

NEWS - AUGUST 31, 2020

"Growing more and better while using less water: a true paradigm shift" - an interview with Javier Meyer, AQUA4D



Written by [Tristan Lebleu](#) 4 min read

What is AQUA4D?

AQUA4D is a water smart technology to improve water efficiency. The company was founded in 2004 and is active in three different domains, but with one common goal: sustainably solving water-related issues without the use of chemicals. Today, our biggest area of application is agriculture, where our solution improves the overall efficiency of water irrigation.

Due to droughts, intensive farming and overuse of fertilizers and chemicals, soils often get saturated with salts. Once this happens, farmers can't grow anymore on their land and must either move to a new location - meaning they will destroy more land - or they have to

Of course, we work with farmers who need to wash their soils. For them, water savings has historically been a nice benefit but not essential. However, in recent years we have seen a big increase of customers for whom the main feature is water savings, because water is becoming a rare resource in many countries.

We have also started installing our system in urban areas, such as stadiums, parks, or green areas because grass uses a lot of water and it's important to keep it green, so municipalities and some big football teams in Europe have become increasingly interested in our system.

What are your biggest challenges now?

Like any disruptive innovation, the main challenge for us is to educate our customers. Most farmers have been used to treating their issues by using a lot of water or chemicals and fertilizers. But our solution is completely different: we only change the physical structure of the water and that allows them to grow more, with less water and no chemicals. Often, people don't believe it until they see it for themselves - it sometimes feels like we're selling iPhones in the 20th century. Thankfully, more and more growers are grasping the importance of what we offer.

What is the current development status of the company?

So right now we have over 4000 installations in the world, in 43 countries. There are also over 30 scientific reports that validate our technology and we have won numerous awards, including the Solar Impulse Efficient Solution Label, and funding from the EU's Horizon 2020.

Why did you apply for the Solar Impulse Efficient Solution Label?

For us, the main benefit of the Label is that it gives us even more credibility on our sustainability aspect, something that we are really looking to push forward. Before, we were mainly focused on the efficiency of the system and the salinity issues. But now, water savings and the environmental benefits of our solution have become increasingly important - the Label is a good way of proving that.



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wash their land using huge quantities of water and chemicals. Our technology allows farmers to regenerate their soils while making substantial water savings.

How big is this issue across the world?

Actually, there are two issues which we are trying to solve and both are very important: the degradation of soils and water scarcity; these are major issues in many places around the world. Some areas in Pakistan, for example, are losing more than 50% productivity because of salt-saturated soils. This means they are producing half of what they could produce because their soils are degraded.

What is the impact of this solution?

The main impact of AQUA4D is to restore degraded soils while making significant water savings : we enable an average reduction of water consumption for farmers of 30 percent on average. In addition to this benefit, we help farmers solve salinity issues, prevent organic and mineral clogging, enhance root development, and increase nutrient uptake by plants. All this leads to important improvements in the quality of crops.

All of this is done with minimal use of electricity - less than a standard 10W lamp - and can be easily connected to solar panels.

Overall, we help farmers reduce their environmental impact by using less water, energy and chemicals, while improving their yields. This is a complete change of paradigm - a new regenerative and sustainable agriculture.

How does this technology work?

AQUA4D, through very low frequency (VLF) resonance fields, changes the molecular structure of water before it reaches crops. It reduces the size of water molecule clusters, and in doing so improves the dissolution and hydration of any mineral or organic matter in the water, leading to better homogenization and better distribution of the minerals in the water. The plant can then absorb what it needs in the proper proportions and soils stay moist for longer.

Animation: How AQUA4D® saves water while increasin...



Who are your typical customers?

