

**Joint Programming Initiative**

**More Years, Better Lives**

***The Potential and Challenges  
of Demographic Change***

**Version of 19 April 2010**

To be delivered to the GPC

Presented by

**German Federal Ministry of Education and Research (BMBF)**

# Index

1.	Topic of the Joint Programming Initiative .....	1
2.	Proposing GPC members.....	5
3.	Objectives .....	5
4.	Research questions being addressed .....	7
5.	Added value, benefits and impact .....	11
6.	Preliminary suggestions concerning the governance and implementation of the JPI.....	13
6.1	Governance structure .....	13
6.2	Implementation .....	14
Annex 1	Preliminary inventory of research .....	17
Annex 2	Preparatory workshop.....	20

**Contact:**

Christian Wehrmann  
Federal Ministry of Education and Research  
Microsystems Division  
53170 Bonn - Germany  
Phone: +49 22899 57-3565  
E-mail: Christian.Wehrmann@bmbf.bund.de

Michael Huch / Dr. Marc Bovenschulte  
VDI/VDE-IT  
Steinplatz 1  
10623 Berlin – Germany  
Phone: +49-30 / 31 00 78-193 / 108  
E-mail: demographic@vdivde-it.de

## 1. Topic of the Joint Programming Initiative

The vision of an "active life in old age" will become one of the major social challenges in Europe and other highly industrialised world regions in coming years. The EU Member States need to develop and implement new solutions, policies and strategies for dealing with ageing. R&D is a fundamental cornerstone when it comes to defining the benefits and challenges as well as exploiting the potential and capabilities of an ageing society.

In order to guarantee and further develop the future of Europe, approaches to tackle the implications of demographic change need an active participation of politics, industry, and research and innovation. This, of course, concerns every single individual as well. When looking at the perspectives of our societies, the research focus will have to be put on individual lives, as it is the sum of the full diversity of individual human lives that shape our societies.

With the help of the best available scientific knowledge that is actively and openly shared among all participating research disciplines, it will be possible to take advantage of the years gained and to master the challenges of demographic change and turn it into a window of opportunity. Besides the challenges, Europe has the potential to be a frontrunner for addressing the forthcoming lead market for "Ageing Well" products and services, and this opportunity shall not be missed easily. This approach is the focus of the Joint Programming Initiative "More Years, Better Lives – the Potential and Challenges of Demographic Change".

Today, the complexity of demographic change is not yet sufficiently addressed by a coordination of national activities or by the level of multi- or interdisciplinary exchange among scientists. There is also a lack of common tools, results, good practices, evidence-based standards and terminology. A JPI may thus provide measures to find a suitable remedy, including a better understanding of cultural and political diversity as well as access to research performed in other countries. The comparison of life situations in various countries or regions will provide knowledge of similarities and differences in general and therefore foster interregional and international cooperation. On a policy level, scientific evidence can be used to stimulate the implementation of innovative solutions.

Based on the fundamental challenges and opportunities related to the ageing population, the Joint Programming Initiative aims to benefit from a strong coordination of selected national and European research activities and to jointly implement new programmes and strategies where appropriate. It is meant to contribute to "better lives" for older people and therefore to the sustainability and efficiency of welfare systems for future generations. This also concerns people's ability to determine their lives in a meaningful and satisfactory manner.

Demographic change will affect a large number of social sectors and contexts. It therefore touches on our awareness and understanding of wellness and social inclusion, participation and equality - in other words: the identity and self-concept of our societies. Without an appropriate and forward-looking set of

instruments and activities, the concept of European societies – respecting the existing diversity and different circumstances – will no longer be the same. In order to guarantee and develop the future of the European Union, approaches to demographic change will not only need an active role of politics, public authorities, industry and research, but of many other social stakeholders and players as well. Europe should aim for leadership in competence and competitiveness on a global scale in this area.

On the initiative of the German Federal Ministry of Education and Research (BMBF), a European Conference was held on 28/29 January 2010 in Berlin. More than 130 participants from research institutes, public authorities and stakeholder organisations discussed the scope and need for a more coherent European approach. Based on the broad consensus reached between the participants, the following five sectors – that reflect the diversity of human life – have been proposed in order to achieve an inclusive coverage of topics under the Joint Programming Initiative “More Years, Better Lives”:

### ***Health & Performance***

Especially in the area of health and prevention, a vast number of scientific disciplines are involved, ranging from medical research, biology and psychology to sociology, economics, engineering and cultural anthropology. Hence, it is expected that Europe will especially benefit from interdisciplinary research to achieve a general understanding of individual and societal factors influencing people's health throughout their lives. It will also help in developing the best medical solutions (diagnosis, prediction, prevention and rehabilitation) to meet the needs of elderly people.

A vast number of research results and empirical data have already been collected across Europe; what is still missing today is a greater transparency and cross-European visibility of activities as well as a continuous exchange of experiences between disciplines and national activities. Therefore, it is vitally important to share knowledge and link different sources in order to reach a new level of awareness. This is also true for the mutual learning of good practices and the implementation of research approaches. Long-term empirical studies across borders are lacking as well. An exchange of views in health research, including socio-economic aspects, provides the opportunity for better evidence-based policy-making and an evaluation of policy implementation.

### ***Social Systems and Welfare***

The JPI “More Years, Better Lives” addresses pension systems and social schemes (for health, care, welfare) in general. Demographic change is challenging the stability of the social insurance systems: the number of older people is growing, while – if conditions remain unchanged – the share of people of working age is decreasing. Public social systems depend on inter-generational developments. They will have to cope with less income due to a shrinking work force and, at the same time, higher expenditure for pensions, health and long-term care.

Yet, in the future, productivity in old age is set to rise due to the fact that young people with a better school education and better health care are growing older. Furthermore, the shrinking workforce can be balanced out by giving women better access to the labour market or through migration, optimised

working conditions, and forms of higher organisation and further automation (see chapter 4). Additionally, there is no empirical evidence that the productivity of older employees necessarily has to decline. Of course, a 60-year-old worker will not be capable of the same degree of physical performance as a 20-year-old worker, but he or she can compensate for these losses through better planning, complex skills, special techniques etc. A knowledge-based society needs experience, social skills, and organisational talent – precisely the skills of older employees. These trends promise considerable opportunities for a society with an ageing population. Moreover, the value added of older service providers will increase of its own accord when older clients appreciate being served by older staff.

Despite financial challenges, demographic change will strongly affect health and social care systems. In the past, the care of elderly persons was traditionally the responsibility of family members and was provided within the extended family home. In modern societies, care for elderly persons is increasingly being provided by the government or by charity organisations. The JPI wants to encourage research to find suitable actions for coping with the implications of this trend.

