

WWQA Call for Innovation Science



World Water Quality Alliance (WWQA) Activity Mapping and Webinar

Dear Members of the World Water Quality Alliance,

The World Water Quality Alliance (WWQA), having been impacted by the current global crisis of the COVID-19 pandemic, like many other communities, is inclined to devise ways of contributing to solutions and responses. It is obvious that water plays a central role in human health. To name but a few examples, this can be as a trajectory of root causes as much as a preventive and even curing amenity but also as a post-pandemic source of vital monitoring data permitting the screening of the effectiveness of the societal response.

The WWQA is unique as a Community of Practice representing an enormous range of solid expertise regarding water quality, inter-linkages and feedback between water, environment and health aspects whilst also representing a bridge between data to action. We, as an Alliance shall therefore work collectively and together with you to explore the related knowledge and innovation work streams underway that is capable of assisting global communities to find responses in the short, medium and long-term.

We would like to call upon you, as members of the Alliance, to share with us your inputs in the field of innovation science, observation and monitoring, etc. – those dimensions you consider relevant – concerning inter-linkages between water quality and health or related issues. Scientific and public media tell us about progress being pursued in areas such as detection of viral RNA in wastewater – which if it reaches scientifically rigorous standards and allows quantifiable relation to population in time and space may allow screening in terms of preparedness to pathogen hazards as much as pandemic response efficiency. This is just one example and many more will certainly exist.

Furthermore, the Alliance is considering an immediate data drive including (where possible *in-situ* information) but predominantly an Earth Observation (EO) approach to be applied to tracing water quality signals that can be observed in the environment and are attributable to an unprecedented economic lock-down. Not only shall we process resulting information to better inform the post-pandemic recovery action socially, economically and in normative terms but also employ the strong environmental signals as a baseline. Future SMART monitoring and reviewing of environmental state and trends will largely rely on a fusion of *in-situ*, remote sensing, modelling as well as artificial intelligence data. The current situation may allow for the first of a kind – low emission state - calibration of current and future models. Other similar innovative scientific research and data collection may co-benefit. As we work together to develop and share EO data, information and knowledge for global challenges (see call by GEO Secretariat), the Alliance encourages such initiatives and aims to combine them more systematically. This effort is undertaken within the context of the World Water Quality Alliance mechanism, in particular, experts active in these diverse areas.

The WWQA invites members of the Alliance to inform the Co-ordination Unit of any relevant examples of work underway in your realm that you would like to share and expose to peer discussion including collective exploration of where we can collaborate to upscale and lift off specific project work if applicable and required to assist society. This may, for example, include the use of EO to trace the water quality signal of the economic lockdown, it may encompass innovation science on water quality including pathogen monitoring and its possible use in prevention and post-recovery monitoring. In short, interlinkages between water quality and health in support of COVID-19 and other health-related monitoring, response or recovery.

Upon review and following members approval, the WWQA shall make your science, innovation and suggestions for solutions, interventions and responses visible on the WWQA website and other communication channels. We will examine requirements from the global community, as much as from our members, where there are pathways deserving larger project frames and where we can engage collectively for up-scaling, researching and demonstrating solutions and improving future assessments. We are currently working with the [Joint Research Centre \(JRC\)](#) of the European Commission and [EureCat](#) in planning for an **extraordinary Webinar Conference** on the subject for which you will receive an invitation shortly. The idea is that you will have a chance to pitch your input to a broad community of peers and users.

While our immediate concern lies with the health and well-being of the members of the Alliance, we also recognise that the issues that drive WWQA's work through its various workflows will continue to be our priority focus after the current pandemic has ended. We hope this Call will support the establishment of a community of like-minded innovators and raise entrepreneurship in a scientific and solution-oriented sense to address what we observe and may anticipate for the future.

Responses to this call should be sent to kaisa.uusimaa@un.org, wanjiku.njuguna@un.org and anham.salyani@un.org. Please provide a brief description of the activity, including institutional participants, preferably by 24 April 2020 in order for us to be able to prepare for the planned Webinar. We welcome your input beyond this deadline as well.

View PDF document here:



With kind regards,

The WWQA Co-ordination Unit