



**FUTURAGE**  
A ROAD MAP *for* AGEING RESEARCH

**Report of a meeting of the  
*European Forum on Population Ageing Research***

**“FUTURAGE: A Road Map for Ageing Research  
A high-level stakeholder workshop to define and discuss the priorities  
for European ageing research”**

**Tuesday May 11<sup>th</sup> 2010**

**Held at:**

**Renaissance Hotel and European Parliament  
Brussels, Belgium**

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## CONTENTS

Executive Summary .....	1
1 Introduction .....	3
2 Aims of the workshop .....	4
3 Programme .....	5
4 Morning Session.....	7
Welcome and background .....	7
4.1 Welcome .....	7
4.2 FUTURAGE: aims and aspirations.....	7
Scientific priorities.....	8
4.3 Biogerontology .....	8
4.4 Social & Economic Resources .....	13
4.5 Environments of Ageing .....	21
4.6 Healthy Ageing.....	25
User involvement.....	29
4.7 The User Perspective.....	29
5 Afternoon Session .....	31
Summary of Presentations .....	31
5.1 Introduction .....	31
5.2 ERA-AGE 2 and FUTURAGE – Shaping the Future of Ageing Research.....	31
5.3 The New Science of Ageing.....	32
5.4 Ageing research in the Research Framework Programmes.....	32
5.5 Room for research on a new integrated care system for aged people .....	33
The essential elements of the Road Map.....	34
5.6 Biogerontology .....	34
5.7 Social and Economic Resources.....	35
5.8 Environments of Ageing .....	35
5.9 Healthy Ageing.....	36

5.10 The User Perspective.....	36
Summary of Discussion .....	37
Annex A: List of participants .....	39
Annex B: List of break-out group participants.....	49
Biogerontology .....	49
Social and Economic Resources .....	50
Environments of Ageing.....	51
Healthy Ageing .....	52
Annex C: Guidelines to break-out group participants .....	53
Annex D: Speaker biographies.....	54
Professor Kaare Christenson .....	54
Dr Efstathios Gonos .....	54
Professor James Goodwin .....	55
Dr Inês Guerreiro .....	55
Professor Carol Jagger .....	56
Dr Giovanni Lamura .....	56
Professor Hans-Werner Wahl .....	57
Professor Alan Walker .....	57
Dr Pēteris Zilgalvis .....	58
Annex E: Background to the projects .....	59
European Forum on Population Ageing Research .....	59
European Research Area in Ageing (ERA-AGE) .....	59
FUTURAGE .....	60

## Executive Summary

The Forum provided an opportunity to showcase the interim results of the FUTURAGE project and to provide those attending with the chance to contribute their own opinions on the ageing research priorities for Europe up to 2020.

FUTURAGE is a two year FP7 funded project funded to create a Road Map for ageing research in Europe for the next 10-15 years, and comprises a series of consultations with academic and non-academic stakeholders across Europe to develop consensus on future priorities for ageing research. This Forum hosted FUTURAGE's first Stakeholder Workshop, which presented research funders and policy makers with the initial research priorities from the scientific and user involvement workstreams. Over 150 people gathered in Brussels on May 11<sup>th</sup> 2010 to contribute.

The morning session introduced the FUTURAGE project and gave context and structure to this complex project. The initial results from the four scientific workstreams – biogerontology, social and economic resources, environments of ageing and healthy ageing – and the user involvement theme, which form the building blocks of the Road Map, were presented to the audience by the scientists involved in each of the workstreams. Attendees heard about the workshops which have been carried out to gather input to the Road Map and were given an insight into the concepts and principles that shaped them, the geographic and disciplinary profile of the experts attending and the resulting priorities for European research, methodology and infrastructure development over the next 15 years.

Informed by the presentations and copies of the full workshop reports, the meeting broke into small working groups to enable further discussion of the issues raised. Members of the working groups were asked to provide comment and perspective on: the proposed core principles for the Road Map; the most important research priorities on ageing for the next 10-15 years, and; developments in the European research infrastructure necessary for those priorities to be addressed.

After lunch, the Forum moved to the European Parliament for a session hosted by the STOA panel of MEPs (Science and Technology Options Assessment) to examine the strategic importance of ageing research in Europe. The varied presentations began with an introduction to FUTURAGE and a review of other European ageing research initiatives.

The first keynote presentation on the New Science of Ageing examined how the problems of ageing are being addressed through collaboration between different scientific disciplines and how this approach can enable the elderly to live longer in better health. The second keynote presentation reviewed funding and support for ageing research in the European Union's Research Framework Programmes under current and future funding streams. This was followed by an exploration of a new integrated care system for aged people introduced by the Ministry of Health in Portugal.

The last set of presentations examined the strategic context to the five FUTURAGE themes (biogerontology, social and economic resources, environments of ageing and healthy ageing, and user involvement) with each of the workstream leaders outlining the key issues informing the development of science and policy in their field, and how research in their area has the potential to positively change older people's lives.

The day ended with a short question and answer session in which the panel were asked to comment on:

- The potential for regional agglomerations of countries to collaborate on research and the development of research infrastructures
- Consideration for FP8 to introduce a broader topic of ageing reflecting social aspects and not just medicine and biology
- The need for research funding around inter-generational family solidarity, especially care giving
- Follow-on funding for projects already implemented under FP6 and FP7 which could be continued
- Encouraging linkages and bridging between existing ageing research networks to enhance the visibility of products and prevent duplication
- Introduction of a coordination body – potentially a European Institute of Ageing –to address the disorganisation and fragmentation of research in ageing
- The need to raise the birth rate to readjust the dependency rate for social security
- The integration of lifelong learning
- How the Joint Programming Initiative sits alongside other funding streams.

# 1 Introduction

It is my pleasure to welcome you to the report from the first FUTURAGE workshop for research funders and policy makers and other key stakeholders to contribute to the Road Map for Ageing Research.

FUTURAGE has responsibility for creating the definitive Road Map for Ageing Research which is intended to guide European research in this field over the next 10-15 years. The project will identify the main priorities for research on ageing based on the widest possible consensus between key stakeholders ranging from policy makers to product producers and retailers.

The process started in October 2009 with a series of national consultations in the 11 countries that form the European Research Area in Ageing (ERA-AGE 2). In February and March 2010 the first round of scientific and user workshops took place, to brainstorm research priorities across various disciplines.

The meeting on May 11<sup>th</sup> was the first time the preliminary results were opened to stakeholder consultation, and the input received on the day will form a key part of the FUTURAGE process.

We were very pleased to be supported by the STOA Panel of MEPs, who hosted the afternoon session in the European Parliament. I would like to thank STOA for giving FUTURAGE a unique opportunity to present our findings during this early stage of the Road Map development.

I hope that you find the report informative and stimulating.

Alan Walker  
Director - FUTURAGE

## 2 Aims of the workshop

On Tuesday May 11th 2010 the European Forum on Population Ageing Research hosted the FUTURAGE project for a day-long workshop. The event's aims were:

- To present the results from the first round of FUTURAGE workshops
- To gather feedback about the key priorities in ageing research
- To examine the importance of ageing research for Europe's future
- To provide a strategic overview of the current state of play and the future requirements for European ageing research

Over 150 representatives from the European Parliament, European Commission, Member State government ministries, national research funders, academia, government research organisations, companies, and various non-governmental research organisations gathered in Brussels to attend this event.

The demanding schedule was split into two halves: in the morning participants reviewed detailed information on the research priorities generated by the first round of national consultations and scientific priority setting workshops, and; in the afternoon presentations sketched a strategic overview of the current state of play, and the future requirements for European ageing research.

The first half of the day, the morning session, was focused on a detailed review of the outputs of the FUTURAGE project. After an overview of the aims of the project leaders of the four scientific themes (biogerontology, social & economic resources, environments of ageing, healthy ageing) and the user involvement theme presented the interim research priorities generated for the Road Map. The meeting then split into four break-out groups aligned with the scientific themes for participants to give their response to the information presented; comments could also be submitted by email for the ten days following the meeting.

After lunch, the meeting moved to the European Parliament for a session hosted by the STOA (Science and Technology Options Assessment) Panel of MEPs. After introductory comments emphasising the opportunities currently open to Europe to address the problems posed by an ageing population, two keynote speakers presented on *The New Science of Ageing* and *Ageing Research in the Research Framework Programmes*. The following presenters introduced a range of project and disciplinary perspectives which painted a picture of the potential for effective ageing research and implementation in ageing which will change the lives of Europe's older people.

### 3 Programme

## **FUTURAGE: A Road Map for Ageing Research** *A high-level stakeholder workshop to define and discuss the priorities for European ageing research*

Tuesday 11<sup>th</sup> May, European Quarter, Brussels

#### **MORNING PROGRAMME**

<p><b>Contributing to the development of the Road Map</b>                  Renaissance Hotel, rue du Parnasse 19, Brussels 1050</p> <p>The morning session will provide an opportunity for a review of FUTURAGE research priorities. Presentations will be made from the first round of national consultations and scientific priority setting workshops. Breakout sessions will follow to allow debate on the issues raised.</p> <p>Chair: <i>Professor Emanuele Scafato, Istituto Superiore Di Sanita</i></p>	
8.30	<b>Registration &amp; refreshments</b>
9.00	<b>Opening</b> Welcome and Introduction - <i>Chair</i>
9.10	<b>FUTURAGE: aims and aspirations</b> <i>Professor Alan Walker</i>
9.30	<b>Emerging Research Themes and Issues</b> Biogerontology – <i>Dr Efstathios Gonos, National Hellenic Research Foundation</i> Social & Economic Resources – <i>Dr Giovanni Lamura, INRCA</i> Environments of Ageing – <i>Professor Hans-Werner Wahl, University of Heidelberg</i> Healthy Ageing – <i>Professor Carol Jagger, Newcastle University</i> The User Perspective – <i>Professor James Goodwin, Age UK</i>
11.00	<b>Refreshments will be served at 11.00.</b> <b>Break out group discussions on the four scientific themes above</b> Biogerontology – <i>Chair: Dr Mikael Fogelholm, Academy of Finland</i> Social & Economic Resources – <i>Chair: Dr Aurelia Curaj, UEFISCSU</i> Environments of Ageing - <i>Chair: Professor Kenneth Abrahamsson, FAS</i> Healthy Ageing – <i>Chair: Professor Carol Jagger, Newcastle University</i>
12.30	<b>Buffet lunch</b> - Cafe Parnasse
13.30	<b>Leave for European Parliament</b>

## AFTERNOON PROGRAMME

<p><b>European Parliament, STOA Committee</b>                  Room ASP 5G-3, Altiero Spinelli Building, rue Wiertz, B-1047 Brussels</p> <p>The afternoon session is hosted by the STOA Committee to address the importance of ageing research for public policy in Europe.</p> <p>Co-Chairs:  <i>Mr Paul Rübig MEP - STOA Chairman</i>  <i>Mr António Fernando Correria de Campos MEP - STOA Vice-Chair</i></p>	
	
