The Hiscox Home of the Future Report
A house is so much more than just a home. It’s a place of refuge, a sanctuary, an oasis. Owning your own home remains as aspirational as ever, and making your home your own is just as rewarding.

In this, our first Home of the Future Report, we’ve worked with Future Foundation to examine what the next ten years in the home will look and feel like – and it’s given us some fascinating results.

Urbanisation and changing demographics are altering not only the physical space of the home but also how, and by whom, it is inhabited. More people than ever before expect their parents to come and live with them in the future, and at the same time children are remaining in the home for longer. Dual or even tri-hub homes – homes with multiple living areas, or adaptable space for the needs of different generations – will therefore become increasingly common.

Technology will also, over time, turn us all into would-be minimalists. As more and more of what we own becomes virtual – from books and music, to films and photographs – vital space will be freed up and the items we choose to display will take on greater meaning. The precision of technology means we will also see more prefabricated homes, or ‘modular architecture’; the exacting standards, energy efficiency and affordability that this type of design offers will appeal particularly to young people looking to get on the property ladder.

Much like technology, sustainability is another area ripe for change. From houses that generate more power than they consume, the harvesting of energy that would previously have been wasted, or the use of natural and recycled materials rather than traditional or harmful compounds, sustainable practices will be attainable to a greater proportion of the population. This can only be a good thing as the cost of sustainable technologies reduces and new business models emerge.

As a specialist insurer, we see first-hand the challenges as well as the happiness that comes with home ownership. We currently insure more than 90,000 homes across the UK, France and Germany and in the 75 years that we have been offering home insurance, the risks associated with the home have changed. We have adapted accordingly and research such as this means we continue to adapt to risks.

The evolution of the homes means we are all already able to live cleaner, leaner, better informed lives. Encouragingly, this is only set to continue. We hope our research provides valuable insight that is useful to our clients, those working in the property market and those simply with a passion for property.

Steve Langan

CEO, Hiscox Insurance Company

Foreword

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Foreword
There is an imminent revolution in house building. Changing national and international regulation requires a huge leap in energy efficiency; most homes built from 2020 onwards will have to be zero carbon. The implications of this are vast and perhaps not yet fully appreciated.

The continuing pace of urbanisation leads to acute housing shortages in France, Germany and Great Britain. This is changing how we think about the home and fostering a greater willingness to look at new solutions. There will be an increasing acceptance of living in smaller spaces and a new generation of well-engineered, energy efficient, prefabricated homes will find a more receptive audience. As it is, a quarter of Germans and a third of Britons are interested in this type of home – particularly young people.

Homes will adapt to changing demographics. As many as one in eight adults in Britain and France expect that their parents will come to live with them in the future. At the same time, substantial numbers of people (45% in the UK) expect their children to remain in the home for longer. Flexibility will be crucial to dealing with the new demands placed upon the home. Dual- or even tri-hub homes will become increasingly common as different generations establish their own ‘home within a home’.

The rise of the ‘accidental minimalist’. A move to minimalism will allow houses to be used more flexibly. In France and Germany, half of respondents said they had reduced clutter in the last year and in Great Britain the proportion is two-thirds. At the same time digital formats of books, records, films and photographs are replacing tangible objects – spelling the death of the bookcase. Less cluttered houses, with less space devoted to storage, will facilitate even more flexible use.

Some properties will generate more power than they consume. Energy positive communities, where residential areas become small power stations that contribute to the grid – generating power and profit – will become more common. Hundreds of houses, each with their own solar panels, will effectively act like small power stations that feed electricity into the grid.

There is an increasing focus on natural and recycled materials within the home. Sustainability will be achieved by a new generation of devices that harvest previously wasted energy. Kettles that recover energy from boiling water and washing machines that use their own spin-cycle vibrations to create electricity are among the emerging examples of devices that harvest waste energy. Such innovations promise to reduce energy use in the home. These products will find a ready market as the majority of consumers are interested in energy saving devices: 79% in France, 72% in Germany and 80% in Great Britain.

The best new houses will cut through the ‘electrosmog’ and instead be designed and built to enhance wellbeing. Houses will be built to shield residents from electromagnetic radiation through installing the connectivity that we demand within walls. At the same time there will be an increasing focus on natural and recycled materials within the home and a move away from traditional and potentially harmful materials such as formaldehyde in joinery glues and volatile organic compounds in paint. As a consequence, houses will be healthier places.

