



EUROPEAN COMMISSION

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**COMMISSION RECOMMENDATION**

**of 27.10.2011**

**on the research joint programming initiative  
'Water Challenges for a Changing World'**

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### on the research joint programming initiative 'Water Challenges for a Changing World'

THE EUROPEAN COMMISSION,

Having regard to the Treaty on the Functioning of the European Union, and in particular Article 181 thereof,

Whereas:

- (1) Availability of water in sufficient quantities and of adequate quality is an issue of high priority and is a pan-European and even global societal challenge.
- (2) As part of the Europe 2020 strategy, the flagship initiative set out by Commission Communication on 26 January 2011 'A resource-efficient Europe – Flagship initiative under the Europe 2020 Strategy'<sup>1</sup> 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, the flagship initiative set out by Commission Communication of 6 October 2010 'Europe 2020 Flagship Initiative Innovation Union'<sup>2</sup> recognises water as a growing societal challenge and an innovation priority area to enable the Union to achieve its water policy objectives while ensuring good ecological, chemical and quantitative status of waters, sustainable water use, and reducing its water footprint, improving water security and promoting the worldwide leadership of the European water industry.
- (3) The worldwide gap between water demand and availability is expected to grow significantly in the next 20 years. Balancing this difficult water supply and demand equation, setting priorities to handle water stress or water scarcity, and sustaining our water ecosystems in the long term, require concerted action and strong scientific and technical bases coupled with full consideration of local geographical, political, socio-economic and cultural conditions. To this end the European Commission is developing a Blueprint to Safeguard Europe's Waters for 2012, which will set out measures to ensure good quality water in sufficient quantities for all legitimate uses in the EU.
- (4) There is a risk that a substantial proportion of Europe's freshwaters may not achieve by 2015 the aim of good ecological status set out by Directive 2000/60/EC of the European Parliament and of the Council of 23 October 2000 establishing a framework for Community action in the field of water policy<sup>3</sup>. This risk is due to a number of

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<sup>1</sup> COM(2011) 21 final  
<sup>2</sup> COM(2010) 546 final  
<sup>3</sup> OJ L 327, 22.12.2000, p. 1.

different drivers and pressures as highlighted by the EEA in its State of the Environment Report 2010. Water pollution continues to raise public health concerns, particularly as regards exposure to new contaminants, the effects of chemical mixtures found in some European waters and possible risks of microbiological contamination.

- (5) Climate change is expected to have further impacts on European water ecosystems, resulting in more frequent water shortages, more frequent and more severe droughts notably in the Mediterranean countries, and more flood hazards across much of Europe.
- (6) Intensive agriculture intended to produce more food and biomass might increase demand for freshwater for irrigation purposes, putting more pressure on water reserves. Water-wise solutions should be developed rapidly, so as to make irrigation more efficient, reduce water consumption and manage and preserve aquifers sustainably.
- (7) Increased urbanisation and expansion of the built environment, including navigation and energy infrastructures, induce hydro-morphological changes that have an impact on surface and groundwater bodies, habitats and other aspects of biodiversity. More integrated planning approaches would be of great benefit. These should be based on reliable monitoring systems and more holistic assessment of cause-effect relationships between land use changes and water ecosystems.
- (8) Water infrastructures in Europe are becoming increasingly vulnerable to failure due to ageing, damage from excavations, insufficient maintenance or over-loading. Leakage of water from supply systems in parts of Europe is reported to be substantial with losses of transported water varying between 5 % and 40 %.
- (9) 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 that could foster European competitiveness on international markets, contribute to a shift towards a more water-efficient economy in Europe and thus to achieving the EU2020 refocused objectives of a smarter, more sustainable and more inclusive economy.
- (10) Strengthening the scientific and technological knowledge base in Europe is essential to address the societal, environmental and economical dimensions of water challenges.
- (11) While excellent research is being carried out throughout Europe, the current European picture in water research appears to be rather complex and too fragmented. Many research networks and organisations at European, national and regional levels define their water research strategic agendas in relative isolation, leading to overlapping or competing research activities that often lack a critical mass.
- (12) Given that most of the European territory falls within transboundary watersheds, cross-border collaboration is needed to reach the critical mass needed in terms of expertise, activities and institutional capacity to promote a more effective use of European research potential and to foster compatible transboundary solutions.
- (13) Joint programming of research on 'Water Challenges for a Changing World' would contribute to the coordination of research in this area, and to a fully operational

European Research Area on freshwater, strengthening Europe's leadership and the competitiveness of research in this field, while supporting the achievement of Union water policy objectives.

