



Federal Ministry  
of Education  
and Research

# The New Future of Old Age

**The Federal Government's Research Agenda for Demographic Change**



**igniting ideas!**

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# Preface



**Hardly any development will come to characterize Germany as much in the coming years as demographic change. While there is little we can do about an ageing and shrinking population in the short term, we can still take an active part in shaping the consequences of demographic change.**

Along with the worlds of industry, science and society, political decision-makers are therefore tasked with setting a course that safeguards prosperity and social cohesion.

The Federal Government has hence moved demographic change to the top of its political agenda and is the first German Federal Government ever to have presented a cross-departmental analysis of current and expectable population developments, and their consequences for individual fields of policy, in its "Federal Government Report on the Demographic Situation and Future Develop-

ment of the Country". In addition to this we have also described the measures that we have implemented so far to shape a demographically changed society.

Nevertheless there remain many open questions about the future, including the need to clarify what kind of society we wish to live in in the future, how we can foster intergenerational equity and solidarity, and how the social participation of seniors can be enhanced. The research agenda in hand serves us to pick up on fields of action where research and innovation can contribute to the development of solutions for the challenges posed by an ageing population.

The research agenda is a milestone on the way to a comprehensive demographic strategy. The Federal Government is formulating this strategy on the basis of the aforementioned demographic report. Coordinated, implementation-oriented and sustainable policies give us every reason to look ahead to our country's future with confidence.

A handwritten signature in blue ink that reads "Annette Schavan".

Prof. Dr. Annette Schavan, MdB  
Federal Minister for Education and Research

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# I. Objectives of the Research Agenda

Demographic change is transforming our country. Average life expectancy in Germany is higher today than ever before – and will, in all likelihood, continue to rise. In the meantime, the population is shrinking, owing to sustained low birth rates. The consequence is a marked shift in the age structure of our country. According to forecasts provided by the Statistical Office, almost half the people in Germany will be over 50 by 2030, and nearly every third will be over 65.

## Pooling questions

With this agenda, the Federal Government summarizes relevant scientific questions regarding demographic change and indicates important fields of action. The focus is on older people and in particular those who are in the last years of their work lives or already made the transition into retirement. At the same time we also take a look at the overarching social issues and consequences for society.

Older people are much better qualified, able-bodied and vigorous today than even a few decades ago. An increasing share of seniors of both sexes is able and would like to play an active part in social life up to an advanced age. Individual lifestyles and varied life plans replace the out-dated, rather negatively charged image of old age. This has recently also been confirmed by the Sixth German Government Report on the Elderly.

## Cross-departmental and interdisciplinary research

With the measures stated in this research agenda, the Federal Government aims to promote the maintenance, use and multiplication of the valuable potentials of older age, whilst fostering the quality of life in old age. Not only seniors are bound to benefit from this, but all generations.

The Federal Government consequently adjusts its research programmes to the challenges and potentials of a society of longer lives:

- In our "Health Research" framework programme, we have already placed a focus on improving the prevention, diagnosis and therapy of diseases particularly prone to occur in old age.
- We pay particular attention to dementia and the support of care patients and relief of caregivers. The responsible sectoral ministry concretely addresses these questions in a future workshop on the topic of dementia and the "Model Programme for Improving the Situation of Persons Requiring Nursing Care".
- We equally consider the role played by relatives in the provision of care by further developing measures for their relief and support, as for example in the project "Potentials and Risks in the Familial Care of Older People".
- We align the "Information and Communication Technologies 2020" programme accordingly: Funded are measures to promote the development of mobility and communication technologies that support

the social inclusion of seniors, as well as innovations that provide residential and living environments with the appropriate designs for the elderly.

- We foster the development of innovative solutions to adapt municipal and social infrastructures. Issues that are being addressed in research projects and pilot schemes include public transport, the planning and construction of transport infrastructure, the provision of mobility in old age and road safety.
- We will adapt our research programmes targeted at life-long learning, workplace design, production technologies and innovative services in a way to ensure that seniors will continue to be able to contribute their experience to society even better and longer in the future – whether it is professionally, privately, or in volunteer work.
- In the framework programme "Humanities, Social Sciences and Cultural Sciences", we will increasingly fund the study of the basic issues associated with a society of longer lives.

These research efforts are aimed at bringing together the relevant scientific disciplines whilst placing a focus on action areas of special importance to seniors: mobility and communication, longer employability, housing, health and care, as well as social and cultural inclusion.

