



Sustainable development and design quality - How far and how much further?

Lynne Sullivan OBE, RIBA
Chair, Good Homes Alliance



Update on Context for Local Authorities and Planning

NEWS: Government confirms local authorities can set energy standards beyond Part L in NPPF

Following a joint letter involving UKGBC, the Government has clarified its position on local authorities setting higher energy requirements than those currently contained in the Building Regulations.



PUBLISHED ON

July 25, 2018

TAGS

News

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The Government yesterday published its revised National Planning Policy Framework (NPPF). The new NPPF highlights the need for quality as well as quantity in the building of new homes. Crucially, in its [summary response](#) to the consultation, the Government has clarified its position on local authorities setting higher energy requirements than those currently contained within Part L of the Building Regulations:

A number of local authority respondents stated the view that the text in the revised Framework restricted their ability to require energy efficiency standards above Building Regulations. To clarify, the Framework does not prevent local authorities from using their existing powers under the Planning and Energy Act 2008 or other legislation where applicable to set higher ambition. In particular, local authorities are not restricted in their ability to require energy efficiency standards above Building Regulations. The Government remains committed to delivering the clean growth mission to halve the energy usage of new buildings by 2030.

Government response to the draft revised National Planning Policy Framework consultation p.48

The need for clarity on this issue was the subject of a recent [joint letter](#) from UKGBC, Core Cities UK and UK 100 to the former Housing Minister Dominic Raab MP.

National Building Regulations

10. Part L of the Building Regulations sets the required baseline carbon emissions for a set of notional new building types in the UK. All new developments in England and Wales must show compliance against this baseline. Successive iterations to Part L of the Building Regulations have improved the required performance of buildings under this baseline, with the intention to ratchet standards up over time to reflect improvements in technology and building practises.
11. In practice, this successive improvement has not been realised in recent years on a national level, so the London Plan retained its trajectory towards zero carbon¹, including a target for a 35 per cent improvement beyond Building Regulations to continue to drive forward performance standards in London. This London specific target has been successful in raising the standard of new buildings in London when compared to national requirements. Annual monitoring of the energy policies in the London Plan shows that developments are consistently meeting the carbon reduction targets. In 2016, developers committed to an average of 35.7 per cent carbon reductions beyond 2013 Building Regulations. This policy has driven technology and product development and professional design services. It also sets the tone and culture within the industry, with many companies keen to outperform the minimum standards set by policy.²

Ex London Plan Topic Paper: Energy December 2017

Emerging Context for national Policy – wider sustainability

- **UK Climate Change Act, PMs Jodrell Bank commitment to halve all buildings energy use by 2030**
- **Smart Cities and Local Authorities' ambitions on zero carbon/low energy**
- **Review of Zero Carbon, Net Zero and Net Positive by UKGBC and others**
- **APPG on Healthy Buildings; air quality statistics on effects such as cognitive impairment**
- **NHS England Healthy New Towns acknowledgement of the importance of public open space: greening/leisure**
- **Impact of Grenfell Inquiry**
- **Impact of the hottest summer to date**
- **More funding for social housing**
- **Design Quality referenced in NPPF**

GLA: Energy Planning and beyond

MAYOR OF LONDON



HOUSING SUPPLEMENTARY PLANNING GUIDANCE

MARCH 2016

LONDON PLAN 2016
IMPLEMENTATION FRAMEWORK

Definition

2.3.58 'Zero carbon' homes are homes forming part of major development applications where the residential element of the application achieves at least a 35 per cent reduction in regulated carbon dioxide emissions (beyond Part L 2013) on-site (in line with policy 2.5B). The remaining regulated carbon dioxide emissions, to 100 per cent, are to be off-set through a cash in lieu contribution to the relevant borough to be ring fenced to secure delivery of carbon dioxide savings elsewhere (in line with policy 5.2 E).

Implementation

2.3.59 In line with the implementation date for previous increases in the London Plan carbon dioxide targets and improvements to Part L of the Building Regulations, 'zero carbon' housing will be implemented for Stage 1 schemes from 1st October 2016.

GETTING TO ZERO

**THE LONDON ENERGY TRANSFORMATION INITIATIVE
DRAFT LONDON PLAN CONSULTATION RESPONSE
FEB 2016**

Introduction

The London Energy Transformation Initiative (LETI) is a network of over 200 local government professionals that are working together to put carbon on the political and public agenda. This initiative brings to reality a group of developers, regulators, housing associations, architects, planners, academics, sustainability professionals, construction, and facilities managers, which is supported and inspired by the GLA and London boroughs. LETI was established to work collaboratively to put regulated energy to the heart of government. For the next few years of policy - the new London Development Planning and the remainder of the current Plan.

