



## Our mission

Make the world's buildings  
into ready and able  
inhabitants of the smart  
city.





ProptechOS is for property portfolio what  
Windows was for the PC.





# ProptechOS

The operating system for real estate owners

ProptechOS provides

**The best way to build and the easiest way to use proptech apps**

## Best way to build

- All real estate data available in a common format regardless of underlying system
- A standard API for accessing data and interacting with edge systems
- Rich useful digital twins of systems, buildings, people and processes.
- No vendor lock-in in either apps or edge integrations, RealEstateCore
- ProptechOS is developed by the founders and leading developers of RealEstateCore
- An SDK that ensures quick time-to-value for app developers
- Maintain control and ownership of all data

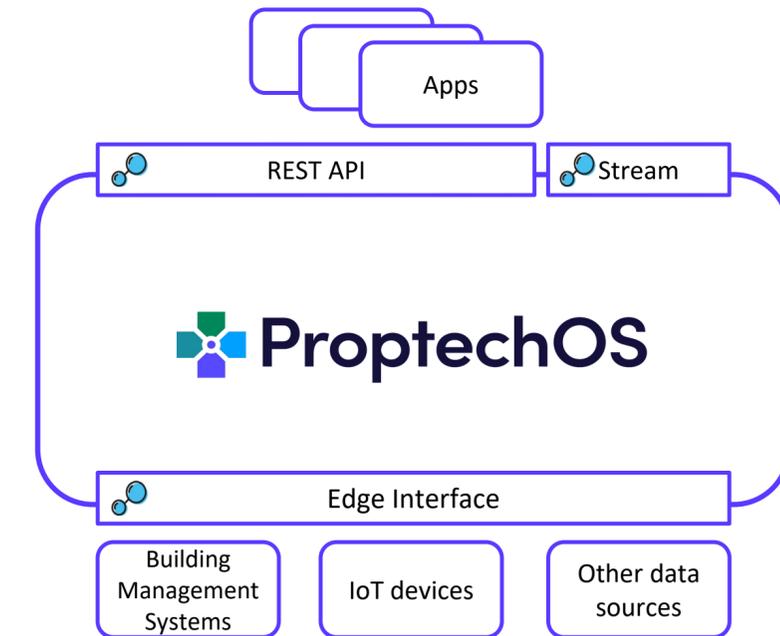
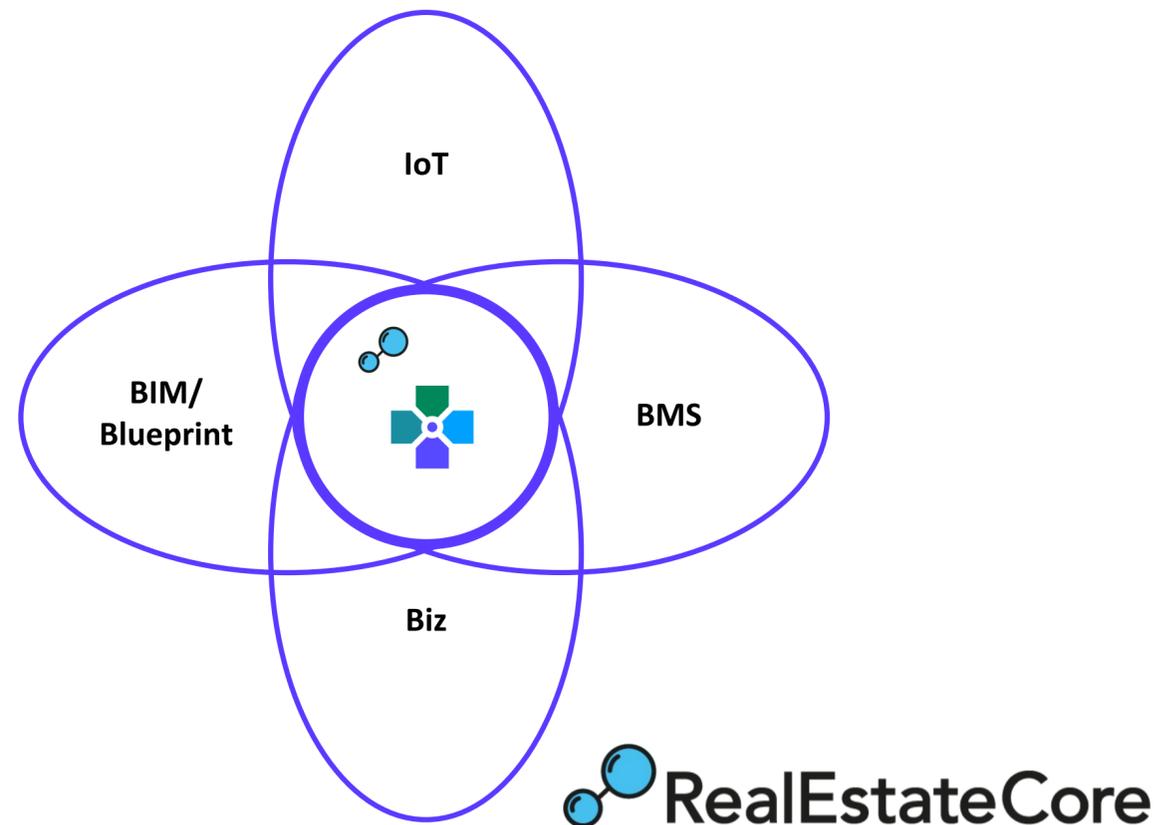
## Easiest way to use