## II. Focus Areas of the Research Agenda

### **Research Focus 1: Principal Issues in a Society of longer Lives**

Any research aimed at finding concepts, models and solutions for a society of longer lives needs to orientate itself towards the question of which kind of society we wish to live in in the future. Research in the humanities and social sciences plays a key role in the public discourse about this question.

#### **Expanding the knowledge base**

Sound knowledge about imminent demographic developments provides the basis for the successful management of a society of longer lives. The Federal Government will therefore continue to support the exploration of causes and consequences of demographic change in the future. The focus lays on the advancement of suitable methods, the sophistication of the required statistical systems, interdisciplinary exchange, international networks, and putting the knowledge and technologies into practice.

We pay particular attention to the living conditions of older people, including the rapidly growing group of the oldest old. Of equal importance are gender-specific analyses in order to detect and compensate for existing and emerging inequalities in the life situations of male and female seniors. Based on these findings, we will adapt and expand existing measures targeted at the management of demographic change.



*"When I was young I couldn't imagine old age.  
But now I understand: it is my life!"*

#### **Establishing a realistic image of old age**

Many people are afraid of old age and a society in which an increasing number of elderly is accompanied by a decreasing number of young people. Viewed in this manner the problems all too easily come to the foreground, obscuring the opportunities. The Federal Government therefore supports research into the socio-cultural construction of images about old age, and the creation and dissemination of realistic images of old age. With this, we intend to stimulate a process of rethinking that brings about a more

differentiated image of old age and a society of longer lives – moving away from clichés and stereotypes.

Of equal importance in this respect are the consequences of changes in the legal framework conditions, for example by formulating a law against age discrimination. It is necessary to break down prejudices, approach the subject of old age without bias, and acknowledge that the fabric of a society of longer lives will be different from that of today's society. However, this will open up new perspectives and opportunities in social, cultural and individual terms.

### **Recognizing and defusing intergenerational conflicts**

A society of longer lives also needs to address issues associated with the distribution of burdens and resources. We therefore fund the precautionary investigation of intergenerational self-concepts and the social roles that they claim for themselves and actually fulfil. With this, we foster sustainable approaches to ensure inter-generational equity and solidarity. In addition to the elementary question of material security we are concerned about the establishment of a culture of mutual and inter-generational esteem. Such a culture will uncover the potentials of each generation while increasing the visibility of the contributions of older people to their families and society, which is all too often taken for granted.

### **Considering the acceptance of technological solutions**

In the development and usage of technological solutions, ethical, legal and social aspects must be considered and taken into account right from the start – in particular where technologies carry out innovative assistance functions for humans. The Federal Government will therefore support research into the acceptance vis-à-vis new technological applications for a society of longer lives.

## Research Focus 2: Benefiting from the Skills and Experience of the Elderly in Economy and Society

Dedicating one's own experience, time and vigour to a meaningful activity for as long as possible is satisfying for the individual and represents a valuable resource for society as a whole. Even if reaction time and physical capacity mostly decline with advancing age, possible deficits can be compensated by greater social and professional competence, and a wealth of knowledge and experiences continuously acquired along the educational and occupational biography.

This represents a great opportunity for a knowledge society, which not only depends on the production of knowledge, but also on the classification and evaluation of findings. Committed deployment of experienced manpower can help to counteract potential losses in productivity and a demographically induced decline in GDP. It is also important to activate the employment potential of jobless seniors.

The Federal Government is intensifying its research and development measures aimed at better utilizing the knowledge of seniors and increasing their participation in the labour market, in order to ensure that specific potentials, which often lie idle, can be benefited from even more – whether it is professionally, privately, or in volunteer work. This will help us maintain and even expand the capacity for innovation, competitiveness and progress in a society of longer lives.



*"I love to work and keep myself up to date. Even as a pensioner I want to remain mentally fit."*

### Maintaining, promoting and expanding skills

The learning processes of older and younger people differ. The human brain hence requires age-specific stimuli to take up new things, but also to maintain and develop skills for employability. We promote the study of life-long learning and foster the development of age-specific concepts that are aligned with individual needs and skills. This includes the promotion of media skills and the utilization of e-learning systems to allow for customized and sustainable learning processes.

This way we contribute to helping people not only maintain, but also adapt, renew and expand their competences throughout their entire active lifetime on the job, in volunteer work, or on a freelance basis. In this process we also explore how active citizenship that exceeds the professional engagement can be reinforced and designed.