[Click here to view previous LETI events](#)

The report contains the summary and recommendations of LETI's consultation response on the Draft London Plan. The GLA invited LETI to have a consultation meeting for the Draft Plan focusing on carbon, energy, and housing, including the Housing Delivery Model and related issues.

A meeting was held on 19th June 2016 at City Hall with over 40 attendees, including representatives from the GLA, LETI, and various stakeholders. The meeting was chaired by the Mayor of London, Boris Johnson, and the Deputy Mayor, Jonathan Adams. The meeting was held in the presence of the Mayor's Executive Director for Planning, Infrastructure and Transport, and the Deputy Mayor's Executive Director for Planning, Infrastructure and Transport.

LETI's vision is for a planning process and set of policies that is based on collaboration and shared responsibility. LETI's vision is to work with the Mayor's Executive Director for Planning, Infrastructure and Transport, and the Deputy Mayor's Executive Director for Planning, Infrastructure and Transport, to ensure that the planning process is transparent, open, and collaborative. LETI's vision is to work with the Mayor's Executive Director for Planning, Infrastructure and Transport, and the Deputy Mayor's Executive Director for Planning, Infrastructure and Transport, to ensure that the planning process is transparent, open, and collaborative.

Advancing Net Zero
Developing a Zero carbon Framework with the UKGBC

Leading By Example
Developing a LETI approach for energy statements

LETI Legacy
Implementing the LETI principles

Register to get involved with the LETI 2018 workshop at www.leti.london

Introduction

Path to Zero Carbon

Draft policy wording

Our suggested wording

Supporting text

Suggested SPG content

Actions for GLA to support policy implementation

GLA: Energy Planning – current Bregs ...plus

**UK sample U values:
(W/m²K)**

0.16 Walls

0.11 Floors

0.12 Roof

1.4 Windows



Element	Original Proposal U-value	Thickness mm	Revised Proposal U-value	Thickness mm
Floor	-		0.11	
Walls	0.12	430	0.16	300
Roof	0.09	480	0.12	350
Windows	0.08		1.37	
Rooflight	0.58		1.33	
Air Tightness	0.6		3.0	
Y - value	0.04		0.04	

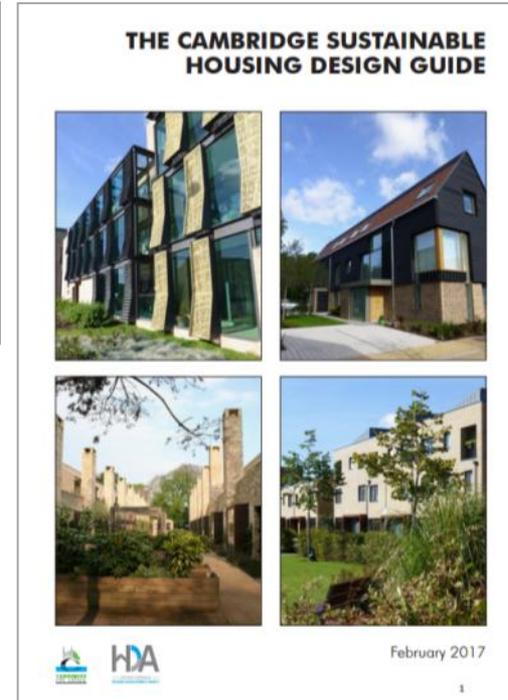
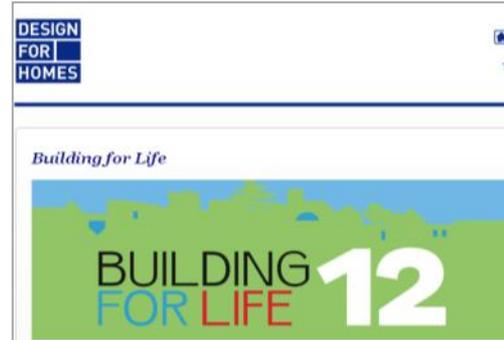
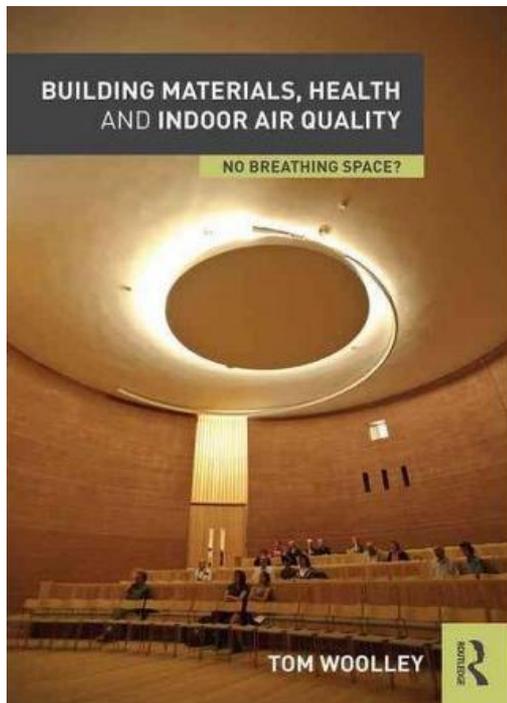
– this equates to ‘Code 4’,