- Apps that are ready to use
- Get value instead of starting integration
- Choose between apps to find your best match
- Gives true interoperability of apps – no empty promises of open-apis
- Sensor data can be used by multiple apps. Each new app does not need new hardware investment.
- Handle user access once instead of keeping multiple directories up to date
- Maintain control and ownership of all data
- Pay as you go



# ProptechOS is a RealEstateCore Digital Twins platform

- RealEstateCore is a model for combining information from the real estate disciplines of Building information, Device information from both BMS and IoT systems, as well as business data.
- ProptechOS and RealEstateCore are built on the idea that no single system or source of data can be as complete, accurate or useful as the combination of multiple sources.
- Collaborative Digital Twins – connect different systems using ontologies



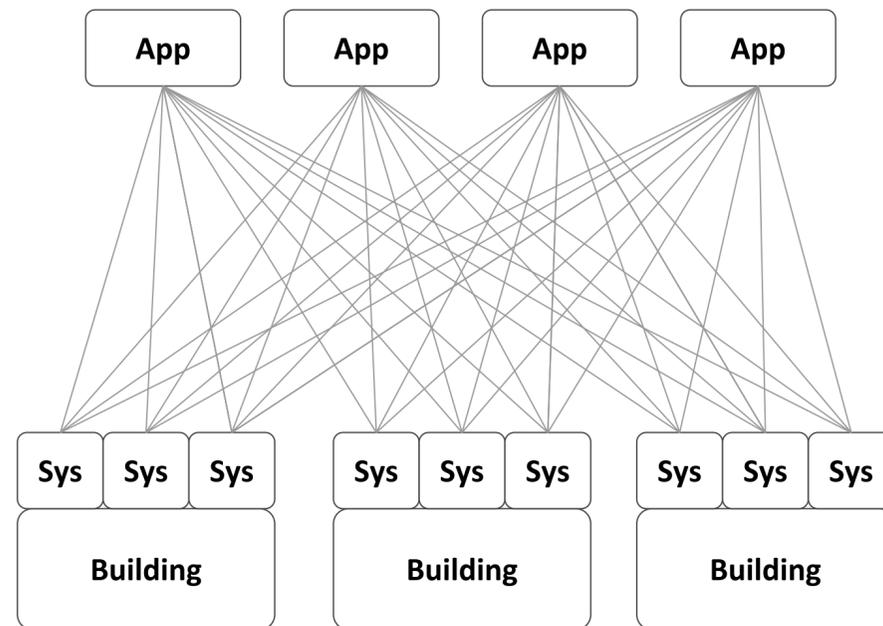
## Values

- Enable the business to drive innovation fast – implement and try out new applications cost efficiently
- Help to break sole supplier dependencies - Ready-to-use standard applications from RealEstateCore application suppliers with low cost and fast deployment
- A platform to solve practical problems and automate based on data – onboard and implement machine learning at scale
- Toolbox to implement ESG strategy