### **Benefiting from the advantages of mixed-age teams**

Scientific studies have shown that mixed-age teams can be a competitive success factor. All participants can learn and benefit from one other. The study of efficient collaboration within teams particularly supports smaller and medium-sized businesses in the optimal deployment of their workforce and every single worker in cross-generational teams. In combination with the development of flexible models to further improve health management, this will safeguard the economic efficiency and competitiveness of companies, support their expansion, and lead to greater employee satisfaction. These measures account for diverse training and job biographies, as well as age- and gender-specific competence profiles, and integrate them in a holistic concept. Demographically sensitive personnel management that takes all age groups into account will enable a society of longer lives to maintain its entrepreneurial capacity for innovation, and increase the labour force participation of older people.

### **More targeted utilization of individual skills**

In order to promote existing skills and know-how in everyday professional life, the Federal Government funds the development of technical assistance systems that particularly support older employees in their tasks. These systems need to be understood as "skill multipliers" that increase the individual physical capability or knowledge potential. We aspire the extension of specific knowledge and skills for the benefit of the individual, and for the economic development of society as a whole.

### **Rethinking work and personnel recruitment models**

We promote age-sensitive and gender-differentiated personnel policies that support the integration of seniors, in particular of those that are unemployed, and the utilization of their competences in the work process. In cooperation with companies we are also engaged in the development of modern concepts for personnel recruitment, talent management and workflow organization, as well as trend-setting working time models.

## Research Focus 3: Growing Old in Good Health

Improved living conditions and good health-care have brought us closer to the ultimate dream of mankind, a long and healthy life. Every human would like to live in good health and delay the onset of illness as long as possible. However, the increase of life expectancy is accompanied by a rising number of people that suffer from age-related illnesses. These most of all include cardiovascular conditions, musculoskeletal diseases and cancer, as well as diabetes mellitus, dementia and depression. In many cases, there are several concurrent medical conditions present. One of the central focus areas of the "Health Research Framework Programme" adopted by the Federal Government in December 2010 is therefore the improvement of old-age health care.

### Researching the basic processes of ageing

The ageing process and the incidence of disease in old age are influenced by a complex interplay of personal disposition, lifestyle and the environment. Socioeconomic status, social stress, marital status and the living environment are classified as additional variables. With the objective to promote and maintain health for as long as possible, the Federal Government promotes advanced fundamental research in the life sciences about the mechanisms of ageing. These activities aim at the improvement of the diagnosis, therapy and prevention of impairments and illnesses most relevant in old age.



*"My health is important to me. This is why I watch my diet and try to get enough exercise. If I still get ill, I put my hopes in medical progress."*

### Promoting health and preventing illness

Studies show that prevention and health promotion make sense and are effective for people at any age. The Federal Government therefore funds the development, testing and evaluation of new prevention measures, as well as the improvement of the existing health programmes for the elderly. The objective is to boost self-responsibility, avoid reductions in earning capacity, maintain physical and cognitive ability, and thereby improve the quality of life up until old age. In this context, we also support nutritional science, and the development of effective

interventions for age-specific symptoms such as changes in appetite and thirst, and the attendant deficiency symptoms.

### **Improving diagnostic and therapeutic approaches**

In the "Health Research Framework Programme", the Federal Government promotes the development of innovative medical devices and treatment approaches for specific impairments and illnesses in old age. In doing so, we pay particular attention to the treatment of (multi-) morbidity and the interaction of medications. Helpful in this respect are, by way of example, high resolution imaging processes that allow for an early and exact diagnosis. Intelligent implants that automatically and individually measure out pharmaceutical ingredients, new medical drugs and minimally invasive methods permit precise and less burdensome therapies.

By means of research funding for individualized medicine, we also contribute to an improved treatment of age-specific illnesses. Mobile diagnostics and telemedical support systems offer older patients the possibility of more comfortable healthcare in their living environment. This is of particular importance in rural areas. In order to accelerate the transfer of knowledge and technology into practice and render it more effective, we promote the inclusion of research-intensive companies in interdisciplinary networks, as for example in the field of medical biotechnology.

### **Supporting and stimulating functions**

We support the development of technical assistance systems that detect functional losses and help compensate them. For example, by analysing movement patterns, sensors are capable to detect when a person is at risk of falling and initiate stabilizing fall-prevention actions. Technical assistance systems can also play an important part in the rehabilitation at home; take for example physiotherapeutic training systems for stroke patients. Specific stimulation of affected limbs can markedly improve or even restore their mobility. In addition, we fund the development of solutions that contribute to an improved interconnectedness of older people and their relatives with the physicians in charge, pharmacies and hospitals.