- High Performance timber cassettes
- ‘sacrificial’ brick skin to meet Conservation Area requirements
- High performance timber windows

NB London Zero Carbon demands additional 35%
To ‘Code 5’ eg (in this case) a PV array to South

Emerging Approach for wider sustainability

- An evidence-based approach, rigour in prediction and feedback to fine tune tools and methods: eg on internal temperatures, indoor air quality, daylighting and solar shading/resilience to overheating
- Visiting and understanding what works; creating attractive places that stand the test of time
- Understanding the issues of density versus Urban Heat Island
- Promoting higher standards and the long-term value of investing in them



What characterises higher standards in communities?

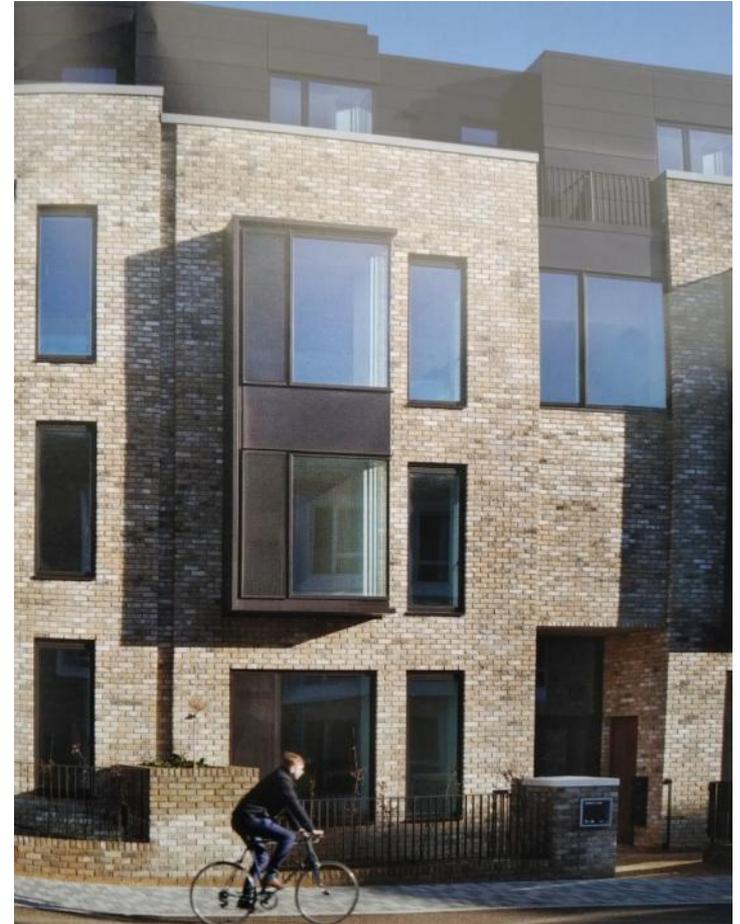
- Improving Health & Wellbeing
- Reducing social inequality
- Enabling community cohesion
- Addressing climate change futureproofing for more extreme weather
- Reducing energy use and conserving resources
- Enhancing the local area
- Addressing affordability
- Reducing car use



What characterises higher standards in development?

eg Cambridge Housing Design Guide based on Quality Charter:

- Community
- Connectivity
- Character
- Climate
- Post Construction Monitoring and Maintenance



Higher standards to reduce emissions

- Catastrophic climate change
- Warming climate in UK
- Significant need to reverse greenhouse effect
- UN Sustainable Development Goals
- Renewable energy and re-forestation

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UK edition

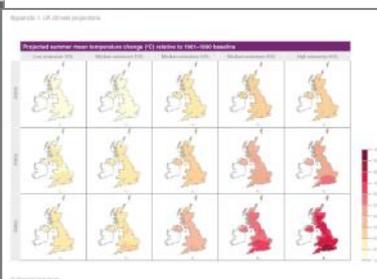
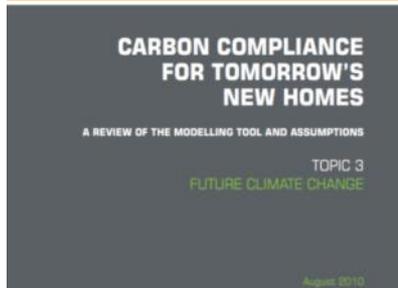
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Climate change Wildlife Energy Pollution

