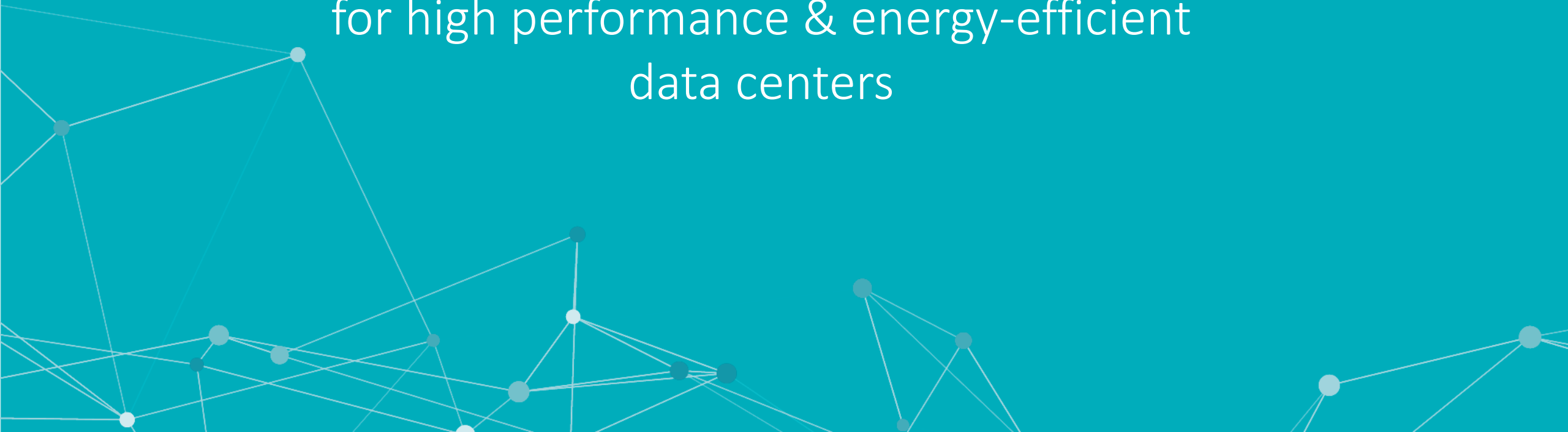


# Precision metering

for high performance & energy-efficient  
data centers



# Kamstrup produces high-quality smart meters

for measuring and optimising the consumption of electricity, heating, cooling and water.



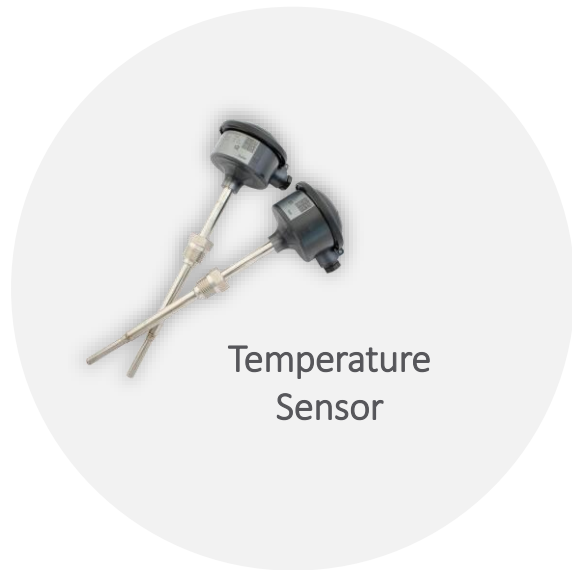
A black and white photograph of a man in a suit and glasses, viewed from the side, looking through a microscope. The scene is set in a laboratory or office with a grid of panels in the background. The image has a teal color overlay.

