# Get Britain Building Good Homes

Primer for the Good Homes debate and ideas on a National Good Homes Plan



### THE GOOD HOMES ALLIANCE AND THE GOOD HOMES DEBATE

The Good Homes Alliance was established in 2006 and is a multi-disciplinary organisation that acts to define, promote and deliver good homes and, as part of this, to help members and the wider industry to close the potential gap between aspiration and reality. It is a membership based community interest not for profit company, with developer members at its core who are supported by non-developer members.

The GHA's membership criteria are unusual in that they require the developer members to comply with a minimum set of standards as well as to assess, through a post occupancy process, the energy performance of their homes. The non-developer members act in a supporting role to the developers and include, necessarily, a wide range of organisations including architects, engineers, supply chain partners, contractors, academics, government agencies, management companies and individuals.

In its first six years the GHA has developed a reputation as a respected voice and active participant in the sustainability and housing sectors, and is an acknowledged expert in the energy and environmental fields. It has undertaken the largest series of research projects of an organisation of its kind in terms of the energy and environmental performance of new homes, and is a leading industry voice in articulating and providing solutions for the performance gap – the difference between planned and actual energy performance.

The multi-disciplinary membership includes a range of industry leaders such as the Joseph Rowntree Housing Trust, Peabody Trust, Kevin McCloud's development company HAB, Kingerlee Group, Natural Building Technologies, Prince's Foundation, LABC, BSRIA, the Homes and Communities Agency, as well as Universities and academics.

We believe that we have through our membership, our industry alliances and our own capabilities a tremendous repository of expertise and experience in good homes and sustainability. We want to harness these resources to raise the standards of British housing and development – so that Britain can become a good homes country. We believe at present that it is not. We also want to see substantial increases in the number of new homes built – increasing output to 300,000 per year. These are the levels of new homes production that are common in our European neighbours, either on a per capita or absolute basis, and which we have achieved in the past. We believe that land availability is not the factor in limiting the number of new homes, but rather the dysfunctional nature of our planning system and the housing industry. A new dynamism and belief is needed so that we can build ourselves out of a growing and quite alarming housing and sustainability crisis, and our Good Homes Debate is our key response to meeting these challenges.

The views set out in this paper do not represent those of the individual members of the GHA, and indeed are set out as key discussion aspects of the Good Homes Debate that GHA will make a core aspect of it's work going forward.

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### **Foreword**

The Good Homes Debate is both timely and necessary. Britain is facing a housing crisis that is both qualitative and quantitative. The factors that need to be addressed are both practical and psychological; a product of systemic failure in the finance and development sectors but also of a profound cultural malaise.

Britain has a wonderful architectural heritage. Respect for the past is fundamental to our psyche, and an important part of British culture. But nostalgia needs to go hand in hand with confidence in our own abilities and taste. It's crucial that we have – and nurture – confidence in our own ability to design and build homes and places that serve the needs of the individual and the community; that address the challenges posed by climate change; that reflect our shared values and – crucially – that will be enjoyed and cherished not only by this generation but by generations to come.

In order to gain this confidence we need clarity of purpose. A National Good Homes Plan will be fundamental in terms of giving the certainty the housing industry needs. But it is essential that it is underpinned by real practical support; availability of finance both for development and mortgages; education training and skills; a supply chain that is both fit for purpose and flexible; a clear and proactive planning process and cross party political support.

The scale of the challenge – and the opportunity – is enormous. If we want to avert the national housing crisis we need to increase output to 300,000 new homes a year. If we want to be able to hold our heads high we need to make sure that these houses are contemporary, sustainable, adaptable and every bit as desirable as the best of our historic building stock.

Kevin McCloud

Author, broadcaster and designer

### Introduction

The Good Homes Alliance aims to be Britain's leading authority on Good Homes. We define what a good home is and guide planners, designers, developers and builders on how best to create good homes by incorporating 'sustainable living principles' within their work.

We need a National Good Homes debate and, after it, a National Good Homes Plan to once and for all address our housing crisis. Political dilly dallying won't cut it anymore or to put it another way: bravery, decisiveness, and honesty are needed. In housing we continue to fail. Some say that the last recognisable good home house type was the 1930s semi.

We can do better. We can solve the problems and meet the challenge of creating good homes and in the number that we require. We indeed believe that Britain can become a good homes country. A place where new housing developments can meet our definition of what a good home is and indeed exceed this, to do better. The prize for us and future generations is a legacy of homes that raise the spirits and create the environment for families and individuals to enjoy a good quality of life and greater social cohesion.

How we can we be so sure? Because the evidence is all around us in much of our existing housing stock and indeed, to a modest extent, in some of our own new albeit exemplar housing developments. Thank heaven most of all for our Georgian, Victorian and Edwardian forebears, and the huge strides that were made in the interwar years, otherwise we would be living in a sea of soullessness, devoid of any design, style or generosity. In many ways, we still live out of our ancestor's pockets, and enjoy the benefits of their thoughtfulness, their investment in infrastructure and good homes, and their determination to bequeath something of lasting value to us. There is the story of Danish planners flying out to Britain, to view our Georgian and Victorian place making and good homes, only to be met at the airport by British planners going in the opposite direction to view ordinary modern housing in Denmark that the Brits consider to be exemplary in terms of contemporary design and place making. The Danes simply ask the question: "What has happened to Great Britain?".

We have to get it together, to debate, to iron it out and to agree. To formulate and then to deliver on a National Good Homes Plan. We have the talent, the skills and the drive. We need to get the right people into the right places. But the life of any parliament is not enough. This plan will take 10 years to deliver. So a national, cross party strategy is needed. The opportunity is there to solve our problems in a fundamentally more fair, and democratic way, and to unleash and drive a truly enterprising culture into the phenomena of new housing development that will mean that those Danish planners will be coming to Britain to see not just our historic but also our contemporary new housing developments.

Our vision is for Britain to be recognised as the world leader in building the best new homes. We want the best for all of us. Our mission is to work with the British building industry, the government, stakeholders and the public to plan for, design, build, manage and maintain Good Homes. We define a good home as follows:

## The Danes simply ask the question: "What has happened to Great Britain?"

"A Good Home is sustainable, healthy, well designed, spacious, attractive, quality built, durable and efficient. A source of pride and satisfaction, it is comfortable, safe and assured. A home includes the community within which it is located so that a good home is located in a friendly, sustainable and resilient community. It is a pleasure to live in a good home. It will have been designed and built in a highly socially and environmentally responsible manner with particular regard to the health and wellbeing of occupants and those involved in its design and construction. Access to a good home is the right and privilege of all in a progressive and civilised society."

