

EU Water Alliance

Main priorities for water under the
Juncker Commission (2014-2019)



EU Water Alliance

Statement on the hearing of the new Commissioners by Water Alliance

The EU Water Alliance is an informal coalition of more than 500 organisations across the entire value chain representing the wide range of water stakeholders¹.

The Water Alliance developed these key messages for the new Commissioners highlighting the importance of water to the European economy, environment and society.

- The sustainable management of Europe's water resources is essential to ensure a resilient Energy Union and a forward looking Climate Change policy. The actual importance of water is often diluted out by the fact that water shows up in so many different sectors of society. It is only when one starts looking at the support from the water sector to all other sectors of the economy that one starts realizing its quintessential position for jobs, growth and investment.
- Europe has one of the longest track records in water management in the World and is still a global industrial leader in terms of service provision and technology development. This history has also led to Europe having a wide spectrum of leading expertise in the various aspects of water resource management. Hundreds of European Institutions, public and private water service providers, SMEs, engineering and consulting companies have developed and continue to develop highly technical concepts to address water problems in the EU and around the globe.
- With the Water Framework Directive, the Floods Directive and related policies, the EU has one of the most ambitious and challenging pieces of water legislation in the world, thus providing a unique regulatory driver for innovation in the water-dependent economy, offering us a competitive advantages comparing to other regions.

The EU Water Alliance highlights the following key issues for the water sector in Europe:

1. **The overriding importance of the water sector for smart, sustainable and inclusive growth has to be reflected as a vital and cross-cutting theme in systemic research and innovation policies and financing instruments. Water needs to be integrated within other EU policies through water-energy-food-land-resources nexuses.**
2. **The European Innovation Partnership on Water as a strategic driver for systemic changes in European water sector has to be reinforced, and adequately resourced. Closer collaboration between all Innovation Partnerships has to be fortified.**
3. **The EU water policy should be based on resource efficiency and recovery, pollution source control via full implementation of a *polluter-pays principle*, and the promotion of sustainable water management as a driver for a circular and green economy stimulating industrial symbiosis.**
4. **The principle of cost recovery and price transparency needs to be ensured and the value of water in all its dimensions needs to be recognised.**
5. **Regulation and voluntary incentives on water stewardship should go hand in hand. EU policies need to ensure that water is taken into account along the whole value chain across the production/product/service cycle.**

¹ research, innovation in water, water sector itself (utilities and European federations and national associations), big water users: industry and agriculture as well as SMEs and decision-makers



Statement on the hearing of the Commissioner-designate for DG RESEARCH, SCIENCE and INNOVATION

1. The new Commissioner should

- support the quintessential importance of water by guaranteeing a complete innovation value chain covering all technology readiness levels.
- reinforce the high visibility of water as a cross-cutting theme in the H2020 structure. Water needs to be integrated across the different pillars and challenges of the Horizon2020 Work Programmes.
- ensure that water remains an independent focus area itself among societal challenges of H2020. The commercial value of innovations in water shall be strengthened within the EU and internationally.

The actual importance of water is often underrated by the fact that water appears in so many different sectors of society. Water is also a crosscutting theme in many research and innovation policy priorities. Strengthening innovations in water, will make companies more competitive, will contribute to solving global social challenges, will secure resources, and will contribute to climate change mitigation and adaptation, including the innovative solutions addressing the risks caused by extreme water events. Water is also a crucial component for smart cities and creates new smart specialisation employment with more than 136,000 SMEs directly involved in the value chains of the water-related economy.

2. The new Commissioner should continue to build on the achievements of the EIP on Water and the other EIPs, in particular

- strengthen the capabilities of all EIPs to drive large scale systemic changes with long term impacts;
- secure committed high-level leadership of EIP Water; adequately resource it and adopt an effective governance model.

The European water sector has a prominent position in economy and society, but it is very diverse and fragmented and one needs to revolutionise the way public and private actors work together so as to address water-related challenges and seize on opportunities strengthening a demand-driven approach. In a short time the EIP on Water has already demonstrated its ground-breaking potential by creating resounding dynamics for collaborative research, innovation, and technological development throughout Europe in the water sector. This dynamic should be secured on long term to maximise the impact of the initiative.

