

**Opinion of the European Economic and Social Committee on 'Horizon 2020: Road maps for ageing'
(own-initiative opinion)**

(2012/C 229/03)

Rapporteur: **Ms HEINISCH**

On 14 July 2011 the European Economic and Social Committee, acting under Rule 29(2) of its Rules of Procedure, decided to draw up an own-initiative opinion on the

Horizon 2020: Road maps for ageing

(own-initiative opinion).

The Section for the Single Market, Production and Consumption, which was responsible for preparing the Committee's work on the subject, adopted its opinion on 8 May 2012.

At its 481st plenary session, held on 23 and 24 May 2012 (meeting of 23 May), the European Economic and Social Committee adopted the following opinion by 184 votes to 3, with 4 abstentions.

1. Conclusions and recommendations

1.1 In order to meet the major challenges facing us and to tap into the potential offered by demographic change and the accompanying economic and social developments in the future, EU Member States must step up appropriate action over the next few years at different levels and in a wide variety of fields.

1.2 Coordinated research could make a decisive contribution to appropriate measures at regional, national and European level, by establishing a sound basis for planning and decision-making.

1.3 The point has repeatedly been made that European research into ageing and demographic change should be carried out on a longer-term, interdisciplinary and transnational basis, or at least in a way which enables comparison between national research activities. The EESC unreservedly supports this view.

1.4 Adequate infrastructure and integrated coordination of research activities are also prerequisites for high-quality European research. Central coordination is also needed in terms of drawing up a budget and allocating resources. The EESC therefore recommends setting up a European gerontology research centre which could ensure the requisite coordination.

1.5 Road maps on the design of long-term research programmes are useful in setting future research priorities. Current road maps on ageing and demographic change have already identified some key aspects of relevance to 'Horizon 2020' ⁽¹⁾.

1.6 The EESC is pleased that the 'Societal challenges' priority of FP8 includes 'Health, demographic change and well-being' as a research priority ⁽²⁾.

1.7 In addition to the current research priorities mentioned in the current road map and 'Horizon 2020', the EESC would like to see European research into more innovative and possibly more problematic aspects of ageing and demographic change. Such aspects include staying healthy, rehabilitation, longer working lives, the implications of people increasingly taking and sharing responsibility for their lives, learning for a long life, the impact of the increasing role of technology in many areas of life, and European social issues arising from demographic, social and technological change.

2. Justification/general comments

2.1 In order to meet the challenges and tap into the potential offered by demographic change, we urgently need well-funded planning and decision-making over the next few years as a basis for measures to point the way forward. In particular we need adequate research to support such planning and decision-making. The results of previous European research programmes such as the fifth, sixth and seventh research framework programmes ⁽³⁾, the Ambient Assisted Living Joint Programme ⁽⁴⁾ (AAL JP) ⁽⁵⁾, the Competitiveness and Innovation Framework Programme (CIP) ⁽⁶⁾ and ERA-Net activities have clearly demonstrated the usefulness of research. Research can therefore make a decisive contribution to managing demographic change and tapping into its potential benefits at regional, national and European levels.

⁽²⁾ See footnote 1.

⁽³⁾ OJ L 26, 1.2.1999, p. 1, OJ L 232, 29.8.2002, p. 1, OJ L 412, 30.12.2006, p. 1 and OJ C 65, 17.3.2006, p. 9.

⁽⁴⁾ <http://www.aal-europe.eu>.

⁽⁵⁾ See <http://europa.eu/rapid/pressReleasesAction.do?reference=IP/10/1726&format=HTML&aged=1&language=EN>

⁽⁶⁾ OJ L 310, 09/11/2006, p. 15, and OJ C 65, 17/03/2006, p. 22.

⁽¹⁾ COM(2011)809 final.

2.2 Road maps are useful in designing long-term research programmes. They are a useful way of exploring possible future scenarios and avenues for development, highlighting common ground between different disciplines, identifying relevant stakeholders and cooperation partners, evaluating the scope for political action and financing options, and developing strategies to implement processes and findings.

