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The role of Smart Technology in reducing the operational carbon of our Buildings

A Designer and Tenant's View

IAWM Smart Places Working Group

Alison Kilby

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Introduction

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One Centenary Way

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Arup named as a tenant

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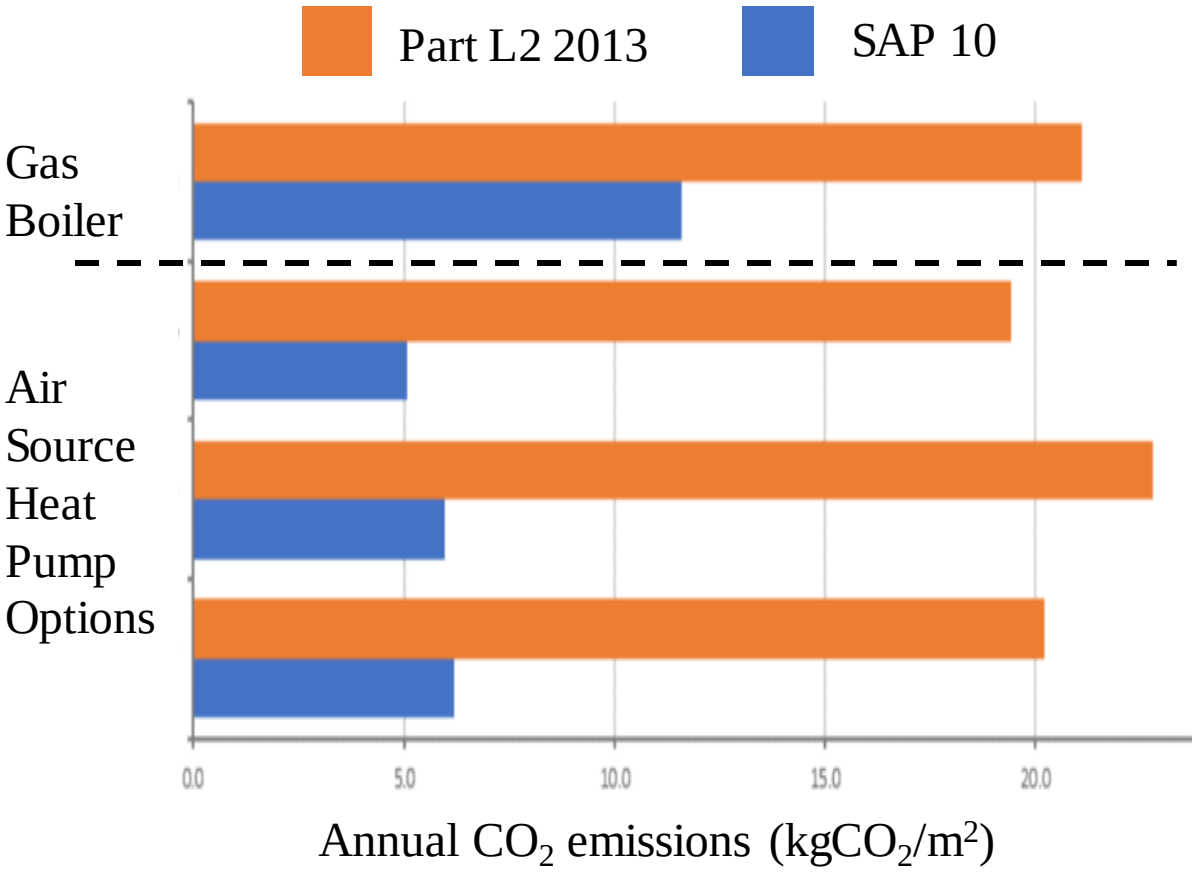
Reducing operational carbon