3. The new Commissioner should

- ensure a closer coordination of actions of the EIPs and the existing financial mechanisms such as Horizon2020 with calls orientated towards demonstration activities, Structural funds, EUREKA, and
- foster the creation of new innovative financial mechanisms for an innovative water sector.

The need to attract more public and private money for innovation in the sector through tariffs, subsidies, and investments remains a priority. In order to boost economic acceptability of innovation in the water sector there is a need to ensure that the cost of water is transparent including all those external services.



Statement on the hearing of the Commissioner-designate responsible for DG ENVIRONMENT

- 1. The Commissioner for the Environment should commit him/herself to the full implementation of the EU Water Framework Directive (WFD), EU Floods Directive (FD) and, in particular, to ensuring the principle of cost recovery and transparency of water pricing.**

The health of our ecosystems, the source of water, needs to be maintained and enhanced and the basic human right to water and sanitation, confirmed by the UN Sustainable Development Goal on Water, should be a reality today and for generations to come. To this end, water services should be affordable and, at the same time, the level of tariffs should be appropriate. Transparency is urgently needed as to who is using and polluting water and who is paying for it. In order to ensure the necessary long term investments to maintain and renew infrastructures, the WFD principle of cost recovery should be fully implemented.

- 2. The Commissioner for the Environment should be committed to an environmental policy based on controlling pollution at source.**

New micro pollutants are emerging and pose serious risks to human health and environment. At the same time, pollution of water resources originating from agriculture (nitrates, pesticides) and industry (heavy metals, chemical substances, etc.) needs to be tackled and the European Commission needs to remain strong in enforcing the Community legislation. In addition, a source control approach must be adopted in order to prevent hazardous substances microplastics, nanoparticles and micro-pollutants from entering the water cycle as the most cost-effective solution. The WFD *polluter pays principle* must be correctly applied and should be based on inclusive multi-stakeholder governance.

- 3. The Commissioner for the Environment should promote sustainable water management as a driver for a resource-efficient and circular economy.**

Water is essential but limited resources and needs are to be carefully allocated and used. Furthermore, waste water contains elements that could be recovered in a circular economy: energy, phosphorus, other nutrients, etc.

- 4. The Commissioner for the Environment should take an active role in steering the European Innovation Partnership (EIP) on Water and ensure a coordinated approach with EIP on agriculture and smart cities.**

The EIPs in general, and EIP Water in particular, have proven to be useful tools (a) to facilitate the development and stimulate the uptake of innovative solutions, (b) to guide actions in removing barriers to innovation, (c) to address social challenges, to facilitate industrial leadership in water, and (d) to contribute in raising competitiveness and economic growth. More resources for the implementation of the EIP Water should be foreseen within the European Commission as well as for the implementation of the EU water policy and water sector to ensure a leading strategic role for smart and innovative changes of the European water sector and water-dependent industries.



Statement on the hearing of the Commissioner-designate for DG HEALTH AND FOOD SAFETY

1. The new Commissioner should be committed

- to a health policy striving for the provision of safe, wholesome and clean drinking water to EU citizens requiring a resolute protection of drinking water resources;
- to take account of emerging pollution arising from pharmaceutical products working hand-in-hand with the Commissioners responsible for Environment and for Internal Market and Industry; and
- to ensure the application of the *polluter pays principle* as formulated in the European environmental policy, in order to protect citizens' health and the environment.

Pollution of water resources originates from different sources and in particular from agricultural pressures. Besides chemical threats to drinking water resources (nitrates, pesticides, medicinal products for veterinary use) there are microbiological risks (bacteria and viruses) stemming from untreated waste water caused by diffuse pollution or by overflowing sewer systems.

Chemical water pollution needs to be tackled by introducing pollution control measures at the source of its generation, in order to avoid hazardous substances entering the water cycle (cleaner production methods, waste minimization etc.). To this end the relevant sectorial legislation (e.g. authorization schemes) on medicinal products for veterinary use, nitrates and pesticides should take into account the risks they cause to water resources, especially those used for the abstraction of drinking water.