### ***Work and Productivity***

A common view on ageing societies expects a loss of productivity and innovative potential as well as an excessive burden on national economies resulting from rising pension and health costs. A further concern is the decrease of societal and governmental reform forces. This perspective might turn out to be true if ageing is not accompanied by consistent policies or entrepreneurial, societal, and individual actions. The JPI “More Years, Better Lives” therefore aims at providing input for future evidence-based policies.

A continuous development and maintenance of capabilities, skills and qualifications of employees is a key to a high level of labour productivity. Consequently, it is an important condition for maintaining standards of life and the welfare and social systems as they are today. Employees do not remain the same after having been hired; they change, and so does their workplace. A core aspect of the working life cycle approach is to design work systems for a highly diverse workforce. Significant research has been inspired by the concept of socio-technical systems design, which integrates human resources, organisation forms, and technology issues in order to develop work systems suitable for sustainable employment along the working life. In contrast to these well-intentioned ideas, personnel and organisational development have always been addressed more directly and intensively than technological issues. This is especially the case for technology development, as opposed to technology implementation. Furthermore, the contribution of volunteering and honorary work to society deserves specific attention as well.

### ***Education & Learning***

Economic structures and the requirements of the labour market have changed tremendously in the last two decades. We are living in a globalised information society with a growing share of knowledge-intensive service activities. Pressure on companies, institutions and individuals to change is high, and

both professional and general knowledge quickly become obsolete. One period of education at the beginning of one's life is no longer a good enough basis for a successful working life and must be extended adequately. Education and learning have to be considered from a lifelong perspective as well. The lifelong learning process has to be conceptualised as a sequential and consecutive process ranging from pre-school education to specific training programmes throughout people's lives.

In this context it is important to acknowledge that certain aspects of cognitive ageing begin at a relatively early stage. This primarily concerns the speed of information processing and the ability to coordinate different inputs simultaneously – a decline that begins between the age of 30 and 35 years. Nevertheless, individuals are indeed able to learn and work for many more years. One reason is the compensatory effect of knowledge and experience. Although knowledge and experience reach their peak in middle adulthood, they remain stable for a long time afterwards and finally show signs of decline in very old age. Consequently, acquired knowledge and accumulated experience may compensate for the declining speed of cognitive abilities. Learning modules and training elements have to consider these age-dependent cognitive abilities and performance levels.

### ***Housing, Urban-Rural Development & Mobility***

The shift of age distribution will affect housing concepts and aspects of urban planning for elderly people. Normally, the term "ageing society" means a shrinking society which does not require the dimensions of today's cities and infrastructures but needs the same – or even improved – accessibility to services. Whereas the large majority of today's elderly people, just like people in any other kind of household, prefer living in suburbs and semi-rural environments, the housing preferences of future older generations will surely differ from established schemes such as residential care homes. They will cover a large variety of styles and settings instead. And: assisted living technologies will definitely enter future homes.

In many member states, the continuous population decrease mainly occurs in rural areas. This leaves many villages with major challenges in the area of social inclusion. The central question is how to find solutions without the need for expensive long-term investments in order to obtain more flexible and adaptive infrastructures and transportation systems. The deployment of information and communication technologies has great potential in this respect.

Planning and shaping urban environments for elderly people must focus on already existing buildings and streets. Domestic and cross-border aspects of accessibility, mobility and orientation based on the needs, preferences and abilities of different people have to be taken into account. The aim is to achieve an individual balance of assistance and stimulus in daily life without incapacitating people.

Demographic change will also affect urban/rural transport systems in different ways. This concerns different needs, expectations, economic limits and demand patterns. Reduced mobility and orientation will lead to a segregated society, where people with low mobility have a higher risk of becoming isolated and lonely – an effect which over time will lead to higher costs for societies: If people are

entitled to a service, but unable to reach its location, society will have to bring the service to them instead.

## 2. Proposing GPC members

The Joint Programming Initiative Demographic Change is proposed by Germany and supported by Denmark and The Netherlands. Following countries indicated interest: Austria, Czech Republic, France, Spain and the United Kingdom.

## 3. Objectives

European citizens and European competitiveness will benefit from advances in knowledge creation in each of the proposed five research tracks. These five tracks are not "new" per se. But it is the new specific focus on the demographic ageing process within the five tracks that will reveal the benefits: it is foremost the interdisciplinary nature of the initiative, i.e. the exchange of knowledge between researchers from various disciplines that will open up new research questions; it is the transparency of the research activities in the participating Member States that will avoid redundancy in research efforts; it is the cooperation of researchers with representatives of various stages within the value creation chain that paves the way for new economic ventures.

More specifically to the core of the initiative "More Years, Better Lives", i.e. the joint programming, the following specific objectives are envisaged to be achieved:

- **The Joint Programming Initiative "More Years, Better Lives" prepares the coordination of R&D activities designed to enable all people to live a healthy, active and independent life and to improve social participation and a high quality of life well into old age.**

It intends to find mechanisms to make better use of the rich life and work experience of the older generations for the benefit of society. At the same time, the JPI is designed to reveal not only the challenges for societies with an ageing population in Europe, but more importantly the opportunities for technological and socio-economic innovation to enhance the quality of life of older people, mitigate the economic problems of an ageing population, and create new economic and business opportunities. The existence of the coordination as a mechanism, combined with the central platform for information exchange, will surely lead to an improvement in the design of research actions in the area of the JPI.

- **Joint Programming and the establishment of a common European knowledge base in demographic and ageing-related research is a key to enhance Europe's economic competitiveness.**

By bringing together excellent R&D for addressing demographic change, European developments and the resulting innovations, products and services for an ageing and inclusive society could be

at the forefront when it comes to conquering future and global “silver markets”. It will be an asset to always consider and target ageing well markets in other areas of the world which will face the very same demographic developments right now or in the near future.

- **To achieve these ambitious objectives, various social routines, priorities and developments need to be adapted. This requires an interdisciplinary overall strategic R&D perspective.**

The interdisciplinary approach is the most advanced novelty with this JPI. This approach needs to address innovative technologies and services, the development of productivity and health-promoting working conditions, new models of work organisation and relevant forms of social security, and the development of new regional and local facilities and infrastructures.

- **The JPI “More Years, Better Lives” will develop strong relations between “owners” of research programmes, researchers from academia and industry, policy makers and other stakeholders, including older people.**

This combination will initiate a change “from guessing to knowing”. Providing data for an evidence-based policy is the primary task and objective of this JPI, including the following questions:

- “What is needed?” → Identifying the potential for positive change.
- “What can be done?” → Scientific findings as evidence for policy.
- “How to implement?” → Policy measures that can be used to improve the situation.
- “How to measure?” → Evaluation in order to adapt the policies.