### **Evidence-based healthcare**

Whoever suffers from an illness is entitled to a safe and effective therapy. In this respect the healthcare system is faced with the challenge of improving age-appropriate care in medical and organizational terms whilst limiting the expenditure at the same time. The Federal Government therefore promotes social care research and ensures that both new and established procedures are tested for efficiency, in order to apply specific measures that are worthwhile and effective. The cost-benefit relationship of treatments is documented in clinical studies and, most of all, in the daily routines of care provision. All activities are aimed at maintaining sustainable excellence in the health-care system.

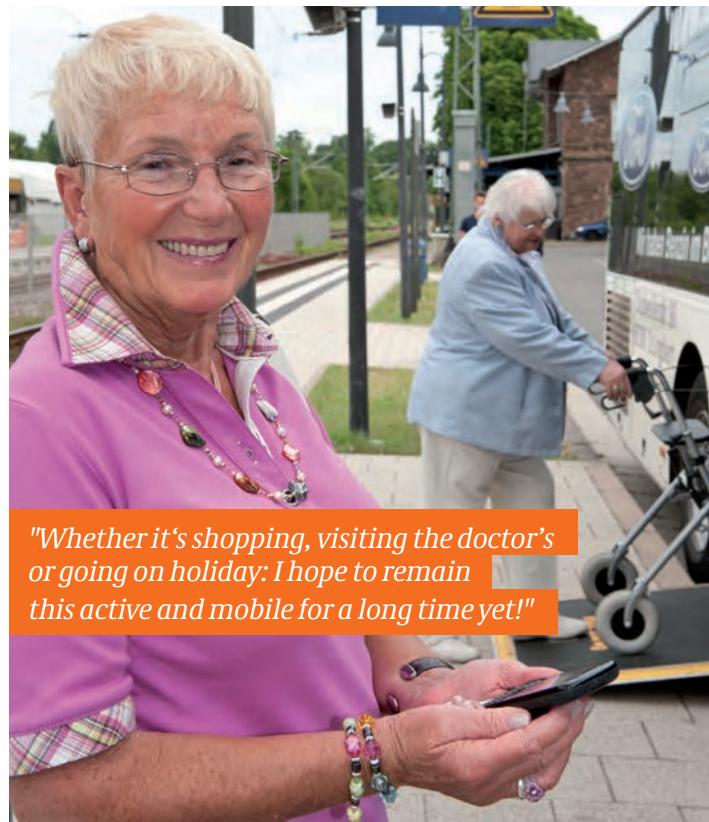
## Research Focus 4: Social Inclusion: Staying Mobile and in Touch

Mobility should never be a question of age. At any age, people want to move around in their environment as freely, safely and independently as possible – even if they should suffer from physical impairment. Equally important as the access to vital facilities are the contact and exchange with others.

With new solutions for greater mobility, the Federal Government provides the necessary prerequisites. In combination with modern information and communication technologies, this helps us to ensure that people are fully integrated at an advanced age, and able to contribute their experience, knowledge and desires to society. In the process we also fund the development of germane business models, and apply suitable measures to ensure that seniors are able to confidently handle new technical devices, and make optimal use of them. This also applies to their self-determined behaviour as consumers that are faced with new legal regulations in the digital world, new product offers and new markets, as for example in the areas of telecommunication, health, or nursing care.

### Mobile in the city

Anyone who wishes to lead an independent life needs room for manoeuvre – be it on foot, on the bicycle, in local public transport, or in the car. However, in many cities, towns and municipalities, seniors often experience difficulties to go shopping, reach their doctor's practice or a restaurant on their own and without encountering barriers. We foster this mobility in the personal environment, which is an essential element in everyday life, by paying particular attention to the needs



*"Whether it's shopping, visiting the doctor's or going on holiday: I hope to remain this active and mobile for a long time yet!"*

of the older generation in the further development of transport infrastructures. In this process, we also examine how road safety, but also ability of older people to move and orient themselves can be supported with hi-tech aids, for instance by the utilization of technical and personalized escort, guidance, or navigation systems. Our efforts are aimed at the provision of intelligent and barrier-free mobility offers and infrastructures that are customized to the specific requirements of older people, but also efficient and affordable.

