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Horizon 2020 Work Programme for Research & Innovation 2018-2020

SE-SC5-04-2019: Building a
water-smart society

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Research and
Innovation

Call "Greening the economy in line with the Sustainable Development Goals (SDGs)"

Connecting economic and environmental gains - the circular economy

- **CE-SC5-04-2019: Building a water-smart economy and society(IA)**

CE-SC5-04-2019 Building a water-smart economy and society

IA
70%

Specific Challenge:

- Need to ensure water of good quality and quantity for both our society and economic activities, by testing and deployment in operational environments and at scales suitable for encouraging wider uptake, the potential of circular economy in water.

Scope:

- Actions should demonstrate the feasibility of a 'water smart' economy and society in which all available water resources, including surface, groundwater, waste water, and process water, are managed in such a way as to avoid water scarcity and pollution, increase resilience to climate change, appropriately manage water-related risks, and ensure that all valuable substances are recovered.
- Actions should address **only one** of the following sub-topics:
 - a) Symbiosis between industry and water utilities
 - b) Large scale applications with multiple water users at various relevant scales

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IA
70%

Scope:

- **Sub-topic: a) Symbiosis between industry and water utilities**

- Demonstrate resource-efficient solutions derived from the systemic exploitation of symbiotic inter-linkages between wastewater treatment in industry and by water utilities.
- These might address, for instance:
 - the reuse of treated wastewater,
 - the use of substances or energy derived from wastewater treatment, or might,
 - demonstrate the concept of dynamic allocation of the right quality of water for the right purpose, while ensuring health and safety.
- Innovative solutions do not need to be only technological, but may also encompass other types of innovation such as innovative governance and stakeholder engagement or business models in industrial environments.

TRL
5-7

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Scope:

- **Sub-topic: b) Large scale applications with multiple water users various relevant scales**
 - Test and demonstrate systemic innovation in real life, large scale operational environments.
 - Actions should address multiple water users (urban, industrial, rural and agricultural) and various relevant scales (regional/national/international) for:
 - stimulating efficient and multiple use, recycling and reuse of water; recovery of energy and materials (such as nutrients, minerals, chemicals and metals) from water; managing water demand and efficient allocation; exploiting alternative water sources; prevention of water pollution and degradation of the aquatic environment and soil; and cost-effective and smart management of the water system and infrastructure.
 - As far as possible, the innovative solutions should include all of the above-mentioned activities.
 - Marketing and financing concepts, new governance approaches, vulnerability/sustainability assessments, to be also considered.
 - Participation of social sciences/humanities is crucial.

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70%

Scope:

- **For both sub-topics:**

- Deployment of enabling digital solutions for the monitoring, control and optimisation of data and processes is also encouraged
- Where appropriate, related regulatory and institutional barriers which prevent the wide application of developed innovative solutions should be addressed.
- Where technological innovation is concerned, TRL 5-7 should be achieved.
- To assure applicability and wide deployment of the innovative water technologies in different conditions (including different water resources, economic, social and regulatory settings) involvement of market take-up partners and/or end users from a wide range of different European regions is strongly encouraged, as well as SME participation.

TRL
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CE-SC5-04-2019 Building a water-smart economy and society

Expected impact:

- Significantly reduced use of water from freshwater sources;
- Improved recovery and use of resources, including energy;
- Mobilisation of water-related investments and synergies with other funding instruments.
- Creation of new business opportunities and increased competitiveness of EU industries;
- Supporting, as appropriate, the implementation of EU water policies, Circular Economy, Climate change, Sustainable Development Goals;
- Implementation of the objectives of the EIP Water and, where appropriate, technology verification schemes, including the EU Environmental Technology Verification Pilot (ETV) programme

SMEs

EUR 10-15
millions

Total budget: 72.00 EUR Million

19 Feb 2019 (First Stage)

04 Sep 2019 (Second Stage)

Thank you!

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More information:

www.ec.europa.eu/research

Participant Portal:

www.ec.europa.eu/research/participants/portal/desktop/en/home.html