.
- A broad view, which places work factors in the contextual framework of many different determinants, should be adopted to reflect the complexity of employment participation at advanced working age.
- For more differentiated results, studies should consider the dimensions of gender, socioeconomic status and age.
- Qualitative studies and the application of a life-course perspective in longitudinal studies will contribute to a better understanding of relevant work factors and reveal cumulative exposures, work changes or other transitions over time.
- (Better) access to register data in European countries outside Scandinavia may provide significantly more empirical evidence about the association of work factors and retirement.

Research policy options

The substantial research mismatch between the number of studies originating from Scandinavia, i.e. 25 out of a total of 29 studies, and from other European countries, i.e. four studies, calls for European-wide initiatives to promote research in the field of work and retirement and cross-fertilise national research activity in Central, Eastern and Southern Europe.

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3.8 Health and health-related behavior

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Executive summary

The relation between health and employment participation among older workers has been studied extensively. The predominant conclusion is that poor health is the most predictive determinant for exit from work, mostly through the pathway of a disability pension. However, the relation appears to be somewhat more complicated, especially with regard to early retirement, where both poor and good health may play a role.

Many factors affect the relation between health and employment participation and many of them are interdependent. For this reason, research into the role of health should not be limited to the single relation between one health factor and employment participation, but should adopt a multifactorial and interdisciplinary approach.

Core findings

The relation between health and employment participation has been studied extensively, and the general conclusion is that health plays an important role in early exit from the work force. Core findings are:

- A recent review showed that poor self-perceived health is a strong predictor of disability pension and to a lesser extent of unemployment and early retirement.
- The same review showed that having a chronic disease or a mental health problem was a risk factor for disability pension and unemployment, but not for early retirement.
- Studies that use a 'purged' or 'objectivised' health measure conclude the same regarding the relation between health and work force participation. Hence, no matter

how health is measured, it remains a key determinant of employment participation.

- A recent review about health related behaviour showed that obesity, and to a lesser extent, overweight predicted disability pension, but not unemployment and early retirement. Findings with regard to the lack of physical activity were inconclusive. Alcohol abuse and smoking are studied less extensively in relation to employment participation. The few existing studies suggest that these health-related behaviours are generally linked to an early exit from the work force.

Analysis of research

- The relation between health and employment participation has been studied in several disciplines, including health sciences, (health) economics, econometrics, sociology, gerontology, psychology, and demography. The different approaches used by social scientists (i.e. sociologists, gerontologists or health scientists) and those applied by (health) economists or econometrists produce complementary results.
- Quantitative methods dominate the research on health and employment participation. However, lately more studies were carried out using qualitative or mixed methods.
- Most studies on the relation between health, health-related behaviour and employment participation focus on the phenotypes of disability pension, unemployment and early retirement. Lately, more attention has been given to the "competing risk perspective". In this view, it is assumed that the probability of one exit route, i.e. early retirement, disability pension, or unemployment is dependent on the probability of

other exit routes. However, most studies still adopt a traditional perspective under which the relationship between health and solely one exit route is studied.

- Most studies use multivariate analyses to take into account the contribution of other relevant factors. However, many studies are solely focused on the relation between one health determinant and employment participation. They hardly consider the complexity of the relationship or possible interaction effects between variables. Factors, typically considered as covariates or moderating factors, are work characteristics and demographics. Potential determinants from other domains are often neglected. Only a few studies include a macroeconomic perspective.
- The majority of studies uses survey data. Self-reported measures have their drawbacks since they may be subjectively biased. The combination with register data still offers many interesting research opportunities. Yet, the access to these data is limited in most countries.

Consideration of the cross-national diversity

- Most studies on the relation between health, health-related behaviour and employment participation originate from North-Western Europe, i.e. Denmark, Finland, the Netherlands, and the United Kingdom.
- In some studies, transnational differences have been found in the association between poor health and employment. They may reflect country-specific legislation and institutions as to the pension scheme, the eligibility for disability benefits, or the labour market situation. Yet, a stratified analysis for European regions showed that self-perceived health was the most predictive measure for exit from paid employment, most notably through disability.

Research needs

- More studies are needed that adopt a multifactorial approach. Although most studies include demographics and work factors in their analysis of the relation between health and employment participation, the macroeconomic situation or other contextual factors are seldom included. In addition, interactions between health and the different factors influencing employment participation may be studied more extensively.
- The relation between health and the different exit routes varies. Moreover, the probability of one exit route is dependent on the probability of other exit routes.

Therefore, future research should consider a “competing risk approach”.

- Qualitative studies are needed to understand individual decision-making within a complex structure of influencing factors on different levels.
- The use of register data would offer excellent research options overcoming many of the drawbacks associated with the use of survey data only.

Research policy options

Research about the role of health should not be limited to the single relation between one health factor and employment participation, but should adopt a multifactorial and interdisciplinary approach.

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→ www.jp-demographic.eu/about/fast-track-projects/understanding-employment

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3.9 Work ability

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Executive summary

Work ability or the ability to work has historically been defined as the absence of a disability laid out in the qualifying criteria for the receipt of social benefits, e.g. continued wage payments during sick leave, disability pension benefits, or financial support for rehabilitation. More recently, the concept of work ability has shifted to a more holistic concept, which centres on the balance between the demands of work and the resources of the individual.

This new perspective was developed mainly by researchers in Finland and covered aspects like physical and mental health, job-related skills as well as attitudes and motivational factors. A review of a large number of relevant sources suggests that theoretical research on the many different domains of work ability is needed, especially from a life course perspective. The International Classification of Functioning, Disability and Health (ICF) framework by the World Health Organization (WHO) already constitutes a promising approach in the conceptualization of work ability.

Core findings

In the research literature, work ability has long been defined by the pure absence of a disability that would lead to retirement or sick leave. During the 1990s, research mainly conducted in Finland introduced a broader, more holistic view of work ability into the literature of occupational health. The so-called Work Ability Index (WAI) was developed. It constituted a summary measure, which was based on a questionnaire covering various individual-level and work-related aspects. It has later been translated into several languages and used in occupational health practice and research worldwide.

- Occupational health research in Finland has a long-standing tradition of applying a broad concept of work ability. The approach seems to be different in most other countries, although the research in other countries has also utilized the Work Ability Index or at least a single item thereof.
- Theoretical analysis based on the concept of work ability is sparse. Most studies do not explicitly state their theoretical framework despite referring to various measures of work ability in the analyses.
- Measures of work ability have well predicted early retirement or intentions to retire.
- Several studies have used work ability as an outcome variable to identify factors that are positively or negatively related to it.
- Work ability, along with motivation and the opportunity to work, can be seen as intermediate steps to early retirement.
- Health and individual capacity are associated with work ability.
- Work ability has been found to decline with age, especially in jobs with physically strenuous tasks. This may result from the age-related decline in physical fitness and other health parameters.
- The physical, environmental and organizational working conditions appear to correlate with the perceived work ability.
- Due to low levels of education and learning difficulties, some older workers are locked in jobs that are physi-

cally demanding and where their lower physical fitness constrains their work ability. Their limited capacities may also hinder retraining measures and their rehabilitation into other less strenuous jobs.

- Within an overall view of the research available, the work ability of unemployed workers has been studied scarcely.

Analysis of research

- The research on work ability has often been performed following a cross-sectional approach. A significant number of large-scale longitudinal studies using register data has shed light on the causal relations of the determinants of work ability and the work ability and retirement. This research adequately covers the relationships between health, work factors, and work ability.
- Theoretical and qualitative research on work ability is scarce.
- The research mostly focuses on the domain of health. The involvement of other work-related research, like economics or productivity analyses, may enlighten the existing approaches.
- The commonly used summary measure of the Work Ability Index can potentially hide the complexity of work ability. Several determinants of work ability, such as health, absenteeism, and subjective well-being, are included in the index. In the studies on the determinants of work ability, using the summary index can give too high associations between the determinants and the outcome variable that already contains the predictors under study. It is therefore important to use other independent measures of work ability when identifying potential predictors of work ability.

Consideration of the cross-national diversity

- In the research on work ability, disability retirement has been the main outcome variable. National differences in pension systems and the general employment condition for older workers may explain some of the variability in the results.

Research needs

- Theoretical research on work ability may provide new stimulus for the study of the complex concept of work ability. Advanced theoretical models may improve the

study of interactions between the various determinants of work ability.

- The multidimensional model of work ability allows the aggregation of different variables and structures related to work ability. It also offers the possibility to promote and maintain work ability in companies and provides employers with hands-on knowledge to carry out operational measures, e.g. in the realm of age management. There is, however, a basic need to empirically verify the impact of the various influencing factors on work ability at different stages of the life course.
- The ICF framework deals with the classification of disabilities. It may be worthwhile to relate the concept of work ability to the ICF as well.

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3.10 Motivation to work

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Executive summary

There is growing scientific attention to motivational aspects of retirement planning and decision-making. In this, factors like the intrinsic motivation to continue working, the general attitude towards work and retirement, and influences from the social environment that may affect retirement timing, have increasingly been taken into account during the last decade. A review of the literature reveals a very broad and conceptually heterogeneous area of research that draws upon a variety of theories and approaches to explore the link between motivational factors and retirement. With respect to the regional origin, research activity is distributed quite unevenly across Europe, with the main body of research originating from Northern and Western Europe, while the topic seems largely neglected in other countries included in this review.

Available findings suggest that motivational factors are a key determinant in the decision-making process towards the work-retirement transition. As the domain of motivation has only been advanced fairly recently, there is limited data available, and evidence on specific aspects is not conclusive. For example, the predictive power of retirement intentions with regard to retirement behaviour has shown to be limited on some occasions given the time lag between the survey and the actual event. Future research should aim to advance knowledge about the relationship of motivational aspects and retirement decisions to close prevailing research gaps.

Core findings

Motivational factors underlying the decision to continue working or retire are an emerging area of research and as such fairly under-researched in many European countries. Quantitative research methods are predominantly applied,

but some qualitative studies also exist. Most studies follow a cross-sectional approach, and very few studies are available using longitudinal data.

- The studies under review reveal that the motivation to work at higher ages is often based on intrinsic motives. Moreover, the findings indicate a shift of people's motives rather than a general decline of work motivation with age. Older workers appear to be more motivated by intrinsically rewarding job features than by extrinsic ones like financial rewards. They also seem to have a greater need for a challenging and fulfilling work environment to remain motivated.
- The experience of a meaningful work, the enjoyment of work, the perception of a certain level of autonomy and objectively existing choices, as well as social support and appreciation at work have been shown to be among the main intrinsic motivators for older workers to continue working until state pension age and beyond.
- Attitudes from the close social environment, in particular from partners and close friends, have also been identified as an important determinant for retirement planning of older workers.
- The impact of social norms and values on retirement timing has been explored and a correlation of high early drop out of older workers was revealed in countries with a rather "exit-oriented retirement culture".
- The available research highlights that understanding the effect of motivational factors on retirement behaviour also requires the consideration of extrinsic conditions, notably the health status and financial factors related to retirement decisions of older workers.

Analysis of research

- Research in this domain has mostly been advanced by psychologists and, to a lesser extent, by sociologists, gerontologists and economists.
- Most investigations employ a cross-sectional approach. Only very few studies follow a longitudinal design or include a subsequent follow-up to identify actual early exits in the sample period.
- Quantitative outnumber qualitative studies. Some authors expressed the need for more mixed-method approaches to combine the strengths of both research designs.
- Gender aspects have rarely been taken into account in existing studies, and very few of them have applied a life course perspective.
- Despite the importance of motivational factors for retirement decisions, which has been emphasised in many studies, the topic appears relatively under-researched in comparison to other domains.

Consideration of the cross-national diversity

- As to the regional origin, research is distributed quite unevenly across Europe, with the largest body of research originating from Western European countries like the United Kingdom, the Netherlands and Belgium. Some studies have been carried out in Scandinavian countries, notably Denmark and Norway, and very limited evidence is available from other countries. Very few studies apply a European comparative perspective.
- In all likelihood, this imbalance of geographical coverage also results from the uneven distribution of investigators that advance research in this domain, as well as the varying availability of appropriate secondary data sets of a respective country.
- Findings on the impact of motivational factors on retirement decision-making are largely consistent across the countries included in this review. However, there appears great cross-national variation in terms of social norms and values regarding early retirement. Studies assume that “cultural retirement patterns” exist, with some countries exhibiting a comparatively “exit-oriented transition-to-retirement-culture”.
- Such diverging social norms across countries may also be the result of differences in welfare regimes and social policy.

Research needs

- Research on the impact of motivational aspects on employment and retirement behaviour has only been advanced rather recently. Thus, only a limited number of studies are available so far. In view of the importance attributed to the topic, increased efforts to expand the current state of research are highly recommended.
- The domain is largely driven by researchers from the United Kingdom, the Netherlands, Belgium, and the Scandinavian countries, while there is limited evidence across all other JPI countries. There is the need for comprehensive cross-country comparisons.
- Longitudinal studies are needed to examine whether retirement intentions match retirement behaviour and whether factors that older workers cite as being decisive for retirement planning remain important throughout the actual retirement decision-making process.
- Gender differences in the impact of motivational factors on work and retirement decisions have been neglected thus far. Future research should consider this.
- There is also a need for research to better understand the image that older workers (and older persons in general) have in society. Until now, existing research focused on the perceptions and stereotypes of employers. However, the views of colleagues at work, peers, and older people themselves, but also the presentation of older workers in the media, may be as influential in the motive structure to continue working or retire.

Research policy options

Given the relevance of motivational factors for employment participation and retirement, it seems overdue to promote and facilitate research in this field to better understand the decision-making process of older workers. This would help identify appropriate policy measures on organisational and national level, while improving motivation and work satisfaction of older employees and thereby supporting the extension of working lives.

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4

National reports

4.1 National report: Austria

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Introduction

A recent study expects the Austrian workforce to see a slight increase in numbers until 2030, rather than a drop. The reasons are better education, changing (female) labour market behaviour and the effects of recent pension reforms, which restricted the access to early retirement pensions.

The labour market participation of workers aged over 55 has grown steadily since the turn of the millennium. However, compared to other EU countries, employment rates for older workers in Austria are still quite low. These reflect both the legal provisions that facilitated early retirement for a very long time as well as the labour market discrimination against older workers. The latter may be assumed from the higher unemployment rate among older workers.

In Austria, early retirement was used extensively for many decades to mitigate the employment effects of restructuring. Since the mid-1980s, numerous pension reforms have led both to limitations in the access to early retirement schemes and to considerable reductions in benefit levels. The 2003 Pension Reform and the 2004 "Harmonisation" of all pension schemes led to the abolition of all early retirement pensions and a fundamental reform of the calculation mode, which is now extended to a person's entire lifetime earnings. Since the year 2000, the effective retirement age has been rising, not least because of these restrictive pension reforms. At the same time, however, the time gap between exit from standard employment and receiving a pension benefit has increased.

National research on the determinants of employment participation

In Austria, research on the issue of labour market participation and the (early) retirement of older workers is available but limited. In the existing research, the different determinants or domains are treated and covered quite differently. In addition, the investigation of the determinants of employment participation is somewhat inconsistent, which means that a broad view is rarely adopted in the studies available.

Research on the labour market participation and (early) retirement of older workers is clearly dominated by economists in Austria. Some fewer (descriptive) studies have been carried out by sociologists or political scientists. Some specific issues have also been investigated by psychologists, such as motivation, and by gerontologists, such as human resource management. Hence, quantitative studies and, above all, economic or econometric analyses are prevailing. Most studies therefore adopt a macro level perspective, whereas qualitative studies are very scarce, and the individual perspective is hardly examined.

Reports from ministries and institutions, such as the Public Employment Service, as well as data and studies provided by Statistics Austria and the Main Association of Austrian Social Insurance Institutions add to the number of scientific studies. Non-scientific reports and homepages also provide many examples of good practice and measures to promote health and work ability or rehabilitation, mostly initiated by the social partners. European studies mainly discuss the Austrian situation on an aggregate level, based on SHARE data and the European Labour Force Survey.

Labour market

Several reports and studies issued by national authorities (e.g. Public Employment Service) give an overview of the labour market for older workers. A few comparative studies on the aggregate level exist. Some findings: Older workers are forced or at least encouraged to retire earlier by the employer, especially in times of economic recession. Strong evidence that older people experience unemployment before receiving a pension benefit.

Legislation and its implementation

A few comparative studies (carried out in Austria) investigate the different pathways through which older workers leave the labour market. In Austria, early retirement is the most important exit route. Some studies on pension reforms are available. Some findings: Overall increase in the effective retirement age, but at the same time, growing time gap between exit from full employment and receiving a pension benefit.

Financial factors

Some econometric studies on the impact of incentives and penalties on the labour supply side; findings are rather varied. Some studies based on SHARE data and results are only presented at an aggregate level. Only one study exists on the impact (of the layoff tax for older workers) on the labour demand side. Some findings: Substantial reductions in the displacement of older workers.

Social position

Some studies are available. Three main items influencing retirement behaviour are: Class, gender and education. Some findings: The lower the social position, the higher the early retirement intentions. Women leave their jobs at a younger age than men. People who spend more time in education retire later.

Domestic domain

Only one national study exists. Findings: Workers' intention to exit the labour market due to care obligations is shaped by the different characteristics of informal caregiving. Differences exist between women and men.

Two studies based on SHARE data analysing the impact of grandparenthood on retirement decisions and spousal interaction effects on the timing of retirement, but results are only presented at an aggregate level.

HRM and interventions

Several descriptive reports and case studies exist but only very few primary studies evaluating the effectiveness of measures. Age discrimination and stereotypes against older workers remain a rather unexplored field in Austria.

