

selfbuilder + homemaker

NOV/DEC 2023

And...Action!

From film editing to building a dream home... Ollie Stothert's Selfbuilder Diary

Picking your palette

Dulux Trade reveals the secrets of crafting a colour palette that mirrors your personality

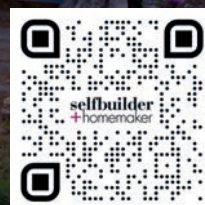
Step into nature

A guide to choosing the perfect natural flooring for your home

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Chris and Sarah Dale's incredible transformation of a centuries-old barn into a light-filled haven

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FROM THE EDITOR...

This month, we are pleased to present our second 'Selfbuilder Survey,' an in-depth report which asks our readers how they are tackling the very current challenge of creating homes with a low carbon footprint. Everyone is talking about net zero, yet self-builders are actually making steps to deliver it in their builds. But the debates around just how you can and should go about cutting carbon can often be fierce and somewhat polarised.

According to our survey, almost two thirds (64%) of readers want their new home to reduce their carbon footprint, and help address climate change. Rishi Sunak might be watering down the Government's previous commitments on pushing low carbon heating, delaying the ban on new gas boilers, but the grants for heat pumps have been raised to £7,500, so there has never been a better time to invest. The Future Homes Standard, which will (allegedly) come into force in 2025, will make low carbon (i.e. non-fossil fuel) heating a necessity, in any case.

It is a slightly confusing picture in terms of how much 'green' homes are being promoted at the centre, and no doubt things will once again change if there's a change in administration following the next General Election. However, our Selfbuilder Survey (which compares figures with our 2022 survey on low carbon homes, to see where progress is being made) gives you a flavour of what is actually happening on the ground, among your peers.

Our survey's findings include which of our self-builders are pursuing Passivhaus, whether they are opting for heat pumps, how material price rises are affecting them, and who is outsourcing low carbon design to an architect rather than tackle it all themselves. We think the results (which you can read starting on page 29) are really interesting.

JAMES PARKER



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**ON THE COVER...**

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Printed in England



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Embrace your home with colour

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Committing to a Low Carbon Journey

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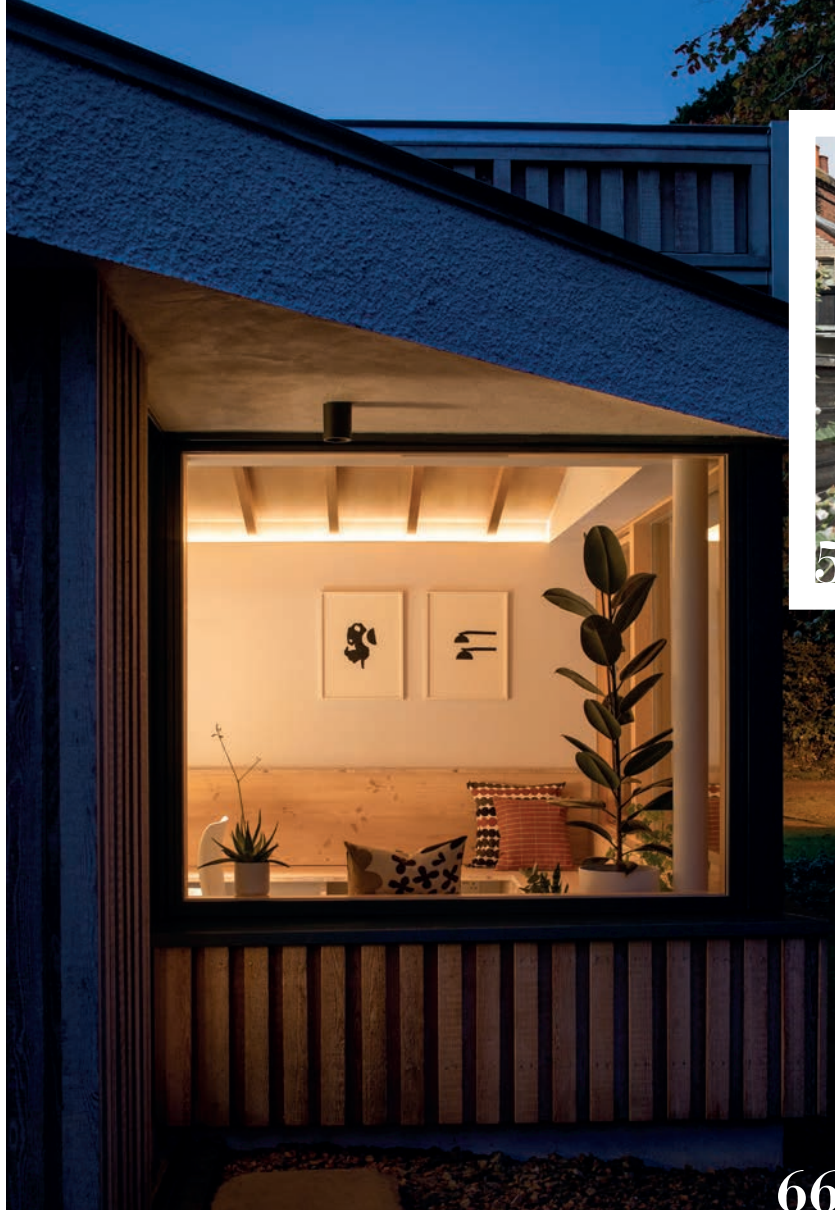
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Dean Asher at Polypipe Building Products uncovers the sustainability (and practical) advantages of underfloor heating for modern homes