kamstrup

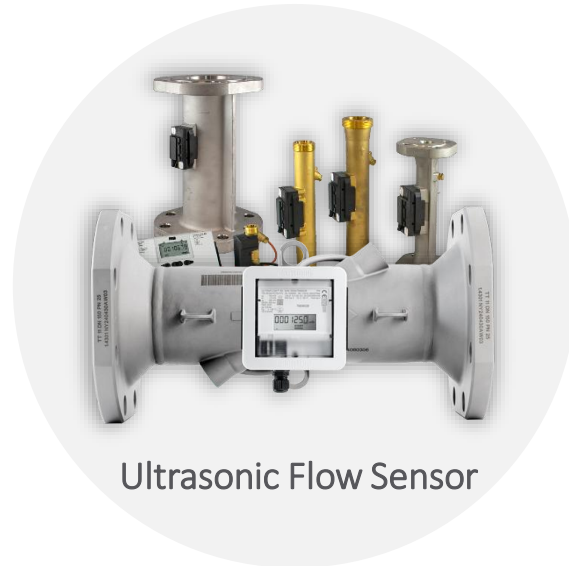
80

years  
dedicated  
to  
**quality**

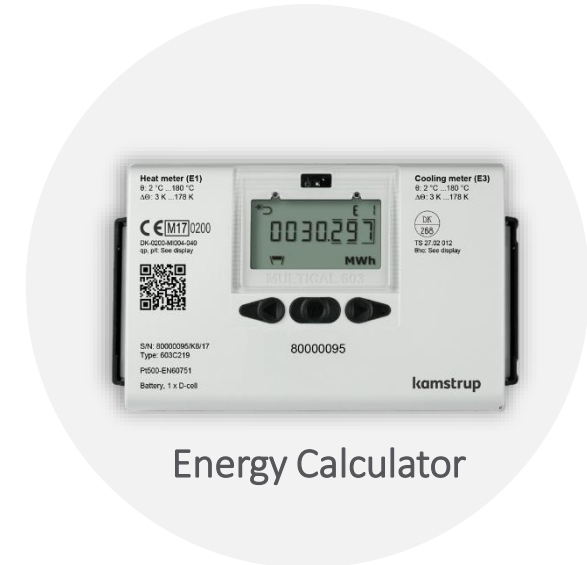
# Thermal Energy Metering



Temperature  
Sensor



Ultrasonic Flow Sensor



Energy Calculator

## Basic Specs

Size: DN15-DN300

Power: Battery or Mains

Communication:

- Modular
- *Wired*: Modbus, BACnet, M-Bus
- *Wireless*: wM-Bus, LoRaWAN

# Cut costs on liquid cooling

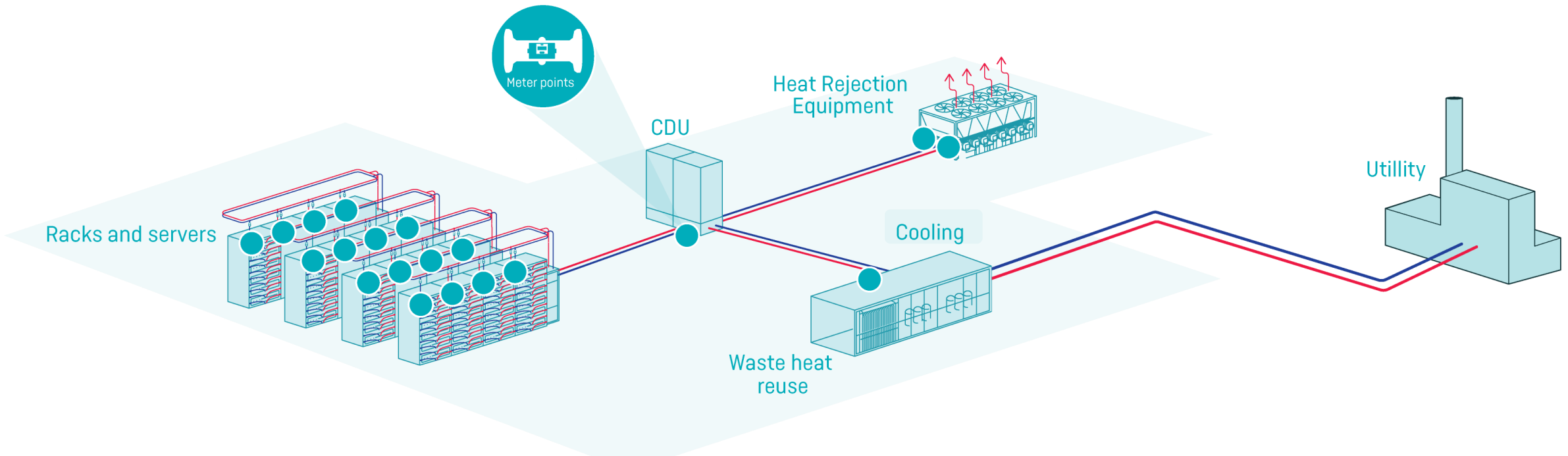
## Your Problem – Our Solution

### PROBLEM

- Cooling is one of the largest non-IT cost drivers in your operation
- Without data, energy optimisation can become a guesswork
- No visibility on hidden cost drivers: low- $\Delta T$  operation, bypassing, poor balancing or control drift