Good Homes are a basic, literal building block of civilisation. We need, as a progressive, driven and creative society, to be building new homes which meet our aspirations, showcase what we are capable of, and drive social, environmental and economic benefits across our country. We need to be building new homes that offer choice, quality, sustainability, affordability, flexibility, low heating and running costs, and a sense of pride, whilst engendering a sense of community. We need to be building new homes that meet the increasingly niche and fragmented requirements of different socio-economic, culture and ethnic groups. Numerous studies, which are often disingenuously swept aside by politicians and the industry alike, demonstrate that many of the new homes being built today are simply far too small for families to live in. Uniquely in Europe, British buyers prefer existing, rather than new homes. It is no surprise. We build the smallest new homes in Western Europe. They are small, boxy, soulless and mean. New homes built today will last for generations, and will drive so much of our energy requirements in the future, so must be built with the future in mind. It was Winston Churchill who said "We shape our buildings and afterwards our buildings shape us."

The work of the GHA in the last six years has clearly demonstrated the technical, organisational and other challenges that come with the drivers for creating good homes, and we have shown that these hurdles and challenges need considerable effort and determination to overcome. But they can be overcome with dedication, collaboration and shared values.

This paper acts as a primer to both the Good Homes Debate, as well as a National Good Homes Plan. In giving examples of what some of our members are doing and have done to further the development of good homes, it shows what is possible, seeks to inspire and empower, and by way of example commences the process of making Britain a good homes country. They have demonstrated what is achievable and created exemplar projects

that are industry leading. Somewhat ironically and quite tellingly, some of them are relatively new entrants to the residential industry and have been able to develop projects that are far in excess of the standards created by the established developers.

We set out under what we think is wrong with Britain's new home sector, as well as what we think can be done about it – making good homes happen. In this regard we have set out the following key ten suggestions that we propose will form the nucleus of the Good Homes Debate

- 1 Adopt the Good Homes Alliance charter across the housing industry
- 2. Create a National Good Homes Plan, a ten year plan to build 3 million new homes backed by a national referendum
- 3. Develop a new generation of new towns and large settlements with local authorities empowered to do so
- 4. Encourage innovation, entrepreneurialism and enterprise through support for self commission/self build homes
- 5. Adopt a national minimum space standard, integrate sustainability requirements into the building regulations and encourage national debate and participation in the design of new homes
- 6. Move design and delivery into the 21st century
- 7. Improve capacity and ability for communities to engage in Neighbourhood Planning
- 8. Create fiscal and other incentives to facilitate the regeneration of existing neighbourhoods, towns and cities
- 9. Set up a National Housing Development and Research body to improve the house building industry funded by a sales levy
- 10. Appoint a Housing Commissionaire

We are putting together a series of initiatives including industry seminars and conferences which will follow on from this primer, and we hope that you feel inspired by our approach at tackling this complex but necessary challenge and look forward to working with you on the Good Homes Debate.

Pete Halsall Chair, Good Homes Alliance

# What's wrong with Britain's new homes sector?

The British new homes market has proven unable to meet the demand for new homes over a sustained period of time, nor has it met housing standards which would be expected in most European countries. In stark contrast, many other countries have anticipated and largely and successfully confronted housing shortages. Subject to enormous swings, both in terms of political and macro-economic policy and circumstances, the British housing market is at the mercy of the health of the banking and finance sectors, the whim of politicians and the grip of house builders. The issue for housing is that decisions taken today will set in place the development of new homes that will often last for up to 100 years and, most likely, more, creating the conditions in which innumerable people will live out their lives. The industry bases its thinking on a largely short term basis while, ironically, creating homes and places that are around for a long time.

Clearly the financial crisis of the last five years has been an enormous drag on house building. At the same time, there are some bright spots in terms of good practice which go back to a concerted effort by politicians of all parties to regenerate our towns and cities with buildings of a good level of quality of design. We consider that the following are key problems and challenges which underlay the housing crisis and that these need to be solved in a National Housing Plan:

### **INADEQUATE SUPPLY**

The British rate of new home building in the last 10 years has been amongst the lowest in Europe. It is woeful and inadequate, there is no lack of land on which to develop houses, and what is needed is political will and leadership. Our existing housing stock will need to be progressively replaced as it inevitably becomes obsolete, so that with this factor and rising household formation levels, we will need find a way to considerably increase new housing supply. As people suffer from ever rising levels of heating and electricity costs, so they will become more inclined to want to live in newer and more energy efficient homes.

#### LACK OF AFFORDABILITY

There is the rather patronising view, often put across by policy makers and industry leaders, that the current 'generation rent' are going to have to get used to not owning their own home and perhaps rent in the long term. This often from people who have accrued huge equity gains in their own homes in the last 15 years. It is hard to find such a stark example of intergenerational inequality. New housing is often expensive and entirely unaffordable to the young – undoubtedly impacting on their quality of life and indeed their long term financial standing. Apart from the social challenges of this, there is also the economic dysfunction that could follow. We know that good homes can be affordable to buyers - albeit requiring a fair and more sensible land cost - but the house building industry, apart from making their homes mortgageable, does not appear to show concern for broader house price affordability issues. There remains the need to open up the market to seriously competitive rigour, within the context of the good homes concept. High house prices are hugely disempowering to the young, a signal that they are not

able to actively participate in a critical aspect of society – having a good homes roof over their head – and a clear drag on Britain's critically important enterprise culture.

### A FLAWED LAND AND PLANNING SYSTEM FROM A FREE MARKET PERSPECTIVE

As necessary as its intentions are to protect us from sprawling development which damages the countryside, this can often dysfunctionalise the property and the free functioning of the British housing market. It is of course, for all its bureaucracy, a largely political process, the result of which is often the significant increase in land value for the land owner or developer. Fundamentally, is the process fair? The majority of land value arises as a result of this combined political and planning process, which necessarily and intentionally limits the supply of new land. Where land is consented its value can increase hugely on receipt of planning permission. The result is a limited supply of land in places where people want to live, and a market which is very unresponsive to demand, generally resulting in people chasing housing, and therefore driving up the cost of new housing. Investment in getting planning permission is enormous and terribly risky and thus only something that well capitalised house builders and the like can contemplate on medium to large sites. The issue of land cost has to be imaginatively considered in this light.

New planning policy is beginning to make some improvements. Its presumption in favour of sustainable development is, in theory, a help. Indeed, the prime minister, David Cameron, has exalted planners to "get planners off peoples' backs' but, given the pervasive Nimbyism in Britain, should more realistically have said that is it time to "get people off planners' backs". Indeed, somewhat ironically, it was strong Nimbyism sentiment which considerably curtailed the Government's ambitions to empower people to extend their homes through extensions of permitted development rights.