End-of-pipe solutions, using smart and advanced treatment technologies, should be considered an option of last resort as they are not sustainable in the long term, due to increased energy consumption, additional use of chemical substances combined with the production of non-wanted transformation products and increased sludge handling.

2. The Commissioner should closely coordinate joint actions with the Commissioners responsible for Environment, and for Internal Market and Industry, in developing a strategic approach towards medicinal products for human use and shall promote preventive measures at different stages of the life cycle of pharmaceuticals to ensure the protection of drinking water resources.

Emerging micro-pollutants such as pharmaceutical products for human use and micro-plastics pose concerns to citizens, water utilities and decision makers. A source control approach, preventing hazardous substances to enter the water cycle, must be adopted and the *polluter pays principle* fully implemented.



Statement on the hearing of the Commissioner-designate for DG AGRICULTURE and RURAL DEVELOPMENT

Safeguarding Europe's water resources has been a priority for the EU since it started adopting specific legal instruments in the area of water protection in the late 1970s and the EU adopted several legal instruments to tackle water pollution, and despite some improvement, significant challenges remain.

1. The new Commissioner should recognise the interactions and mutual dependence between agriculture and water management, and should ensure that, by way of the implementation of the EU's reformed Common Agricultural Policy, there should be the advances in EU water policy objectives

- including the necessary modifications to the current instruments (cross-compliance and rural development) or, where appropriate, new instruments capable of meeting EU water goals and tackling significant water pollution (including micropollutants) and over-abstraction challenges;
- ensuring that the European Commission should inquire the Member States to implement pollution prevention and control measures at the source of its generation, and has the methodology to measure the evolution of the pressures placed on water by agricultural practices in the Member States;
- combining regulatory and voluntary stewardship approaches to drive real change where the CAP budget secures delivery of public goods.

Numerous assessments carried out by the European Commission services as well as a recent Court of Auditors Report concluded that the EU has not been successful in integrating water policy goals into the Common Agricultural Policy (CAP). Pollution of water resources originates from different sources and in particular from agricultural pressures. Agriculture is an important source of environmental pressure and the main source of nutrient pollution in water. Besides chemical threats to drinking water resources (nitrates, pesticides, medicinal products for veterinary use) there are microbiological risks (bacteria and viruses) stemming from untreated waste water caused by diffuse pollution from agricultural activities.

Globally, water used for agricultural irrigation amounts to about 70 % of the total water consumption. In Europe the amount greatly varies; the average is about 24 %, but in southern Europe the figure can reach up to 80 %. As the main user of water, agriculture therefore has a major role to play in the sustainable management of water quantity and quality.

2. The Commissioner for agriculture shall commit him/herself to ensure that synergies between European Innovation Partnerships on Water and Agriculture are maximised to their full potential.

The European Innovation Partnership on Agriculture offers significant opportunities to further provide innovative technological and governance innovations so as to offer solutions from a water-energy-food nexus perspective, but it needs to emphasise the importance of addressing water challenges and build upon synergies with the European Innovation Partnership on Water.



Statement on the hearing of the Commissioner- designate for DG INTERNAL MARKET, INDUSTRY, ENTREPRENEURSHIP and SMEs

A sustainable management of Europe's water resources is one of the foundations for the Industrial Renaissance of Europe. Water plays a quintessential part in supporting a large number of industrial activities that are heavily reliant on a constant supply of sufficient water of the right quality, and a large manufacturing and water services sector is a crucial economic and social driver in Europe with more than 136.000 SME's directly involved in the value chains of the water-related economy.

1. The new Commissioner should encourage the combining of approaches for innovative solutions in water in order to strengthen industrial competitiveness by:

- Greening the industry, strengthening actions on source control measures, going to the roots of the value chain of the production and pollution generation processes. Treating water as a scarce natural resource, and greening the industrial production cycles with the purpose of preventing pollutants entering industrial or domestic water cycles with the emphasis on the detection of emerging micro, nano and other emerging pollutants (e.g. pharmaceutical compounds), micro plastics, etc.
- Using the 'end-of-pipe' approach (when water pollution is unavoidable); finding and implementing the systemic, innovative and advanced technological and non-technological innovations for a used-water treatment to obtain adequate water quality for different purposes of its re-use. Going from removing of compounds on the way to recovering of resources, requires the redesigning of current technologies (towards optimal product recovery) and the development of dedicated technological concepts (towards higher market readiness levels).