Work factors

Three studies focus on the relevance of working conditions for retirement behaviour in Austria suggesting that approximately one third of early retirements might be delayed by improving working conditions.

Health and health-related behaviour

Several (national and comparative) studies on the connection between ill health or disability and labour market exit. Some findings: Strong influence of ill health on both, voluntary and involuntary early retirement. Even the perception of having poor health has a tremendous effect on the labour market participation. Mental illness has a high negative impact on labour market participation.

Work ability

More reports than studies are written by those carrying out health-fostering programmes. Focus on rehabilitation. Clear connection with the health domain. Finnish "Work Ability Concept" important especially within rehabilitation programmes. Some comparative studies including Austria, but results are only presented at an aggregate level.

Motivation

Two studies referring to intrinsic work motivation factors show consistent findings: The higher the motivational factors the more likely an older worker is to remain in employment until statutory pension age. Two studies comprise questions on retirement culture and norms showing the still prevailing exit-oriented transition-to-retirement culture in Austria. A survey on transition from work to retirement indicates, on the contrary, that people plan to retire later than they actually do. This is especially true for the higher educational attainment level.

Conclusions for research needs in Austria

- One research need would be to examine more closely the retirement behaviour in different sectors, i.e. close examination of working conditions and the quality of jobs of older workers.

- In-depth qualitative studies are required that complement quantitative analyses of the impact of pension reforms to learn more about the opportunities and options available to older workers.
 - Research on the extent and the determinants of involuntary early retirement (i.e. labour demand perspective) would be of great interest.
 - There is a need for longitudinal research on different cohorts of older women and men regarding labour market participation and early retirement behaviour.
 - Research to understand the retirement transitions of couples, the impact of divorce, widowhood and grandparenthood as well as family eldercare on the labour market participation of older workers is highly needed.
 - An evaluation of the impact and effectiveness of human resource interventions on the work participation of older employees as well as an analysis of the challenges their implementation causes would be interesting.
 - It is also important to conduct research on the attitudes of employers and colleagues towards older workers and collect evidence regarding age-discrimination practices and their effects, especially concerning older female employees.
- More studies investigating the influence of work factors on the effective retirement behaviour (and not only evaluating retirement intentions) would be necessary.
 - Qualitative research on the motivation of older workers, as one key influence of retirement decisions is needed.
 - All analyses should take gender- and class-specific effects into account.

Research policy options

Future research should apply a broad view and take the different determinants of employment participation of older workers into account. In relation to this, qualitative and mixed-method approaches would be necessary to understand the complexity of individual decision-making within the context of multiple determinants on different levels. This also requires an extension of the involved academic disciplines and broadening beyond the field of economics.

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4.2 National report: Belgium

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Introduction

Belgium, a state composed of three language communities and three regions, has multi-level legislative and executive powers of government, as well as a substantial degree of socio-demographic heterogeneity across the country and its subdivisions. For example, employment behaviour and the retirement behaviour of the elderly have a regional gradient. In addition, numerous individual and other contextual determinants are at play. Overall, the labour force participation of the Belgian population begins to drop at the age of 50. In comparison to males, female employment is still lower, but the magnitude of the gap today is not comparable to that seen a few decades ago.

This is mainly due to a noticeable recent increase in labour force participation, especially by women, but also by men. In an international comparison, both female and male employment rates are still fairly low. A range of policies was introduced to increase labour force participation of older workers in Belgium. For example, the law on the Intergenerational Solidarity Pact, which was adopted in 2005, marked a turning point in policy formulation moving away from a “deactivation” strategy to an activation strategy of older workers. It proposed a first, yet modest, set of ageing policies and launched respective reforms.

National research on the determinants of employment participation

In Belgium, research on the determinants of employment participation of older workers is fragmented and mainly focused on factors associated with (early) retirement or part-time employment. The economic literature offers quite an extensive series of econometric studies that evaluate the role of social protection policies, such as old-age pensions, unemployment benefits or disability payments,

on retirement decisions. This research is based on survey and administrative data, as well as cross-sectional and longitudinal microdata. Studies based on longitudinal and administrative data reach back to as early as 1983. Most studies focus on the analysis of the private sector and more specifically of wage earners, mainly due to data limitations.

Overall, the studies seem to suggest that the prevailing social security arrangements are largely responsible for the particularly early and high retirement rates among older workers. There are indications that (early) labour market exits could also be the result of labour demand issues. However, the literature on this question is very limited. Another focal area of research is on the evaluation of working conditions as a dimension of work sustainability.

Overall, available studies are not strictly focused on the domains defined for the present comparative review. For example, econometric studies that investigate relevant reforms or financial incentives often include household characteristics or the individual health status as determinants for retirement decision-making. The measurement of health is particularly heterogeneous across studies and might be related to the highly controversial results regarding the measurement and the role of health. Numerous methodological improvements could be achieved, e.g. by better addressing endogeneity and the multi-dimensional nature of health. A cross-examination or replication of results has hardly been undertaken, leaving some uncertainty about the broader validity of results. There was also a lack of sensitivity analyses when using different variable specifications or different data sources. Very few studies exist on the issues of work motivation and work ability, or human resource management interventions. Thus far, financial incentives have mainly been studied in relation to social security schemes. No qualitative or experimental design studies have been identified.

Labour market

A few econometric studies exist, with data references from 1983 to about 2009. Findings show that substitution effects between young and old workers is either not existent or could have an effect through wages rather than employment. Some regional aspects are explored. Lack of research on numerous other labour market aspects, including demographic and socioeconomic settings.

Legislation and its implementation

By far, the best addressed domain. Studies focus on the role of social security. Some findings: Social insurance system induces workers to retire early with varied effects for men and women. Lack of research on the region of Wallonia, the role of non-cash benefits, and interactions between the tax and benefit system. Also under-researched are effective benefit take-up by those entitled as well as imperfect targeting.

Financial factors

Few studies only, with the main focus on the financial incentives due to social security, overlap with the legislation domain.

Both household wealth and financial incentives linked to social security lead to higher probability of retirement.

Social position

Few studies, mainly on gender, education and age. Gender: Not always significant for retirement, but for participation in part-time employment schemes. Education: The higher the education level, the lower the probability of retirement and reduction of working hours. Age: "Pure" and interaction effects, age thresholds addressed. Further research needed on age, gender, and education, also on numerous other socio-demographic characteristics and gradients.

Domestic domain

Many econometric studies address one or a few household determinants, though broader perspective is lacking. Some studies address work and family conflict, one study investigates the issue of locality and another study takes the wider "private" domain into account. Some findings: Retirement, especially of women, is strongly influenced by the partner. Diverse effects due to work and family conflict. Locality influences the level of social participation.

HRM and interventions

Few studies identified. Some findings: Lower activities in personnel management of older workers are due to strong and numerous government regulations. Human resource practices aimed at older workers can have negative effects. Early exit from the labour market may also be due to "push" behaviour by employers, which also seems socially accepted in view of the existing social security arrangements.

Work factors

Conceptually diverse studies available with main analyses on work sustainability. A large volume of work is done on the basis of the European Working Conditions Survey, a special edition for Belgium (2010) exists. Some findings: Importance of work sustainability and the "quality of jobs". Very good intergenerational relations at work reduce intentions to quit. Contradictory effects regarding the autonomy in performing tasks and job satisfaction across studies.

Health and health-related behaviour

Most of econometric studies include health as retirement determinant. Inconclusive findings emerge: The link to health is either highly significant or weak or insignificant. Health seems to matter in correlations but not in econometric studies; better specifications of (acute) health conditions are needed. Self-reported health status is likely to be endogenous. Objective health indicators should be taken into account. Interactions with work factors are important.

Work ability

Few studies exist, mainly on productivity. Some findings: older workers are slower in performing tasks. Workers above 49 years are significantly less productive than their younger colleagues, with large gaps found for ICT firms. Older workers are paid above their marginal productivity, which could have consequences on firms' profits if higher employment rates of the elderly are eventually achieved; productivity variables should be interpreted with caution.

Motivation

Few studies exist, mainly from psychology and with focus on negative stereotypes of age-related motivation to work. Some findings: Early retirement is a Belgian retirement norm. Public perceptions of themselves as "older workers" matter. Work motivation has an indirect effect (through wages) on labour market participation.

Conclusions for research needs in Belgium

- A dynamic perspective is lacking: People at an advanced working age now have different behaviours than the generations to come. Simulations on changing demographics and social norms are needed.
- Wider interactions across policies are still missing like those between taxes and social policies. Micro-simulation studies using tax-benefit models would be of use. Also policy implementation issues, such as imperfect take-up of benefits or leakage beyond the target population (e.g. emerging evidence on disability insurance), are not yet addressed with respect to employment.
- No major cross-discipline, like psychology or (health) economics, was represented in the reviewed research.
- Labour demand issues and employer or sector attributes are highly under-researched.
- Household and population heterogeneity is under-researched: Most studies are done on rather stylized private sector wage earners.
- The regional dimension and the role of in-kind policies are under-researched.
- Sensitivity analyses regarding the choice of data sources and model specifications are needed.

Research policy options

- For achieving a better understanding of early exit behaviour and paths among older workers, research based on administrative data has to be expanded, access to administrative data has to be widened, and new types of data need to be provided, e.g. increased use of matched employer-employee datasets. This may require the reconsideration of today's strict data protection regulations.
- Interdisciplinary research initiatives at the nexus of disciplines and domains are necessary to advance and substantiate research in the field.

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4.3 National report: Canada

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Introduction

Compared to most European countries, public pensions in Canada offer a relatively low income replacement rate at age 65 to middle and higher income workers. Retirement behaviours among these workers are, as a consequence, sensitive to trends in private pension coverage and their characteristics, return rates on private savings, age of entry in the labour force or other major transformations in the life course of individuals and families. Over the last two decades, trends in these factors have mostly evolved in a direction that has been encouraging older workers to stay longer in the labour force, even without major legislative changes.

Also, even if Canada is facing one of the fastest aging of its population, projections show no declines in the size of the labour force over the foreseeable future, thanks to increasing labour force participation among women and among older workers, and high immigration. Although the age of eligibility of the universal non-contributory pension is scheduled to increase from age 65 to 67 between 2023 and 2029, pressure to increase the statutory retirement of the public contributory pension scheme – currently at age 65 – has not been strong. In fact, pressure to increase the income replacement rate of this program has been stronger than the pressure to increase the statutory retirement age. Discussions over these issues are most certainly going to be part of the political background over the next few years.

National research on the determinants of employment participation

In Canada, there is an abundance of studies on work participation and early retirement of older workers. There are much fewer studies on the factors explaining a possible return to work after early retirement. Many

analyses are descriptive, but there are plenty of analytical quantitative researches on the determinants of work participation at older ages using regression analysis. Most of these studies are cross-sectional and apply limited-dependent variable models to various surveys or Census data; few use survival (longitudinal) analysis models. Review domains that are excluded from the social surveys of Statistics Canada are less covered. They are mostly treated through focussed qualitative surveys performed within large public service companies; take for example, the domains of work ability or motivation.

More recently, a few studies were realised using linked income tax data files. Such data sources can provide a longer life course perspective and broader view, particularly when linked to earlier census data, but their access is highly restricted outside government researchers.

Labour market

Highly covered. Regions with more dynamic economic activity have higher age of retirement. Retirees in regions where unemployment is high are less likely to return to work, and workers in rural areas are more likely to enter bridge employment. The mid 1990s trend toward early retirement was driven by public sector cutbacks and restructuring in many private sector industries.

Legislation and its implementation

Less covered. Public retirement income system has limited effect on retirement of middle to higher income Canadians before age 65, but can be important among low income. A modelling analysis has found that increasing the actuarial penalty of the Canada pension plan (CPP) for retirement before age 65 would have little effect on retirement age. Also, removing the mandatory retirement

at 65 in most jurisdictions is not having a major impact on the effective retirement age as it is not one of the main reasons to retire.

Financial factors

This is probably the most highly covered dimension in Canada. Financial factors are the most important reasons to delay retirement or to return to work. Private pensions set strong incentives to retire before age 65 (or even 60), and mostly affect middle to higher income earners.

Social position

Highly covered. Age is, of course, positively related with retirement, but younger retirees are more likely to return to work, as well as men compared to women. Age at retirement is lower for women, but is converging. Immigrants tend to retire later than Canadian-born workers. Those with a university degree are much more likely to work passed the age of 65 than those with lower educational attainment.

Domestic domain

Less covered. It is estimated that incidence of joint retirement lies between 20 % and 40 %, and that it increases with income. Retirement decisions are thus likely taken jointly by spouses, which may explain the higher probability to continue working among those with a spouse that is also working. Fertility history also has an impact: Having 2+ children increases the risk of expecting late retirement. Being a caregiver can be an important factor to early retirement, especially among females.

HRM and interventions

Less covered. Duration in the same job is positively correlated with early retirement. The effect of changes in work arrangements on the desire to work longer varies between occupation and sectors, and younger retirees respond more favourably. Retirees and workers view the recognition of the experience, knowledge, skill, and expertise of mature employees as positive measures of retention or attraction.

Work factors

Average coverage. Managers and professionals are more likely to work later in life than blue collars, and managers are more likely to return to work. Self-employed seniors tend to retire later than employees, but show less vulnerability, as measured by involuntary retirement, in their trajectories. High job strain (especially for females), job dis-

satisfaction, low supervisor support and physical demands (particularly among males) are significantly related to early exit from the labour force.

Health and health-related behaviour

Highly covered. Health status and health shocks are important factors driving early retirement and work status. Effect of disabilities is cumulative, and not all disabilities have an equal impact on retirement and work status. Obesity and other behaviours, such as daily smoking or heavy drinking, were also associated with early exit from the labour force.

Work ability

Less covered. Unmet expectations about working in a pleasant environment and acquiring new competencies increase the probability of retiring early. Older workers are less likely to get training than workers aged 25–54 years, and higher rates of training are found in public sectors, big firms and service industries and among higher educated, higher income white and blue collars.

Motivation

Less covered. The longer people believe that others in their life think, they should work, the higher their planned retirement age. Retirees whose life satisfaction has improved since retirement are less likely to declare that they would have kept working even if they had benefited from some working arrangements. Similarly, the second most cited reason for going back to work is that the respondent did not like retirement.

Conclusions for research needs in Canada

- There exist numerous studies on the early retirement issue in Canada, but fewer on the determinants of return to work. Few studies cover a wider range of determinants of retirement.
- Access to linked administrative data files should be improved. Data that sheds light on the employers' perspective on the issue of the ageing workforce is almost non-existent.

From a Canadian point of view, the following questions represent urgent research needs:

- The retirement behaviours and expectations of immigrants;

- » The effect of the changing nature of marriages or unions on joint retirement;
- » Changes in the life course and their impact on retirement age, especially among women;
- » Impact of wealth on the decision to retire;
- » Changing labour market conditions and the implications for future trends in labour force participation of those aged 60 and over;
- » How values and attitudes toward staying longer in the workforce have evolved and their possible impact on extending the working life;
- » The impact of increasing the pressure on family members to provide homecare services on the labour supply of baby boomers;
- » The relation between specific disabilities on retirement and work status (especially mobility): Are there measures that can mitigate the effect of such disabilities?

Research policy options

- » Targeted funding in the area of labour force participation among older Canadians seems critical and urgent in the context of population ageing given that the characteristics of older workers are changing, and results from past research may not always hold in the foreseeable future.
- » Qualitative research that investigates the changing values and attitudes of workers, unions and employers toward the extension of working life would provide valuable information on the social acceptability of potential public policies.

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4.4 National report: Denmark

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Introduction

Compared to other countries in Europe, the predicted demographic changes until 2030 and beyond will be less pronounced in Denmark. The total labour force is expected to increase, but still the fraction of the working age population (15–64 years) will decline from 65 % in 2010 to 60 % in 2030. The Danish government has, in 2012, introduced a gradual increase of the regular retirement pension age from 65 years today to 67 years or more in 2024. In addition, a new law “Agreement on later retirement” was launched in 2011, limiting the incentives for early voluntary pension and gradually reducing the period for obtaining voluntary early pension from five to three years. The fraction of occupationally active persons in the age group of 60–64 years has increased markedly from 33 % in 2000 to 49 % in 2012. In 2010, the employment rate of women and men aged 64 years (the year before ordinary retirement age) was 22 % and 40 % respectively.

National research on the determinants of employment participation

In Denmark, research on the various determinants of work participation and (early) retirement of older workers has been conducted, and many studies cover multiple determinants simultaneously. Most studies are quantitative, cross-sectional assessments of determinants and risk factors for early retirement, disability pension or intention to quit, but some studies are prospective follow-up studies using data linkage to national registers on health, pension and employment history data.

Labour market

Mostly descriptive analyses. Some findings: 51 % of Danish workplaces have a policy for the retention of older em-

ployees, and in three out of four of these workplaces the policy exists in written. One out of four of employees aged 60–64 years has an individual senior agreement. Limited possibilities for new employment still seem to be an important reason for early retirement.

Legislation and its implementation

Three descriptive studies. Some findings: The age limit for voluntary early retirement determines (to a higher extent than the age limit for ordinary pensions) when employees age 55–59 years expect to retire. Only 55 % expect to continue working after age 60 years, and only 15 % expects to continue working after the ordinary pension age (65 years).

Financial factors

Two descriptive studies. Some findings: If the size of economic compensation in voluntary early pension is small relative to the income of present employment, senior employees tend to retire later. For a large fraction of senior employees, economic incentives may postpone their retirement.

Social position

Four descriptive studies. Some findings: A strong social inequality gradient exists in voluntary early retirement. People with higher education – and higher income – tend to retire later. Persons who entered voluntary early retirement as early as possible (age 60 years) had, to a higher extent, a work-life history of receiving social benefits (e.g. sickness absence benefits and unemployment benefits) during the previous five years.