Quite simply, housing cannot happen without government – whether at the local, regional or national level – investing in the supporting infrastructure for housing such as roads, railways, schools and hospitals. We can see already that a greater, more imaginative and longer term strategy is required to work out how we can deliver on new housing numbers within the context of a planning system that is fair to all – and especially those who are disadvantaged by living in poor housing, particularly the young.

### **DISEMPOWERMENT**

We are unusual, certainly in a European context, in that our housing market is dominated by large PLC house builders, who, apart from the growing and increasingly well-funded housing associations and some large scale land developers, are often the only players who can bankroll large scale development. The proportion of new homes that are self-commissioned in Britain is, again, one of the lowest in Northern Europe, and certainly very inconsistent with an otherwise enterprise driven and increasingly entrepreneurial society. Local authorities have been out of the business of house building since the 80s due to

## Decisions taken today will set in place the development of new homes that will often last for up to 100 years

restrictions placed on them by successive governments. Recent government relaxation on spending caps, as part of Localism, have freed them up to build new homes again, albeit with many of them struggling with both capacity and capability to move back into the process. Some are developing sites that they own but, given their capacity and funding issues, it remains to be seen whether they can again become large scale players in new homes development; and hence meaningfully impact on either standards or housing numbers without a strategy and further measures to help them to do so.

#### **POOR DESIGN**

The level of design quality in much new and post war British housing is well known to all of us. We walk, cycle and drive past it every day. It is often devoid of any semblance of architecture and design; this in a nation that is unquestionably a world leader in architecture and design. It is hardly surprising that people often object to planning applications for new homes. Who in their right mind would want to live next to, or be able to see out of any of their own windows onto many British housing estates?

### ILL THOUGHT THROUGH RATIONALISATION OF STANDARDS

There are currently plans afoot to rationalise standards and, in many ways, this is welcome but, unfortunately, the rationalisation process in reality will lead to a reduction in, amongst other things, environmental standards. House builders have been highly aggressive in their determined pursuit of standards reductions, with a number of industry players seeking to trivialize in particular, sustainability requirements. The imminent abolition of the Code for Sustainable Homes will mean that there are likely to be no regulatory drivers in place for water efficiency standards, the use of green and sustainable materials nor (even sensible) considerations of site ecological factors. All of this does not bode well for the future of sustainable housing.

### TOO SMALL

Housing space standards in the last century have oscillated considerably, reflecting various boom and bust cycles. Numerous studies convincingly demonstrate that the majority of new homes being built in Britain are simply too small. We now manage to build homes which are smaller than those built in Japan – where the people by and large are in turn often a lot smaller than the average Brit. It is encouraging that there are minimum space standards now again in London, and that the government is consulting on minimum space standards for the rest of the country. A mandatory standard, no doubt similar to the Parker Morris standard abolished in the 1980, is evidently going to be required.

### POOR TECHNICAL COMPETENCY

A key issue is the technical competency of the industry, and the extent to which it has been able to get a grip on and deliver higher sustainability and energy requirements – the large majority of which are reliant on technical expertise. New homes need to be well insulated and airtight, but we have found through our extensive research projects that the performance gap – the

difference between the planned and actual energy performance of our new homes – can be considerable. We have also found that new homes can overheat, largely as a result of the failure to ensure correct functioning of ventilation, and other quite simple and easily avoidable errors. It is questionable whether the industry has the technical capability to deliver on higher standards, but this issue, of course, is not one for the government to solve but the industry itself – a result, in large part, of almost non existent investment by house builders in research and development.

### **CAR DOMINATED AND SOULLESS**

The absence of any properly designed public realm is very apparent in so many of the British housing estates that have been built since the war. The car dominates and walkability, neighbourliness and good quality public realm almost always take a back seat. By contrast, the vast majority of our existing pre-war homes sit in more balanced neighbourhoods where it is easier to walk, cycle and use public transport, and where, very often, care was taken in integrating higher quality public realm and natural landscapes.

### ABSENCE OF APPROPRIATE FINANCING MODELS

It is difficult for many to participate in the housing sector, and this is largely because it has been a debt based, rather than capital based industry for too long, demanding high levels of return which create a short term mentality. Housing is a very long term investment and its financing and financial models for development should be based on this. Debt based financing models create the environment in which it is very difficult to justify or drive quality and sustainability and yet these are the fundamental criteria around which good homes need to be created.

How then does the market, and the majority of purchasers, respond to the offer in new housing that results? They don't – they simply don't buy new homes. Various studies have demonstrated that between 50% and 75% of British homebuyers would prefer to buy an existing, rather than a new home, citing poor space standards, lack of good design and 'character' and poor build quality as negatives. In almost any other consumer endeavour, new is better and preferable to old. In every other European country, people prefer to buy new rather than existing homes.

Britain is somewhat unusual in that we have inherited sound, largely pre-1930s, housing stock from our forebears so we have literally millions of homes that are of exemplary design. They have first class community characteristics that are still largely unmatched by today's contemporary designs and developments. Indeed, post 1945, our key housing innovations have been largely about the creation of large numbers of ever smaller 'noddy box' housing (a term used in the wider lexicon) spread across the outskirts of our towns and cities, or rather dreary multi-story council housing. Britain's existing stock as a proportion of new homes (i.e. those built before 2008 and those built after 2008) is by far the oldest globally. There is no doubt, with increasing energy standards and rising fuel costs that the viability of this high proportion of existing stock will come into question, as indeed will its desirability.

### Making good homes happen

In response to the challenges noted above, we set out ten key initiatives with underlying assumptions and more specific measures which we believe both reflect wider sentiment and which, with political will and leadership, are deliverable

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### **ADOPT THE GOOD HOMES ALLIANCE CHARTER**

Our forebears have demonstrated to us that a moral basis for business more widely and housing development in particular is entirely consistent with a successful and profitable venture. We believe that the Good Homes Alliance charter and manifesto can be adopted by the housing industry – giving it a moral compass – and driving Britain towards becoming a good homes country.

We will start our debate with a view of the GHA charter and seek to gain its adoption by those in leadership positions in the industry.

Apply a statutory duty on local authorities to require that 'good homes' are developed in their jurisdictions.

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### CREATE A NATIONAL GOOD HOMES PLAN, A TEN YEAR PLAN TO BUILD 3 MILLION NEW HOMES BACKED BY A NATIONAL REFERENDUM

The free market is dysfunctionalised by the (necessary) planning system which limits competition, reduces choice and adds considerable risk and cost to the process of development. Radical measures are required so that we can get the protections and sensible planning process that we require, whilst releasing a vibrant enterprise culture.

