

How Is the UAE Encouraging People to Rethink Desalination?

Water is the most precious resource on planet Earth. Some regions of the world, such as the Middle East, find themselves constantly seeking to conserve it, since an arid climate and minimal rainfall means it is always at a premium. With that end in view, desalination techniques have been developed to generate plentiful water for all.

However, existing methods are not cost-effective when deployed on a global scale, so it's necessary for the world to recalibrate its approach to the topic. Ever the pioneer when it comes to sustainable innovation, the UAE is funding a five-year competition hosted by XPRIZE, which will offer a prize pot of \$119 million for entrepreneurs and inventors who can provide functional solutions to the problem.

The problem with the status quo

Current desalination systems rely heavily on the process of reverse osmosis, which uses electricity to remove salt, toxins and other impurities from seawater. While effective, this process is very expensive, making it unfeasible to deploy on a large scale. For that reason, it's necessary to instigate a change in the way we think about desalination, which is why the UAE has thrown its weight behind the XPRIZE competition.

"The world needs a cutting-edge breakthrough to make desalination a more cost-effective and sustainable solution that could be adopted more widely around the world, enabling people and the environment to prosper," [explained Anouseh Ansari](#), CEO of XPRIZE. The Emirati government clearly agree and have put their substantial financial backing behind the project.

Some \$150 million of funding has been allocated to the XPRIZE competition by the Mohamed bin Zayed Water Initiative. This venture was recently unveiled by the President of the UAE as a means of raising awareness of water scarcity in the UAE, as well as tackling the global challenge of granting access to clean drinking water to all. At present, some two billion people are without such a basic necessity.

A two-track competition

The XPRIZE competition is scheduled to run across five years and will invite participants to come up with new methods of desalination that can be applied on a global scale. Participating teams will go through two different tracks of evaluation, each with their own distinct objectives and prize pots.

Track A will demand that candidates produce one million litres of drinkable water from seawater using dependable and sustainable methods. They will have one year to reach that target and can access a share of \$70 million in prize money as a reward. Track B, meanwhile, requires teams to find the most cost-effective means of using reverse osmosis membranes to remove impurities from seawater. The membranes must have a minimum lifespan of 10 years and the prize money on offer totals \$9.5 million.

XPRIZE are a non-profit organisation with a wealth of experience in hosting public competitions that aid sustainability. They have made it their mission to use targets and financial incentives to encourage technological innovation, with the ultimate goal of making the world safer, more comfortable and more pleasant for all.