2.3 In recent years, research-related road maps have been developed and implemented in many areas. The following are just a few of the many national and international road maps: the Swiss road map for research infrastructures (7); the German BMBF '2020 road map and environmental technologies' project (8); the US Republicans' road map for America's future (9); the ERA road map on developing energy-efficient buildings (10); and the VPH-FET (Virtual Physiological Human-Future and Emerging Technologies) research road map (11).

2.4 Road maps for future research and innovation in the field of ageing and demographic change focus on health aspects. Examples include the road maps developed by the European projects on *Future BNCI: Future Directions in Brain/Neuronal Computer Interaction (BNCI) Research (2010-2011)*; *DIAMAP: Road Map for Diabetes Research in Europe (2008-2010)*; *ROAMER: A Road Map for Mental Health Research in Europe (2011-2014)*; *Why We Age: A road map for molecular biogerontology (2008-2010)* (12), as well as national road maps such as the road map for the health research programme of the German federal government (13).

2.5 Road maps looking at broader themes in the field of ageing and demographic change also mention health aspects as research priorities; these include the European projects on *FUTURAGE – A Road Map for Ageing Research* (14) and *BRAID: Bridging Research in Ageing and ICT Development (2010-2012)* (15). The *FUTURAGE* road map mentions three health-related priorities: 'Healthy Ageing for More Life in Years', 'Maintaining and Regaining Mental Capacity' and 'Biogerontology: from Mechanisms to Interventions' (16). In the *BRAID* project the relevant priority is 'Health and Care in Life'.

(7) Swiss Confederation, Federal Home Affairs Department, State Secretariat for Education and Research, National Research Department, 2011: *Schweizer Roadmap für Forschungsinfrastrukturen*. Download: http://www.sbf.admin.ch/hm/dokumentation/publikationen/forschung/11.03.30.NFO.RoadmapForschungsinfrastrukturen_d.pdf.

(8) Schippl, J. et al.: *Roadmap Umwelttechnologien 2020 – Endbericht*. Karlsruhe: Karlsruhe Research Centre 2009 (Scientific Reports FZKA 7519).

(9) <http://www.roadmap.republicans.budget.house.gov>.

(10) <http://www.eracobuild.eu>.

(11) https://www.biomedtown.org/biomed_town/VPHFET.

(12) <http://future-bnci.org>; <http://www.diamap.eu>; <http://www.roamer-mh.org>; <http://www.whyweage.eu>.

(13) Health Research Council of the Federal Education and Research Ministry (Eds.) (2007): *Roadmap für das Gesundheitsforschungsprogramm der Bundesregierung*. Bonn/Berlin: BMBF.

(14) <http://futurage.group.shef.ac.uk/road-map.html>.

(15) <http://www.braidproject.eu>.

(16) The Future of Ageing Research in Europe. A Road Map.

2.6 The Commission would like to use public-private and public-public partnerships (17) as additional tools to deal with current social challenges (18). Current joint initiatives include the European Innovation Partnerships (EIPs), including the European innovation partnership for active and healthy ageing (EIP AHA) (19), the Digital Agenda for Europe (20), the JPI on 'More years, better lives - the potential and challenges of demographic change' (MYBL) (21), as well as the planned Horizon 2020 programme (22).

2.7 Despite such useful important initiatives to develop research and innovation partnerships, we urgently need more extensive research activity. The world, together with society, technology, medicine and elderly people are in a state of constant flux. We therefore need more and more new research so that the relevant (policy) measures can be adapted to changing circumstances in good time rather than lagging behind developments.

2.8 The EESC therefore welcomes the European Commission's support for joint programming initiatives and for the development of road maps for future research activities in the field of ageing and demographic change (23). It is also pleased that the 'Societal challenges' priority of 'Horizon 2020' includes 'Health, demographic change and well-being' as a research priority (24).

3. Specific comments

3.1 Infrastructure requirements

3.1.1 For a long time, it has been argued that European research should be carried out on a longer-term, interdisciplinary and transnational basis; at the very least, national research activities should be made comparable with one another (25). In this opinion, we unreservedly approve and reiterate these arguments. Obviously, comparative research must take account of the relevant structural conditions.

