# Response of the Water JPI to the WssTP's Draft Strategic Innovation and Research Agenda (SIRA)

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The Water JPI welcomes the development on the WssTP's SIRA with its focus on the Value of Water and a subtitle of *Multiple waters for multiple purposes and users*. It compliments very well our own Strategic Research and Innovation Agenda (SRIA 2.0) and will help to achieve the Water JPI's grand challenge of sustainable water systems for a sustainable economy in Europe and abroad.

We note the mix of innovation measures that includes dedicated research, real-life living labs and the combination of existing and novel solutions as well as improving the knowledge base and awareness on the value of water at all levels. While most of the research effort is focussed on innovation and the higher levels of technology readiness (TRL) we note that some of the proposed research is at a more basic level and includes research on emerging technologies, that will have an impact on Europe's water system on the longer term. This SIRA fits very well with the Water JPI's SRIA v2.0 as the latter is focused on more fundamental research that should provide the building blocks to innovation and higher levels of technology readiness.

The WssTP's SIRA is developed around 6 Key Components (KC) with specific goals for each, while the Water JPI's SRIA v2.0 has 5 major themes with a number of associated subthemes. As expected, there are many overlaps between these goals and subthemes that emphasises the possibility for synergy between the work of both bodies and some of these overlaps are tabulated below (See **Table 1**). This potential for synergies between the WSSTP & the Water JPI will be relevant and should be highlighted in the context of the preparation of the new Horizon 2020 SC-5 Work Programme (2018-2020), where it is likely that Water will have a more prominent role.

**Table 1: Synergies between the WssTP SIRA & Water JPI SRIA 2.0**

| *SIRA Goals* | *Relevant SRIA subtheme* |
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| **Key Component 1: The Value of Water** | |
| - Realize the true value of water<br>- Full cost recovery towards increased sustainability of water systems | 1.1 Developing Approaches for Assessing and optimising the value of Ecosystem Services<br><br>5.2 Strengthening Socio-economic Approaches to Water Management |
| - Decouple water demand and availability from natural water cycles (including climate change risks) | 1.3 Managing the Effects of Hydro-climatic Extreme Events |
| - Reduce dependency on water availability and quality<br>- Make more with less water | 5.1 Enabling Sustainable Management of Water Resources |
| - Strengthen and consolidate the leading position of the water market in and outside Europe | 3.1 Developing Market-Oriented Solutions for the Water Industry |
| **Key Component 2: Technologies – enabling insight and manageability** | |
| - Measure, monitor, control the status of water bodies<br>- Smartening of the water infrastructure<br>- Achieve improved data-driven insight, forecasting and decision making | 2.2 Minimising Risks Associated with Water Infrastructures and Natural Hazards |
| - Prevent pollution at source and in all the water cycle<br>- Better understand the links between pollution and health<br>- Remove/minimize pollution in water systems and bodies | 2.1 Emerging risks on Pollutants: Assessing their effects on nature and humans and their behaviour and treatment opportunities |
| - Increase water efficiency in agriculture sector | 4.1 Improving Water Use Efficiency for a Sustainable Bio-economy Sector |
| **Key Component 3: Hybrid Grey and Green infrastructure** | |
| - Mitigate the effects of extreme water events<br>- Increase the resilience to seasonal change effects | 1.3 Managing the Effects of Hydro-climatic Extreme Events<br>2.2 Minimising Risks Associated with Water Infrastructures and Natural Hazards |
| - Secure financial models and practices that integrate long term cost effective maintenance and inclusion of externalities in financial asset management of our water infrastructure | 5.2 Strengthening Socio-economic Approaches to Water Management |
| - Restored and renovated water infrastructure for reduced environmental | 1.3 Managing the Effects of Hydro-climatic Extreme Events |

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| impact and resilience against climate change effects<br>- Enabling dynamic allocation of multiple water resources for multiple uses/users | 5.1 Enabling Sustainable Management of Water Resources |
| **Key Component 4: Governance** | |
| - Smart and engaged stakeholders that appreciate the value of water and share responsibilities | 5.2 Strengthening Socio-economic Approaches to Water Management |
| - New multi-stakeholder governance models that manage availability of water for all users and sectors<br>- fit-for-purpose, adaptive and evolving economic and governance mechanisms, | 3.2 Enhancing the Regulatory Framework |
| **Key Component 5: Real-life living labs** | |
| - Reduce the impact of agriculture on over-abstraction of water Improve agriculture sector commitment to water goals | 4.1 Improving Water Use Efficiency for a Sustainable Bio-economy Sector<br>4.2 Reducing Soil and Water Pollution |
| - Closing of the water loop between industries and other water users (e.g. cities, agriculture, waterborne transport, etc.);<br>- Realize new business models, opportunities and markets | 4.1 Improving Water Use Efficiency for a Sustainable Bio-economy Sector<br>5.2 Strengthening Socio-economic Approaches to Water Management |
| - Reduction of water use at urban level<br>- Implementation of multi-stakeholder governance and planning models for cities | 5.1 Enabling Sustainable Management of Water Resources |
| **Key Component 6: Horizontal** | |
| - Promote eco-innovative solutions | 1.1 Developing Approaches for Assessing and optimising the value of Ecosystem Services |
| - Change perception and behaviour of European citizen towards a future water-smart society | 5.2 Strengthening Socio-economic Approaches to Water Management |
| - Embed water component into existing governance practices<br>- Develop radically new approaches for water governance (including Water Diplomacy) | 3.2 Enhancing the Regulatory Framework |

In view of the many possibilities for synergy between the work of WssTP and Water JPI it may be appropriate to mention this in the SIRA and to point out that both bodies are dedicated to enhancing water quality and water use in Europe and the wider world. Collaboration will be pursued on specific research topics and WssTP can build on the basic research funded through the Water JPI to speed innovation and market development in the water industry.