Launching of five joint programming initiatives for research

3133rd COMPETITIVENESS (Internal Market, Industry, Research and Space)
Council meeting
Brussels, 6 December 2011

The Council adopted the following conclusions:

"THE COUNCIL OF THE EUROPEAN UNION,

RECALLING

- The Commission Green paper of 4 April 2007, entitled "The European Research Area: New Perspectives"[1] in which one of the core objectives was to ensure the coherence of national and regional research programmes and priorities on issues of European major societal challenges or opportunities relevant to all or many countries which require a new approach as regards research efforts beyond individual national capacity;

- The Key Issues Paper (KIP) of 25 February 2008 by the Council ("Competitiveness")[2], in which the Member States and the Commission were encouraged to continue developing initiatives for joint programming of research in areas suited to such an approach, allowing a more strategic and better structured approach to the launch of new joint programmes and common calls for projects;

- The conclusions of the European Council of 13 and 14 March 2008[3], which launched the new cycle of the Lisbon strategy for growth and jobs (2008-2010) and which, with the aim of fully developing the potential for innovation and creativity of European citizens, confirmed that particular attention should be given to further initiatives for joint programming of research;

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[1]   8322/07.
[2]   6933/08.
[3]   7652/1/08 REV 1.

P R E S S

- The Commission Communication of 15 July 2008, entitled "Towards joint programming in research: Working together to tackle common challenges more effectively"[4], which called for the implementation of a process led by the Member States to step up their cooperation in the R&D area in order to better confront major societal challenges of European or worldwide scale, where public research plays a key role;

- The Council conclusions of 2 December 2008 concerning joint programming of research in Europe in response to major societal challenges[5], which established a dedicated configuration of CREST, the High Level Group for Joint Programming (GPC), to identify and substantiate the first list of a limited number of joint programming themes;

- The Council conclusions of 3 December 2009[6] which launched the pilot Joint Programming Initiative (JPI) on combating Neurodegenerative diseases, in particular Alzheimer's, and welcomed the identification and substantiation of the "first wave" of themes for JPIs in the areas of 'Agriculture, Food Security and Climate Change', 'Cultural Heritage and Global Change: a new challenge for Europe', and 'A Healthy Diet for a Healthy Life';

- The Council conclusions of 26 May 2010[7] welcoming the Commission recommendations on the "first wave" of JPIs, and inviting the Commission, within the remit of its competence, to contribute to the preparation of further JPIs corresponding to the themes identified and substantiated by the GPC in the areas of 'Connecting Climate Knowledge for Europe (Clik'EU)', 'Healthy and Productive Seas and Oceans', 'More Years, Better Lives - The Potential and Challenges of Demographic Change', 'The microbial challenge - An emerging threat to human health', 'Urban Europe - Global Challenges, Local Solutions' and 'Water Challenges for a Changing World'.

- The conclusions of the European Council of 17 June 2010 finalising the European Union's new strategy for jobs and smart, sustainable and inclusive growth (Europe 2020 Strategy)[8];

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[4] 11935/08.
[5] Official Journal C 24, 30.1.2009, p. 3–6.
[6] 17226/09.
[7] 10246/10.
[8] EUCO 13/10.

- The Council conclusions of 12 October 2010 on the launching of joint programming initiatives on 'Agriculture, Food Security and Climate Change', 'Cultural Heritage and Global Change – A new challenge for Europe', and 'A Healthy Diet for a Healthy Life[9]';

- The Council Conclusions of 26 November 2010 on the progress in the joint programming process[10];

- The Council Conclusions of 26 November 2010 on Europe 2020 flagship initiative Innovation Union welcoming the objectives of and the ongoing work regarding European Innovation Partnerships (EIPs) as an approach that is meant to foster synergies and mobilise expertise and resources across the EU, and acting across the entire research and innovation chain, by combining supply and demand policies, and by ensuring consistency between EU policies through a better coordination of initiatives and actions in a coherent framework;[11]

- The Conclusions of the European Council of 4 February 2011 stating that joint programming should be developed[12];

- The Council conclusions of 9 March 2011 on preparatory work for the pilot European Innovation Partnership "Active and Healthy Ageing" attaching great importance to duly taking into consideration relevant existing initiatives and stressing the independent and voluntary nature and the essential role of Joint Programming;[13]

- The Council conclusions of 30 September 2011 on the launching of joint programming initiative 'More Years Better Lives'[14];

The Council

1. EMPHASISES that Joint Programming in research in the areas of the five proposed initiatives

   - 'Healthy and Productive sea and Oceans',
   - 'Urban Europe - Global Urban Challenges, Joint European Solutions',

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[9]   14976/10.
[10]   17166/10.
[11]   17165/10.
[12]   EUCO 2/1/11 REV 1.
[13]   7586/11.
[14]   14992/11.