Formalised home-working is highly unlikely to increase. The working from home trend is stable. However, more people are using mobile technology to work at home casually. Even our most private spaces are playing host to ‘work snacking’, such as responding to emails, with three in ten workers stating that they regularly check work emails first thing in the morning or last thing at night as it becomes increasingly acceptable for light work tasks to invade our personal time.
Houses are so much more than homes.

The supply, affordability, quality and efficiency of housing is of political, social and economic importance. We aspire to home ownership, we invest in it and many hope that their own house will ultimately benefit their children through inheritance. The recession that started in 2008 has its origin in home loans – a vivid reminder of the importance of property for governments, corporations and individuals. Therefore how people think of the home is hugely important.

For the majority, the home is a refuge from the world – less than one in ten consider the home to merely be a functional space for eating and sleeping.

Despite the cost of housing, consumers tend to think about the home in emotional terms more than as an investment. In the case of Great Britain, the proportion who think of the home as an investment has barely changed since 2012 (when the proportion was 21%). Despite accelerating house prices, only one in five consider the home primarily in terms of its financial value.

In all three countries, the continued migration towards key urban centres increases demand for property in cities.

The aspiration to own property remains very strong despite a lack of supply. Regardless of the difficulties that young people have in financing a home at the beginning of their working lives, the aspiration they show is barely different to that of the total population.

One of the consequences of the difficulty in buying property is that people are more open to new solutions, both financially and in terms of the type of property they are willing to invest in. Some of these solutions are financial as new companies offer alternative means of funding property such as LendInvest who provide peer-to-peer based mortgages.

77% of respondents in France said it’s important to be able to own their own home, compared to 75% in the UK and 54% in Germany.

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Changing domestic and international regulation will cause a revolution in house building. Homes will look different, they’ll be powered differently, be located differently and will consume significantly less energy.

This is not happening through changing consumer sentiment (although this plays a small part) but from regulation. The European 2010 Energy Performance of Buildings Directive stipulates that by 2020 houses must be nearly zero energy. This piece of regulation has, in turn, triggered national regulation – for example, all new homes built in the UK from 2016 will have to be zero carbon.

To reach these stringent targets, houses will have to be built very differently. Some of the styling changes and uses of technology will be challenging for homebuyers. This creates an additional pressure for architects and builders – new homes must offer highly appealing interiors, liveable spaces, flexibility and a quality of home that is a significant advance on where we are now.

At the same time, a division is being created between those who will live in new energy efficient homes with low running costs, and older homes with much higher energy costs. The energy performance of buildings is likely to become a significant selling point in the years ahead.
Generations
Living with space and grace

Generational differences

Demographic change is creating new housing needs and driving a demand for increasingly flexible spaces.

Ageing societies in France, Germany and Great Britain have consequences for how we live and for household composition. State support for the elderly is stretched and inevitably individual citizens will have to take more responsibility for elderly relatives. The recent period of recession and ongoing austerity in many countries has only emphasised the declining ability of the state to support elderly people.

Supporting an ageing society

“I expect my parents to live in my home with me in the future.”

12% of British respondents aged over 18 said they expect their parents to live with them in the future, which equates to 6.2 million people based on official population figures.

One portent of change is the growing number of adults who are squeezed within the ‘sandwich generation’. This is defined as an adult who simultaneously provides care for both their children and their parents. Currently 8% of British men and 11% of British women belong to this group. Given the resulting burden on time and finances, it’s unsurprising that significant minorities of people now anticipate that their parents will come to live with them in the future.

These needs will require homes to be more flexible and for spaces to be adaptable. This works both at the level of individual households and that of housing developments.

Case study

The Fraunhofer Network

In Germany, the creation of villages for older people provides more than simply sheltered accommodation.

For those who wish to remain in their own homes, Ambient Assisted Living technology can help through the provision of intelligent environments that adapt to the individuals living in the property to enable them to live independent lives. The Fraunhofer Network describes the focus of its work in this area as: “rehabilitation, preventative healthcare and solutions to preserve the independence of persons requiring medical care, daily assistance or help to overcome physical disabilities.” The fast-expanding field of ambient intelligence is at the heart of this idea; an invisible helping hand that monitors people and can summon help if problems occur. While not widely used yet by consumers, this technology offers significant benefits to older people and their families and will become a more common feature within homes of the future.