If the above questions are appropriately answered, this Joint Programming Initiative will considerably contribute to:

- Higher levels of social inclusion, health, medical and social care, i.e. a higher quality of life
- Improved and expanded mobility as a basis for active social, cultural, economic and political participation
- Sustainable financing of health, welfare and social systems
- Longer working lives, improved sustainability of individual professional biographies and productivity, higher labour market inclusion

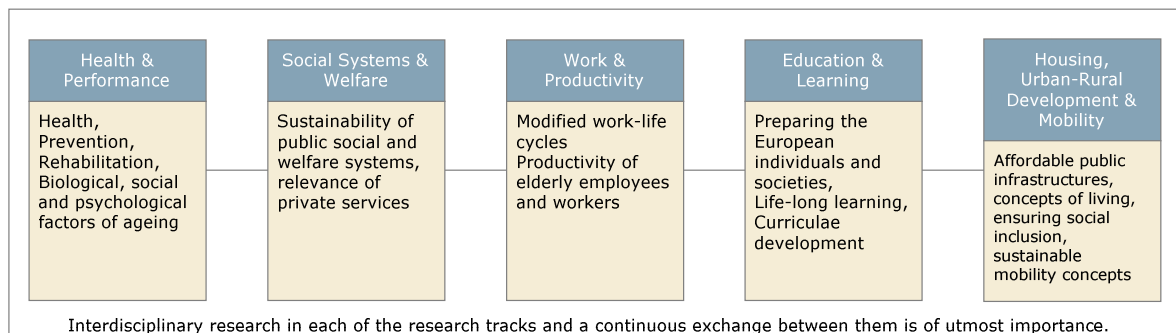
The paths towards an adequate set of solutions and mechanisms will be documented in a strategic research agenda (SRA). This document will be the main implementation route under the Joint Programming Initiative and it will specify the type of activities, the time horizon and the responsible actors for the implementation. It is the main task of the governing body to monitor the implementation progress, to identify any gaps in this process and to undertake the necessary corrective measures. This mechanism ensures the continuous observation of the feasibility of the set objectives.



## 4. Research questions being addressed

The JPI “More Years, Better Lives” is comprehensive in scope, as the initiative tackles both the lives of individuals and the whole public service sector. This holistic approach is a distinctive feature of this initiative which calls for an interdisciplinary research set-up. This combination is expected to lead to important benefits.

Despite the huge number of research results and empirical data already collected across Europe, there is still a lack of transparency and cross-European visibility of the different activities, and there is no constant exchange of experience between disciplines and national and European activities. Knowledge sharing and mutual learning of good practice in research and in the implementation of research approaches are therefore a key necessity. Long-term empirical studies across borders are lacking as well. Exchange in health policy research provides the opportunity for better evidence-based policy-making and improvements in the evaluation of policy implementation. According to the proposed five-track set-up, most prevailing research questions are presented as follows:



### **Health & Performance:**

In the area of health and prevention, a significant number of scientific disciplines are involved, ranging from medical research, biology and psychology to sociology, economics, engineering and cultural anthropology. Research questions in this area comprise:

- Research on the plasticity (and its biological and genetic limits) of human development and ageing in various aspects of life, such as physical development, cognition, personality and social relations, will provide the necessary systematic knowledge about contextual influences on the facilitating or debilitating potential of ageing.
- Research on the interaction between biological and socio-cultural influences as well as the decisions and actions taken by each ageing individual. Research must contribute to an understanding of the biological, psychological, and socio-cultural dimensions of ageing. Only a holistic systemic perspective will broaden our understanding of the multidimensional processes, their links and the possible ways of influencing them positively.
- Research on advanced medical technologies like biocompatible and intelligent implants or diagnostics for individual medical treatment aims to expand the knowledge base for reducing age-specific impairments, chronic diseases and morbidity.

- Holistic and integrated health care services based on technological assistive systems like tele-care in combination with human intervention are already emerging. The aim is to address R&D questions beyond the mere technical questions, i.e. business models and service concepts.
- Improved concepts for health education, promotion, preventative medicine and rehabilitation will extend the time of unimpaired ageing and prevent or slow down the onset of age-related illnesses.

### **Social Systems and Welfare**

Research on welfare and social systems will reveal the challenges of ageing societies in Europe and, more importantly, the opportunities, where technological and socio-economic innovation can enhance quality of life for older people, mitigate the economic problems of an ageing population, and create new economic and business opportunities. The main role of research in this area is to assess the impact of or prepare the grounds for policy actions.

Research needs to be aimed at:

- Effective and efficient health care systems that allow more room for prevention and prediction rather than treatment and cure and are built on broad societal consensus.
- Developing new services, especially holistic and integrated care services based on technological assistive systems like tele-care or emergency calls in combination with human intervention (hybrid care systems) – as a response to the decreasing number of care staff – professional as well as family members – in the future.
- An expansion of the working life *per se* and, as a result, of occupational health and safety to maintain health and productivity throughout a longer working life.
- An improved understanding of the societal impact on age and intergenerational policy support: New multi-disciplinary socio-economic research building on ex-ante and ex-post case studies and new predictive models.
- Systemic and integrated social and health care solutions: elaborating on a life-course based approach, i.e. from prevention to gradual intervention and support for elderly users as well as carers; building up socio-economic evidence based on statistical data and quantitative research findings and developing new business models.
- Impacts of the global effects of demography – and the European perspectives.

### **Work and Productivity**

Longevity and demographic ageing confront the multifaceted reality of work with new challenges as well as offering new opportunities. Fundamental changes to the area of work are necessary for people's quality of life to improve – generational segregation needs to be countered and societal productivity and well-being sustainably maintained and enhanced. The distribution of work across life has to change, and the forms and contents of education and work need to change accordingly.

An interdisciplinary and pan-European R&D interchange including local/regional/sectoral hallmarks and Good Practices will stimulate research to promote a better understanding and support of age management at work. Research areas will cover the investigation of:

- Age and family-related work processes, age-friendly work places, flexible working conditions, social support and economic modelling.
- Work-life balance models: income, job rotation, new tasks, lateral careers etc. are necessary to avoid loss in productivity due to over-exertion or over-routinisation.
- Scope of and motivating factors to stimulating volunteering and honorary work
- Occupational health, prevention and safety models that best address the employees' needs resulting from a longer working life.

### ***Education & Learning***

Lifelong education and training has to become a regular component of employment. In the future, it will be even more important to see working environments as learning environments and to design them correspondingly. This also encompasses neglected factors such as prevalent images of old age and the learning climate in companies. Learning and innovation processes in work and educational contexts must be interlinked more intensively; formal, non-formal, and informal learning settings and outcomes must be integrated into educational policies more comprehensively and systematically and must incorporate personnel development strategies and programmes.