14.30	<p><b>Welcome</b>  <i>Mr Paul Rübig MEP – STOA Chairman</i></p>
14.45	<p><b>ERA-AGE 2 and FUTURAGE – Shaping the Future of Ageing Research</b>  <i>Professor Alan Walker, University of Sheffield</i></p>
15.00	<p><b>Keynote: The New Science of Ageing</b>  <i>Professor Kaare Christensen - Institute of Public Health – Epidemiology/ Danish Aging Research Center, University of Southern Denmark</i></p>
15.20	<p><b>Keynote: Ageing research in the Research Framework Programmes</b>  <i>Dr Pēteris Zilgalvis, Head of Unit Infectious Diseases - Directorate Health DG Research, European Commission</i></p>
15.40	<p><b>Room for research on a new integrated care system for aged people</b>  <i>Dr Inês Guerreiro, Portuguese Ministry of Health</i></p>
16.00	<p><b>The Essential Elements of the Road Map</b>                  Biogerontology – <i>Dr Efstathios Gonos, National Hellenic Research Foundation</i>                  Social &amp; Economic Resources – <i>Dr Giovanni Lamura, INRCA</i>                  Environments of Ageing – <i>Professor Hans-Werner Wahl, University of Heidelberg</i>                  Healthy Ageing – <i>Professor Carol Jagger, Newcastle University</i>                  The User Perspective – <i>Professor James Goodwin, Age UK</i></p>
17:45	<p><b>Discussion</b>  <i>Chaired by Mr António Fernando Correria de Campos MEP - STOA Vice-Chair</i></p>
18:30	<p><b>Cocktail buffet</b></p>
20.00	<p><b>Close</b></p>

## **4 Morning Session**

### **Welcome and background**

#### **4.1 Welcome**

The meeting was opened by the chair, Professor Emanuele Scafato, from the Istituto Superiore Di Sanita in Italy who welcomed all attendees to the first Stakeholder meeting for FUTURAGE to examine the early development of the Road Map for ageing research. Professor Scafato thanked the participants for making time to attend and contribute to FUTURAGE at quite short notice, and reviewed the basic elements of the FUTURAGE project. Attendees were reminded that the workshop represented the first opportunity for them to contribute a non-scientific perspective to the Road Map for Ageing Research. The structure of the day's activities was briefly reviewed and participants were reminded that the goal was for them to cross-examine and refine the initial work that has been conducted on the different themes of the Road Map and to present the interests of research funders and policy makers.

#### **4.2 FUTURAGE: aims and aspirations**

Professor Alan Walker

Professor Walker thanked Professor Scafato for his introductory remarks, and began his presentation with a short review of recent European coordination activity in the field of ageing research, outlining the Forum project (2001-2004), ERA-AGE - the European Research Area in Ageing (2005-2012) and FUTURAGE (2009-2011). ERA-AGE's achievements are centred on increased coordination of national ageing research programmes, promoted multi-national multi-disciplinary research activities, shared good practice, developed European ageing research programmes and decreased barriers between research and policy and practice. FUTURAGE is focused on developing the definitive Road Map for ageing in Europe for the next 10-15 years and is underpinned by objectives to: undertake state-of-the-art assessment of the current ageing research field; ensure wide involvement of Europe's leading scientists; engage fully with non-academic stakeholders, and; provide public information about ageing research. A total of 23 partners are working together to implement a tightly integrated series of consultations, combining both scientific and user-involvement perspectives, including older people. Four scientific themes have been identified to shape consultation on research priorities: biogerontology; social and economic resources; environments of ageing, and; healthy ageing. To ensure a lasting reference point for European ageing research key principles that have been adopted for FUTURAGE also include: multi-disciplinarity; life course approach; holistic person-centred approach, and; capacity building. The importance of this project has recently been underlined by support from

the Commissioner for Research, Science and Innovation. Professor Walker closed by reminding participants of the importance of their contribution.

## **Scientific priorities**

Each of the four scientific workstreams - biogerontology; social and economic resources; environments of ageing; healthy ageing - presented summary results from the first round of data gathering through national consultations and scientific workshops. All participants had received copies of the full workshop reports prior to the event.

In subsequent break-out sessions attendees were invited to provide their comments on the research outputs and also had a further ten days to submit additional feedback by email. Attendees to each break-out group can be found in Annex B.

## **4.3 Biogerontology**

The biogerontology stream was represented by Dr Gonos, a member of the WhyWeAge project to develop a European biogerontology road map, as the leader of the project, Dr Olivier Toussaint was unavailable due to illness. WhyWeAge is an FP7 funded project to identify the future research priorities in fields related to the biology of ageing and the results will be integrated into FUTURAGE, creating a roundabout between the two Road Maps and crucially, avoiding duplication.

### **SUMMARY PRESENTATION**

*Dr Efstathios S. Gonos*

Director of Research at the National Hellenic Research Foundation and Executive Committee Member of the International Union of Biochemistry and Molecular Biology.

Dr Gonos began his presentation by priming the audience with a brief definition of biogerontology as “understanding the biological causes of human ageing and longevity”. The balance of genetic and epigenetic factors affecting how cells age was outlined: genetic instability from altered gene expression, telomeres shortening and DNA and protein damage combine with environmental damage caused by stress and ROS/oxidants cause young, healthy cells to age leading to irreversible growth arrest, altered functions and failure of homeostasis. Two recent advances in understanding the biological ageing process were highlighted: the awarding of the 2009 Nobel Prize for the discovery of telomeres, which shorten as people age and; the 2004 Nobel Prize awarded for the discovery of the major cellular proteolytic machinery, or, that ageing is associated with accumulation of damage.

Of the ten key biogerontology projects funded under FP6 and FP7 two were profiled:

- GEHA (coordinator Claudio Franceschi, [www.geha.unibo.it](http://www.geha.unibo.it)) is exploring the genetics of healthy ageing in Europe by attempting to identify candidate longevity genes from around 1000 genes of interest. The genetic profiles of pairs of

siblings (sib pairs) who are both aged over 90 are being compared with younger controls from 12 European countries & China. The target group of 90+ sib pairs represents 0.5% of the longest lived population in Europe, but the team has populated a databank with 5390 samples, including samples from families with 3, 4 and 5 siblings. A further 2500 control samples have been taken from the spouses of the siblings' children.

- MARK-AGE (coordinator Alexander Bürkle, [www.mark-age.eu](http://www.mark-age.eu)) is attempting to establish biomarkers of human ageing through a study of 3700 volunteers. Three populations are being studied: a randomly selected age-stratified sample of the general population; offspring and spouses of offspring studied in the GEHA project, and; a small number of patients with progeroid syndromes (Cockayne's Syndrome, Down's Syndrome and Werner's Syndrome patients). The volunteers will provide information for four different parameters: classical physiological parameters such as BMI, waist/hip circumference, lung capacity; clinical chemistry parameters such as fasting glucose and insulin, cholesterol; specialised tests established by partners such as telomere length and changes in mitochondrial DNA, and; a range of novel biomarkers yet to be established.

Dr Gonos introduced the WhyWeAge project, which will create a road map for European research on molecular aspects of healthy ageing, and is underpinned by the following aims:

- What are the current and potential themes of research in the field?
- What is the current and potential work force in the field in Europe?
- How to develop further the current functional networks?
- What is the knowledge on biological ageing in each of the topics?
- What is the state-of-the-art as for the interactions between medicine, biology & social sciences?
- How to ameliorate (inter-disciplinary) collaborations?
- What axes of research (and why) need to be developed in the next 10-15 years in Europe?
- What are the priorities considering the different stakeholders?
- Who will be the recipients of the progress made considering the different stakeholders (from scientists to socio-economic benefits)?

The thematic workshops:

1. Biomarkers of ageing and longevity - Alexander Bürkle and Stathis Gonos
2. Vascular ageing - Jorge Erusalimsky
3. Mitochondria and senescence - Pidder Jansen-Dürr, Claudio Franceschi and Thomas von Zglinicki
4. Oxidative stress, protein damage and protein maintenance - Bertrand Friguet, Grzegorz Bartosz and Csaba Soti
5. Telomeres and DNA damage - Alexander Bürkle and Thomas von Zglinicki
6. Immunosenescence and inflammation - Graham Pawelec and Claudio Franceschi
7. Metabolism - Hilde Nebb and Barbara Demeneix

8. Sarcopenia, muscle weakness and physical exercises - Gillian Butler-Browne
9. Skin ageing and elastic tissues - Pascal Sommer, Michel Salmon and Christos Zouboulis
10. Nuclear receptors and Systems Biology - Barbara Demeneix and Daryl Shanley
11. Biotechnologies in Biogerontology - Olivier Toussaint, Michel Salmon and Brian Clark
12. Clinical Biogerontological studies. Christian Swine and Christos Zouboulis

The results from the twelve thematic workshops were due to be brought together in a summit meeting at the end of May to develop the final biogerontology road map.

### **BREAK-OUT GROUP FINDINGS**

*Chair: Dr Mikael Fogelholm, Academy of Finland*

*Rapporteur: Dr Uldis Berkis, Latvian Council of Science*

The main purpose of the break-out group was to discuss three overarching themes or questions related to the Biogerontology theme at large, as presented below. A list of participants in this group can be found in Annex B.

**Question 1: Do you agree with the proposed core principles for the Road Map? Which are the most important aspects of these principles regarding the respective theme?**

The group generally agreed that all the core principles are important, but highlighted that they have different meanings dependent on the research topic; for example a holistic-person centred approach has more meaning when considering service delivery of new treatments than when studying cells.

Discussion also reflected on the difficulties of user involvement in biomedical research, although some participants recommended the inclusion of users in shaping research and reviewing research. In some clinical fields it is essential to include older people as research subjects to ensure representative results. Mutual benefits arose from older people reviewing research findings as they helped researchers develop their communication skills to lay audiences.

Three additional core principles suggested for the Road Map were:

#### Gender-difference

- To explore the reasons for greater female longevity when compared to male life expectancy.

#### Studies of healthy/successful ageing

- The separate study of individuals with and without diseases, to investigate what leads to successful ageing.

- It is particularly important to research the very old who have remained disease free.

#### A life course approach

- The path to health or disease can only be understood by exploring a person's history, or life record.

### **Question 2: From your perspective what are the five most important research priorities on ageing for the next 10-15 years? What are the main arguments for this priority?**

#### Resilience

- Little is currently known about what makes some people more resilient to disease, or phrased another way, why some people age more successfully than others.
- Psychological resilience helps people cope better with age related illness and disability, but it is not fully understood and exploration of the biological influences is needed.

#### Use of animal models and studies (e.g. *C. elegans* – a worm used for model research)

- Much work has been done on animal models, particularly in the USA. We have to decide whether we would like to focus our attention working exclusively on human individuals, or whether we will work on model systems, and how relevant, how successful that will be related to research on humans.

