

1. What is expected of the system we are building in relation to what it should do and not do and what do you expect as an end result?

We expect the system to supervise data and connections between data so we are able to detect anomalies and normal operation and thereby be able to make only the necessary physical supervision.

So the solution shall supervise data and tell us when data is behaving inappropriately.

2. Should the system we plan to build be capable of interacting with other systems at Herning Vand? If so, what are your expectations of those interactions?

(We would like to know how the interaction works)

The solution shall not interact with our systems. Start by making a HTML-web page and then we can make the connection/interaction internally afterwards.

3. What kind of user interface should the system have?

HTML-web page which everyone can access.

4. Who are the users of this system and how many users should the system support?

It will mainly be Jan and a colleague – they will plan the necessary physical supervisions from the solution (opposite to now where the physical supervisions are made with fixed intervals not depending on the actual the need for supervision).

5. Should the system be capable of any communication such as intranet or local communication with other on-site systems?

(The internet is not being considered in this question)

No. If you develop at very good solution which we can gain from, then we will implement it into our Scada system.

6. What is the difference in how the data should be handled in case it originates from a waste water treatment plant versus a pumping station, if there is any? What would be the end goal?

No difference in how the data should be handled, but there the data will not be alike.

However, concentrate on data from pumping stations.

On WWTPs we already have a system for supervision.

The end goal is for us to have a solution that tells us when a physical supervision is necessary, and that is just before a breakdown. We aim to make only the exact number of physical supervisions that are necessary to keep up a sustainable operation. So the solution shall provide us with information on, based on data, when something is about to go wrong (anomaly detection).

7. Are datasets updated continuously and is there an API or database that we can access?

You will get access to data through our reporting system that will send the data directly to you.

We can make data-reports for example 1 time a day, or more.

You can get a test-data-report next week, when Jan is back from holiday. @Jan Ravn

PST will have data like, operation time, start level etc.

8. What should we expect as input to the system we are building? Are we getting input directly from the sensors or from another system?

(The example data set would help us with this question)

As mentioned above you will get data in reports directly from or system.

You can decide format, timeframe, interval and how

Format: word, excel (csv and tsv), Powerpoint, pdf, TIFF file, data feed, HTML 4.0.

Interval: Hourly, daily...

How: Mail, FTP-server

You decide

9. Where does Herning Vand deploy its systems?

We have a closed Scada system.