How to improve the VEETI system?

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Introduction

Did you know over 300 water utilities in Finland broke the law in 2023? Believe it or not, that really is the case, as all of Finland's over 1100 water utilities were legally bound to submit yearly data related to their water service system to the so called VEETI system, but almost one third of them failed to do so. VEETI system is a centralized information system developed by the Finnish Environment Institute, which stores water services data related to e.g. network condition, customer amount and billing.

The data in the VEETI system is openly accessible for all the water sector stakeholders as well as for the general public, but the questionable usability of the system together with at times low quality of the data is a serious problem. That's why we in this blog post discuss the flaws with the VEETI system and offer concrete improvement suggestions. Problems are however not only related to the

system itself, which is why the support mechanisms to the water utilities are discussed, as well as the improvements needed to the usage of the data. We sincerely believe that improvements to the VEETI support would in the future support the Finnish water services system as a whole!

Problems with VEETI system

While VEETI system was constructed to understand better how Finnish water utilities are doing, its implementation faces some challenges. These issues not only hinder water utility compliance but also limit the broader utility and reliability of the system. Four most significant problems with the VEETI system are listed below.

1. Public accessibility

One of the core principles behind the VEETI system is the open access to water services data. However, in practice, public accessibility remains limited. The user interface is unintuitive and difficult to navigate, especially for non-experts. As a result, public awareness of VEETI remains low despite its potential value. Also, the data is hard to find by search engines like Google, making it difficult for stakeholders or curious citizens to even find the system, let alone use it effectively.

2. Incomplete data reporting

VEETI should have data that covers the whole Finland, but in reality, data submission rates are inconsistent. Only 10% of utilities submitted their 2024 yearly data by the deadline in 1st of May. Especially smaller utilities often fail to submit the required data, either due to lack of resources, motivation, or understanding of the legal obligations. This problem is made worse by underutilization of VEETI since many of the utilities don't think they get value in submitting the data.

3. Integration challenges with data analysis tools

The data from VEETI is available in many formats, such as .xml, .csv and .tiff. However, the exported data has formatting and has many interrupting sum and average rows which make the data analysis difficult. This might be especially frustrating for users not so familiar with data analysis, who should be the primary target group of the VEETI system.

4. Data quality and Consistency

Even when the data is submitted, its quality might be questionable. Water utilities report in varied formats, and the system currently lacks sufficient validation mechanisms to catch unit errors or inconsistencies. As an example of this, there is no clear way of knowing if empty cell is just unsubmitted data or if it's just not relevant information from the water utility. The absence of data filtering or standardization processes weakens trust in the system.

Suggestions

It's time to stop collecting data just for the sake of it and start making it work for the future of Finland's water services. To do that, the VEETI system needs a major upgrade. Improved structure

and layout added with consistent units would make a big difference. We also think that it is time to get rid of the empty cells for good.

But seriously, fixing the interface isn't enough. We need to boost the reliability of the data itself. That means introducing standardized data submission forms, better error-checking & reporting, and clear responsibility for data submission. Right now, many water utilities either don't report or do so inconsistently—despite being legally required to. Like, come on. At this rate, even the EU is probably going to fine us soon!

In addition to these fundamental and transformative changes, support mechanisms are needed. Especially smaller utilities need hands-on assistance and training, not just more demands. We also need to keep the system relevant with yearly summary reports shared with both utilities and the public. The scale of these improvements might seem huge, but they are doable if there is actual will.

Impacts of the VEETI upgrade

Developing the VEETI system would contribute significantly to the promotion of water services in Finland, and it could in the future even help in the achievement of the United Nation's Sustainable Development Goals. Digitalization is one of the core objectives of the national water services reform plan of Finland, and undoubtedly, VEETI system is both a diagnostic tool and a booster for this future-facing objective. Besides, increasing submission rate and data quality in VEETI system, coupled with user-friendly, visualized information flow amongst authorities, water utilities and the general public, more specific policies and strategies could be born in Finland, increasing the integrity of the water services sector.

Finnish water sector is constantly moving towards achieving the Sustainable Development Goals, but in its current form, the VEETI system might even cause more harm than benefit to the process. With major system upgrades however, the VEETI system could facilitate the process towards the SDG6 (Clean and sanitation), SDG11 (Sustainable cities and communities) and other relative SDGs. This kind of development trajectory could even inspire other countries to update their water services sector systems to a more sustainable, inclusive and efficient direction.

Conclusion

Improving VEETI system is not just a technical upgrade, it is a commitment to better governance, transparency, and sustainability in Finnish water services. Without reliable, accessible, and up to date data, decision making in water sector becomes uncertain and inefficient, making the management of water services systems difficult.

This project has shown that the current situation is far from ideal, but also that the path forward is clear. Upgrading the VEETI system, supporting smaller utilities, and making data truly usable are all realistic and impactful steps. With the right tools, training and key enablers including political

support, funding and education, Finland can not only meet its own water services goals but also set an example for other countries on how to build a smarter, more sustainable water future.

It is essential that water utilities receive the guidance and resources needed to meet data and reporting requirements. With a reliable VEETI system as their staff, they can move forward more confidently step by step towards a future that is more resilient. Investment to the VEETI upgrade is investment to the better future!