



UNIVERSITY of
GREENWICH

Independent Review of Building Regulations and Fire Safety Next Steps

Presentation to APSE – November 6th 2018

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Interim Deputy Head of Design



Building a Safer Future Independent Review of Building Regulations and Fire Safety: Final Report

Presented to Parliament
by the Secretary of State for Housing, Communities and Local Government
by Command of Her Majesty

May 2018



Contents

Objectives are

- To review the key recommendations
- Relate to current practice and risk assessment
- Suggest ways forward for APSE and its members

Note

This is about regulation

It's not about how the fire started , this is subject to other enquiries and legal proceedings

Judith has listened to comments during review process following interim report in December 2017

Elephant in the room

Consider construction of all buildings not just residential – many complex buildings in the world are both

Commentary on the key recommendations

Overarching Themes

- Ignorance
- Indifference- quality , time, cost
- Lack of clarity on roles and responsibilities
- Inadequate regulatory oversight and enforcement tools

Consider

Clear model of risk ownership – outcome based

Consider buildings as a system

A risk based approach

Transparency of information and an audit trail

The views of residents

Consider building Lifecycles

- Procurement, design, construction, maintenance and refurbishment
- Upfront on getting building design right
-
- Long term integrity and robustness
- Oversight with regards roles of dutyholders
- Consider case by case approach

Proposal

An integrated systematic change not a shopping list

To embed this systematic change will require legislative changes and therefore take time

Apply principles to new and existing stock of high rise buildings

Collaboration and Partnerships

Consider a new framework

Create a more simple and effective mechanism for driving building safely

Provide stronger oversight of duty holders with incentives for right behaviours and effective sanctions for poor performances

Reassert the role of residents

Competence

Leadership and Knowledge

Continue Working together, report to government

Competence 2

Develop competence framework
Building Safety Manager

Recommendations

In each chapter, also Appendix A – 53 Recommendations

Key areas

- New regulatory framework in the first instance – multi occupancy buildings above 9 stories
- New joint competent authority JCA (LA and AI) –HSE?
- Mandatory incident prompting mechanism
- Better testing regime
- More effective testing regime with cleaner labelling and product traceability – creation of a digital record (BIM)

It is therefore important that government develops a joined-up implementation plan to provide a coherent approach to delivering the recommendations in this report.

Design, Construction and Refurbishment

Part 2- Strengthening regulatory oversight of dutyholders

Weaknesses at key intervention points 37

Gateway Point 1 – Planning Permission 38

Gateway Point – Full Plans sign-off 38

Gateway Point 3 – Completion stage 39

Current practice and risk assessment

Current Practice

- Who manages your projects?
- Contracting and Sub Contracting
- Council Policies and Procedures
- Role of Fire Service
- Crisis Management

Risk Assessment

- Who does your Fire Risk Assessment
- When is it carried out
- What is meant by Competent
- Who has technical knowledge

Post Hackitt

Ban on Combustible Cladding

Government's partial ban on combustible cladding 'doesn't go far enough'

2 October 2018

The UK government's announcement that the use of combustible materials on the external walls of residential tower blocks will no longer be allowed does not go far enough, IOSH, the Fire Brigades Union (FBU) and the Royal Institute of British Architects (RIBA) have said.



Speaking at the Conservative Party Conference at the ICC in Birmingham yesterday, housing secretary James Brokenshire said the ban will apply to high-rise residential buildings taller than 18 m, as well as schools, hospitals and care homes.

Materials with limited combustibility, such as plasterboard, and non-combustible materials

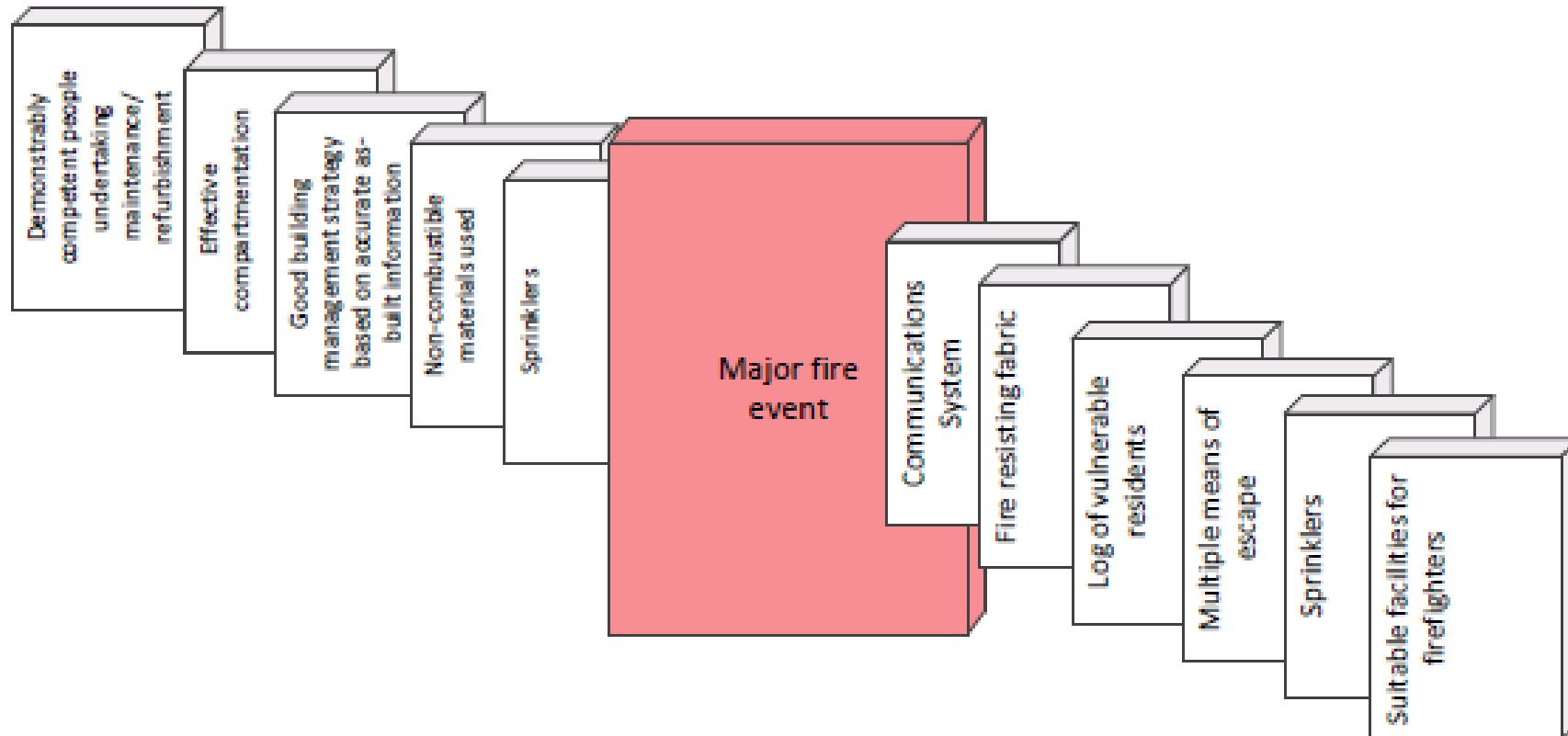
Suggest ways forward for APSE and its members