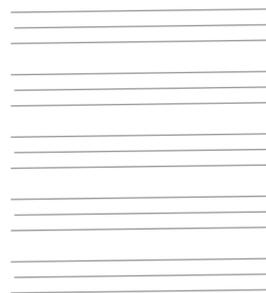


# Integration at portfolio scale

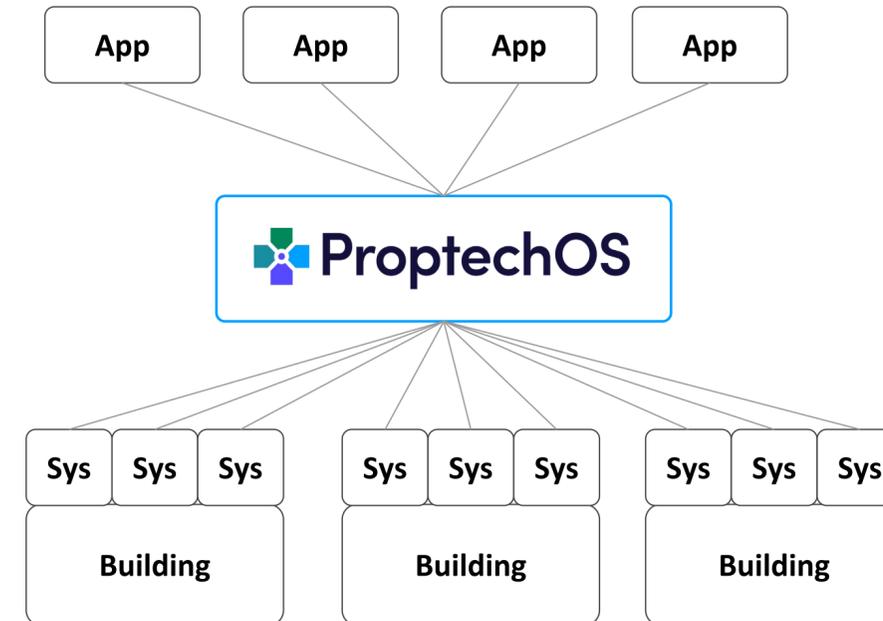
Integrations:  $Apps * Buildings * Systems = 15 * 200 * 5 = 15\ 000$



Thousand integrations



$Apps + Buildings * Systems = 15 + 200 * 5 = 1\ 015$



Thousand integrations



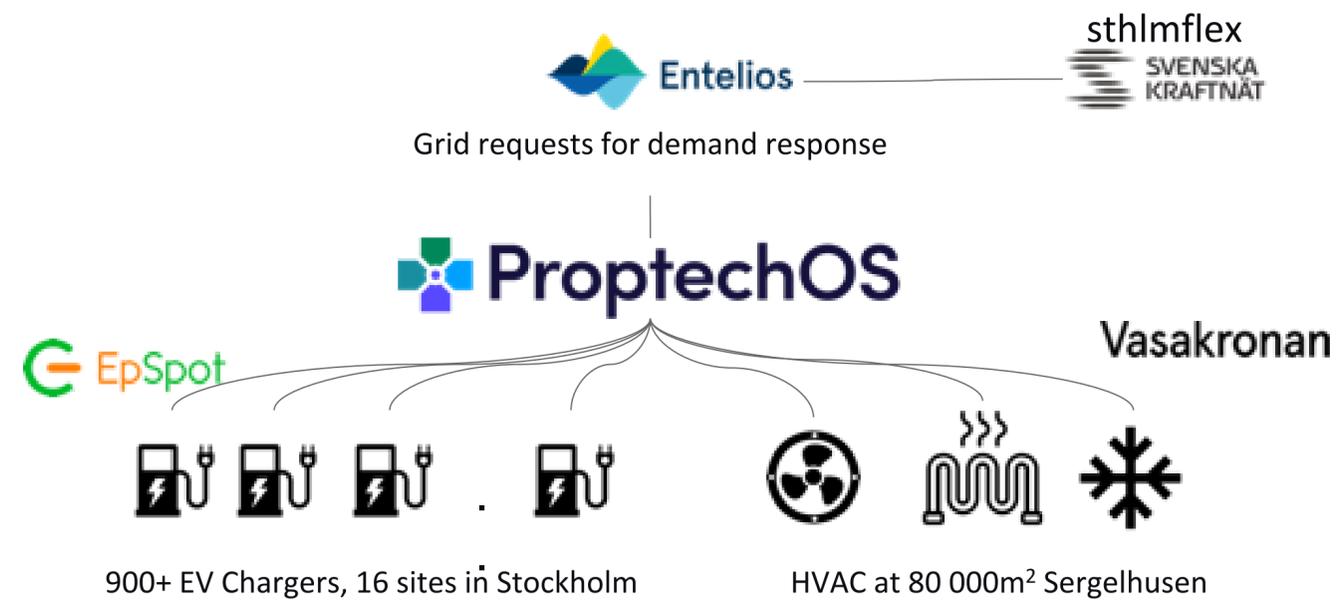
**New app:** 1 000 integrations  
**New system in a building:** 15 integrations  
**Refurbished room:** 15 - 750 integrations