#### Life span research

- Many samples in biobanks are taken from people on one or two occasions during their lifespan. To effectively study the ageing phenotype we must start at a much earlier age. Studies must concentrate not only on people ageing 50-60, but go beyond; for example, what impact does starting to smoke at age 15 have on the later ageing phenotype.
- To fully understand the complexity of the ageing process use of various models are required, such as mathematical profiling.

#### Balance of basic and applied research

- Not enough is known to give preference to one specific type of biological research and we need a whole variety of approaches to get the full picture of ageing.
- The need for funding to allow high-risk research was also noted. Researchers need curiosity and a good scientific environment to explore their interests – freedom to do this is essential and precisely this type of research has led to two Nobel Prize winning discoveries.

#### Epigenetics

- High throughput sequencing to study changes in gene expression profiles

#### Stem cells

- The role of adult stem cells in tissues, and the impact this has on ageing.

#### iPS-cells

- Exploring mechanisms for rejuvenating senescent cells – this may help to understand mechanisms of ageing.

#### Medication

- Expansion of clinical trials to include people already taking medicine; many people take medication after a certain age and the impact of polypharmacy needs greater attention.
- Pharmacogenetics and pharmacogenomics; the epidemiology of diseases is changing, so we need to know much more about personalised therapy, medications for end-of-life diseases.

### **Question 3: Are any developments in the European research infrastructure necessary for those priorities to be addressed?**

Many of the issues raised in the infrastructure discussion are interrelated, but they have been classified into several broad areas:

#### Longitudinal research/reliable cohort data

- One issue raised in relation to many infrastructure issues was the need for an underpinning commitment to long-term research, which is currently absent.
- The current Framework Programme does not allow for any research beyond the 3 or 5 year funding period.
- How can data be made available to researchers at a later date, perhaps when new technologies or techniques mean additional information can be gleaned from existing samples.
- There are no precedents for storing, combining, or providing access to valuable data generated during a project which has not been fully analysed.
- There is a clear need to be able to follow large cohorts, possibly when you are not sure what samples/knowledge you may need from them in the future.

#### Biobanks

- Biobanks are required for: cross-national data; standardisation; facilitate open access to resources and; to support longitudinal research.
- Biobanks must also be adaptable; many biobanks are created/used to answer a specific scientific question, but as the technology moves we must be able to use the material to applying the new technology for studying new hypotheses.
- Multiple data sources must be supported - questionnaires and biological material is accumulated in biobanks.

- More work needs to be done to address the ethical challenges involved in gaining access to this material and sharing it beyond the confines of a single project.
- Standardisation is required for open access principles to ensure that shared data was gathered through rigorous and reliable methods.
- Minimum data sets are required for epidemiological models.

ICT and personal infrastructure for large scale data processing and evaluation

- Huge quantities of data are gathered during any single research project which requires sufficient resources to evaluate and analyse fully.
- Any research project will generate data that they do not exploit – who will evaluate this data and make use of it?

Animal models/ageing animal colonies.

- The group agreed that a European ageing animal colony was needed, to support specific areas of research such as immunology and neurology.
- It was also pointed out that a European colony would share the costs, and provide some flexibility for researchers in countries with complex regulations.
- Reliable animal cohort data would be required.

Virtual centre for European ageing

- The group emphasised the current work of national centres, and existing consortia to recommend a virtual network to support cross-national ageing research in Europe.
- Key requirements of this centre were seen as dissemination to all parts of society and providing a route to reach groups of older people.

One final topic mentioned was the need to raise the profile of ageing in medical schools with a particular aim of creating a more positive image of older people and less discrimination.

## **4.4 Social & Economic Resources**

### PRESENTATION OF SUMMARY RESULTS

*Dr Giovanni Lamura*

Italian National Research Institute on Ageing

Dr Lamura outlined the conceptual approach and organisation of the 1st Scientific Workshop on Socio-economic Resources, which took place 25-26 February 2010 in Ancona, Italy and was attended by 37 scientists from 25 countries. Four thematic areas were identified to guide the discussion, using a matrix which initially examined older people as either generators or recipients of socio-economic resources, and then subdivided into care and non-care issues. All participants were asked to brainstorm around a number of questions which included research themes, methodology/theory, comparative research, infrastructures, multi-disciplinarity and knowledge transfer.

The outputs from the workshop are as follows:

**Research themes:**

1) Older people as caregivers:

a) Who cares?

- Investigation on the carers and their care arrangements, particularly in relation to three main perspectives: gender, cohort, and life course.
- Investigate how informal carers interact with professional carers and the formal care system: roles, tasks, responsibilities, use of technology, etc.
- Focus on carers' resources, particularly in relation to available time (considering delayed retirement) as well as functional abilities/competences for providing care.

b) Reasons for caring

- Relationships between carer and cared-for in new family settings (e.g. role of grandparents in general but also when families split up).
- How do new patterns of solidarity and individualism shape reasons for caring, e.g. how people without a support network get help (is it possible to create social arenas for support, independently of parents or other family networks?).
- Impact of migration on care, particularly in relation to the increasing number of migrant care workers and social transformations.

c) Contents of provided care

- Contents of the care that is being provided and which instrumental elements this involves (e.g. mental, physical, medical etc.).
- Cultural perceptions about when care is provided (e.g. spousal care, cultural and gendered differences).
- The concept of quality of care, considering differences in caregivers' and care recipients' conceptualisation of quality.

d) Policies for care

- Policies and incentives for involving older people in informal caregiving, also beyond the family setting.
- Preferences and (moral, normative and/or legal) obligations of older people involved in informal caregiving.
- Influences on care from different perspectives: costs, work life, company measures (conciliation between work and care), policies (legislation, services, etc.).
- Influences of care on work life and quality of life.

2) Dependent older people

a) Dependency and independence

- Understandings of dependency and independence from two different perspectives: considering different stakeholders and acknowledging heterogeneity; considering social welfare regimes and the underlying socio-cultural values.

- Older people's experiences of "dependency and independence", taking into consideration cross-cutting factors such as class, education, income, gender, sexuality, ethnicity, migrant status, disability and life course transitions.
- b) Home and residential care
  - Influences on home care and residential care: different stakeholders' perspectives (older people, their families, health and social care providers); standards for good quality of care; role of civic society; alternatives to residential care.
  - Impact of cross-cutting factors on home and residential care use: social policies and welfare regimes, impact of income & housing (structural factors), impact of formal and informal care mix.
- 3) Older people as a social and economic resource
  - a) Prerequisites for older people as a socio-economic "resource"
    - Supportive environment (transport, physical environment); urban planning, urban design; "age-friendly" cities and territories.
    - Health, capacities, dementia (ergonomics to balance that).
    - Money and wealth.
    - Lifelong learning & teaching older persons; universities of the third age; role of media for education.
  - b) Main activities of older people as a socio-economic "resource"
    - Activities in the labour market.
    - Activities within the family.
    - Learning/teaching.
    - Volunteering and active citizenship.
  - c) Effects of older people's role as a socio-economic resource for society
    - For individuals (e.g. in terms of identity, social inclusion and intergenerational solidarity).
    - For governments, society, welfare state and companies (money saved, social cohesion etc.).
  - d) Cross-cutting topics in the activation of older people's potential
    - Preparation for old age (in general and in specific: financial literacy, nutrition, ICT etc.).
    - Generational issues.
    - Public policies (individual choice vs. policy driven changes) and normative expectations.
    - Barriers and opportunities for the different activities.
- 3) Socio-economic needs of older people
  - a) Social/Health needs
    - Social inclusion and participation.
    - Media representations.
    - Social solidarity mechanisms in the society and in the family.
    - A new sociology of generations would be empirically helpful in identifying processes of material and non-economic transfers.

- b) Economic needs
  - Income maintenance.
  - Pension system developments.
  - Different provision to cover LTC needs.
  - Consumption patterns over the life course (including effect of the ongoing financial crisis).
- c) Cultural needs
  - Religion and spirituality.
  - Communication and media utilisation.
- d) Vulnerability
  - Elder abuse and neglect.
  - Living arrangements of different groups, as for instance those living alone and refugees.
  - Accumulation of life-long disadvantages, including disabled elders as well of isolated elders in rural areas.
  - Socioeconomic inequalities which continue over the life course into old age.

### **Methodological issues**

- 1) Methods and study design
  - a) Advances in study designs: expand use of longitudinal and cohort studies; further develop methods to identify cost-effective interventions, of social network analysis, time use studies etc.
  - b) Better clarify links between qualitative and quantitative research.
  - c) More investments in theoretical research and definitions.
  - d) Increase older people's participation in research.
- 2) Data accessibility
  - a) Giving value to existing data.
  - b) Add new data (consider also issue of authenticity, expand use of qualitative data).
- 3) Coordination and collaboration in ageing research
  - a) Need to involve more new MS and non EU countries in future research.
  - b) Issue of comparability.
- 4) Inter-disciplinarity
  - a) Inter-disciplinarity is important to influence policy and practice.
  - b) Recognise that, however, not all the topics require inter-disciplinary.

### **Infrastructure and transferability**

- 1) The hypothesis of a European Institute on Ageing
  - a) The need for a coordinating body for European ageing research is widely recognised.
  - b) However, the idea of a European version of the NIA was not supported by all participants, some suggesting the model of a more flexible "permanent forum".

- 2) European ageing research agenda and coordination among countries
  - a) A shared European agenda could facilitate the advocacy of national focuses.
- 3) Funding ageing research in Europe
  - a) More funds are needed to improve the quality of research on ageing problems.
  - b) A systematic development of “follow-up” funds would be useful to follow the implications and consequences of results from finished projects.
- 4) Transferability of ageing research
  - a) Need for more practice-oriented research.
  - b) Importance of getting stakeholders and users involved in research.
- 5) Capacity building
  - a) Investing in education of coming generations of researchers.
  - b) Tailoring Marie Curie initiatives for the needs of ageing research (creating opportunities also for senior researchers with family and work responsibilities).

### BREAK-OUT GROUP FINDINGS

*Chair: Dr Aurelia Curaj, UEFISCSU*

*Rapporteur: Mag. (FH) Christina Bonora, Austrian Academy of Sciences*

The main purpose of the break-out group was to discuss three overarching themes or questions related to the Social and Economic Resources theme at large, as presented below. A list of participants in this group can be found in Annex B.

### **Question 1: Do you agree with the proposed core principles for the Road Map? Which are the most important aspects of these principles regarding the respective theme?**

The group discussion on the core principles agreed that all principles are essential for the Road Map. The most important of the core principles were identified as: multi-disciplinarity; the life-course approach and; a holistic person-centred approach.

There were contradictory opinions that the life-course approach should attract the highest priority, and reservation was also expressed that there was no exclusive focus on the needs of older people, to research issues including: early retirement; retirement inactivity; non-employment, and; disability at a relatively early age. .

The discussion also suggested additions to the core principles, which are outlined below.

In addition to the person-centred approach a higher level perspective would reflect the needs of systems and societies; this would acknowledge the complexity of, for example, the impact extending working life among older people would have on youth unemployment. A further recommendation was that research should be “problem oriented” to provide high quality input to the state and society.

