Embedding water in corporate business strategy

In 2011, Ecolab and Nalco merged to become the global leader in water, hygiene and energy services and technologies. The merged company puts sustainability at the core of its purpose.

Emilio Tenuta, Ecolab's vice president of sustainability, will join the discussion panel on Corporate Water *at the BlueTech Forum on 1 June 2016. As a preview to BlueTech Forum, CEO Paul O'Callaghan recently chatted with Emilio about the issues arising from making large companies treat water and energy sustainability seriously.*

Paul O'Callaghan: What are the risks facing industrial water users that indicate they should be taking water more seriously?

Emilio Tenuta: Three risk factors are starting to emerge. First, as water becomes increasingly scarce, companies face physical risks associated with water quantity and quality. The second is regulatory risk – when water becomes scarce, there is increased pressure to introduce regulation to regulate water use, as we see happening in water scarce regions such as California and São Paolo, Brazil. Ultimately, pressure on limited fresh water supplies leads to reputational risk and if you are a large multinational company with a big brand, the risk your water use has on your reputation is something you have to manage every day.

So companies are beginning to embed water stewardship in their operations. How are they doing this?

There has been a shift in the way water is valued and we feel that our customers, especially large multinationals, are not only developing public goals around water, but they are also developing internal metrics around the material risk water poses to their operations. Water is a resource, but it has to be aligned with other business risk factors in order to come together as part of a corporate strategy; it is no longer seen as an isolated aspect of the business.

You have told me previously that when Ecolab looks at a corporate water use, it uses a Total Plant Assessment. Can you tell us something about that?

At Ecolab, we have an approach called Total Plant Assessment (TPA) where we look at a facility holistically. Before innovative water reduction strategies can be considered, we first need to measure and understand the baseline. There are a number of variables in any operation, so you have to understand how the entire operation works to deliver process consistency: when we can assess the quality of water coming into the plant, the hydraulics as it goes through the facility, the water and energy dynamics and, ultimately, once the water has served its purpose, the effluent and wastewater treatment.

It sounds as though you are using a much more sophisticated approach rather than just viewing the inlet water and wastewater as just a simple input and output. You seem to be getting closer within the process to identifying opportunities upstream.

Correct! This process not only uncovers opportunity for efficiencies throughout the process, it also enables waste to be seen more as a resource. It enables water users to reduce dependency on fresh water coming in and look at other alternatives including ways to recycle and reuse water.

With regard to productivity, I've heard you use the term 'license to grow'. Could you explain that idea?

Water has become increasingly scarce and of variable quality, but our customers still have business growth objectives. We take an approach called 'license to grow', where we monetize the risk. We have created a publically available tool, the Water Risk Monetizer (WRM), that lets companies analyse their facilities' risk factors, prioritise facilities in locations of greatest water scarcity risk and assign a value to water reduction projects by modeling the fuller value of water up and above the market price today. Typically, if projects have both water and energy components, they will meet the internal rate of return. However, there are a lot of projects that lead to pure water conservation, making it hard to make the financial case for investment based on cost savings along. It is very difficult, when water is priced so cheaply, to

really move the needle on water reduction. The WRM looks at other benefits water is providing for the facility and provides relevant financial information to really drive decisions and action.

Is one of those benefits a partnership approach for water use?

It is important to engage subject matter experts to understand the way water is used in a specific industry. For example, we have experts that understand the amounts of water and energy that go into the papermaking process, specifically. I believe there is an opportunity to cross-pollinate and take learning from one sector and share it across others.

I'm also interested in how Ecolab looks for solutions. I know some of those would be partnering but some would also involve in-house innovations.

Water scarcity forces us to think about the problem differently. For example, in a beverage plant, there are a lot of conveyors moving the product. The lubricants used in that process require a significant amount of water, so we created a product called DryExx, which requires 90 percent less water than traditional wet lubricants. That is the kind of innovation we need to really move the needle on water reduction. We have to come up with new ideas on how to manage water differently, but also have less dependence upon it as we begin to innovate with less and less water.

Looking forward to the next 10 years, what changes do you anticipate in technology for dealing with water?

There is a lot of talk about the demand for desalination, and while the technology has improved and is more economical, we all know that the unit cost of desalination is much higher than the unit cost to recover post-treatment. The future really holds an opportunity to reuse and recycle water more efficiently. In the US we are only recycling and reusing 5 to 10 percent of the water we use today. We need to change the way we value and think about water so wastewater is no longer a waste; it is a resource. Maybe a better term is post-treatment water.

What is the value of participating in an event like BlueTech Forum for you?

The knowledge, information and insight I get from this conference are invaluable. To me, BlueTech Forum is an example of the industry coming together, not only to understand challenges, but being proactive. I can really learn how others are managing their facilities and delivering best practice.

Emilio Tenuta's 30-year tenure at Ecolab includes 25 years of technical and marketing management experience in various industries including food & beverage, pharmaceutical, hospitality, healthcare, primary metals and automotive. He will be one of the speakers on a high-powered panel of industry executives exploring the theme of how water innovation can help to mitigate corporate water risk.

This ties in with the overall theme for BlueTech Forum this year: *20:20 Vision - insights to future proof your water strategy*, which will feature *Innovation Case Studies* describing real life practical examples of how innovation can deliver value for municipal and industrial clients.