1 integration  
 1 integration  
 1 integration



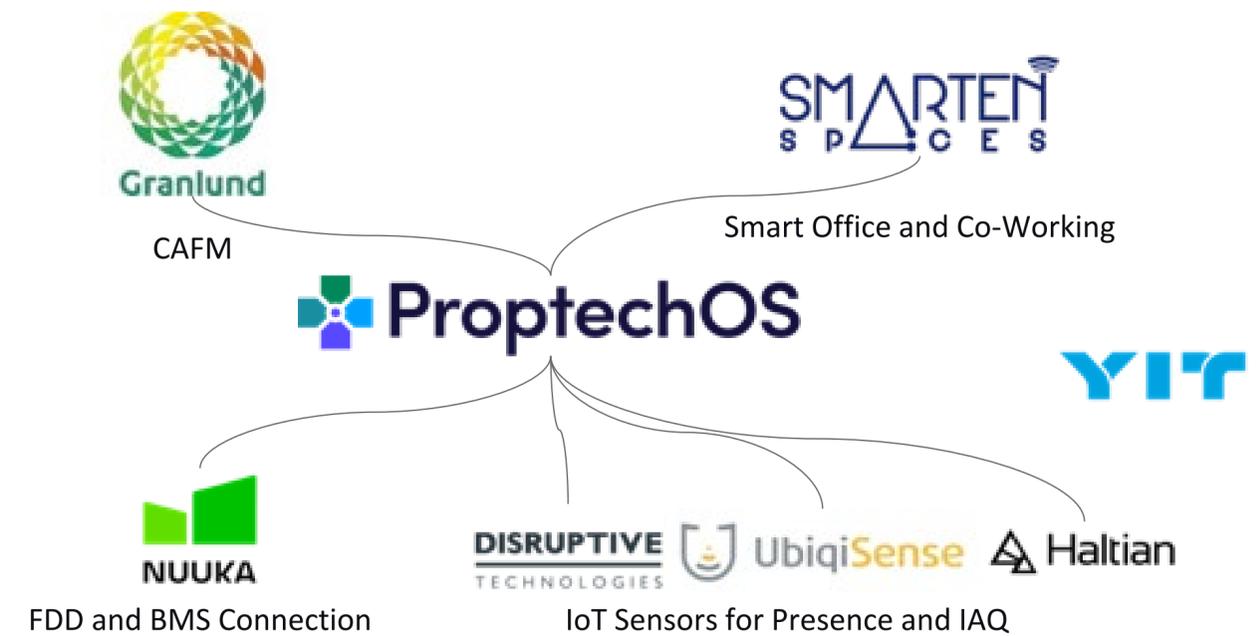
# Customer cases

## Vasakronan joins the supply side



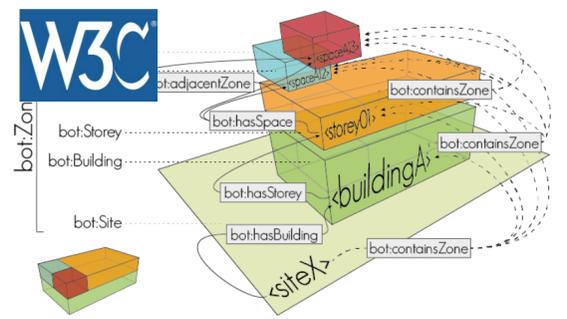
Vasakronan's array of EV chargers and the flagship property Sergelhusen participate in the Stockholm grid flexibility market with power demand response.  
(no hardware investments and no new device integrations)

## YIT wins Smartest Building Award



YIT's Vallila property is decorated by Smart Building Certification after empowering Smarten Spaces with a wide set of presence and IAQ sensors and empowering Granlund Manager with work orders via FDD in Nuuka and native ProptechOS alerts.

