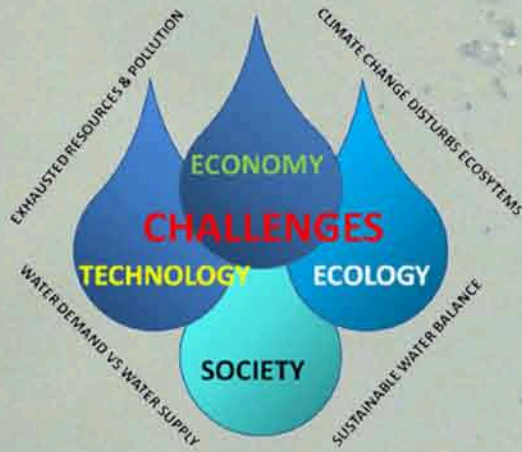


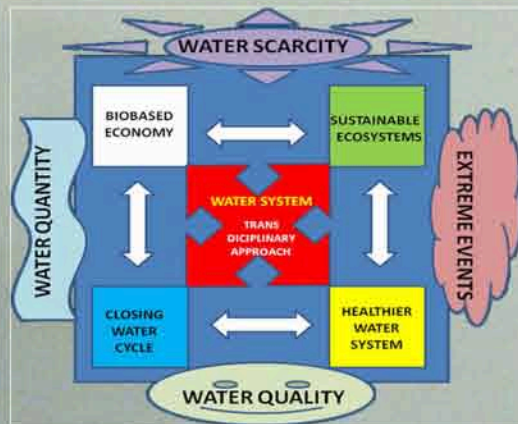
WATER CHALLENGES FOR A CHANGING WORLD

JOINT PROGRAMMING INITIATIVE

The Council of the European Union decided to launch the Joint Programming Initiative "Water Challenges for a Changing World" on 6 December 2011 as a contribution to the reduction of fragmentation of efforts by Member States and mobilisation of skills, knowledge and resources, with a view to strengthening Europe's leadership and competitiveness on water research and innovation.



The Joint Programming Initiative will actively cooperate with the European Commission to provide the European society with the maximum return of these investments. The Initiative responds to the grand challenge of "Achieving Sustainable Water Systems for a Sustainable Economy in Europe and Abroad". No single European country can address this challenge by itself, due to the magnitude of the needed operations and to the geographical variation of the water problems. Responding to the grand challenge requires a joint multi-disciplinary approach, since outstanding economic, ecological, technological and societal challenges are to be addressed.



In 2008 the European Commission presented a new policy: 'Towards joint programming in research' with the meaningful subtitle 'Working together to tackle common challenges more effectively'. They challenged countries to develop initiatives on joint programming with the purpose of increasing the efficiency and impact of national public funding in strategic areas. Joint programming targets public research programmes first and foremost, which means public-public cooperation in the direction of the definition and implementation of common research agendas with jointly agreed-upon multi-annual activities and funding mechanisms.

The JPI "Water challenges for a changing world" deals with research in the field of water and hydrological sciences. The availability of water in sufficient quantities and adequate quality is indeed a public issue of high priority and addresses a pan-European and global environmental challenge. dscape and water ecosystems to reduce the transfer and storage of pollutants and maintain biodiversity and ecosystem services.

The economic challenge: The European water sector is of prime economic importance, as it offers jobs for thousands of citizens across Europe. Investments in water technology around the world increase every year, in a market which has become very competitive.

The ecological challenge: Preservation and protection of waters is a crucial asset for sustainable development. It is essential to enhance the absorbing and self-purification capacity of the landscape and water ecosystems to reduce the transfer and storage of pollutants and maintain biodiversity and ecosystem services.

The societal challenge: Water is a natural resource necessary for societal well-being. Water fulfils a multitude of services and functions for a sustainable livelihood. Water re-use and nutrient recovery from municipal, industrial and agricultural waste water offer economic advantages and societal gains.

The technological challenge: Specific innovations in monitoring technologies and developments in information systems and methodologies are required to address the complexity of water systems and water issues. Many capital-intensive water infrastructures require research to improve design and maintenance, maximize societal benefit and moderate costs.