Consider

- Develop guidance for fire risk assessment for all premises
- Work with insurers – to agree what is acceptable
- Work with academia to improve best practice
- Follow the RR(FS)O and include Fire safety management within CDM
- Appoint managers
- Hydra

Example of the layers of protection: Note this is non-exhaustive, for indication only

Gateway points and safety case reviews cover all the layers of protection



Preventative – pre-event

Mitigations – during/post-event

Response : Thoughts

Stay put – get out ??

Considerations

- Role of Fire Service?
- Stay Put ?
- Building Resilience
- Training for disasters
- Recovery Phase

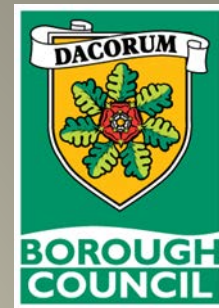
Links

- http://fseg.gre.ac.uk/galea_Grenfell_thoughts_19.pdfhttps://www.linkedin.com/pulse/thoughts-grenfell-tower-fire-when-colour-grey-post-1-6-ed-galea
- https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/707785/Building_a_Safer_Future_-_web.pdf
- <https://www.ioshmagazine.com/article/governments-partial-ban-combustible-cladding-doesnt-go-far-enough>



**CHANGE
STARTS
HERE**

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Innovation in asset investment and repairs

Fiona Williamson

Assistant Director Housing



Assets & Repairs 2020 Group





Assets
Repairs
2020

Group Members



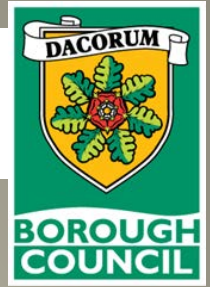
- Debbie Larner, CIH (CIH Lead & Co-chair)
- Richard Medley, Housing Dynamics (Co-chair)
- Angela Perry, Incommunities
- Brent O'Halloran, Hyde Group
- Chris Gibbins, Halton Housing Trust
- David Lingeman, A2 Dominion
- David Wells, Wrekin Housing Trust
- Fiona Williamson, Dacorum Council
- Geoff Parkinson, Fortem
- Peter Francis, Fusion 21
- Richard Woolfall, Your Housing Group
- Robert Goor, Housing Leeds
- Steve Osborne / Carly Glover, Mears Group





Assets
Repairs
2020

The need for a new agenda for repairs & maintenance



How dynamic are housing organisations' repair, maintenance and investment arrangements?

Have they changed to reflect the new operating environment and the forces present in the market?

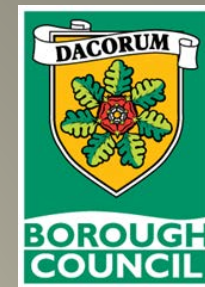
Have organisations progressed a range of initiatives and activities to grow or adapt the offer to tenants and contribute more strongly to the business?





Assets
Repairs
2020

Market changers – their hallmarks



Responsive
Predictive
Pre-emptive

Forward thinking
Innovative
Imaginative

Exploit new technology
Develop new models of
working

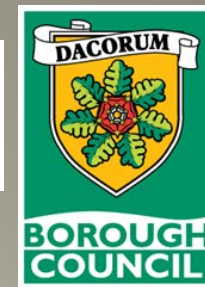
Pioneering
Reinventing
Rethinking

Commercial
Lower cost business
models
Customer focussed



Assets
Repairs
2020

The hallmarks of too many organisations in the housing sector?



Unresponsive to
change

Follow instead of
lead

Backward thinking

Traditional

Unimaginative

Uncommercial

High cost business
models

Unresponsive to
changing needs of
customers

Inadequate use of
technology

Same old models of working

Stuck in the
same old ways

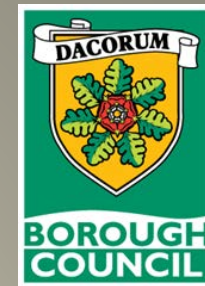
Not moving on
to embrace the
new world

And the hallmarks of the best practice?

- Collaboration
- Efficiency
- Performance
- Value
- Affordability
- Commerciality
- Innovation

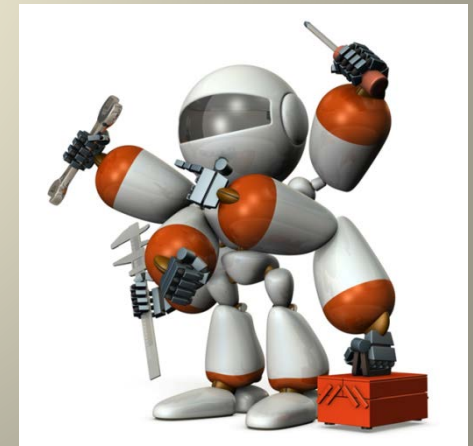


So the new rules of engagement are?