3.1.2 Research into ageing must also involve all stakeholders dealing with the subject, for example environmental researchers, biologists and sociologists, engineers and designers, manufacturers and service providers, political decision-makers, architects, town planners and transport planners, representatives of

(17) Examples of P2P partnerships include ERA-NET and ERA-NET Plus, Article 185 initiatives and Joint Programming – JP. R&I PPPs include for example Joint technology initiatives (JTIs) and Future Internet.

(18) Communication from the Commission to the Council, the European Parliament, the European Economic and Social Committee and the Committee of the Regions, COM(2011) 572 final, 21.9.2011.

(19) See IP/10/1288.

(20) See IP/10/581, MEMO/10/199 and MEMO/10/200.

(21) See <http://www.jp-demographic.eu>.

(22) MEMO-11-435.

(23) See e.g. C 132, 3.5.2011, p. 39 on COM(2010) 546 final.

(24) COM(2011)809 final.

(25) See e.g. C 74, 23.3.2005, p. 44.

business and civil society, and above all, elderly people themselves. In view of this, we welcome the integration of various European funding instruments (ERA-Net, ERA-Net Plus together with INNOVA and PRO INNO) in a more flexible ERA-Net instrument in order to simplify participation by the relevant stakeholders.

3.1.3 Adequate infrastructure and integrated coordination of research activities are also prerequisites for high-quality European research in the European Research Area (ERA). Central coordination is also needed in terms of drawing up a budget and allocating resources. This will certainly not replace research activity at national level. However, we do need to ensure maximum compatibility between isolated national research activities, thus enabling comparative analysis and evaluation of findings. The EESC therefore recommends setting up a European gerontology research centre which could ensure the requisite coordination.

3.2 Need for further research

3.2.1 In addition to the above-mentioned general principles, there are specific areas which should be researched more intensively in future. Not only are we experiencing unprecedented demographic change, but there are also technological developments which could have a lasting impact on society, healthcare and our relationship to the environment.

3.2.2 Preserving health

The first major research area should include all issues linked to the theme of staying healthy, as mental and physical health in old age are prerequisites for autonomous and active lifestyles. The following are examples of possible subjects for research:

- How can we encourage people to adopt healthy lifestyles from childhood on?
- Which strategies do we need to ensure targeted support for and development of preventive measures?
- Comparing approaches in different countries, which treatment and rehabilitation measures have proved particularly successful? In which areas are we lagging behind, and where do we need to step up research and development activity?
- How can we develop the skills needed by patients?
- How can transnational health threats, rare diseases, chronic diseases, dementia and other neurodegenerative illnesses be prevented or at least diagnosed and treated earlier?
- More work is needed on research into the effectiveness of medicines and interaction between them, particularly in the case of elderly women. At present, most medicines are tested on young people, even though they are mainly used by the elderly.

— We need to emphasise the impact of chronic pain on the health of elderly people, and on how we can help elderly people to feel less pain and discomfort.

— At the same time, not much research has been done into drug and alcohol abuse by elderly people, the causes of such abuse, or the mental, physical and social impact.

3.2.3 A longer active working life

Given changes in age structures and rising life expectancies, working for longer has become an unavoidable necessity. This gives rise to research questions, for example the following:

- How do employees feel about a more flexible retirement age? Which factors do these feelings reflect (e.g. type of work/welfare arrangements/regional conditions)?
- Which general conditions do we need in terms of education and prevention in order to enable or develop a more flexible retirement age? Which experiences do different countries have, and which of these could we use?
- What changes are needed to work organisation and working hours, and how can we ease the pressures of work, so that people can be enabled to work longer? How could new technology help here?
- Which steps are already being taken or could be taken in companies to promote civil society involvement, so that people can contribute to civil society even while they are still working? What experience do different countries have of this?

3.2.4 Living independently; taking and sharing responsibility for one's life

Due to the declining numbers of young people, the support available for elderly people will also decline. In future therefore the elderly will have to take greater responsibility for maintaining their independence and remaining involved in society. Relevant research questions include the following:

- Which approaches to the autonomy of elderly people do we find in different countries, and what are the implications for systematic efforts to support appropriate lifestyles?
- Which approaches to the shared responsibility of elderly people (for e.g. future generations, the environment) do we find in different countries, and what are the implications of this? How do elderly people organise their lives, and how they organise things for their own generation and future generations? What are they doing for their fellow human beings, their communities and the environment?