Within a Joint Programming Initiative "More Years, better Lives", the following research actions should be pursued with respect to Education & Learning:

- The implementation and frequent repetition of a "50+ PISA" would be a first milestone towards empirical and comparable data sets or even a pan-European database on knowledge distribution among the elderly population.
- Comparative research on learning conditions and learning impacts should disclose the existing regional and cultural diversity. This research should include a common quality control for educational programmes. R&D projects should set up the corresponding methodology on how educational systems, including lifelong learning programmes (before and after retirement), are to be assessed.
- The assessment and prediction of structural change is to be improved. Factual knowledge on these processes will better outline the required competencies and thus provide the necessary input for the required adaptation of educational systems.
- A greater permeability within and across educational sectors, also regarding the specific permeability between vocational and higher education.
- Knowledge about the required meta-competences that enable individuals to find their way through the permanently changing living and working constellations.

### ***Housing, Urban-Rural Development & Mobility***

Home and residential environments are important places for self-determined ageing. Therefore, adapting apartments and providing facilities and furnishings that meet the requirements of older

people are not the only pressing issues. Urban and regional development needs to focus on developing social networks and involving older people in the shaping of their environment.

Ageing in Europe varies considerably among countries, regions, towns, and local communities. And these regional disparities are growing. They require an intensive dialogue on the conditions of ageing at local level and on principles for equalising living conditions in a society with an ageing population. The regional disparities and conditions for ageing need to be given more attention in science and politics. Regular surveys that include information on local ageing disparities are required.

Mobility in everyday life secures people’s participation in societal, political, and economic exchange processes. In old age, slower perception and reactions as well as reduced physical abilities require appropriate mobility aids. Assistive technology and access to the internet can be an answer.

The following aspects are of general interest for joint national research activities in the context of housing, urban-rural development and mobility:

- Re-considering the design of future housing concepts, i.e. re-shaping of existing vs. newly built environments, “ghettoisation” vs. Mixed-structure living concepts for older people.
- Social and economic perspectives of sparsely populated rural areas in relation to living standards, access to cultural events and the maintenance of public infrastructure.
- The role of technical assistive systems for independent living and social connectivity of older people and associated business and service models.
- Personalised mobility concepts of the future.

During the preparation of this proposal, numerous valuable European initiatives were identified, e.g. the Ambient Assisted Living Joint Programme and several ERA-NET projects like ERA-AGE (II) – with whom a memorandum of cooperation is jointly envisaged – and NEURON (see figure 1 in the following). Other Joint Programming Initiatives already launched address topics that are related to demographic change, but have a more specific focus, e.g. the JPI on Neurodegenerative Diseases or the JPI on Health, Food and Diet-Related Diseases. This JPI aims to build on the achievements of these and several other research actions and to associate or cooperate with relevant ongoing initiatives. This means that this JPI will elaborate its profile through constant interaction and coordination with existing and further planned initiatives in order to avoid a duplication of research focuses and efforts. This includes agreements on labour division and the interchange of complementary data and information. Pooling these actions into the envisaged collaboration of several national research programmes under the JPI “More Years, Better Lives” is expected to make a substantial step forward towards the evolution of the European Research Area.

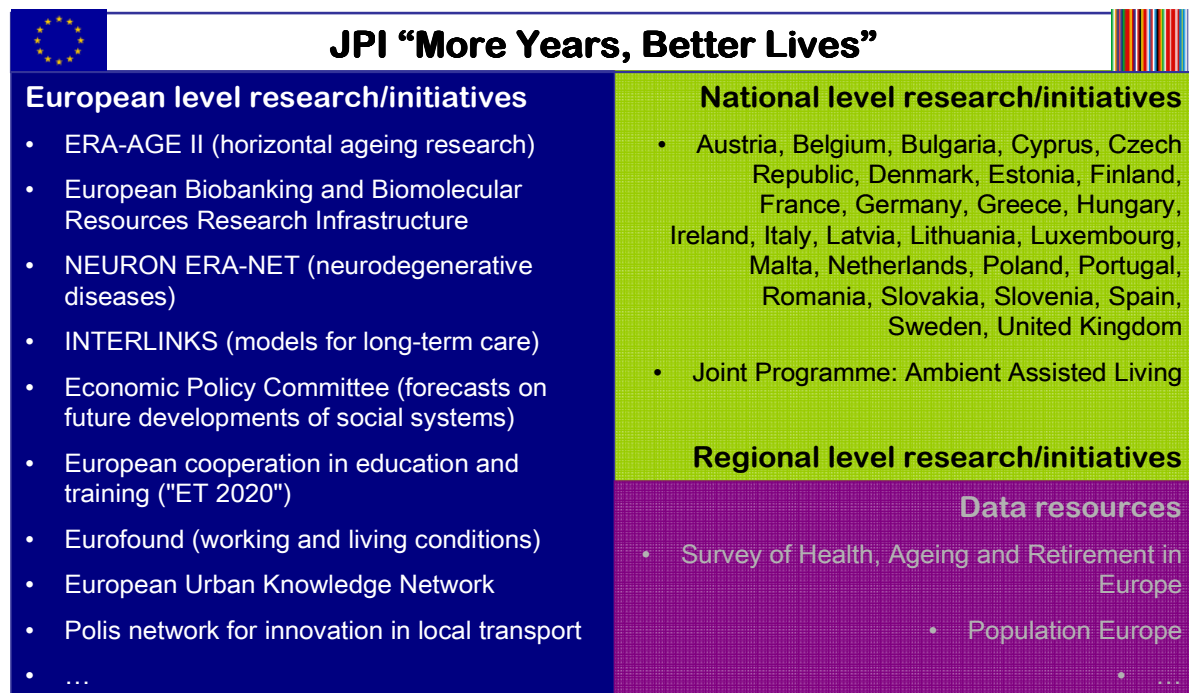


Figure 1: The JPI “More Years, Better Lives” in the context of illustrative examples of European research actions

On top of mere R&D issues, a JPI could also address accompanying activities, e.g. the development of future requirements for professions and university curricula in relevant study courses, or promoting the status and thus the attractiveness of jobs in the care sector.

## 5. Added value, benefits and impact

The JPI “More Years, Better Lives” aims at gaining knowledge on the potential of ageing and securing opportunities for better ageing. This includes knowledge based on micro- and macroscopic scales: for example on fundamental influences of epigenetics and biochemistry on molecular and cellular ageing, the incentive structures for learning, working, maintaining good health, and for continuous social participation and productivity, the adequate set-up of regional infrastructures and the use of enhancing technologies across all areas of everyday and economic life. It is realistic to assume that in the relatively new area of age related research this JPI does not only lead to more efficiency in research, but will also trigger higher involvements of other stakeholders to transform research results in successful commercial products and services.