1. Repairs and maintenance must be an integral part of asset management, with a set of shared aims, objectives, measurement and monitoring criteria
2. We must forge a new and productive partnership with tenants and residents that delivers benefits and value to both parties
3. We must deliver on collaborative working with housing management and across the landlord team to deliver stronger, shared outcomes and outputs for residents, the building asset and the housing business
4. We must have a resilient and capable repairs and maintenance workforce that has the new skills and experience needed, supported by brilliant digital systems in order to deliver the new, modern service
5. We must establish a more commercial approach to housing repairs and maintenance - one where the cost of delivering the service is fully understood and is appropriate and proportionate to the outputs being secured

Innovation



Property Distribution



Stock Profile



Majority of the stock built in 1950's and 60's

Just over 10% of the stock non traditional with the largest proportion being Wimpy no-fines

18% of the stock is designated sheltered accommodation

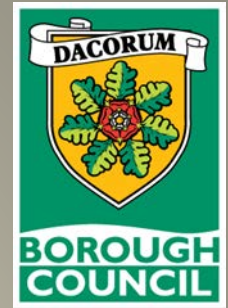
95 New build units developed in the last two years including

Passivhaus block

Some period properties



Key Achievements



Repairs and maintenance



Repairs – total number

24106



100%
of properties have current
gas safety certificates



Permissions for tenants' home
improvements granted:

110



34324

appointments made,



33385

appointments kept



(97.26%)

appointments kept

Investing in your home

New roofs:

50



New Kitchens:

246



Doors:

764

homes had
new doors

New Bathrooms:

210



Windows:

285

homes had new windows
installed



Rewires:

14

homes had
complete rewires

Challenges

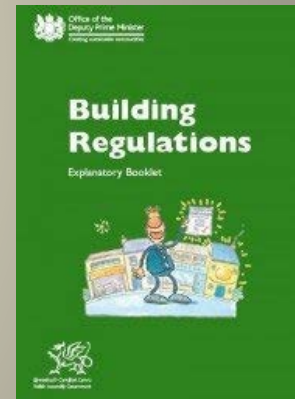
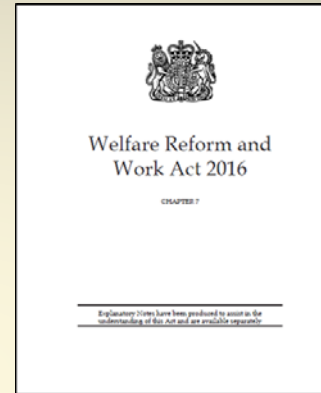


- Reduced income from the 1% rent reduction and welfare reform pressures
- Raised expectations evidenced through feedback from tenant involvement
- Quality of Stock condition information
- Tenant alterations / non-standard fittings / tenant damage
- Technology and data management
- High volumes of repairs circa 3000/month
- TUPE constraints from transferring workforce

Continued.....

- Statutory and regulatory compliance
- IT failure or security breach
- Increasing fines
- Maintaining and improving KPI's
- Increasing materials costs
- Contractor collapse

UC Universal
Credit



Total Asset Management



- Single service provider for repairs and improvements
- Using repairs data to inform planned programmes
- Move towards a just in time component replacement to extend life.
- 5* Gas Servicing contract
- Compliance levels high
- CAT 1 Boiler replacements reduced from 60% to 17% in 3 years



SUN REALM

Great products, great prices, great service...

Data Analysis



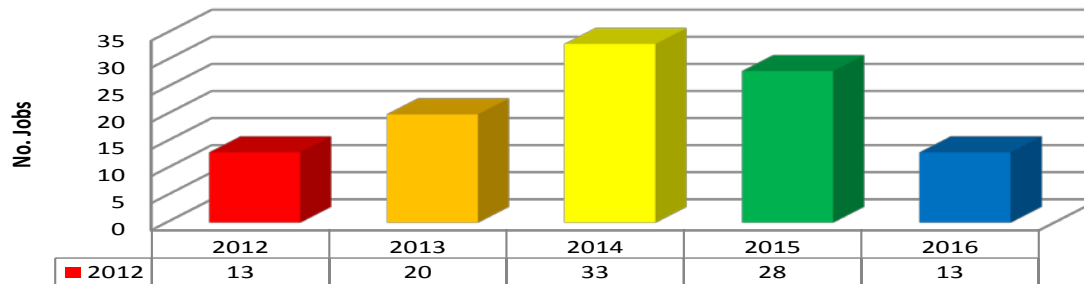
- **Analysis of Top 250 properties**
 - Number of repairs
 - Annual cost
 - Type of repairs
- **Analysis of Top 100 Blocks**
 - Number of repairs
 - Annual cost
 - Type of repairs
- **Analysis of properties that have never used the service**
 - 120 properties have not reported a repair in last 5 years
 - 17 no contact in 5 years

Top 250 Properties

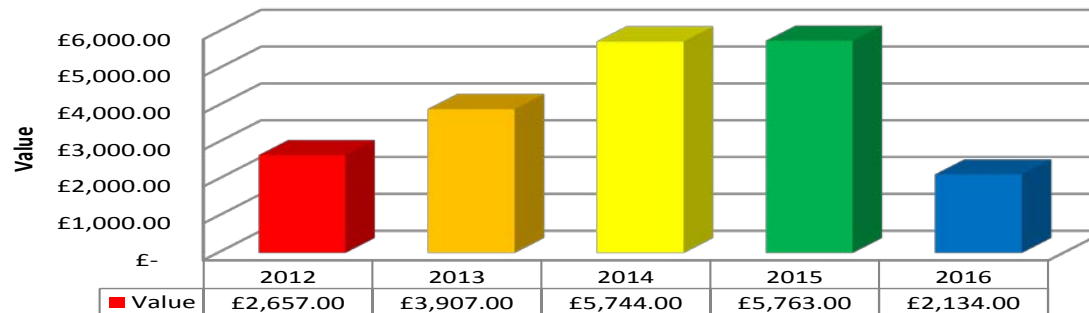
UPRN:	7364
Build Year:	1989
No. Beds:	2 Bedrooms
Construction:	Traditional Brick & Block Cavity Construction
Windows:	uPVC Side Hung Casement Windows Due 2043
Front Door:	Replaced 2017
Kitchen:	Due 2026
Bathroom:	Bathroom Due 2026
Central Heating:	Fully System, Radiator Heating Due 2040
Void Data	
Last Void Date	



Annual Job Requests



Annual Spend





Tenant Opportunities



tenant academy



Improving your skills for a brighter future



**KEEP
CALM
AND
ASK
QUESTIONS**



Delivering Sustainable Energy Efficient Developments

1. Overview of new build
2. Environmental Factors:
 - Low energy (Passivhaus)
 - Healthy
 - Climate ready
3. Commercial Sustainability
4. Exeter City Living Developments
5. Questions