2. The new Commissioner should commit to contribute to the integrated water management for a sustainable EU industry by:

- Stimulating industrial symbiosis via water reuse and recycling; removing barriers to innovations in industrial water cycles, including water components in the industrial value chains. Stimulating the recovery of critical materials and innovations in the water-energy nexus.
- Ensuring that the EU's investment in R&D&I is converted into business benefits in the water sector. New business models for sustainability and resource efficiency involving SMEs, moving wastewater up the value chain.
- Boosting industrial green growth and a circular economy by decoupling an increase in industrial production from the pollution of Europe's water resources.
- Creating market opportunities, international valorisation for innovations in water and supplemental economic value for recovery of water.
- Strengthening the links between the H2020 programme and the DG Enterprise competitiveness programmes in order to extract value from the large R&D&I investments.

Europe will grow by being innovative and competitive. Value from R&D&I investments is only obtained when results are successfully applied.



Statement on the hearing of the Commissioner-designate for DG REGIONAL POLICY

1. Water Innovation is the solution to the different regional water issues. The new Commissioner should

- **support more effective integration of water innovation challenges focused on the specific needs of the regions fostering smart specialisation strategies for innovations in water;**
- **ensure the inclusion of water issues in the Urban Agenda for Europe as a driver for growth and resource efficiency.**

The variability of water challenges in different regions and urban areas creates the need for tailor-made innovative solutions and the encouragement of a best-practice exchange between regional and local authorities to facilitate optimal solutions to different issues.

Priority should be given to (a) the implementation of operational programmes, (b) a more conscientious selection of projects, and (c) funding for local industrial players, in particular SMEs, which are well aware of local conditions.

2. In order to speed up the innovation processes Europe needs to invest more and be more discerning with regards to water innovation in the regions. The new Commissioner should

- **speed up the innovation processes and the harmonisation of the legislation within the regions so as to minimize bottlenecks and barriers that often cause problems or slow down investments or initiatives.**
- **encourage a greater strategic investment focused on an integrated approach to water innovation with an emphasis on water management, services and infrastructures, including green infrastructures.**

The EU regional policy shall play an important role in supporting innovative solutions and ensuring coordination of the water sector across EU regions. The priorities should be given to (a) more and better investment in water innovation, (b) addressing water management, services and infrastructure, (c) other relevant sectors and policy areas such as ICT, Energy and Industrial Policy.

Investments will also benefit from a more mature water sector in Europe. This will be possible through better coordination notably in the allocation of funding, in conjunction with the water sector.

Collaboration should be built on the existing clusters and initiatives to foster participation of local actors, raise awareness and share best practices, such as the EIP Water and its Action Groups to accelerate and facilitate the innovation processes.

Investing resources in the EIP on Water is strategic and the European Commission should encourage an integrated approach to water across the European Commission in order to increase its impact on both Policy and Investments/Market side.



Statement on the hearing of the Commissioner-designate responsible for DG CLIMATE ACTION

- 1. The new Commissioner should work for a more climate-resilient Europe that takes more into account water considerations within climate change mitigation efforts at EU level and climate adaptation strategies at national level.**

Observation records and climate projections provide abundant evidence that freshwater resources are vulnerable and have the potential to be strongly impacted by climate change, with wide-ranging consequences on human societies and ecosystems. There are two major water management challenges for Europe: increasing water stress and related droughts, mainly in South-Eastern Europe, and increasing flood risk across the whole European continent. The impact on the quantity - and consequently on the quality - of water resources will affect not only water services, but also other sectors such as agriculture, industry, energy, biodiversity, tourism, etc.

The scale of the challenge requires a change in the climate mitigation efforts and climate adaptation strategies, including improved data collection and access to the data, research into critical uncertainties, better integration between sectors and an increased solidarity between Member States.