To a high degree, future research actions depend on a reliable knowledge base which has to be further developed and created by R&D activities. There is a huge gap regarding the implementation of well established findings from ageing research. This was established as the unanimous consensus at the European preparatory workshop for this JPI on 28/29 January 2010. More than 130 representatives of regional, national, and European agencies, as well as researchers from public and private entities supported the approach of this JPI.

The success of a common European strategy will depend on whether it combines research activities from all research areas mentioned above. For example, the creation of a common new market apart from the highly regulated healthcare sector might become an attractive economic option for new business models and alliances, e. g. between health providers and housing providers.

The global welfare indicators are jeopardised by demographic change. However, the JPI “More Years, Better Lives” can provide the knowledge needed to avoid this risk. This is the best way to benefit from the cultural and socioeconomic diversity within Europe. The consequences of demographic change are becoming noticeable in various social, cultural, economic and geographical settings. Therefore, researchers, policy-makers, business-people and the mobile population will have to experience genuine diversity in living and learning environments. The issue of local demographics will be addressed in parallel to a growing understanding of problems and chances of a European ageing population. The JPI is not intended to homogenise ageing in all Member States, but to take advantage of national differences in settings, interests and theoretical paradigms.

Furthermore, the Joint Programming and the establishment of a common European knowledge base in demographic and ageing-related research will also foster Europe’s economic competitiveness. By bringing together the best in R&D to address demographic change, European developments and the resulting innovations, products and services for an inclusive ageing society could be at the forefront of future global “silver markets”. The potential of this is referenced in the recently published study “ICT enabled independent living for elderly”<sup>1</sup> that lists about 1,000 organisations and already 180 products in the field of Ambient Assisted Living (AAL) in the EU-27.

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<sup>1</sup> [http://www.vdivde-it.de/publikationen/dokumente/abstract\\_ict\\_elderly](http://www.vdivde-it.de/publikationen/dokumente/abstract_ict_elderly)

## 6. Preliminary suggestions concerning the governance and implementation of the JPI

### 6.1 Governance structure

The governance structure for such a complex initiative as the Joint Programming Initiative must ensure appropriate guidance to achieve the objectives mentioned above (see figure 2 in the following).

Generally, the JPI "More Years, Better Lives" is to be led by a governing board supported by a scientific or technical secretariat and working groups chaired by scientific peers.

The **JPI Governing Board** will consist of appointed persons from JPI member organisations, in most cases presumably the "programme owners" (i.e. research ministries or public programme managing agencies). The JPI Governing Board is the body responsible for decision-making and monitoring the JPI. It will meet at least twice a year. The JPI Governing Board approves the overall JPI strategy and the annual operational plans, which detail the foreseen activities, responsibilities, budgets and their sources and give an indication of their duration.

The JPI Governing Board nominates a **JPI Chair** who governs the JPI in cooperation with the former and future chairs as the **JPI troika**. This concept will safeguard continuity of activities. The chair of the JPI Board will rotate every two to three years among the members of the JPI.

Two **Advisory Boards** will be set up, one with a majority of scientific experts dedicated to research activities; the other with representatives of societal bodies to deal with the societal implications of the JPI.

**JPI Working Groups** are to be set up for each research track of the JPI. They have a twofold objective: First, the working groups will contribute to producing all relevant JPI documents, especially to the Strategic Research Agenda and to the annual JPI operational plans. Second, the working groups will be responsible for the implementation of activities as adopted by the Governing Board. Members of these groups will include scientific experts (it is proposed that an expert will chair a working group) and delegates nominated by each member of the JPI for the purposes of that specific group. Representatives of programme owners and/or programme managing agencies will also be nominated to working groups in order to ensure the required level of cooperation of national research programmes. The chair of each working group will report to the Governing Board on the working group activities at least once a year.

The **JPI scientific and technical secretariat** is the central infrastructure for the operation of the JPI. The secretariat supports all governance structures within the JPI in terms of administration. It will prepare, conduct and report on all relevant meetings of the chairs, the governing board and the advisory board. On top of this, the secretariat will also organise the activities of the working groups. Qualified central staff members of the secretariat will ensure interaction between the working groups, i.e. they will feed in discussions held in the other working groups.

The secretariat will be mandated to implement mid- level activities – as specified within the JPI annual work programme which is derived from the Strategic Research Agenda. Activities will comprise the set-up and maintenance of a central information repository of research activities, support for the central organisation and dissemination of common events, and similar activities.

The administrative overhead of the JPI will be limited to the funding of a minimum structure in order to guarantee the functioning of the JPI. This minimum structure consists of the scientific secretariat and the costs of central meetings. Contributions of scientific experts may be subject to payment if they are considered of crucial importance by decision of the JPI Governing Board.

Besides this joint funding, any other activities under the JPI will be financed by resources of the national JPI member organisations. Neither work contributions nor travel costs will be subject to central reimbursement. Activities specified in more detail in the annual JPI work programme are directly funded by the respective national programme owners ("virtual pot").

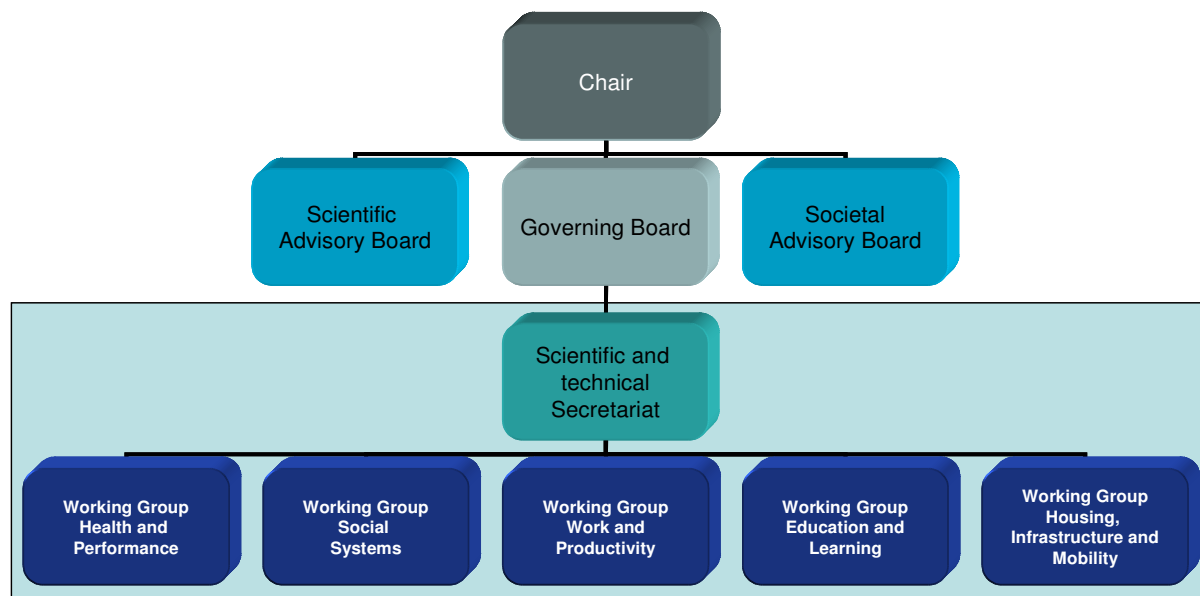


Figure 2: Governance structure of the JPI on Demographic Change

## 6.2 Implementation

The coordination of national research programmes under the JPI "More Years, Better Lives" will be accompanied by activities in the following three action lines:

- Strategic actions
- Information, communication and networking
- Deployment strategies

**Strategic actions** aim at the JPI core, i.e. the cooperation of selected national research programmes. In a structured and strategic process, Member States agree, through a voluntary process, on common



visions and strategic research agendas in the area of demographic change. An essential part of the strategic actions is the compilation of a **Strategic Research Agenda**. This SRA will specify research priorities for each research track of the JPI within a period of about 10 years. Input to the SRA is essentially delivered by peers. In order to keep up to date, the SRA will need to be revised regularly (e.g. every two years). The SRA will deliver the input for the annual JPI work programmes and will be accompanied by a gap analysis, i.e. a targeted process revealing any potential shortcomings of research actions in the current set-up of the JPI.

In addition to the SRA, a **foresight process** will be implemented to look even further into the future, i.e. 15 years and more ahead of the actual point in time. Again, the foresight process will include input from the most prominent research representatives in JPI countries and in key countries and regions beyond (e.g. USA, Japan, China).

The strategic actions will be accompanied by a **continuous monitoring process** that runs in parallel to the JPI itself. The monitoring will provide the JPI Governing Board with actual input on the achievement of set objectives and the status of implementation. Monitoring will also include the observation of research in similar areas and beyond European borders.

This set of actions will be complemented by **regular evaluations** of the JPI programme.

#### **Information, communication and awareness:**

Activities under this heading are manifold and pursue several objectives. The JPI itself and the outcome of the strategic actions will be communicated effectively to selected target groups of the JPI. Target groups of the campaigns include the following:

- Policy-makers: The representatives of policy-making organisations throughout Europe will be addressed so that they can stimulate an uptake of results and findings into national and regional policy actions.
- Researchers and developers: This group, with representatives from both public and private bodies, will comprise experts who will help edit strategic JPI documents (SRA, foresight). The results of this common action will give guidance and orientation to enable proper planning for the use of scarce resources.
- Interest groups: Interest groups consist of representative users of research outcomes to be developed within the framework of this JPI. This also includes organisations representing the older population. In addition, potential users at the end of the value creation chain (e.g. health and care institutions) are to be addressed as well.

Information sharing consists of establishing a common (web-based) platform by which information is first collected and then shared among stakeholders of the JPI. This activity needs thorough preparation and agreements on the types of information to be collected as well as on presentation modes. Knowledge creation is of elementary importance in order to define the common basis for the exchange of knowledge and information in the area of the JPI. Networking is a key to stimulating the

interdisciplinary work of stakeholders on all levels (research, industry, users, policy-makers, programme owners, etc.)

Information campaigns will aim to increase awareness on research subjects of the Joint Programming Initiative and at document expected benefits from this large-scale action.

A last relevant field of activities is entitled “**market deployment strategies**”. This area comprises activities targeted at the most effective deployment of research under the JPI. Key activities will have to address technology transfer and exploitation strategies including patenting, licensing and activities for the management of intellectual property rights. Accompanying actions will include the identification of (additional) funds for market introduction. Cooperation between national / regional authorities and development banks could be envisaged here.

A joint graduate school / master’s programme in demographic change would complement the set of actions presented here. It would complete the perspective given herein of a comprehensive action considering demographic change as a truly dynamic process. Cross-cutting issues that are important for any JPI will be addressed in each of the five content tracks.