Overview of New Build

2009 to date



Rowan House

2009



Knights Place



Barberry Close

2015



Silverberry Close



Reed walk



Development Pipeline



Vaughan Road

2018



COB Wave III

2018



Extra Care

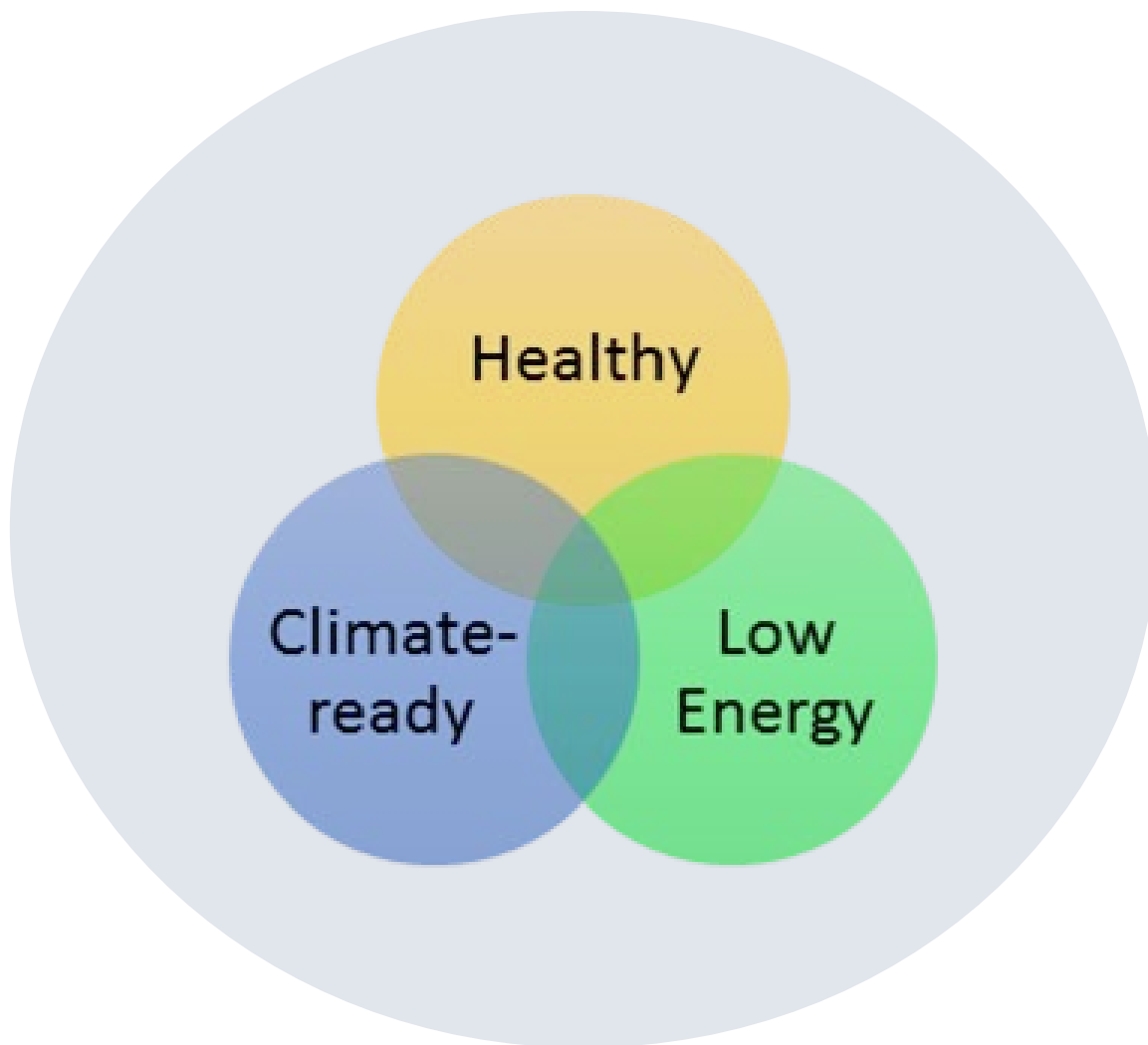
2018



St Sidwell's
Point
&
Bus Station

2018

Environmental Factors



Low Energy (Passivhaus)

What is Passivhaus?

- a rigorous **energy** standard
- a rigorous **comfort** standard
- a rigorous **quality** standard

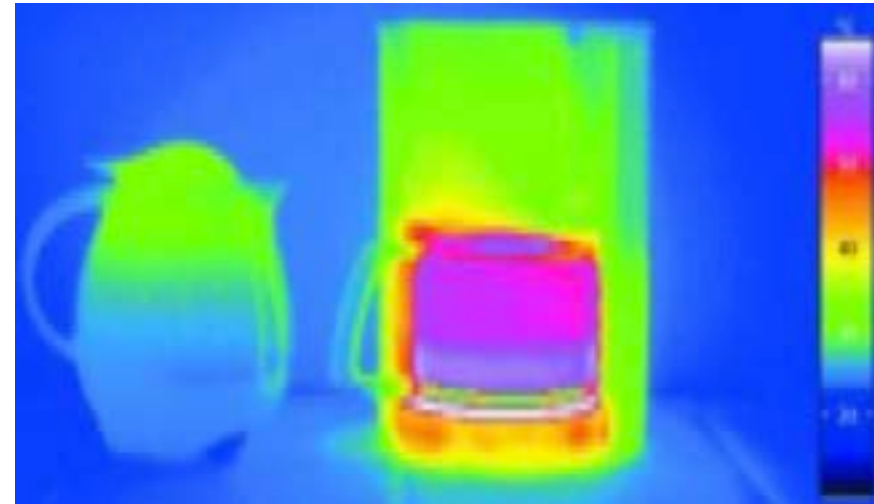


What is Passivhaus?

- developed in Germany between 1988 and 1990 by Wolfgang Feist, a building physicist
- in response to concern that buildings were not performing as predicted
- Passivhaus Institute was founded in 1996 to promote and control the standard through certification
- 1,000 + passivhaus certified buildings in UK



What is Passivhaus?



How do you achieve Passivhaus?

- design the orientation and form of the building to optimise solar gain and improve day lighting
- improve the building fabric - eliminate thermal bridging, increase insulation, airtightness and window specification
- use MVHR to ensure sufficient ventilation, whilst avoiding unnecessary heat loss in winter



How do you achieve Passivhaus?

- use PHPP to demonstrate design achieves standard
- monitor construction carefully
- supply PHPP modelling, evidence from air test, and proof of supply of key products to Certifier
- Certifier assesses compliance and issues certificate



Why Passivhaus?