### SOLUTION

- Detect low  $\Delta T$  & increase billable computing hours – metering identifies the mismatch between flow and useful heat transfer; quantifies it and verifies your fixes.
- Predict hardware maintenance – control drift gradually de-optimizes your control system (*valves, pumps etc.*). Metering can reveal its effects.
- Reliability lowers maintenance costs – Kamstrup meters run 16+ years even on battery



# Utilise excess heat

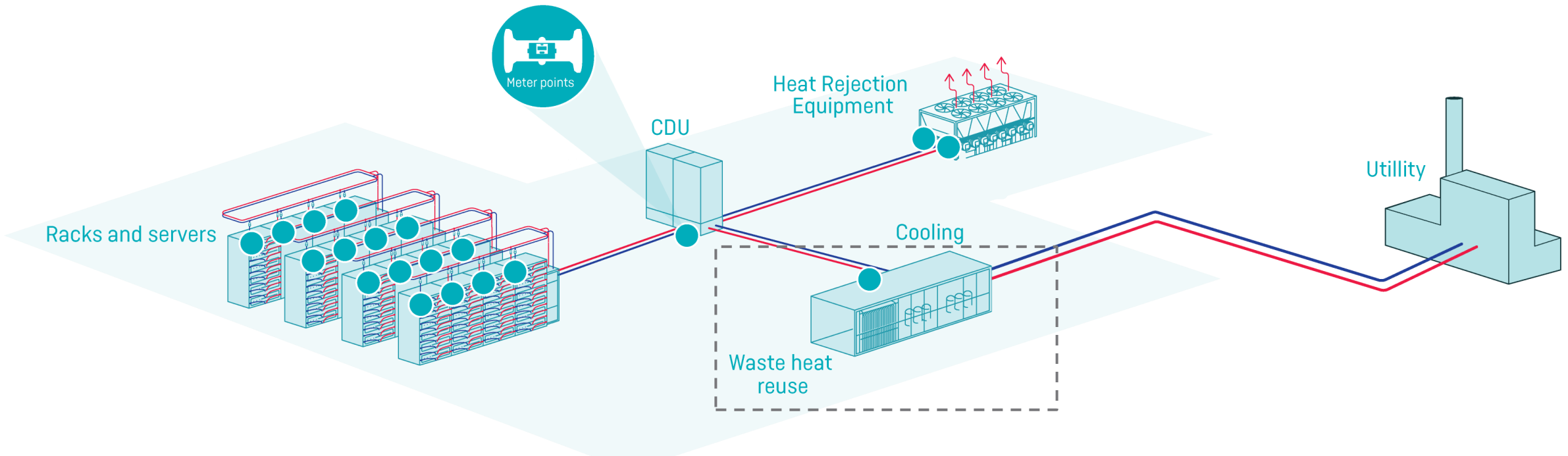
## Your Problem – Our Solution

### PROBLEM

Accurately demonstrating what has been fed into district heating systems or to nearby heat users

### SOLUTION

- **Established reputation** – Kamstrup has a proven track record with heat utilities
- **Show precisely how much heat has been exported** – for billing purposes or to show the benefit data centres have to a municipality



