

## Water4All Joint Transnational Call 2023 on Aquatic Ecosystems Services: Pre-proposals invited to submit a full proposal in step 2



| Proposal No       | Acronym          | Title  | Keywords   |
|-------------------|------------------|--|--|
| Water4All2023-706 | AI4AES           | Artificial Intelligence for Aquatic Ecosystem Services   | Artificial intelligence, ecosystem services baseline, satellite images, citizen science              |
| Water4All2023-693 | AquaMOX          | Regulation of aquatic methane oxidation and its capacity to mitigate methane emissions from aquatic environments.                                      | Microbial methane oxidation, Ecosystem service, Methane, methanotrophs, Climate mitigation           |
| Water4All2023-950 | AQUAPURE         | Aquatic Prioritization and Understanding of Risks of Emerging Contaminants in Small Water Bodies   | chemical pollution, surface water bodies, monitoring, sensors  |
| Water4All2023-444 | ArcWaterSolu     | Impact of extreme hydrological events in the Arctic on aquatic ecosystem services and mitigation through nature-based solutions                        | Extreme hydrological event; arctic aquatic ecosystem services; nature-based solutions; water quality |
| Water4All2023-334 | BioTreatED       | Advanced bio-based solutions to monitor and mitigate hormonal risks of irrigation waters originating from manure separation technologies               | hormonal activity, bio-based solutions, manure, irrigation waters, groundwater                       |
| Water4All2023-191 | BREATHE          | Monitoring river metabolism to assess ecosystem services   | river monitoring, in-situ sensor, dissolved oxygen, river functions, ecosystem services              |
| Water4All2023-545 | CREATE           | Cross-REalm modelling and assessment of Aquatic ecosystem services: Towards a science based design of nature-based solutions to tackle Eutrophication  | Nature-based solutions, eutrophication, Baltic sea, cross-realm, ecosystem serivces                  |
| Water4All2023-38  | CyaNoServices    | SECURING FRESHWATER SUPPORTING SERVICES FOR BIODIVERSITY THREATENED BY HARMFUL CYANOBACTERIA ACROSS ECOSYSTEM BOUNDARIES                               | freshwaters, ecosystem services, cyanobacteria, biodiversity, innovation                             |
| Water4All2023-427 | DeepThought      | Evaluating nitrate transformation in aquifers using microbiologic and isotopic tools for an enhanced management of key groundwater ecosystem services. | groundwater, nitrate, global change, microbial diversity, water security                             |
| Water4All2023-471 | DOWES            | DOWES: Disclosing the Overlooked Wetlandscape Ecosystem Services   | wetlandscapes, ecosystem services, water security, hydroclimate                                      |
| Water4All2023-216 | ECO-DARK         | Coastal ecosystem service provisioning in warmer and darker waters   | ecology, governance, water colour, climate change, fish  |
| Water4All2023-652 | ECO-GROUND       | Integrated assessment of groundwater and aquatic ecosystems services   | groundWATER, aquatic ecosystems, monitoring and modeling, management, ecosystem services             |
| Water4All2023-968 | ECO-WADE         | Enhanced understanding of carbon and groundwater dynamics in European peatlands and their related ecosystem services                                   | peatland hydrology, Groundwater, water quality, GHG emissions, restoration impacts                   |
| Water4All2023-996 | EcoC2S           | Ecosystem services to enhance the resilience of coastal regions and communities to flood risks in a catchment to sea perspective                       | Flood risk, disaster resilience, catchment to sea, social dynamics, ecosystem valuation              |
| Water4All2023-24  | EcoP             | Responses of Freshwater Ecosystems to Phosphorus Cycling under Shifting Climate and Land Use Changes - Predictions for Future Scenarios                | freshwater ecosystems, ecosystem services, phosphorus cycling, climate change, land use              |
| Water4All2023-627 | EcoTwin          | Digital Twin-based solutions for enhanced integration of ecosystem services in water resource management   | Floods, DROUGHTs, recreation, water management, critical habitat                                     |
| Water4All2023-49  | EcoValu-Wetlands | A framework for the valuation of Ecosystem Services of inland wetlands   | wetland, groundwater, ecosystem services, flood attenuation, biodiversity                            |
| Water4All2023-232 | ENGAGE           | Europe Nutrient Management - Guided Approaches for Greater Export reduction  | nutrients, regulation, hydrology, governance, policy   |
| Water4All2023-802 | FESTIVAL         | Final Ecosystem Services in Transition: a View from the Aquatic Landscape  | ecosystem service delivery, forest landscape, multi-functionality, water quality models, cocreation  |





| Water4All2023-810 | HALOBISE       | Platform to understand effects of the harmful algal bloom holobiont in a changing environment to predict their impact on aquatic ecosystem services | algae-bacteria interactions, holobiome, proteomics, marine assessment, ecosystem service   |
