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**Preparation for the procurement of network information systems for small and medium sized water utilities**

# It is like Tinder but for Water Utilities!

**By Daniel Builes and Riku Kyllönen**

Our project began as the preparation for the procurement of network information systems (NIS) for small and medium sized water utilities. The primary goal was to evaluate the current state of water utilities regarding Network Information Systems, how the water utilities collect the information and storage it, what is the process decision making and what challenges or advantages are identified whether a NIS is used or not. Implementing and developing NIS is particularly relevant when thinking about future development and optimizing operations of water utilities. Procuring the NIS can also reduce water loss and enhance service reliability.

Our study was conducted gathering information through interviewing experts in the topic. A total of six interviews were conducted: One with a consultant from Ramboll, two with software providers Keypro and Trimble, and three interviews with water utilities, Hyvinkää Vesi and Porvoon Vesi water. Based on these interviews we concluded that information regarding water networks is often incomplete, inaccurate or out of date and NIS can help with this problem.

A key finding was that Network Information Systems are better for big and middle size water utilities. Challenges for small water utilities seemed to be price and lack of resources, because small water utilities can be operated even by just one person. Solutions for this problem could be that small water utility could have shared license of NIS with bigger water utility. This would help with the resource and pricing problem. We also found out that education and training for workers is needed when procuring the NIS.

An idea was born during this process: consulting companies like Ramboll can develop strategies to perfectly match the needs of water utilities with NIS software providers. This matching process can be based on specifications, preferred features, customer service,

cybersecurity, and continuous improvement. For example, Porvoon Vesi has been using Keypro for about 10 years. However, some challenges were highlighted during the interview, particularly the difficulty in making changes to the input data, as noted by Eero Autio from Porvoon water utility, in this particular case, NIS provider should develop flexible solutions and build strong relationships with their customers. NIS can help utilities in many ways depending on the needs of the water utilities, and we can help them to find the best available option in the market.

In conclusion, this work can be used as a supportive guideline when procuring the NIS for water utilities using the concept of finding a perfect match.