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Smart Enablement

Smart Building Blocks

SINGLE CONVERGED NETWORK

Single Physical Network

NAMING

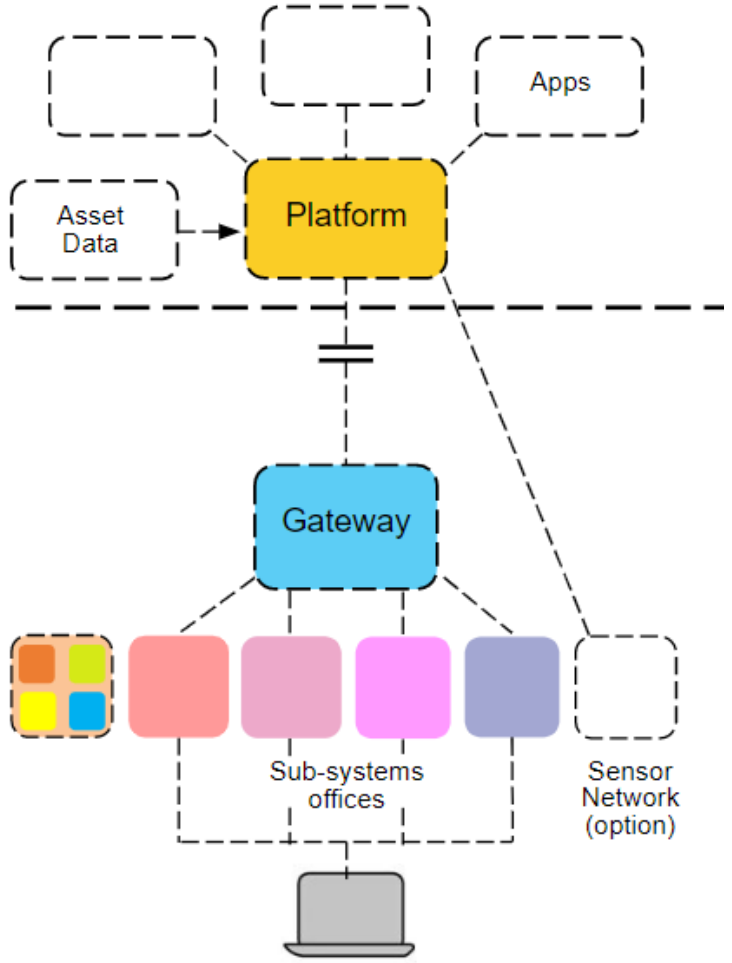
Adoption of consistent naming schema

HARDWARE FLEXIBILITY

Re-configurable, open and secure hardware

SOFTWARE FLEXIBILITY

Technology agnostic, supporting a wide range of applications



Smart Building benefits for the Developer

- Saleability – ‘Smart Ready’
- Scaleability – extendable platform to development and beyond
- Maintenance based on data
- Reduce carbon in operation (landlord plant)

Tenant Story

Super-local

UJ 1
"Super-local"
Lina, 28, working for 4 years

Lina arrives to work everyday at 7:00, she likes predictability in her day. She cycles in, so she is never delayed by public transport. Today is the same as most days for Lina, she has left enough time to get ready after her cycle and make her 8am daily standup meeting, and she sticks to familiar spaces and services throughout her day. As a trader, she is used to being in the office without frequent use of her phone, which she prefers as it helps her get in her zone. She likes to keep active, balancing long working hours with self-care.

Key needs:

- Easy and fast access to building and workspaces
- Comfortable working environment conditions
- Accurate live building information
- Easy access to nourishing services

Preferred devices:

Wearables · Phone · Desktop/ Laptop · Card

Building Manager

UJ 3
"All-hands-on-deck"
Ben, 52, working for 15 years

Ben has been managing the building since he moved to the company. His understanding of how the space is used, and how the building performs for its use enables him to make important decisions on the go, providing oversight of the building and receiving insights from an intelligent building platform. Today, Ben is preparing for an office move, as well as his usual range of management tasks.

Key needs:

- Information at hand about the building performance
- Building environment control tools
- Automated systems for operation optimisation and increased efficiency

Preferred devices:

Desktop/ Laptop · Phone · Tablet

Smart Building benefits as a tenant

- The building can ‘flex’ to suit our needs
- Understand our building
- Maintenance based on data
- Better informed when making future improvements
- All of which help to reduce carbon in operation

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Smart building driving carbon reductions

We anticipate lower operational carbon usage because

- Sensors mean data
- Data available in real time
- Dashboarding of data provides insight
- Maintenance and FM will be driven these insights
- Patterns in building usage can be identified
- The building can respond to these patterns

Summary

- We've been in a unique position, gaining unique insight:
  - Designer and tenant
  - Smart and Low Carbon Building
- Smart enablement has clear benefits for landlords and tenants alike
- Smart technology has a clear and prominent role in reducing the operational carbon footprint of buildings

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Any questions?

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Contact

Alison Kilby

Associate | Mechanical Lead

alison.kilby@arup.com

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