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| Water4All2023-121 | HighWISE       | Analysing highland wetland ecosystem services and their values for informed decision making and resilient social-ecological systems                 | Highland wetlands, social-ecological systems, ecosystem services assessment, non-monetary values of ecosystem services, equitable decision-making  |
| Water4All2023-419 | IDB            | An integrated database to identify transformation products of organic contaminants in water   | transformation products;environmental risk;water quality;database;wastewater treatment technologies  |
| Water4All2023-44  | IM4ESValue     | A framework of integrated methods to include local knowledge, and indirect and non-<br>tangible benefits in the valuation of ecosystem services     | Integrated assessment, ecosystem services valuation, catchment modelling, hydrology, social science  |
| Water4All2023-83  | INTERFACES     | INTERactions and Fluxes Acting on Coastal Ecosystem Services  | Water quality, Biogeochemical processes, Anthropogenic sources, Environmental impact assessment, Climate change  |
| Water4All2023-772 | InToES         | Integrative tools to assess multiple pressures effects on aquatic ecosystem services and predict responses to protection and restoration actions.   | effect-based assessment, multiple stressors, cause-effects relationships, ecosystem services, river basins   |
| Water4All2023-655 | INWATER        | Integrated, Intelligent and Intelligible management of groundwater resources  | groundwater supply, groundwater geoenergy, vulnerability and sustainability assessment concept, water governance, resilience in water management practices   |
| Water4All2023-702 | LaRES          | Lake & Reservoir Ecosystem Services: Building Resilience to Climate Extremes  | climate extremes, harmful algal blooms, aquatic ecoysytem services, satellite monitoring, lake   |
| Water4All2023-698 | MARICA         | MAnagement of water Resources through an Innovative theory of Change Approach to boost ecosystem services   | environmental monitoring, water resource management, ecosystem services promotion, water pollution   |
| Water4All2023-526 | MISSION        | MIcrofluidic SenSors for rapId detectiOn of cyaNotoxins   | Cyanotoxins, Microcystins, Saxitoxin, microfluidic sensors, electronic tongue  |
| Water4All2023-600 | MOSAIC         | Modeling and observing a mosaic of processes for managing water ecosystem services and implementing adaptations to climate and land-use changes     | water ecosystem services, agroecosystem resilience, functional performance indicators, ecohydrological modeling, nature-based solutions  |
| Water4All2023-132 | MP-CARE Europe | Enhancing Ecosystem Services through Cost-Time-Results Effective Assessment of Freshwater Microplastics Across Europe                               | Microplastics, monitoring, freshwater, ecosystem services, management  |
| Water4All2023-305 | PalusSalus     | PalusSalus: healthy wetlands for water security, ecosystem integrity and transboundary cooperation  | TRANSBOUNDARY WETLANDS; ECOSYSTEM SERVICES; WATER RESOURCES GOVERNANCE; ECOSYSTEM INTEGRITY;   |
| Water4All2023-540 | PanarmaINCA    | Practical Approach to quaNtify Aquatic ecosysteM services And ReInforce Integrated<br>Natural Capital Accounting                                    | Aquatic Ecosystem Services, Natural Capital Accounting, Nature-based Solutions, Harmonized Guidelines, hydrological modeling   |
| Water4All2023-499 | PLURALAKES     | Co-creating pathways to desirable nature futures of temperate lakes   | Lake ecosystems; Water quality management; Plural valuation; IPBES; Scenario analysis  |
| Water4All2023-494 | PREDICT        | Smart sensors for real-time monitoring and predictive management of coastal water algablooms  | Harmful Algal Blooms, sensors  |
| Water4All2023-327 | QIMFRES        | Quantifying the impacts of multiple stressors on freshwater ecosystem services  | Freshwater ecosystems, ecosystem services, biodiversity, multiple stressors  |
| Water4All2023-420 | R-AQUA2SERVE   | Recycled Aqua Quality Assessment and Approaches for Uses to Sustainable Ecosystem<br>Services Vitality Enhancement                                  | Recycled water quality assessment, Integrated Monitoring and Mitigation, Microplastics, PFAS, Antibiotics  |
| Water4All2023-567 | REACTION       | REACTION - Navigating the Risks of Hydroclimatic Extremes for Freshwater Ecosystem Services in Forest Landscapes                                    | Quantification of risks associated with hydroclimatic extremes affecting the delivery of freshwater, Utilization of a multidisciplinary risk framework that integrates hazard+exposure+vulnerability comp, Mapping of risk components and the combined risks of hydroclimatic extremes for freshwater ecosystem, Combination of data harmonization efforts with data-driven modeling and stakeholder co-creation, Reduction of hydroclimatic risks and development of effective management and restoration actions tha |
| Water4All2023-282 | READAPT        | Bridging the Gap: Linking Riparian Vegetation Management to Water Quality and Sediment Transport Patterns   | Riparian vegetation, Water Quality, Sediment Transport, acquatic ecosystem services  |
| Water4All2023-685 | RECHARGE       | REstoring Catchments And Rivers under Global changE   | Ecosystem services, drought, biodiversity, Nature based solutions, river catchment   |