We have 12 years to limit climate change catastrophe, warns UN

Urgent changes needed to cut risk of extreme heat, drought, floods and poverty, says IPCC

● [Overwhelmed by climate change? Here's what you can do](#)



Higher standards to reduce emissions

- Leadership
- Routemap to Action
- Cross-party priorities
- Business growth
- UK supply chain

Theresa May unveils plan to halve building energy use by 2030

By Matt Mace | edie.net

May 22, 2018

Advertisement



Theresa May outlined the UK government's modern Industrial Strategy on 21 May. [Number 10 / Flickr]

An advertisement for the Energy Storage Global Conference. It features a yellow 'Join us!' button in the top right corner. The text reads 'Energy Storage Global Conference' in blue, followed by 'Brussels, 24 - 26 October 2018' and a blue 'Register here' button. Below the text is an illustration of a wind turbine, solar panels, and a battery. The logo for 'The International Business Council' is in the bottom left corner.

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BLOG: Future looks green for Greater Manchester

John Alker, Director of Policy and Places, reflects on Andy Burnham's Greater Manchester Green City Summit on March 21.



PUBLISHED ON

March 21, 2018

TAGS

Mayor

SHARE



Higher standards to improve health and wellbeing



all party parliamentary group
for healthy homes and buildings

YOUR INVITATION TO THE PARLIAMENTARY DROP-IN AND LAUNCH EVENT

LAYING THE FOUNDATIONS FOR HEALTHY HOMES AND BUILDINGS: WHITE PAPER LAUNCH

Wed 17th October 2018. 14:00 – 16:00

Attlee Suite, Portcullis House, House of Commons, London, SW1A 0AA.

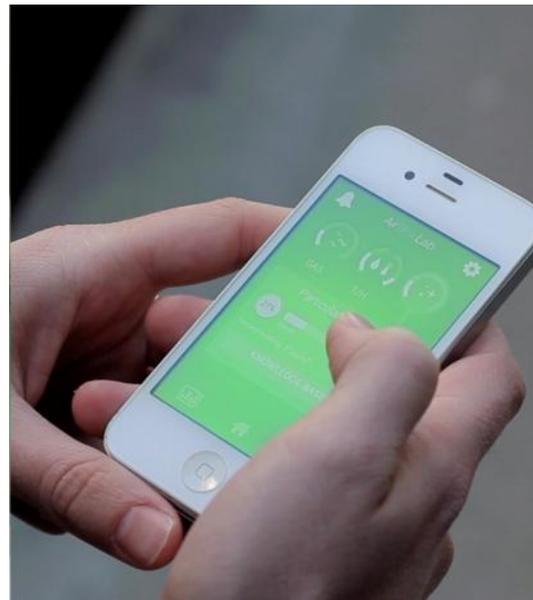
Hosted by Jim Shannon MP

RSVP to hbbappg@devoconnect.co.uk



Higher standards to improve health and wellbeing

- Big data on real building performance is easily gained through smart metering
- Phone apps talking to environmental sensors can indicate problems with air quality
- Health professionals and authorities are increasingly aware of potential links with poor building performance
- Source control of pollutants: specification guidance is available
- Biophilia – people love plants and planting and their therapeutic/physical benefits



Higher standards to improve health and wellbeing

-Is 'Natural' Ventilation a Panacea?

- External Air Quality and noise
- Cross ventilation only works with narrow floorplate
- Many apartments single aspect
- Trickle vents vulnerable to misuse
- External CO2 and particulate matter concentrations lead to cognitive impairment



home › environment › pollution climate change wildlife energy

Pollution
The air we breathe

European commission issues 'final warning' to UK over air pollution breaches

UK is one of five countries persistently contravening legal nitrogen dioxide levels with pollution from factories and vehicles