Multi-disciplinarity was agreed to be important, but the group made a suggestion to substitute the term “multi-disciplinary” with the term “inter-disciplinarity”. This would

emphasise working together, joint decision making and teambuilding. The cross-cultural perspective was also highlighted as essential to emphasise the diversity of cultures.

Cohort based research was also underlined, to understand the needs of upcoming generations of older people

Other suggestions for the core principles included:

- Gender mainstreaming in ageing.
- A commitment to impact maximisation.

**Question 2: From your perspective what are the five most important research priorities on ageing for the next 10-15 years? What are the main arguments for this priority?**

The discussion identified a range of topics for research, which have been grouped into broad categories.

Migration:

- The impact of migration on the sending society has not been previously researched. Those who migrate leave parents behind; the parents are in a special situation where it is often not possible for their children to be present for caregiving and at their death. In addition to practical care issues, this can lead to life-time psychological conflicts.
- The rejuvenation of cities due to migration has the potential to impact negatively on older people, as there may be a loss of employment opportunities for older people. There needs to be effective assessment of the macro and micro impacts of changing populations.

Active ageing:

- The group agreed one important priority is to promote active ageing. Elderly people can do anything they want, and there is no difference between the behaviour of elderly and young people.
- Ensuring older people have the potential to remain economically active to decrease poverty rates due to low pension payments.
- High rates of age-related disability which explodes in the 55-65 age group (in some countries more than other).
- Functional disability and incapacity to work should be another priority, because there is a mass phenomenon of retirement because of disability in Europe.

Perceptions of older people/the image of an ageing society:

- Concepts of a new life-timing need to be explored and reinforced in the society. Ageing was been reinvented over the past decades and the feeling of old age has changed. Therefore additional life expectancy should be reached in combination with a redesigning of ageing, old age and the old age security.

- Therefore it has to be clarified what is considered ageing. There should be an area of research to define what ageing and aged means, and to define what feeling old in different aspects of life (old in work, but not old) means. There are also cultural aspects, which need to be considered. There have been different definitions of being old: biological and psychological age, the societal definition of being old at 65.
- Another interesting topic is forced retirement which needs to be approached as a political issue, and from a human rights perspective.
- Ageism should be a taboo form of discrimination.
- Gender discrimination in the southern part of Europe was also raised – women are retired at an earlier age, but live longer.

#### Welfare systems

- Sustainability of welfare systems is important and should be addressed by opportunities to extend working life to balance dependency ratios. Living longer and working shorter cannot go on; society needs to be adaptable.
- The study of pension and health care systems should cover individuals, the state/institutions and cross-nations.
- Concerning the cross-cultural approach it was mentioned that this approach can also reflect differences within nations, and even between cities in the same country. The group suggests looking at both cross-national and cross-cultural differences between cultures in countries.
- Sustainability of both formal and informal aspects of the health sector needs to be addressed. More people are needed in the health sector guided by a broader perspective of the system. This should not be linked only with ageing. There are other topics, which have impact on ageing topics, e.g. immigration.
- Economic growth is also important in this context. It was suggested that no increase in levels of wellbeing should be attempted until economies are more robust. Following the economic crisis, it is important how the government will provide additional support to older people and research within this field; institutional definitions of ageing hinder labour markets.

#### Family life and living:

- An issue, which was not stressed enough during the past Framework Programmes, is the topic of stressful life events.
- The impact of changing demography on various age groups and the effect on younger generations and on the family life.
- Understanding generational perspectives is essential.
- The balance between informal and formal care of older people.
- Retirement before the end of life.

**Question 3: Are any developments in the European research infrastructure necessary for those priorities to be addressed?**

Three general areas of infrastructure development were identified:

#### Coordination

- There are clear needs for better infrastructure, which should be led by greater coordination of resources, potentially by a European Institute on Ageing.
- Databases should be more accessible for researchers.
- Greater standardisation of data sets is required to make research comparable and enable cross-national research.
- The Joint Programme Initiative (JPI) is expected to address many of the topics and set common standards.

#### Increased focus on ageing research

- Through FP6 and FP7 there have been no specific calls on ageing, only on health issues. For FP8 there have to be ageing specific calls, as there were in FP5.
- Greater evaluation and follow-up of work done under previous FP programmes should also be undertaken.
- An increase in research funding is needed to close the gap between the funding in Europe and the USA, where the budget of the NIA is eight times the size of that in Europe.

#### Training & career development opportunities

- Another necessity is the availability of training in ageing research. Therefore, Marie Curie Training Networks should be encouraged.
- There is a need to prepare a young cadre of researchers on ageing. FLARE (the Future Leaders of Ageing Research in Europe fellowship programme) is a mechanism in the right direction, but we have to encourage also PhD students and master students.
- Publication is important, but there are not as many high level journals as there are for, for example, the topic of cancer where there are around 50 with high impact. Sociological topics are better represented in high impact publications. The European Journal on Ageing is a good attempt.
- Publication should be brought to a broader audience. Recommendations made by the group to accomplish this are: sharing lists of top ageing research journals, because they are not known to younger people (but only to economists working in this field); raising the profile of socio-economic fields which are currently less visible than health studies and basic studies; publishing in journals with a broad scope or readership.
- It was mentioned that it is common practice for researchers to write in their native language and not in English. Publications in English should be encouraged and this should be reflected in teaching at universities.
- It was agreed within the group that there is a social demand for publications on social issues.

## 4.5 Environments of Ageing

### PRESENTATION OF SUMMARY RESULTS

*Professor Hans-Werner Wahl*

Heidelberg University in Germany

Professor Wahl began his presentation with an overview of the areas covered by environmental gerontology, which are:

- Understanding of interactions between ageing persons and their physical-technical-social surroundings (e.g., home environments; out-of-home environments, technology and products).
- How person-environment (p-e) relationships shape ageing outcomes over time (e.g., functioning, wellbeing, falls, health, etc.).
- Environmental gerontology engages many disciplines, all contributing to the understanding of p-e relationships (e.g., architecture, psychology, occupational therapy).
- Societal: Person-environment research as an important element of an emerging European culture of ageing.

He described the principles underpinning the first Environments of Ageing workshop which included: the identification of key research themes; linking of issues with the ageing of society and with current and future societal challenges in Europe, and; to initiate a discussion on user involvement and implementation. Full examination of theory, methodology and implementation issues will be discussed during the second workshop. The Environments of Ageing theme also had a strong representation from young scholars in the field. In total 35 attendees from 12 countries representing a wide range of disciplines gathered in Heidelberg on 3-4 March 2010.

The outputs from the workshop are as follows:

#### **General issues**

- 1) *How to make a “unique” Road-Map for Europe?*
- 2) Specific EU-related research priorities (e.g., research on ageing and environments as a joint effort between countries).
- 3) Strategies on how to generate relevant research questions (e.g., forthcoming cohorts; critical role of end user).
- 4) Need for more efficient:
  - a) Synthesis of state-of-the art on different issues.
  - b) Utilisation of existing data, for cross-national research.
- 5) Critical reflection of the area of ageing and environments among scholars (e.g., definition of levels/domains of the environment; value and critique of a mixed methods approach, and of implementation research).

#### **General priorities**

- 1) Focus on the bigger picture, in a European perspective (e.g., housing as a critical societal issue; cross-national issues; climate change; globalisation).

- 2) Invest into conceptual issues (e.g., the linkage between environments and health).
- 3) Always keep a life course perspective (e.g., understanding of the life course in terms of p-e transitions).
- 4) Educate, communicate, translate, intervene and implement (e.g., translation and implementation as a serious methodological challenge) – calls for changed strategies not only among researchers, but also among funding bodies.

#### **Examples of important research areas**

- 1) Research to clarify the role of different types of home settings for the future (full range of older adults including those with cognitive impairment / disability).
- 2) Research to clarify the potential of safe and satisfying mobility for the future (full range of older adults including those with cognitive impairment / disability).
- 3) How will technology change quality of life in later life?
- 4) Research on the potential of work environments for older individuals must gain high priority.

#### **Important cutting-across areas**

- 1) Invest into the issue of inter-disciplinarity – build new alliances.
- 2) Consider forthcoming cohorts – need for longitudinal studies.
- 3) Consider the heterogeneity of old age – from a p-e perspective.
- 4) Invest into more progressive theory building for the 21st century.
- 5) Invest into methodology development – including mixed-methods and methodology for implementation research.
- 6) Invest into meta-syntheses of existing research – to communicate the evidence base to the scientific as well as the public community.
- 7) Invest into young scholars – encourage and support them to be active agents in the process of producing the Road Map.

#### **BREAK-OUT GROUP FINDINGS**

*Chair: Professor Kenneth Abrahamsson, FAS*

*Rapporteur: Dr David Prendergast, Digital Health, Intel Ireland*

The main purpose of the break-out group was to discuss three overarching themes or questions related to the Environments of Ageing theme at large, as presented below. A list of participants in this group can be found in Annex B.

**Question 1: Do you agree with the proposed core principles for the Road Map? Which are the most important aspects of these principles regarding the respective theme?**

The group agreed that four of the principles required specific emphasis:

A multi-disciplinary approach

- This was essential due to the many different types of environment within which a person may engage for a range of contexts.
- Multi-disciplinary researchers should take a broad perspective on working with other disciplines, for example; the physical environment can be translated into biogenetic aspects.

#### Involvement of older people

- Identification of issues relevant to older people's daily lives to ensure they will engage with the research. One good way of doing this is to use surveys to gather perceptions and opinions to shape future research, for example:
  - VW Foundation - Transportation of the Future Study.
  - German Federation of Senior Organizations - Age Friendly Cities.
- Cross-cultural comparisons of multiple dimensions of the city and the places people go to identify for example, areas of fear, or difficult street environments.
- Consideration of the family structure, and close work with local service providers.

#### The life course approach

- Ageing is a process not a destination – must take a life course perspective.
- It encompasses more than two generations, and definitions change depending on the culture. It is clear older people are not homogenous.
- Most ageing research focuses on when older people are a cost to society.

The need for a holistic perspective was also agreed on.

**Question 2: From your perspective what are the five most important research priorities on ageing for the next 10-15 years? What are the main arguments for this priority?**

#### Understanding environments of ageing

- The group suggested there was a need to clearly define environment and understand the limits of the field.
- Greater insight was needed into the gaps between policy and reality.

#### Ageing in place

- Ageing in the community vs. ageing in the home.
- Urban and rural environments provide very different experiences and challenges. The pattern of urban/rural development in different countries/economies and the range of geographies within countries and across Europe make this issue complex.
- Quality of residential care settings was also highlighted.
- Environments should not be considered not just in terms of older people's experience but their impact on the ageing process and potential to support promote longevity.
- Ecological impacts on longevity also need attention.
- Transitions between environments and life stages.

#### Future look

- It was noted that forthcoming cohorts will have different environmental habits to the current groups of older people, and different expectations.
- Ageing processes – and interventions - of the future - will also require flexibility within the field.