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| Water4All2023-882                   | REFRESH         | Innovative Remote Sensing and Ecosystem Services Modelling for Advancing Freshwater<br>Ecosystem Restoration  | freshwater restoration, remote sensing, ecosystem services   |
| Water4All2023-719                   | REMEDY          | Remote sensing & data assimilation for river ecosystem services   | remote sensing, Data assimilation, ecosystem cascade model, end-user focused operational protocol, transnational applicability                   |
| Water4All2023-552                   | REWAVE          | Resilient Watersheds through Ecosystem Services Valuation and Biodiversity Assessment   | Sustainability, climate change, Monitoring, citizen science, greenhouse gas  |
| Water4All2023-136                   | RIVER FOR AL    | RIVer ecosystem services hindcasting and FORecasting through mAchine Learning   | riverscape, anthropogenic pressure, machine learning, evolutionary trajectories  |
| Water4All2023-117                   | SecuCoast       | Security and management of Coastal groundwater resources and marine ecosystem services  | coastal aquifers, seawater intrusion, submarine groundwater discharge, marine ecosystem services, climate change                                 |
| Water4All2023-723                   | SedEco4EU       | SEDiment and water management tools for supporting aquatic ECOsystem services under exposure of hydropower regulations and extreme events             | sediment management, hydropower, economic values, large scale hydrological modelling, aquatic ecosystem modelling                                |
| Water4All2023-60                    | SediTrack       | Understanding and managing Sediment Transport processes in the Mediterranean area by using physical-based models and Remote Sensing techniques        | sediment transport, water management, wetland protection, suspended sediment flux, soil erosion  |
| Water4All2023-951                   | SEMA            | Sensitivity of lakes and reservoirs to climate change: Monitoring and Assessment  | Lakes, reservoirs, isotopes, climate change, water availability  |
| Water4All2023-682                   | SentinelSpringS | Springs as sentinels of climate change and sustainability of aquatic ecosystems   | Spring Hydrology, Groundwater Monitoring, Aquatic Biodiversity, Spring-dependent Ecosystem Dynamics, Localized Ecosystem Resilience              |
| Water4All2023-363                   | SERVICO2        | Impacts of climate, N and P deposition and land use on water as a driver of the greenhouse gases regulatory ecosystem service in headwater catchments | carbon balance, water quality, meta-analysis of long-term data series, socio-economical valuation, new sensors development                       |
| Water4All2023-398                   | SMARTD          | Towards Sustainable Drought Management: Predicting and Monitoring Drought Impacts on Hydrological Ecosystem Services                                  | drought, hydrological ecosystem services   |
| Water4All2023-68                    | SOS-Ecosystems  | Improving aquatic ecosystems and ecosystem services through protection from the multiple pressures of contaminants of emerging concern.               | Healthy ecosystems and services; CEC and AMR ecosystem multi-stressors; Water Security; Knowledge-based water governance; Stressor mitigation    |
| Water4All2023-46                    | SUSTAIN-R       | Sustainable nutrient cycling of nitrogenous and phosphate wastes for aquatic ecosystem restoration and nourishment                                    | nutrient cycling, ecosystem services, Capacitive Deionization - cdi, continuous membrane-free electrocatalytic device - CMED, ecosystem services |
| Water4All2023-225                   | TychoFilters    | A Green Biotechnology to Prevent Harmful Algal Blooms in Freshwater Lakes   | Phycoremediation, Ecosystem-restoration, eutrophy, Algae-blooms, Tychoplankton   |
| Water4All2023-292                   | WASER           | Aquatic Ecosystem Services Mapper (WASER)   | ecosystem service mapping tool, nature-sensitive land use planning, society of knowledge, freshwater ecosystem service assessment                |
| Water4All2023-790                   | WATERPATH       | Understanding and improving water-driven ecosystem services for the production of drinking water and treated wastewater for agricultural reuse        | internal and marine waters, sediments, aquatic organisms, compounds of emerging concern, risk analysis   |
| Water4All2023-586                   | WaterWeave      | Weaving knowledge together for healthy and resilient aquatic socio-ecosystems: towards a methodological and modelling framework                       | socio-ecosystems, integrative and interactive modelling, remote sensing, artificial intelligence, participatory                                  |
| Water4All2023-400                   | WetHabMon4ES    | Space-based monitoring of wetland habitat for ecosystem services assessment   | wetlands, habitat monitoring, remote sensing, aquatic vegetation, virtual research environment   |
| Water4All2023-995                   | WeTreat         | Optimising Wetland-Based Solutions for Improved Micropollutant Treatment Efficiency from Wastewater Treatment Plant (WWTP) Effluent                   | Micropollutants, phytoremediation, Constructed Wetlands, Water Quality, Biodiversity Restoration   |
|                                     |                 |   |  |