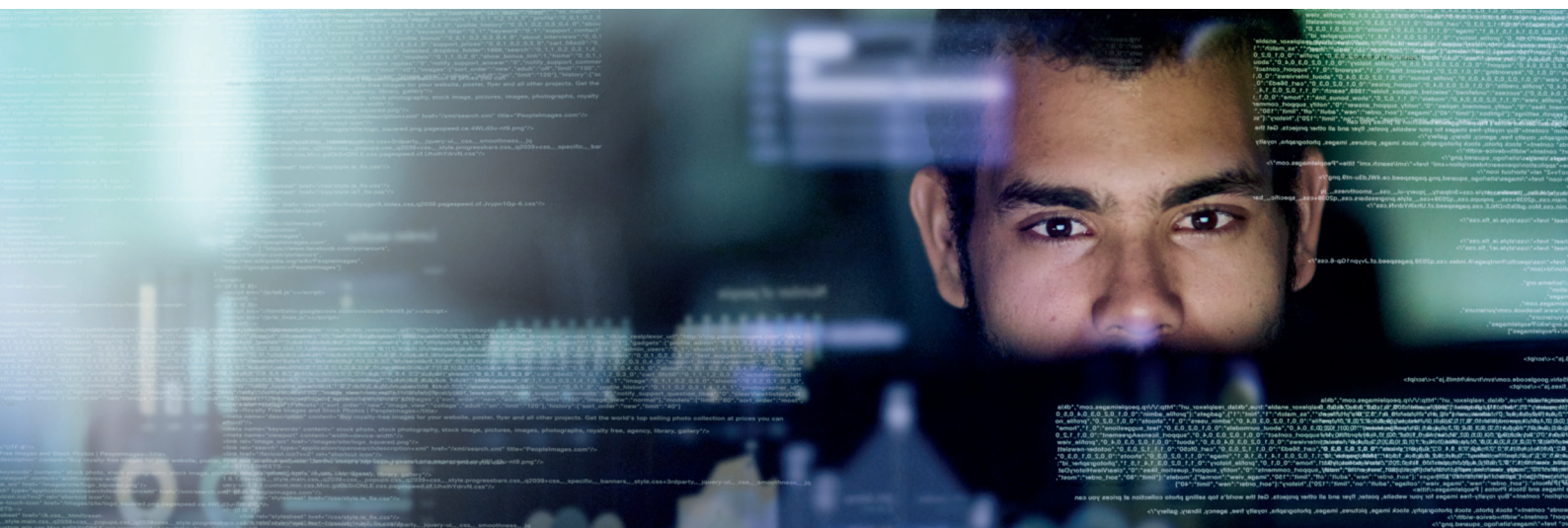


Digitalisation – buzz or business?

By Steen Schelle Jensen, Head of Product Management at Kamstrup



As the district heating industry continues to evolve, utilities face not only new opportunities but also new challenges that increase the complexity and number of decisions they have to make every day. This development calls for digitalisation of everything from technologies to workflows and analytics to support utilities in all they do – but can the promise of all things digital deliver?

For decades, utilities have been fine tuning operations and processes based on the knowledge available combined with gut feeling and traditional theory. This has made district heating the success story it is today. However, decreasing revenues, increased competition and new regulatory frameworks on the way towards 4th generation district heating mean that utilities must both reduce costs and improve efficiency to be able to further develop their business in the future.

For many utilities, prospering in this new landscape will require not only a different and digital approach to all parts of their business but also a changed mindset. In return, those willing to make that switch will be able to stay ahead of the curve and reap the benefits of digitalisation rather than experience the digital disruption seen in other industries.

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The digital (r)evolution

Essentially, digitalisation of district heating is about connecting the need for increased efficiency and optimisation with the opportunities made available by recent technological developments. Frequent data from intelligent meters and sensors form the very foundation for the digital utility while automated meter reading systems and advanced analytics enable the monitoring, analysis and planning necessary in the digital transformation facing the utility of the future.

It is, however, important to keep in mind that digitalisation is not a goal in itself – if it were, it *would* be just a buzzword. Also, digitalisation is about much more than connecting a number of sensors and devices to the Internet. Quantum leaps made within smart metering have made it possible for utilities to get more frequent and accurate data, but data in itself is old news. Only when digitalisation is used as a means to achieve specific results does it become the transformative force that can take district heating utilities to the next level.



It's not the data – it's what you do with it

Opportunities for data-based improvement are present throughout the entire value chain from energy production and distribution to administration, end-user services and consumption – but nowhere is the potential greater than the operations optimisation for utilities themselves. From navigating primarily on the basis of assumption, digital utilities are able to make their decisions and adapt all aspects of their business based on detailed real-time knowledge directly from their network.

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In addition to lowering operation costs and improving the quality of service and customer satisfaction, some of the most relevant application areas for smart metering include monitoring of the distribution network to observe temperature levels, identify losses and detect leakages. Frequent meter data also enable identification of faulty or misadjusted substations, so that utilities can proactively contact and help end users. In addition, utilities can use information from the network to shape peak demand in order to better utilise the capacity in the existing infrastructure, improve asset management and to evaluate the energy performance of buildings based on heat response and basic weather information.

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Amidst the opportunities that come with the digitalisation of the utility's core processes, also lies an untapped potential: adopting a business model that includes new targeted consumer services as an alternative revenue source and a way to deepen customer relations. These could include billing schemes based on flexibility instead of overall energy consumption, consulting services based specifically on behaviour or property type. Utilities could maybe even provide the service of managing the substations or maintaining a certain temperature in the end user's living room.

Next-level district heating

Despite all of its potential, digitalisation in district heating will not happen on its own accord. It will take the joint efforts and high ambitions of technology suppliers, industry players and, most importantly, utilities to find out how to best use cutting-edge technology to put into play the data available and bring it to life – no matter what you call it.

Think forward

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