# Aligned with other leading global standards



**BOT: Building Topology Ontology**



## RealEstateCore



**Brick**  
A uniform metadata schema for buildings

## Azure Digital Twins



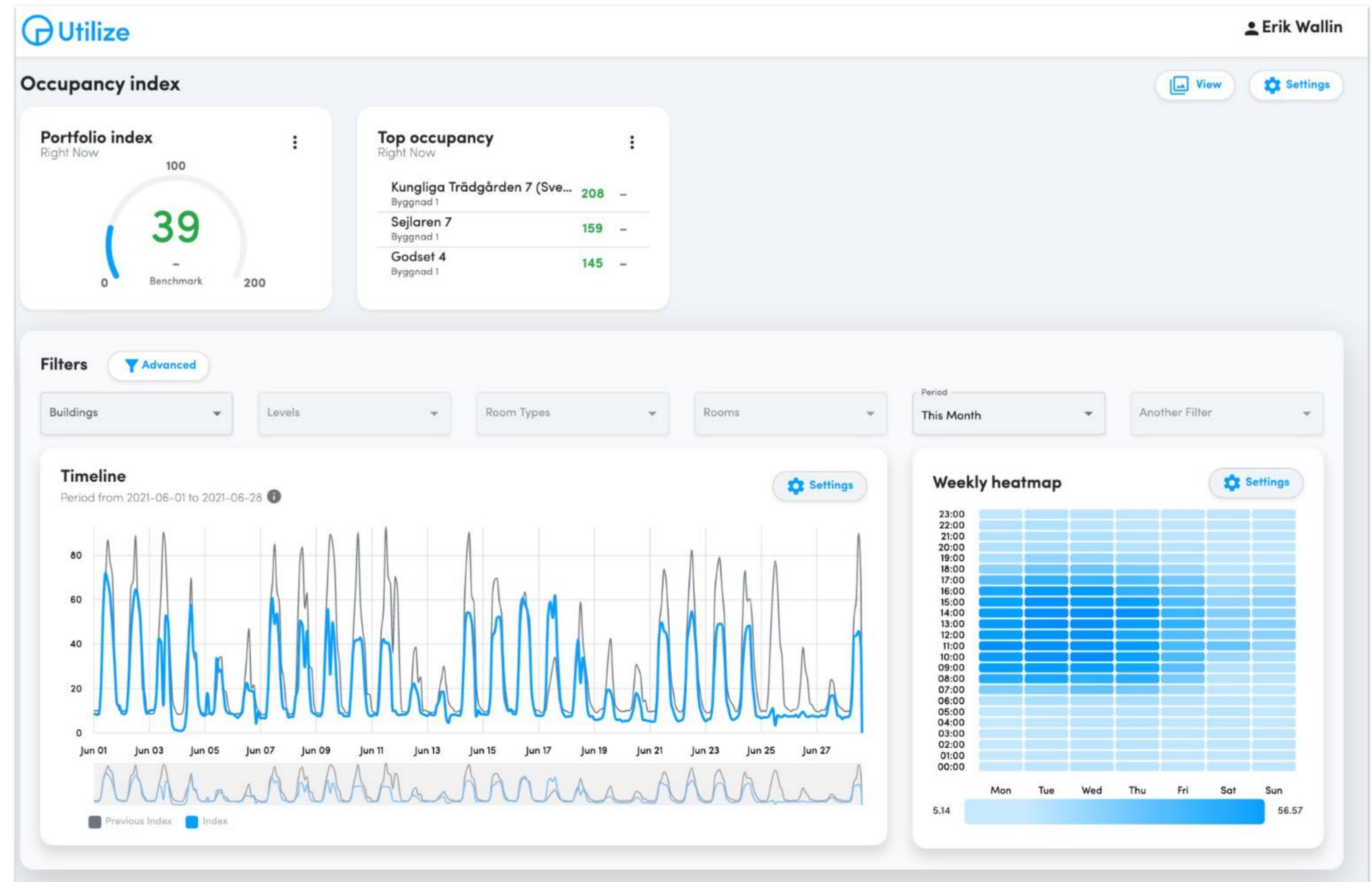
# Presence reports: Utilize

Insights into how tenants are using their premises

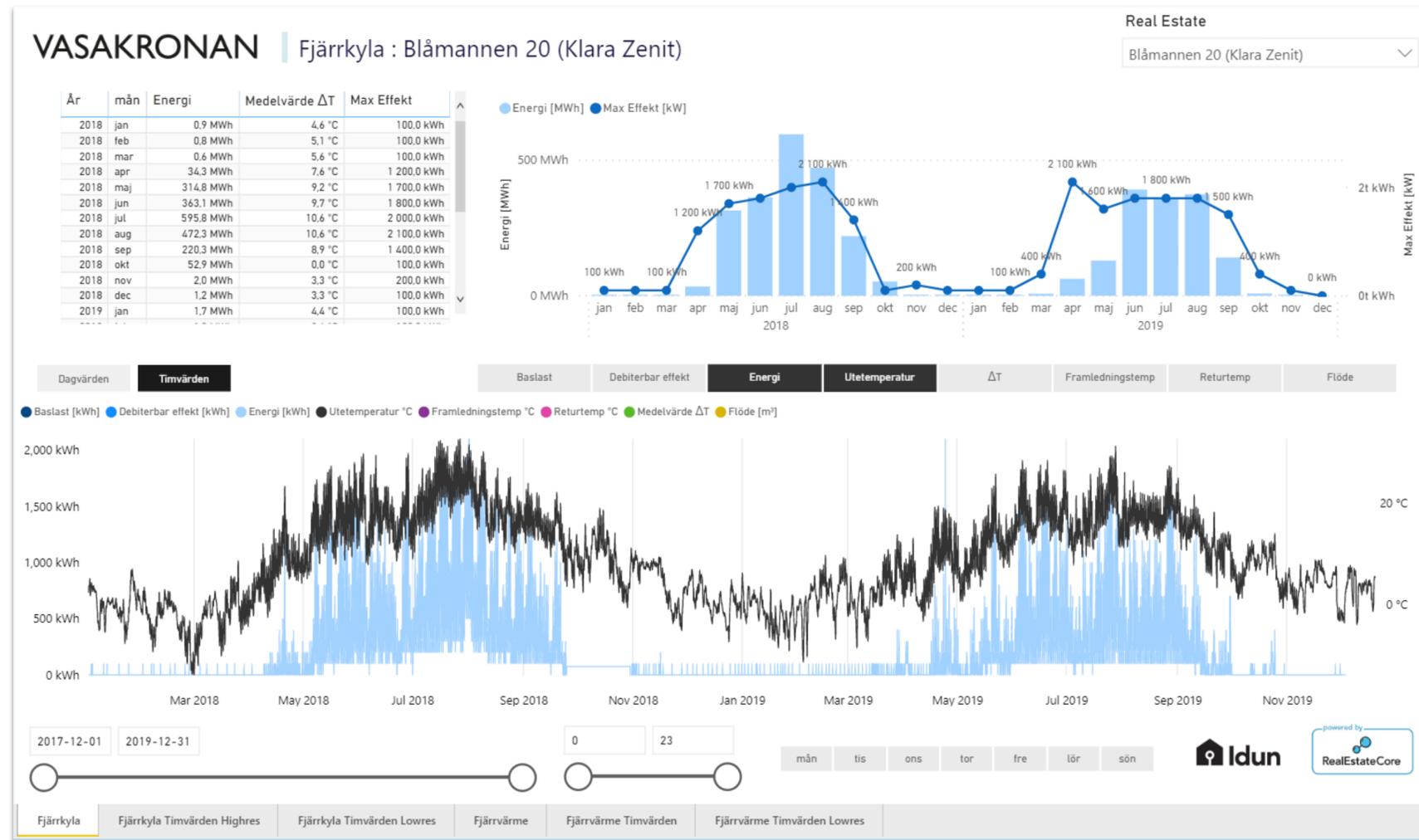
- Financial
- Occupancy level
- Strategic
- Facility management on demand

For tenants:

- Optimize the use of office spaces
- Input to restaurants for planning
- Insights of usage of retail/shopping malls



# Optimize: Energy Performance



- Energy performance analysis
  - District Cooling
  - District Heating
- Take data from Stockholm Exergi and Göteborg Energi
- Scales to full portfolio
- Example of savings per building at Vasakronan:
  - KSEK130/yr (reduce tariff)
  - KSEK820/yr (heat pump)
  - KSK160/yr (peak shaves)

