# Diagnosis of air handling units: a machine learning approach

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# Facing real life data

- Many journal papers use
  - *Simulation based data*
  - *ASHRAE-datasets*
- Real life data: issues to be solved
  - *Data availability + tagging*
  - *Data quality*
  - *Finding fault free datasets*
  - *Finding labelled fault datasets*

# Fault detection and diagnosis air handling units

Using a reference dataset, we trained a machine learning algorithm (classification).

The trained algorithm was used to evaluate new datasets (i.e. other air handling units).

Current workflow:

- Failure *detection* by the algorithm + first diagnosis

- In depth *diagnosis* by an expert

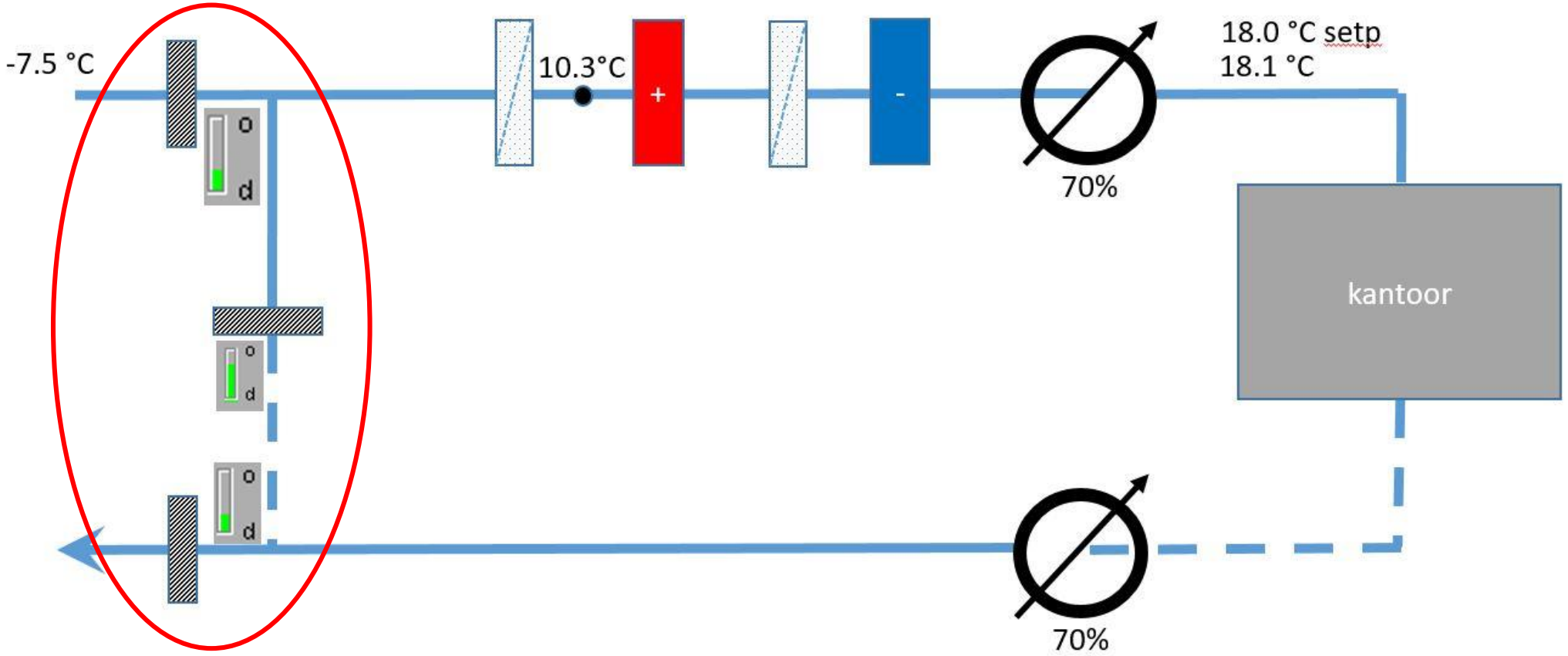
Next steps:

- Diagnosis using algorithms

Afbeelding: Designed by Freepik

# Data driven prediction

**Field inspection required**
**SOMETHING IS WRONG HERE**



# Field inspection

**Outcome:**
**Fire protection valve closed**