Actions for a more climate-resilient Europe should be strengthened, since sustainable water management is actually the main component of the climate change adaptation strategy. The river basin management planning and national adaptation strategies shall complement each other. Water resilience, risk prevention and risk management should be considered priorities of the European climate action policy.

- 2. The new Commissioner should ensure integration of water into other policies in the context of adaptation to climate change**

Climate mitigation and climate adaptation considerations should be better integrated within the smart cities strategy in order to bring together fragmented initiatives and increase the economic viability and the environmental sustainability of innovative solutions. Actions should be taken promoting adaptation activities related to municipal water sensitivity in accordance with the Covenant of Mayors initiative, developing smart cities and communities as water is a key component for cities. Climate adaptation policy should also encourage more initiatives which address water issues in key priority areas such as agriculture, energy, urban development, resilience to extreme water events (in order to ensure the functioning of economies dependent on water, resilience of critical water infrastructures), and ensuring domestic water services in changing climate situations.



Statement on the hearing of the Commissioner-designate responsible for DG ENERGY POLICY

Water and energy are both essential to society. The International Energy Agency has acknowledged that water is becoming a pressing issue in energy production. On the other hand the water sector is very much dependent on the energy sector, requiring significant amounts of energy.

- 1. The new Commissioner should recognise the importance and the dependence of the energy sector on water and thus has to ensure that energy policy must be based on water quantity and quality considerations.**

EU energy policy needs to recognise the interdependence within the energy-water-food nexus. For example, in irrigation. Biofuel production is strongly increasing the pressure on water resources both in terms of quality and quantity. The emerging fracking technology requires water during shale gas production but, more importantly, fracking may pose a risk to water resources.

- 2. The new Commissioner should**

- ensure investment in research, development and market uptake of (a) technologies to reduce the energy use of the water sector, (b) technologies to recover and generate energy from (waste)water and (c) emerging technologies for water-based renewable energies.**
- be committed to stimulate Renewable Energy from Water in an environmentally sustainable way and to guarantee the adaptation of a regulatory framework to small scale energy production.**

Today's water infrastructure is often not energy efficient. As assets are replaced and modernized, this provides ample opportunity to increase energy savings. Biogas from waste water treatment plants, heat recovery from sewage systems may even lead to energy surplus. Aquifer thermal energy storage, wave energy, tidal energy, and blue energy are all emerging technologies that can play a major role in increasing Europe's energy resilience. However the current regulatory framework poses a barrier for market deployment.

- 3. The new Commissioner should commit to introduce new systems of investments in the adaptation of energy infrastructure to increasing hydrological extremes.**

Energy production is dependent on water availability. Flood events or prolonged periods of droughts may affect energy production. Energy infrastructures need to be adapted to these extremes.



Statement on the hearing of the Commissioner-designate for DG DIGITAL ECONOMY and SOCIETY

Competing demands for scarce water resources may lead to an estimated 40 % supply shortage by 2030 according to the Water Resources Group. Recently, the World Economic Forum identified the water supply crisis as one of the top five global risks during the 21st Century.

1. The new Commissioner should guarantee that water remains a priority of the EU ICT policy

Digital technologies in water can contribute to the resource efficiency. Therefore the priority for action to launch new research and innovation initiatives on developing and deploying advanced ICT solutions in the water sector would fully exploit the role of ICT in (a) the protection and sustainable management of water resources and ecosystems; (b) ensuring the security and quality of water distribution networks, and (c) optimising the use of resources and energy in water treatment process. ICT would also foster interoperability between water information systems at EU and national/regional levels and the efficiency of a real-time water resources management system in agricultural, urban areas, water supply and sanitation systems, and smart systems for early warning in forecasting and management of extreme events.

2. The Commissioner should integrate water into the Strategic Implementation Plan of the EIP Smart Cities and Communities

Smart City applications can help provide local, national and international solutions to global issues only when cities develop a long-term integrated strategy and implementation plan on transport, energy, ICT, solid waste, climate adaptation, and water supply and waste water treatment. Water management shall be one of the major parts of Smart City strategy.

3. The Commissioner should ensure a continuous dialogue with other relevant DGs, and shall prioritise support to water sector as a principal player in the transition to a Green Growth Economy as recognised by OECD.