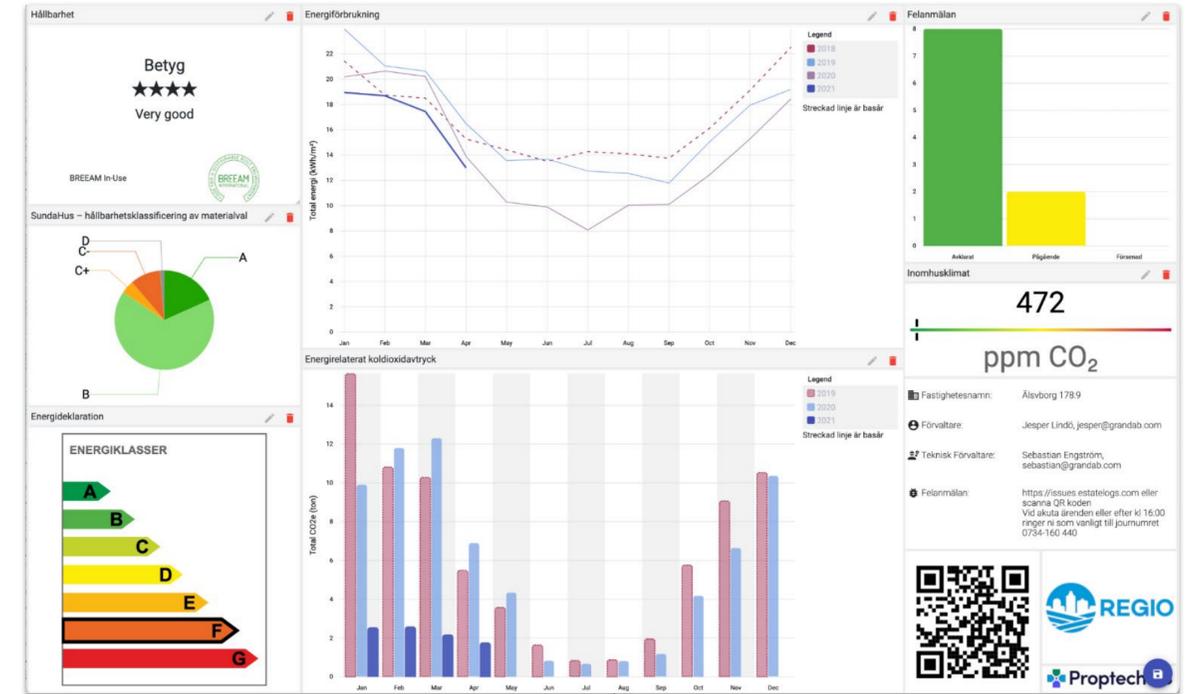
# ESG Dashboard

## Scope

- ESG goodwill benefits
- Increased tenant satisfaction
- Indoor climate visualization/improvement

## New features

- Take external data of interest to tenants
- Dashboard to be placed in e.g. entrance of buildings



