"Replacing pipes is not the answer to the water efficiency issue"

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With severe water shortages impacting many Latin American countries, throwing costly potable water away through leaking pipes seems like a bad idea. But that's just what many countries are doing, as leaking pipes and illegal connections lead to water loss rates of well over 30% in most of the region.
While some utilities are spending big to replace old pipelines, the process is costly and highly disruptive to city infrastructure. Global water solutions provider Miya offers a cost-effective answer, using new software and pressure management techniques that will minimize the amount of pipes that have to be replaced.
The company recently won an US$83mn contract with the Bahamas' Water and Sewerage Corporation (WSC) to maximize the efficiency of its water systems. The initiative aims to halve the leakage of potable water, currently estimated at 50%.

BNamericas spoke with Miya chairman Meir Wietchner to find out more about the Bahamas project, the company's operations in Latin America and the Caribbean, and the potential for water efficiency projects in the region.

BNamericas: When do you expect to get started on the Bahamas project?

Wietchner: The official starting date will be April 2 but we are working as we speak to get our staff on the ground and set up the office.
We signed everything, including all the official ceremonies, last Friday, so we're good to go - it's just a matter of logistics and getting the people in place. We are relocating some people and are hiring people in the Bahamas, as we want to help the community participate in the project.

BNamericas: What kind of solution is Miya offering?

Wietchner: We're bringing a very unique solution. Most companies concentrate on a more traditional method of fixing the water efficiency issue, whereas we bring something very fresh. We are going to replace less equipment and use less capex. The financial returns are quite quick and our footprint is much lower compared with other plans.
Our client realizes that after years of investment in replacing pipelines, he cannot do it alone anymore, as the results were not satisfactory. Just replacing pipes is not the answer to the water

efficiency issue. Globally, if you look at the amount of pipes that need to be replaced in the traditional way, there isn't enough money in the monetary system to support it.

BNamericas: Can you tell us about the technology you'll be using?

Wietchner: What we are developing with the client is a framework for how to reduce non-revenue water or how to increase water efficiency. We're introducing new methods of pressure management, new methods of dividing and building the network, and we're taking a lot of know-how from the IT world and implementing it to end up with a more advanced water system. It's a very unique software system.
We're doing everything very precisely in terms of pressure management, locating the exact pipe that is leaking and selectively choosing what to fix and what not to fix according to our methodology.
In this specific case we are even allowing the system to increase the pressure, not decrease it, to win back all the customers who have deserted the system in the past because it was performing poorly. Part of the project is to win back all those customers and that will help with our client's financial return.

BNamericas: Do you have experience implementing similar solutions elsewhere?

Wietchner: We've gained a lot of experience with this exact methodology. We've done it in Brazil, we're doing it in the Philippines, and in South Africa as well.
As an example, in Manila we are halfway through the project, which is already saving 150Mgl (570Ml) of water per day.
In Honduras, we're also carrying out a project with the World Bank; we're doing the proof of concept there. It's a smaller project but it's the same methodology.

BNamericas: Where are you working in Honduras, and what stage is that project at?

Wietchner: It's in Tegucigalpa, the capital. We are in the analysis stage. The project will last for about 30 months, again in two stages. The first six months will involve all the engineering studies and designs, and the next stage is the actual implementation.
The design stage is critical, as this is a really strategic point where we and the client can really evaluate what needs to be done. The traditional way is to go in shovel first, replacing hundreds of miles of pipes, which doesn't bring the solution that we want to get to.

BNamericas: Where else are you working in Latin America?

Wietchner: The biggest place we're working is in Brazil, where [São Paulo state water utility] Sabesp is our main client. We're currently managing the reduction of Sabesp's water losses from 25% to 13%. The project is serving 26mn people in the state of São Paulo. Capex is around 1bn reais per annum, and about 50% of that is going to the water efficiency project. They put a lot of emphasis on that.
As you know, Brazil is one of the world's most developed markets in this area, and we're considered a big player here - we have around 35% of the market.

BNamericas: Do you see a lot of potential for water efficiency projects in Latin America and the Caribbean?

Wietchner: Yes, we see a lot of potential. Unfortunately the average rate of water loss in the region is higher than the rest of the world. Even countries that are rich in water must deal with efficiency, because water losses cost billions of dollars every year.
There are also a lot of energy costs associated with lost water, and a lot of pumping - today the number one energy consumers are water utilities. If you consider that you're losing more than half of your water - and in some areas water losses are at more than 60% - you begin to understand how much money you can save, and the huge potential we are looking at.

BNamericas: Are you looking to get into any particular countries in the region right now?

Wietchner: In terms of immediate targets, we are now working in Colombia, which has a lot of opportunities, and in Chile and in other Caribbean islands.

BNamericas: What are the main challenges you've come across when working in Latin America?

Wietchner: The main challenge today is always financing. We have a very compelling business case and technical solution. The main issue is that most of the water utilities lack the budget to start the project, so the big challenge is how to bring in the international financing institutions and banks.
The issue with these water efficiency projects is that nothing is visible - it's all underground. You don't have a shiny building that you can cut a ribbon on. So at a political level it's very difficult to understand.
We also create a lot of assets that are considered by the banking system as non-tangible, and I think one of the biggest turning points in the Bahamas project was that IDB realized that there is actually a lot of value created in the project, so the bank was willing to finance over US$50mn.
I think we have cracked the paradigm. We are working with different international financial institutions all over the world and we are investing a lot of time in education, explaining that 30% of the world's water is being lost and not many utilities are doing anything about it.

BNamericas: You talk a lot about water efficiency and cutting water losses. Would you say they're essentially the same?

Wietchner: We are really trying to move the talk towards water efficiency rather than losses. We believe that there is an abundance of water in the world, but it's being mismanaged. Of course you hear these doomsday predictions that people will not have any water in the future, but we believe we can overcome the problem by treating and managing water in an efficient way.
We are trying to make a very positive impact, helping people understand how to use water more efficiently. It's not just the system that makes a difference, it's also the consumers.