# Comply with reporting requirements

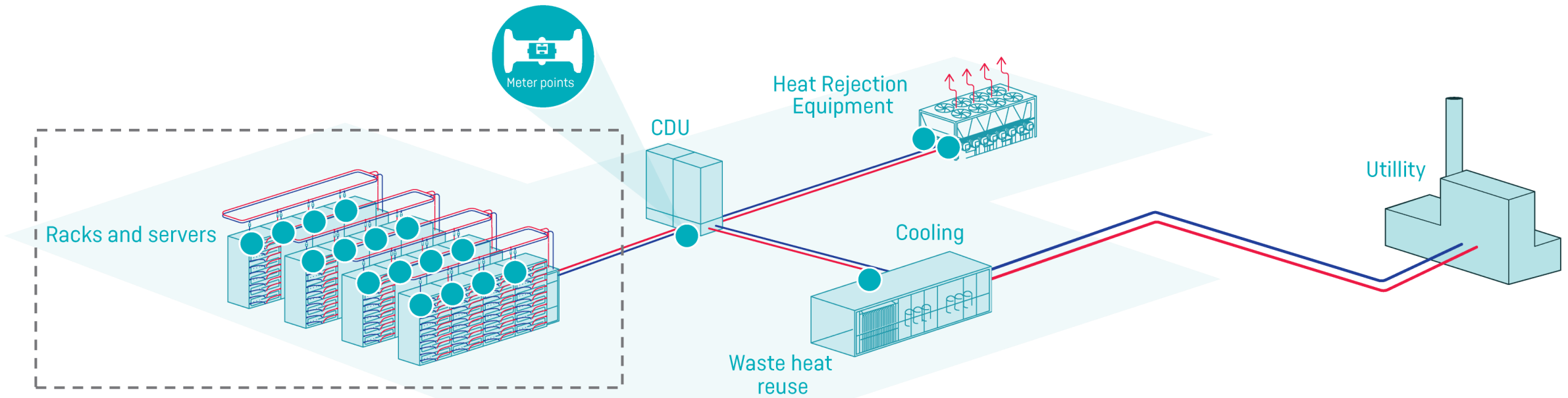
## Your Problem – Our Solution

### PROBLEM

- Legislations demand increasingly complex ESG reporting for compliance with EDD
- Tenants and investors also have consumption related reporting needs
- If sustainability is your differentiator, how do you prove it

### SOLUTION

- **Auditable consumption tracking** – Our meters provide continuous, auditable consumption records that are fully exportable
- **Secure Data Collection** – Kamstrup solutions grant secure & high-resolution data collection



# Allocate costs accurately

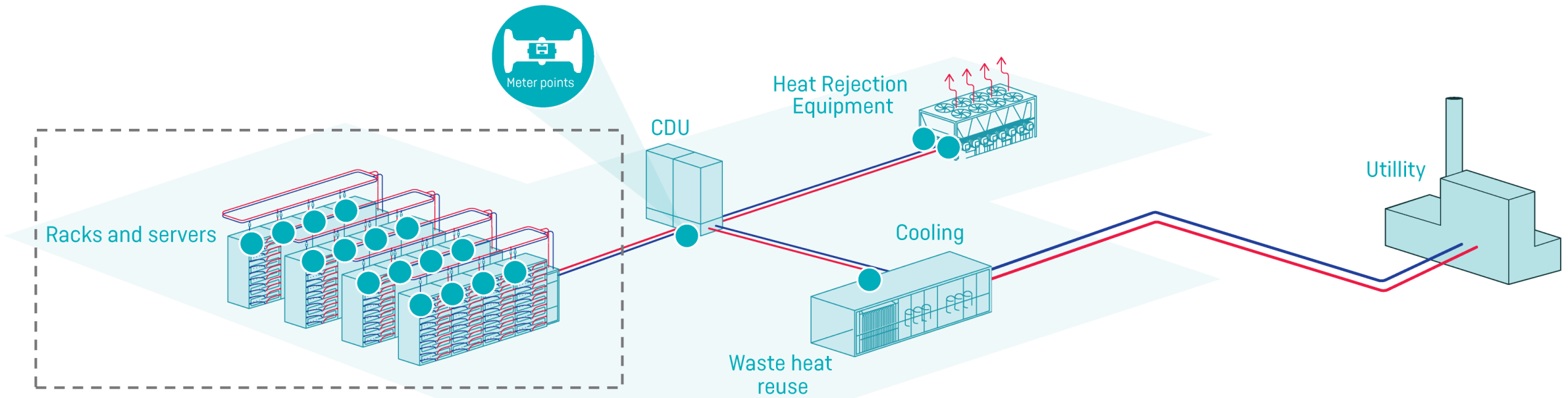
Your Problem – Our Solution

## PROBLEM

- Co-location tenants expect accurate billing based on actual cooling consumption

## SOLUTION

- Our MID approved meters provide tenant level consumption data – fair cost distribution, seamless integration with billing systems, proven reliability
- Kamstrup meters provide legally verified accuracy – supporting transparency, accountability and operational assurance in high-availability environments



# Thanks for your Attention!

Find us at booth #32 for more details