Domestic domain

Three descriptive studies. Some findings: Women retire earlier than men, and single adults retire earlier than adults living with a partner, particularly women. Men living with a spouse with equal or higher age retired earlier than men living with a younger spouse. One third of the persons who have entered voluntary early pension say that they wish to give family and leisure time activities a higher priority.

HRM and interventions

Few studies. Some findings: More than half of the managers believe that younger employees are more competent in information and communication technology (ICT) and more ready to changes, but in general, the managers do not consider younger employees to be more productive, better at self-governance, more engaged or have less sickness absence than elderly employees. The majority of managers thinks that elderly employees have failed to preserve and develop their competences.

Work factors

Several studies. Some findings: *Disability pension*: Symptoms of depression as well as high physical work demands were risk factors for disability pension. Physically demanding work, working with hands lifted, and repetitive work were risk factors for disability pension among both men (attributable fraction 21 %) and women (attributable fraction 34 %). Among women, occupational skin contact with cleaning agents or disinfectants, and shift work were risk factors for disability pension.

Voluntary early retirement: Conflicts at work, low possibility for skill development, and physically demanding work were risk factors for voluntary early retirement. Low organisational commitment was related to intention to early retirement, and 25 % of the persons who entered voluntary early retirement stated the cause to be exclusively related to the work.

Health and health-related behaviour

Several studies. Some findings: Poor health is (by definition) related to disability pension. Poor health is also related to voluntary early retirement, and one out of six of the persons who have entered voluntary early retirement state that the cause is exclusively health-related. Several studies revealed that chronic diseases may be associated with reduced labour market participation.

Work ability

One study. One point decrease in work ability (a single item on a 10-point scale) was associated with 33 % increased risk of early voluntary retirement and 15 % increased risk of long-term sickness absence.

Motivation

A few studies. Some findings: The majority of employees decide in their fifties about when to retire for work. Motivation to work at higher age is often of an intrinsic nature, e.g. due to high job satisfaction, feeling a professional pride and recognition, engagement/ commitment, feeling of meaningfulness in the work, influence at work, or opportunities for personal development at work.

Conclusions for research needs in Denmark

- In Denmark, several studies on determinants for work participation have been conducted. However, the studies have mainly been questionnaire-based cross-sectional surveys. Compared to most other countries in Europe, Denmark provides unique possibilities for register-based follow-up studies, and this should be integrated in the research to a much higher degree.
- Economy and human resource management research could provide a stronger contribution to evidence through better integration with the research in early exit from employment.
- In-depth qualitative studies are generally lacking, and research is lacking on the reasons for some senior employees to choose to continue to work several years after the time when they could have entered voluntary early retirement or ordinary retirement pension.

In Denmark more knowledge is needed on:

- Older people working with longstanding illness and functional limitations. This fraction of the workforce will grow rapidly in future.
- The drivers and barriers for employers to employ and retain older workers.
- Effectiveness of policies, regulations and workplace activities in occupational health and human resource management to prolong older peoples' working life: When are they effective? For whom?

Research policy options

The Danish research in this field is scattered at several, relatively small and separated research units each with a somewhat narrow research focus. Integration of the different perspectives and methodological research approaches (i.e. qualitative/quantitative, mixed-methods intervention studies/ organisational case studies, life course prospective epidemiological studies) may be necessary to fully comprehend the complexity of early exit from employment.

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4.5 National report: Finland

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Introduction

The population in Finland is ageing faster than in most European countries. In 2005, a pension reform was conducted, which introduced a flexible retirement age and allowed employees to retire at their preferred time between the ages of 63 and 68. Pension accrual rates were changed to be age-dependent. In addition, the opportunities to retire early through various early retirement routes were restricted considerably. In 2014, a decision on a new pension reform was made to gradually increase the statutory retirement age after 2017.

National research on the determinants of employment participation

In Finland, several studies based on large cross-sectional and longitudinal data have investigated the determinants of employment participation. Both descriptive and econometric methods have been applied. The combination of survey data with register data has allowed the comprehensive evaluation of several determinants and outcomes of retirement and labour force participation. Plenty of this research has been reported internationally and in peer-reviewed scientific forums. The surveys have thoroughly analysed the well-known determinants of disability related to the individual and to prevalent work factors. Motivational aspects have been investigated by asking about intentions to retire, and the actual retirement behaviour has been studied on the basis of register data.

The quantitative studies have mostly concentrated on analysing specific associations between risk factors and outcomes related to the domains below. The number of qualitative studies is limited although growing. In general, Finnish research has covered many domains, and in some domains, a multidisciplinary approach has been adopted.

Labour market

Effects of the labour market have been studied widely with registers and survey data. Adverse changes in the labour market have increased early retirement. Sectorial differences exist. Self-employed persons retire later than others.

Legislation and its implementation

Effects of the reforms in pension (2005) and part time sick-leave (2007) have been evaluated with register data. Higher age limits, the abolition of certain early retirement routes, and part-time sick-leave have been shown to postpone retirement and increase employment among the elderly. In contrast, lowering the age limit of old-age retirement from 65 to 63 years of age in 2005 led to an increase in retirement propensity of 63 and 64 year old persons.

Financial factors

Income has been evaluated with surveys and registers. Effects are twofold: Those with higher income tend either to retire earlier than others or postpone retirement to older age. Those with highest income are more likely to transition into old-age pension directly from work. Those with lower income mainly exit from the labour force through other channels (e.g. disability or unemployment benefits).

Social position

Socioeconomic and educational differences have been thoroughly investigated in several studies. Ill-health and physical working conditions contribute to socioeconomic differences in disability retirement. Low education is associated with lower work ability.

Domestic domain

Domestic factors have been studied, especially with respect to the intention to retire. The socioeconomic situation of the family matters. Those who live on their own are more prone to continue working than those cohabiting with their spouse. The labour market status of the spouse is important in retirement decision-making.

HRM and interventions

The role of organizational and psycho-social work factors has been well investigated. Perceived organizational justice, social capital and employers' support have prolonged working careers. Possibilities to control working hours has been an important factor predicting sickness absence, disability pensions and extended work careers.

Work factors

Commonly known health risk factors at work have been included into most studies. Retirement is affected more by work-related factors and work-life interaction related factors than by personal factors.

Health and health-related behaviour

Health has been included in most studies of work participation. It has been analysed based on self-reported ratings but also on register data linked to sickness leaves. Poor self-rated health and multiple diseases increased the risk for disability pensions.

Sleep has been included to the analyses, along with the more traditional items of health behaviour, i.e. smoking, alcohol, physical activity, overweight.

Work ability

In the legislation of disability pensions, the (non-) presence of a work-related disability is the main determinant of work ability. Plenty of research studied work with the help of the work ability index or with a single index question to find independent outcomes or predictors for retirement.

Motivation

Motivation has been invested in several studies based on the intention to keep on working until the pension age or leave work earlier. Positive and optimistic attitudes about work have been derived from a subjectively better self-evaluation of work ability and a relatively fast return to work after a depression.

Conclusions for research needs in Finland

- The determinants of employment (and their underlying domains) are inter-related. A system approach is needed to further estimate the strengths of these interactions and identify the most relevant target populations for preventive actions.
- The implementation of preventive actions should be investigated and reported more thoroughly. For this, qualitative and quantitative evaluations are needed. Although singular case reports cannot be generalised, it should be possible to integrate experiences in systematic reviews and meta-analyses of case studies.
- Since one of the central aims of the past and future pension reforms is the extension of working lives, the determinants of the length of working careers need special attention. Employers' attitudes towards hiring older persons are crucial in obtaining this goal.
- Valid and simple methods are needed for analysing and developing accessibility. Data banks on good practices for accessibility and workplace accommodations should be developed.

Research policy options

- The research has focused on the identification and monitoring of the determinants of work participation and early exit from work. Prevention and intervention studies are scanty. Even though planned comparative trials in real life are demanding and often impossible to perform, it is possible to study the effects of large-scale organisational interventions with new statistical methods in the rich cohort data available and combine this with registers.
- As the retirement ages are rising and the number of workers with chronic diseases will most likely grow, it is essential to develop new work-related models, management practices and policies to support an extended participation of the ageing workforce in the workplace.

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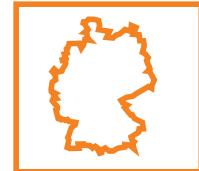
4.6 National report: Germany

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Introduction

Germany has the highest old age dependency ratio in the European Union now and in the foreseeable future. The labour force potential, i.e. the number of people available to the labour market, has already reached its maximum of 45 million and is projected to linearly decrease by 400.000 people per annum. In light of these demographic trends, the German government reduced early retirement incentives and, in 2007, introduced a gradual increase of pension entitlement age from the age of 65 to 67. Work participation rates of older workers have increased substantially in the past decade. Still, the employment rate of women and men aged 64 years, i.e. the year before official retirement age, only stands at 13% and 18% respectively.

National research on the determinants of employment participation

In Germany, research on the issue of work participation and (early) retirement among older workers is available but limited. Gerontologists have applied a broad view, predominantly in a descriptive way. Other scientific investigations – if available – remain focused on single domains. Quantitative assessments of the determinants and risk factors for early retirement usually analyse cross-sectional data and focus on different early exit options, disability or non-disability early retirement. More research is available on the question of working past the statutory retirement age.

The large European SHARE study has contributed some evidence about the German situation. However, large national cohort studies assessing a broader range of determinants of retirement are missing. One exception is the “lidA Cohort Study”, whose cohorts will be approaching early retirement age soon. Qualitative studies in the

field are very rare. Data linkage with health insurance, pension and employment history data is difficult but has been implemented by lidA and SHARE.

Labour market

Quantitative analyses available, mostly descriptive. Some findings: Lower qualified workers are leaving work one or two years earlier than highly qualified. Older workers face lower chances to be rehired after unemployment. Lack of research on causal explanations and further risk groups.

Legislation and its implementation

Only a few descriptive studies exist. Some findings: Transitions to retirement have changed since 1996. The time gap between exit from employment and drawing a pension is increasing. Expectations to retire early dropped substantially from 1996 to 2002. Lack of research on the impact of the General Equal Treatment Act that was legislated in 2006.

Financial factors

Few studies available, however, only quantitative analyses. Some findings: Insufficient funds or pensions lead to higher motivation to re-enter the labour market after unemployment at higher working age or work past the statutory pension age. Research has neither considered the financial situation of individuals and its family in detail, nor the subjective meaning of finances.

Social position

Only two analyses based on register data available (besides one cross-national analysis with data from SHARE). People with lower qualifications have lower employment

participation rates compared to higher qualified workers. They also begin to draw their pensions earlier, but the relationship is not strictly linear. Lack of analyses with survey data and qualitative analyses.

Domestic domain

Few studies available. Some findings: Marital status and children, caregiving and voluntary work are taken into account. Evidence on the influence of the household situation and partnership are lacking.

Research has focussed on quantitative data from large panel studies like SHARE and GSOEP, and the respective analyses are partly cross-sectional. There is a need for longitudinal analyses and qualitative research.

HRM and interventions

General lack of research, only very few studies available. However, ample anecdotal evidence (e.g. from projects, models of good or best practice). Some findings: Mismatch between older peoples' application behaviour and enterprises' demands. Among different specific measures for older workers in firms, only "mixed-age work teams" were associated with reduced job exits of older employees in employment register data.

Work factors

Only few studies exist. Some findings: Risk factors for early retirement were an effort-reward imbalance (ERI) and low job control. Employment rates vary by occupation from the age of 60. It is lower in unskilled or low-skilled manual jobs. Sophisticated research by Boedeker et al. uses job-exposure matrix. More research needed, especially longitudinal. Lack of research on more recently discussed working demands (e.g. emotional demands, intensification of work, "subjectivation of work").

Health and health-related behaviour

Only some studies available that assess the association of self-reported health and the motivation to work past the statutory retirement age. A broader view covering different domains was applied: Healthy peoples' motivation to work longer depends on their private alternatives and needs (e.g. family life, caring duties).

Health problems, occurring now or earlier in the employment history, lead to earlier retirement. People with poor health intend to work beyond pension age if they feel forced by their financial situation. No research on health-related behaviour available. Only single-item

measurements of health exist (if health was measured subjectively).

Work ability

No German research available.

Motivation

Several findings: There are 12 studies on the intention or motivation to work at higher working age. However, a lot of them focus on employment *after* official retirement age or *after having left employment*. Most research uses survey data and is quantitative.

Register data show that persons who face the risk of old-age poverty are more likely to work when retired, while in surveys, the most important reasons for continuing to work are intrinsic (e.g. enjoying the job). Reasons for working after pension age differ by gender, while reasons to retire are similar (e.g. enjoying retirement, time with family).

Conclusions for research needs in Germany

- In Germany, research activity in the field of older workers' work participation and early exit from work is very limited.
- Disciplines of industrial and organisational psychology and human resource management (HRM) research contribute very limited scientific evidence on early exit from employment and should be better integrated in the research community.
- Qualitative research is hardly available and needs to be implemented, not least for understanding the complexity of employment participation.
- A *temporal research strategy* (following Roe, 2008) has to be employed much more instead of often cross-sectional analyses.
- The access to register data must be improved in Germany.
- The impact and intervention potential of the organisation ("company") in terms of the employment of older workers deserves more scientific attention.

From the analysis, the following research questions evolve:

- » Older people working with longstanding illness or functional limitations: who, how and why?
- » Investigation of the role of “new” work demands and conditions.
- » Research on the effectiveness of interventions in occupational health and safety or HRM to prolong older peoples’ working life.
- » Age discrimination directed to older workers at the workplace is often considered as problem in public discussions, but there is only scarce evidence on its prevalence, its form of appearance and the possible impacts on labour market participation.

Research policy options

- » For achieving a better understanding of early exit behaviour and early exit paths among older workers, research should get easier access to national register data (e.g. employment and pension register data). This may require the reconsideration of todays’ strict data protection regulations.
- » The initiation of an interdisciplinary research exchange on the national level integrating different perspectives and methodological research approaches, such as qualitative, quantitative, multilevel, mixed methods, organisational case studies, and the life course perspective, is necessary to foster a sound and prospering research community.

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4.7 National report: Netherlands

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Introduction

As in many other European countries, the population in the Netherlands is ageing rapidly. It used to be common practice in the Netherlands to leave the labour market through early retirement and disability schemes. To tackle the rising economic burden that an older society may place on the working-age population, the Dutch government has passed several laws in the last ten years and implemented several policies in an attempt to increase the employment participation of older workers.

Measures are taken to discourage early retirement. For example, since 2004 employers have to pay the first two years of sickness benefits, making early retirement through disability insurance much more expensive. Since 2012 the state pension age is being gradually raised from 65 to 67 years. Meanwhile, the mean age of leaving employment increased from 60.8 in 2000 to 63.9 years in 2013.

National research on the determinants of employment participation

In general, research on employment participation of older workers in the Netherlands is well advanced compared to some other countries. Many research domains are covered well, in some domains a broad view has been applied, many scientific disciplines are involved and different research approaches have been adopted. Three cohort studies of ageing persons are available that contain data on health, work, lifestyle and social factors. Statistics Netherlands is able to provide registered data, which are very suitable for scientific analyses.

Also, it is possible for some studies to link survey data to registered data from Statistics Netherlands. In the Netherlands, research related to employment participation of

ten focuses on "sustainable employability", i.e. "duurzame inzetbaarheid" in Dutch. Sustainable employability is a widely supported topic, leading to many initiatives and attracting research funding.

Labour market

Many studies available, but most of them do not empirically analyse employment participation of older workers. Organisations employ significantly more older workers than ten years ago but are not necessarily more likely to recruit older workers.

Legislation and its implementation

Most major policy changes are evaluated in a systematic way, except the implementation of an age discrimination law. Research shows that policies were successfully implemented to discourage early retirement and largely disable alternative ways of early retirement either through unemployment benefits or disability insurance.

Financial factors

Several studies confirm that financial factors play a critical role in determining the employment participation of older workers. Especially low-wage earners are affected by financial factors.

Social position

Some studies exist on the relation between education (or socioeconomic status) and employment participation with mixed findings. No studies available on the influence of gender, ethnicity, income, or profession.

Domestic domain

Several studies linking domestic factors to early retirement. Spouses are very important in the decision to retire.

HRM and interventions

Comprehensive literature exists on HRM interventions, but only few studies are evidence-based.

Work factors

Several cohort studies available. Among older workers, psychosocial factors at work seem to have greater effect on employment participation than physical load. This might be due to a healthy worker effect: Those with health problems due to a high physical load already left the workforce at an earlier age.

Health and health-related behaviour

Many studies available on health and employment participation, none on health-related behaviour. In general, good health is positively associated with employment participation. However, good health may also be an incentive for early retirement.

Work ability

Some studies find a negative relation between work ability and early retirement or disability.

Motivation

Many studies exist on the relation between motivation, age and work, while there is almost no study examining motivation as a determinant for employment participation.

Conclusions for research needs in the Netherlands

Many research findings in the Netherlands are derived from cohort studies. As a consequence, determinants are measured at the personal level and are based on the individual perspective. Data on the context are lacking or less reliable, the latter because workers are not the best source to derive this information from. For example, workers seem generally unaware of company policies with regard to older workers. Research in the field of employment participation would gain from a more integral approach, in which data from employers and employees are combined, ideally also including data on the macroeconomic level.