For some years now, Germany has taken a thoughtful approach to the social issues created by an ageing population. They have also created a new concept of the house through Mehrgenerationenhaus; a multigenerational space which combines a childcare facility with a social centre for older people. Young and old spend time together and this combats problems such as loneliness that can affect older people.
Looking ahead, significant numbers of parents expect their children to live with them for longer. While we might anticipate this to be a cause of tension between generations within the home, we believe that the strength of the family unit will mitigate this.

One house, two homes

While a minority of people expect older relatives to come and live with them, a much larger group of adults are already experiencing another life-stage change: children living in the home for longer.

Children staying at home for longer

“In comparison with my generation, I expect my children to live at our family home for longer before moving out or return to live at home later on.”

Great Britain

45%

France

40%

Germany

29%

45% of British respondents said they expect their children to live at the family home for longer before moving out or return to live at home later on.

At the same time, the emergence of dual- or even tri-hub homes seems a likely consequence of longer cohabitation.

The ‘one house, two homes’ concept is also evident from our television habits. In Germany, a quarter of 18 to 24-year-olds now spend less time in the living room as mobile technology allows them to watch television wherever they want.

The proportions are even higher in France (33%) and Great Britain (43%). At the same time, 18 to 24-year-olds are significantly less likely to agree that the living room is the part of the house in which they spend the majority of their time relaxing.

It’s not only technology that facilitates the multi-hub home. For a small proportion, most notably parents, there is an urge to extend their property to meet the demands of those living within it.

This is not to suggest that family members – of all generations – do not want to spend time with each other. Rather, it’s about different generations having their own space for some occasions (often the consumption of entertainment).

Extending a property is one option but it’s an expensive and disruptive one. What many are looking for is greater flexibility within the home so that it can adapt to changing circumstances.

IKEA’s Head of Design, Marcus Engman, used the term ‘the fluid home’ to describe how we’ll come to live:

“Traditionally, when people thought of their houses, they thought of them almost mathematically. A sofa + a television = a living room. A bed + a set of drawers = a bedroom. But in a constantly urbanising world, where more people are living in smaller spaces... what makes one room a living room and another room a bedroom is becoming a lot more fluid.”
Living a la module
Prefabrication overcomes prejudice

The supply of urban housing in France, Germany and Great Britain is so restricted, prospective homebuyers are more open to new solutions.

A more minimalist approach to living is coming from two principal sources:

Accidental minimalism. Without thinking about it, much of the stuff that used to clutter homes is gradually disappearing; compact discs are replaced by MP3 files, DVDs by video on demand, alarm clocks by mobile phones, paperbacks by eBooks and Kindles, photo albums by hard drives and SD cards.

Methodical minimalism. The prosperity of Great Britain, France and Germany over the last 20 years means that it has become easier for us to accumulate possessions. Items once regarded as expensive (like books and records) have come down in price in relative terms and consequently our homes have filled with them. Consumer electronics have also proliferated. For many, the steady acquisition of new things means that the home isn’t big enough to accommodate everything. Across Europe, self-storage facilities (such as Une Piece en Plus and Shurgard) now boast seven million square metres of space; much of it occupied by surplus household possessions. Great Britain, with smaller houses than many European countries, accounts for 45% of all the self-storage space in Europe.

Mandatory minimalism

Minimalism – so often the ideal of modernist architects – is coming to us all. In some cases there will be a conscious effort to de-clutter, and in others it will happen almost without us noticing.

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Bill McCorkell
Architect and Director, ArchiBlox

“The true significance of minimalism is not about what our homes will look like, but about how we’ll live. Freedom from clutter will allow space to be opened up, walls to move, spaces to form and reform. Ultimately it will give people freedom.”

Marcus Engman
Head of Design, IKEA

Global shipments of prefabricated housing are projected to reach 1.1 million units by 2020.

“The history of the home is synonymous with the history of storage. You’ve got chest of drawers, armoires, cabinets, bookshelves, CD shelves and more. But that’s all changing. There’s so much less to store.”

Marcus Engman
Head of Design, IKEA

Houses that can be built quickly but to exacting standards are one such solution. That means prefabricated homes, which offer a number of advantages but are blighted by preconceived notions of what the term ‘prefabricated’ means and what it looks like.

Support is higher among young people – for example, over half of French people aged between 18 and 24 are interested in prefabricated or kit homes. Interestingly, there is no significant difference in the level of interest in this type of housing between higher and lower wage earners.