It works!



"I love the fact that the flat is warm all the time and whenever I come in from outside it is always nice and warm unlike any other building I have been in"

"I have never felt uncomfortably hot or cold a single day since moving in"

Why does Passivhaus work?

- it does not rely on complicated technology
- simply ***good design*** and ***good construction***
- underpinned by ***rigorous certification***

Why does Passivhaus work?

- based on sound building physics and on the evidence of what ***actually works***
- based on ***reducing energy, by design***, instead of offsetting carbon, by add-on
- encourages integrated design, and a rigorous discipline, that delivers ***buildings that work***

Dispelling Passivhaus myths...

- You can open the window
- It is not just a German standard
- It doesn't dictate construction method
- It is not just a domestic standard
- It doesn't exclude other standards e.g. BREEAM
- It does not need to be more expensive

Building Biology

'Holistic study of interrelationships between humans and their environment'

Energy /
Resource
Efficiency

Impact on
environment

Often disconnected
and looked at in
isolation

Healthy
Building

Design

Impact on us

Building Biology

'Holistic study of interrelationships between humans and their environment'



Healthy Buildings

Our living environment is defined by the spaces and buildings we have created for ourselves

'Safety First!'

We take great care when it comes to
 ... what we eat ...
 ... where our food comes from ...
 ... what we give to our children ...
 ... how we keep fit etc...

But ... **when it comes to construction ?**

The focus is only very rarely on the human being, their health or well-being but often purely cost driven:

- economic viability
- low maintenance costs
- short payback times
- health & safety costs during construction

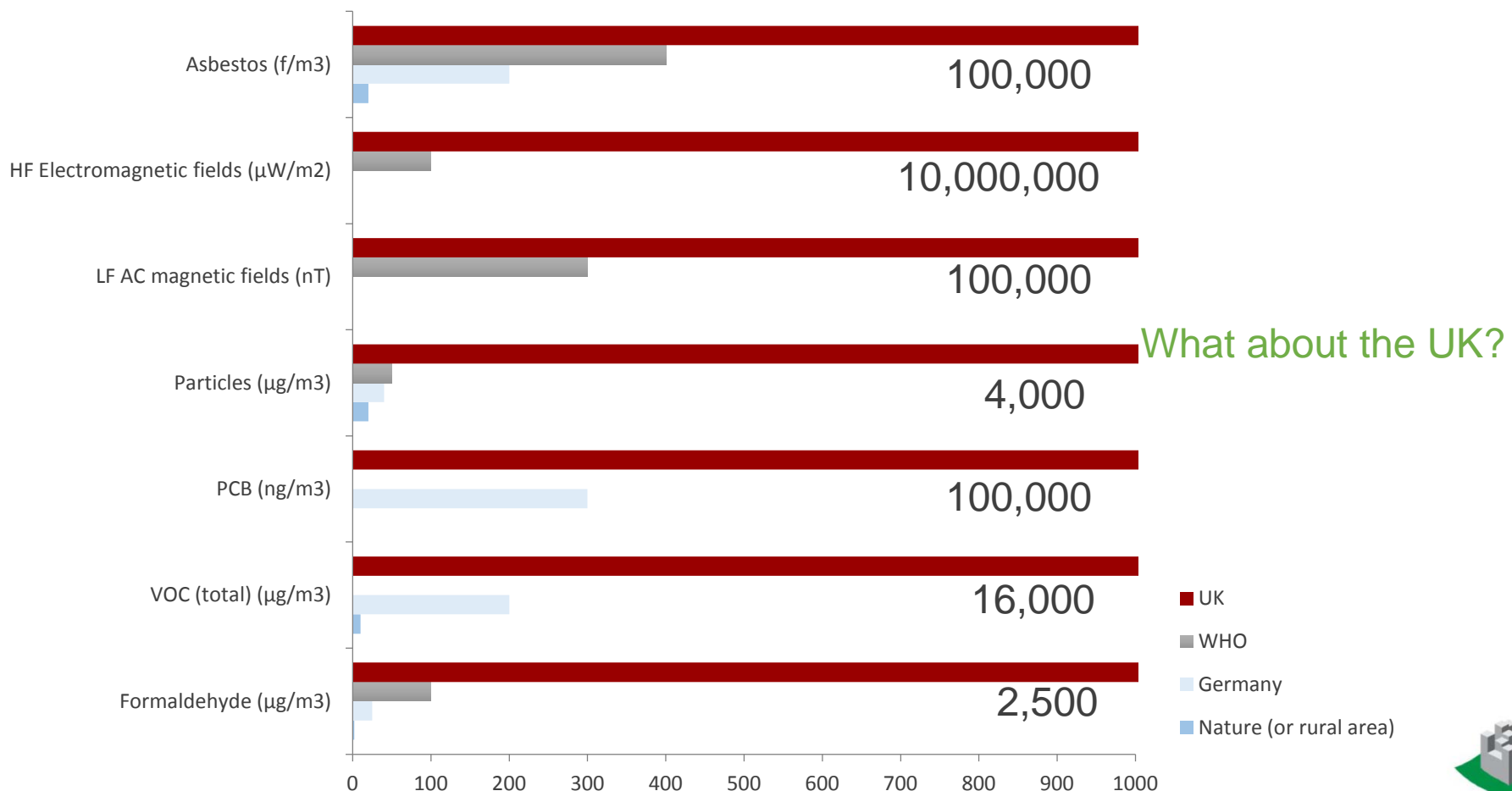


Nutrition information			
Typical values	Per 100g	Per 1/4 pot	% based on GDA for women
Energy	256 kJ 61 kcal	320 kJ 76 kcal	3.8%
Protein	4.9g	6.1g	13.6%
Carbohydrate	6.9g	8.6g	3.7%
of which sugars	6.9g	8.6g	9.6%
of which starch	nil	nil	-
Fat	1.5g	1.9g	2.7%

Healthy Buildings



Recommended limits for a range of substances classified as either 'carcinogenic (1)' or 'possibly carcinogenic (2a)' by the WHO.