4039
Arthur Neslen
Wednesday 15 February 2017 18.38 GMT

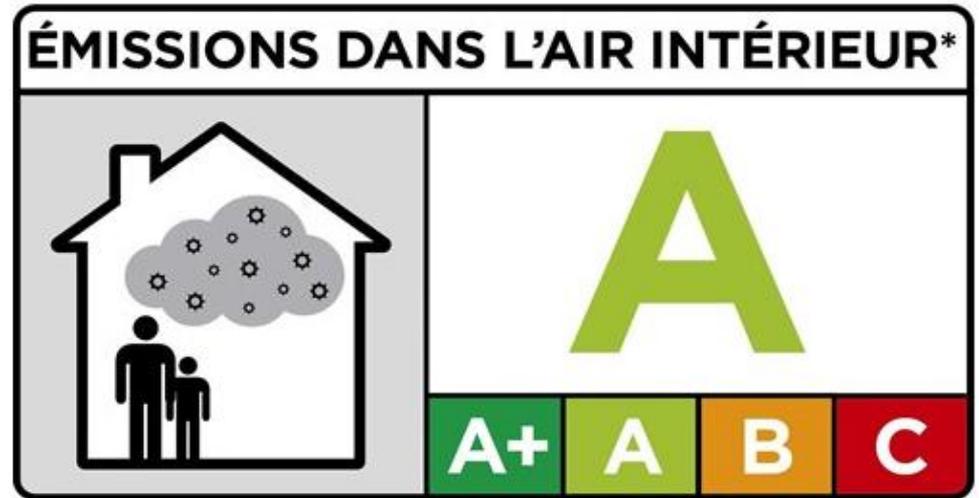
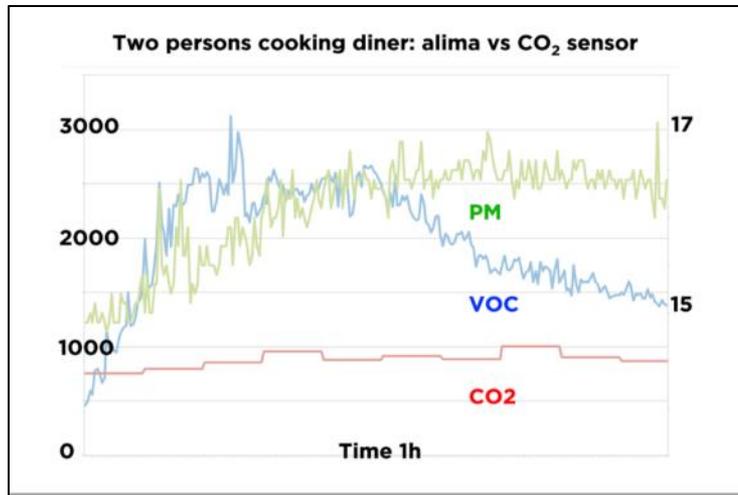


 People wearing face masks in London. Air pollution is linked to the early deaths of about 40,000 people a year in the UK. Photograph: Jill Mead for the Guardian

Britain has been sent a final warning to comply with EU air pollution limits for nitrogen dioxide (NO₂) or face a case at the European court of justice.

Higher standards to improve health and wellbeing

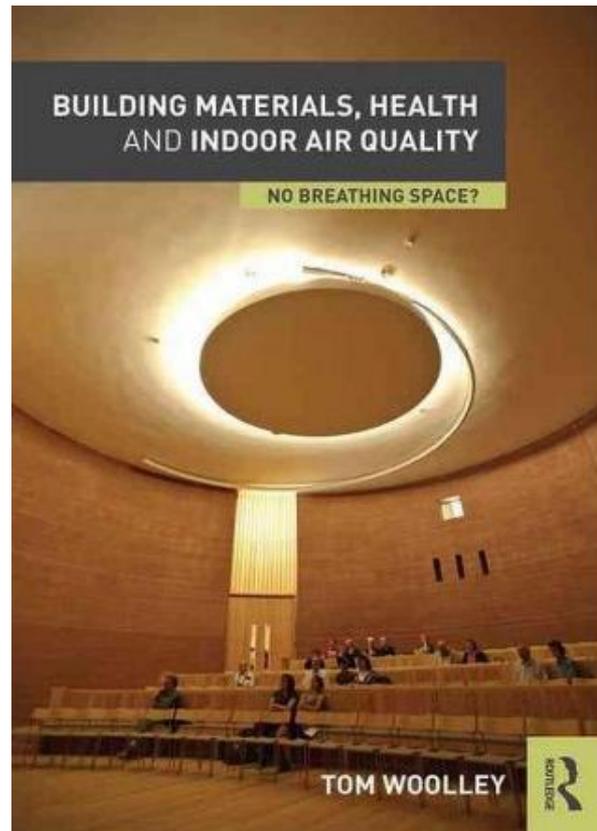
- Control of Pollutants at Source: specifiers need reliable standards



- A French regulation was published on 25 March 2011 with details published in May 2011 regarding a mandatory labelling of construction products installed indoors, floor and wall coverings, paints and lacquers with their emission classes based on emission testing (ref AFSSET)
- No comparable controls in UK on source control of indoor pollutants

Higher standards to improve health and wellbeing

- Negative health consequences of indoor pollutants
- Better specification, better education



A screenshot of a news article from the Mirror website. The article is titled "Clothes hoarse: Drying your washing indoors can make you ill" and is written by Andrew Gregory. The article discusses the health risks of drying laundry indoors, such as dust mite and mould spore growth, which can trigger asthma and allergies. The article includes social media sharing options for Twitter, Facebook, and Send. Below the article is a photograph of a woman using an inhaler.



