



# UTILITIES

DEFINING THE UNIVERSE OF ROBOTICS AND AI

AUTOMATION FOR ORGANISATIONS

## 1. OBJECTIVE

The aim of this study case is to present findings about Magnus in Utilities industry, especially in Water Consumption (a) to allow the respective users, to collect data with respect to their consumption, and benchmark it with other families (b) allow people to actively manage their consumption.



The water utilities industry is quickly evolving to meet the demands of a dynamic, highly deregulated and competitive market. Climate changes are generating water shortages and altering flood patterns. Global warming is giving rise to extreme weather conditions causing urban water supplies to dry down. Infrastructure issues and droughts only add to these concerns. Performing long-term impact assessments and managing ecosystems to monitor resource extraction, industrial use, and consumption are no longer optional.





### **Artificial Intelligence for Risk Modeling, Risk Assessment & Rehabilitation**

Artificial intelligence (AI) self-learning techniques are used by water utilities to assess and resolve equipment-related issues, including those in the pipeline

### **Uses of blockchain technology in reshaping Utilities businesses**

It can provide additional efficiency and security, and may even completely disrupt the entire industry. Blockchain technology turns out to be of similar interest in the utilities business. Utilities and banks are alike in the way they are centralized, heavily regulated structures with complex processes. Utilities are a favorable environment for the deployment of blockchain technology.

### **AI and Blockchain**

1. AI can sort through the massive amounts of data that we are now collecting and generate some real, actionable intelligence – or better, automate activity. This requires deeper integrations with other systems – like SCADA and CIS systems – but the potential is massive.

2. Blockchain can help us create new ledger and trading systems for water data. Leveraging the ledger and smart contracts, we can reduce the friction associated with trust and sharing of the data. I truly believe it can help mitigate the potential implications we have seen in IoT systems that may otherwise be prone to getting hacked.

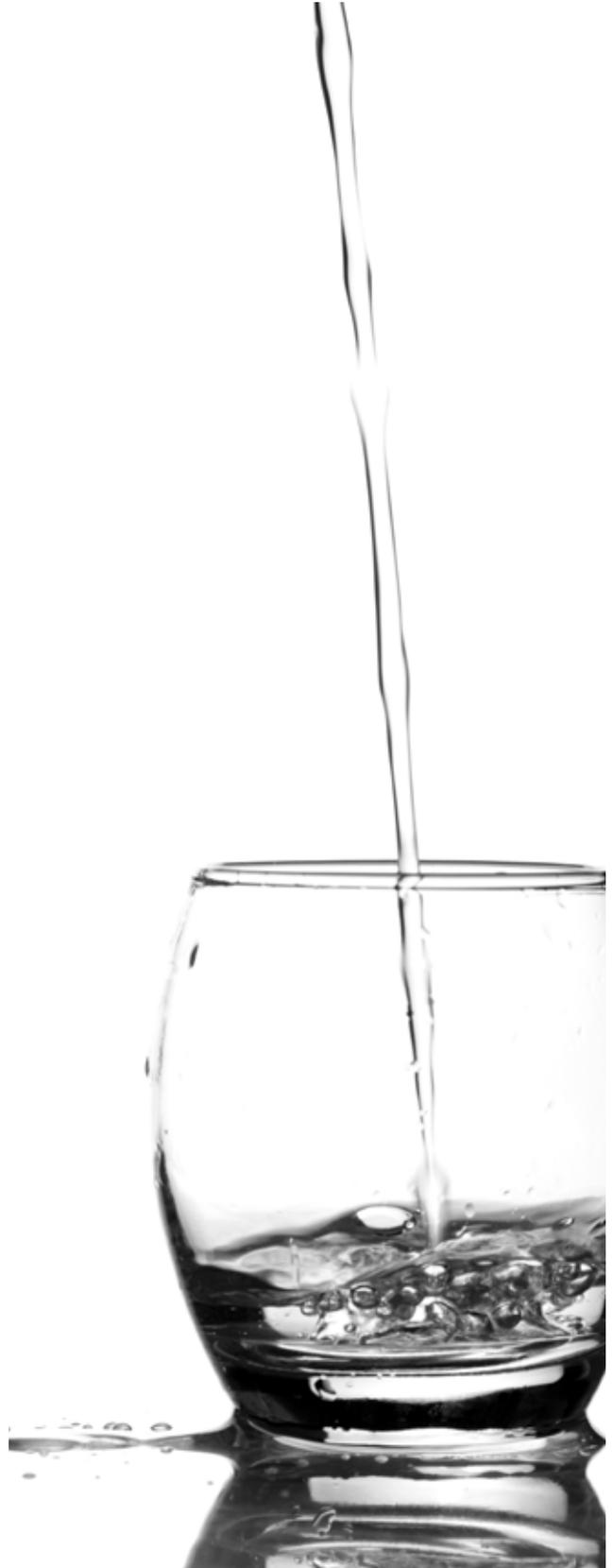
### Role of Magnus in Water Consumption (Utilities)