### Comfortable and safe in the car

Our fitness to drive often decreases with advancing age. We have the objective to enable older people to move safely in road

traffic. Assistance systems in the car can help compensate physical deficiencies and a lack of confidence in one's own driving skills. We therefore promote the further development of assistant technologies in these areas in order to specifically adapt them to the requirements of older people.

### **Uncomplicated travel in local public transport**

Public transport and private transport providers are not only a good and resource-efficient alternative to driving in one's own car; they are most of all an indispensable element in the self-determined everyday life of many seniors. We are therefore engaged in the development of technical systems and intelligent services in local public transport that adapt to the wishes and capabilities of the older generation. This includes individual route planning and a flexible combination of scheduled services, customized dial-a-bus services, and transport services to the front door, which can be used in a safe and comfortable way even in the case of physical limitations.

### **Well-informed on travels**

Seniors' mobility is higher today than ever before, and they do not always stay in their familiar surroundings. We enhance information and communication technologies in a way to ensure that older people are able to make use of their intuitive orientation when travelling far off their familiar routes – despite unfamiliar situations, languages, or means of transport. As soon as the navigation becomes easier, confidence levels also rise, enabling seniors to further expand their sphere of action.

### **Always properly connected**

People with social contacts retain their fitness longer and can also provide others with input and support. Physically disabled seniors or seniors that live by themselves are also in the position to do so, if they use modern information and communication technologies. Chatting with their families, friends or doctors while even being able to see them on the monitor, informing themselves about the day's current events, or meeting one another in networks are all ways of staying in touch. In this respect we intend to develop easier means of access that are aligned with individual requirements and the technical skills of their users.

### **Reliability, also in rural areas**

Demographic change will impact individual regions with different magnitudes at different times. In rural areas where distances are greater and infrastructures sparser, we work with regional players to ensure the continued provision of primary care with local service offers. In a combination of individually customized services and close-to-home proposals we thereby improve the opportunities of seniors regarding mobility and their inclusion in social life. We create the conditions that are necessary for the development of multifunctional drop-in centres, which ensure the provision of old age care by way of personal support and with the assistance of teleservices. Typical everyday activities such as dealing with the authorities, mail, medical care or purchase orders can therewith be attended to at one central location.

## Research Focus 5: Living Safely and Independently

People need protection, safety and a sense of security. A familiar environment and individual place of retreat are most of all important in old age. This calls for living spaces that are functional, economic and ecological, have a healthy indoor climate, and allow for a home decor that complies with individual preferences and needs. We explore how living environments can be designed in a way to ensure that senior residents feel comfortable in their own home for as long as possible. Of equal importance in this respect is the direct residential environment.

### Barrier-free living

In old age, many needs change. Buildings, apartments and residential surroundings have to be adapted correspondingly. To ensure the provision of housing for the older generation in the future, the Federal Government examines the current stock of and future demand for apartments that are suitable for seniors. In addition to this we support pilot projects looking into age-appropriate apartment conversion. This also includes funding the development of approaches aimed at the inexpensive removal of existing barriers within buildings. In this process, we pay attention to the quality of the building fabric, the fittings and furnishings in the home environment, the location of the premises, and their accessibility for the provision of care, supplies and services. The focus is on products and services usable by seniors in an unrestricted manner, from the furniture in the living environment via support in everyday activities to getting around safely at home and in one's residential area.



*"My familiar environment is where I feel best. I want to live at home for as long as possible."*

### Self-determined and safe in everyday life

Older people require a safe and stimulating residential environment, also in order to be able to look after their affairs for as long as possible without the practical or legal support of others. Highly developed technical systems offer them the possibility of a long, self-determined life in their own apartment, for example by way of person recognition, as a memory aid, for monitoring activity levels and the state of health, or as a multiplier of physical strength.

Safety is, for example, provided by a sensor-controlled home emergency call system that informs the rescue services automatically in the case of falling. Stand-up and guiding assistance systems can help seniors navigate their residential environment. The Federal Government funds solutions that allow for largely intuitive handling. The efforts are aimed at providing robust, efficient and learning assistance systems that can be upgraded easily and at low cost, respect the private sphere, and are based on combined sensors, intelligent data analysis and cognitive principles.