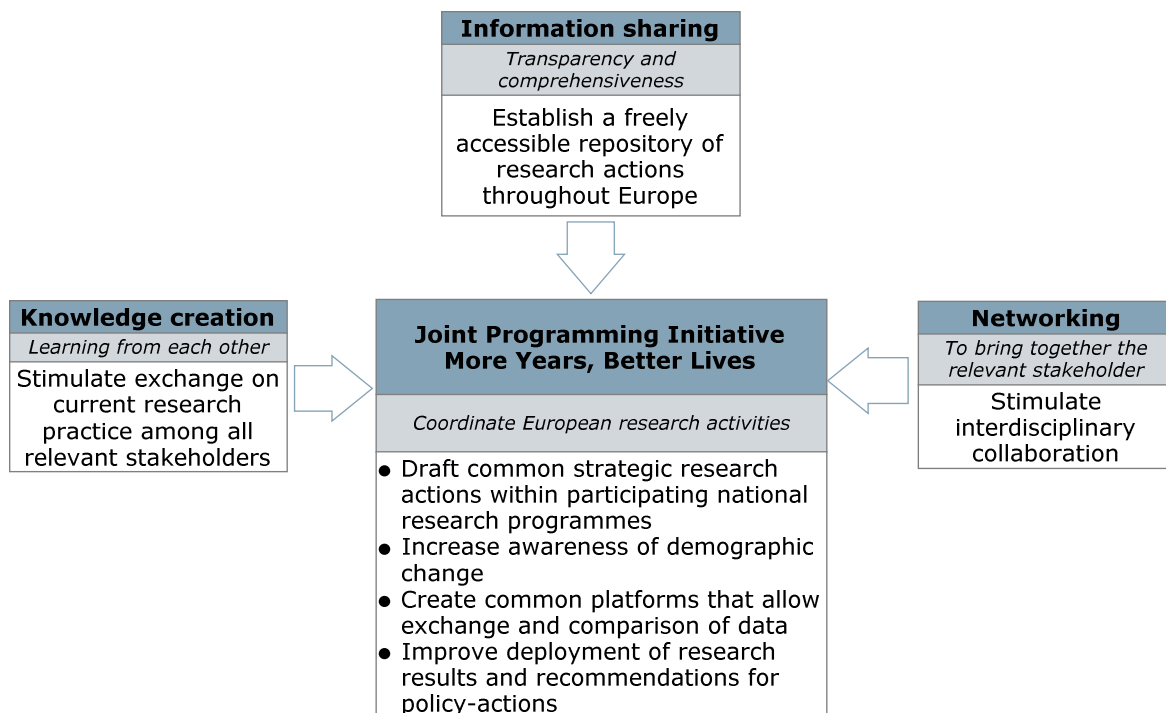


Figure 3: Activity levels under the Joint Programming Initiative

## Annex 1 Preliminary inventory of research

Country	Programme	Focus
Austria	Benefit BMVIT / FFG	Assistive technologies for older people
Denmark	Danish Rural Development Programme 2007-2013	The intention of the Rural Development Programme is to give the population good conditions for living in the rural districts. In order to do this, new employment opportunities have to be created in the rural areas and business development in the food sector has to be improved so that the sector can survive the challenges of globalisation. Also, nature and the environment have to be cared for, and there is a general need to improve conditions of life in rural districts.
Finland	The future of living (2010-) Academy of Finland	Urbanisation, construction, land use Changes in living: telecommuting, second homes, family structure, consumption Exercise and the living environment: incorporating exercise into daily activities, exercise for improved health, sustainable development
Finland	The Future of Work and Well-being (2008-2011) Academy of Finland URL: <a href="http://www.aka.fi/en-gb/A/Science-in-society/Research-programmes/Ongoing/Work/">http://www.aka.fi/en-gb/A/Science-in-society/Research-programmes/Ongoing/Work/</a>	The changing relationships between work, livelihood and the living environment, the appeal of working life, diversifying labour, structural unemployment and precariousness, well-being, health and work, work as an economic foundation of welfare
Finland	Responding to public healthcare challenges (2009-2012) Academy of Finland Research Council of Norway Et.al.	Health-protecting and health-promoting factors, life-course approaches and critical periods of life, health inequalities and clustering of ill health, predicting future health URL: <a href="http://www.aka.fi/en-gb/A/Science-in-society/Research-programmes/Ongoing/Salve/">http://www.aka.fi/en-gb/A/Science-in-society/Research-programmes/Ongoing/Salve/</a>
Finland	Finnish National Programme on Ageing Workers, FINPAW (1997-2002)	FINPAW was comprehensive in its approach and implementation. It involved changes in legislation, research and development projects, training and an extensive communication aspect aimed at changing attitudes towards ageing throughout Finnish society. After FINPAW, several parallel programmes have emerged to promote the attractiveness of working life, to raise the level of education among poorly educated older workers, to extend the working career and to establish good practices at the workplace.
Finland	Finnish workplace development programme TYKES (1996-2003, 2004-2009)	funds projects aiming at innovations improving labour productivity and quality of life at the workplace through strengthened cooperation between

Finland	NOSTE Programme (2003-2007)	management and workforce The education and training offered within the scope of the programme are mainly intended for working adults aged between 30 and 59 who have no post-compulsory qualifications.
France	Predit (programme of research, experimentation and innovation in land transport)	PREDIT is a programme for research, experimentation and innovation in land transport, started and implemented by the ministries in charge of research, transport, environment and industry, the ADEME and the ANVAR. By stimulating cooperation between public and private sector, this programme aims at encouraging the creation of transportation systems that would be economically and socially more effective, safer, more energy saving, and finally more respectful of man and more environmentally friendly.
France	French National Institute for Demographic Studies (INED)	INED studies the populations of the world and of regions or countries using the tools of demography in association with those of other disciplines such as sociology, economics, and biology.
Germany	R&D Programme "Working – Learning – Competence Development: Innovative Ability in Modern Working Life" R&D Programme "Lernkultur Kompetenzentwicklung" (Learning Culture and Competence Development, 2001-2007)  Ambient Assisted Living  Federal Health Research Programme	Explicitly include demographic aspects  Bridged formal, non-formal, and informal learning settings in continuing education, with a special focus on work-based learning. By now, this programme has been fused with a related programme in the area of working life issues In addition to its involvement in the AAL Joint Programme on European level, Germany pursues a national R&D activity that – by means of microsystems technology, ICT, medical technology and innovative services – enables elderly people to lead a healthy and independent life. Programme on "Health in Old age" with a focus on multi-morbidity and resources on independence
Norway	Norwegian Centre for Integrated Care and Telemedicine (NST)	The NST is a centre of research and expertise that gathers, produces and disseminates knowledge about telemedicine services, both in Norway and internationally.
Sweden	FAS (Swedish Council for Working Life and Social research) funds strong research environments (2006-), called FAS centres, with an orientation that falls within FAS' sphere of responsibility. Seven centres are central to the research questions addressed in this JP initiative ( <a href="http://www.fas.se/fas_templates/Page_1302.aspx">http://www.fas.se/fas_templates/Page_1302.aspx</a> )	FAS centre for ageing research; Centre for research on ageing and supportive environments; Centre for health and society; Centre for research on the interactions between mental and physical health; Centre METALUND – Centre for medicine and technology for working life and society; Centre Social change and inequality over the course of life; Centre for studies on alcohol and drugs
UK	Lifetime Homes, Lifetime Neighbourhoods:	The strategy outlines the plans for making sure that

A National Strategy for Housing in an Ageing Society

there is enough appropriate housing available in future to relieve the forecasted unsustainable pressures on homes, health and social care services. The means are the construction of significant quantities of new and "future proof" houses meeting the needs of older people and the corresponding (re-)shaping of neighbourhoods.

## Annex 2 Preparatory workshop

The preparation process for the Joint Programming Initiative "More Years, Better Lives" was initiated by the German Federal Ministry of Education and Research (BMBF) and included a workshop that was held in Berlin on 28 and 29 January 2010.

The workshop was attended by about 130 experts from 20 European Member States and 4 associated countries (Norway, Switzerland, Turkey and Israel), including scientists from various disciplines as well as representatives from ministries and other governmental institutions. During and following the workshop, participants strongly supported the approach of the JPI "More Years, Better Lives" itself, and provided substantial input to the concept paper.

The preparatory workshop was opened by Maximilian Metzger, BMBF, and chaired by Professor Dr. Ursula M. Staudinger, Jacobs University Bremen. Keynotes were given by Professor Staudinger and Professor Dr. James Vaupel, Head of the Max-Planck-Institute for Demographic Research. Four parallel working groups discussed and developed the five envisaged tracks of the JPI:

### Plasticity of Ageing: Health & Performance

Moderator: Dr. Edvard Beem (ZonMw - The Netherlands Organisation for Health Research and Development)

Rapporteur: Claus Nielsen (DELTA Business Development, Denmark)

### Social Systems & Welfare in combination with Work & Productivity

Moderator: Prof. Dr. Marja Vaarama (Finish National Institute for Welfare and Health)

Rapporteur: Peter Wintlev-Jensen (European Commission, DG Info)

### Education & Learning

Moderator: Prof. Dr. Dieter Ferring (University of Luxembourg)

Rapporteur: Prof. Dr. Rocío Fernández-Ballesteros (Universidad Autónoma de Madrid)

### Housing, Urban-Rural Development & Mobility

Moderator: Prof. Dr. Richard Pieper (University of Bamberg)

Rapporteur: Prof. Dr. Anne Querrien (Ministère de l'Ecologie, de l'Energie, du Développement durable et de la Mer, France)

The moderators and rapporteurs mentioned above as well as several participants contributed to the final version of the synthesis paper for this JPI proposal.