#### Cross-national collaboration

- A strategic approach to collaboration was identified as important for a range of reasons including: identification of best practice appropriate for different cultural contexts; managing issues that impact society; managing conflict.
- Strategies should be drawn up for specific challenges such as catastrophic events.

#### The “Competence Trap”

- In European society older people are being encouraged to work longer and longer, yet at the same time the environment does not offer this group jobs. There is a gap between the political/societal demand and opportunities/possibility. This has several implications such as increased poverty, or depression/suicide in these age groups.
- As well as treatment of the consequences, research is required into action/prevention through sustainable work schemes.
- This must involve older people.

#### Other issues included:

- Cultures of fear/risk societies.
- Markets – how people get together/fading marketplaces.
- Genetics.
- Mainstreaming ageing.

#### **Question 3: Are any developments in the European research infrastructure necessary for those priorities to be addressed?**

#### Flexibility in the Road Map

- The Road Map – or any other ageing research agenda – should not be too perfect as no one knows all of the roads ahead.
- Need to build in horizon gazing/continuous process of revision to ensure that changes in society or science can be accommodated.

#### Comparative research

- The full range of comparative studies needs to be available for examination, including genome studies.
- A minimum standard of research is required to ensure that varying sources of research are authoritative.

- Greater research is needed to identify what data to rely on – cohort vs. literature, combinations of two, etc.

#### Stakeholder engagement

- Research should involve and include many more different stakeholders.
- Greater investment is needed in different topics with various administrative bodies to develop links between practitioners and researchers to make research more effective.

## 4.6 Healthy Ageing

### PRESENTATION OF SUMMARY RESULTS

*Professor Carol Jagger*

AXA Professor of Epidemiology of Ageing at Newcastle University in the United Kingdom.

Professor Jagger outlined the aims of the first workshop on Healthy Ageing, which took place in Newcastle, UK on 15-16th March 2010. Participants were asked to:

- Agree the scope of healthy ageing and wellbeing.
- Clarify the overlap/gaps between this and other themes.
- Create a coherent framework for research findings.
- Determine the key research priorities in this field.

Three overarching issues were established: Europe as a basic comparative natural population laboratory; the ability to extend and integrate biological, social and economic aspects of ageing, and; the need to build capacity/knowledge/infrastructure in countries that have little experience in ageing research. Four sub-themes were used to structure the discussion, which also extended into cross-cutting areas.

The outputs from the workshop were as follows:

#### **Research themes**

- 1) Monitoring and resolving inequalities in healthy ageing
  - a) Modelling links between disease and functioning (physical and cognitive) over the life course
    - Disease impact may vary across environments.
    - Important for planning for the future.
  - b) Healthy ageing, work and retirement
    - Links between exit from labour market and pensions, socio-economic status, cultural expectations.
  - c) Interrelationship between health and functioning in the oldest old
    - What do oldest old value for quality of life and wellbeing?
- 2) Interventions for Improved Health and Wellbeing with Ageing and Co-morbidity.

- a) The diversity of public policy on health related services
    - Identification of exemplars and wider implementation.
    - Comparative effectiveness research.
    - Primary and secondary care, access, service configuration, delivery and organisation, relationships with social care.
  - b) Ensuring translation of new and existing knowledge
    - Economic modelling/cost benefit/cost utility of technologies.
    - Translation to clinical practice.
  - c) Identifying target groups for promoting health and wellbeing
    - Anticipatory care systems.
- 3) Prevention and promotion of healthy ageing
- a) Identification of markers of ageing from cellular to societal level
    - Do markers modify success of medical interventions?
    - Can biomarkers measure the efficacy of interventions?
  - b) Physical activity, diet/ nutrition, obesity management
    - How can functional decline and onset of new diseases be reduced in different populations and subpopulations?
  - c) Intervention and implementation
    - What subtypes of activity are effective for which outcomes?
    - When can physical activity or nutrition be used as alternatives to medication?
- 4) Psychosocial factors and healthy ageing
- a) Social/behavioural genetics
    - Disentangling genetic, behavioural and environmental influences on healthy ageing.
  - b) Life course transitions
    - Impact of health events on restoration or decline of functioning and social/psychological processes involved.
  - c) Personal factors and healthy ageing
    - Clarifying how personal attributes (personality, ethnicity, gender) impact on healthy ageing.
  - d) Connectedness and orientation
    - “Productive ageing/”shrinking” of the life space.

### **Cross-cutting themes**

- 1) The “Healthy Ageing” construct
  - a) Relative importance of physical health and psychological wellbeing across the life course and in frail populations
    - Integration of views of older people themselves.
- 2) Health behaviours and influences on behaviour change
  - a) Integrated science of behaviour change.
  - b) Research to underpin comparative measures to monitor healthy ageing.

- Indicators of socio-economic status, functioning, multi-morbidity, social engagement.
- 3) Infrastructure
    - a) Europe as a comparative laboratory.
    - b) Capacity development.
  - 4) Integration of disciplines
    - a) Social exclusion and frailty, in common with vulnerability and risk requires input from biology, psychology and sociology.
  - 5) Making the best use of what we already know
    - a) Existing cohorts.
    - b) “Implementation science” / knowledge transfer.

### **Gaps**

- 1) Overlap with biogerontology and genetics.
- 2) Mental health.
- 3) End of life – “healthy ageing and good death”.
- 4) Drugs.
- 5) Priorities for Eastern Europe.

### **BREAK-OUT GROUP FINDINGS**

*Chair: Professor Carol Jagger, Newcastle University*

*Rapporteur: Johanna Lundberg, FAS*

The main purpose of the break-out group was to discuss three overarching themes or questions related to the Healthy Ageing theme at large, as presented below. A list of participants in this group can be found in Annex B.

#### **Question 1: Do you agree with the proposed core principles for the road map?**

Participants emphasised the importance of encouraging research that is possible to implement, and also to make sure to include older people and the grass root perspective: “Older people are such a heterogeneous group – we cannot treat elderly as a token or a type; not all are alike”. Questions on how to involve the oldest old (90+) also arose. The issue of getting ethical approval was discussed rather extensively – this is always a problem in the planning and execution of studies and it will continue to vary across different countries.

It was further suggested that the road map should focus on the policy level within each country. There were also opinions on the difficulty of picking one core principle that should be considered more important than any other – participants agreed that “it is important to embrace all aspects of healthy ageing, as expressed by the current core principles”.

**Question 2: What are the five most important research priorities on ageing for the next 10-15 years?**

Comments from workshop participants have been categorised into the five areas below:

Implementation of knowledge / translational research

- Interventions to prevent negative predictors for healthy ageing / promote health.
- Drugs and side effects; manufacturers need to be obliged to study adverse effects from drugs: older people with multi-diagnoses will grow as a group; drugs are tested on young people but are then prescribed to the elderly.
- Promotion of functional capacity is an important inter-disciplinary area; important to include a functional measure test that can predict future disease.
- Intervention studies on physical activity and hard outcomes such as life expectancy – important to build cross-cultural/national cohorts to enable these kinds of studies.

Defining health

- How do we create a common terminology?
- Dignity, wellness, frailty are all concepts that need to be include more in discussions.
- How do we manage the different aspects of healthy ageing? All aspects cannot be separated from one another; multi-disciplinarity is a must.
- Conceptual research around how people themselves define ageing and life quality.
- Focus on wellness and wellness promotion instead of physical health; what is important to the elderly; how do we improve wellness activity?

Lifestyle factors

- We need to look at outcomes in terms other than just “hard” ones (see wellness).
- Adoption of healthy behaviours among elderly – how is this created?
- Epigenetics (lifestyle, predictors).
- Physical exercise: how do we adapt this “medicine” to those who would really benefit the most? How to involve this in your daily life?
- Determinants for health to minimise the burden of disease; but the oldest old with many diseases and disabilities can still define their lives as healthy and fine.
- How can people be motivated to age responsibly and how can older people adopt health-promoting lifestyles from at a young age?

Psychosocial / behavioural factors

- Focus on wellness and wellness promotion instead of physical health; what is important to the elderly; how do we improve wellness activity?
- Need of a science of behaviour change; how is a certain behaviour maintained?
- Working life, lifestyle, and interventions; does a cognitively challenging lifestyle prevent dementia?
- Resilience; how to tackle life stress successfully.

### Structural factors

- How is working life associated with ageing (multi-disciplinary as well) and how is the decision to retire associated with the health of other family members?
- Standardisation is required; we use the same concepts but mean different things – disability, function - what do they mean? The concept of frailty should be used more.
- End of life care; transitioning between curing and palliative approaches to older people.
- Social and economic heterogeneity over time (will affect healthy ageing).
- How do we measure standard values around ageing across Europe?

### **Question 3: Are developments in the European research infrastructure necessary for the priorities above to be addressed?**

There seemed to be a consensus around the view that it would be difficult to create a European institute, but that a virtual institute was needed in order to bring research together. There is also a call for a coordinated approach; ERA-AGE 2 good-practice guidelines need implementation. The issue of standardisation and coordination of activities was raised – how do we organise data according to common principles and how should we best implement the use of standardised measures? It is also of importance to monitor infrastructure and research, so as not to do double-work. Problems related to future research were the issue of how to include older people so as to reach true representation, and someone mentioned difficulties associated with finding funding rapidly when you want to study current phenomena (for instance cardiovascular disease in Russia). Constructive suggestions for improving future research were the creation of a European pool of researchers who are interested in ageing research, and the return to previously collected databases of younger people to be able to study outcomes on them as they age. There was also a general call for regular conferences in Europe on ageing topics, and it was emphasised that it is important that these meetings are coordinated by the virtual institute in order to create coherence (so that there are not five independent meetings around the same topic).

## **User involvement**

### **4.7 The User Perspective**

*Professor James Goodwin*

Head of Research at Age UK

Professor Goodwin presented the results from the first User Involvement workshop, which took place in Brussels on 24-25 March 2010, and included representatives from: older people and their organisations (NGOs); industry; research, and; policy. The involvement of users in the FUTURAGE project has several aims: to engage end users of ageing research in the project; to ensure ageing research is more society driven; to improve the relationship between research and policy and practice, and; to lead to more

effective product development. To ensure these requirements were met, the first workshop had four principles:

- To identify what are the barriers and solutions to the participation of older people and other users.
- To create a lasting model of user involvement for European research in ageing.
- To integrate user perspectives into the Road Map.
- To ensure that the Road Map represents both the priorities of scientists and those of users.

Participants joined one of three sub-groups to shape the discussion.

The outputs from the workshop were as follows:

### **Research issues**

- 1) User Involvement: How can researchers and public authorities support it?
  - a) Identification of the “user” – critical role of NGOs.
  - b) Funding issues: enabling older people to become involved in research.
  - c) Full involvement, not merely consultation or collaboration as subjects of research.
  
- 2) Industrial best practice: How do industries ensure that older people’s expectations and needs are taken on board?
  - a) We must convince industry to invest in users (the business case).
  - b) Mainstream ageing.
  - c) Influence from the top-down (decision makers).
  - d) Older people’s attitudes (e.g. to technology).
  