### **Combining technologies and services for a greater quality of life**

A home needs to provide a sense of security and provide for the basic requirements. These include cleanliness, the supply of food, and the maintenance of appliances. The domestic chores of seniors such as cleaning the flat are often performed by relatives or service providers. The Federal Government creates new care approaches that combine technical innovations with personal services. To this end, we examine ways in which technical systems support the work of service providers, and what kind of business models are suitable for establishing pertinent products. The combination of technology with human care helps us ensure the social component and a respect for human dignity in the support provided.

### **Old and young living together – in town and country**

Of intergenerational togetherness benefits everybody. The Federal Government therefore develops modern and pioneering residential concepts with various age groups living together. This includes designing inner city areas that are worthwhile for young and old alike. We create the spatial conditions required for older people to continue living in the cities because they can value and rediscover the qualities of urban quarters.

By means of our "Action programme for regional services of general interest", we promote strategies for rural, in parts severely shrinking model regions where the infrastructural challenges of demographic change can be addressed by a forward-thinking and cooperative regional strategy. We want seniors to be able to enjoy a neighbourly "next door" feeling. To this end, we develop concepts for deployment in the actual living environment and in social networks, then facilitated by the help of information and communication technologies. This supports a sense of togetherness among the old and the young by way of social interaction, whilst bringing about a culture of mutual support.

## Research Focus 6: Good Nursing Care to Boost Quality of Life

Given the general increase in life expectancy, the number of those in need of care is also bound to rise. As many as 2.4 million people already required nursing care in Germany in the year 2010. Forecasts by the Federal Statistical Office expect this figure to reach 2.9 million by 2020, and about 3.4 million by 2030. This shifts attention to safeguarding and maintaining a humane care in a society of longer lives.

Research can greatly contribute here; its findings may help to remain independent up until old age or support caregivers. This can help reduce the burden for all parties involved whilst improving the quality of life of those affected, their relatives and care providers. The Federal Government has therefore already defined focus areas in the field of old age care that will be carried on and refined.

### Maintaining the autonomy of seniors

Maintaining and promoting independence are important elements for a life in dignity up until advanced age. Scientific studies that examine the causes of care demand and possible intervention strategies are hence of particular importance. Of equal relevance are research projects aimed at the enhancement of existing innovation strategies and the development of new, overarching care concepts that promote outpatient care over inpatient care. In addition, care researchers are challenged to find answers for open questions about the consequences of an increasing (multi-) morbidity among care patients.



*"Things aren't quite as easy as they used to be.  
But I make the best of it and feel great about  
every small step forward."*

### Relieving caregivers and care receivers

Outpatient care receives particular attention. Many people in Germany wish to live at home, even in the case of care dependency. Caregiving relatives are often placed under great strain, and partly also overburdened.

They need targeted support, even more so, if they additionally provide for their own families and have a job. Care resources within the family must be strengthened in a targeted manner. Technical assistance systems are able to ease the care burden. The Federal Government's research funding goes into

the development of proposals that combine technologies and services in new ways, thereby supporting those in need of care, their relatives, and the caregivers in their everyday routines.

The process and product innovations thereby created can simplify care measures, for example by integrating newly and further developed systems for automatic emergency detection, improved care documentation, or also intelligent medication delivery. Applied in a targeted and responsible manner, assistance systems support those in need of care whilst making a decisive contribution to their independence and safety, for example by way of localization, navigation, or through a memory function.

Moreover, the Federal Government funds projects that promote the integration of international know-how and best practices into the practical organization of familial care and thereby, along with other violence prevention projects, make an important contribution to forestall problematic care relationships. In order to support people in situations, where other measures have reached their limits, we also fund the enhancement of palliative care. In this connection, we pay particular attention to the specific needs of dementia patients. The ultimate objective of all research into the provision of care and services is the safeguard of human dignity, integrity, and the private sphere.

### **Highly qualified and well informed for better care**

Over 890,000 employees are currently working in the long-term care sector. In view of the growing demand, an additional number of caregivers will be required in the future. For this reason, the Federal Government now engages in various activities aimed at securing the future supply of care personnel. Not least by means of care research, we will help ensure that the occupational area of caregiving is further converted into a modern, efficient and attractive sector of employment.

### **Sound knowledge for practical applications**

Research is also meant to contribute to the development of a sound knowledge base for care activities. An efficient and high-quality supply system calls for a rapid transfer of scientific findings and innovations into practice. In this area, the Federal Government will increase its funding efforts. Not only professional caregivers depend on well-founded knowledge, but also caregiving relatives.

The Federal Government funds projects that focus on the provision of patient information and training programmes, for example geared towards the chronically ill. The transmission of knowledge and skills serves to promote a self-dependent management of personal care circumstances.