Higher standards to improve resilience

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JOINT BCO/RICS SEMINAR: CLIMATE CHANGE IMPACTS ON COMMERCIAL PROPERTY



© rossparry.co.uk

Solar panels on the roof of an eco-home. Researchers found heat built up faster than ventilation could remove it (file pic)

Britain has relatively few eco-homes, but building regulations mean all new homes must meet tough energy consumption standards from 2020.

Architect Lynne Sullivan, a member of the Passivhaus Trust, said: 'There is a danger of overheating in all homes built to the new regulations, particularly flats, and we have been warning the Government.'



MailOnline 

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Summer danger of 'red hot' eco-homes: Insulation used to keep buildings warm in the winter traps heat potentially putting residents at risk

- Researchers tracked the temperatures inside eco-homes in the summer
- The low energy homes have been billed as a solution to rising fuel costs
- They found some homes could heat up to more than 25C for days at a time
- This is due to heat building up in homes faster than ventilation removing it

By [Vanessa Allen For The Daily Mail](#)

PUBLISHED: 00:33, 11 May 2015 | UPDATED: 11:52, 11 May 2015

Higher standards to improve health and wellbeing

National

Mix it up

Portraits explore mixed race id
SocietyGuardian.co.uk

Green spaces promote good health, says study

'Natural' environment aids well-being of rich and poor
Mortality rate rises for low earners in urban areas

Sarah Boseley
Health editor

Living in a green area can lengthen your life, according to research published today which shows that the difference in life expectancy between rich and poor shrinks among those who live in an environment with parks and trees.

Richard Mitchell, from Glasgow University, and his colleagues, found that the gap between the numbers of deaths of people on high incomes and the numbers of deaths of those on low incomes in green areas was half that compared with figures relating to built-up areas.

Green spaces, classified by the researchers as "open, undeveloped land with natural vegetation", encouraged people to walk and be more active. But exercise in these settings could have greater psychological and physiological benefits than exercise elsewhere, the researchers said.

The benefits potentially go beyond exercise. Studies have shown that being around green spaces can reduce blood pressure and stress levels, and possibly help people heal faster after surgery.

A number of researchers have looked at the effects of greenery on our wellbeing, the paper published in the Lancet noted. But few studies had looked at whether living in green areas reduced health inequalities, the Glasgow team said.

Using information from a land-use



The difference in death rates between well-off and poorer residents shrinks in green areas Photograph: Jeff J Mitchell/Getty

database of 2001, the researchers split the pre-retirement population of England into four groups according to income level and deprivation, and five groups according to access to green space. They then looked at mortality data for 2001-2005.

They found that the inequality in mortality from all causes relating to income deprivation was less in those populations in the greenest areas compared with the figures for people living in more built-up places. They found an even stronger relationship when it came to deaths from

circulatory disease such as heart conditions and stroke. There was no difference, however, in deaths from lung cancer.

The researchers wrote: "Published work suggests that green space might affect health by inducing beneficial physical activity, and by ameliorating the response to stress. Physical activity and response to stress are components of the cause of circulatory disease and reduction of these factors might have contributed to the lower inequalities that we recorded in greener areas." They concede that there

are potential weaknesses of the study. They cannot know, for instance, the quality of the environment or whether everyone in an area gets equal access to the green space.

But the team said that altering the physical environment was an easier way to combat poor health in deprived areas than using media campaigns or giving out information on health. "The implications of the study are clear: environments that promote good health might be crucial in the fight to reduce health inequalities."