Develop a clear and detailed 'National Good Homes Plan' so that the ten year overall average new homes supply can be sustained at 300,000 new homes per annum with a number of radical planning measures which safeguard the environment – but only on the basis that a national referendum is held with regard to adoption of the plan with at least 50% of voters agreeing. This referendum should extend to those of a minimum of 16 years of age.

Conduct as part of this an assessment of the likely very considerable increase in GDP that such a sustained increase in housing development would create.

Facilitate and encourage the use of the simplified planning zone model (SPZ) for large scale, local government supported housing developments.

Consider radical, large scale city expansions along the Copenhagen model where, in one area, the city was extended into adjoining low grade farmland by 600m (reducing the need for new infrastructure) provided that a high proportion of green space was incorporated into the new development, both in terms of vertical area and horizontally in terms of ground level and roof scape.

Establish a national template of housing pattern books which are approved for building regulations and planning permission in local authority driven custom homes developments such as SPZs mentioned above.

# DEVELOP A NEW GENERATION OF NEW TOWNS AND LARGE SETTLEMENTS WITH LOCAL AUTHORITIES EMPOWERED TO DO SO

Standalone large scale developments can work well – Milton Keynes, as a former 'new town' is now a well-established city, Cambridge has huge extensions planned and the Letchworth garden city and other models are proven.

Establish a national programme of new towns through a competitive process and the establishment of 'good homes' development criteria.

Establish a national body with local representation that can — where specific and rigorous criteria are met – award planning consent to such large scale developments

Ensure that a significant proportion of the land value uplift as a result of the planning consent is recycling back into the development in order to produce high quality homes and supporting infrastructure

# ENCOURAGE INNOVATION, ENTREPRENEURIALISM AND ENTERPRISE THROUGH SUPPORT FOR SELF-COMMISSION/SELF-BUILD HOMES

House building is a challenging and difficult market to enter with high barriers to entry which include, amongst other things, huge capital requirements and the ability to take planning risk. This makes it difficult for new and more innovative entrants to the market. Therefore a critical aspect of any good homes strategy is to increase competition in the market and specifically both the support and facilitation of so called 'alternate delivery models' as well as opening up the market to foreign competition.

Facilitate alternate delivery models with a substantial increase in the Custom Build fund as well as the creation of a further fund to support and facilitate co-housing developments.

Require that 20% of all planning approvals for new homes developments over 200 homes be allocated to custom build/self-build and co-housing models – with incentives for house builders to set up facilitation and marketing services for custom homes builders.

Further relax local authority spending and investment restrictions for new housing and associated infrastructure investments based on their establishment of an expert housing development group which has proven development, sustainability, and investment expertise. Such groups could be set up collaboratively between and shared by local authorities.

Where local authority SPZ projects are developed, require that at least 25% of all such sites would incorporate housing plots for custom build, self-build and co-housing projects.

Create an obligation on local authorities to identify sites for medium and large scale developments in their jurisdictions – requiring them through statutory obligation to make up shortfalls in meeting housing need – and to invest (with joint venture partners if necessary) as land developers in land assembly, infrastructure, mortgage provision and site management for such projects.

For such projects the land value for each plot should be capped as a proportion of the net sales value of each custom build or cohousing home to establish a higher construction budget than would normally be possible, and thus require and enable for high quality designs and construction in such developments

Invite and facilitate European housing developers to participate in the British housing market to encourage and stimulate competition by creating a partnering service, between smaller SME developers, land owners and contractors.

# ADOPT A NATIONAL MINIMUM SPACE STANDARD, INTEGRATE SUSTAINABILITY REQUIREMENTS INTO THE BUILDING REGULATIONS AND ENCOURAGE NATIONAL DEBATE AND PARTICIPATION IN THE DESIGN OF NEW HOMES

Given the choice, homebuyers would be happy to buy new homes, often in preference to the higher costs of heating existing homes, if they met the space, design, planning and durability standards of existing homes. The public realm belongs collectively to all of us and design is a civic duty so that a design is not solely a part of the property on which it resides.

Require that developers build to approved and acceptable pattern book designs which could be developed collaboratively through a crowd source mechanism.

Encourage global corporate brands, such as Virgin, Apple, Samsung etc to participate as partners or leaders in the British housing market. This would create cross branding and lifestyle driven strategies to drive competition and create higher quality through embedded brand association, shared values and excellence in customer management.

Develop the Building Regulations so that they incorporate national minimum space standards in addition to requiring space standards labeling for new homes – as well as minimum broad sustainability measures such as green and sustainable materials, water efficiency etc following the Scottish model.

Establish new legislation which gives home owners the same consumer protection as they get with other consumer purchases.

### MOVE DESIGN AND DELIVERY INTO THE 21ST CENTURY

There is much that we can learn from the past, and indeed from many aspects of now discarded housing development models, that can be applied to the market today. There also needs to be a root and branch consideration of the role of design, architecture, political decision making, planning and sustainability in the education system at all levels so that people can become much more conversant and confident with regard to their choices and requirements in housing.

Establish a multi-disciplinary working group to explore the role of education in relation to these issues and create a set of policy measures with a view to achieving two core objectives:

- 1, a greater sense of political empowerment on the part of individuals and communities.
- 2, a new and invigorated design quality and sustainability literacy which enables informed purchaser choice as well as knowledge of how one could undertake a custom homes/self-build process as an alternative to buying an existing home or a home from a house builder.

Carry out a national survey of the existing housing stock using a wiki based collaborative approach to record features and characteristics of existing homes, and use this to create a pattern book of examples of quirky and character elements that could be integrated into new housing designs.

# IMPROVE CAPACITY AND ABILITY FOR COMMUNITIES TO ENGAGE IN NEIGHBOURHOOD PLANNING

Communities can act with considerable wisdom and fairness once they have the full facts and a greater understanding of issues related to planning and housing. If communities can be helped to participate meaningfully in the planning process, and with specific regard to the development of housing sites, much improvement could be achieved.

Invest in the creation of models, tools, communications programmes and the like which build the capacity of communities to be participant in the planning process.

Conduct a national marketing campaign to celebrate the first wave of neighbourhood plans (established as part of the Localism Act) and demonstrate the improvements that have been established through these plans. Continue with a campaign to encourage and facilitate community involvement in new housing.

# CREATE FISCAL AND OTHER INCENTIVES TO FACILITATE THE REGENERATION OF EXISTING NEIGHBOURHOODS, TOWNS AND CITIES

The house building industry can develop brownfield and difficult sites if sufficient initiatives and measures are provided. Regeneration cannot proceed in a political vacuum and there needs to be a coherent, locally implemented, national programme, to achieve it, building on some of the excellent regeneration work of the last 15 years.