 ProptechOS

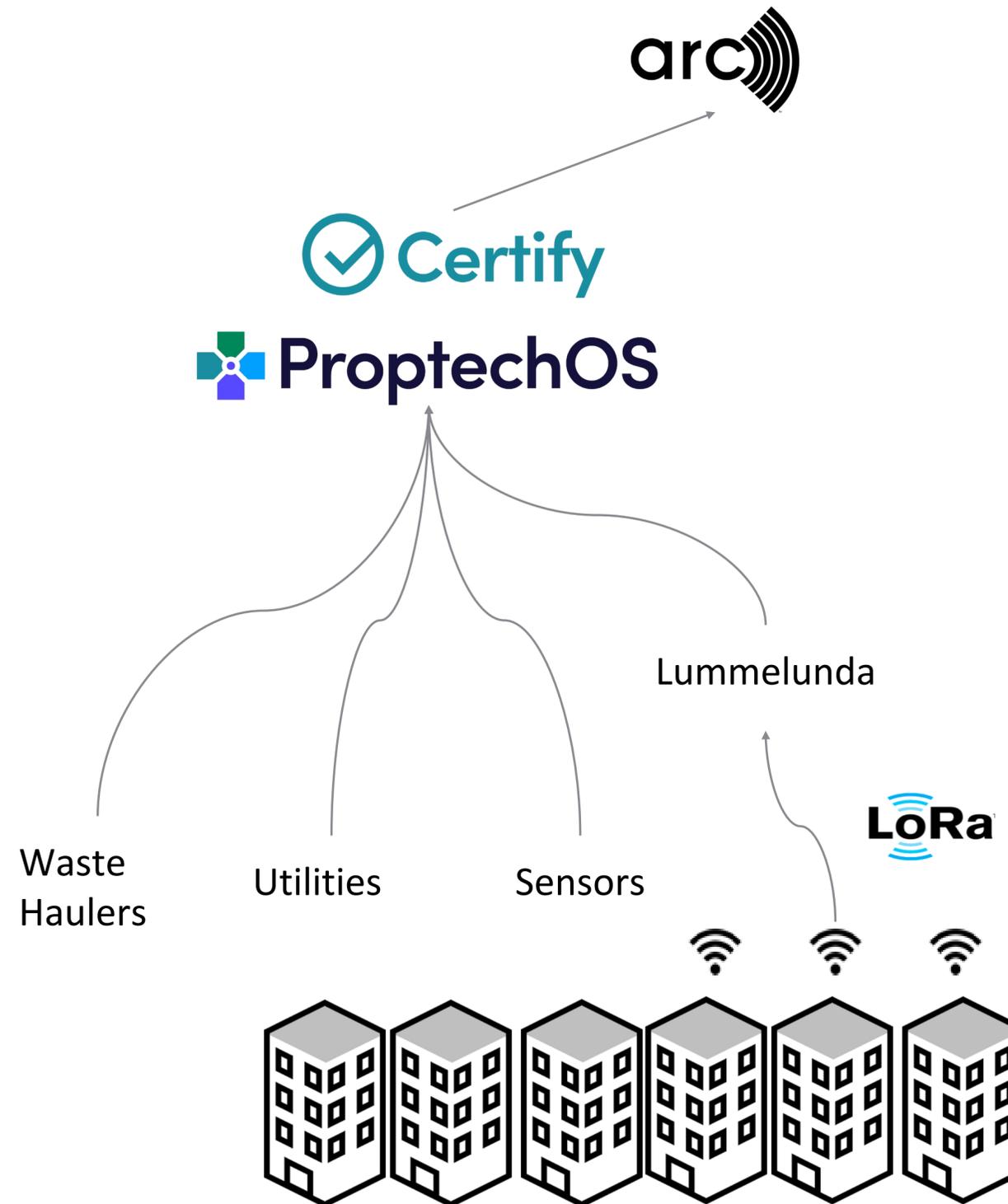
Building  
Automation System

IoT Sensors

Energy Meters

# The LEED Certify

- Portfolio level certification
- Continuous performance tracking
- Automated process
- Cost efficiency and removal of tedious tasks
- Error reduction
- Leading the way for other compliance and certification use-cases



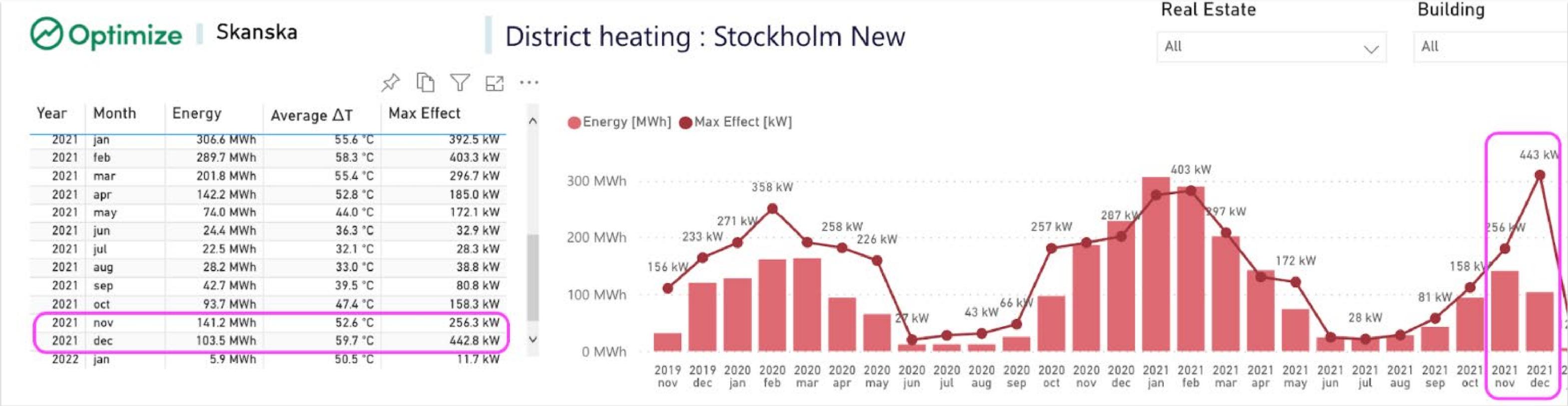
Independent of  
underlying data  
sources

Encoded to  
RealEstateCore



# Get Alerts to CAFM-system

Example: High power peaks district heating in December 2021



## Onboarding

# What do I need to do to get started?

ProptechOS Erik Wallin

Real Estate Building Storey **Building component** Device Service

Description ^  
The parts that makes up a building structure (Building). E.g., Room, Facade, RoofInner, etc.

Structure of data v

1 Start 2 Validation 3 Creation

✓ All data was verified and is correct! Axioms can be created! Show data

Back Create

### Building Onboarding

Create a RealEstateCore digital twin of a building or buildings in ProptechOS.

### Devices Onboarding

Create a RealEstateCore digital twin of devices in a building or buildings in ProptechOS.

### Edge Onboarding

Connect devices and other data sources from the Edge, using RealEstateCore connectors that transform and enable two-way communication to ProptechOS.

### App Onboarding

Set up roles, groups and policies to provide access for Apps to data in the intended way.

