

Water technology Advancing rapidly

Technological advances are now almost a daily occurrence and it is no longer uncommon for a new technology or innovation to fundamentally change our way of life in a very short period of time.

And yet, the original thinker is rarely popular because he/she tends to shatter preconceived ideas and opinions.

The moment an original idea is put forth, which veers from the orthodox those entrenched in office feel threatened and feel their reputations are at stake, so they close ranks.

'It can't be done,' they protest, 'or someone would have thought of it before,' and a dozen cogent reasons are advanced against it.

One finds this attitude in every branch of science, industry, medicine and politics.

However, these setbacks do not stop forward-thinking entrepreneurs who steadily work toward educating and demonstrating life-saving technology to governments and individuals – think about the tenacity of the scientists, technicians and physicians who gave us the Cochlea implant.

Sound waves have incredible power and can be put to infinite uses with very little energy being spent.

In the early 1930s sound waves, above the limits of human audibility, were used to mix oil and water into a homogeneous liquid, and mercury and water, which had never been mixed before, into a dirty-looking emulsion.

Dr Rudolph Pohlmann of the Berlin Institute announced at the time that high-frequency sound had uses in medicine.

Pohlmann and others working in the same field discovered that germs, which resisted boiling, freezing and pasteurising, succumbed to radiation of high-frequency waves.

In chemical experiments ultrasonic waves act as a catalyst and can break down starch into dextrin, generate acetylene from vegetable oils, break apart some substances and combine others.

The early pioneers were amazed at the tricks they could play with their new toy.

They could make water appear to boil violently without the temperature rising above that of the room, and cause liquid to hump itself into a hillock and defy gravity.

They made chips of wood burst into flames without applying heat to them, and crumbled glass into powder.

There seemed to be no limit to their new found power and over the last 80 years it has been refined and expanded for use in many fields.

In the past seven years one relevant innovation from enterprising South Australian company Hydrosmart International Pty. Ltd., is integrating modern technology with early twentieth century theories of resonance frequencies (sound vibrations) to tackle the present day need for clean, affordable and chemical free solutions to the water supply.

“The utilisation of low cost, low energy technology to provide clean water over the next decade will become paramount and see a fast revolution in the acceptance of new ideas and proposals to address the issues.”

This technology has the ability to resolve most of the water related issues we currently face, such as algae build-up, hard water scaling, odours, contaminated bilge/ballast water from ships and salinity to name but a few.

The potential benefits for the environment are therefore unprecedented.

All of this is achievable without the need for filters, chemicals or high-energy costs by a process that adds nothing to the water other than resonance frequencies.

This produces high-quality water supplies by rendering the contaminants, minerals and chemicals contained in water, non-reactive and causing them to revert to tiny particles that do not present any operational problems.

Sound frequency technology has a variety of commercial applications such as in desalination plants whereby sodium chloride is converted to free chlorine, which eliminates high salt content being pumped back into the sea that could, over time, affect the marine environment.

The technology also has huge potential for the mining industry such as resolving issues in process water, tailing dams, truck washing, salinity, and operational issues like corrosion and scale build up.

Presently the Hydrosmart technology is being utilised successfully in the mining industry at a truck washing plant at the Baal Bone Colliery near Katoomba and a second facility in the Hunter Valley, NSW.

“The water there was causing corrosion problems and we understand this is no longer the case,” Hydrosmart’s managing director Paul Pearce said.

“Algae issues in dams can be resolved if a sufficient amount of treatment is applied and our experience thus far on a multitude of first-hand applications, is that plants, animals and aquatic life subjected to high salinity problems in wetlands

and waterways are extremely healthy and breed freely.”

The technology can also be successfully applied to eliminate pollution from storm water run-off, improving water clarity and controlling algae problems.

All the desired effects of this new technology have been achieved in commercial operations as well as in scientific trials.

The utilisation of low cost, low energy technology to provide clean water over the next decade will become paramount and see a fast revolution in the acceptance of new ideas and proposals to address the issues.

Whyalla cannot afford to dismiss new ideas at this stage in our growth.

We have the opportunity to be innovative and lead the way into the

future for the betterment of our city and residents.

We need to ‘keep an open mind’ and look at the benefits new technology can bring to industry and development so our city can become a fore-runner in combining advanced science and progress, which will showcase us as the most ‘forward thinking’ city in South Australia.

Embracing new innovations

Joshua at the battle of Jericho knew it. The mighty Roman Army knew it. Opera singers know it, too.

They know that sound vibration interrupts the molecular structure of stone, wood and glass to the point of its being broken down, which causes disintegration.

Twentieth century science has experimented with frequency resonance to eliminate bug infestation on crops with great success.

Surgeons now use it to eliminate kidney stones, cut and fuse bones and in many other surgical procedures.

With a storehouse of history and experimentation behind them some of the latest advances in particle physics research has been incorporated into the smart science of frequency resonance, which has been applied to the immediate water crisis.

The problems facing agriculture and animal farming in today’s water management is fundamental to the continued survival of our planet.

One specialist commented recently, “... we don’t have a water crisis, we have a water management crisis and we need to take a radically different view of how we manage this resource in the future”.

If we are to continue to raise crops and animals, supply the growing population’s water needs, keep our waterways from drying up and to develop and sustain our industries

then we need to take this comment seriously.

Resonance frequency is a multi-talented technology effective on all water supplies (town, rain or bore) and has immense potential for not only commercial and industrial application but also for the individual household.

Unlike most technologies that offer environmental benefits this new approach of using resonance frequencies does not carry the hefty financial penalties that usually accompany the implementation of environmentally sustainable wastewater remediation.

This is because the application is cheaper than any of the technologies that it replaces, has negligible running costs, no maintenance requirements and resolves water related problems very effectively, and achieves the desired beneficial outcomes without adding anything to the water.

However, the question remains ‘can the technology be matched to the requirement?’

We, as a society and a community, can benefit from this truly innovative approach to our water problems and provide a better outcome for the coming generations through the acknowledgement that the future is here now and it is up to us to embrace it.