Although the Dutch literature on human resource management (HRM) interventions aimed at employment participation of older workers is very comprehensive, only very few studies are evidence based. This might partly be due to a lack of proper methods to evaluate interventions. In the scientific literature with regard to occupational health the Randomized Controlled Trial (RCT) is the norm. However, in the common practice of HRM, it is very hard to meet the conditions required for an RCT. Therefore, it might be helpful for evaluation research, not only in the field of employment participation or HRM, to develop new methods to evaluate interventions.

In some other domains, the review sheds light on specific research gaps: No studies were found on the impact of age discrimination law on employment participation of older workers. No studies were identified on the influence of gender, ethnicity, income, or profession. There is a lack of studies with motivation as a determinant of employment participation. No studies were found on the effects of health-related behaviour on employment participation of older workers. Studies are available on the topic, but they are not age-specific.

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4.8 National report: Norway

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Introduction

The aim of the Norwegian employment policy is to promote high labour force participation, low unemployment and efficient labour force utilisation. The cooperation between government and the social partners is vital to reach this goal. In Norway, trade union membership is high, wage formation is relatively coordinated at the national level, and working life is well-regulated. In their efforts to increase employment among older workers, the Norwegian authorities have reformed the Norwegian pension system to increase the attractiveness of continuing to work after having reached the statutory retirement age.

Moreover, through the initiation and signature of the agreement on a More Inclusive Working Life (IA agreement), the Norwegian authorities have assigned the social partners a more active role in their efforts to reduce early retirement and increase the recruitment and retention of older workers. As a result, many companies have incorporated senior policy measures as part of their human resource management. From an international perspective, the employment rate among older workers in Norway is high.

While the general economic activity rate of the Norwegian population has slightly declined between 2001 and 2013, this does not apply to older workers above the age of 50, for whom the expected duration of employment (in a full-time job) has increased. In this context, significant employment growth has been recorded among older workers after 2011, especially those aged 62 to 64 years. This increase may be a direct effect of pension reforms.

National research on the determinants of employment participation

Ageing and retirement has been extensively researched in Norway during the last 20 to 25 years, both with studies focussing on single aspects from the economist, psychologist, occupational, or social epidemiologist realm and other interdisciplinary studies linking almost all possible factors predictive of early retirement or extended work careers. The studies are based on both large scale data sets from surveys (both cross-sectional and retrospective cohort studies), register data, a few longitudinal studies, as well as some qualitative studies.

Norway, like the other Nordic countries, is in a unique position when it comes to register data. Researchers may link data from a whole range of administrative registers on income and tax, education, demographic background, family situation, disease diagnoses, health insurance, pension or employment history, and even combine it with survey data. The availability of these data gives researchers the opportunity to utilise so-called natural experiments to detect labour market effects that result from changes in welfare benefits, different welfare arrangements, and other interventions targeting retirement behaviour.

During the last ten years or so, many studies by economists, as well as occupational and social epidemiologists, psychologists, sociologists and political scientists, have been based on such large panel data sets. What has become obvious, however, is that, analyses that are solely based on register data are not sufficient if the objective is to understand the mechanism behind the correlations, which is also often a shortcoming in economic analyses. It has therefore been an increasing interest in Norway to

apply mixed methods, i.e. interdisciplinary studies using methods that combine register-based analyses with analyses of survey data and case studies or qualitative data.

Labour market

Covered by both descriptive analysis and causal analysis. Mostly based on register data and national survey data (i.e. the Labour Force Survey). Dominated by economist perspectives. Many studies focus on the connection between unemployment and welfare state dependency.

Legislation and its implementation

There has been extensive research on the effect of policy measures to extend working age since 2001, with the signing of the first Tripartite Agreement on a more Inclusive Working Life (IW agreement).

Financial factors

Many studies available on the effects of the early retirement scheme (AFP), special tax rules for older workers, changes in disability benefits, which are based on both register data and survey data. The main conclusion is that economic incentives have an effect on retirement behaviour. The effect of the pension reform has been analysed by dynamic micro simulation models, but the Norwegian Research Council has granted some new projects. Few results from these have been published yet.

Social position

Most studies in the field control for gender, income, educational level and occupation. Hence, lots of evidence about how these factors affect the retirement decision and labour market participation of older workers. The main conclusion is that blue-collar workers retire earlier than white-collar workers, and those with higher education retired later than those with upper secondary school or less, and studies also shows that reasons for retiring early differ.

Domestic domain

There are many studies by both sociologists and economists on the effect of domestic factors, especially spouse's retirement, but also family income and wealth, grandchildren, or caring responsibility, using both register (panel) data, survey data and cohort data. The main conclusion is that spouses do coordinate their retirement, and that women have a much stronger response to their spouses' characteristics than men. Studies about the importance of caring responsibilities, however, show limited influence on older workers' labour market participation.

HRM and interventions

Many studies based on data from case studies and "best practice" or broader (cross sectional) national surveys that generate hypotheses. Five studies exist on causal effects of different age management strategies and retention programmes based on combined survey and (panel) register data. Research in the field is mainly led by sociologists and political scientists.

Work factors

Many occupational and social epidemiological studies exist about how working conditions (often single aspects) are related to wellbeing at work, work ability, health, sick leaves, or disability retirement. Studies of connections between multiple work factors and voluntary retirement are mostly performed by sociologists or political scientists based on survey data (i.e. retrospective cohort studies), or a combination of survey and register data.

Health and health-related behaviour

Many studies have been carried out by occupational and social epidemiologists. The majority are cohort studies using the receipt of disability benefits as an end point. Studies are population-based or based on patient populations. Both self-reported health (sometimes in combination with self-reported work ability) and more objective health measures are used, both in multi-factor analyses (especially among sociologists) and single factor analyses.

Work ability

The Finnish model on work ability developed by Ilmarinen and colleagues has not been widely used in Norwegian research. Health and exit from work life is covered under the domain of health. There, work ability is understood more loosely and covered in NorLAG and several other studies.

Motivation

There are several (often multi-factor) studies that analyse the relationship between job motivation and expected or actual retirement behaviour (based on self-reported information). Otherwise mostly based on survey data and performed by sociologists, political scientists and psychologists.

Conclusions for research needs in Norway

There is a need for studies of labour market mobility among older workers to better understand how (re-) hiring and recruiting processes affect older workers' labour market participation. At the same time, more studies are required that analyse the relation between age management strategies or workplace interventions and older workers' retirement behaviour or labour market participation. There is also a need for a mixed-methods project, i.e. interdisciplinary studies that combine register and survey studies with case studies (i.e. qualitative data).

Research policy options

Although Norwegian researchers' access to administrative data is unique internationally, the current legislation, the organisation of data delivery and the associated cost do, in fact, limit the use of this data in an adverse way. The current regime has also caused an unfortunate preferential treatment of some selected institutions, which limits the maximal use of these unique data sources across the entire research community. Although advanced econometric analyses based on register (panel) data are the best way to document causal evidence, they often fail to explain how and why. In addition, a lot of important (and especially new and upcoming) factors are not covered in administrative registers. It is therefore important to prioritise qualitative and/or survey-based studies to understand the complexity of the retirement decision and labour market participation of older workers.

The full version of this report is available on the project's website at:
→ [www.jp-demographic.eu/about/fast-track-projects/
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4.9 National report: Poland

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Introduction

The economic transformation has dominated the ageing and early retirement issues on the Polish political and social agenda. Employment participation only became a policy concern in the late 1990s when the government began to discourage early retirement among older workers and began to abolish previously available incentives. Despite the significant increase in participation rates among people of 50+ years since the early 2000s, they are still among the lowest in Europe, especially for women. According to a recent publication, the employment rate of women and men aged 55–64 years was 31 % and 51,3 % respectively.

In 2013, the Polish government introduced a gradual increase of the pension entitlement age from the age of 65 years for men and 60 years for women to 67 years for both genders.

National research on the determinants of employment participation

In Poland, research on employment participation and (early) retirement of older workers is available but has not been updated since 2010. At that time, the main determinants for early retirement included poor health, low competencies, a lack of job offers, and caring (family) responsibilities. Quantitative assessments of the determinants and risk factors for early retirement are usually based on cross-sectional data, and they mostly focus on ill-health.

The only data available for longitudinal analyses relates to economic factors, while data on work ability and working conditions of older workers are very limited, almost no existing. Few qualitative studies on work motivation or human resource management (HRM) interven-

tions are available, which suggests that age management interventions are very rarely implemented at Polish workplaces. Overall, older workers' working conditions seem "more difficult than elsewhere" (in Europe), and this has also been widely considered as one of the reasons for their early exit from the labour market.

Labour market

Some longitudinal studies are available. Main findings: Work participation, although one of the lowest in Europe, increased substantially relative to the late 1990s. Lower qualified workers (and mostly women) leave work earlier than highly qualified and self-employed workers.

Legislation and its implementation

Some studies exist. Main findings: Early exit incentives were definitely reduced in 2008. In 2013, the pension entitlement age was extended from the age of 65 years for men and 60 years for women to 67 years for both genders.

Financial factors

Only few studies available. Some findings: Insufficient pensions increase the motivation to re-enter labour market after unemployment in higher age.

Social position

Some studies are available. Main findings: Older workers have lower qualifications than younger ones. Low education and living in less urbanised areas are related to lower levels of employment participation and constitute risks for (long-term) unemployment and social exclusion.

Domestic domain

Some studies are available. Main findings: Older women are mainly responsible for caring duties, which is why their employment participation rates are substantially lower than for men. Evidence on influence of household situation and partnership is lacking.

HRM and interventions

Lack of research, only very few studies exist. Some findings include: HRM and age management interventions are very rare. Employers prefer to hire younger and relatively better educated workers.

Work factors

No up-to-date national studies are available. According to the 5th European Working Conditions Survey, “working conditions [in Poland] are more difficult than elsewhere and workers over 50 declare themselves unsatisfied with working conditions”. Some incidental, national data shows that the work offered to older workers is not adjusted to their needs.

Health and health-related behaviour

There are studies that assess the health status of older workers, yet they are not linked to work motivation. Main finding: Ill-health is the main reason for leaving the labour market early.

Work ability

Incidental data show that 12.7 % of workers aged 45–69 years are left out of the labour market potential due to their limited work disability. Heavy physical work, harmful working conditions, overtime and work-related stress are related to a lower work ability.

Motivation

Incidental data are available. Main finding: Almost 22 % of women and men at the age of 45 years or 50+ years would like to work beyond their retirement age, mainly for financial reasons.

Conclusions for research needs in Poland

- In Poland, research activity in the field of older workers' employment participation and early exit from work is limited.

- There are mainly macroeconomic, longitudinal studies related to employment participation of older workers.
- No up-to-date data is available on the causes of older workers' early exit from the labour market. Those, which have been identified some time ago, include: Ill-health, lack of competencies, lack of good jobs, and the domestic or household situation.
- It has not been explored what kind of trainings or competencies older workers should receive or acquire to increase their employability.
- Research is also needed in the field of retaining or re-integrating people with chronic diseases.
- Qualitative research could help answering the question of what a good job for older workers looks like.
- Age discrimination at the work place is hardly addressed in the available research, yet definitely exists at Polish workplaces.
- It appears worthwhile that research also considers of how existing stereotypes about age or life-course experiences, like being brought up in the period of communism, can influence age discrimination at the workplace and how to overcome it.

Research policy options

- To better understand early exit behaviour in Poland, scaling up research funds is necessary.
- The initiation of an interdisciplinary research exchange on the national level to integrate different perspectives and methodological research approaches (e. g. qualitative, quantitative, multilevel, mixed methods, organisational case studies, life course perspective) is necessary to advance the issue and promote a dynamic research community.
- The initiation of a research exchange across countries is also promising.

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4.10 National report: Sweden

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Introduction

Sweden has one of Europe's highest labour force participation rates among older workers, especially for women. The population is relatively old and several political decisions have been taken in the early 1990s and onward to counteract early retirement and increase the actual retirement age.

The latest pension reform paved the way for a gradual transition into a defined contribution scheme and increased the economic incentives to work longer. In parallel, it has become more difficult to get a disability pension for only medical reasons. In the new pension system, there is no fixed pension age. The lowest possible entry age is 61, but there is no upper ceiling. The social norm is still 65 years, but with a slow shift upward and a greater variety in the retirement entry age. Among those, who were born in 1938, 83 % started to take up an old age pension at 65 compared to about 61 % of those born in 1948. The exit pattern from employment to retirement has become increasingly heterogeneous and complex considering the various possible combinations of part-time pension, benefits and participation in different programmes. These diverse patterns may also augment inequalities between older people in retirement.

National research on the determinants of employment participation

Sweden has a long history of both qualitative and quantitative studies covering most issues related to the labour market. There are comprehensive labour market registers and survey cohorts running several decades back in time. Currently, Sweden has coverage of a number of cohorts with information on employment participation, including the Panel Survey of Ageing and the Elderly (Halleröd et al. Umeå), the Construction Worker Cohort (Järvholm

et al. Umeå), LNU (SOFI), Public Employees (Kadefors et al., Gothenburg), Malmö Shoulder Neck Study (Östergren et al.), and SWEOLD (ARC). Most studies focus on one or several determinants of early age retirement or disability pension and are commonly presented as relative or absolute risks. Attitudes towards retirement are well studied, and it is fairly well understood which the important factors for exit from employment are. A majority of the studies is quantitative, although several qualitative studies are available. Mixed-method studies are not common. There is a large literature on labour supply based on economic theory and using econometric methods. Some studies focus on specific groups as foreign workers. Several studies concern the development of female labour force participation.

Labour market

Studies are available, mainly econometric analyses of labour supply and on how it is affected by policy changes.

Legislation and its implementation

There are some evaluation studies of policy design and changes.

Financial factors

Some studies are available that address changes in social security schemes (including pensions) and taxation and their effects on different groups of older people.

Social position

Based on national cohort studies and registers, there is good scientific evidence regarding the importance of income, social status, parents' social position and education.

The difference in retirement age between high and low status jobs is 5 years.

Domestic domain

Several studies have shown that decisions by partners influence retirement timing. Caring for relatives is yet uncommon, but possibly a growing reason for retirement.

HRM and interventions

Some studies are available on management attitudes. Few studies on intervention and only in large enterprises or the public sector. Lack of knowledge about small and medium-sized enterprises.

Work factors

Based on national cohort studies there is ample scientific evidence about many work factors including psychosocial, physical and ergonomic factors. Outcomes are commonly presented as excess risks for being granted a disability pension. Other exits are less studied.

Health and health-related behaviour

Based on national and regional cohort studies, there is broad scientific evidence for the relation between health status and retirement. Health-related behaviour is less studied.

Work ability

Some survey studies are available. Self-rated work ability correlates well with the intention to work until normal retirement age or beyond and vice versa. Several studies show that one of the main reasons for retirement is a notion that work has become too demanding.

Motivation

Some survey studies exist. Good career opportunities are important for both men and women. There are economic incentives to work until old age. However, men who work mainly for economic reasons wish to exit earlier than others. Retirement expectations and attitudes among peers have been found to affect personal retirement decisions.

Conclusions for research needs in Sweden

- The greatest challenge within this field is women's occupational environment and possibilities to achieve a sustainable work-life balance.

- The labour force participation of older foreign workers is an important issue.
- Labour market exit routes are becoming increasingly heterogeneous and complex to study.
- Intervention studies are lacking, especially among small and medium-sized enterprises. Programmes for task-shifting and "early warning" systems for sickness prevention and health promotion are areas of great interest.
- A life course perspective is needed to apply a multidimensional approach on work ability and work attitudes and how these factors change over time.
- The increasing problem with precarious work and late establishment on the labour market in the young generation is likely an emerging threat to health and productivity, which should be monitored closely and longitudinally.
- Policy reform research with an international perspective should also be extended.
- With an extension of working lives, more people will work with chronic diseases such as diabetes, hearing impairment, or congestive heart failure. There are few studies on how workplaces can adapt, or how work may interact with these conditions.

Research policy options

- To close the gap between the current knowledge and practice, applied research in close cooperation with employers should be promoted.
- The rapidly changing and increasingly heterogeneous working conditions are a research challenge and should be emphasized in future research and funding efforts to obtain relevant knowledge for policy.

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4.11 National report: United Kingdom

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Introduction

In the United Kingdom, around 60% of people aged 55 to 64 years worked in 2013. This marks an increase from 52% in 2001 and places the country in the middle of the OECD range. The proportion of people aged 65+ years in employment doubled during this period, from around 5 to 10%. Legislative changes in the last decade have increased the need to work longer, with significant projected rises in state pension age and a reduction in access to means-tested Pension Credit for early exiters.

In recent years, government has further encouraged continued employment through enhanced incentives for delaying state pension receipt, and made it easier for employers to allow workers to take their occupational pension while working. Earnings limits, which restricted working whilst receiving a state pension, were abolished in 1989. Employment is also being promoted through an extension of employment rights for older workers. From 2006, people were given the opportunity to request continued employment beyond age 65.

From 2011, this “default retirement age” of 65 was abolished together, meaning that employers now cannot force retirement on the basis of age unless they provide a legally defensible justification.

National research on the determinants of employment participation

The United Kingdom has a relatively high coverage of the domains in the present review, with the exception of work ability, which has had a greater impact in other countries included in this project. This research comes from a range of disciplines including economics, sociology, social policy, psychology, and business studies.

Although quantitative research is more dominant, qualitative studies are nevertheless more significant than in other countries. The development of the English Longitudinal Study of Ageing (ELSA) since 2002 has increased the knowledge base about employment and retirement transitions in the United Kingdom.

Nevertheless, quantitative research has often tended to focus on one or two of the domains covered in this review, and there are many other areas in need of more research.

Labour market

A number of studies explore the low recruitment of older workers, which is concentrated in a narrow range of occupations and in companies with less benefits or training. Qualitative studies explore stereotypical employer attitudes.