Living and Community

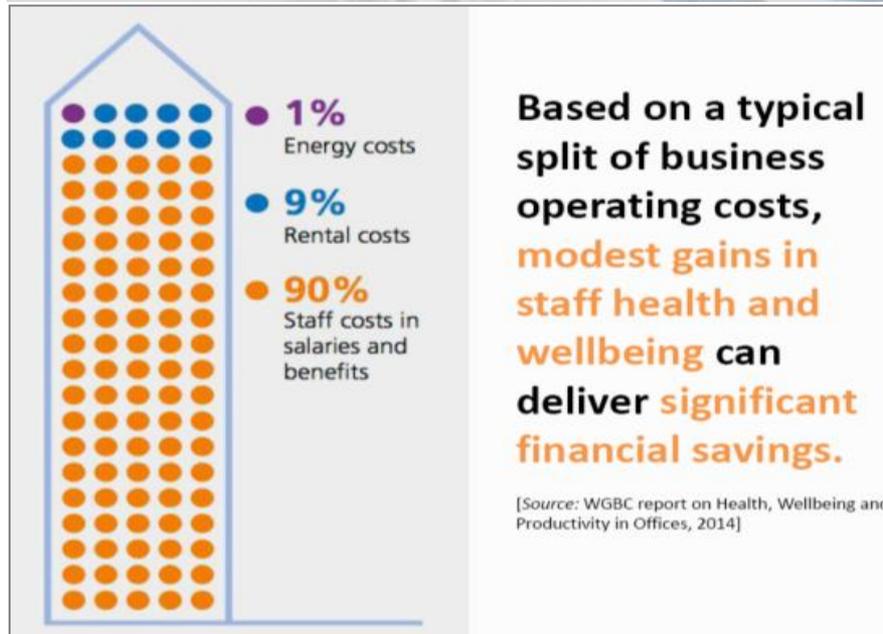
Geoff Mulgan

black dog publishing

THE EDGE FUTURES



Higher standards to improve health and wellbeing



Higher standards to improve build quality

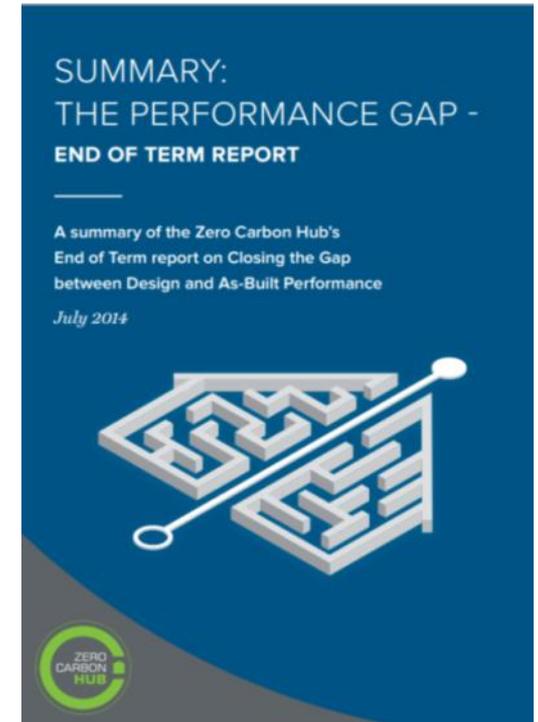
- Build Quality a major contributor to the 'Performance Gap'
- Investors and Lenders require better predictability of performance



The screenshot shows a news article from The Guardian. The headline is "More than half of new-build homes in England 'have major faults'". The sub-headline reads "Shelter survey finds 51% of owners of recent new builds experience problems including construction, fittings and utilities". The article is categorized under "Construction industry". The author is Julia Kollwee, and the date is Thursday 2 March 2017. The article includes a photo of a construction worker on a roof. The text below the photo states: "More than half of the buyers of new homes have experienced major problems with their properties, according to research, which comes after Bovis Homes agreed to pay £7m compensation to customers for poorly built houses."

More than half of the buyers of new homes have experienced major problems with their properties, according to research, which comes after [Bovis Homes](#) agreed to pay £7m compensation to customers for poorly built houses.

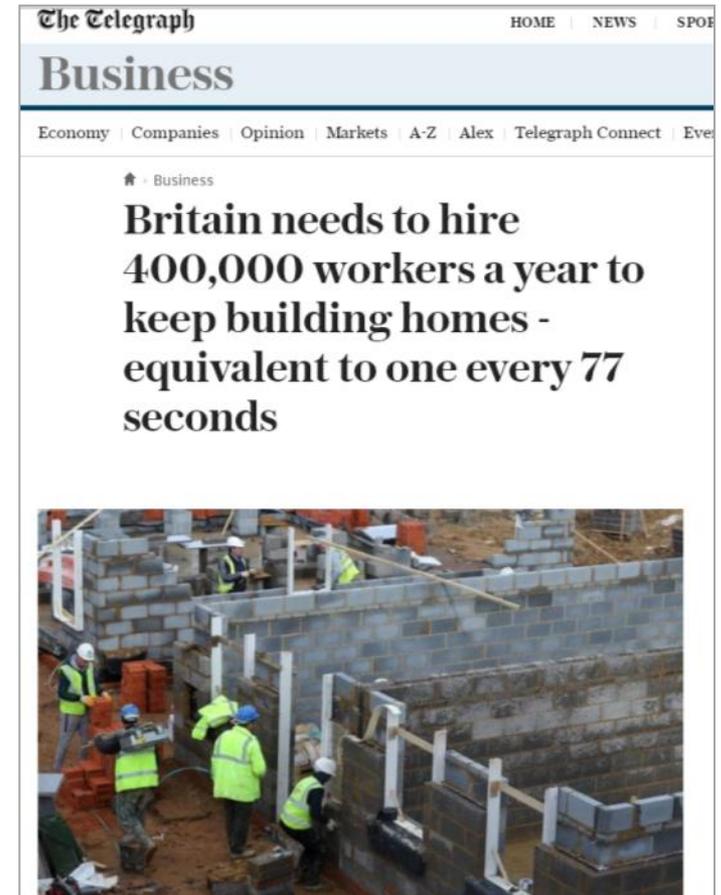
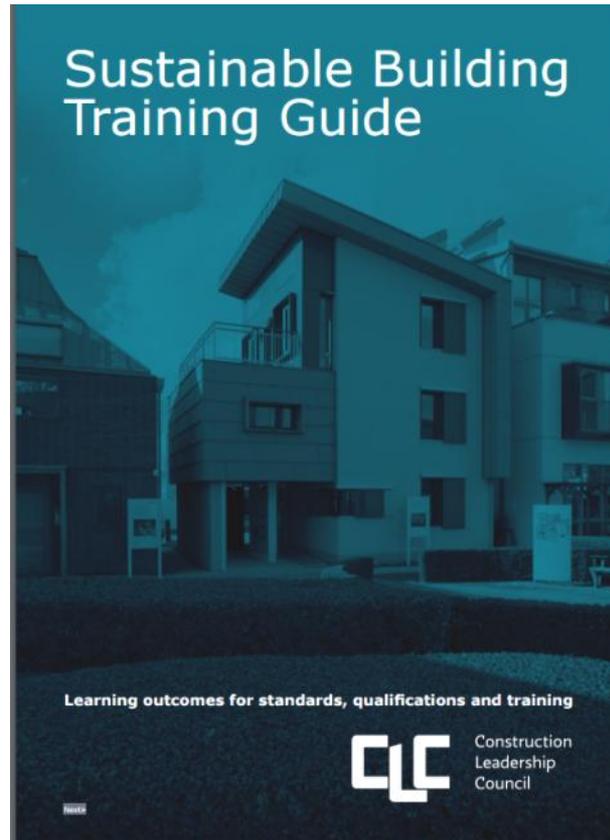
A YouGov survey for the housing charity Shelter found that 51% of homeowners of recent new builds in England said they had experienced major problems including issues with construction, unfinished fittings and faults with utilities.