- 3) Recent experience: How do older people express their expectations to researchers and service/product developers?
  - a) Empowerment of older people vital.
  - b) Equal participation across the older population.
  - c) Raising the awareness of the importance of participation in the older population.

### **Additional comments**

- Cross-workshop integration (with the scientific themes)
- Generation of the “Road Map of Road Maps”.
- “European Institute” functions.
- Importance of knowledge transfer and the removal of barriers to dissemination and implementation.

## 5 Afternoon Session

The workshop was co-chaired by *Mr Paul Rübig MEP, STOA Chairman* and *Mr António Fernando Correia de Campos MEP, STOA Vice-Chair*.

### Summary of Presentations

#### 5.1 Introduction

The opening address was given by Mr Paul Rübig, MEP, STOA Chairman, who welcomed the attendees and observed the European Parliament has a key role to play in developing new ideas. Achieving life long healthiness is one of the EU's priorities, and with the potential for the financial crisis to harm the response to ageing it is important to examine the strategic framework for ageing research in Europe. Research also underpins best practice which can be shared among the 27 European countries and their 500 million residents. The workshop aimed to examine the priorities for ageing research for the next five to 15 years.



#### 5.2 ERA-AGE 2 and FUTURAGE – Shaping the Future of Ageing Research

*Professor Alan Walker*

Professor of Social Policy and Social Gerontology at the University of Sheffield in the United Kingdom, and the Director of FUTURAGE and the European Research Area on Ageing.

Professor Walker thanked STOA for hosting the workshop, and acknowledged the importance of political support for ageing research, particularly to complement the strong backing for ageing research recently articulated by the Commissioner for Research, Innovation and Science, and the European Economic and Social Committee.

Prof Walker gave an overview of the current problems in European ageing research, summarised as a broad lack of strategic collaboration. He provided a review of two recent coordination actions in this area, FORUM and ERA-AGE, and outlined the activities of two current projects, ERA-AGE 2 and FUTURAGE. The future for ageing research required key principles: the life course perspective; multi-disciplinarity; user or stakeholder engagement (including older people), and; the commitment to knowledge transfer and implementation. A key aim of ageing research is to make ageing more enjoyable, and create a longer healthier life, which requires research in three areas:

prevention; creation of enabling environments, and; interventions. Finally an outline of the New Dynamics of Ageing programme was provided, which covers the wide range of disciplines that are reflected in ageing research. Prof Walker finished by reminding the workshop that this is a once in a generation opportunity to make sure ageing research has the highest possible priority and to ensure that the results benefit older people themselves.

### 5.3 The New Science of Ageing

*Professor Kaare Christensen*

Head of Epidemiology at the Institute of Public Health and Director of the Danish Aging Research Center, University of Southern Denmark.



The first of the keynote speakers examined how the complex questions of ageing are being addressed through collaboration between different disciplines and how this approach can enable the elderly to live longer in better health. The presentation outlined how life expectancy has increased dramatically in the last 400 years, with the most significant increase occurring during the 20<sup>th</sup> century, when life expectancy

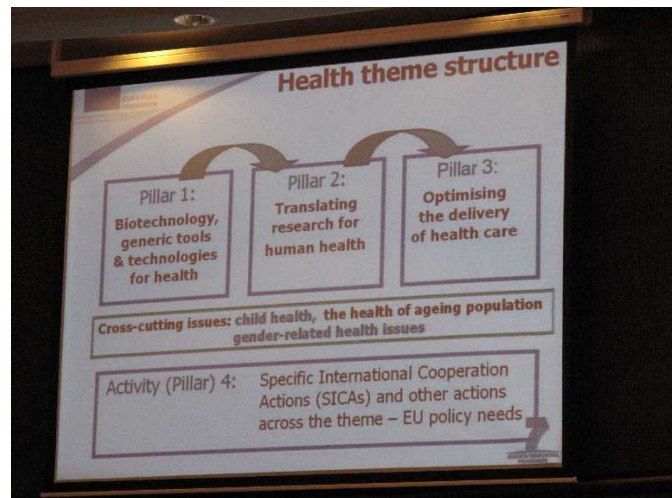
increased from 50 years to 80 years. Combined with a fall in mortality rates, if the trend continues half of children currently entering kindergarten will reach the age of 100. Although this is acknowledged to be fundamentally a good thing, there is concern about the implications of “the fourth age” that results from exceptional longevity. The presentation asked if this could result in an “artificial” old age due to medical intervention; does exceptional longevity mean exceptional disability? Prof Christensen provided examples of some multi-disciplinary research already taking place that is exploring these issues. He also highlighted the large discrepancy between male and female life expectancy with the female half of the global population outliving men by up to 12 years due to a combination of biology, behaviour and culture.

### 5.4 Ageing research in the Research Framework Programmes

*Dr Pēteris Zilgalvis*

Head of Unit, Health Directorate Infectious Diseases and Public Health Research, DG RTD.

The second keynote speaker reviewed the role of the Framework Programme in supporting ageing research in Europe. Dr Zilgalvis outlined the strategic importance of research to the EU, as outlined in the Lisbon Treaty and the broad objective of Health research under FP7. A short history of FP funding for ageing research was presented. Under FP7 funding €6billion has been allocated to Health to support cross-cutting issues and three specific pillars: biotechnology, generic tools and technologies; translating research for human health; optimising the delivery of health care to



citizens. A wide range of ageing related research has been funded, including immune reactivity in old age; participation of elderly in clinical trials; organisation of dementia care, and; patient safety. Dr Zilgalvis provided an insight in the development of work programmes and factors influencing priority areas. The presentation then provided an overview of the Joint Programming pilot initiative for combating neurodegenerative diseases which represents the first stage in an initiative focused on developing common strategic research agenda to major societal challenges.

## 5.5 Room for research on a new integrated care system for aged people

*Dr Inês Guerreiro*

National Coordinator of the National Network Integrated Continuous Care at the Ministry of Health and Ministry of Labour and Social Solidarity, Portugal.

Dr Guerreiro showcased a project from Portugal which shows how integrated care systems can adapt in response to social and structural changes, and patterns and prevalence of ill-health and disability. Dr Guerreiro outlined the structure and scope of the National Network for Integrated Continuous Care. The project is a partnership between the public, private and third sector, to support development of new working methods and the provision of cost effective services in long term care, and to address quality and sustainability standards, as well as coordinate informal and formal care. The presentation outlined the “bio psycho social” tool developed to enable holistic and longitudinal monitoring of patients; each patient is scored on 12 parameters to create both combined and specific scores, which can be used to measure for example: physical autonomy; incidence of pressure ulcers; cognitive and emotional status, and; incidence of falls. Dr Guerreiro concluded by observing that long term care is an increasingly important issue in Europe due to the widely different approaches in member states caused by differences in the split between formal/informal care, public/private funding, home care and residential care provision.

## The essential elements of the Road Map

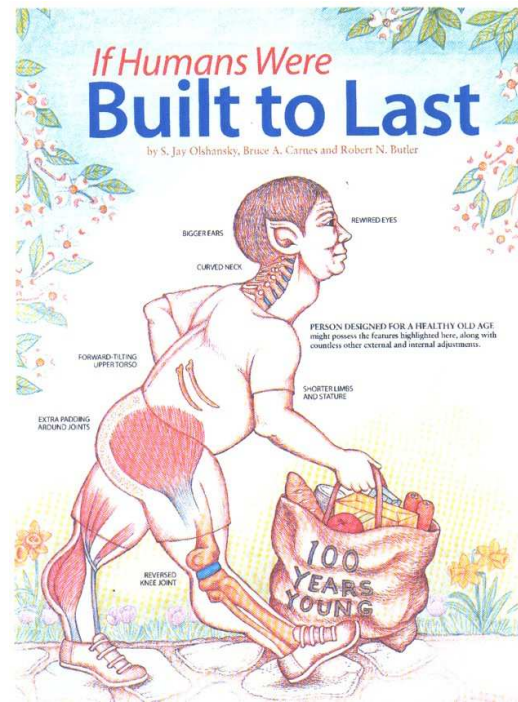
The next set of presentations outlines the essential elements of the Road Map for Ageing Research in Europe, and provides an overview of the key issues related to the scientific and user perspective for European ageing research.

## 5.6 Biogerontology

*Dr Efstathios S. Gonos*

Director of Research at the National Hellenic Research Foundation and Executive Committee Member of the International Union of Biochemistry and Molecular Biology.

Dr Gonos represented the biogerontology theme and introduced three future research directions: to continue research investment in this area; to retain financial support for successful and incomplete projects, and; to invest in novel global technologies. Using a projection of the size of the 65+ population in Europe in 2030 the presentation emphasised that ageing will become the most important social issue, partly due to the number of diseases, such as cancer, for which ageing is a major risk factor. The limitations of FP funding and the subsequent lack of continuity were highlighted with the description of two projects which have generated large biobanks and research material which, once funding has ended, are no longer accessible for analysis and research. Dr Gonos highlighted two major achievements in biogerontology - the discovery of telomeres, and the impact of the accumulation of cellular damage - and described the development of “omics”, techniques for the study of gene expression processes, which can provide information about the diet that can modulate these processes. He also observed that the model systems used in biological research do not take account of the differences between animals and humans; animals are bound to the process of “eat, survive, reproduction”, but humans have the ability to ask questions outside of these drivers; it was proposed that due to the complexity of human needs, ageing cannot be answered through biology alone and a multi-disciplinary approach is required. Dr Gonos concluded that the main aim of ageing research is to add life to years not years to life, so as more and more people reach 90 they have the quality of life that they had at 40.



## 5.7 Social and Economic Resources

*Dr Giovanni Lamura*

Italian National Research Institute on Ageing.

Dr Lamura examined the role played by social and economic resources in an ageing society and the research priorities in this area. The presentation began with a review of the conceptual approach of the recent workshop for FUTURAGE, which gathered research priorities from scientists across Europe in four areas: older age and caregiving; older age and frailty; active ageing and; socio-economic needs in older age. The importance of older people as caregivers was highlighted by the fact that over a quarter of those providing care for older people are themselves aged over 65, and this is under-recognised and under-supported. Where older people are recipients of care, greater research is needed on perceptions of dependency and independence. Dr Lamura highlighted the large differences in types, levels, and quality of care across Europe, and the corresponding varying level of government expenditure in this area. Active ageing depends on the presence of a number of pre-requisites to enable people to maintain activity levels in the labour market, education and voluntary sector. The workshops also identified four socio-economic needs of older people: social; economic; cultural, and; vulnerability. The last item – vulnerability – is of particular importance due to the high levels mistreatment of the elderly which are believed to be particularly high in Southern and Eastern Europe.