Global shipments of prefabricated housing are projected to reach 1.1 million units by 2020.

So, how can the interest in this type of housing be encouraged?

The public perception of prefabricated homes lags some way behind the reality of modern modular architecture. Repositioning this type of construction is a major task. Germany’s Huf Haus company believes that homebuyers need to experience their product if old prejudices are to be banished. They are doing this in the UK by building a show house at Brocklands in Surrey in summer 2015.

As with ArchiBlox, this house has a focus on sustainability and fostering a sense of wellbeing through the materials used in construction.

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ArchiBlox has gained recognition internationally for its approach to designing and building high-quality, modernist homes. More recently, their carbon positive house has helped change the perceptions people have of alternative forms of construction.

Makers of prefabricated homes have greater control over the consistency of their buildings. To achieve a high degree of energy efficiency the building needs to be constructed with considerable attention to detail and great care. In the case of conventional housing, where much of the building work can be sub-contracted, achieving these high standards and fine tolerances can be hard to achieve. This is why individually commissioned houses tend to perform better in terms of energy efficiency than houses built as part of big developments.4

The quality of the product is the most important element in changing consumer opinion.

“Our message to clients is that there are not only massive sustainable benefits to this form of construction but also quality control benefits in the supervision of the process and the end product. For example, we don’t have a carpenter working in isolation on a suburban or rural block, instead they are working as part of an efficient team in a controlled environment, with a clear, precise, outcome.”

Bill McCorkell
Architect and Director, ArchiBlox

Increasingly, modern houses are built to appeal to all of the senses:

“We basically try and work on all the senses so that when you walk into a home, it doesn’t smell like a home, it smells like a health retreat; it just feels right, it smells right. There’s no mechanical heating or cooling so it’s just a much better feeling… You’re aware, through all five senses that you’re walking into a clean home.”

Bill McCorkell
Architect and Director, ArchiBlox

New architecture may provide the means of making spaces more flexible, but this does also mean a change of habits if rooms are to be adaptable. A key means of doing this is through owning less.
Sustainability

Thinking small has big benefits

A number of factors including the cost of land, restricted space in big urban centres, affordability and the cost of energy combine to encourage living in smaller spaces. Smaller house footprints will become more and more acceptable, where all of the space is utilised and none wasted.

New EU regulation states that all new buildings in the EU should be ‘Nearly Zero-Energy Buildings (NZEB)’ from 2020.5

“The smaller a space that we can create, the less square metres we’re using, therefore the less materials we need and less materials mean less labour. That’s why flexibility of joinery in spaces is super-important because it allows you to incorporate a lot more of the sustainable inclusions that we see as beneficial for the long run.

Particularly on urban blocks, the smaller a footprint you can put in the less mechanical heating and cooling you need and also you can have a bigger garden.”

Bill McCorkell
Architect and Director, ArchiBlox

A move towards minimalism enables people to live in smaller spaces without feeling cramped. Smaller spaces also allow larger gardens – something that is important to many in helping create a natural and healthy environment that encourages wellbeing.

Building in sustainability

The perception that sustainability is a luxury, priced beyond the means of many, must change. Lower income households that are least able to enjoy energy efficient living, consequently have higher fuel bills – creating an iniquitous situation. While the proportions of people planning to install new monitoring technology are quite low, interest in energy saving is high across both income groups.

For substantial investments like solar panels there needs to be new thinking if people are to move from being interested in sustainable technologies to investing in them.

New business models are emerging that do precisely that:

“We have a lot of examples of companies installing different energy saving measures for free and then they are getting a share of the energy savings as they go along; like an escrow style of business model, so that the people who are installing the technologies don’t have to pay anything up front.”

Esben Alskaund-Lanthen
Analyst, Sustainia at Mandag Morgen

Additionally the cost of some technologies is coming down:

“Solar panels cost one fifth of what they used to several years ago. We’re seeing drastic reductions in price… we’re talking about energy-plus houses that make installations of solar panels more attractive to businesses and also to the average person who just wants to make money on it while they do so.”

Esben Alskaund-Lanthen
Analyst, Sustainia at Mandag Morgen
Combined harvesting
Recycling energy

A range of new appliances will offer the ability to recover energy, making them cheaper to use and significantly more energy efficient.

