

INFRASTRUCTURE & DESIGN

An effective user interface for wastewater sensing technology

Design in innovation insight series:
nuron & Uscreates



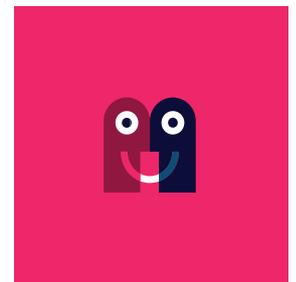
Working
ACROSS DISCIPLINES

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Working
EARLY STAGE

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Benefit
GLUE FOR
COLLABORATION



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“We always planned to build a user interface, but never in such detail. Most of our thinking was wrapped up in the technology. Uscreates showed us we needed to focus on the user journey to bring water companies on board with the transformation the data can have on the industry. Without talking to them directly we would have created something that didn’t meet their needs. We listened first and found out their requirements, rather than designing a service that wasn’t their top priority.”

Louise Keogh, Commercial Manager,
nuron

NURON Live data for wastewater operators

Having identified the current pressures on wastewater systems in the UK, nuron devised a sensing technology that allows the monitoring of wastewater flow in real-time. This means the management of the sewer networks can happen predictively and proactively, rather than operators always responding to the challenges of their system. Louise Keogh, Commercial Manager at nuron, explains that once they understood the pain point for wastewater companies nuron could have strategic conversations with them on how real-time, dense data will enable the transformation the industry is looking for. This is where Uscreates and the Design Foundations funding came in. By teaming up with a service design company like Uscreates, Keogh says they were able to develop a more sophisticated user-interface prototype than they previously thought possible.

Early stage - understanding problems

Keogh elaborates on the challenge nuron faces in bringing game-changing distributed sensor solutions to a new industry, “When we went to the water companies the initial reaction was, why do we need more data? It became clear that providing useful information, not just a lot of data, is the key to our success.” Keogh says her team’s experience of working with Uscreates and the human-centered design process was hugely rewarding.

“Uscreates worked with us for four months going through a process of interviews, co-design and prototyping. Their approach was to interview as many water companies and data users in the industry as possible, on how they already use data, to better understand their problems and where nuron could help. Based on this information we were then able

to design a user interface that responded directly to those conversations. By building relationships in the industry through careful listening, we were then in a position to arrange meetings with key people to show them the prototype.”

Across Disciplines - build relationships

Keogh and the nuron team were impressed by the way Uscreates communicated their findings. “We were amazed by how they visualised what we were saying about the technology and what the customers were saying about their challenges.” Keogh continues, “They were able to clearly articulate that our product is unique in its ability to continuously monitor sewer systems in real-time. The co-design process with our customers was also very interesting to witness. I could see that we were inspiring them. We were asking them to believe it is possible to go from reactive to proactive management and we did this by putting their needs at the centre of the whole process. I hope this gained us trust and respect. We will definitely be using the user-centered design approach in our business going forward.”

Design in innovation

Thanks to increased awareness about the benefits of human-centered design, more businesses want to bring designers on board in the early stages of innovation. Too often, however, companies struggle with finding or justifying the budget required for such a collaboration. Through the Innovate UK Design Foundations programme in 2017 £4 million of funding was awarded to 93 businesses of varying sizes. The objective was helping businesses work with designers to identify innovation opportunities and find viable routes to market. This insight series selects several of those projects to highlight a variety of design approaches.



“A sewer nervous system with a game changing user interface and user experience, that also provides the infrastructure for smart cities and 5G.”

This project was glue for collaboration through:

- Defined user journeys
- New human-centred skills
- Industry relationships