- 'Connecting Climate Knowledge for Europe',
- 'Water Challenges for a Changing World',
- 'The Microbial Challenge - An Emerging Threat to Human Health'

will contribute to the reduction of fragmentation of research efforts of Member States and will step up the mobilisation of skills, knowledge and resources, with a view to advancing and strengthening Europe's leadership and competitiveness of research and innovation in these fields.

2.   INVITES the Member States, participating in the framework of the five initiatives respectively, to:

    i.   Develop a common vision, based on a multidisciplinary approach, on how cooperation and coordination in the field of research at the European level can improve addressing the challenges presented in the initiatives in order to ensure the efficiency of the joint efforts of Member States.

    ii.   Develop a Strategic Research Agenda (SRA) establishing medium to long term research needs and objectives in the areas of the five initiatives. The Strategic Research Agendas should be further developed towards an implementation plan establishing priorities and timelines and specifying the actions, instruments and resources required for its implementation. The contents, work programmes and implementation plans should take into account the scientific, technological, societal and innovation impacts of the supported research.

    iii.   Jointly implement the Strategic Research Agenda, including via their national research programmes taking into account the Voluntary Guidelines on Framework Conditions for Joint Programming in Research developed by the High Level Group on Joint Programming (GPC) or other national research activities.

    iv.   Set up and maintain an efficient common management structure in the field of the five initiatives respectively, with a mandate to establish appropriate conditions, rules and procedures for cooperation and coordination and to monitor the implementation of the Strategic Research Agenda. Such management structure should be lean, efficient and flexible and should take account of the Voluntary Guidelines on Framework Conditions for Joint Programming in Research developed by the GPC.

    v.   Build on the existing expertise within the Commission and take into account the voluntary guidelines on framework conditions when developing and implementing the Strategic Research Agenda with a view to coordinating the joint programming initiatives and ensuring overall coherence with other relevant programmes and initiatives, while avoiding unnecessary duplication with existing and future Union initiatives in these areas.

vi.   Report regularly to the Council, through the GPC (or ERAC), on the progress and results of these JPIs, including lessons learned on achieving optimal efficiency.

3.   RECOGNISES the importance of a common prioritisation process between Member States and associated countries, and of updating the state of play of European research in areas where JPIs are developing

4.   INVITES the Commission, while fully preserving the character of JPIs as a Member States driven process, to:

i.   Act as a facilitator by suggesting complementary measures to support the JPIs. Those measures could include support to common coordination, the management structure and the establishment of the Strategic Research Agenda, the provision of data, information and analysis on the state of the art in this field at European and international level.

ii.   Explore how to contribute to the implementation of the Strategic Research Agenda via EU actions and funding instruments.

iii.   Look, in cooperation with the JPIs, into possible forms of consultation and cooperation on the subject of respective initiative with relevant stakeholders and other programmes at international level.

iv.   Offer support in the implementation of these initiatives while facilitating complementarity with other relevant programmes and initiatives, in particular the Framework Programme and the upcoming Horizon 2020.

v.   Regularly report to the Council and inform the European Parliament on the overall progress and results of the JPIs.

More specifically on the launching of the five initiatives, the Council:

a)   with regard to the launching of the joint programming initiative on 'Healthy and Productive Seas and Oceans',

5.   NOTES that the Europe 2020 strategy refers to the importance of harnessing the contribution of EU maritime policies, among others, to achieve EU emissions reduction and biodiversity targets, address climate change adaptation, disaster prevention and response, more efficient use of resources and contribute to improving global food security.

6.   RECOGNISES that Europe has a 89,000 km coastline along two oceans and four seas[15] and the EU's coastal regions account for some 40% of its GDP and population, with a critical contribution to key economic sectors such as maritime transport and trade, the marine bio-economy, energy and tourism.

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[15]   The Arctic and Atlantic oceans, and the Black Sea, the North Sea, and the Mediterranean and Baltic Seas.