Legislation and its implementation

Organisational case study research and surveys suggest that legislation has promoted formal employer policies on age equality. Given the recency of this legislation, there are few studies on its impact on employment practices and behaviour.

Financial factors

The development of ELSA increases knowledge considerably. Quantitative research suggests the poorest leave early due to ill-health, the richest leave early or late, and the middle wealth groups leave on time. Financial incentives are more important for men. The pension type has some impact on retirement age.

Social position

Quantitative studies show that education increases the likelihood of working in older age for men and women. Men with a father of higher socio-economic status are more likely to work in older age.

Domestic domain

Relatively small number of studies available. Quantitative studies indicate the employment of a partner increases the likelihood of working. Qualitative studies suggest domestic influences are complex.

HRM and interventions

Quantitative surveys indicate few employers have considered the ageing population or age management. Case study research suggests human resource management is nevertheless considered important. An area with relatively little research.

Work factors

Considerable evidence from quantitative and qualitative studies that opportunities to reduce hours of work in older age are popular, but not widespread. Case study research suggests that line managers are important influences on continuing in work. Older workers receive less training, but explanations are scarce.

Health and health-related behaviour

An area dominated by quantitative research on the influence of self-rated health assessments on employment. Health problems are common among older people and a key reason for early work exit. Working with a health condition is least common among the poorest.

Work ability

Small number of quantitative studies, primarily where the United Kingdom is included alongside other countries.

Motivation

Quantitative cross-sectional studies comparing work motivation across age groups identify higher rates of intrinsic motivation among older workers. However, this may reflect a “survivors’ effect” to a degree related to those choosing to remain in work. Qualitative studies suggest diverse motivations.

Conclusions for research needs in the United Kingdom

More research is needed on the following topics:

- The causes and impacts of regional employment differences;
- The extent to which different employment sectors inhibit or encourage later working lives;
- The impact of different health conditions (including mental health) on employment; the management of health in the work place; work ability;
- How employers are responding to the abolition of the default retirement age;
- The impact of working conditions on employment;
- The impact and interaction of different sources of wealth on employment; how financial uncertainty or a lack of knowledge influences decisions about work and retirement;
- Household decision-making;
- The influence of unpaid care work on paid work (including caring for those outside the immediate domestic environment, such as grandchildren).
- The impact of more diverse household forms and the effect of divorce;
- Ethnic differences in work propensity and the underlying reasons

Research policy options

Major research programmes need to proceed along four lines:

1. To understand how employers in different sectors are responding to the end of the default retirement age, and how more generally they are managing age. Detailed case studies would be the best method for such a study.
2. Increased attention on how diverse household structures and family types impact on aspirations and motivations for extending or limiting working lives. A mixed-method study further exploiting existing longitudinal data sets and undertaking qualitative research with different household types would be most appropriate.

3. More nuanced research on the impacts of different health conditions on employment. This would also benefit from a mixed-method approach.
4. Comparative research indicates that there are complex interactions between welfare state policies, such as state pension ages, variations in the availability of care for children or elders, patterns of maternal employment, changes in household formation and orientations towards extending or limiting working life. More comparative research on the interaction between macro, meso and micro level factors would raise new research questions at the national level and sharpen our understanding of the drivers for, and constraints on, extending working lives.

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5

Project results

5.1 Introduction

In the previous two chapters, 21 reports document considerable research needs with respect to the employment participation of people at higher working age. Surprisingly often, similar conclusions for research are drawn in the reports. In the following section, we summarise overarching research needs that have been identified. We start with considerations around *retirement* (→ section 5.2) followed by *research approaches and methodology* (→ section 5.3), by looking at three specific domains (→ section 5.4), followed by a view on *specific groups of workers* (section 5.5), and, finally on *policy related aspects* of direct relevance for organisational and/ or national policy (→ section 5.6). Although being numerous, these topics constitute only a selection of the research needs identified, and we explicitly recommend to the reader to also consider all further research needs listed in the condensed versions of the 21 reports in the previous two chapters and the full papers on the project website.

5.2 Retirement and non-retirement

5.2.1 Fragmentation of retirement

The concept of “retirement” is prevalent in the public discourse, in policy and in research.³¹ What is often being overlooked, however, is that in many countries, the past two decades brought forward profound changes in retirement patterns and schemes,³² so that retirement today is no clear-cut “one-off” event, but characterised by temporal and conceptual diversity. In other words: Retirement is becoming fragmented.

A joint underlying perception of retirement may be “withdrawal from work”, this, however, may cover everything from leaving a full career job for, say, bridge employment until, finally, complete withdrawal from the labour market.³² In between these conceptual poles, there may be second career jobs, part-time leave, part-time pensions, part-time disability retirement, drawing pension while working, drawing unemployment and other state benefits, unsalaried periods of non-employment, complete withdrawal from work while being salaried or working past pension entitlement age including un-retirement (i.e. returning to employment past full retirement).

This fragmentation of retirement may be driven by economic and managerial developments as well as changes in social policies. Countries where gradual retirement from a career job has become rather the rule than the exception are the United States³¹, where according to Cahill (2012), 60 % of the older workers, who left full-time career employment, have moved to short-duration or

part-time employment (“bridge jobs”) before exiting the labour force.³²

Concurrently, this fragmentation development may also reflect deliberate policy measures aimed at the retention of older workers by increasing their potential and motivation for continued work and employment. For example, in Canada, public pension can be taken as early as at age 60 while still working (→ Canada). In Norway, the pension reform from 2011 allows employees to receive a pension at any time they want after reaching the age of 62, irrespective of whether they continue working or not. Older workers in Norway also have the statutory right to reduce their working hours, they enjoy one week extra holidays and – when state-employed – an additional 8 to 14 extra days off with pay (→ Norway).

Sweden has introduced a time slot for starting to draw an old-age pension beginning with 61 years of age and with no upper end. Most Swedes have started to draw their pension at 65 years (→ Sweden).

The Finnish pension formula includes an overproportional financial incentive for working at higher age, which leads to a substantially stronger pension accrual than for working at younger age: The accrual rate equals 1,5 % between the age of 18 to 53 years, 1,9 % between 53 and 62 years and 4,5 % between 63 and 68 years. Working while drawing pension also accrues new pension entitlements. The respective accrual rate is 1.5 % (→ Finland, full version).

The fragmentation of retirement challenges research in two ways:

◀ **Investigating fragmentation of retirement.** The new complexity of the transition phase into retirement may be of specific scientific interest, for example, when investigating the frequency and consequences of bridge employment, which are increasingly common in liberal welfare states like the United States.⁶

◀ **Retirement definitions and indicators.** Retirement researchers will need appropriate definitions and indicators for “retirement”. To demonstrate the dimension of this challenge, we quote the multitude of measures for retirement used in recent scientific publications published by Denton & Spencer in 2009³¹ (→ see Box 1). In Norway, the increasing separation of drawing a pension and leaving work has already led to the development of separate indicators for the employment and retirement behaviour among older people (→ Norway and → section 5.3.7). Research on retirement needs to choose the measures that best reflect the purpose of their investigation.³¹

-
- Non-participation in labour force
 - Reduction in hours worked and/ or earnings
 - Threshold for hours worked and/ or earnings
 - Receipt of retirement income
 - Change of career or employment later in life
 - Left main employer
 - Self-assessed retirement
 - And: a combination of some of the above
-

Box 1: Measures for retirement applied in research. Collected and published by Denton & Spencer (2009)³¹

5.2.2 The issue of “non-retirement”

The debate and research on retirement is usually focussing on the process of early departure from working life and on those leaving early, i.e. “risk groups”, as well as incidences and determinants. This view bears the risk of overlooking those (usually older) workers, who have to remain at work although they *cannot work* or they *lack motivation to work*. Just about a decade ago, early retirement regimes may have offered this group ways to leave employment early, under economically acceptable conditions and in a dignified way. Meanwhile, many countries have constrained early exit pathways by making access more difficult and increasing pension entitlement ages (→ Labour market). In consequence, many of those who would have retired before have to keep working or to find alternative exit routes (→ Legislation).

This group of the “non-retired” may be expected to increase in size¹⁰ and deserves increased research attention – not least in the course of legislative changes. Those belonging to it may be assumed to bear increased personal risks of poor physical or psychological health, decreased productivity at work, and individual losses in income and wealth. The JPI UEP group has also acknowledged this by having defined research needs to assess “Societal costs and gains of policy changes on older workers’ exit behaviour” (→ section 5.6.3).

5.3 Research approaches and methodology

5.3.1 Cross-national research

This chapter on cross-national research is divided into two sections: The first section addresses the potential and need for cross-national research. In the second section, consequences of the large differences in research intensity between the participating countries are discussed.

5.3.1.1 Potential of cross-national research

European statistics document substantial differences in employment rates at higher working age and mean retirement age across European countries. These differences may be explained by a long list of micro, meso and macro level factors illustrated by the concept of retirement complexity above (→ section 2.1). On the macro level, factors such as labour market legislation, the pension system and not least the welfare regime shape the transition from work to retirement.³³ (→ Legislation; → Financial factors).

Although systems vary, important lessons can be drawn from comparing countries. Today, the analysis of cross-national diversity is a major objective of comparative economic and social science research, also regarding old age labour market participation. For example, Radl (2013) used SHARE data from eleven countries to assess the effect of social class on timing of retirement and found rather similar patterns across countries¹⁹ (→ section 5.5.3). Riedel and Hofer report that in richer countries of the EU-15 countries, statutory retirement age seems to have a stronger effect on planned retirement age than in less affluent EU-15 states or in new EU member states. In contrast, the effect of pension wealth (i.e. expected pension benefits) is larger in the new EU member states.³⁴ (→ Legislation)

Macro level factors are the focus of research attention when considering cross-national diversity in retirement. Yet comparative research indicates that there are complex interactions between macro, meso and micro level factors, for example, between welfare state policies, availability of care for children or elders, patterns of maternal employment, changes in household formation and orientations towards extending or limiting working life.

The JPI UEP working group therefore recommends cross-national research approaches linking macro, meso, and micro level perspectives to increase the understanding of the processes and interdependencies in the work-retirement transition and developments in their own countries and beyond. This may require advances in multi-methods approaches.

The benefit of such comparative approaches has been addressed in almost all domain chapters, for example:

- » **Policy reform research** on the impact of policies aimed at retaining older workers in the workforce would progress by examining current changes in all countries, exchanging research approaches and sharing views. For example, comparative studies on the aims, the implementation and the different impacts of the anti-age discrimination legislation are needed.
- » **Employers' attitudes and behaviour.** The effects of policy changes on employers' attitudes and behaviour should be examined in a cross-national perspective. Due to differences in labour market institutions and regulations, this may be difficult, but it is also needed, since it is often unclear whether and how conclusions can be generalised and applied to other countries.
- » **Gender roles and finances.** It should be questioned that female employment is always directly linked to the financial situation of the partner. The degree may vary across countries. Differences between the United Kingdom and the United States in this regard indicate that cross-national approaches would increase our understanding of how female employment is influenced by both the resources of a partner and the types of careers they have had.
- » **Societal norms.** The cross-national investigation of the impact of societal norms on retirement will benefit from the existing cross-country diversity.
- » **The (un)informed employee.** The subjective influence of finances on employment and retirement is an area of patchy research coverage across countries. For example, it is known that many people have only limited understanding of their future retirement incomes (→ Austria; → Financial factors; → Legislation).

It follows that there is a need for more research on how subjective understandings of financial resources (and uncertainties about them) influence employment. The lack of respective knowledge highlights the dominance of quantitative over qualitative research on this topic for all countries covered by this report.

5.3.1.2 Cross-national differences in research intensity

The cross-national nature of this JPI UEP project has revealed substantial differences with respect to extent, content and methodological approaches of research between the eleven participating countries.

Box 2 is documenting the unequal distribution of research intensity by domain chapter. According to our review of national reports, the countries with the highest research coverage – over domains – are Norway, the Netherlands and Canada. Country-specific features were found: Researchers in Norway, the Netherlands, Sweden, Denmark and Finland benefit from the availability of large specific surveys and can rather easily link survey data to administrative register data (→ section 5.3.6). In the United Kingdom, the large ELSA cohort study (English Longitudinal Study on Ageing) supplies research with specific data on employment and retirement, for example, on the relation of financial advantage or disadvantage and continued employment.

The United Kingdom and more recently, the Netherlands, have a research tradition in qualitative assessments in the field.

Belgium has a research tradition and scientific expertise in legislation and econometrics. Waggerer attributes cross-national research differences in the domain chapter → Motivation to the presence of appropriate investigators and research groups (citing the United Kingdom and the Netherlands as examples) and on the availability of appropriate secondary data sets.

The national report on → Canada reveals a strong research tradition in the field of employment participation, which may not have been captured as such by European authors of the domain chapters in the project.

An explanation for the incidental research coverage in Poland (and probably of some other Eastern and Central European countries) might be that during the last decades, the country was focussed on its socially and economically painful transition from a planned to a free-market economy with very high and often long-lasting unemployment. Early exit strategies for older workers were used as means for coping with unemployment. Only recently, the government has started to withdraw from this policy and the issue to maintain these workers in the labour market has become addressed widely in the social and political debate (→ Poland).

Considering the societal relevance of the topic in Europe and beyond, the paucity of specific research in several European countries gives reason for concern.

- » **Need for cross-national research.** Cross-national research activities on employment participation are needed to respond to cross-national research questions and also cross-fertilise national research activity in Central, Eastern and Southern Europe.

5.3.2 Applying a broad view

One of the initiating ideas of the JPI UEP project was the observation that scientific disciplines investigating employment participation at higher working age often focus on *single* factors that influence employment in their field and tend not to or only marginally consider further factors. The underlying assumption is that the consideration of the complexity of retirement (→ section 2.1) will lead to deeper insights and a differentiated understanding of the underlying factors, mechanisms and paths, thereby bringing the evidence level an innovative step forward towards preventive action on organisational and national levels. Such a differentiated view would not be limited to understanding early exit from work (i.e. leaving early), but also entail the understanding of older workers'

extending working lives (i.e. not leaving early/ working longer).

Summarising the domain chapters and national reports, we find support for this notion. Almost all authors confirm the impression that the majority of available studies focuses on single or few conceptual issues, rather than taking a broader perspective. Jousten and Salanauskaite, for example, note in the national report on → Belgium that: "One particularly striking illustration is the rather pronounced separation between the fields of tax and social insurance studies and policy, and this in spite of their conceptual and practical closeness", and they conclude that: "The initiation of an interdisciplinary research at the nexus of disciplines and domains is necessary to further advance and deepen the research in the field."

- « **Labour market:** Most studies originate from North-West Europe (Germany, Netherlands, Norway, and United Kingdom). Some studies use data from large European surveys such as SHARE. Well-covered domain by researchers in Canada.
- « **Legislation and its implementation:** In Belgium, the Netherlands, Austria, and Finland, the impact of legislation and the institutional design of the social security systems has been fairly well investigated. For Belgium, Austria and Norway econometric and simulation analyses, based on both survey and administrative data, are important or prevail.
- « **Financial factors:** For all countries covered by the JPI UEP group, there is notable quantitative research on the impact of public pensions and benefits on employment. With respect to other issues, coverage differs.
- « **Social position:** The SHARE Study provides coverage of all European countries (Sweden, Denmark, the Netherlands, Belgium, Germany, Austria, Switzerland, France, Italy, Spain, and Greece), although most publications stem from Northern Europe, the Netherlands, the United Kingdom and Germany. The domain is also well-covered in Canada.
- « **Domestic domain:** Norway, the United Kingdom and the Netherlands account for the main studies, with Sweden, Finland and Poland providing a few. Relatively little existing research in this domain comes from Germany, Canada, Denmark or Belgium.
- « **Human resource management and interventions:** Well-analysed in the Nordic countries, especially Norway. Studies on age management strategies and programmes stem from Norway, the United Kingdom, Netherlands, Denmark, Germany as well as comparative EU-studies. Some countries like Belgium, Germany, Austria and Poland feature very little research on the effects of human resource management interventions on retirement behaviour.
- « **Work factors:** Almost all studies identified in the JPI UEP project come from Scandinavian countries, a few from Germany and the Netherlands. Fairly well-covered domain in Canada.
- « **Health and health-related behaviour:** Most studies from Denmark, Finland, the Netherlands and United Kingdom. Several studies used the SHARE data. Well-covered domain by researchers in Canada.
- « **Work ability:** Most studies stem from Scandinavian countries given their research tradition on work ability.
- « **Motivation to work:** The United Kingdom, and Belgium exhibit the largest body of research, Scandinavian countries (notably Denmark and Norway) are offering some studies, limited evidence may be found in all other JPI countries.

Box 2: Coverage of research by domain and country (Sources: respective domain chapters and national reports)

Some authors, however, notably from the countries with the most active research communities in the field, acknowledge that, in fact, some studies are available that do apply a broad view and consider factors covering a range of different domains in their analyses (→ Norway; → Netherlands; → Health). Also when looking at the findings for the → Motivation domain, many studies deal with more than a single domain, which may be due to the fact that this domain is somewhat special: Motivation is not defined by its determining factors, but by its mediating function between the different topics and determinants addressed throughout the chapters discussed in this report and retirement (→ Motivation). This also applies for → Work ability.

