Supporting Facility Management with Common Data Platform

Timo Ruohomäki, Forum Virium Helsinki Oy

13.1.2022
Helsinki Quick Facts

Capital of Finland
Total population 650.000 (Helsinki region 1.500.000)
City owns energy utility company Helen Oyj
90% of buildings in district heating and cooling network
1.830 city owned facilities, total floor area 2,8 million m²
Total value of facilities 8 B€ (excluding housing)
Median age of buildings 60 years
Facility Strategy

Actions agreed in 2019:

- Acquire building energy management system (BEMS)
- Systematically implement feasible actions to improve energy efficiency
- Define target consumption profiles and monitor them as part of the operations
- Develop new indicators that also include operative effectiveness
- Related action in Climate Neutral Helsinki 2030:
Building Automation Network

Cloud BAS

BAS

BAS

BAS

BAS

BAS

BEM

Urban Data Space

DSO, TSO

Utilities

LoRaWAN

DALI

KNX

M-Bus

Modbus

BACnet
Urban Data Space

Operative Systems

- Stage 1: Ingest
- Stage 2: Process
- Stage 3: Store&Share

Controlled Vocabularies

Live Processing

Self-service BI

Geospatial Features (Digital Twin)

Production-grade data integration

Self Service

FORUM VIRIUM HELSINKI
Data Objectives

- Holistic view on data, multiple domains and stakeholders: Situational awareness
- Using products that are already there: focus on integration
- Developing inhouse skills and capabilities: empower users, support self-service
  - Case FME as ETL
- Lifecycle management of systems: DevOps, ci/cd, product ownership
- Re-usability, open solutions, ecosystems, availability of local consultants
- Supporting Digital Twin: CityGML Energy Atlas, now working on asset management
Thank you!