Digital Transformation in Water: The 9 Key Success Factors

How to ensure the success and sustainability of your utility's Digital Transformation

Foreword

Climate change, urban population growth, aging infrastructure, budgetary constraints and increasing regulatory pressure are some of the many challenges US water utilities face. Utility executives are forced to address them in creative and cost-effective ways. Today, deploying technologies like IoT, blockchain, big data or artificial intelligence appears to be a no brainer if organizations are to remain competitive. In fact, most utilities have already started their digital transformation journeys in one way or another. When doing so, they should never forget a key dimension that will determine the success of the entire journey: their people.

As NACWA's 'Smart Utility Task Force' analyzed, there is no doubt about how the digital utility of the future will look. The question is how to get there. In an industry where retirement and talent attraction remain one of the top challenges, organizations must find ways to navigating this transformation and breaking with the old ways of doing things. In other words, they need to ensure that new technologies are not only implemented, but also operationalized and executed successfully. As an example, The US Bureau of Labor Statistics estimated that 8.2 percent of existing water operators will need to be replaced annually between 2016 and 2026 (see 'Water but no Workers').

Coming from one of the most innovative water utilities in Europe, Global Omnium – where we completed the digital transformation of a 3,000+ employee organization – and having supported water utilities globally along their digital transformations in the last 15 years, we identified nine success factors common to all of them.
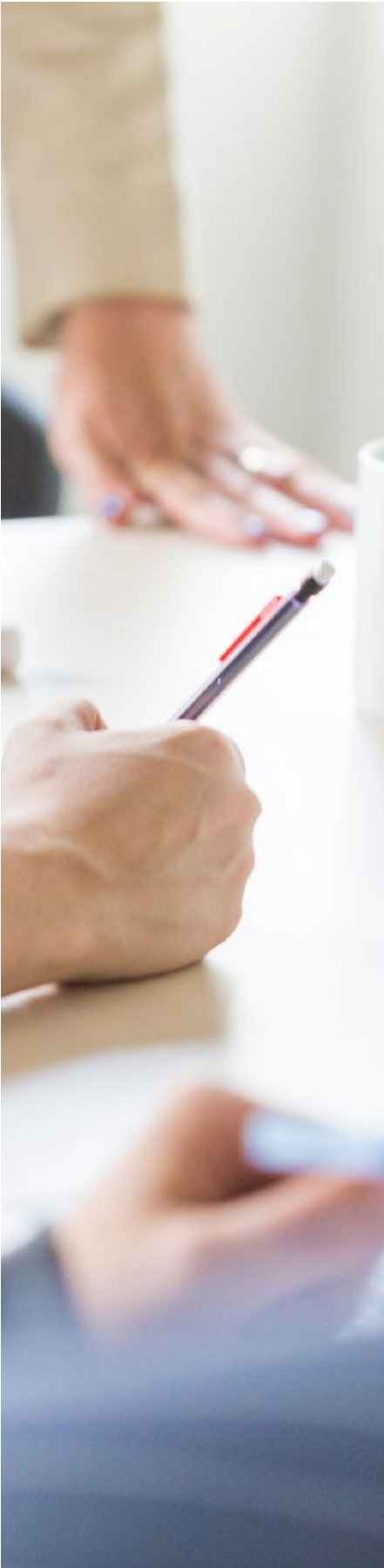
9 Key Success Factors for Digital Transformation

1. Always involve the Top Management

Not only with declarations and general intentions, but with direct and continuous participation in the process. "I see my leaders behaving differently"

2. Have a Communication Plan from day 0

Have a compelling story to tell the whole organization. This includes not only developing the story (i.e., mission, vision, and values), but also delivering it successfully. "I understand what is being asked of me and it makes sense".

3. Identify key Champions within the Organization

They will be opinion shapers and the success of the transformation will depend on their degree of followership.

When Global Omnium started its digital transformation, the CEO organized an internal innovation competition. Anyone in the organization could participate by suggesting disruptive ideas for the transformation. If their idea was selected, employees had the chance of leading their own projects.

4. Identify Laggards and Stoppers

Inertia typically makes part of the organization reactive to change. Transformation leaders should make extra efforts in identifying those people opposing the change and getting them involved in the results of the transformation from the beginning.

5. Train and Upgrade your People

Talent upgrading includes developing your own staff (on-the-job development and training), and in some cases hiring the right people. "I have the skills to behave in the new ways".

When the City of Valencia (Spain) decided to deploy AMI for the entire population (2008), they selected all front-line employees (call center and customer service) to be the firsts clients trying the new technology. They also created an internal competition to minimize water consumption amongst them. This allowed these employees to learn about the benefits of AMI from the perspective of the client, and be prepared for all possible questions they would face from clients.

6. Define the right Targets, Metrics, and Processes

The change must be measurable during the transformation, management and business processes should be aligned with the new ways. "I see that our structures and processes support the changes we want to achieve"

7. Leverage a powerful Technology Platform

Technology will not be the center of the transformation, but it could make it fail easily. Having a data-centric platform that allows the utility to break informational silos is a must.

After completing a full-scale IoT deployment in 300+ systems, Global Omnium decided to break with the old IT and start a whole new data-centric architecture. This implied leaving behind more than 4 years of developments and a large investment in technology. However, it allowed them to easily break informational silos and unlock all value out of distributed data. Today, this platform is collecting and managing more than 6 Bn data points / year and is supporting one of the only Operating Digital Twins globally.

8. Prepare for Maintenance

The transformation does not end after the implementation of new tools and processes. It is a constant improvement process that needs for the maintenance, evolution and adaptation of the new management infrastructure.

9. Phase the project

Although the digital transformation affects the entire organization, the implementation should be carried out in phases, making sure reasonable intermediate goals can be achieved. This will reinforce the commitment of the organization and guarantee success of the journey.

The upgrade of Global Omnium's IT Architecture could have been carried out by the IT Department independently. However, they decided to break down deliverables in small pieces, and made sure Operations could see the benefits from day 1. This generated a collaboration environment that would not have been possible otherwise.

About GoAigua

GoAigua is a pioneering tech company providing software analytics solutionsin the IoT space for water utilities.

GoAigua was born out of the digital transformation of Global Omnium, one of the most innovative water utilities in Europe Our goal is to help water utilities globally navigate their digital transformation journey and unlock all potential from their distributed data by creating connected utilities.

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