With respect to this issue, the JPI UEP working group brought forward the following research needs in their reports:

- ✉ **Broad view: Multifactorial thinking.** Research has to consider the multitude of domains and factors jointly contributing to employment participation in later careers to improve the common understanding of why some older workers are leaving employment early and others are extending their working lives. This requires interdisciplinary thinking and ideally an collaboration across nowadays often separated research communities.
- ✉ **Broad view: Multilevel approaches.** Several authors call for more comparative research on the interaction between macro, meso and micro level factors, as this would sharpen the understanding of the drivers for, and constraints on, extending working lives and raise new research questions at the national level (→ United Kingdom; → Domestic domain). Several authors emphasise the need to combine employee, i.e. micro level, and employer or organisational perspectives, i.e. meso level (→ Austria). Others stress the need for assessing the impact of macro level factors, such as welfare state policies or social-security legislation, on orientations towards limiting or extending the working life (→ Domestic domain; → Legislation).
- ✉ **Broad view: Exit routes.** A broad view on retirement should include the differentiated consideration of exit routes in research. In the domain chapter about → Work factors, the overriding focus of research on *disability retirement* is criticised as (non-disability) *early retirement* constitutes the more common exit path. In general, the need to consider not only one, but the multitude of exit pathways in reaction to labour market policy or employers' behaviour was stressed (→ Labour market; → Health).

✉ **Broad view: Subgroup consideration.** Finally, a broad view requires consideration of gender, social or occupational status, migration/ ethnicity, and age when investigating employment participation in advanced working age. There is reason to assume that exit determinants, mechanisms and paths may differ substantially with respect to subgroup membership.

✉ **Broad view: Methods.** While the need for the application of a broad view is clearly expressed, the possible methodological approaches remain open and are a topic for future research.

5.3.3 Life course perspective

One of the four characteristics of employment participation at higher working age highlighted by the lidA conceptual framework is the process-related character of retirement (→ section 2.2.4). To capture such processes, the JPI UEP working group emphasises the urgent need to apply a life course perspective in research. While traditional research approaches relate outcomes to exposures, the life course approach additionally highlights the importance of a person's past exposures for understanding current conditions, adding the notion of change as well as current level. Furthermore, it highlights chains of risks that link conditions in one part of the life course to outcomes (here: employment participation) in another. To capture the "temporal complexity" of retirement, the challenge for research will be to shift the view from single point observations and interpretations to the identification of dynamics in the determinants of employment participation, of change, of temporal relations, of transition phases and also work-retirement trajectories. As indicated above, such a "temporalism"³⁵ approach may promise new evidence on employment participation, may promote retirement theory building, and could contribute to a considerable extension of possibilities for organizational and policy intervention.

Below, the need for life course approaches is translated into research proposals:

✉ **Life course perspective.** Vickerstaff has identified a "need for analysis that combines an understanding of life course influences and patterns in specific domestic and gendered contexts ... The relationship between long run trends (i.e. gendered divisions of labour within households) and proximal factors (i.e. health shocks, redundancy, divorce) are currently poorly understood ..." (→ Domestic domain). Riedel emphasises the need for modelling cumulative and interactive exposure effects to understand the life course impact of social position (→ Social position). Finally, the authors of the national

report on → Sweden call for the application of a life course perspective to apply a multidimensional approach on work ability and work attitudes and understand how these factors change over time.

- » **Competing risk analysis.** One specific aspect related to the life course perspective is the “competing risk approach” in the analysis of the determinants for early exit from the labour market. The underlying conception is that the probability of one exit route, i.e. early retirement, disability pension, or unemployment is dependent on the probability of the other exit routes (→ Health). For example, if in a country with generous disability pension regulations, most workers with poor health may leave employment early via this route, there will be no measurable association of poor health with (non-disability) early retirement in older age groups. In contrast, in another country with restrictive disability pension regulations, the association between health and early retirement may be strong. This example indicates that early retirement and disability retirement may – in this sense – be mutual substitutes (→ Health; → Legislation).

5.3.4 Qualitative approaches and mixed methods

Among the most frequently mentioned methodological need is the call for a deepened understanding of phenomena not being explained by the dominant quantitative research. To understand the complexity of employment at higher working age and individual decision-making, more qualitative work, such as personal interview studies or case studies, are needed, as well as mixed-method approaches combining qualitative and quantitative methodology. As an illustrating example, good health has been found to also lead to early retirement (→ Health), for example, to “enjoy life before it is too late” or to sustain health when someone feels that working is detrimental to their health. Such relevant associations easily remain undiscovered in simple regression analyses.

- » **Qualitative research.** A few countries have a more pronounced qualitative (recent) research tradition in the field, especially the United Kingdom and the Netherlands, while in most other countries, such an approach seems to be rare. Yet, in many domain chapters, the authors call for an increased application of qualitative approaches, such as in the domain chapters on → Health; → Domestic domain; → Social position; → Motivation; → Legislation; and → Financial factors, as well as in a number of national reports. For example, Lain concludes in his chapter on → Financial factors: “... we need more research on how subjective understandings of financial resources influence employment” and

Vickerstaff argues in her chapter on the → Domestic domain: “For example, ill-health of a male partner is a predictor of labour market reduction or withdrawal for the female partner but still some women with major caring responsibilities continue to work. To explain this we need to know the range of situational factors – workplace, family, nature of caring responsibilities etc. – that qualitative research can address more effectively.”

- » **Mixed methods.** Considering the current dominance of quantitative assessments in the field across all participating countries, *mixed-method research* may allow for capitalising on the different but complementary strengths of qualitative and quantitative methods and offer the potential to develop an even more nuanced understanding.

5.3.5 Questioning “historical generalisability”

One aspect addressed by the domain chapter on → Work factors is the temporal relation between research data collection and the contemporary relevance of the research conclusions. To illustrate this by a question: To which extent are studies about work exposures in the 1990s and their relation to retirement ten years later indicative of exposures relevant for today and tomorrow? Ever since, work force composition and health, work factors, work organisation, economy and society have changed, societal and work attitudes have altered, and social framework conditions are reflecting globalising economies.

Roe is questioning the validity of “historical generalisability” with respect to psychological research.³⁵ This scepticism may be extended to retirement research. In view of the substantial shifts in the transition from employment into full retirement and the changes in retirement regulations across most European countries, retirement researchers might have reason to thoroughly reflect and address the question of contemporary validity and relevance of previous and current findings. Considering that future cohorts of retirees will be healthier, more educated and have led a very different life course, including later entry in the labour force, we “must be cautious when extrapolating recent research to predict future trends” (→ Canada).

5.3.6 Linking register data

The overall uneven distribution of retirement research across the participating countries can partly be explained by the fact that the well-covered Nordic countries and the Netherlands “for many years have enjoyed the advantages of linked individual survey data and register-based data”³⁶ There, individual data (e.g. from questionnaire assess-

ments) may rather easily be linked to national employment or health data registries. In other countries, such data linkage is not possible or substantially more difficult to achieve. However, with enormous efforts, the German lidA Study has succeeded to fulfill all data protection requirements and is now able to link the employment register data of all approving subjects, which is the large majority of all participants.²⁴

The scientific and evidence gain of data linkage can be enormous, as, for example, documented in the domain chapter on → Work factors, where only two of the 29 reviewed prospective studies included did not originate from the Nordic countries or the Netherlands. The authors Pohrt and Hasselhorn write that employment registers “can provide up-to-date and complete information on retirement. If combined with studies that have good indicators of work factors, there is a wealth of data, which continuously provides a basis for research. As can be seen in the Scandinavian countries this wealth is used well.”

Two different conclusions for research may be drawn:

- » **Data linkage.** Feasible access to registry data and data linkage possibilities for researchers need to be extended to all countries. This does not only generate policy-relevant evidence but also fosters national and international expertise.
- » **EU data protection regulation.** Currently discussed data protection regulation on the European level must not limit the feasible access to registry data and data linkage possibilities, thereby restricting existing and preventing the extension of register based research on employment participation in Europe (→ see Olsen J, 2014³⁷).

5.3.7 Need for valid indicators

In several of the JPI UEP reports, the need for valid indicators is expressed. For example, the need to understand the frequently used indicator of *retirement intention* was addressed, i. e. whether and how it relates to *actual retirement behaviour*. Another research issue is how retirement can be measured in times of its conceptual and temporal fragmentation (→ section 5.2.1). Two reports document the need for new indicators to uncover relevant societal phenomena and trends: Carrière and Galarneau have shown that *average* and *median age of retirement* were indicators unsuited to measure changing retirement behaviour among older workers in Canada. First, their measure of *working life expectancy at age 50* identified the continued increase in extension of working lives since the mid-1990s (→ Canada).³⁸ Furthermore, in Norway, the

growing number of older people combining employment and retirement has led to the need to establish separate indicators: *Expected duration of economic activity* and *expected retirement age* respectively (→ Norway).

According to its definition, an indicator quantifies and simplifies phenomena, it helps to understand complex realities and to make estimations, here, for example, of probabilities of staying or leaving employment. The examples above indicate that societal developments require the revision and development of valid and useful indicators to capture the different facets of employment participation and retirement.

Valid indicators are needed for defining retirement and the factors with strong influence on employment participation at higher working age. This applies to all domains and thus micro level data of individuals, meso level data from organisations and national or regional data on the macro level. Such indicators should be based on research evidence and could be agreed definitions and assessment instruments. When, for example, the → Domestic domain is concerned, this could apply to *family status, partner's work status, partner's health, caring obligations, household income and wealth*.

Another example may be the measurement of the *financial context* of retirement (→ Financial factors) and – frequently mentioned in the JPI UEP reports – the measurement of *health*, where the multitude of self-reported, objective and register factors assessed may indicate different aspects of health with different relevance for employment participation (→ Health).

- » **Sets of valid indicators.** Both national and international comparative research as well as policy might benefit from an interdisciplinary project developing evidence-based sets of indicators for the monitoring of and research on employment participation at higher working age.

5.3.8 Large longitudinal studies

The substantial cross-national differences described before (→ section 5.3.1.2) also reflect the availability of large prospective cohort studies. Norway, Denmark, Sweden, Finland and the Netherlands are countries with several cohorts, some of them specifically addressing employment participation at higher working age (→ national reports). Findings documented for the United Kingdom, show that the availability of only one such specific cohort may already lead to a large amount of high-quality and highly relevant evidence in the field (→ United Kingdom). Referring to the benefit derived from the English Longitudinal

Study of Ageing, ELSA, Lain concludes in his chapter on → Financial factors that “it would be beneficial if other countries were to invest in large-scale surveys that facilitated disaggregated analysis such as this.”

Another positive example is the Survey of Health, Ageing and Retirement in Europe, SHARE. This cohort study of several European countries (including Sweden, Denmark, Germany, Netherlands, Belgium, France, Switzerland, Austria, Italy, Spain, Greece) has contributed to the European level analysis and research consideration of retirement. The focus includes the retired population, which, however limits the possibilities to cover the broadness of domains considered in this report.

Recent studies explicitly set up to investigate the determinants of employment participation at higher working age are, for example, STREAM (*Study on Transitions in Employment, Ability and Motivation*, → section 2.2.3)²³ in the Netherlands and the German lidA Cohort Study (*German Cohort Study on Work, Age, Health and Work Participation*; www.lida-studie.de).²⁴ Both studies explicitly focus on the older workforce and on the domains related to employment participation in later working life. Both also include sufficiently large numbers of participants to allow for differentiated analysis, e.g. by gender, social class, occupational group, industry, and migration status.

- Countries without access to such specific cohort studies on employment participation should consider setting up high quality investigations on time, as the value of these prospective studies increases with their duration. The studies should
 - reflect a broad view on the topic covering the domains dealt with in this report,
 - cover specificities of their own country,
 - be interdisciplinary in nature and performance,
 - be planned for a long duration of investigation and sufficiently large in size,
 - include the possibility for linking survey with employment and health register data,
 - consider the potential of international comparability by using same or similar indicators,
 - be linked to other European studies and research groups in the field.

The benefit will not only be the availability of relevant evidence on the short, medium and long term employment participation, but also the development and enforcement of specific expertise the national – and thereby also on the European – level.

5.4 Specific domains

5.4.1 The health domain

Several JPI UEP reports indicate the necessity of applying a differentiated view on the role of health with respect to employment participation at higher working age. The common perception is that *poor health leads to early withdrawal from work* is correct, as poor health is a precondition for receiving disability pension (→ Health) and may also – to some extent – statistically predict (non-disability) early retirement (→ Netherlands; → section 5.5.3). However, the role of health, in the context of retirement, is a very complex one as indicated in the domain chapter on → Health and also by the lidA conceptual framework (→ section 2.2.4) illustrating the close relation of health to almost all other domains.

A *limited* view on the role of health with respect to early retirement bears the risk that merely the prevention of poor health is in the focus of research and of national and organisational policies. This might, however, overlook the – probably larger – potential that a *differentiated* view may have on intervention:

- **Differentiated view on the health-retirement association.** The health-retirement association may not be straight forward; also good health has been shown to lead to early withdrawal from work and people with poor health are working. Qualitative studies are needed in all countries to understand the complexity of individual decision-making for retirement as well as for continued working within the context of multiple determinants on different levels. (→ Health)
- **Applying a life course perspective on workers' health.** Older workers' health is mostly a consequence of long-run processes which are often difficult to assess and difficult to influence. Longitudinal research approaches are needed to identify early determinants, switching points as well as typical occupational health trajectories. Intervention research shall identify the potential of interventions in the life course.
- **Poor health and non-retirement.** Many people at higher working age work with poor health and functional limitations. The tightening of the eligibility criteria for disability pension and (non-disability) early retire-

ment in most European countries is likely to increase the affected share of the population. More (qualitative and mixed-methods) research is needed to learn why and how these people are working. What are the consequences for their health, wellbeing, employment participation and wealth? Which alternative exit routes are being taken? (→ Austria; → Work ability)

- » **Identifying health indicators.** There are many ways of measuring the multi-dimensional construct of “health” that encompasses all different types and degrees of functional physical and mental limitations, such as numerous self-report measures and a large variety of objective measures often indicating physical or mental functioning and health claims behaviour. Which measures may be good indicators for continued employment participation? (→ Belgium)
- » **Considering type of disease.** Not just *general health*, but also the differentiated impact of *different diseases* or functional limitations needs to be considered in research. (→ United Kingdom)

5.4.2 The domestic domain

Whilst researchers have been accustomed to hypothesise the impacts of labour market and welfare state regimes on older workers’ employment trajectories, there has been less concentration on family or household structure and changes therein. This domestic context may be defined as the various factors associated with partnerships, marriage, family and gender roles, the latter including the division of responsibility for market and family work.¹⁵

It is undisputed that family formations are changing, although rates and degrees of change vary across countries. Divorce rates are increasing as are patterns of single parenthood. More people are choosing to live alone whether in a long-term relationship or not. At the same time, the welfare systems are under pressure, from austerity measures as well as demographic ageing.

Research on extending working lives has only recently begun to consider the roles and impact of family structures and the implications of the changes described. The scientific work is looking at three major aspects:

- 1) The *impact of the family status* on retirement planning and actual timing is investigated with findings such as widowed and spousal interaction effects on retirement timing.
- 2) The effect of *caring obligations* on retirement behaviour: this includes health conditions of the partner,

of parents (less investigated) or others, grand parenting and also touches on the societal caring systems.

- 3) The immediate *social network exerting social expectations* on retirement is a (less investigated) topic within this domain. Research frequently reveals asymmetric effects for men and women³⁹ indicating that the impact of the household on later working life is highly gendered. What is also found is an inconsistency of findings between countries or between results from quantitative and qualitative methodology.^{15,40}

Among the research issues to be addressed are the following:

- » **Understanding the impact of family and household changes.** We need to understand gender roles and the impacts of different and changing household regimes, in particular, the move from male-breadwinner to modified male-breadwinner to dual-provider households and the implications of these changes for propensities to extend working lives. This also includes research on family formation and breakdown (e.g. single parents, single adults) and its impacts on later working lives.
- » **Understanding women’s paths into retirement.** There is a need to better understand the relationship between long-run trends (i.e. gendered divisions of labour within households) and proximal factors (i.e. health shocks, redundancy, divorce). Research has tended to assume that women’s retirement paths follow their male partners but this needs more robust testing following the U.S. case and on-going changes in family formation and gender roles.
- » **Understanding the impact of health and caring obligations.** The impact of ill-health, own and spousal is mediated by a range of other factors, and we need a more nuanced understanding of the impacts of health on the household and employment. Grandparenting is emerging as an important, yet under-researched element in the complex determinants of remaining in or leaving the labour market at older ages.
- » **Understanding the impact of the welfare state on household and retirement.** Comparative research indicates that there are complex interactions between welfare state policies, such as variations in availability of childcare, patterns of maternal employment, changes in household formation and orientations towards extending or limiting working life. Here, cross-country comparative research could shed light on the interaction between macros, meso and micro level factors.

5.4.3 New work exposures

One of the most frequently investigated domains determining employment participation at higher working age is the domain work content. Interestingly, the results rarely reach beyond the findings that *low control* and *high physical demands* at work constitute relevant statistical risk factors for early exit from work (→ Work factors). Yet, both work content and the working population in Europe have been changing substantially in the past two decades and this has not been captured by virtually any of the existing studies. New jobs are emerging (e.g. green jobs) and create new exposures. Psychological and social work demands are gaining increasing occupational relevance. Beyond traditional work exposures the new work factors, such as information and communication technology or the ongoing extension of flexibility with respect to working time, location and employment may constitute *threats and opportunities* for the employment of older workers in the future. For example, the rapid advancements of the use of information and communication technology at work may imply a 'competitive disadvantage'⁴⁵ of older workers leading to a perceived or actual redundancy while it may also enable many older workers to adapt their work to their functional limitations.

What is needed is:

» **Review of modern work factors and employment.**

Research needs to provide up-to-date reviews of modern work factors in today's working societies and investigate their roles as drivers and barriers for extending working lives. This includes the consideration of the degree to which these factors are linked to factors from further domains, e.g. by magnifying or compensating their impact on employment participation.

