

COMMENT

To build the utility of the future, we need to get digitisation 'basics' right



With a wealth of digital management solutions available, utilities can be overwhelmed with data points but unable to use them. Streamlining is key to future-proofing operations, advises David Lynch, CEO at Klir.

In just a few decades, utility leaders have witnessed a massive transformation from analogue, hardwired, pen and paper systems to ones that increasingly depend on digital technologies. Today even tiny, underfunded rural utilities with no IT budget depend on mobile data networks, smartphones and networked computers to organise, plan and execute their work.

But while we've made some progress towards reaping the fruits of the digital revolution to power our water systems, when I talk to utility leaders there is a shared sense that the transformation feels incomplete.

Although it's true that things like digital forms, email and dashboards have decreased the amount of clutter on our

physical desktops, it's all too common that the clutter has simply moved onto our digital desktops. Step into any utility administration building today and you'll see what I mean: overloaded digital spreadsheets have replaced physical logbooks, and text files and long email threads containing crucial operational information have replaced physical calendars and post-its.

In some cases, the clutter is worse than it was in the pre-digital past. It isn't unusual today to find large utilities that use multiple apps—say, two different kinds of accounting software, or different fleet management solutions at different facilities—for the same function.

Getting work done in this environment can be difficult, especially if you're on the administrative side of things and need information from multiple departments to get the job done. Speaking to compliance leaders and general managers for Klir's recently-published whitepaper, 'Building the Utility of the Future,' we found many struggling with this exact problem.

One compliance manager we spoke to tried using a single spreadsheet to manage project deadlines for 300 different construction projects. Another manager at a newly-amalgamated utility had to consolidate and reconcile more than a thousand different permits, one by one. This doesn't feel like a digitally transformed world.

What does this all mean for utilities? Firstly, it confirms something we've suspected for a long time at Klir: that many water utilities are struggling with digitisation 'basics,' and they won't be able to move forward with their ambitious 20-year strategies before they get them right.

This wouldn't be nearly as concerning if it weren't for the fact that airtight data management and staying on top of compliance is going to become more important in the future, rather than less. Take for example resource recovery: as more utilities pursue ambitious biosolids and recycled water projects, trust in the quality of those resources is going to become paramount. As the US EPA and states make big strides to tackle issues like PFAS, lead service lines, drought and increasing pressure on

water systems, keeping up with regulations is only going to become a downright impossible process using existing tools.

So how can utilities decrease the margin of error and build trust in their data? It all comes back to those basics: building a single source of truth and certainty around their data. This starts with the foundational data, such as water quality and effluent compliance.

While it's popular to blame silos for these data problems, the iceberg might offer a better analogy. Some crucial data might be visible at the surface, but a vast majority of the most valuable information is below the water line, hidden from view and ready to cause problems. Getting rid of data icebergs and utilising operational data for insights will be crucial for bringing utilities into the digital age properly.

Based on our experience from dozens of successful digital transformation implementations at water utilities, the ideal starting or 'entry' point for these kinds of initiatives are compliance departments, which lay claim to data from virtually every other department in the course of their work.

Wrangling water quality, effluent and permit data into a workable system and empowering compliance managers with better software tools might seem like a purely administrative project at first glance. When you appreciate how central compliance data is to the operation of every aspect of a water utility, it becomes clear that doing so could turn out to be the most important step utilities take in their digital transformation journey.

We aren't short on data: on the contrary, utilities are drowning in it. Taming and consolidating it is the first step towards a truly digitised water utility, one that's prepared for every challenge—and opportunity—that comes its way.

Klir offers a SaaS-based management platform allowing utilities to ensure constant regulatory compliance. Insights such as water quality outcomes and permit compliance are available on-demand in a single dashboard. ■

BELOW THE ICEBERG

Optimising hidden data is crucial to ensuring utilities are well-positioned for future growth.

Critical data accessible on the surface

- Effluent compliance data
- Water consumption data
- Water quality data
- Billing data
- Permit information

Valuable data hidden within systems. Key to unlocking insights but difficult to access efficiently.

Source: Klir