## 5.8 Environments of Ageing

*Professor Hans-Werner Wahl*

Heidelberg University in Germany

Prof Wahl introduced the core research elements for the Environments of Ageing theme. He began by reviewing the key issues for ageing in Europe: how and where to live in old age; how to keep up with daily activities and social participation, especially with increased needs for support and care; rapid population ageing, most of all among the very old; the significant burden on public economy; mobility, and; technology solutions. The presentation outlined what can already be done to address these issues in Europe, and then identified where additional research needs to be focused, particularly in relation to evidence on outcomes and efficient solutions and implementation of existing evidence into practice contexts. Prof Wahl concluded with an overview of the first FUTURAGE workshop to identify research priorities in this area and will inform future development in this area. The work included a review of the existing evidence base and recognition of gaps, before identifying research areas and cross-cutting themes for future development. Specific ageing and environmental research needs to consider home settings, mobility/transport environments, the role of technology and work environments, and should be complemented by consideration of the bigger perspective, such as how climate change will affect older people.

## 5.9 Healthy Ageing

*Professor Carol Jagger*

AXA Professor of Epidemiology of Ageing at Newcastle University in the United Kingdom.

Prof Jagger discussed what is meant by healthy ageing for Europe's population, and identified the key research priorities and cross-cutting themes in this area. The presentation began by reviewing how the European population will age and the substantial inequalities in healthy life expectancy across Europe, and what effect this will have on the continent for the future. The presentation provided an overview of the first workshop to gather research priorities for this area which identified four key research areas. There is a need to agree what "healthy ageing" is and how to measure and monitor it and related concepts such as frailty, quality of life and wellbeing. Effective definitions are complicated when used for the oldest old – those over 85 – who typically rate their quality of life as "good" despite suffering from an average of four diseases each. Prof Jagger also highlighted the potential for the concept of healthy ageing to integrate biological, social, psychological and economic aspects of ageing. It was also observed that Europe provides a unique opportunity to conduct research as it contains countries at many different levels of demographic profile and development; this variation in development is also reflected in the variations in capacity, knowledge and infrastructure in countries that have little experience in ageing research. The conclusion pointed out that research is needed to capitalise on rapid social changes as they occur; the population is living longer and the challenge is to find out how people can live longer more successfully.



## 5.10 The User Perspective

*Professor James Goodwin*

Head of Research at Age UK

Prof Goodwin began his presentation by outlining the challenging task to align the needs of users with the research agenda across Europe's 27 countries, a diverse user community and multiple scientific disciplines. With the aim of creating one single model to bring those aspects together and serve the population's democratic right to be involved Prof Goodwin challenged everyone present to reflect on their own work and ask: "What are the potential benefits to users?"; "How can we bring the benefit to users?" The presentation described the increase in longevity and the resultant increase in chronic disease, disability and ill health. The research solution to these challenges requires integration of investment, strategy and users, and to address an interactive model between users and researchers was proposed, designed to stimulate knowledge transfer. Key issues that arose from the first set of FUTURAGE workshops included: enabling and empowering older people to become involved in research; developing the

business case for businesses to invest in users; mainstreaming ageing by making products and services “age friendly” so they are not specifically designed for just older people (this is a clear reflection of the life course approach).

## **Summary of Discussion**

Chaired by Mr António Fernando Correria de Campos, MEP and STOA Vice-Chair. A summary of the issues raised, and the responses by the panel are provided below:

### **The impact of different geographical regions - including both cross-border regions and local agglomerations - on ageing research**

- While the Commission continue to provide effective structures to bring scientists from different areas together, including joint programmes, there is no need for separate measures.
- Specific geographical regions do not necessarily deserve specific structures; while there are minor differences in ageing between the north and south of Europe it is a uniform process.
- Longevity and functional morbidity are related to diverse influences, so it may be important to research at a regional level due to the diversity of local cultures, education etc, and the general spirit of community life.
- Regional research findings can often be scaled up to a macro level.
- The EU research agenda must be relevant both nationally and to Europe and presented as such in policy.

### **The integration of non medical/biological strands into the topic of ageing under FP8**

- The Commission is addressing: intergenerational aspects; foresight; sustainability and solidarity; and social sciences.
- There is coordination between projects and institutions via inter-service consultations and knowledge exchange.
- There will be a focus on international aspects of public health through collaboration, subject to peer review.

### **Sustainability of research projects already completed under previous FP calls.**

- The structure of funding within the Framework Programme has changed, so there are no clustering projects. Public health is a new area for funding and work is needed to bring areas together including other aspects such as biology and ICT.
- Effective dissemination is an integral part of all contracts awarded, although it is a challenge to engage researchers in this to underpin knowledge exchange activities.

### **Importance of cross-network working, facilitating linkages and combining existing networks**

- For many years there has been much examination of the concept of a European Institute of Ageing, but there are no suitable mechanisms in Europe to create a structure that would last longer than a Framework Programme.
- The discussion in FUTURAGE workshops has resulted in the informal suggestion of a virtual institute to provide coordination activities.
- The network-to-network model is already very successful (without external intervention) and has much to recommend it.

#### **Integration of FUTURAGE into larger European strategy**

- The *Europe 2020* strategy identifies ageing issue is identified as an important European issue and takes a coordinated approach to the problem.
- The STOA panel supports this and their members provide insight to other Parliamentary Committees to inform decisions.
- It is essential to take a holistic perspective to solve the ageing problem.

#### **The impact of the projected changes in the dependency ratio from 1:6 to 1:1; should the Road Map also reflect a need to increase birth rates as a result.**

- Many countries which currently have high birth rates are due to high levels of migrant population from countries with different patterns of fertility.
- The current figures define the “dependents” as those aged 65+, but as working life extends we will need to think about new concepts to measure dependency.
- Previously “dependency” described those who needed care and there are many people aged over 65 who do not need care; we need to think about what we need the dependency ratio to measure. There has been a recent paper in the British Medical Journal that promotes a new dependency ratio comparing the 80+ and 85+ population.
- The scientific community is less concerned about demographic projections as they understand we are facing a longevity revolution, but the public are only just beginning to realise this.
- Dependency ratios are a political concept rather than a scientific one; who is to say that people over 65 are unproductive? The future productive capacity of Europe will depend how companies can utilise the population, so we need to encourage that productivity, ensure healthy ageing so that working life can be extended.

#### **Other issues raised included:**

- Effective integration of lifelong learning initiatives.
- How the Joint Programming Initiative sits alongside other funding streams.
- The need for research funding around inter-generational family solidarity, especially care giving.
- The need to reduce gaps in access to and use of technology.

## Annex A: List of participants

The afternoon session at the European Parliament was an open meeting which did not require pre-registration, so some people who attended that meeting are not included in this list.

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## Annex B: List of break-out group participants

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Eduard	Apetrei	Romanian Academy of Medical Science	Romania
Mikael	Fogelholm (Chair)	The Academy of Finland	Finland
Pierrette	Gaudreau	University of Montreal	Canada
Efstathios	Gonos	National Hellenic Research Foundation	Greece
Michele	Goodhardt	CNRS	France
Anissa	Lardjane	Womedlaw	France
Fabrizia	Lattanzio	INRCA	Italy
Beatrice	Lucaroni	European Commission	Belgium
Iveta	Ozolanta	Latvian Council of Science	Latvia
Gabriel	Prada	Ministerul Sanatati	Romania
Béatrice	Rayet	University of Namur	Belgium
Armelle	Regnault	INSERM	France
Dimitri	Stathakos	National Centre for Scientific Research	Greece
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Carlos	Chiatti	Italian National Institute on Ageing	Italy
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Note: some participants attended only the afternoon session

## **Annex C: Guidelines to break-out group participants**

### **Guiding questions for group discussion**

- 1) Do you agree with the proposed core principles for the Road Map? Which are the most important aspects of these principles regarding the respective theme?
  - Multi-disciplinarity
  - Life course approach
  - Holistic person-centred perspective
  - Cross-national
  - Cross-cultural
  - Involves older people
  - Engages with all other relevant research users to maximise impact
  - Builds capacity
- 2) From your perspective what are the five most important research priorities on ageing for the next 10-15 years? What are the main arguments for this priority?
- 3) Are any developments in the European research infrastructure necessary for those priorities to be addressed?

## Annex D: Speaker biographies

### **Professor Kaare Christenson MD, PhD, DRMSC University of Southern Denmark**



Professor of Epidemiology, Institute of Public Health, University of Southern Denmark, and Senior Research Scientist at the Terry Sanford Institute, Duke University, North Carolina, USA. Christensen is the Director of the Danish Twin Registry and the Danish Aging Research Centre and he has conducted a long series of studies among twins and the oldest-old in order to shed light on the importance of genes and environment in aging and longevity. Furthermore, he has a longstanding interest in the relation between early life events and later life health outcome. He is engaged in inter-disciplinary aging research combining methods from epidemiology, genetics and demography. He has authored or co-authored some 300+ publications and has 38 publications that have been cited at least 38 times (Science Citation Index). Among Christensen's publications are 9 papers in *British Medical Journal*, 4 in *Lancet*, 3 in *New England Journal of Medicine*, 2 in *Science* as well as papers in *PNAS*, *Nature Genetics*, and *Nature Reviews Genetics*.

### **Dr Efstathios Gonos National Hellenic Research Foundation, Greece**



Stathis Gonos was born in Athens and graduated from the Department of Pharmacy, University of Athens, Greece in 1984 and he obtained a Ph.D. in Biochemistry at the University of Glasgow, UK in 1989. From 1989 to 1993 he worked as a Research Scientist at the Ludwig Institute for Cancer Research in London, G. Britain. Since 1994 he has been the group leader - Director of Research since 2002 - of the Programme "Molecular and Cellular Ageing" in NHRF/IBRB. The research activities of the Programme are focused on the genetic and environmental factors that are linked to human ageing and longevity and are financed by competitive grants awarded by the European Union (9 grants), the Hellenic General Secretariat of Research & Technology as well as by private sources (total awarded budget over 5,000,000 euros). He is author of 77 research articles, 14 monographs and patents holder that have resulted in the development of novel anti-ageing products. Dr. Gonos has received fellowships from the University of Glasgow, the Ludwig Institute for Cancer Research and the Royal Society of G. Britain and was honored with the "Hans Selye" award. He has been a "Senior expert" of E.U. in "Human development and the ageing process" and Deputy National Representative of Greece in E.U. in "Genomics and Biotechnology for Health". He is Associate Editor of "Mechanisms of Ageing & Development" and Editorial Board member of "Molecular Aspects of Medicine", "Experimental Gerontology", "Aging Cell" (2002-2007) and "Biogerontology" (2001-2009).