» **Effect estimates.** The scientific investigation and estimation of the degree to which the employment-relevant work factors actually may be altered on national and organisational level in order to keep older workers working longer is needed.

A cross-national approach would benefit from the large variety of attitudes and practices in this respect in Europe.

5.5 Specific groups

5.5.1 Older women

Almost until the end of the last century, "retirement research virtually ignored women."⁴¹ Zimmermann et. al. (2000) continue: "Women's retirement was viewed as predicated on the retirement of her spouse and not seen

as an important topic area in its own right, since women didn't really 'work'".⁴¹ Denton & Spencer (2009) write about the historically "invisible retirees" with a limited time in paid work.³¹ Today, legislative equalising of pensionable ages for women and men is ongoing and expected to make a significant contribution to raising the labour force participation of older workers.⁴² Indeed, in the past decades, women employment rates across Europe have increased substantially. In the youngest age groups they have mostly equalled with that of men while in the oldest age group in working age (55–64 years) the gender gap in employment rate still exists (2013: 57% among men vs. 43% among women; EU-28 in 2013). However, 38% of all older women in the European Union worked part-time in 2013 vs. only 11% of older men.⁴³ In consequence, the group of older women in Europe is – more than older men – considered as an "untapped" potential for increased employment and employment participation.

Today, research on the issue of older women and retirement exists but is limited to a few countries only (especially Canada, the United States, United Kingdom, Norway). Loretto and Vickerstaff (2012) conclude from their qualitative research that "retirement may mean very different things for women and for men" when analysing the role of the domestic context for retirement.¹⁵ Still today, considerable gender segregation of jobs exists in Europe with many low status jobs and many physically demanding jobs being female dominated such as caring and cleaning jobs. This is closely related to older women's higher dependency in later lives, when social, familial and political economic structures may restrict women's social and political autonomy.⁴¹ Social expectations concerning early retirement may also be gender-specific, expecting older women to retire earlier than men, not only in the event of private caring obligations. When it comes to employment participation of women, we may assume a wide range of intercultural differences across Europe with respect to societal gender roles and role expectations and finally, we may face considerable cohort effects as younger generations with different role expectations grow older.

Thus, if older women constitute a relevant untapped employment potential to our societies,

» **a better understanding of their multiple roles, needs, preferences** and their employment potential is needed to contribute to the development of adequate supportive measures on organisational and national policy levels as well as by structural supportive systems. Sub-groups by, for example, occupational group and educational level need to be considered. Such an investigation would benefit from contrasting cross-national and multi-method research including qualitative approaches.

5.5.2 Migrants

The JPI UEP working group has identified the need to look at the situation and roles of migrants with respect to employment at higher working age. In a number of European countries and Canada, policymakers are encouraging immigration to compensate for demographic shortages in labour supply (→ Canada and reference⁴⁴). Migration within the EU and immigration from outside the EU is expected to increase, and in the coming years, large groups of migrants are reaching pensionable age, including second generations of migrants. Yet, although being part of European culture since many decades, several JPI UEP national reports indicate that the issue of “migration and retirement” has received very little scientific attention in their countries.

The term “migrant” is unspecific and may besides having foreign citizenship imply being foreign-born or even having parents who are foreign-born or who have foreign citizenship. Particularly when it concerns employment participation, migration may even include within-country-migration.

When applying a wide definition, migrants may be considered to be a very heterogeneous and multifaceted group. On average, the group may be expected to be more vulnerable compared to non-migrants, from a health perspective, but also from a social, employment and economic perspective.^{11,45} In Germany, for example, migrants tend to be overrepresented in jobs affected by economic restructuring, such as manual industrial jobs⁴⁶, jobs which are associated with higher employment and health risks. Foreign born migrants in Canada start – on average – late on the labour market, tend to be unemployed at a higher rate and to have lower wages. They are more at risk for disability retirement but, apart from that, less likely to retire early than other groups, and are more financially vulnerable (→ Canada).

Many European countries have shown some difficulty to fully integrate migrants into their national education systems and labour markets, this may even be the case for integration of second and third generation of immigrants. Also Phillipson & Smith (2005) refer to the high rates of unemployment of (older) ethnic minority groups in the United Kingdom and higher risks for detachment from the labour market.¹¹ However, the authors expect substantial variation across different birth cohorts and between different ethnic groups, reflecting “differences in educational attainment, along with social and health factors”.¹¹

Thus, more knowledge about what extending working life means for different migrant groups is urgently needed, yet

in Europe thus far, research on this topic seems to be rare or absent. Therefore, and in line with Phillipson & Smith¹¹, the JPI UEP working group proposes the investigation of this topic:

« **Patterns of employment participation:** What patterns of employment participation are found among the many different groups of older migrants in Europe and Canada? How are older immigrants included in the labour market? How are older second generation migrants integrated? How are older refugees integrated?

« **Determinants of employment participation:** We need to know more about the experiences of different migrant groups. How do migrant men and women perceive retirement and employment participation in advanced working age? How do they differ with respect to the impact of the determinants of employment participation as indicated by the lidA conceptual framework? For example, what is the impact of family ties and structures separated across borders when increased employment participation is aimed at? Which effect does re-emigration have on retirement behaviour and -age?

« **Impact of pension reforms:** How do pension reforms affect different groups of migrants?

Cross-national investigation: There is strong cross-national variation with respect to migrants and migration. Within the European Union, composition of the working population varies significantly between the countries with respect to proportions of migrants ranging from almost none (e.g. Bulgaria, Slovakia, Croatia) to 50% (Luxembourg).⁴⁷ Furthermore, migration flows vary significantly within and between countries and by time. In Canada, migration is assuring population and work force growth (→ Canada), in Germany, in-migration is currently backing relative economic prosperity.

Cross-national investigations (also multi-methods and qualitative) may enable research to differentiate between and interpret general, national and regional determinants and patterns of employment participation of migrant and ethnic groups.

5.5.3 Social position

The social position is an early in life determinant influencing choices and opportunities of education and – consecutively – of work⁴⁸ (→ Social position). The lidA framework indicates that the effect of social position on retirement is mediated by work, health and domestic factors.⁴⁹ However, social position may be regarded as an issue affecting all domains involved in employment participation and thus

has been frequently addressed in the JPI UEP reports. In countries where respective data is available, studies show that – on average – people with lower income and lower education tend to retire earlier. In Sweden, for example, the maximum difference in “lost working years” (years exiting the labour market before reaching the age of 65) between low status and high status professions was 4.8 working years for men and 5.5 years for women (→ Sweden).

This social difference in retirement age might be mainly explained by early “involuntary” departure from work, i.e. by disability retirement and by unemployment. Indeed, in Germany disability retirement is a common exit route for workers of lower occupational class and occurs much earlier than old age retirement.⁵⁰ Radl, when analysing SHARE data, found that the occupational class effects for involuntary early retirement are stronger for workers between 50 and 59 years of age and that they diminish after the age of 60 years.¹⁹

“Voluntary” early retirement exit occurs at a much later age than involuntary retirement¹⁹ and shows different social exit patterns. SHARE and other data further indicate that – if those retiring for *health* reasons are excluded – people with higher household financial wealth tend to retire earlier (→ Netherlands; → Belgium) and workers with low position as well as those with high educational level retire later than others (→ Financial factors; → Austria; → Belgium). While workers with higher education may be more intrinsically motivated to work at advanced age (→ Sweden; → Denmark; → Norway), those with a lower social position might rather be in financial need to do so. (Note: Not having retired for health reasons does not indicate good health. Recent German data indicate that poor self-rated health is very frequent among workers aged 55–64 years with a low occupational position (men >30%, women > 40%) and rather rare among high position professional groups of same age.⁵¹)

Differential social retirement patterns require more scientific attention:

- ✉ **Monitoring should consider occupation and social position.** Retirement behaviour and trajectories of workers need to be monitored with respect to occupation and social position. Here, it will be of relevance to differentiate between different work exit paths.
- ✉ **Investigating by occupation and social position.** As mechanisms and pathways to employment participation and retirement at higher working age vary by occupation and social position, research should – whenever possible – apply a differentiated view and perform stratified analyses.

✉ **Role of education.** Research should investigate the role of extended vocational training for later employment participation. In several countries, there are indications for education to play a decisive role, especially among women (→ United Kingdom; → Austria; → Sweden).

✉ **Policy effects on different social groups.** Research is needed on how different policies affect different social groups. Which social groups are reached by which interventions? What are the occupational, health and economic consequences of such interventions? For instance, studies linking policies, financial factors, gender and social position are needed. How are these factors interacting and what is their impact on the labour market participation of older workers? For which social groups are financial incentives for extending working lives relevant? (→ Financial factors)

✉ **Ethical aspects on social position and retirement.**

More empirical investigations and theoretical considerations are needed that cover ethical aspects emerging from social differences and retirement regulations (e.g. considering status-related lifetime pension contributions and life expectancies).

5.6 Policy-related aspects

5.6.1 The employers' perspective

The extension of working lives will be influenced by opportunities offered by employers. They are the owners of interventions that enable older people to stay longer in the paid economy and have to plan for a labour market with increasing difficulties recruiting and retaining workers. For them, the three challenges will be to 1) *retain older workers*, 2) *adapt work to workers with functional limitations* and 3) *to re-integrate older workers into the labour market* (→ Labour market).

Age-sensitive management strategies and practices, including adjustments in job design, work and working time flexibility, working conditions, training, and the work environment, need to be offset by real gains in production and productivity for employers. However, there is great variety in the availability and application of age management strategies to retain older workers between companies, industries, and countries, and often their effectiveness remains unknown.

One of the established key work risk factors for early exit from employment is adverse physical exposure (→ Work factors). In the wake of ageing work forces, some companies across Europe have begun to develop a variety of strategies to adapt the work environment to the new

workforce demands. Technological change has reduced the physical effort involved in many (but not all) jobs, making it easier for people to continue working for longer, even in some traditionally physically demanding roles. At the forefront are individually adapted workplaces and enabling work environments with opportunities for lifelong learning, occupational health management, job flexibility and an “enabling automation” based on assistive technology.

The “lidA conceptual framework on work, age and employment” visualises the complexity of employment participation in advanced working age. With respect to the organisational level, all measures aimed at providing employment to older workers will fall short if they are implemented in isolation: Systematic and comprehensive age-sensitive management is needed to retain older workers, to promote their work ability and productivity and to provide those outside the labour market with new employment opportunities. Against this background, several research priorities stand out:

- » **Retaining older workers:** Which human resource management (HRM) practices specifically aimed at retaining older workers are actually in use? To which extent do they consider/ make use of the complexity of employment participation as indicated by e.g. the lidA conceptual framework (→ section 2.2.4). Are interventions tailored to individuals or groups of workers? What characterises strategies shown to be successful? How do they cover the three core elements “further vocational training”, “leadership”, and “adaptation latitude at work”?
- » **Employment of older workers:** What incentives and disincentives exist for employers to hire older workers? Which measures or factors, also institutional, have been shown to work – for which groups of older workers and for which groups of employers? What incentives and disincentives exist for employers to fire older workers?
- » **Employers’ attitudes.** Longitudinal research into employers’ attitudes and behaviour towards older workers, both from inside their company (retaining older workers) and outside their company (hiring older workers) is needed. There is a need for cross-national studies in this field, to better understand the effects of national labour market institutions and regulations.
- » **Workplace adaptation:** Many uncertainties remain about the consequences of future applications of new technologies in the workplace. How can modern assistive technology contribute to the promotion and maintenance of work ability and thus to the employment of workers with functional limitations?

5.6.2 Organisational intervention

The scientific literature on HRM and interventions to prolong working life is extensive and “underlines the importance of a holistic approach that covers the whole range of different measures, and the entirety of working life, not solely older workers” as Hilsen and Midtsundstad summarise in their chapter on → Human resource management and interventions. This field has been broadly studied by means of surveys and case studies. However, several authors in this project come to a rather identical conclusion with respect to research evidence and research needs: only very few studies are evidence based and there is a lack of evidence that the measures performed actually work (→ Austria; → Canada; → Netherlands; → Norway; → Sweden; → Human resource management and interventions). One major criticism is that the interventions usually are related to health and wellbeing, work ability and attitudes to retirement and that they very often lack real retirement outcomes. And if it was assessed, most of the studies do not find any effect on retirement (→ Human resource management and interventions; → Canada).

Research challenges may be the following:

- » **Role of training and education for labour retention.** More research is needed on the labour retention effect of training and education of workers during the working career and in advanced working age. Which concepts may be effective and for whom? Could training be used to help retirees get back to work? How do training and abilities interact with other factors such as educational attainment and skills, health or disability status, the level of workplace accommodation offered by employers, and the changing nature of jobs? How is training of older workers perceived by employers? (→ Canada)
- » **Life time career modelling.** Uniform work exposure over years is associated with increased employment risks at higher working age. This applies for physical risks at work when a worker with always the same physical work exposure ends up developing a musculoskeletal pain and disease. And this also concerns qualification and training: Older workers, whose competences have not been used, trained and challenged for many years may easily find themselves in a specialisation-trap with high risks for employment and employment motivation.²⁹ Research is needed into the effect that occupational mobility or job changes over the life course have on employment in advanced working age. Which occupational groups are affected and would benefit from such changes? How would ideal life time career models look like for these groups?

Which policy measures could prevent de-qualification and disuse in these groups?

- » **The impact of working time control.** The possibility to control working hours is a key factor influencing decisions to transfer from work to old-age retirement⁵² and disability retirement. Working time control measures include timing and amount of weekly hours, including options for shorter working hours, part-time work, part-time pension, part-time sick-leave etc.; they are frequently used work adjustment factors among workers with disabilities in Finland. Cross-national research is needed to assess regulation, practice and potential of working time control aimed at retaining older workers in the different countries.
- » **Role of workers' motivation.** The older workers' motivation to continue working is strongly determined by work content and factors of work organization (e.g. leadership, HRM practices). Systematic research is needed to investigate the organizations' positive and negative impact on the workers' motivation to continue working. Here gender, professional status and ethnicity need to be considered.
- » **Understanding formal and local practice.** The public sector and large companies are more likely than others to be engaged in HRM practices aimed at retaining older workers, this however, does not guarantee good local practice. In contrast, small and medium-sized enterprises may be weak on formal policies and descriptions of strategies for older workers, but actual practice may be better. More research is needed to explore this further.
- » **Models of best/ good practice.** Comparative "best/ good practice" studies can serve as inspiration to others, but can rarely contribute to scientific knowledge on employment participation of older workers. Still such knowledge is necessary to understand the effects and correlations identified in large-scale quantitative studies (→ Human resource management and interventions).
- » **Retirement intention and retirement behaviour.** Large scale longitudinal studies, as well as survey/ register based studies, are needed to connect employee's attitudes towards early retirement and age management strategies to actual retirement behaviour. That is, we need to know more about the relationship between retirement intentions and retirement behaviour (→ Human resource management and interventions).
- » **Impact assessment needed.** Future research should aim at evaluating the impact and effectiveness of

human resource management interventions on the extension of employment participation of older employees. However, such interventions are very complex and may rarely – if ever – meet the criteria of Randomised Controlled Trials (RCT). It is necessary for evaluation research (not only in the field of employment participation or HRM) to develop new methods to evaluate organizational interventions.

5.6.3 Societal costs and gains of policy changes on older workers' exit behaviour

In most European countries state regulations on retirement have shifted from "employment exit strategies" during the last decades of the last century to "employment maintenance strategies", i. e. by reducing retirement incentives and by increasing pension entitlement age. Lain (→ Financial factors), Hofäcker et al. (2006)⁵³ and Ebbinghaus & Hofäcker (2013)⁵⁴ summarise evidence indicating that these strategies are effectively influencing employment participation and work exit behaviour of older workers – and thus may have contributed to the sharp increase in employment rates of older workers in many European countries (→ Legislation).

Potential societal costs behind such developments are easily overlooked and need – from the point of view of the JPI UEP working group – increased scientific attention. There is empirical evidence that reducing the generosity of disability benefits may increase the enrolment into other forms of social insurance (→ Legislation). For example, in Austria, restrictive regulations have significantly delayed retirement while the exit from standard employment tends to occur at an ever earlier age today (e.g. by unemployment, sick leave, atypical employment). This is happening at the expense of older women and men concerned (→ Austria).

In consequence, the impact of current employment maintenance strategies (implying reduced exit options) needs to be investigated with respect to:

- » **The older work population.** Will the number of older "job locked" workers⁵⁵ increase - those who should retire for work ability and health reasons and – under new regulations – cannot afford to do so? Which occupational and social groups do they belong to? What are the consequences for their health, work ability, work motivation and quality of life? What are the consequences for their enterprises with respect to economic (employment) flexibility, productivity and the need for HRM strategies? What are the societal costs of prolonged working lives, e.g. with respect to health costs (considering beneficial and adverse health effects of

work), and with respect to informal societal work, such as informal care and social engagement?

- » **Alternative exit routes.** What are the early exit routes from employment, comprising disability retirement, unemployment, non-employment (without benefits), or the receipt of welfare? Can patterns of career exit paths be identified? How are they changing and following legislative changes? What is their impact on personal current and prospective wealth, health and quality of life? What are the societal health costs? What impact do employment maintenance strategies have on societal trust?

Cross-national approach. Here, comparative cross-national research approaches are indicated as national differences may be expected, for example depending of the welfare state system. Following Hofäcker et. al. (2006)⁵³ and Ebbinghaus & Hofäcker (2013)⁵⁴, the consequences of increased employment rates differ substantially between

countries, depending on their employment relations system, occupational and educational system, their welfare and pension system⁵⁶ and – closely connected – their employment maintenance strategies.⁵³

Multi-method approach. As this issue is cutting across the micro, meso and macro levels and across the different domains a multi-method approach seems to be advisable combining both qualitative approaches, such as individual level or organisational case studies, and quantitative methodology including, for example, simulations.