Enable the use of tax incremental financing (TIF) to assist with medium (a minimum of 100 homes) as well as larger scale residential developments (as used in Pittsburgh, Pennsylvania and other US cities) so that otherwise unviable developments can be made financially viable.

Create investment schemes for savers that give preferential tax treatment for projects that invest in regeneration developments.

Extend the Enterprise Investment Scheme so that investment in bespoke development companies that focus on high quality regeneration projects and providing a minimum of 50% of the development plots for custom build and co-housing will be eligible for tax relief

Create similar fiscal incentives for pension funds to invest in the development of new housing sites (land and infrastructure) which will establish at least 25% of their plots for custom build and co-housing development.

# SET UP A NATIONAL HOUSING DEVELOPMENT AND RESEARCH BODY TO IMPROVE THE HOUSE BUILDING INDUSTRY FUNDED BY A SALES LEVY

The industry is capable of innovation and change and there is evidence of this where developers have entered into joint ventures or partnerships with more innovative firms. Support needs to be developed to encourage and support genuine pan industry collaboration.

Establish a National Housing Research and Development body funded by a modest levy on new homes sales (analogous to the Construction Skills/CITB Training levy) so that there is a central resource to support and fund R&D in the new homes sector.

Create a national housing 'Catapult' which has wide industry and very multi-disciplinary engagement with the objective of both improving the standards of British housing and also getting the industry export ready.

Require that house builders constructing over 50 new homes per year carry out rigorous inspections and checks of the energy, environmental and acoustic performance of a statistically significant number of their new homes, using third party independent testing bodies, and with an obligation to publish the results. For smaller housing developers create a National inspection scheme funded also out of sales but managed by established industry organisations.

## APPOINT A HOUSING COMMISSIONAIRE

A National Good Homes Plan would require a heavyweight politician – a Housing Commissionaire – to deliver on it, and who would be capable of gaining National and cross party support. Politicians can work together and we expect them to do so when a crisis such as this has been brought about.

This kind of national process requires a political leader who has sufficient intellectual capacity, drive, political nous and strong potential to harness cross party support. Eggs would be broken, but it is quite possible that the British good homes omelette will be made.

## Case study Kingerlee Homes

With increased concern about global warming, Kingerlee Homes made the decision to build homes to a much higher standard than is required by the current building regulations. Its first such scheme at Lincoln Grove, Bladon, in Oxfordshire, achieved the highest possible environment build standard: EcoHomes Excellent. Kingerlee is a founder member of the Good Homes Alliance and is committed to monitor the performance of its new homes in terms of energy use and thermal performance over a two year period.

We see good homes in terms of places where people are exceptionally comfortable without having to take any great action: a home that doesn't require a lot of controls and where the internal environment is easily managed. That's why Kingerlee became involved in the Natural House. The passive ventilation, the high standards of insulation, the airtightness, and the fact that it's built of breathable materials and requires only small amounts of energy to heat it or keep it cool, were all the boxes we were setting out to tick.

The project also looked to address the issue of embodied energy and materials. We'd become increasingly concerned with some of the materials that we were using and the amount of energy that had gone into their production. That caused us to look at sustainable materials. Once we began getting into the mindset of trying to simplify the process we started applying that to all our specifications.

We went to look at German walling systems as we were concerned with the cavity wall. The cavity wall came about for good reasons but its use as a rain screen has been challenged. It's become more complex so, every time you come to a junction with a window or door, the level of detailing necessary makes it look like a map of the underground.

The intention to try to simplify has guided our thought process in design. For us the fabric definitely comes first and the homes that Kingerlee is now building are very much based on the Natural House principles. We have a high-performance, airtight, breathable fabric that can hang onto the internal condition that is created. It's not just keeping people warm in winter but keeping them cool in summer, which is an increasing problem, particularly in lighter weight construction. We're in love with the German Ziegel block, marketed in Britain as the 'Thermoplan' block by NBT, and, having been using it now for seven years, we know that it creates a tremendous environment in buildings, both in winter and summer.

### "Once we began getting into the mindset of trying to simplify the process we started applying that to all our specifications"

One of the really appealing things about the Natural House is its dimensions. The problem is that it's very difficult, on a commercial development, to achieve things like the internal room heights which are so noticeable when you walk into the Natural House. We go a little way towards this but we can't achieve those sorts of proportions in terms of internal volume due to cost and planning issues where we have to match the height of surrounding buildings.

Unlike the natural house, we are using MVHR. We use it because it achieves our sustainable objectives, particularly in terms of using recycled heat. We'll probably move onto semi-passive, where we just use a little bit of mechanical ventilation and the rest is passive, so we're going more towards the principles of ventilation that are employed in the Natural House. Our worry with MVHR is that its efficiency is greatly affected by inattention. If filters are allowed to clog, the system becomes ineffective very quickly and the quality of the air in the building will deteriorate quite rapidly. People don't understand so don't bother to check them.

There's a cultural difference. When we were investigating systems and products in Germany, one of things we did was to go into some of the apartments. The people there quite proudly showed us their heating and ventilation systems and were keen to demonstrate how easy they are to maintain, and how easy it is to change the filters. Can you imagine that happening in Britain? Here most people will allow the environment in which they live just to happen without really wanting unduly to affect it.

Tony Woodward Director, Kingerlee Homes



### NATURAL HOUSE, BRE, WATFORD

The Natural House was constructed by the Prince's Foundation at the BRE (Building Research Establishment) in collaboration with Kingerlee Homes and Natural Building Technologies (NBT). The house offers an example of how we can live in a traditionally built low carbon home built from natural materials. The walls are composed of a simple solid clay block structure and lime-hemp and sheep's wool insulation is used. Breathable materials, paints and floor finishes help prevent moisture being trapped that might lead to damp or mould.

# Case study HAB

Hab was established by the writer, designer and broadcaster Kevin McCloud. It stands for Happiness Architecture Beauty: "We build houses that make people happy; that keep people warm in winter and cool in summer and generally comfortable and cheerful all year round. We work with brilliant architects and landscape architects to make places that look great and work well, and have lots of outdoor space for people to play, chat, lie in the sun, throw a good party, grow their own food".

Hab's values – happiness, architecture, beauty – translate into good homes in two important ways. One is about process. We spend a lot of time in conversation with stakeholders, neighbours, communities, residents, before we put pen to paper, during the design process, and once the project is on site. It's extremely time-consuming but we truly believe that the development will be better integrated into its surroundings and that new residents will be more readily acceptable if it has been born out of – rather than imposed on – the community that already exists.