7. RECOMMENDS that the following actions could be considered, subject to the needs identified by participating Member States in the Strategic Research Agenda, as part of an implementation plan:

    a) analysing the state of the art in this field and identifying and exchanging information on relevant national programmes, research activities and capacities;

    b) reinforcing joint foresight exercise and technology assessment capacities;

    c) exchanging information, best practices, methodologies and guidelines;

    d) identifying areas or research activities that would benefit from coordination or, where appropriate joint calls for proposals or-mobilising of resources;

    e) defining the modalities for research to be undertaken jointly in the areas referred to in point (d);

    f) ensuring the coordination, and the development of synergies with the existing and future research and innovation schemes in the EU, e.g. the Framework Programme, including the related ERA-Nets and Article 185 initiatives, as well as other related JPIs and European Technology Platforms;

    g) sharing, where appropriate, existing research infrastructures or developing in a coordinated way new facilities **in particular to support, inter alia, policies based on an integrated ecosystemic approach**;

    h) encouraging better collaboration between public and private sectors, as well as open innovation between different research activities and business sectors;

    i) promoting interdisciplinary approaches and stimulating exchanges and interactions across the marine and maritime sectors;

    j) exporting and disseminating knowledge, innovation and interdisciplinary methodological approaches;

    k) developing appropriate science / policy interfaces on relevant issues such as the implementation of Directive 2008/56/EC (Marine Strategy Framework Directive) and of Maritime Spatial Planning as an essential objective of the Communication on *"An integrated Maritime Policy for the European Union"*.

    l) creating networks between centres dedicated to research on seas and oceans.

b) **with regard to the launching of the joint programming initiative on 'Urban Europe - Global Urban Challenges, Joint European Solutions'**

8. Notes that sustainable urban development could significantly contribute to achieving the three mutually reinforcing priorities of the Europe 2020 strategy - the smart, sustainable and inclusive growth.

9. RECOGNISES that sustainable development of European urban areas is a major societal issue while experiencing intensifying global trends such as urbanisation. According to forecasts, in Europe about 83 percent of the population (nearly 557 million) are expected to live in cities by 2050.

10. NOTES that urbanisation involves a wide range of inter-linked challenges – including social deprivation and segregation, urban sprawl and congestion, safety and security issues, environmental degradation, pollution and effects of climate change – which put pressure on society and pose an unprecedented challenge to resilience, management and governance of urban systems in Europe and in the world.

11. EMPHASISES that Europe should exploit the advantages of urbanised space as urban areas are the drivers of growth in the European economy.

12. RECOMMENDS that the following actions could be considered, subject to the needs identified by participating Member States in the Strategic Research Agenda, as part of an implementation plan:

    a) analysing the state of the art in this field and identifying and exchanging information on relevant national programmes and research activities;
    b) reinforcing capacities in joint foresight as well as technology assessment;
    c) exchanging information, resources, best practices, methodologies and guidelines;
    d) identifying areas or research activities that would benefit from coordination and furthering such coordination;
    e) identifying areas or research activities that would benefit from joint calls for proposals or-mobilising of resources;
    f) defining the modalities for research to be undertaken jointly in the areas referred to in point (e);
    g) ensuring coordination, development of synergies with a vast range of funding programmes and initiatives on research and innovation in the Union, such as R&D supported by the funding programmes for research and innovation, other related JPIs, the European Institute of Innovation and Technology (EIT) Knowledge and Innovation Communities (KICs), European Technology Platforms as well as liaising with the Srategic Forum for International Science and Technology Cooperation (SFIC) in developing and implementing a possible international dimension in the SRA and ensuring coherence with SFIC initiatives with and towards third countries;
    h) considering the changing needs of cities and urban population when defining the objectives for research programmes on urban development;
    i) where appropriate, sharing existing research infrastructures or developing new facilities such as coordinated databanks or the inventory and development of models for studying urban processes;

j)   encouraging better collaboration within the public sector and between public and private sectors, as well as open innovation between different research activities, education and business sectors;

k)   exporting and disseminating knowledge, innovation and interdisciplinary methodological approaches, as well as identifying and addressing obstacles in the research and innovation system that prevent innovative solutions with a societal benefit from getting to the market faster;

l)   feeding with appropriate scientific information the policy-making level at local, regional, national and Union level;

m)   creating networks between centres dedicated to urban research, including centres that are outside the ERA;

c)   with regard to the launching of the joint programming initiative on 'Connecting Climate Knowledge for Europe'

13.   NOTES that the Europe 2020 Strategy has identified the need to meet the emission targets already set at European Union level and has underlined the need to strengthen the resilience of our economies to climate risks and our capacity for disaster prevention and response.