### III. International Interlinkages of the Research Agenda

The transformation into a society of longer lives is not only taking place in Germany. Demographic change has become a reality in many other industrial nations today. Not least among our European neighbours, besides countries such as Japan, Canada and Korea, the process of demographic ageing is already far advanced.

In line with the Federal Government's strategy for internationalizing science and research, we will expand the national focus areas of funding through cooperation with important partner countries and institutions inside and outside of Europe. This includes the promotion of exchange about successful methods (so-called "best practices"), the development of joint approaches and measures, reaping the benefits from synergy effects, and a close coordination of national and international initiatives.

The Federal Government plays an active part in the development of the "Horizon 2020" European framework programme for research and innovation. Based on the "Europe 2020" EU strategy, the programme serves to pave the way for the next stages of European cooperation and to address societal changes that are important to the further development of Europe and its member states.

In the process, we also advance the Joint Programming Initiative, "More years, better lives – The challenges and potentials of demographic change", initially suggested by us. This initiative is aimed at coordinating national research activities among European states in the field of demographic change, thereby enhancing their effectiveness and efficiency.

In addition, Germany will continue to be involved in the Joint Programming Initiative on neurodegenerative diseases, and will play an active role in the conceptual design and implementation of joint European funding programmes for a healthy and independent life.

The ultimate objective of our research cooperation and innovation partnerships is to improve collaboration in science, research and industry, and to generate synergy effects. To this end, we will identify content-related starting points for future collaboration and elaborate and implement them in concert with the respective partners. In this context, cooperation with countries outside of Europe may be helpful, in particular with those that are undergoing similar ageing processes.

## IV. Implementation of the Research Agenda

The Federal Government intends this agenda to provide a decisive stimulus for research and development addressing demographic change in the years to come. The objective lies in exploring fundamental questions about the social inclusion of seniors and in developing innovative solutions for a long and healthy ageing, including new products and services.

The funding focus is not on individual technological results, but on the implementation of innovative solutions that also encompass social, ethical, legal and other societal aspects, and are usually driven by user needs. Joint projects that involve all relevant research disciplines constitute a funding priority. The allocation of funds follows a competition, which means that it is generally preceded by a public announcement that informs about the respective sub-topic and further specific funding criteria.

The research agenda is initially scheduled for a period of five years, until the end of 2016. It is to be evaluated at the end of the first funding period and, if appropriate, continued beyond the year 2016, following an adjustment of its operative goals.

# Attachment

## Research Activities of the Federal Ministries

### Federal Ministry for Education and Research ([www.bmbf.de](http://www.bmbf.de))

- Funding programme Working – Learning – Developing Skills. Potential For Innovation In A Modern Working Environment
- Announcement "Capacity for Innovation in Demographic Change"
- Announcement "Technologies and Services in Demographic Change"
- Framework programme "Humanities, Social Sciences and Economics"
- The Vocational Training Research Initiative
- Lead innovation "ICT for Health and Medicine" as part of "ICT 2020 – Research for Innovations"
- Framework programme "Federal Government Health Research"
- Framework programme "ICT 2020 – Research for Innovation"
- Announcement "Mobile into an advanced age"
- Announcement "Age-appropriate assistance systems for a healthy and independent life - AAL"
- Announcement "Assisted care of tomorrow"
- Announcement "Innovative aids for rehabilitation and the disabled"
- Funding programme "Applied care research"
- Programme "SILQUA-FH Social Innovation for Quality of Life in Old Age"
- Joint programme planning in the area of demographic change "More years – better lives"
- Joint programme planning "Neurodegenerative diseases"
- Funding programme "AAL - Joint Programme"

### Federal Ministry of the Interior ([www.bmi.bund.de](http://www.bmi.bund.de))

- Panel study "Strategies for Elderly People" (Federal Institute for Population Research – Departmental Research Institute of the Federal Ministry of the Interior)

### Federal Ministry of Health ([www.bmg.bund.de](http://www.bmg.bund.de))

- Framework programme "Health Research by the Federal Government"
- Funding programme "Dementia future workshop"
- Model Programme for Improving the Situation of Persons Requiring Nursing Care

### Federal Ministry for Families, Senior Citizens, Women and Youth ([www.bmfsfj.de](http://www.bmfsfj.de))

- Focus area "At home in old age – habitation in old age"
- Focus area "Dementia: improving the quality of life and supporting caregivers"