ICT support to smart and integrated management of water resources, water supply and demand in water services, and water management in water-using industries (such as energy production, textiles, chemicals, pharmaceuticals, food, leather/tanneries) will make an important contribution to economic development, smart and green job creation, and increase the innovation component in the water sector.



Statement on the hearing of the Commissioner-designate for DG INTERNATIONAL COOPERATION and DEVELOPMENT

- 1. Water is the key element of the international development policy. During the course of the ongoing negotiations regarding the new UN Sustainable Development Goals, the new Commissioner should emphasise the importance of water and support a stand-alone water-related objective as well as integration of water within relevant policy areas.**

Access to water is a human right and its fulfillment has a direct and proved impact on social and economic development. Despite significant progresses over the last decade, almost 800 million people still do not have access to an improved source of drinking water (40% concentrated in sub-Saharan Africa), while one third of the world population lacks access to sanitation. Furthermore, there is a growing awareness regarding the strong link between water-security and state-security, and the effective governance of trans-frontier water resources represents a key challenge to sustainable water management as well as the reduction of international conflicts and water-related migrations. Thus the EU efforts to promote water diplomacy have to be strengthened and intensified.

- 2. Water is included as a cross-cutting theme of the EU Agenda for Change. The new Commissioner should ensure that water is fully integrated in the implementation of the EU development policy through dedicated support, funding instruments, and specific actions.**

The European Commission clearly identifies water as an important domain of intervention for the EU development policy. In its Agenda for Change, the Commission sets the energy-food nexus at the centre of its strategy. Energy and agriculture are strongly dependent on the availability of water resources. Many people in developing countries suffer from floods. The EC can support by helping with the policy transfer, management and engineering solutions. Targeted actions for the water sector in beneficiary countries are therefore needed, if the Commission is to achieve its objectives.

- 3. The new Commissioner should ensure adequate financial support to capacity-development actions in the water domain, relying on and cooperating with existing international platforms and initiatives.**

The ACP-EU Water Facility proved to be an effective instrument to enhance water management competence in developing countries. This kind of instrument plays a key role when ensuring the ownership and sustainability of results and represents an essential condition to improve the absorption capacity of larger investments for infrastructural projects. Support of capacity-development actions for water management constitutes therefore a key measure to achieve EU objectives. In doing this the EU shall cooperate with existing international platforms and initiatives such as the UN Habitat-led Global Water Operators Partnership (GWOPA) or other UN Conventions.



Statement on the hearing of the Commissioner-designate for DG HUMANITARIAN AID and CRISIS MANAGEMENT

The European civil protection covers three phases of the disaster management cycle: Prevention, Preparedness and Response. Water is one of the natural and/or man-made disasters that do not respect national frontiers. EU civil protection policies already address water extreme events through policy on water, sanitation and hygiene (WASH), and the contribution to International Disaster Risk Reduction efforts – the Hyogo Framework for Action 2005-2015 .

- 1. The new Commissioner should ensure better collaboration with other DG's to guarantee a proper alignment of policies and actions to reduce risks caused by ever-more frequent extreme water/climate events. Thus, water needs to become a more prominent object of action in Humanitarian aid and Civil Protection.**

The IPCC report on “Climate Change 2014: Impacts, Adaptation and Vulnerability” underlines, many key risks all of which are identified with high confidence, related to water: (a) risk of death, injury, disrupted livelihoods in low-lying coastal zones; (b) risk of severe disrupted livelihoods for large urban populations due to inland flooding; (c) systematic risks due to extreme weather events leading to the breakdown of infrastructure networks (e.g. water supply); (d) risk of food insecurity and the breakdown of food systems; (e) risks due to insufficient access to drinking and irrigation water and insufficient agricultural productivity. Therefore it should be highlighted that risks due to the extreme water-related events are calling for more coordinated joint policies and actions.

- 2. The new Commissioner should ensure that**
 - actions for water and sanitation during disaster response are prioritised;**
 - climate change effects on disaster response are assessed and appropriate preparatory measures are taken both in terms of preparedness and response.**

As limited water availability is considered to become a more important concern in the future, this is likely to have an impact on the provision of drinking water during immediate disaster response. Water imports and re-use may be important strategies to alleviate some of the immediate shortages.



