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Call for Partnerships

Greetings from the water & environment expertise team of JAMK University of Applied Sciences!

We are looking for partnerships that are planning project proposals for the Interreg BSR Priority 2.1 Sustainable Waters. We are interested to joining a partnership as a partner or possibly a Work Package or Group of Activity leader.



Who are we?

In the water & environment expertise team, we work on research, development, and innovation as well as education and capacity building in the sector of water protection and water management of decentralized systems in rural areas. We are one of the expertise teams of the Institute of Bioeconomy of JAMK – and work in connection to our other expertise teams: applied smart farming research, agriculture, forestry, and renewable energy.

In JAMK, we have strong project management and communication expertise. We run an annual RDI portfolio of 10 MEUR of which approx. 1.5 MEUR is implemented by the Institute of Bioeconomy. We are also experienced in Interreg BSR. During the past programme term, JAMK was project leader of two PA Bioeconomy flagship projects, RDI2CluB and ConnectedByBiobord. As a result of these projects, we are currently running a network for bioeconomy developers in BSR – Biobord.eu.

Our Interests

In the context of Interreg BSR 2021-2027 programme, we are interested in joining partnerships that are planning projects related to the **Priority 2.1 Sustainable waters**. More specifically, we are looking for partnerships that are working on issues related to:

1) Managing risks related to climate change in the decentralized water management systems of rural areas (agriculture, animal farms and rural communities) in relation to operational sustainability of water systems, securing availability of water resources in changing weather conditions, as well as protecting water resources from nutrient leakages.

2) Piloting practices for changing water resource use to minimize nutrient leakages and micro-plastics ending up in the waterways

Our Expertise

Our role in a partnership could focus on applied research on water protection or on capacity building and mobilization stakeholders. Let us share more information about our expertise and references in relation to these potential roles.

Our Profile & Key References: Applied Research

Water Quality Monitoring and Wetland Testbed

Our Institute is located in a rural area at Bioeconomy Campus in Saarijärvi, Tarvaala. Here we have a wetland testbed connected to pilot fields, an in-situ based e-learning platform of efficient nutrient control in agriculture as well as capacity to utilize modern water-quality monitoring technology in field conditions.

Our technologies for continuous water quality monitoring, the pilot fields and artificial wetland offer a testbed for studying best water protection methods in agriculture. We have capacity to test the effects of agricultural practices on nutrient run-offs.

In addition, we have explored new cost-efficient water protection methods in co-operation with farmers and other landowners (buffer zones, artificial wetlands, spreading methods of slurry, etc.). Read more of our <u>Wetland testbed and related research</u>.

Coming soon! Testbed for smart farming will enhance our capacity to study the effects of application of new technologies and digital solutions in farming – including the effects to water protection and nutrient run-offs.

Micro-plastic Testing

In JAMK, we have laboratory and analytic facilities for carrying out testing in relation to micro-plastic residues in waters. In a recent regional project, we have carried out testing of microplastic residues to water resulting from washing textiles. We are also working on several up-coming regional initiatives related to detecting, analyzing, and minimizing micro-plastic residue, e.g., after composting.

Remediation of Waterways

We have conducted remediation plans for water ways in several locations in Central Finland to respond to needs arising from local farming communities. The remediation plans define collective efforts for improving the status of a waterway, for example a brook or stream. The remediation planning involves mapping the area and testing the water quality on-site to identify run-off sources. The process also entails engagement of local stakeholders to reach commitment to joint activities as well as studying potential funding options for water protection and remediation measures.

We are also partners in FRESHABIT Life IP <u>Freshabit LIFE IP</u> <u>Healing the Kingdom of Water | Metsähallitus (metsa.fi)</u> that is a seven year project carrying out restorations in eight different inland target areas, including streams, rivers, route waters, bird wetlands, and other lake areas with their drainage areas.

Our Profile & Key References: Capacity Building & Mobilization of Stakeholders

Wastewater Counselling & Water Management Training

JAMK conducted wastewater counselling to households in rural areas in 2012 – 2019. Our counselling has reached around 7500 households during the years. The focus has been on wastewater treatment in houses that are not connected to a centralized sewage system, sustainable sanitation solutions, toilet waste treatment and recycling of nutrients.

In recent and ongoing projects, we are conducting training of rural water co-operatives and small water supply plant operators as well as municipal authorities. We have also offered specialized life-long learning and in-service training for water management operators in rural areas.

Currently, we are conducting training of water co-operatives to improve the reliability of their operations in crises and safeguard the water supply in rural areas. The main idea is to increase collaboration between water co-operatives. In Central Finland, we have approximately 130 water co-operatives of different sizes. Small water co-operatives do not have permanent staff. Our purpose is to promote digital know-how and increase remote monitoring of networks. We organize exercises on disinfection, communication in water crisis and the distribution of clean water. We also conduct training in legislation, economics, network management, etc.

Capacity Building with Novel Digital Solutions

Distance learning is every day for us in JAMK. We have extensive expertise in designing collaborative learning in digital platforms and utilization of digital learning tools. In our RDI projects, we are able to apply this digital learning knowhow for stakeholder engagement, co-creation and capacity building. Digital learning can work either in addition to the traditional workshops, seminars and meet-ups or to enhance them.

To highlight our efforts in the capacity building of farmers and our knowhow of digital learning solutions, we wish to present a recent capacity building project – MataDigi. MataDigi targeted agricultural entrepreneurs and animal farmers. In MataDigi, our agricultural experts teamed up with our digital learning experts to pilot several digital learning tools and peer learning platforms with farmer groups. Aim was to offer access to interaction with experts, new information and peer learning in a flexible manner without leaving the farm during the busy season.

In MataDigi, the tested digital learning tools and methods included podcasts, expert chat hours, interactive videos (embedded content, 360° videos) and action camera feed from live farm tours with experts. Besides the tools, we learned a lot of the practices of engaging and interacting with stakeholders as well as co-learning together in the online environment.



Thank you for taking the time to study our expertise profile.

In case you see a role for us in your partnership, please contact us for further discussions.

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