Previously wasted energy can be recovered in a number of ways; heat, sunlight, pressure and movement can all be converted into electrical energy. An example comes from the British company Pavegen. Their paving stones are able to harvest energy from footsteps. In areas of high footfall such as stations and airports these tiles are inserted into the existing pattern of paving stones.6

In more domestic circumstances, this type of technology has applications such as using energy from the temperature change in a boiling kettle to power a milk frother.7 Even quite small temperature changes can produce small amounts of power, meaning that the potential range of applications is extensive.

In ten years’ time, this type of technology is likely to be making a significant difference to our overall energy use and batteries may disappear completely from low-energy applications.

Power houses
Power from the people

Until now, the most sustainable and energy efficient homes have been those that have been individually commissioned.

The architecture and design practice, Snohetta in Norway, has built an individual zero emission building in Larvik, Norway. It is intended as a ‘demonstration platform’ to showcase the latest thinking on sustainable buildings.

Snohetta’s ZEB house has caught the attention of the Norwegian State and Statsbygg who are the Norwegian government’s key adviser in construction and property affairs.

[The Bergen project is essentially a master plan scaled-up – 700 to 800 dwellings with an ambition for the entire site to be energy positive. That has sparked interest from the Bergen commune themselves who are interested in running the roof surfaces of the building as a power station and to actually establish their own power generation company based on this project.6]

Kristian Edwards
Lead architect, Snohetta

National and international legislation will insist on more efficient energy use. The Bergen model offers self-sustaining energy to a community and is a social project as well as an economic or environmental project.

These communities are likely to benefit from smart city thinking, where the efficiency of urban areas is maximised through the use of a myriad of sensors that monitor traffic, weather, energy consumption, drainage, public transport and flows of people. This joined-up thinking and centralised control promises to improve the quality of life in cities and to reduce waste of all types. Energy production from different sites may well be easier to manage and predict, and taking energy from different sources such as small communities easier to achieve.

“[I think this kind of smart technology – as a means of reducing our energy consumption – is going to be the next wave of the green movement,]”

“I don’t think the home of the future will look any different to what it looks like now. I think that is a significant point; these technologies are going to be impregnated in ways where they will be invisible.”

Chris Lefteri
Materials Consultant, Speaker and Author

While some of the technology already exists, mass adoption of such devices is some way off. Current obstacles include the capacity to store energy created and the cost of such devices.
The Internet of Things and the desire for control

For most consumers the Internet of Things is a new and elusive concept. What might it look like and what benefits might it bring?

- Lower costs and more efficient household management through remotely controlling heating and lighting. Nest is perhaps the best known example and other devices such as Tado also help control temperature when residents are out of the home.

- Security. The Motorola Focus 85 is a security camera that allows homeowners to check their properties when they are away.

- Preventing damage to the property. Sensors can report unusual variations in humidity, noise and smoke when the homeowner is away. The Minut Point is one example.

- Growing a better garden. The Edyn Garden sensor tracks climatic conditions in your garden and can advise the gardener on what to plant.8

- Bringing efficiency to domestic chores. For example, a smart washing machine could read the digital identity of a shirt and wash it accordingly.9

- Monitoring the structure of the house. The performance of houses can be monitored and optimised. In the long term; “we can monitor houses for their future longevity and see exactly how they are performing.”10

- Ambient Assisted Living. Where sensors in the home monitor residents and raise the alarm should normal activity not take place, such as boiling a kettle or turning on the TV.

- Different ways of communicating. The Good Night Lamp is a product that, when switched on, illuminates smaller lights elsewhere, regardless of where they are. An international traveller can switch on their light in Lyon and their daughter’s lamp will illuminate at home in Leipzig.

From a technology perspective, the implications of how we run and optimise our houses are enormous. There are predicted to be 50 million smart meters in British homes by 2020 and 50 billion connected devices by 2050.11

The Internet of Things will change the way we use products within the home. For both individuals and corporations this will bring disruptive change.

The consumer desire for control is getting stronger. From finances and entertainment choices to shopping and technology use, the desire for control is a driver for the Internet of Things.