14.   RECOGNISES that climate change is one of the great challenges of our times: the Copenhagen Accord has recognised the 2 °C objective and stressed the need for deep cuts in global greenhouse gas emissions, calling for actions aimed to minimise the impact of climate change.

15.   EMPHASISES that better climate projections are needed for addressing the potential for future changes in the frequency and intensity of extreme events. While vulnerability and resilience of society and ecosystems to climate risks are still poorly understood, there is a need to better understand the fundamental processes governing the complex climate system in order to better detect and attribute climate change (human vs. natural influence) and distinguish between climate change and climate variability.

16.   UNDERLINES that mitigation technologies, concepts and mechanisms are urgently required for ensuring deep carbon emission reductions required by 2050, including research and innovation on renewables, carbon capture and storage, energy and resource efficiency, alternative fuels, land-use change, sustainable mobility, agriculture and forestry, and emission reduction of pollutants affecting human health or the environment.

17.   NOTES that Climate Services for the production, availability and application of science-based climate projections should be developed.

18. RECOMMENDS that the following actions could be considered, subject to the needs identified by participating Member States in the Strategic Research Agenda, as part of an implementation plan:

a) strenghtening exchanges of information on relevant regional and national programmes, research activities and European Union coordinated research programmes, also in view of regularly updating the mapping of European research in the field;

b) exchanging information, resources, best practices, methodologies and guidelines;

c) identifying areas or research activities that would benefit from coordination or joint calls for proposals or mobilising of resources;

d) defining the modalities for research to be undertaken jointly in the areas referred to in point (c);

e) ensuring the coordination and the development of synergies with the existing research and innovation schemes in the European Union, e.g. Framework Programme activities, including the Climate Impact Research and Response Coordination for a Larger Europe ERA-NET (CIRCLE2), and Global Monitoring for Environment and Security (GMES) pre-operational actions, climate and climate-related research undertaken by the Joint Research Centre (JRC) and the EIT Climate Knowledge and Innovation Community (KIC); research activities promoted through the Cohesion Policy; other related joint programming initiatives, as well as with the European Union Clearinghouse on adaptation managed by the Commission and the European Environment Agency. Strong links should be developed in relevant climate change areas not particularly addressed by the present JPI, namely in the development of mitigation and adaptation options, as well as risks and opportunities of climate change action. Strong links should be also encouraged with SFIC in developing and implementing a possible international dimension in the SRA and ensuring coherence with SFIC initiatives with and towards third countries.

f) where appropriate, sharing existing research infrastructures or developing new facilities such as coordinated databanks or the development of models for studying climate change processes and impacts;

g) encouraging better collaboration between public and private sectors, as well as open innovation between different research activities and business sectors;

h) exporting and disseminating knowledge, innovation and interdisciplinary methodological approaches, in particular regarding policy relevant results;

i) feeding with appropriate scientific information the policy-making level at national and European Union level;

j) establishing appropriate exchange of information with relevant international programmes;

k) creating networks between centres dedicated to climate change research, including centres that are outside the European Research Area;

l) reinforcing joint foresight exercises.

d) **with regard to the launching of the joint programming initiative on 'Water Challenges for a Changing World'**

19.   NOTES that as part of the Europe 2020 Strategy 'A resource-efficient Europe – Flagship initiative under the Europe 2020 Strategy' recalls the importance of water as a key natural resource underpinning the functioning of the European and global economy and our quality of life. Furthermore, 'Europe 2020 Flagship Initiative Innovation Union' recognises water as a growing societal challenge and an innovation priority.

20.   RECOGNISES that climate change is expected to have further impacts on European water ecosystems, resulting in more frequent water shortages, more frequent and more severe droughts, and more flood hazards. Moreover, intensive agriculture intended to produce more food and biomass might increase demand for freshwater for irrigation purposes, putting more pressure on water reserves. Increased urbanisation and expansion of the built environment induce hydro-morphological changes that have an impact on surface and groundwater bodies, habitats and other aspects of biodiversity. Furthermore, Water infrastructures in Europe are becoming increasingly vulnerable to failure due to ageing, damage from excavations, insufficient maintenance or over-loading.

21.   EMPHASISES that while availability of water in sufficient quantities and of adequate quality is an issue of high priority and is a pan-European as well as global societal challenge, the worldwide gap between water demand and availability is expected to grow significantly in the next 20 years.

22. UNDERLINES that the European water sector has a high economic importance with an average growth rate of 5 % and a turnover of about €80 billion a year, representing about a third of the world water market. More strategic cooperation on water research and innovation in Europe can lead to scientific and technological breakthroughs.