The other is about the product itself. There are little things we do to add joy to everyday life. Take the floor-to-ceiling heights. A Hab house is the same height as any other house, but we steal a few inches from the upper floor and add them onto the ground floor. It's an easy trick, which adds next to nothing to the price. But the impact is profound; it makes for better, more classical proportions on the facades; it gives the living area bigger views and more natural light; it gives better proportions to our (generally open plan) living areas and it makes the bedrooms and bathrooms cosy and warm.

As a model for good homes The Triangle is extremely efficient in terms of construction, running costs, and space. But contextualism is fundamental to Hab's ethos so we wouldn't want to hold any project up as a 'cut and paste' exemplar. It's easy to define best practice in terms of technical and environmental criteria but we firmly believe that every housing project should be a bespoke response to its physical and cultural context.

Importantly, what we've learnt is that time and money invested in intelligent landscape architecture and green infrastructure pays for itself over and over again. We spend a disproportionate amount of time and money on our outdoor spaces but swales and SUDs save on civil engineering costs; wild spaces are the best possible playgrounds; shared gardens and allotments make for healthier residents and community spirit.

## "One of the absurdities of modern life is the amount of stuff we accumulate and rarely use"

Community is very much part of the Hab ethos. There will always be people who prefer to live in isolation; that's their choice. Hab is interested in making high quality homes affordable. And we're interested in sustainability. We advocate relatively dense housing within walking distance of amenities and good public transport links. Above all, we're interested in sharing. One of the absurdities of modern life is the amount of stuff we accumulate and rarely use: power tools; skis; baby buggies; whatever. Sharing these things makes absolute sense not just in social terms but in economic and environmental terms too. And, if you don't have a thriving community, it's impossible to second guess what people may have or need.

One of the things we do know is that people, given the right circumstances, have incredible reserves of vision, creativity, resilience and optimism – and, on occasion, practical building skills. This is exactly why we're interested in cracking the custom build market. We know that there are huge untapped resources of energy, vision and skill out there. Our challenge is to create a framework which gives them an outlet.

We're currently working on a series of standardised house types and 'upgrades' to make building and customising your home as cost-effective and efficient as possible. It's hard because houses, unlike cars, are expected to last a lifetime, so 'standard' designs need to allow for a degree of flexibility that cars never do. We're not saying it will be easy, but we think there is huge demand for a custom homes model and an increasing disillusionment to the standard off-the-peg offer.

Isabel Allen Design director, Hab



### THE TRIANGLE, SWINDON

Completed in 2011 and built from Hemcrete, The Triangle by Haboakus Projects – a joint venture between Hab and the southwest-based housing group GreenSquare – was conceived as a low-cost, contemporary, sustainable version of Swindon's muchloved Victorian railway-workers' cottages. There are 42 affordable homes arranged around a landscaped village green along with a shared kitchen garden, car club, edible landscape and polytunnels. Designed by Glenn Howells Architects with landscape architect Studio Engleback, the scheme has won awards for sustainability and design.

# Case study One Brighton

Pete Halsall has been described by Building Magazine as 'Britain's most committed green builder' and he believes that sustainability and good design must add, rather than detract from, the commercial viability of development projects. He has a number of interests in this field being Chair of the GHA, and a developer in his own right with more exemplar projects under development. His International experience in the US, China and Spain leads him to view residential development and its future nature and potential in a much broader and more positive context, and he believes that Britain can seriously raise it's game in this area.

One Brighton is a mixed use residential scheme of 172 apartments with 10,000 sq ft of office and community space located within a five minute walk of Brighton Station. A 50-50 joint venture between BioRegional Quintain and Crest Nicholson, led by Pete Halsall, the development commenced in late 2007 with the first phase completed in 2010. The project was successful on a number of fronts, most notably in yielding a significant profit whilst delivering on a hugely ambitious One Planet Living and zero carbon based sustainability programme.

The One Brighton project had tremendous potential for us to try out a number of innovations that I'd been working on in my mind for 10 years, and to combine these with what BioRegional had learned from BedZED. This included an innovative green concrete frame concept that informed much of what was subsequently built at the Olympic site; the use of a site wide, community owned biomass boiler for district heating; and a natural clay walling and wood fibre system. A spell in the US in the mid-1990s had set in place the idea in my mind of a sustainability framework of principles that could be applied consistently at each stage of the process. The One Planet Living principles subsequently developed acted as a repository of knowledge, best practice and expertise, as well as being a marketing and communications platform.

Pushing boundaries in this way can't be done without considerable R&D and innovation. As an industry this is a critical part of the good homes agenda, albeit at One Brighton we were able to research earlier industry research and innovation and integrate this. Additionally, we found partners in the supply chain who were very knowledgeable about their products and this collaboration helped the project.

In establishing the development concept, we carried out a detailed community participation process that would inform our development brief. This involved working with community groups and individuals to brainstorm how sustainability and wider good design principles could be achieved. At one of the events we mused on where the allotments would be located. It was our ambition to include these both to encourage food growing and to provide an attractive and appealing lifestyle. One of the participants said "put them on the roof that will be fun and create a sense of community" so we did. They're now a very popular feature and BBC Gardeners' Question Time has been broadcast from them on a couple of occasions – a big help in marketing terms.

### "Pushing boundaries in this way can't be done without considerable R&D and innovation"

This is just one element that contributes to the good homes aspect of One Brighton. In essence we've created the conditions for livability, good design, and somewhere that one would feel comfortable and happy to live. As a developer, it's important to ask honestly the question: "Could I live here?" It's also about not being afraid to do something out of the box – if it's an idea or concept that you know people will like, and that will give the place some interest and character, then do it. It's about a sense of civic responsibility, pride in one's work and being generous with the commercial brain attached. The civic pride engendered through good design and sustainability, as well as the participatory design approach helped enormously – the planning application went to committee with considerable support.

We achieved good spatial qualities in each apartment through good design, large windows to create plenty of natural daylight and high floor to ceiling heights. Our partners simply refused to believe that the better floor to ceiling heights would make a difference, until they were built.

Today One Brighton has a pleasant and established feel about it and overall, the 250 residents are very satisfied with the project. For dense urban projects such as this, the good homes approach necessarily requires active management and we have a full time 'green' caretaker.

Throughout we worked well with Crest Nicholson and learnt from one another. It goes to show that when house builders want to – with guidance, help and albeit of course within the context of a tightly managed joint venture – they can seriously raise their game and create good homes.

Pete Halsall Developer, One Brighton



### ONE BRIGHTON, BRIGHTON

One Brighton is a mixed use residential scheme of 172 apartments with 10,000 sq ft of office and community space located within a five minute walk of Brighton Station. A 50-50 joint venture between BioRegional Quintain and Crest Nicholson, led by Pete Halsall, the development commenced in late 2007 with the first phase completed in 2010. The project was successful on a number of fronts, most notably in yielding a significant profit whilst delivering on a hugely ambitious One Planet Living and zero carbon based sustainability programme. It also involved a partnership approach with both the planners and the local community which has led a feeling of local ownership of the project. The development was designed by Feilden Clegg Bradley and Fulcrum Consulting.