**Professor James Goodwin**  
**Age UK**



Professor Goodwin is the recently appointed Head of Research in the newly merged charity, Age Concern and Help the Aged. The mission of the new charity, the largest in the UK, is to improve the lives of older people. He holds a visiting professorship at Loughborough University in the Department of Human Sciences. He is a member of the advisory board of the journal 'Ageing Horizons' at Oxford University and a member of the editorial board of 'Quality in Ageing'. He sits on numerous expert bodies, including the UN Research Agenda for Ageing panel, the UN Digital Health Group, a WHO Advisory Group, scientific advisory panels of the research councils and is Chair of the Halcyon Knowledge Transfer Steering Committee at UCL. Dr Goodwin graduated with a bachelor's degree in Biology from Keele University, UK. After graduation he read for a Master's in Human Physiology at Loughborough University and then for a PhD in climatic physiology at the Postgraduate Medical School, University of Exeter. His research area was the effects of temperature variations on the autonomic cardiovascular responses of older people, an area highly relevant to the issue of climate change and older people's health. After 15 years in the university sector he was appointed as Head of Research at the Help the Aged in 2002. His other area of expertise is knowledge transfer, sitting on the advisory Board of KT-EQUAL, as a panel member of the LLHW Programme and as an adviser to Imperial College on their age-related research in the Faculty of Engineering.

**Dr Inês Guerreiro**  
**Portuguese Ministry of Health**



Inês Guerreiro is currently the National Coordinator of National Network Integrated Continuous Care (RNCCI) at the Ministry of Health and Ministry of Labour and Social Solidarity of Portugal (since 2006). Formerly a Representative of the Ministry of Health for the Committee of Social Protection of the European Union, advisor to the Minister of Health for Continuous Care, Advisor of the Regional Secretary of Social Affairs for the creation of the RRCCI and the Head of a National Program for Palliative Care. She is also the Manager of a Pilot-Project in Performance Budgeting of the Ministry of Health – coordinated by GTIPOP (Task force for the Implementation of Performance Budgeting) of the Ministry of Finance. She received a BA in Social and Political Sciences in 1974 from Lisbon Technical University and has undertaken post-graduation education in France and the USA in project management and organization.

**Professor Carol Jagger**  
**University of Newcastle, United Kingdom**



Carol Jagger is the AXA Professor of Epidemiology of Ageing at the Institute for Ageing and Health, Newcastle University. Her research crosses the interface between demography and epidemiology of ageing with a particular focus on healthy active life expectancy. Within Europe she was Deputy Chair of the EC Task Force for Health Expectancy and she is a member of the Steering Group of the European Health Survey System and the Task Force on survey based disability statistics.

Nationally she has provided evidence on healthy life expectancy to the UK Works and Pensions Committee for its enquiry into Pension Reform and the Health Committee for its Social Care Review. Current projects include: two major longitudinal studies of ageing - the MRC Newcastle 85+ Study and the MRC Cognitive Function and Ageing Study (MRC CFAS); Modelling Ageing Populations to 2030 (MAP2030) forecasting the future burden of disability through changing patterns of disease; and the European Health and Life Expectancy Information System monitoring inequalities in Healthy Life Years across Europe. Carol holds a visiting Chair in Epidemiology of Ageing at Keele University and a visiting Fellowship in the Department of Public Health and Primary Care, Cambridge University.

**Dr Giovanni Lamura**  
**Italian National Institute on Ageing - INRCA**



Giovanni Lamura graduated in Economics at the Ancona University (Italy) in 1990, and obtained his PhD degree in "Life course and social policy" at the University of Bremen (Germany) in 1995. Since then he has been working at the Department of Gerontological Research of the Italian National Research Centre on Ageing (INRCA), where he has gained experience in international research projects in following fields: family care of the elderly; reconciliation of professional and caring responsibilities; migrant care workers; quality of life and wellbeing in

older age; prevention of elder abuse and neglect; long term care; older workers. In July 2006 – September 2007 he was visiting researcher for one year at the University of Hamburg-Eppendorf, Institute of Medical Sociology, Hamburg (Germany), to work on data collected within the EUROFAMCARE project on "Supporting services for family carers of older people in Europe". Besides FUTURAGE, currently he is involved in following cross-national research projects: "ABUEL: a multinational prevalence study on elder abuse"; "ASPA" (Activating Senior Potential in an Ageing Europe); "Care@work" (on the reconciliation of employment and elder care, funded by the Volkswagen Foundation); and "EURHOMAP" (aimed at mapping home care services in Europe).

**Professor Hans-Werner Wahl**  
**Heidelberg University, Germany**



Hans-Werner Wahl received his Ph.D. in psychology from the Free University of Berlin in 1989 and was from 1997 to 2005 Professor of Social and Environmental Gerontology and chair of the Department of Social and Environmental Gerontology at the German Centre for Research on Ageing at Heidelberg University, Germany. Since 2006, he is Professor of Psychological Aging Research at the Institute of Psychology, Heidelberg University, Germany. His research activities include the understanding of the role of physical-technological environments for ageing well, adaptational processes in the context of age-related chronic functional loss, processes of awareness of ageing in a lifespan perspective and intervention research. He is the author or editor of 20 books and more than 200 scholarly journal articles and chapters related to the study of human aging. He is co-editor-in-chief of the *European Journal of Ageing* and a member of the editorial board of *The Gerontologist*. Dr. Wahl is also a fellow of the Gerontological Society of America (GSA) and has received the 2008 Social Gerontology Award and the 2009 M. Powell Lawton Award of the GSA.

**Professor Alan Walker**  
**The University of Sheffield**



Dr Alan Walker is Professor of Social Policy and Social Gerontology at the University of Sheffield, UK. He has been researching and writing on aspects of ageing and social policy for over 30 years. He is currently Director of the New Dynamics of Ageing Programme (<http://www.newdynamics.group.shef.ac.uk/>) funded by the AHRC, BBSRC, EPSRC, ESRC and MRC, of the European Research Area in Ageing (<http://www.shef.ac.uk/era-age/>) and FUTURAGE ([www.futurage.group.shef.ac.uk](http://www.futurage.group.shef.ac.uk)). Previously he directed the UK Growing Older Programme (<http://www.shef.ac.uk/uni/projects/gop/index.htm>) and the European Forum on Population Ageing (<http://www.shef.ac.uk/ageingresearch>). He also chaired the European Observatory on Ageing and Older People. He has published more than 20 books, 200 reports and 300 scientific papers. Recent books include Growing Older - Extending Quality Life (2004), Growing Older in Europe (2004) and Understanding Quality of Life in Old Age (2005) all published by McGraw Hill and Quality of Life in Old Age (2007), published by Springer. In 2007 he was given Lifetime Achievement Awards by both the Social Policy Association and the British Society of Gerontology.

**Dr Pēteris Zilgalvis**  
**European Commission**



Pēteris Zilgalvis is Head of the Governance and Ethics Unit, Directorate Science, Economy and Society at DG Research, European Commission, Brussels. Until 2005, he was Deputy Head of the Bioethics Department of the Council of Europe, in its Directorate General of Legal Affairs. In addition, he has held various positions in the Latvian civil service (Ministry of Foreign Affairs, Environment) and at the World Bank in Moscow and Rīga.

P. Zilgalvis studied political science (cum laude) at the University of California, Los Angeles. At the Law Center of the University of Southern California he obtained his JD (Doctor of Jurisprudence). He is a member of the California State Bar. He has published over 25 publications on bioethics, economic reform and environmental law in English and in Latvian.

## Annex E: Background to the projects

Uniquely this meeting brought together three initiatives in European ageing research to focus on the future of the field. These three projects are outlined below.

### European Forum on Population Ageing Research



The Forum was established in 2002 under Key Action 6 of Framework Programme 5, when three Forum meetings of ageing researchers and funders took place over three years, as part of a wider schedule of workshops and meetings.

The Forum project focused on three broad areas of ageing research: quality of life; health and social care management, and; demography, genetics and longevity. Its aims were:

- To develop synergies between the key action on the ageing population and the national and international research programmes in the field.
- To improve channels of communication from the key action into the national research communities and vice versa.
- To promote broader European cooperation and networking in the field of ageing research.
- To stimulate inter-disciplinary research.
- To promote better public awareness of the importance of scientific research on ageing.

The success of the Forum meetings and the clear need for a platform to sustain collaboration among European ageing researchers led to the development of the European Research Area on Ageing.

For more information see <http://www.ageingresearch.group.shef.ac.uk/>

### European Research Area in Ageing (ERA-AGE)



The European Research Area in Ageing was established as an ERA-NET under Framework Programme 6 funding in 2004. Running for five years, ERA-AGE 1 finished in 2009 with twelve partners and three associate partners having achieved or exceeded all of its objectives.

The central mission of ERA-AGE 1 was to build the foundations for the European Research Area in the field of population ageing research and, thereby, to enable Europe to gain maximum added value from national investments in this field. A major step in this direction was accomplished in 2007 by the mounting of Europe's first joint programme on ageing funded collaboratively by Member States. The Future Leaders of Ageing Research in Europe (FLARE) post-doctoral programme is a joint venture between eight countries;

all FLARE fellows will not only undergo inter-country mobility as part of their 3 year tenure but also cross-disciplinary training.

In 2009 another three years of funding was awarded for ERA-AGE 2 which aims to secure, for the long term, the European Research Area in the ageing field, including the joint funding of Europe's first research programme on ageing. The project is also intended to deliver a second round of the pioneering FLARE post-doctoral programme.

With a remit to extend progressively to include new members, ERA-AGE currently includes thirteen partners and five associate partners. ERA-AGE 2's objectives are:

- Develop and implement the framework for a second call for the FLARE postdoctoral programme (FLARE 2)
- Provide continuing support for existing FLARE programme by arranging networking opportunities for the post-doctoral fellows, including Summer Schools.
- Ensure that the key stakeholders regionally, nationally and European are engaged in the activities of ERA-AGE and, thereby, contributing to the research response to the ageing challenge through the ERA-AGE Forum activities.
- Continue ERA-AGE essential knowledge transfer activities including further development of its databases.
- Engage the majority of European countries as ERA-AGE members
- Ensure a lasting basis for strategic collaboration between the ERA-AGE partners.
- Develop the framework for and agree an open memorandum of understanding concerning the NEDA programme to follow ERA-AGE 2.

For more information see [www.era-age.group.shef.ac.uk](http://www.era-age.group.shef.ac.uk)

## FUTURAGE



FUTURAGE is a two year project with twenty-three partners, running from 1<sup>st</sup> September 2009 to create a definitive Road Map for ageing research in Europe for the next 10-15 years. The project will identify the main priorities for research on ageing based on the

widest possible consensus between key stakeholders ranging from policy makers to product producers and retailers. A key principle is the close involvement of older people in this process. The starting point is a series of national consultations in the 13 countries that form the European Research Area in Ageing (ERA-AGE 2).

Following this, a series of extensive consultations are planned among scientists and stakeholders within four broad themes:

- Biogerontology
- Social and economic resources
- Environments of ageing
- Healthy ageing and well being

In addition to the four scientific themes there is a parallel fifth theme on the engagement of research users, including older people.

Outputs from the consultation process will be explored at two stakeholder meetings of high-level research funders, policy makers and practitioners in the ageing field and representatives of older people.

A Council of Scientists, drawn from project leaders of these major projects, will provide advice for FUTURAGE to ensure the road map delivers a viable and realistic strategy for high quality European ageing research for the next 10-15 years.

For more information see <http://futurage.group.shef.ac.uk/>