6

Conclusions

The previous chapter provides a collection of 19 research need topics derived from the work documented in the ten domain chapters and eleven national reports. In this final chapter we want to exemplify findings for each domain, summarise three overarching “research gaps” having emerged from the work of the JPI UEP expert group and conclude with exemplifying research needs for nine of the research topics discussed in chapter 5.

6.1 Findings

In the following, we provide a list of selected exemplifying findings, research needs and policy recommendations by domain:

Labour market (*J. Oude Mulders, E. Wadensjö*)

There are gaps in cross-national comparative research investigating the effects of labour market policies, like anti-age discrimination laws or incentive programs targeted at employers.

Legislation and its implementation (*I. Mairhuber*)

Profound analyses of the impact of legislation on the labour market participation of older workers only exist for some countries, e.g. Belgium, the Netherlands and Austria. Many of these studies focus on the pension system and largely disregard other pathways out of the labour market or potential interactions between other influencing factors from the realm of social security, e.g. unemployment insurance payments or disability benefits.

Financial factors (*D. Lain*)

Increased attention needs to be placed on how financial influences are differentiated across different subgroups of the population, e.g. with respect to wealth level, gender, marital status and ethnicity. This requires that many countries invest in large-scale surveys that measure financial, household and work-related circumstances of individuals.

Social position (*N. Riedel*)

Interdependencies between macro, meso, and micro factors might be understood best by adopting a systems view on social inequalities and their implications for individuals’ employment opportunities and early labour market exits. Such a research approach is sensitive to systemic changes and feedback loops between and within levels, possibly induced by external forces, interventions and their unintended effects over time.

Domestic and household factors (*S. Vickerstaff*)

It is clear that there are differences in family formation and gender regimes from country to country, and the prevailing welfare state may reinforce or inhibit certain divisions of labour of market and non-market work within the family. More comparative research could yield interesting insights into the interactions between macro, meso and micro level factors in conditioning propensity to work later in life.

Human resource management and interventions

(*A.I. Hilsen, T. Midtsundstad*)

Despite the perceived advantages of phased retirement, specific measures that promote a smooth transition between full employment and full retirement are rare in most countries. Even if such measures are in place, research about their effects is mostly lacking. In one study from Norway, there has been found no effects of such measures on early retirement.

Work factors (*A. Pohrt, H.M. Hasselhorn*)

Only *high physical work demands* and *low job control* have consistently been shown to be associated with disability retirement; a number of other work factors have not been investigated. Qualitative studies and the application of a life-course perspective in longitudinal studies will contribute to a better understanding of relevant work factors and reveal cumulative exposures, work changes and other transitions over time.

Health and health-related behaviour

(*S. van den Heuvel, A. de Wind*)

More studies are needed that adopt a multifactorial approach. Although most studies include demographics and work factors in their analysis of the relation between health and employment participation, the macroeconomic situation or other contextual factors are seldom included. In addition, interactions between health and the different factors influencing employment participation may be studied more extensively.

Work ability (*E.P. Takala, J. Seitsamo*)

The research on work ability has often been performed following a cross-sectional approach. A significant number of large-scale longitudinal studies using register data has shed light on the causal relations of the determinants of work ability and the work ability and retirement. This research adequately covers the relationships between health, work factors, and work ability.

Motivation to work (U. Waginger)

Research on the impact of motivational aspects on employment and retirement behaviour has only been advanced rather recently. Thus, only a limited number of studies are available so far. In view of the importance attributed to the topic, increased efforts to expand the current state of research are highly recommended. The domain is largely driven by researchers from the United Kingdom, the Netherlands, Belgium, and the Scandinavian countries, while there is limited evidence across all other JPI UEP countries. Besides these regional gaps, there is the need for comprehensive cross-country comparisons.

6.2 Recommendations

These exemplifying research findings shed light on some general shortcomings of the existing research in the field of employment participation of older workers. The researchers in the JPI UEP working group point to deficiencies both in methodology and scope. For example, many existing studies fail to adopt a systems view and multifactorial approach (→ Social position; → Health and health-related behaviour) and therefore disregard the emerging theme of retirement fragmentation (→ Legislation). This also relates to the lack in longitudinal studies and the application of a life course perspective (→ Work factors; → Work ability). The JPI UEP group also notes a missing cross-national comparative perspective in research and a general neglect of regions outside North-Western Europe (→ Labour market). Lastly, there is a neglect of important population subgroups like women or migrants in retirement research (→ Domestic domain; → Financial factors), who, in fact, should be at the centre of policy attention (→ Motivation).

These conclusions indicate three priority areas to advance research on the employment participation of older workers, namely to address *conceptual gaps*, close *cross-national gaps*, and fill *thematic gaps*. These may be transferred into some overarching recommendations for researchers, research funders, as well as decision-makers in research policy and labour market policy addressing employment participation at higher working age.

- Conceptual gap: Bridging the lack of a broad view
- Regional gap: Levelling of uneven cross-national coverage of research
- Filling the thematic gaps in retirement research

In the following we shall go deeper into each of these three points.

6.2.1 Conceptual gap: Bridging the lack of a broad view

This report documents the complexity of retirement coined and influenced by regulatory, socioeconomic, company and family/ individual settings. Furthermore, the processual character of retirement, the dynamism of relevant groups, factors and framework conditions and the increasing conceptual and temporal fragmentation of retirement add to this complexity.

Why is this complexity not reflected by the majority of research in the field? The reasons may be a lack of research opportunities, such as access to appropriate data and information, a lack of (funding) resources for in-depth research, research convention, lack of conceptual background or of established theory.

The JPI UEP working group identified positive examples, however. The two countries with the highest research coverage, Norway and the Netherlands, also report broad approaches considering multiple domains sometimes bridging macro, meso and micro level determinants for employment participation at higher working age. In addition, recent large cohort studies explicitly designed to assess the transition from work to retirement cover a broad range of determinants and provide research with unique and differentiated data and innovative findings (→ Netherlands; → Norway; → United Kingdom; → Germany). Some qualitative analyses also adopt a broad view on their topic of investigation, however, such studies are rare in European retirement research and seem to be limited to the United Kingdom and the Netherlands.

For research to equip policy with valid and relevant findings, it has to take the complexity of retirement into account. This requires an explicit consideration of the multitude of determinants of employment participation at higher working age. For this, more interdisciplinary research is needed and a better connection of – nowadays often separated – research communities. Furthermore, retirement needs to be considered as a process with obvious proximal influences and often overlooked distant predictors for employment participation at higher working age. For an estimation of the preventive impact, early determinants have to be included in observations, for example, by means of longitudinal settings, register data analysis or by qualitative approaches.

The JPI UEP working group further stressed the relevance of a differentiated view on the roles and pathways from work to full retirement for certain groups, such as low status manual workers, acknowledging their sometimes fundamentally different basic conditions of work, tran-

sition into retirement, and retirement itself. Hence, “risk factors” and retirement rarely mean the same for different subgroups of the population. This has to be considered when drawing research conclusions.

Retirement is complex, but not too complex to be captured by research. In this report, several authors point to encouraging examples of broad research approaches outlining their benefit and feasibility. Such research will benefit from multi-method approaches that build on the strengths and compensate for the weaknesses of conventional singular approaches. For research, it may be a (rewarding) challenge to advance interdisciplinary cooperation and, in parallel, combine micro, meso and macro level approaches, qualitative and quantitative data, as well as evidence from case studies and micro simulations. Such cooperation benefits from the joint understanding and interpretation of findings in light of different methodologies, disciplines and results or experiences from cross-national comparative investigations. Future projects could, each in their own way, contribute to bridge one or more aspects of the needs described above, e.g. by implementing a broader view, considering micro, meso and macro levels, which, in any case, would lead to a widening and deepening of interdisciplinary cooperation.

6.2.2 Regional gap: Levelling of uneven cross-national coverage of research

The distribution of research on employment participation of older workers was found to be very uneven across the review countries. A few displayed a very high coverage of research, while many others only had limited evidence and research activity. Across almost all domains, the countries with the highest research coverage are – as mentioned above – Norway and the Netherlands. Also Canada and Finland show a high level of research activity in the field. Researchers in the Scandinavian countries and the Netherlands benefit from the possibility to link their questionnaire assessment data to register data, which clearly boosts the quality of the research. Some countries have specific thematic profiles with outstanding research in selected fields, take for example, Belgium with respect to legislation, and Finland, as regards work ability. The rather low research coverage in Poland may reflect the country’s focus on the social and economic transition, which was associated with high levels of unemployment.

However, there are a few topics, where the research coverage across Europe is at similar levels. This applies to analyses of the financial, labour market and social factors associated with employment participation at higher working age, where large European survey data enables researchers to conduct research across national borders.

Several large cross-national research collaborations on ageing, work and retirement exist already. The findings of the JPI UEP working group indicate that this research may need to be intensified, widened to include more scientific disciplines, and directed towards long-term cooperation. Such an international research approach may not be easy to implement since groups will need to establish a joint understanding, common terminologies and integrated tools, such as sets of agreed valid indicators. It will also be a challenge to combine the range of methodological instruments and tools of the disciplines, but the benefits may be worthwhile: For one, such an approach will increase the common understanding of the underlying mechanisms within a specific country. Secondly, contrasting cross-national research will allow for estimating macro level impacts (e.g. the impact of welfare state systems). And thirdly, such an approach would promote retirement research in countries where national research gaps exist.

The lack of a unified European cross-national data structure and research coverage strongly limits the possibility to conduct cross-national comparative studies. However, these would provide a highly valuable source for mutual learning and for identifying the main determinants that influence the transition from work to retirement. Taking the cross-national differences in the social welfare systems into account, comparative studies might be able to answer questions concerning country-specific effects and distinguish them from general, more systematic phenomena, mechanisms and settings.

In combination with other data like the European Innovation Scoreboard, a pan-European coverage of the determinants of employment participation at higher working age may provide important information for strengthening the productivity and competitiveness of European economies.

6.2.3 Filling thematic gaps in retirement research

The JPI UEP working group research consortium identified a number of thematic gaps of relevance, many of which are listed in the domain chapters and the national reports. In detail, the consortium defined research needs for several thematic fields, as indicated in chapter 5.

6.2.3.1 Differentiated view on the role of health in the context of retirement

One thematic priority, which the group stressed, was the need for a differentiated view on the role of health in the context of retirement (→ section 5.4.1). This role is a complex one (→ Health and health-related behaviour) which – if considered – may offer a large potential for interventions. The link between health and retirement also

needs a qualitative assessment to, for example, capture the effect of *good health* on retirement decision-making and the role of *poor health* when continuing to work. The latter is needed to acknowledge the expected increase of older workers in the labour force that have a poor health status and functional limitations. Some important questions to be addressed would include: Why and how are they working? What are the personal, organisational, economic and social consequences of working longer? Which alternative exit routes out of employment are taken?

6.2.3.2 Need for consideration of domestic and household impact on retirement

There is need for in-depth research on the role of the domestic context on retirement decision-making ([→ Domestic and household factors](#)). The domestic context is changing, family formations are in transition and the number of employed women increasing. Throughout the project, it has become obvious that the effect of the domestic background on later working lives is highly gendered. In the context of household factors, research needs to capture the impact of social change as to women and men's orientations towards extending or limiting working life. This includes the consideration of gender roles, the influence of different and changing household regimes, caring obligations and grand parenting. Findings within this domain often differ between quantitative and qualitative methodology and between countries which calls for multi-method comparative cross-national studies ([→ section 5.4.2](#)).

6.2.3.3 New work exposures and their impact on retirement

One of the domains with the highest research coverage is the domain of work factors. However, the exposures assessed in retirement research rarely reach beyond the traditional physical and psychosocial work factors ([→ Work factors](#)). The on-going rapid changes in the work content and their impact on employment of older workers have not been studied. New jobs are emerging and create new exposures. Psychological and social work demands gain an increasing occupational relevance, and new work factors, such as the increased use of information and communication technology or the higher level of flexibility with respect to working time, location and employment may constitute both opportunities and threats for the employment of older workers in the future.

Therefore, a comprehensive review of modern work factors and their effects on the employment participation of older workers is needed to understand whether these factors, in fact, help to retain older workers or constitute a barrier to the extension of working lives ([→ section 5.4.3](#)).

6.2.3.4 Investigating the role of older women in retirement

In the European Union, the group of older women is considered as an “untapped” potential for increased employment participation, which has only been recently investigated in a few countries ([→ especially United Kingdom; Norway; → Canada; and the United States](#)). In view of the persistent gender segregation of jobs, older women's higher financial dependency in later lives and the continuing restrictions of older women's social and political autonomy, it appears obvious that retirement is not the same for women and for men. Above all, intercultural differences may also be expected to have an effect. An up-to-date understanding of their multiple roles, needs, preferences and employment potential is needed to support the development of supportive measures on the organisational and national policy level and by structural support in the realms of social and labour market policy. Cross-national and multi-methods research including qualitative approaches would increase the evidence while informing about suitable entry points and effective components of interventions ([→ section 5.5.1](#)).

6.2.3.5 Migration and retirement

Several national reports from the JPI UEP working group indicate that retirement of the migrant population so far has received very little scientific attention. The term “migrant” is often used unspecific and may cover very heterogeneous and multifaceted groups within society. On average, migrants may be expected to be more vulnerable both from a health perspective, but also in terms of their average social, employment and economic perspective. Hence, it is important to gather more evidence about what an extended working life means for the migrant population. This requires the identification of employment patterns, participation rates and exit paths across different groups of older migrants. Some questions to be addressed include: How do migrant men and women perceive retirement? What are important risk factors for migrants' early exit from the labour force? What is the impact of re-emigration on retirement and retirement age? What is the impact of pension reforms on migrants? ([→ section 5.5.2](#))

6.2.3.6 Considering the social position

The social position of the worker has been frequently addressed throughout the reports of the JPI UEP working group. Social position is an early in life determinant for premature exit from employment ([→ Social position](#)). People with lower status tend to retire earlier. However, this social difference in retirement age might be mainly explained by early “involuntary” departure from work, i.e.

by disability retirement and unemployment. "Voluntary" early retirement exit occurs at a later age and shows different social exit patterns. Hence, it is important to know the differential impact of retirement policies on different social groups. Therefore employment and retirement at higher working age needs to be monitored and analysed considering occupation/social position and work exit paths. Finally, ethical aspects linked to the social position and retirement are important to consider (→ section 5.5.3).

6.2.3.7 The employers' perspective

The extension of working lives will be influenced by opportunities offered by employers. They can implement interventions that enable older workers to remain in the labour force longer. However, there is great variety in the availability and application of age management strategies to retain older workers between companies, industries, and countries, and often their effectiveness remains unknown.

Against this background, several research priorities were identified; one concerns the *retaining of older workers*: Do employers consider the complexity of employment participation in their attempts to retain older workers, such as the older workers' domestic context? How do interventions cover the three core elements vocational training, leadership, and adaptation latitude at work?

The second issue is the *employment of older workers*, where, for example, incentives and disincentives for employers to hire older workers need to be investigated. Moreover, (longitudinal) research to assess employers' attitudes towards older workers, both in terms of retaining and hiring older workers, has shown to be lacking. Finally, more research on *work place adaptation* is needed, where the consequences of the increased use of new technologies in the workplace need to be investigated. Here, research shall examine the potential of modern assistive technology for the promotion and maintenance of work ability among workers with physical, cognitive or psychological limitations (→ section 5.6.1).

6.2.3.8 Organisational intervention

The scientific literature on human resource management and interventions to prolong working life is extensive. However, several authors of the JPI UEP working group come to the conclusion that only very few studies are evidence-based and that there is a lack of evidence about which of the measures that were performed actually work. Related research questions include: (i) the role of *training and education for labour retention*, (ii) the effects of *occupational, job and task mobility* over the life course

on employment at higher working age, and (iii) "*working time control*" as a key factor for working longer. Finally, the impact and effectiveness of human resource interventions on the extension of employment participation needs to be better assessed, which may require the development of new evaluation methodology (→ section 5.6.2).

6.2.3.9 Investigating societal costs and gains of policy changes on older workers' exit behaviour

The increased employment participation of older workers may bear substantial societal costs, which are easily overlooked and need scientific attention. Much of the regulatory and social changes related to extending working lives may be implemented at the expense of older women and men.

In consequence, the social impact of current employment maintenance strategies needs to be investigated with respect to *the older work population working longer*: Will the number of older "job locked" workers increase? What are the consequences for their health, work ability, work motivation, and quality of life? What are the social, economic and organisational consequences for companies? Are there any general costs for society?

With respect to *alternative exit routes*, it would be important to investigate the effects of legislation on alternative early exit routes from employment, their impact on personal wealth, wellbeing and the quality of life, as well as healthcare costs. Multi-methods approaches and comparative cross-national research approaches are indicated (→ section 5.6.3).

6.3 Final remarks

From the point of view of the JPI UEP working group, the nine topics listed above may be regarded as urgent but exemplifying topics in terms of *thematic gaps* to be filled by applying a broad view approach (summarised by the *conceptual gap*), and the opportunities for cross-national research (denoted as the *regional gap*). Research initiatives that may contribute to bridging these three gaps would (i) promote knowledge exchange, (ii) reduce duplication of research effort, (iii) maximise the use of research funds and expertise, and (iv) take advantage of the opportunities for comparative studies, and thereby transfer the aims of the JPI MYBL and its Strategic Research Agenda into practice.³

7

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