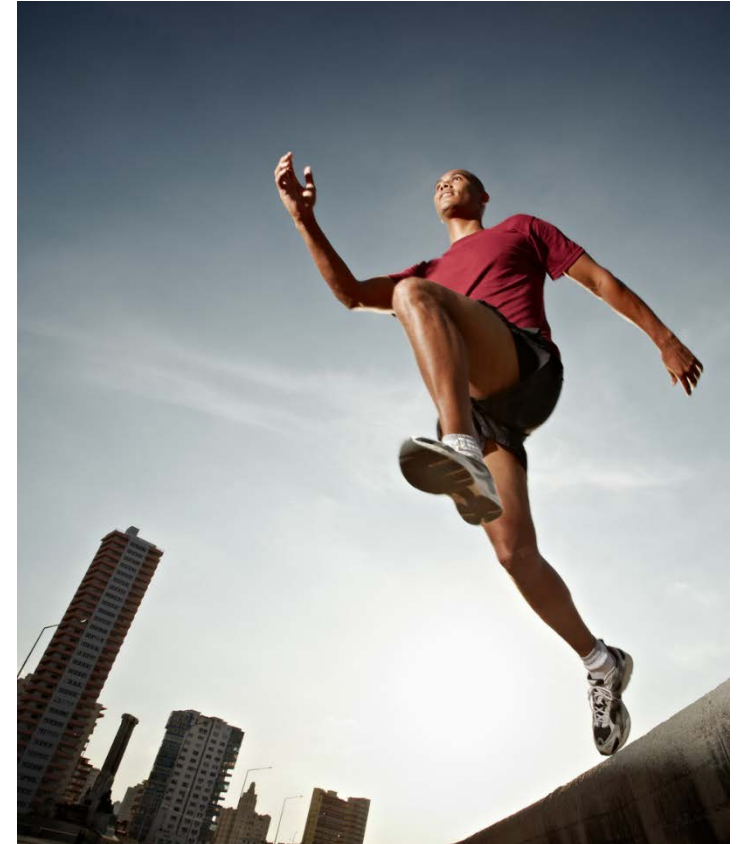


Healthy Design – Why bother?

On average we spend about **90% of our time indoors** and 30% of our time in bedrooms

At these exposure times **even low concentrations** of harmful substances **affect our health** in the long term and can cause chronic diseases. More vulnerable inhabitants like children and elderly persons are particularly exposed to this risk

Bau Biology is about managing this risk and reducing it where possible

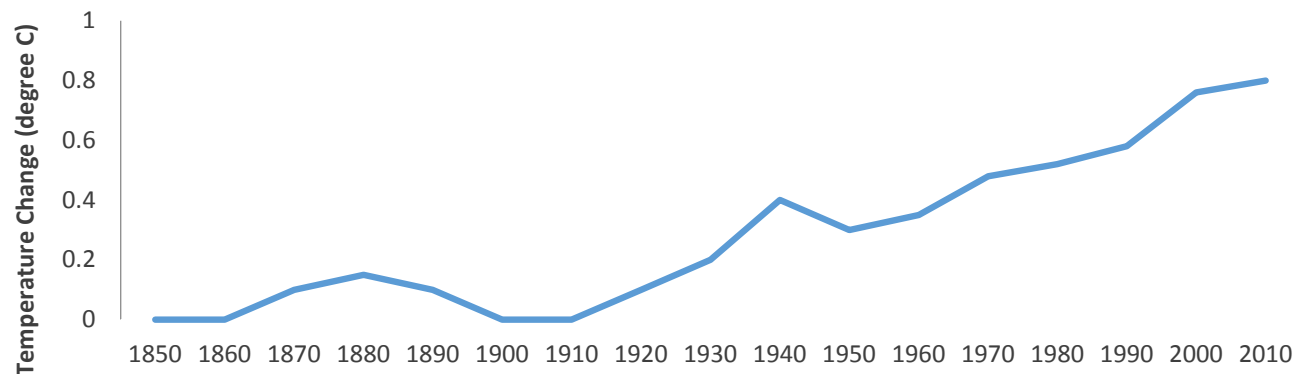


Climate Change

What is predicted for the UK?

- Since 1960's the average temperature in UK has risen
- Average summer temperature increase of 4-6 degree by 2100
- Increase in UV radiation
- Events of extreme rainfall and flooding have become more frequent and this trend is predicted to increase