23.   RECOMMENDS that the following actions could be considered, subject to the needs identified by participating Member States in the Strategic Research Agenda, as part of an implementation plan:

a)   analysing the state of the art in this field and identifying and exchanging information on relevant national programmes, research activities and Union coordinated research programmes;
b)   reinforcing joint foresight exercises and technology assessment capacities;
c)   exchanging information, resources, best practices, methodologies and guidelines;
d)   identifying areas, research or pilot-testing activities that would benefit from coordination, from joint calls for proposals or from mobilising of resources;

e)   defining the modalities for research to be undertaken jointly in the areas referred to in point (d);

f)   ensuring the coordination and development of synergies with existing research and innovation schemes in the Union, e.g. Framework Programme, and other related joint programming initiatives, in particular the 'Agriculture, Food Security and Climate Change', the 'Connecting Climate Knowledge for Europe', the 'Urban Europe - Global Urban Challenges, Joint European Solutions' and the 'Healthy and Productive Seas and Oceans' as well as liaising with SFIC in developing and implementing a possible international dimension in the SRA and ensuring coherence with SFIC initiatives with and towards third countries;

g)   where appropriate, sharing existing research infrastructures or developing new facilities such as coordinated databanks or the development of models for studying water-related processes;

h)   encouraging better collaboration between public and private sectors, as well as open innovation between different research activities and business sectors;

i)   exporting and publishing knowledge, innovation and interdisciplinary methodological approaches, in particular regarding policy relevant results;

j)   feeding policy-making at national and Union level with appropriate scientific and technological information;

k)   creating networks between centres dedicated to water research.

e)   with regard to the launching of the joint programming initiative on 'The Microbial Challenge - An Emerging Threat to Human Health'

24.   NOTES that the microbial challenge, due to the increasing resistance to antimicrobial drugs, represents one of the major emerging threats to human health in the 21st century. More than 25,000 patients die in the Union each year from infections caused by bacteria that are resistant to multiple antibiotics. Resistance to multiple antibiotics is a common and growing problem.

25.   RECOGNISES that infectious diseases caused by resistant bacteria lead to additional healthcare costs and indirect costs, such as sick-leave and lost output due to premature death.

26.   NOTES also that the problem of drug resistance is a natural and unavoidable consequence of treating infectious diseases with antimicrobial drugs. However, this is exacerbated by indiscriminate use of antimicrobials and the dissemination of antibiotic-resistant bacteria in the environment. The dynamics of human populations, including travel and worldwide distribution of food, contribute significantly to the rapid spread of resistant infectious microorganisms. Moreover, the misuse of antibiotics in livestock is increasing the risk of spread of resistant microorganisms to humans through food consumption. At the same time, the development of new antimicrobials is declining dramatically.

27. EMPHASISES that a comprehensive solution to the problem requires measures to be taken by many sectors of society: policy-makers, healthcare, education, industry, environmental agencies, agriculture, veterinary medicine, research and other areas.

28. RECOMMENDS that the following actions could be considered, subject to the needs identified by participating Member States in the Strategic Research Agenda, as part of an implementation plan:

   a) analysing the state of the art in this field and identifying and exchanging information on relevant national programmes and research activities;
   b) strengthening joint foresight exercises and technology assessment capacities;
   c) exchanging information, resources, best practices, methodologies and guidelines;
   d) identifying areas or research activities that would benefit from coordination or joint calls for proposals or-mobilising of resources;
   e) defining the detailed procedures for research to be undertaken jointly in the areas referred to in point (d);
   f) considering the needs for patient treatment and of healthcare systems when defining the objectives for research programmes on antimicrobial resistance;
   g) where appropriate, sharing existing research infrastructures or developing new facilities, such as coordinated databanks or the development of models for studying antimicrobial resistance processes;
   h) encouraging better collaboration between public and private sectors, as well as open innovation between different research activities and business sectors;
   i) exporting and disseminating knowledge, innovation and interdisciplinary methodological approaches, as well as identifying and addressing obstacles in the research and innovation system that prevent innovative solutions with a societal benefit from getting to the market quicker;
   j) creating networks between centres dedicated to antimicrobial resistance research;
   k) ensuring the coordination and development of synergies with existing research and innovation schemes in the Union, e.g. the Innovative Medicines Initiative; research, development and innovation supported by the Framework Programme, including in the fields of health, food, agriculture and environment, where necessary enabled by information technology, as well as other initiatives, such as relevant ERA-NETs."

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