# Case study Joseph Rowntree Housing Trust

The Joseph Rowntree Housing Trust is both a registered charity and provider (RP) with responsibility for the housing operations of both itself and sister charity, the Joseph Rowntree Foundation, acting as the landlord for the rented property and supporting community and educational activities. JRHT also carries out housing and care schemes in York and elsewhere in Yorkshire. These are of an innovative nature, demonstrating new forms of tenure, meeting special needs, creating strong self-governing communities and exploring new features of design. The special link with JRF enables research to inform practice and practice to inform research.

When we approach housing development we have a moral obligation to make sure that what we do is fit for today and for the future. At the Joseph Rowntree Housing Trust we're looking to promote the idea of the home being part of a whole and for it to contribute to not just the environmental but the social sustainability of the area. We're trying to create an opportunity for people to integrate and for social cohesion to occur.

You can't just plonk down homes. You have to think about the context in which they exist and that they will have a chance to be occupied – there's a need for flexibility. The Georgians were very good at this. A Georgian three-story home was great for affluent families but it can also be converted into amazing apartments; it offers flexibility for a number of lifetimes, built into it at concept stage.

Currently there's a tension; people are thinking of their home as an introverted thing rather than looking outwards as part of a community. We've created a situation where the volume of homes we're building is more of a driver than quality. People are inspired to own but, because the supply is low, they're willing to tolerate lower quality.

Our industry is very much in its nascent stage in trying to create high quality environmental housing. There's still a learning curve. We can build high-quality, but high quality at volume is a challenge. We need to get confident on the research and development side about building high-quality volume homes. House building is a complex process that has tended to happen on site with lots of players with different interests. That's why quality and innovation hasn't kept up with other industries like technology and cars.

R&D is central to delivering good homes. At Derwenthorpe, it's unlikely that we would have had a commercial developer interested had we not undertaken R&D and invested heavily in infrastructure to ensure that we could deliver quality. It helped us understand why quality is important and examine ways to reduce the complexity of house building. As part of the development of the house types for the scheme we built two prototypes using two different construction methods. We then shared that information with the developers and let them choose which they preferred. It was absolutely essential to commercialising quality.

## "We've created a situation where the volume of homes we're building is more of a driver than quality"

Homebuilders would start delivering better quality if the government was able to create a level playing field, rather than letting the planning committees alter that playing field. Developers get frustrated as they know the rules are not evenly applied. As soon as we can get a standardised regulatory framework R&D won't be an issue and house builders will work out and share the best way of achieving solutions.

Over the years Joseph Rowntree has learned three fundamental things about how to deliver good housing. Firstly, don't be complacent. There are many links in the process of building homes so you can't necessarily roll out something again, just because it seemingly worked when you applied it previously. Secondly, space is very important for people to be able to live a proper life. In Britain, we have some of the smallest space standards in Europe. Finally, context is important. Plonking a house on a field that doesn't have appropriate links to transport networks, shops or jobs is a recipe for disaster.

At Derwenthorpe we have a very strong resident base. They challenge us and they're really committed not just to their homes but to the scheme. We've sold them this dream, and they're holding us accountable to deliver. As uncomfortable as that is sometimes, it's how it should be.

Nigel Ingram
Director of development & asset management,
Joseph Rowntree Housing Trust



#### **DERWENTHORPE, YORK**

A pioneering 540-home community on York's eastern outskirts, Derwenthorpe aims to emulate the success of the model garden village of New Earswick built to the north of York by the then Joseph Rowntree Village Trust one hundred years ago. Developed in partnership with David Wilson Homes, Derwenthorpe offers a variety of housing opportunities including shared ownership, fully owner-occupied and rented homes. The scheme aims to provide the highest quality lifetime homes, meeting the needs of young families, people with disabilities and older residents.

# Case study Baily Garner

Baily Garner is a construction consultancy working for the housing, care, education, health and commercial sectors. At the heart of its business is a collaborative interdisciplinary culture made up of architects, building surveyors, quantity surveyors, electrical, mechanical and environmental engineers, project managers and health and safety specialists. The company has pioneered the use of 3D building information modeling technology and environmental sustainability is ingrained in its business with ISO 14001, eco refurbishment, and low carbon consultancy accreditation.

A good home is a home that's in high demand, a home in which people would want to live as a first choice. Homes in high demand create the genuine desire of "That's where I want to live, that's where I want to bring up my kids, I'm happy with the local community, I'm very happy with the standards of the home and how it's being managed".

Location is still right up at the top of the list of people's priorities and energy running costs are much higher up that list than they were just a couple of years ago. Space standards and circulation space are a significant concern; the inter-relationship of the kitchen, dining and living rooms all factor high because that's where residents spend most time. The way in which communal areas and access to and from the building are designed and managed is also important.

Where developers struggle to deliver good homes is where the math is wrong in the early stages; where something is designed that can't be delivered within budget. The approach to that design is to cut it. If you get to the stage where you have something that doesn't work, and the only way to make it work is to cut it, you're better off throwing the concept away and starting from scratch. You'll end up with a better product. But there's never time to do that. The client is committed, they've bought the land, they've got the funding – they have to make the scheme work. Then you end up with a compromise in terms of a good home.

What we aim to do from the start is to make sure the math is right, the viability has been tested, the scheme is workable and designed within the cost and program parameters. This means going back to the fundamentals, looking at the brief, looking at the site-specific constraints and coming up with the priority list of things that you can achieve within the budget which will produce a good home.

## "Where developers struggle to deliver good homes is where the maths are wrong in the early stages"

Clients may begin by saying "It's got to be an iconic building, a landmark, we want it to look fantastic" but, when you go through the more strategic value management studies, you realise these are not the most important things. The most important things may well be security and space standards. From the commercial perspective, it's making sure the client gets value for money and that the scheme is delivered on time and on budget. What we try to do is ensure they can reach all their expectations with few surprises.

Even a housing client that isn't at all familiar with development can still be a very good client. The interesting thing with our scheme in Navarino Road was that the client had little or no experience in development. They knew that they had an asset that wasn't working well and that there was something that could be done and needed to be done in that location. It was driven by the need to improve the lot of the people who were already there.

The vision that they had, in terms of the type of accommodation that they wanted to provide, made them a good client. The thing that makes them stand out is that passion, that vision of what they wanted to achieve. Even from that lowest threshold of development experience, they knew they wanted homes that would be cheap to run, that were flexible and affordable. There's a good community spirit. The feedback from the residents is that they are pleased with what they have and that the building is performing very well.

