



REHVA

# **BIM Developments and Challenges in HVAC**

**4<sup>th</sup> April 2017**

## Presenter

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Consultant to CIBSE

# Developments

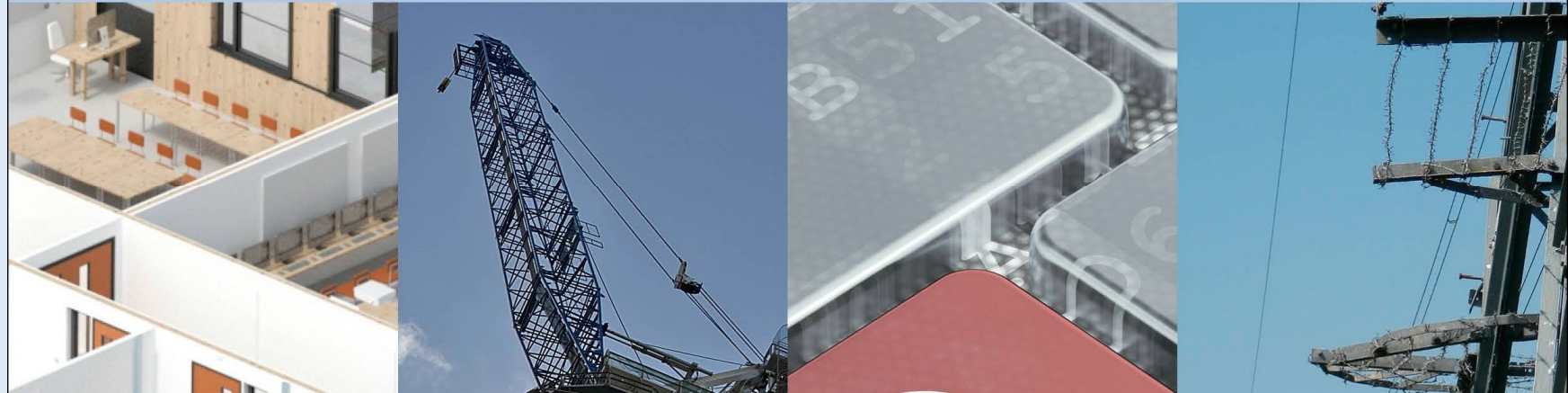
## PAS1192-5

## PAS 1192-5:2015

Specification for security-minded building information modelling, digital built environments and smart asset management

# CPNI<sup>®</sup>

Centre for the Protection  
of National Infrastructure



*“An attack on US retailer Target, in which millions of customers' credit card information was stolen, was traced back to the heating and ventilation system.”*

**BBC News**

# ISO 19650



Internationalising the “BIM Level 2” concepts.

BIMHawk



<https://www.bimhawk.co.uk/>

Standardising the way we describe things.



### Product Data Template

|                       |  |       |             |  |
|-----------------------|--|-------|-------------|--|
| Template Category     | Boiler with Integrated Burner - Gas or Oil   |       |             |  |
| Template Version      | v3   |       |             |  |
| Category Description  | Gas & Oil Fired Boiler used for space heating and indirect hot water generation with integrated burner |       |             |  |
| Classification        | Pr_60_60_08  |       |             |  |
| Classification System | Uniclass2015   |       |             |  |
| Suitability for Use   | Approved   |       |             |  |
| Template Custodian    | CIBSE  |       |             |  |
| Information Category  | Parameter Name   | Value | Units       | Notes  |
| Manufacturer Data     |  |       |             |  |
| COBie Data            | Manufacturer   |       | Text        | This is a COBie field, other fields will be req... |
| Specifications        | Manufacturer Website   |       | URL         |  |
| Specifications        | Product Range  |       | Text        |  |
| Specifications        | Product Model Number   |       | Text        | Or Code  |
| Specifications        | CE Mark  |       | Text        | Number, Yes, No                                    |
| Specifications        | Product Literature   |       | URL         |  |
| Specifications        | Additional Technical Details   |       | URL         | URL to technical details, e.g. system flow ra...   |
| COBie Data            | Features   |       | Text        | This is a COBie field, other fields will be req... |
| Construction Data     |  |       |             |  |
| Specifications        | Type   |       | Text        | This is a COBie field, other fields will be req... |
| Specifications        | Configuration  | ▼     | Enumeration |  |
| COBie Data            | Shape  | ▼     | Enumeration | This is a COBie field, other fields will be req... |
| Specifications        | External Material  | ▼     | Enumeration | This is a COBie field, other fields will be req... |
| COBie Data            | Colour   |       | Text        | This is a COBie field, other fields will be req... |
| COBie Data            | Finish   |       | Text        | This is a COBie field, other fields will be req... |
| Specifications        | Mounting   | ▼     | Enumeration | State how product is mounted                       |
| Specifications        | Burner Control Type  | ▼     | Enumeration |  |
| Specifications        | Heat Exchanger Material  | ▼     | Enumeration |  |



UK BIM Alliance



# Challenges

## Engagement and Perception



Estimated 8% market penetration in UK to “expert level”.