One of the most disruptive opportunities around the Internet of Things is to shift the influence of consumer product manufacturers. Consumers are used to a purely transactional relationship with the manufacturer: selecting a product off a shelf, paying for it, taking it home, and then ending the relationship. But when the product is connected, a consumer buys both the product and the services around it – for example, you might sell a home health sensor for £50, and a monitoring service for £25 per year. As a manufacturer, this enables you to change the relationship you have with the consumer – it’s no longer transactional, it’s always-on and ongoing.12

Robert Whiteside
Chief Commercial Officer, EVRYTHING

“We do see a lot of interesting examples of how utilities are actually using the data created by consumers to optimise their processes and hence give a better product for the consumer. Opower create analytics of how American consumers use their energy and then they personalise reports to consumers saying – for instance – ‘you are using 10% more energy on heating than the average family in your neighbourhood, maybe you could consider doing X,Y,Z to reduce your energy use.’ So they’re using data to create peer-to-peer measurement and that has been very successful in changing behaviour.”

Esben Alslund-Lanthen
Analyst, Sustainia at Mandag Morgen
Wellbeing

Safe houses
Improved wellbeing at home, provided by the home

Wellbeing in the home can be encouraged by the application of technology and the thoughtful use of materials.

“If you’re a house builder you could potentially start to sell healthy homes as a point of differentiation. The level of insulation in a building is marketed as a positive thing, but heat retention is one of many elements to offering a healthy home. As consumers become more aware of the issues around home health – not just safety and security, but health in a holistic sense – use of sensory devices that monitor home health based on air quality, temperature consistency and interior noise levels, it would enable home builders and even rental companies to differentiate their product in the market in new ways.”

Robert Whiteside
Chief Commercial Officer, EVERYTHING

Many Internet of Things applications are around improving wellbeing. Some of this comes from combining the Internet of Things with the Quantified Self. The Quantified Self relates to monitors and sensors that we wear which can track health and fitness – such as Nike’s FuelBand. When these two technologies combine, consumers have the potential to monitor their health in an effortless way. The bathroom becomes a health centre, a place to monitor your condition and fitness. In time, information from a fuel band or other Quantified Self device will be downloaded and analysis displayed on a mirror screen in the bathroom.

Chris Lefteri believes that health centre functionality is one driver in the growing importance of bathrooms in the home;

“I think the bathroom is open for change, it will become more important as a room – as for example the kitchen evolved. The bathroom will see that kind of change and therefore the products that we need inside a bathroom will have to change. What does a tablet look like in a bathroom, where is it placed and how do you interact with it?”

While technology provides a means to improve wellbeing in the home, there is an increasing focus on enhancing wellbeing through less obvious means:

“We examined aspects of quantifiable comfort that are not currently in the building code – or locked in the building code. For example acoustic quality, reverberation times, the measurable amount of daylight according to the daylight factor scale. None of these things are currently required in the building code.”

Kristian Edwards
Lead architect, Snohetta

ArchiBlox have also focused on designing and building homes that actively boost wellbeing, but in a different way:

“Electrosmog is created from a lot of the wireless connections within the home – the more we can build into a house hard-wired areas within localised areas, the less electrosmog there would be in the house and – on the flip-side – the more it allows the house to free up its wireless connections... if we can reduce the amount of electrosmog in the home the better and cleaner it’s going to be and feel.”

Bill McCorkell
Architect and Director, ArchiBlox

Bill McCorkell defines electrosmog as: “all the electronic waves that are produced from wireless technology.” He believes that a small proportion of the population are affected by electromagnetic radiation. Nonetheless the effort involved in reducing electrosmog is emblematic of the detail and focus being applied to making the home a healthier space – even if occupants cannot readily identify how.
Material benefit
Well-built houses engender wellbeing.

There are other means of improving wellbeing in the home that have little to do with electronics and technology. The materials that a home is built from have an important contribution to make.

Paint is one example of where builders are seeking to use more sympathetic materials to boost wellbeing. Many are looking to reduce the use of paints with a high VOC (Volatile Organic Compound) level. VOCs can exacerbate respiratory conditions through the creation of a low-level ozone, while others can suffer headaches.

As well as producing healthier environments, more sympathetic materials can also provide visual pleasure, as their textures can add interest to homes. For example, the ZEB house uses beeswax-laminated aspen wood in the bedrooms – a wax that reacts with moisture in the air and helps to stabilise room temperature.

Consumers will have to accept very different – and often challenging – styles of houses in the future as energy efficiency regulations come into force. For this new architecture to be accepted, consumers will have to be impressed by inviting interiors that both look and feel good. The materials used will have to provide an experiential quality, triggering emotions and moving away from white box interiors.

Glass
A window into the future

Of all the building materials, glass has perhaps the greatest potential for innovation.