Brian Baily Chairman, Baily Garner



### NAVARINO ROAD, HACKNEY, LONDON

The brief for this development of 31 flats for Dr Spurstowe & Bishops Wood Almshouses Charity called for a sensitive design which resolves the site's conservation area and planning control constraints, but which also provides modern, high quality residential accommodation for older persons. The design responds to the pattern and rhythm of Victorian houses along Navarino Road and incorporates a central shared garden. It is split into two linked brick 'villas' with the flats designed to comply with Lifetime Homes, with assistive technology wiring for future adaptation to support continued independent living despite increasing frailty/infirmity.

# Case study LABC

### "Innovation coupled with regulation has done much to make homes better"

LABC is a not-for-profit, member organisation, representing all local authority building control teams in England and Wales. It promotes the design and construction of safe, accessible, environmentally efficient buildings that comply with the Building Regulations, and develops skills and expertise through training and events. With over 3,000 professional surveyors and building technicians working in local authority building control, members provide building surveying and approval services to homeowners and the building trade and have the power to enforce standards if things go wrong.

Without the wide range of building regulations that we have there's no certainty that good homes could be delivered. We must remember though that, even with these regulations, there's a danger that, if you build only to the minimum standards that they set out, there will be occasions when standards are not met.

We shouldn't be looking to add to the extent of regulations, the current span of regulation is good. There are powers that have never been used and standards are being raised within the industry without regulation. For instance, the work of the NHBC and their standards for window locks and things of that sort have been universally adopted.

The real problems relate to a lack of resource for building control. Local authorities are under a great deal of pressure to reduce costs so staff are being cut with the result that there are fewer people to go on site. Private sector building control is also under cost pressure.

Ideally all regulation should be encapsulated in one guidance document. There are, for instance, water regulations which are separate from building regulations; it would be better if they were integrated. This would have the advantage that people could be reasonably sure that, if they follow that guidance, there would be no regulations lurking around the corner of which they were not aware.

Many homes, good and bad, are built by builders who only build two or three houses a year. Getting them up to speed on regulations or what society wants is quite a challenge. As far as the self-builder is concerned, a lot comes down to education and making information more easily available.

There's sometimes quite a large gap between what's desired and what's being delivered on site. We're now looking at the factors that contribute to this performance gap and not all relate to regulations. In the energy efficiency field one of the common problems appears to be product substitution. The designer specifies the make and the quality, but the builder then doesn't have stock so puts in what he believes is an equally good substitute - in fact performance is inadequate. There are also questions about workmanship. There are instances where, for example, the mechanical ventilation heat recovery (MVHR) system has not been installed correctly. There are occasions where, even where it is installed correctly, it might not be commissioned properly and then users may not know how to run the system. More work needs to be done in educating people on how to run their homes, particularly in terms of operating systems like MVHR.

To create good homes we have to let innovation break through. One of the criticisms that has been made of some warrantee providers is that they're happy to warranty traditional methodologies, but less happy to do so where there is innovation. There's always a danger that the insurers will say there's too big a risk for them to issue a warranty. At LABC we try to be as supportive as we can. We have our own warranty scheme and there have been examples where the LABC Warranty has been able to offer the flexibility to provide a warranty for innovative systems when others have been unwilling.

Innovation coupled with regulation has done much to make homes better. Complaints about poor acoustic insulation were once common but then we came up with Robust Details and now it's rarely an issue; thermal insulation levels have added to comfort and energy saving whilst access for disabled people has been greatly improved. Without the checks and balances provided by a robust system of building regulations, the standard of house building would drop, particularly amongst homes for sale.

Paul Everall Chief executive, LABC

# Case study BSRIA

## "In a sense a good home is about what you feel when you're in that home"

BSRIA is a test, instruments, research and consultancy organisation, providing specialist services in construction and building services. As a non-profit distributing, member based association, BSRIA has an independent approach and any profits made are invested in its on-going research programme, producing industry recognised best practice guidance. BSRIA trades globally and has offices throughout the UK and in China, North America, Germany, France and Spain with associates in Northern Ireland, Japan, Brazil and Australia.

There's an old adage "build tight, ventilate right" and evidence increasingly shows that we're getting better when it comes to making buildings tighter, partly through progressive air tightness testing requirements. At the same time, in BSRIA's experience of monitoring such buildings, there are often significant failures to operate mechanical ventilation systems to ensure that occupants have sufficient fresh air. There are also multiple other practical issues which conspire to affect the effectiveness of ventilation: design, construction and installation, commissioning and maintenance.

One of the unintended consequences of a supply chain not fully trained and proficient in accommodating innovation is that we can end up designing sometimes complex systems. In practice, these often don't come close to meeting design intentions in terms of either energy or indoor air quality. By focusing on improving the air tightness of buildings, whilst not ensuring that indoor air quality is regulated or assessed effectively, we are potentially making buildings less productive and healthy than they would otherwise be.

The other issue relating to air quality that we need to bear in mind are the materials we're putting into homes. At the moment we may not know enough about those processes. You could argue that off-gassing is going to take place over a relatively short period of time in relation to the life of a product or the building. Maybe that's part of the commissioning process we need to look at. At one project in Canada they went to extreme lengths to strip the finishes to a very basic level. For some people that might be an acceptable choice to make but the majority of the public would probably feel it had an institutional look and feel. It wouldn't be the kind of thing you could sell easily. It would require a very strong case for the off-gassing associated with those kinds of materials to sell it to the buying public.

When it comes to using natural materials it's sometimes cost but it's also risk. We need to better understand the nature of risks and occasionally take a more sensible line.

Both in refurbishment and new build some of the more challenging targets are driving complexity. Because of the way the procurement and design process works, we're not joining up all the dots at this moment in time. If we don't join the dots correctly we'll see more problems. If we're going to have a growing number of systems and technologies, we need a design and procurement process that can reflect that.

One of the interesting exercises we did with the Technology Strategy Board's Building Performance Evaluation Programme was to look at what makes a good project. You have three key components. You have a well-informed client who drives the whole process; they stay engaged, understand what they want and know how they want the building to be used. You have a design team that is knowledgeable and responsive to that and who are also creative. You have a construction team who takes care of the quality. And, to close that loop, you have the occupier who comes in and uses the building, learns and takes the time to understand what the design intent was.

In a sense a good home is about what you feel when you're in that home. It's about the nature of the space and how you relate to it, how well laid-out it is. If the surface appeal is there, it's what's beneath the surface and whether it stands up to what the occupier is looking for.

#### lan Orme

Team leader, sustainable construction group, BSRIA