The cover of the report features a blue background with a white maze graphic. The text on the cover reads: "SUMMARY: THE PERFORMANCE GAP - END OF TERM REPORT". Below this, it says "A summary of the Zero Carbon Hub's End of Term report on Closing the Gap between Design and As-Built Performance" and "July 2014". The Zero Carbon Hub logo is visible in the bottom left corner.

Higher standards to improve build quality

- Brexit could cause a major skills crisis: 215,000 fewer people from the EU will join the UK's construction industry by 2020. One in eight construction workers in the UK are foreign; in London that figure is 23% and up to 70% on some sites



Higher standards to improve build quality

- Design to integrate the right strategies
- Quality Control on site
- Verification during and after build
- Clear operating instructions to users

The New York Times

Grenfell Fire Inquiry Demands Radical Overhaul of U.K. Building Rules



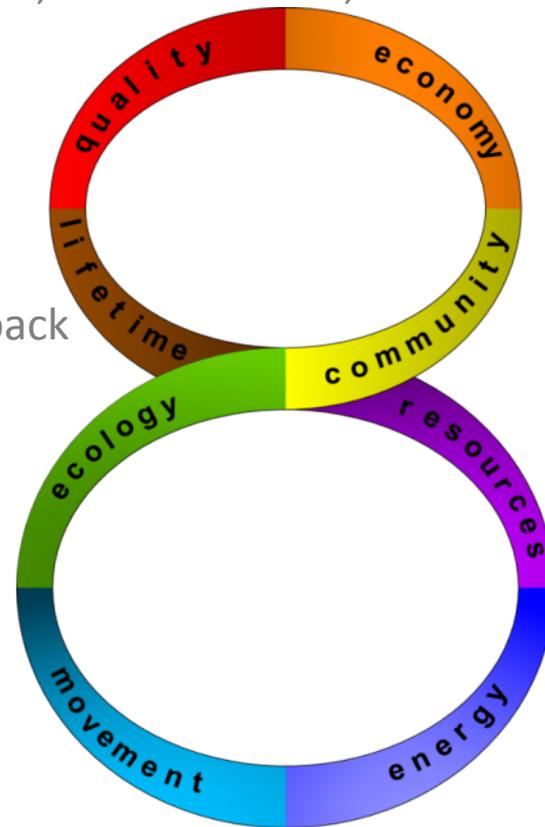
Development planning requires vision and pragmatism

- Design to integrate the right strategies –

AIM FOR NET POSITIVE OUTCOMES: ENERGY, WATER, WASTE, BIODIVERSITY, WELLBEING

ADOPT A QUALITY CHARTER: eg COMMUNITY, CONNECTIVITY, CHARACTER + CLIMATE

- Quality Control on site
- Verification during and after build
- Clear operating instructions to users; feedback





Thank you

Lynne Sullivan OBE, RIBA
Chair, Good Homes Alliance