Change in Average Temperature Since 1850



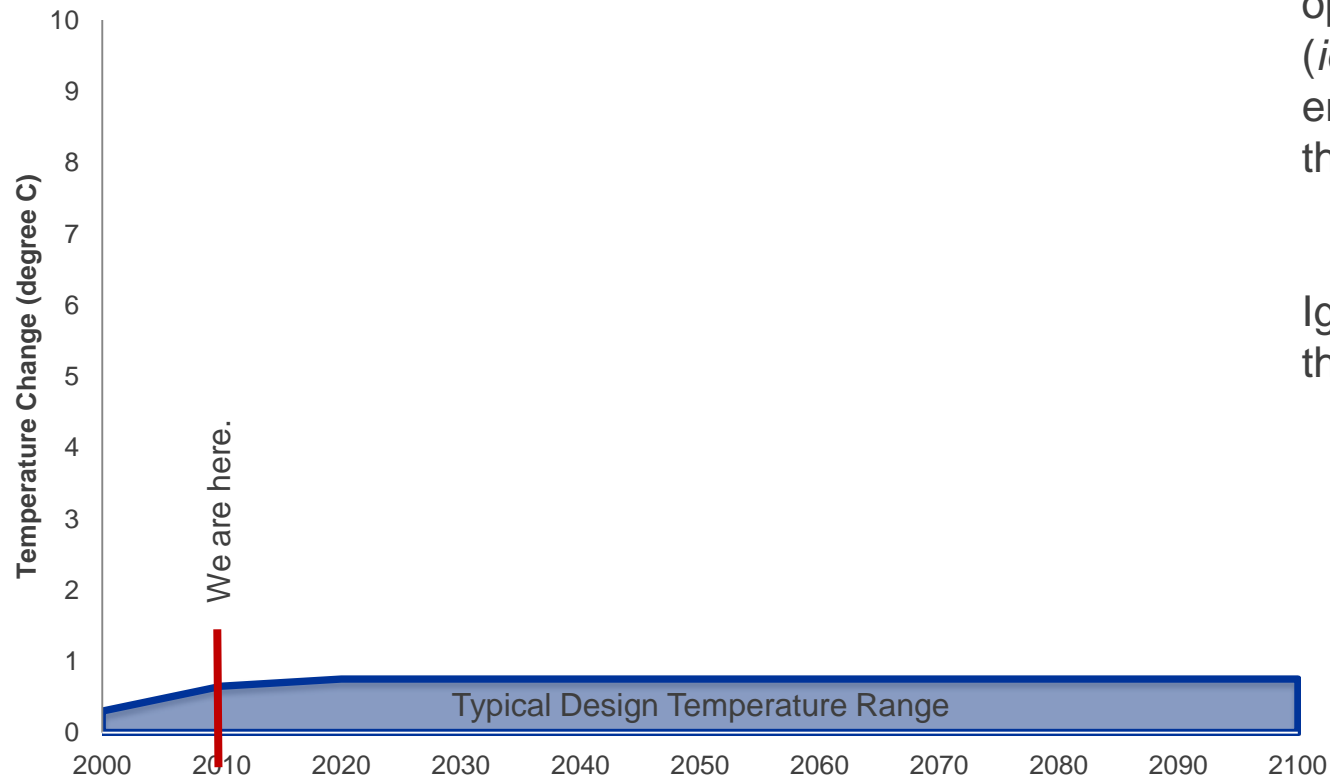
Overheating

What about climate change?

Building designers typically use weather data that is based on past experience to predict the future performance of a building.

The building is then designed to maintain optimum comfort and (*ideally*) to use minimal energy over the lifetime of the building.

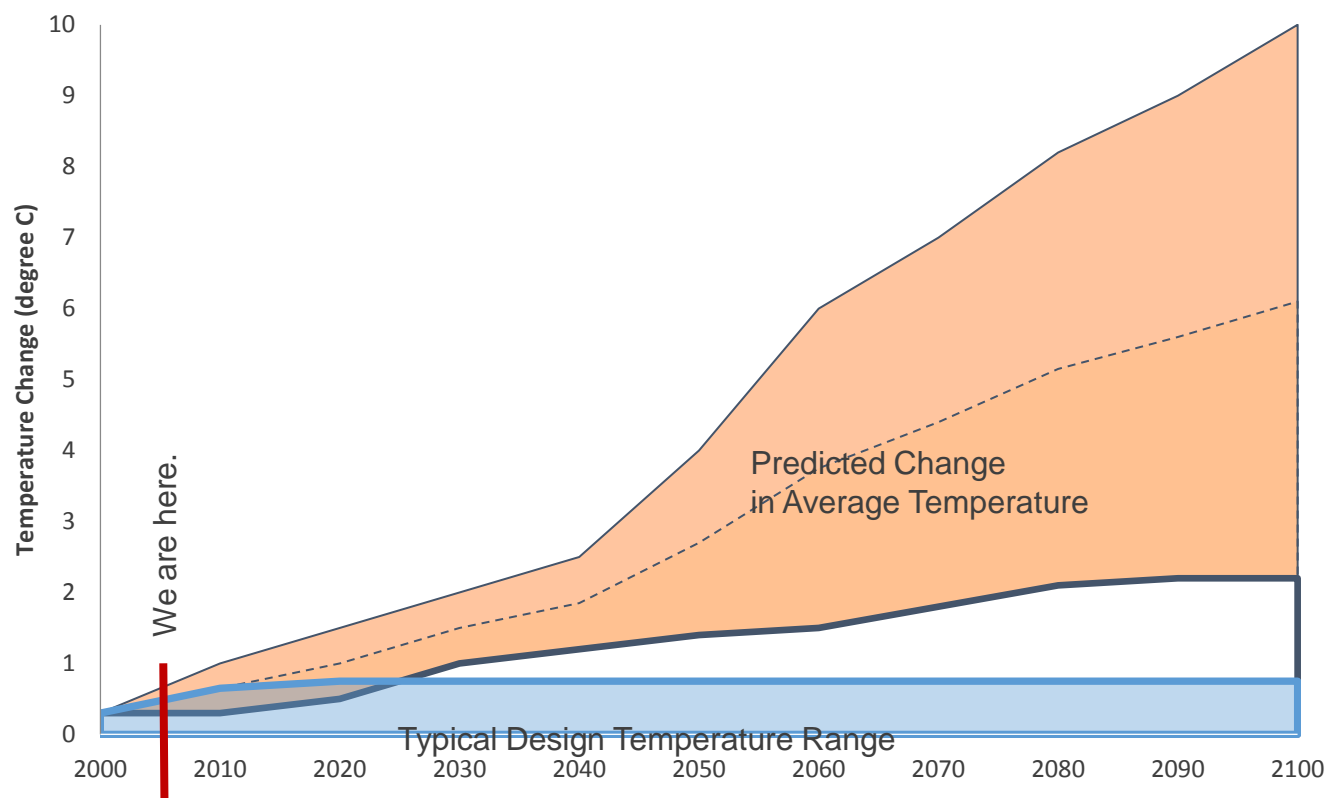
Ignoring the evidence that the climate is changing.



Overheating

What about climate change?

Building designers typically use weather data that is based on past experience to predict the future performance of a building.



ECC uses probabilistic future weather data from Exeter University's *Prometheus Project* which were derived from the latest climate projections for the UK (UKCP09).

The projections are probabilistic in nature instead of deterministic so as to allow users to assess the level of risk.

Passivhaus Cost Effectiveness – Cost Overview

- 10-23% uplift – Aecom Cost Report
 - 15% uplift to Building Regs 2010 – Passivhaus Institute
 - 0-15% uplift – Passive House+ Magazine
- Caution needs to be taken in using these as it relies on having a clearly defined base cost (cost excluding Passivhaus), which can be influenced by the following;
 - a. Building Regulations
 - b. Secure by Design
 - c. Procurement Strategy
 - d. Design (Bespoke vs Standard)
 - e. Planning Requirements
 - f. Physical Site Constraints / Abnormals
 - g. Performance (did the base cost projects actually perform to Passivhaus standards?)
- Exeter City Council have developed residential (£1,145/m²) within conventional build cost range (£618-£1,330/m²).

Passivhaus Cost Effectiveness

Cost Drivers

Cost Increase	Cost Decrease
Better quality components	Compact forms
Air tightness products	Simpler systems
Ventilation system	Simpler controls
Attention to detail	

Early stages of design development is where the cost uplift can be limited with cost effective design decisions such as orientation, compact form etc.

The cost uplift is influenced by key drivers, which must be focused upon and optimised from the outset of design development.