### Federal Ministry of Transport, Building and Urban Development ([www.bmvbs.de](http://www.bmvbs.de))

- Funding initiative "Mobility 21 – Examples for innovative transport solutions"
- Action programme "Regional services of general interest - MORO"

## Selected Research Institutes

Berlin Institute for Population and Development  
Schillerstraße 59  
10627 Berlin

Center for Neurobiological Prevention Research of the Universities of Göttingen and Mannheim/Heidelberg  
Von-Siebold-Str. 5  
37075 Göttingen

Fraunhofer-Alliance AAL  
c/o Fraunhofer-Institute for Visual Computing  
Fraunhoferstr. 5  
64283 Darmstadt

Friedrich-Alexander-University Erlangen-Nuremberg  
Institute of Psychogerontology  
Nägelsbachstr. 25  
91052 Erlangen

German Institute for Adult Education – Leibniz Centre for Lifelong Learning  
Heinemannstr. 12-14  
53175 Bonn

German Institute for Urban Affairs  
Zimmerstrasse 13-15  
10969 Berlin

German Centre for Gerontology  
Manfred-von-Richthofen-Str. 2  
12101 Berlin

German Center for Neurodegenerative Diseases  
Sigmund-Freud-Str. 25  
53127 Bonn

Heidelberg University Institute of Gerontology  
Bergheimer Str. 20  
69115 Heidelberg

ILS - Research Institute for Regional and Urban Development gGmbH  
Brüderweg 22  
24 44135 Dortmund

Jacobs University Bremen Jacobs Center on Lifelong Learning and Institutional Development  
Campus Ring 12  
8759 Bremen

Leibniz-Institute for Age Research-Fritz-Lipmann-Institute (FLI)  
Beutenbergstr. 11  
07745 Jena

Leibniz Institute for Regional Development and Structural Planning e.V.  
Flakenstrasse 28-31  
15537 Erkner

Lutheran University of Applied Sciences, Institute for Gerontology and Ethics  
Bärenschanzstr. 4  
90429 Nürnberg

Max Planck Institute for Human Development  
Lentzeallee 94  
14195 Berlin

Max Planck Institute for Biology of Ageing  
Gleueler Str. 50 a  
50931 Köln

Max Planck Institute for Demographic  
Research  
Konrad-Zuse-Str. 1  
18057 Rostock

Max Planck Institute for the Study of Societies Paulstr. 3  
50676 Köln

Max Planck Institute for Social Law and  
Social Policy  
Amalienstr. 33  
80799 München

Research Group Geriatrics  
Charité - University Hospital Berlin  
Reinickendorfer Str. 61  
13347 Berlin

Research Society for Gerontology, Institute  
for Gerontology at the University of  
Dortmund  
Evinger Platz 13  
44339 Dortmund

Vechta University Institute of Gerontology  
Driverstrasse 23  
49377 Vechta

## Selected Literature

Bundesministerium des Inneren (Hrg.):  
Bericht der Bundesregierung zur demografischen Lage und künftigen Entwicklung des Landes. Berlin/Bonn, 2011

Der Beauftragte der Bundesregierung für die neuen Länder (Hrg.): Daseinsvorsorge im demografischen Wandel gestalten. Handlungskonzept zur Sicherung der privaten und öffentlichen Infrastruktur in vom demografischen Wandel besonders betroffenen ländlichen Räumen. Berlin, 2011

Bundesministerium für Bildung und Forschung (Hrg.): Ideen. Innovation. Wachstum: Hightech-Strategie 2020 für Deutschland. Berlin/Bonn, 2010

Bundesministerium für Bildung und Forschung und Bundesministerium für Gesundheit (Hrg.): Rahmenprogramm Gesundheitsforschung der Bundesregierung. Bonn/Berlin, 2010

Bundesministerium für Ernährung, Landwirtschaft und Verbraucherschutz (Hrg.): Handlungskonzept der Bundesregierung zur Weiterentwicklung der ländlichen Räume. Berlin/Bonn, 2009

Bundesministerium für Familie, Senioren, Frauen und Jugend (Hrg.): 6. Altenbericht der Bundesregierung. Berlin/Bonn, 2010

Statistisches Bundesamt (Hrg.): 12. koordinierte Bevölkerungsvorausberechnung. Wiesbaden, 2009

**Further information at**  
**[www.das-alter-hat-zukunft.de](http://www.das-alter-hat-zukunft.de)**

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