Statement on the hearing of the Commissioner-designate responsible for DG MARITIME AFFAIRS AND FISHERIES

1. The new Commissioner should continue to coordinate existing integrated marine and maritime policies in close collaboration with other DGs.

Coastal zone management is important for the successful implementation of Integrated Maritime Policy. This is relevant in particular with regards to fresh and marine water pollution by nutrients, micro-pollutants and (micro-)plastics. In addition, new developments in coastal zones and estuaries can result in morphological changes and prevent the achievement of the environmental objectives of the EU marine policy. The Water Framework Directive and Integrated Coastal Zone Management as well as Marine Strategy Framework Directive play an important role and need to be properly implemented in close collaboration with all Commission services.

2. The new Commissioner should ensure the reduction of the pollution levels in European seas as well as contributing to the efforts to improve fresh water quality in order to minimise riverine levels.

Reducing the pollution in rivers benefits both seas and water users in coastal and delta regions. Decreased pollution levels will provide a number of benefits, such as enhanced biodiversity and coastal tourism.

3. The new Commissioner should initiate the development of additional guidelines for coastal zone development and sustainable growth that builds upon opportunities and required asset management, underpinning the overall (economic) advantages for maritime spatial planning.

Coastal areas are used for numerous purposes. The Blue Growth Policy and Marine Spatial Planning are promising initiatives to improve coastal development. However, additional guidance is needed to enable sustainable development. Currently it is difficult to modify water-related infrastructure assets in the transitional and coastal zones. The guidance should address inter alia adaptation of the existing flood defences and harbours to climate change; new infrastructural developments for tidal and wave energy and salinity gradient power; the upgrading of waterworks and increasing aquaculture. All these and other changes provide opportunities for smart investment.



Statement on the hearing of the Commissioner-designate for DG TRANSPORT and SPACE

Inland waterborne transport (IWT) is considered to be an energy efficient, safe, and sustainable mode of transport. Earth observation from Space has become an important asset to water and environmental management, including the monitoring of the quality of flood defenses. Water, after oxygen, is also the second consumable needed by crew to stay alive aboard a spacecraft and the most critical component for the Closed Loop Life Support System.

- 1. The Commissioner should ensure that IWT is developed in a sustainable way. It needs to be further integrated into other EU policies such as Energy, Water, and Environment. Knowledge gaps need to be closed to create more win-win situations.**

Inland waterways play an important role as a source of water for domestic, agricultural, industrial and energy-related use. Waterways and their surrounding floodplains provide ecosystem services such as natural flood retention and are increasingly appreciated as places of leisure and recreation. They are also the natural environment for the flora and fauna to be protected by EU directives.

- 2. The Commissioner should promote investment in RTD to adapt all transport infrastructures to an increased frequency of extreme hydrological events.**

Current understanding emphasizes that climate change will result in a change of hydrological regimes in water ways affecting amongst others, navigation and dredging. Special sensitivity studies demonstrated that civil engineering measures and green infrastructures in estuaries can be options to adapt to climate change impact.

- 3. The Commissioner should address the problem of aging waterborne transport infrastructure and should ensure investment in sustainable inland water transport assets.**

Weirs, sluices, and harbours are major assets which throughout Europe are aging. Instead of ad hoc upgrading said infrastructures, rethinking is required regarding new approaches that address sustainability, resource efficiency, life-cycle analysis, and the creation of green infrastructures as well as new, green waterborne vessels, which may require adapted infrastructures.

- 4. The Commissioner should ensure availability of reliable and easily Earth observation data on the water cycle to support decision making on water management issues.**

Earth observation data are essential to forecast and assess the extent of floods and droughts, in data-rich but in particular in data poor regions. Society and economy will benefit from improving assessment, saving billions on damages.

- 5. The Commissioner should recognise the importance of research and innovations in water recycling for the applications in space exploration**

High efficiency of water recovery and recycling systems (e.g. by using nanofiltrations, reverse osmosis, membrane and other key enabling technologies) are critical to ensure further space explorations.