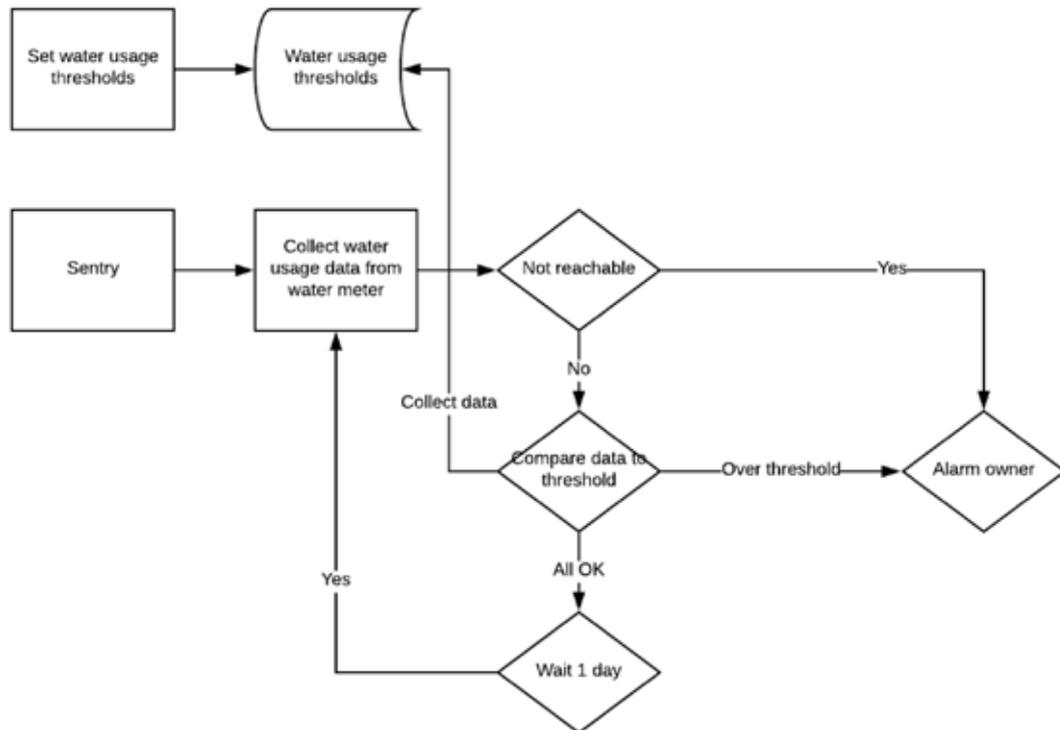
A house owner sets up the smart water meter to notify him in case his water usage is going over a certain threshold per month.

For 6 months, no notifications are received by the owner.

In the 7th month, on day 8, he receives a notification that his water usage has exceeded his monthly threshold.

Upon further investigation, he finds out that the water supply to his garden irrigation system has broken, and gets it fixed.





5.