- Which kinds of local support are needed for this to happen? Research should look at this issue in structurally comparable contexts (at local authority or regional levels).
- Generally speaking, research should look at how local authorities can support active and responsible lifestyles among elderly people, for example through appropriate urban, housing and transport policies for people of all ages. Such research should be carried out in structurally comparable contexts (e.g. in urban and rural areas in different countries).
- How can we develop and support ‘caring communities’ as an expression of shared responsibility? In which ways are families, volunteers and professionally active people already cooperating on care (for example in the case of persons with chronic illnesses or dementia)? How can technical systems support such communities? In which ways are businesses trying to meet the needs of such communities? Which kinds of shared responsibility can we find in different countries? How do these caring communities relate to national social policies and the planning of social structures at local authority level?
- Which kinds of lifestyles and housing solutions work well for elderly people, especially for those living alone or with dementia, and which of these are transferable? Here too we should compare examples from different countries.

3.2.5 Education

It is now accepted that an ageing society means lifelong learning for everybody. This gives rise to research questions, for example the following:

- How can lifelong learning become learning for a long life?
- Apart from vocational education, what kind of educational options are needed for an ageing population? How can active learning be encouraged through such options?
- Which specific kind of training is needed for people who want to volunteer?
- How can aesthetic education help to preserve cognitive and emotional plasticity and creativity among elderly people? If we compare lifelong learning in different countries, what conclusions can be drawn?
- What role can be played by various educational organisations (universities, adult education centres, etc) in strengthening various skills, e.g. working with new technologies, volunteering and providing care, as well as in transferring social and technical expertise, etc?

3.2.6 The increasing role of technology in all areas of life

One area where very little research has been done is the long-term implications of the increasing role of technology in all walks of life and the need to use technical systems to support independent, active and involved lifestyles for elderly people. Research is therefore urgently needed on questions such as the following:

- What needs to be done in terms of technical solutions, organisation, decisions and promoting acceptance so that we can make efficient and ethically acceptable use of tele-monitoring, tele-health and tele-rehabilitation in improving health care?
- Which organisational, legal, data protection/technological and ethical requirements need to be met at local, regional, national and European level in order to manage and control such systems if they are introduced on a large scale?
- What are the long-term implications of more intensive use of technical systems for relations between the elderly and their families, patients and doctors, and between those who need care and their (professional or other) carers?
- Nor has there been much research into the psychological, social and ethical implications of the increasingly extensive implantation of sensors and other technical devices in the human body. What is the impact of such devices, firstly, on the self-perception and identity of the persons concerned and secondly on social attitudes to illness, health and disability?

Another area where knowledge is lacking is the possibility of using - for example - music and lighting to assist in a dignified end of life - a technical approach, but one which can offer emotional support.

3.2.7 A European society of the future

A last area of research could include all the questions relating to current and future changes in European societies - for example, attitudes to ageing, cultural differences, differing experiences and existing inequalities in European living conditions:

- What are the attitudes to active ageing and age in view of demographic change in different European countries? How can an exchanges between countries help people to approach elderly people in a more realistic way rather than on the basis of stereotypes?
- How do people age in the increasingly diverse different cultures represented in the Member States? How do people see age, illness and death in a given culture? How can we organise exchanges of experiences and contribute to mutual understanding and enrichment?

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- What role do music and the visual arts play in the ageing process in different cultures? What are the implications of this and how can the resulting benefits be transferred?
 - Due to rising life expectancies and the rapid pace of social and technological change, there are increasing divergences between the experiences of different generations as well as within each generation - how can these be overcome? In view of this, how can we enable mutual understanding and learning?
 - Similar questions apply to the existing and in some cases growing inequalities in living conditions, both within and between European countries.
 - Another question that needs to be answered is how differing approaches to death specific to each country impact on individual elderly people and society as a whole. It is particularly important to address this question and the potential implications, given that we are living in an ageing society.

Brussels, 23 May 2012.

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