As well as being a source of wellbeing through providing natural light, glass will become multifunctional. It’s already widely anticipated that glass windows will also become screens (perhaps in the bathroom to support the role this room is likely to have as a health centre). However there are other, less expected, innovations.

"Glass becomes multifunctional – a mirror is a mirror as well as a screen that you can interact with. Glass will transform in terms of what it can do. Companies like Corning Glass are looking at new ways of transmitting light not through the end of a fibre but through the fibre illuminating itself. This gives a whole new opportunity for different types of lighting so you haven’t got a single source but something that actually runs across the whole length of a fibre which means you can have lighting integrated much more cleverly in the home.”

Chris Lefteri
Materials Consultant, Speaker and Author

Windows would then allow natural light to pass through them during the day and then transmit light during the hours of darkness. This being so, domestic lights would join the ranks of items that are disappearing from the home, helping to make spaces more sparsely furnished and minimal.
The impact of work

It has often been imagined that the prevalence of mobile technologies and the ubiquity of domestic wi-fi would lead to greater numbers of people working routinely and formally from home. It seems an irresistible conclusion.

However, our research shows that the absolute numbers are quite small among the total population, and lower than we might expect given they include self-employed individuals.

These factors help explain the eight-year European trend which is uniformly flat. We do not foresee a world in which there is a significant shift away from office environments towards home-working. There are many reasons for this but most boil down to a simple notion – we are social animals. We are hard-wired to engage with other people and working at home, alone, for extended periods of time, goes against our nature.

What is lost through home working?

While working from home seems a logical conclusion with benefits for employers (smaller offices, lower costs) and for employees (time and cost savings from not having to commute, a more flexible working day) there are some powerful reasons why home working, in a formal and routine sense, has not become more common.

Culture. It’s far easier to instil a working culture among individuals who come to a common place of work. The shared working environment inculcates a common corporate vision.

Communication. A great deal of valuable communication that exists within companies comes from informal conversations. These conversations often contain extremely useful advice, help, information and ideas in a way that is impossible to replicate through e-mail or instant messaging. Too much is lost to the corporation when its staff do not share knowledge with each other around the water-cooler or in the canteen.

Control. It’s easier to manage people when they sit around you. When they are at home, greater effort has to go into management.

Morale. Many people fear that working from home means that they are off the radar. Even when they perform well, their contribution may not be as visible as that of office-based colleagues.

Society. Many people enjoy the social contact that comes from work – they like working with colleagues. When people work from home they are cut off from this social contact and that can significantly impact their quality of life.
Entertaining at home

In Germany, France and Great Britain there is an ever-greater value placed upon experience.

Over the last 30 years, luxury has become more defined by experiences and time rather than the acquisition and display of material possessions.

This manifests itself in the importance placed on having time to enjoy the company of friends and family. Quality time, away from the pressures of work and busy lifestyles, is valued highly.

Entertaining people within our own homes is a source of pleasure (and social capital) to many. The ability to host a dinner party, to cook to a high standard and to create a memorable evening reflects well on us as individuals and as families.

Informal work colonises our time at home, leaving no sanctuaries.

While the numbers formally working from home are static, there is growth in informal working from home, or ‘work snacking’, which is often in the form of email communication.

Work has colonised our time at home in many cases quite discreetly; a few minutes checking emails in the morning and evening perhaps.

How we categorise work is also changing. Light work can be done on a mobile device and it can be done quickly at any time. More considered work, requiring greater focus, is more likely to be accomplished during normal hours.

This trend towards using mobile technology to carry out work tasks at either the beginning or end of the day is likely to increase, driven by the growing penetration of tablet computers. Tablets are ideal platforms for work-related activity; they are always on, light and wieldy. The screen is big enough for looking at attachments and detail and they are powerful enough for casual work.

Allocated space within the home that is unconnected to the world will become a desirable option.

Being able to accomplish work tasks through a mobile device is still a relatively new phenomenon – as workers and society as a whole continues to adjust to the new tools of work.

A consequence of this always-on approach to work is that heightened importance will be placed on moments of true downtime when we are disconnected from technology. Allocated space within the home that is unconnected to the world will become a desirable option and for others greater importance will be attached to time for fun and friends. The home plays an important role in this – not least as the venue for entertaining those we are close to.