“It’s just 3D CAD”

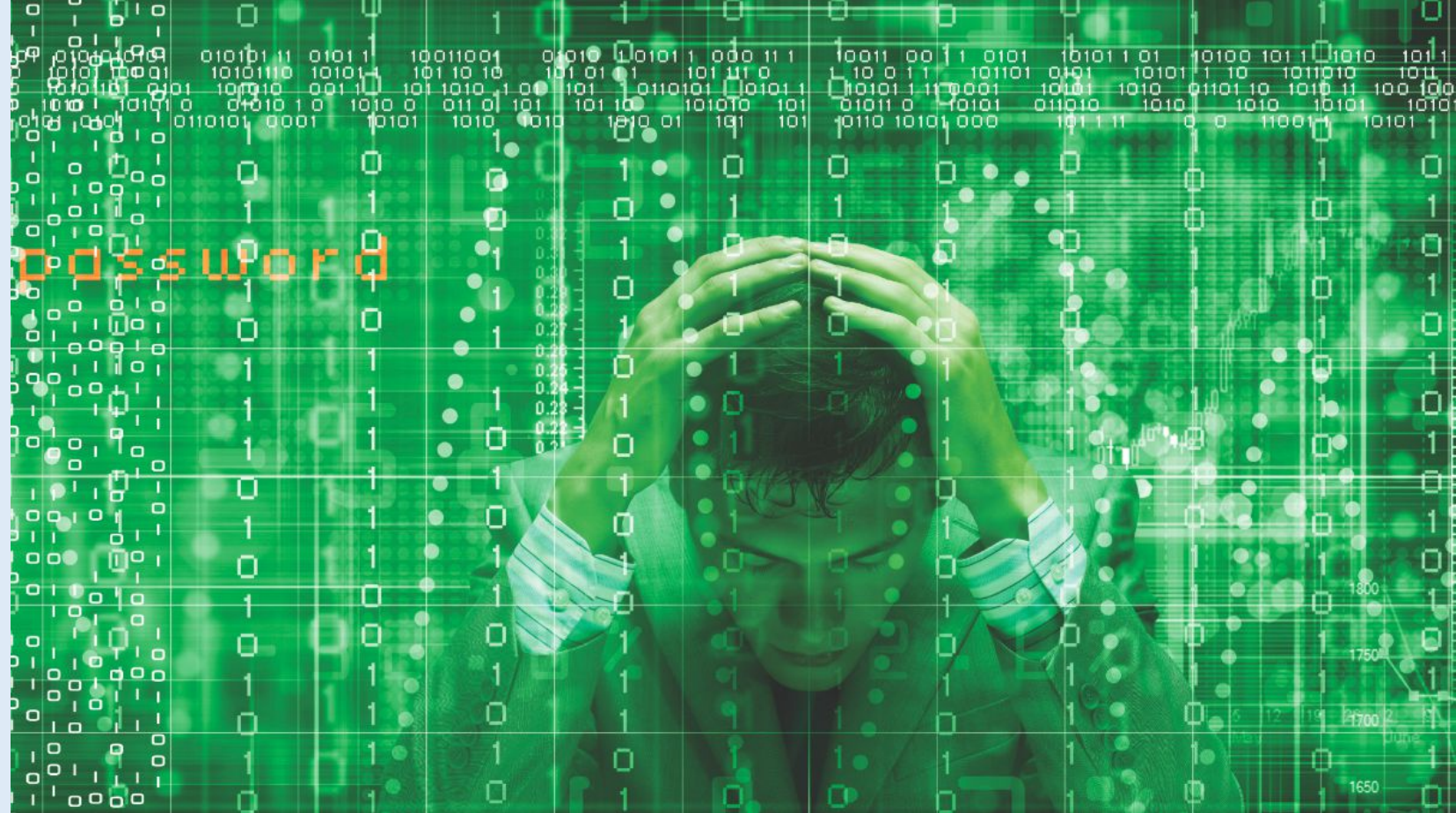
“I can’t afford it”

“It doesn’t affect me”

“I’m not learning new software...”



## Data Overload



Everyone asks for “their slice of the data pie”  
This creates parallel data requirements  
Each data requirement involves effort by someone  
Effort = Cost

## Silo Mentality



Collaboration is not a natural place to be in Construction.  
Lack of collaboration causes more issues than anything else.

## Translating Thought into Action



Taking the first step is always the most challenging.  
Fear of failure causes inaction.  
Inaction allows the competition to accelerate away.

