

Theme proposal for SRC strategic research programmes 2024

Water for welfare, security and peace

Research under this theme focuses on water and water resources as a societal issue at both national and global level. Water is an essential element in welfare, security of supply and sustainable development, be it surface water, groundwater, inland waters or oceans. Water resources and routes determine the functioning of societies in many ways. Water and aquatic systems also have profound cultural significance and value. Finland has considerable water expertise, which provides a solid foundation for developing new water-related solutions. From a global perspective, water is a critical resource. Water management causes tensions and even conflicts worldwide. Climate change, biodiversity loss and demographics will all challenge international water diplomacy and policy. How can we promote sustainable water management amid rising competition for water? How do we shore up water security against threats to both quantity and quality?

Research under this theme will seek to build a broad understanding and expertise to support water security and sustainable water use in Finland and internationally. Good and fair management of water and aquatic systems is essential for a welfare society. Water and water resources are under pressure from a wide range of sectors, including industry, agriculture, transport, tourism and energy. A large part of Finland's water consumption is indirectly directed outside our borders. A multi- and interdisciplinary approach is essential in addressing the ecological, societal, economic, cultural and technological issues related to water security in a systemic way. The topics of individual research projects may relate to issues at national level or issues in a transnational context. The research can focus on issues such as responsible management of water resources, infrastructures or ecosystems, or on strengthening water diplomacy and preventing water-related crises and conflicts. Water technology and digitalisation can offer up new opportunities for water security, water management, livelihoods and business, and support water use that improves biodiversity and carbon neutrality.

Research under this theme shall improve the capacity to make long-term decisions and to anticipate the challenges and opportunities related to water management and water security. Transparency and inclusion in decision-making, as well as intergenerationality, are essential for good water governance.