Financial Savings

	Energy saving
Residential	90%
Commercial	70%

- Revenue costs reduced
- Life cycle costs reduced
- Capital costs can avoid premium

PASSIVHAUS FACTS AND FIGURES

The energy savings generated within one year would be sufficient to:

cover the total annual energy consumptions of 350 (4 person) average UK households



make 140 million cups of tea



The carbon reductions from adopting Passivhaus on the Exeter Active project for a single year (when compared to a standard modern UK leisure facility) are equivalent to:



Ensuring Commercial Sustainability

- Right Client Brief – clear, concise & exact
- Right Consultancy Team – Experienced, qualified & motivated
- Right Design
- Right Contractor – Exeseed Framework
- Right Contract Form
- Post – Completion Monitoring



Rowan House



Knights Place



Barberry Close



Silverberry Close



Reed Walk



Vaughan Road



St Loyes Extra Care



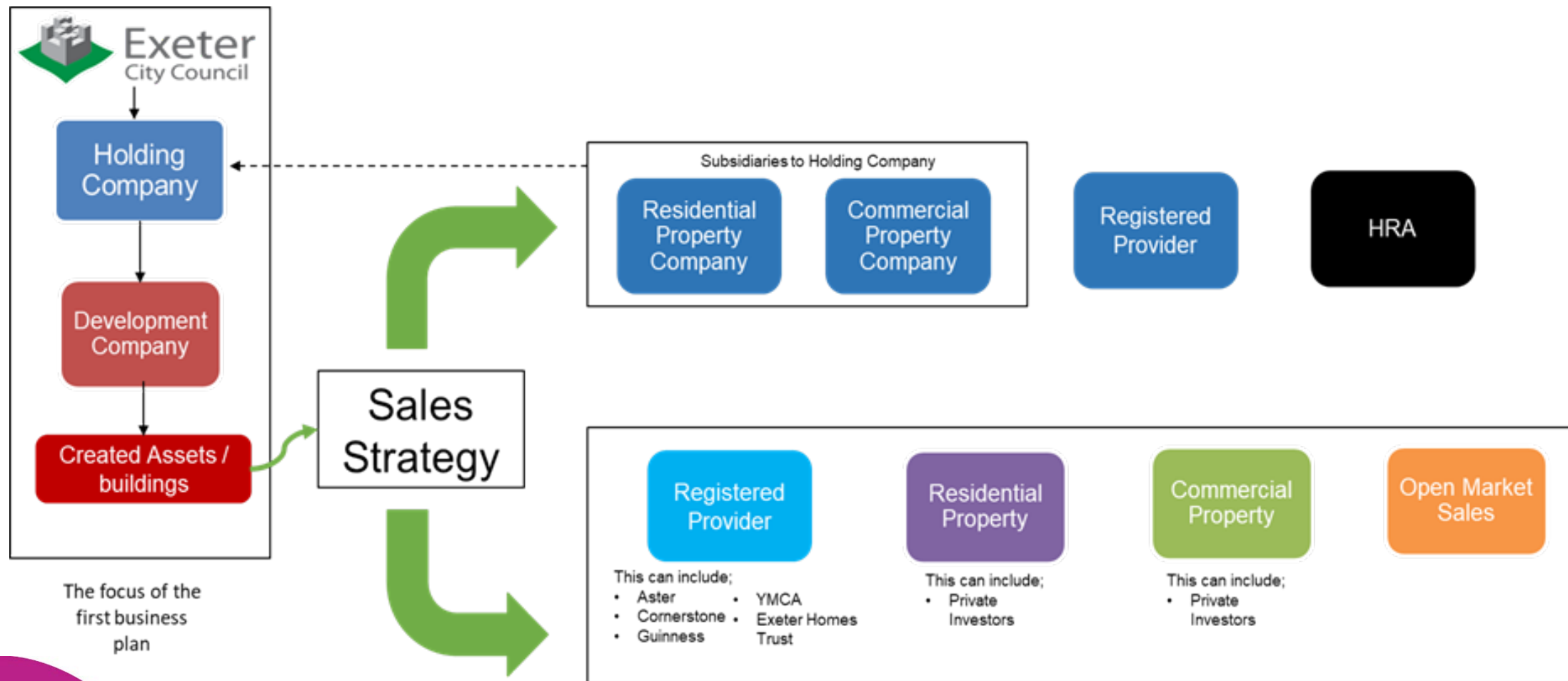
St Lloyes Extra Care



St Sidwell's Point



Exeter City Living Ltd



Any Questions?





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@EmmaOsmun



Hoopers

The international probate genealogists

Trusted for generations

Established in 1923

How genealogy services can help local authorities trace next of kin, property owners and tenants.

A free service for Local Authorities.

Hoopers Overview

- 95 years of experience in tracing next of kin - the longest established firm of probate genealogists.
- Sectors we work are
 - Private - Legal/Solicitors
 - Individual Beneficiaries
 - Public Sector - Local Authorities. NHS Trusts. Coroners office
- 25 members of staff based in our London head office.

- Probate - related genealogy is an unregulated industry.
Anyone can establish their own genealogy company
- To address this Hoopers has taken advice from the Public Sector to satisfy Legal and Procurement standards.

Standards and Accreditations.



Approved Partner Status



Local Authority Departments using the service.

- Housing
- Environmental Health
- Client Finance
 - Court of Protection
 - Deputyship
 - Client Affairs
- Coroners
- Cemeteries + Crematoria
- Bereavement Services
- Adult Social Services

Tracing next of kin process

- Email or phone Hoopers with details
- Hoopers will acknowledge the referral and commence research
- We will accept all referrals regardless of the estate value
- Independent and impartial solicitors deal with estate administration
- Missing Beneficiary Indemnity insurance



Benefits to the public sector

Empty property - Reduce complaints from neighbours

Reducing delay in making properties made available for re-letting

Reduce the administration for “front line” staff in tracing Next of Kin

Ease pressure from coroners office - storage.

Recover Public Health Funeral expenses quickly.

Contact Next Of Kin to arrange the funeral.

End of life care - Inform family.

Case Study. Salford City Council

Empty private property

Complaints from neighbours

Owner (Deceased) was of Nigerian origin – our research identified 4 children

Hoopers research time - approximately 3 hours

Council unsuccessful in communication with children – did not respond to letters

Hoopers made personal visit with recommendation to instruct an Adminstrating solicitor

We are keen to adapt our services according to your needs, whilst maintaining high standards

We do **not** send FOI requests

No commercial contracts necessary

NO COST WHATSOEVER to the Public Sector - GUARANTEED