Entertaining at home

Proportion who anticipate spending more time in their home socialising with family and friends

<table>
<thead>
<tr>
<th>Country</th>
<th>France</th>
<th>Germany</th>
<th>Great Britain</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proportion</td>
<td>30%</td>
<td>23%</td>
<td>20%</td>
</tr>
</tbody>
</table>

It’s important to state that the pleasure people gain from hosting dinner parties is not about displaying their home – instead it is about providing an experience with food at the centre of it.

The pleasure in hosting dinner parties is most acute in France not least because they have more occasions to do so, examples including cocktail dineratoire and l’Apero Dinatoire (or just Apéron), concepts which do not translate to English in either language or concept. Both relate to occasions that may be less formal than dinner parties but involve food and drink.

Looking ahead, significant numbers of people anticipate spending more time entertaining friends in their own home.

The point here is clear, then. In houses that are increasingly comfortable and connected, there is less reason to leave the home in our leisure time. Cinema chains, theatres, restaurants and all of those involved in out-of-home leisure will have to work harder to persuade people away from homes that offer a huge choice of entertainment and a high degree of comfort.
Visions of the future

What changes can we expect to see in the home in the next decade? While we might expect less clutter, one of the surprises that we might have, looking around the traditional home of 2025, is that it looks much the same.

While the home may appear little changed, there will be greater functionality and efficiency – we just won’t be able to see it. The technology exists for houses to respond to the needs and moods of their occupants.

- Dell are conducting research into mood-sensing technology.
- Apple are applying for mood-sensing patents.
- Microsoft have a patent application for a system that tracks the activity of television viewers.
- Verizon have made a patent application for DVRs with cameras that detect what consumers are doing as they watch television.
- Panasonic’s Life Plus Screen technology (launched in 2014) recognises individual viewers and knows their preferences.

Housing developments will optimise their situation; houses with roofs of solar panels will be positioned to absorb as much energy from the sun as possible. It is likely that some communities will generate more energy than they use as more settlements become solar power stations. Individual properties will be shaped differently to maximise light of all sorts.

While houses built in 2025 will look very different, there may be a slower transition in the look of interiors. However, that traditional appearance will mask much greater and more seamless control of properties which will make them more secure, efficient and comfortable.

“I think the real beauty of the future home is that you won’t notice the technology – it won’t be a feature, but seamlessly integrated into your living space. Your home will be more aware of you and of itself, and will be able to deliver a more personalised experience so that you and your family members will have a more comfortable, positive living experience.”

Robert Whiteside
Chief Commercial Officer, EVRYTHING

“Homes will feel different but they will look the same… touch interfaces that will allow you to respond to incoming information in a very simple way, nothing too futuristic, but I think the use of glass is on the cusp on going through another transformation.”

Chris Lefteri
Materials Consultant, Speaker and Author
Methodology

The Hiscox Home of the Future Report findings are based on both quantitative and qualitative research.

The quantitative research was conducted online with a total sample size of 3,000 nationally representative people in France, Germany and Great Britain (1,000 per country). The research was carried out in April 2015.

The qualitative research was conducted in two ways:

Our knowledge review identified a number of leading organisations in house-building, architecture, sustainability and technology. We conducted five telephone interviews with representatives of these organisations. We looked internationally to find the most innovative companies, conducting interviews in Australia, the UK, Denmark and Norway.

The individuals we spoke to are:

Bill McCorkell
Architect and Director, ArchiBlox, Australia

Kristian Edwards
Lead architect at Snohetta, Norway

Robert Whiteside
Chief Commercial Officer, EVRYTHING, UK

Esben Aalund-Lanthen
Analyst, Sustainia at Mandag Morgen, Denmark

Chris Lefteri
Materials Consultant, speaker, author and founder of Chris Lefteri Design Limited, UK

We also gained consumer insight from trendspotters based in London, Paris and Munich.

We would also like to thank:

Chris Higenbottam
Managing Director of Tempietto Architects.

References

1. The Sandwich Generation: An Exploration of the Affective and Financial Impacts of Dual Caring
   The Money Advice Service, with data from Ipsos Mori, 2013


3. European Self Storage Annual Survey 2014
   Federation of European Self Storage Associations

4. From an interview with Chris Higenbottam
   Managing Director, Tempietto Architects


6. Technologies that harvest their own energy
   Chris Lefteri, Blueprint, 27 May 2014

7. Technologies that harvest their own energy
   Chris Lefteri, Blueprint, 27 May 2014

8. The Connected Home
   Wired magazine, June 2015

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11. The Connected Home
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