- (14) At its meeting of 26 May 2010<sup>4</sup>, the Competitiveness Council recognised 'Water Challenges for a Changing World' as an area where joint programming would provide major added value to reduce fragmentation in Member States activities in the field of research. It therefore adopted conclusions recognising the need to launch a joint programming initiative on freshwater and inviting the Commission to contribute to preparing it. The Council also reaffirmed that joint programming is a process led by Member States, with the Commission acting as a facilitator.
- (15) Water research is a key area within the Union research Framework Programme, which plays a highly strategic role in supporting the European policy process, taking into account the global dimension of water challenges. Activities within this joint programming initiative need to be closely coordinated with the 7th Union Framework Programme and future Union programmes in this area, in particular the Framework Programme for Research and Innovation (2014-2020) 'Horizon 2020'.
- (16) The analysis of national research activities outlined in the staff working document confirms that there is a need for better coordination to increase effectiveness and impact of research, as well as to avoid duplication through the development of a common strategic agenda.
- (17) To enable the Commission to report to the European Parliament and to the Council on progress made by all joint programming initiatives, Member States will be required to report regularly to the Commission on progress made on this joint programming initiative.

HAS ADOPTED THIS RECOMMENDATION:

1. Member States are encouraged to develop a common vision on how cooperation and coordination in the field of research at Union level can help to meet the challenge of achieving sustainable water systems for a sustainable economy in Europe and abroad and of capitalising on the opportunities presented by such a common vision.
2. Member States are encouraged to develop an operational common strategic research agenda, identifying and setting medium to long-term research needs and objectives in the area of freshwater. The strategy should contain an implementation plan setting priorities and timelines and specifying the action, instruments and resources required to implement it.
3. Member States are encouraged to include the following actions, as part of the strategic research agenda and of the implementation plan:
  - (a) identifying and exchanging information on relevant national programmes, research activities and Union coordinated research programmes;
  - (b) reinforcing joint foresight exercises and technology assessment capacities;

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<sup>4</sup> Council conclusion 10246/10, <http://register.consilium.europa.eu/pdf/en/10/st10/st10246.en10.pdf>

- (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 pooling of resources (including financial 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 'Connecting Climate Knowledge for Europe', the 'Urban Europe - Global Urban Challenges, Joint European Solutions' and the 'Healthy and Productive Seas and Oceans' joint programming initiatives;
  - (g) sharing, where appropriate, 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 related to water;
  - (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.
4. Member States are encouraged to maintain an efficient common management structure in the field of water research, with a mandate to establish common conditions, rules and procedures for cooperation and coordination and to monitor the implementation of the strategic research agenda.
  5. Member States are encouraged to jointly implement the strategic research agenda via their national research programmes in accordance with the guidelines for Framework Conditions on Joint Programming developed by the Council high level group on Joint Programming.
  6. Member States are encouraged to cooperate with the Commission with a view to exploring possible Commission initiatives to assist Member States in developing and implementing the strategic research agenda and in coordinating the joint programme with other Union initiatives in this field.
  7. Member States are encouraged to liaise closely with the Strategic Forum for International Science and Technology Cooperation (SFIC) in developing and implementing a possible international dimension in the strategic research agenda and to ensure coherence with SFIC initiatives with and vis-à-vis non-EU countries.

8. Member States are encouraged to report regularly to the Commission on the progress made on this joint programming initiative through annual progress reports.

Done at Brussels, 27.10.2011

*For the Commission  
Máire GEOGHEGAN-QUINN  
Member of the Commission*