**List of institutions represented at the workshop**

Austria	BMVIT
Austria	Federal Ministry for Science and Research
Austria	FFG
Austria	Österreichische Plattform für Interdisziplinäre Altersfragen (ÖPIA)
Austria	University of Vienna
Austria	Zentrum fuer Soziale Innovation
Belgium	COST Office
Belgium	EUGMS and IAGG-ER
Belgium	European Commission, DG INFSO H3
Belgium	Leibniz Association
Belgium	Project HOPE Europe
Belgium	Saxony Liaison Office Brussels
Cyprus	Pancyprian Federation for the welfare of the Elderly
Cyprus	Planning Bureau of the Republic of Cyprus
Denmark	Aalborg University, Danish Building Research Institute
Denmark	DELTA Business Development
Denmark	The Danish Council for Strategic Research
Finland	Culminatum Innovation Ltd Oy
Finland	National Institute for Health and Welfare
Finland	University of Jyväskylä
Finland	University of Turku, Department of Family Medicine
France	Ability Europe Limited
France	ADVANSEE
France	ANR
France	Caisse nationale de solidarité pour l'autonomie
France	CEA - ANR Management Unit
France	French National Institute for Demographic Studies - INED
France	Ministère de l'Écologie, de l'Énergie du Développement durable et de la Mer
Germany	Aipermon GmbH & Co. KG
Germany	Bundeskanzleramt
Germany	Central Institute of Mental Health
Germany	Charité - Universitätsmedizin Berlin
Germany	Charité Berlin, PhD Program Multimorbidity in Old Age
Germany	Charité, Department of Psychiatry
Germany	Communication & Political Consultancy
Germany	Deutsche Forschungsgemeinschaft - DFG
Germany	DFKI and University of Kaiserslautern
Germany	econsense
Germany	EESC Bruxelles (BAGSO)
Germany	E-HEALTH-COM
Germany	FB Gesundheitswissenschaften, Evangelische Fachhochschule Darmstadt
Germany	Federal Ministry of Education and Research
Germany	Federal Ministry of Health
Germany	Federal Ministry of the Interior
Germany	Generation Research Program of LMU
Germany	HSG-IMIT

Germany	Ilmenau University of Technology
Germany	Institute for Work and Technology
Germany	Institute of Gerontology at Technische Universität Dortmund
Germany	IT Science Center Rügen gGmbH
Germany	Jacobs Center on Lifelong Learning and Institutional Development
Germany	Josias Löffler Diakoniewerk Gotha gGmbH
Germany	Kaasa Solution GmbH
Germany	Leibniz Institute for Age Research
Germany	Max Planck Institute for Biology of Ageing
Germany	Max Planck Institute for Demographic Research
Germany	Minister-President's Office of Brandenburg
Germany	Norwegian Centre for Integrated Care and Telemedicine
Germany	PLATO Kommunikation
Germany	Population Europe   Max Planck Institute for Demographic Research
Germany	PT-DLR Arbeitsgestaltung und Dienstleistung
Germany	PT-DLR: NCP Socio-economic Sciences and the Humanities
Germany	Roche Diagnostics GmbH
Germany	Social Science Research Center Berlin
Germany	SOPHIA Berlin GmbH
Germany	Technische Universität München
Germany	T-Systems International GmbH
Germany	TU Berlin - Fraunhofer IPK
Germany	Tunstall Healthcare (UK) Ltd.
Germany	TZI - Bremen University
Germany	University Medical Center Hamburg-Eppendorf
Germany	University of Bamberg, Urban Studies
Germany	University of Cologne
Germany	University of Erlangen-Nürnberg, Institute for Innovation in Learning
Germany	University of Mannheim
Germany	University of Vechta, Institute of Gerontology
Germany	VDE
Germany	VDI/VDE Innovation + Technik GmbH
Germany	weimed GmbH
Germany	YOUSE GmbH
Greece	Aristotle University of Thessaloniki, Medical School
Greece	General Secretariat for Research and Technology, Ministry of Education, Life Long Learning and Religious Affairs
Greece	National Center for Scientific Research (NCSR)
Hungary	Budapest University of Technology and Economics
Hungary	National Office for Research and Technology
Hungary	Office of the Hungarian Parliamentary Commissioner for Human Rights
Ireland	Forfás
Israel	ISERD
Israel	Maccabi Healthcare Services
Israel	Pitango Venture Capital
Italy	COOSS Marche Onlus
Italy	DEIS - University of Bologna
Italy	Fatebenefratelli Hospital Isola tiberina



Italy	FBK-irst
Italy	Grey Panthers Italy
Italy	Institute for Microelectroncis and Microsystems
Italy	Italian Institute for Quality of Life
Italy	The Italian Institute for Auxology - IRCCS
Italy	UNIEDA
Italy	University of Naples
Italy	University of Trieste
Luxembourg	University of Luxembourg
Netherlands	AAM-Beeld architectuur
Netherlands	InnoSana
Netherlands	University Medical Center Groningen
Netherlands	University of Groningen
Netherlands	VU - University of Amsterdam
Netherlands	ZonMw -The Netherlands Organisation for Health Research and Development
Norway	Buskerud University College, The Department of Health Sciences
Norway	Norwegian Social Research
Norway	Research Council of Norway
Poland	National Centre for Health Information Systems
Portugal	Comfort Keepers
Portugal	Fraunhofer AICOS
Portugal	Instituto Pedro Nunes - Associação para a Inovação e Desenvolvimento em Ciência e Tecnologia
Slovenia	E.D.E.
Spain	Autonmous University of Madrid
Spain	Consultures Euroamericanos Asociados
Spain	ERI Polibienestar - University of Valencia
Spain	geria Tec
Spain	I2BC - Institute of Innovation for Human Wellbeing
Spain	Ingema Foundation
Spain	ISCIII/AALA
Spain	Panet Media
Spain	Spanish Ministry of Science
Spain	Technical University of Madrid
Spain	University Hospital of Seville
Spain	University of Almeria
Sweden	SCA Personal Care
Sweden	Swedish Council for Working Life and Social Research - FAS
Switzerland	Federal Office for Professional Education and Technology
Turkey	The Scientific and Technological Research Council of Turkey
United Kingdom	Age Concern Slough and Berkshire East
United Kingdom	HM Treasury
United Kingdom	Kingston University
United Kingdom	MellaniuM Ltd

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United Kingdom	Milecastle Consultancy Ltd
United Kingdom	NHS Innovations
United Kingdom	TeliWeb Ltd.