

Towards a Global Research Consortium on Tailings

The disasters at Brumadinho, Mount Polley and Samarco are reminders that despite being core to the [Mining, Minerals and Sustainable Development Project](#) call to action nearly 20 years ago, tailings remain unfinished business. Tailings spills, dam failures, seepage, unrehabilitated sites and cases of direct discharge into waterways can be fatal, and leave environmental, social and economic legacies for thousands of years. They have disproportionately shaped the minerals industry's reputation, eroded public trust and the willingness of governments and communities to support new operations, and are reshaping the calculations of risk made by financial institutions and investors.

Industry and public sector investment in research has expanded the approaches available to address tailings management challenges, but much of this learning remains underutilised. Innovations such as paste tailings, filtration and dry stacking of tailings, and the co-disposal of dewatered tailings with waste rock, have yet to find widespread uptake, and the safety and stability of a large number of existing conventional tailings storage facilities is in question. A global coordinated effort is necessary to meet the scale of the tailings challenge.

The University of Queensland is convening a series of consultation workshops to develop a global tailings consortium and demonstrate its value. It will support the [Tailings Review by the ICMM, UNEP and the PRI](#) and the [Global Mineral Professionals Alliance tailings initiative](#). A research consortium would bring together the world's leading thinkers in tailings and mine waste management: researchers, practitioners, industry professionals, regulators, civil society and community representatives. The vision of the Consortium is a multi-party collaborative initiative at a scale of up to \$3 million per year to build, share and network knowledge (science, technology and practices).



Tailings research cuts across multiple disciplines, geographies, commodities, and technologies. Risks are borne by industry, local community, ecosystems, governments, investors and future generations. The proposed Consortium would be developed in a manner that respects these multiple perspectives and links solutions for site-based problems at a globally significant scale.

The Consortium would be developed as a think tank to enable research, knowledge sharing, communication and education around the globe. Its objective would be to extract value from existing knowledge, prioritise research in areas that require collective effort, support evidence-based policy-making, and increase communication and education of all stakeholders. Members of the Consortium would benefit from robust, transdisciplinary, game-changing research with University partners that have deep knowledge of the sector.

We are excited by the prospect of developing a global partnership in tailings management – one that can add substantial value to industry and provide balanced independent knowledge for the public dialogue around tailings. You are invited to work with us in advancing this vital Consortium.

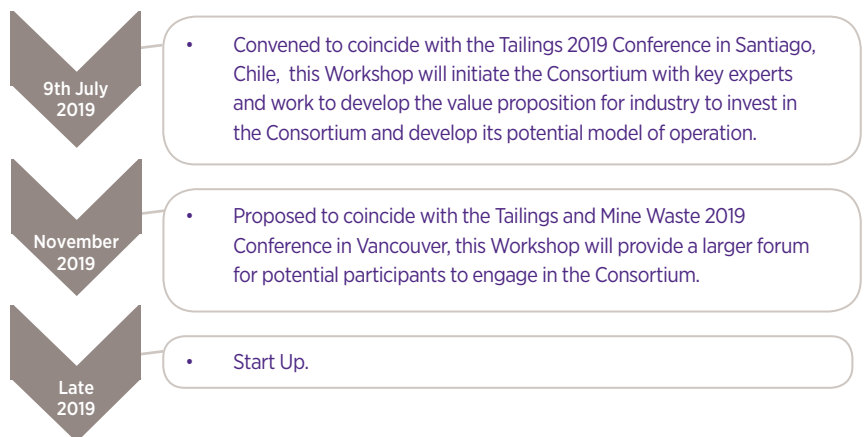


CAPTION: *Maihueniopsis ovata* (Pfeiff.) F. Ritter growing on abandoned tailing in Rio Hurtado, Ovalle, Coquimbo Region in Chile.

Tailings occur at the intersection of a complex system that connects a mine with physical and social environments – over space and time. History has shown us that complex systems cannot be managed through engineered solutions alone.

A series of Consultation Workshops

We propose organising a series of workshops to develop the Consortium internationally and promote its funding. We will aim to align these workshops with tailings-related events around the world.



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