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Sally and David Jensen love their Edwardian home, so they found extra space for their growing family with a clever rear extension

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A family in Hertfordshire combine creativity and practicality to craft a modern home with clever design solutions

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selfbuilder *Diaries*

Embark on Ollie Stothert's cinematic journey, transitioning from film editing to self-building with wife Veronika

// And Action!" – words that have defined my career as a film editor.

Little did we anticipate that these words would seamlessly thread through the tapestry of a new chapter in our lives, a chapter transitioning us from the world of cinema to the realm of self-building. I'm Ollie Stothert, and together with my wife Veronika, an advertising producer with her own distinct set of skills, and our newborn daughter Arabella, we embarked on a journey that interwove our filmic backgrounds with the art of architecture.

In 2018, our passion for narrative led us to a different kind of plot – the hunt for the perfect piece of land to bring our dream home to life. By 2020, we stumbled upon an ageing bungalow nestled in the picturesque village of Shabbington, just beyond the bustling market town of Thame, on the cusp of the Oxfordshire and Buckinghamshire border. The bungalow, although time-worn, possessed the potential to be our canvas for a new beginning.

Instead of a mere renovation, we were driven by a desire to create anew. The decision was made to dismantle the old and construct the new, a daunting prospect for two individuals without any prior building experience. But Veronika and I found ourselves drawing inspiration from our roles in film production. As a film editor, my job revolves around assembling the pieces – the scenes, the shots, the emotions – into a seamless whole. Veronika, with her expertise in advertising production, knows the intricacies of coordinating various departments to bring a creative vision to life. And so, armed with the spirit of producers, we set out on our biggest production yet – the creation of our home. Our tight budget, the script



and our chosen architect would be our director.

Despite the challenges, we tackled each phase with the same dedication we applied to our cinematic endeavours. We valued sustainability, practicality, and future-proofing just as much as we did aesthetics. With these principles in mind, we crafted a pitch that encapsulated our vision. After meticulous research, we narrowed down our search to three architects who shared our values. The final choice was clear – Elliott Architects, a RIBA certified and award winning talent from Hexham, Northumbria, whose creativity and passion resonated with us deeply (elliottarchitects.co.uk). Their design drew inspiration from the 'Skippings Barn' showcased at the Chilterns Open Air Museum – a local historic threshing barn, a testament to dark timber atop a brick foundation, boasting an elegantly proportioned roof pitch. This design not only influenced our home but also christened it with

the name 'Skippings' (by the way, the museum is an oasis of agricultural architecture inspiration!).

The house will be constructed using an offsite timber frame, with brick and timber cladding that echoes the style of Skippings barn but with a modern feel. We opted to segment the project into subcontractor divisions, shouldering the management ourselves after receiving a costly contractor bid. At this juncture, we introduced a key ally – our part-time project manager, Tom Handford from Develeco (develeco.co.uk). Despite incurring additional expenses, his expertise in construction techniques and understanding of trades offered a much-needed hand, easing what could be an overwhelming process and ultimately saving us time and money in the long run.

At the forefront of our Skippings self-building venture was a critical phase that often doesn't receive the spotlight it deserves – the upfront design and

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planning. This pivotal stage laid the foundation for our entire project, setting the tone for what was to come. Yet, it's not widely discussed how much substantial upfront funding is required to initiate such an endeavour. From ecology and reports to topographical and soil surveys, solicitor expenses, structural engineers, SAP calculation, site insurance & warranties, mechanical designs from the installation of utilities, to engaging an architect that developed our vision and guided us through the intricate process, the expenses added up. While it might seem daunting, they are necessary and not much talked about and can add a significant amount to any tight budget before you even dig a hole. We quickly understood that these early investments were quite crippling however invaluable in shaping the trajectory of our dream home. The architect's development fee, in particular, was a wise allocation of resources, though a big investment it paid off many times over as Elliott Architects' expertise ensured a seamless journey from the blueprint to the build. This meticulous process, encompassing a range of tasks, took the best part of a year, emphasising the importance of patience and thoroughness in bringing our vision to life.

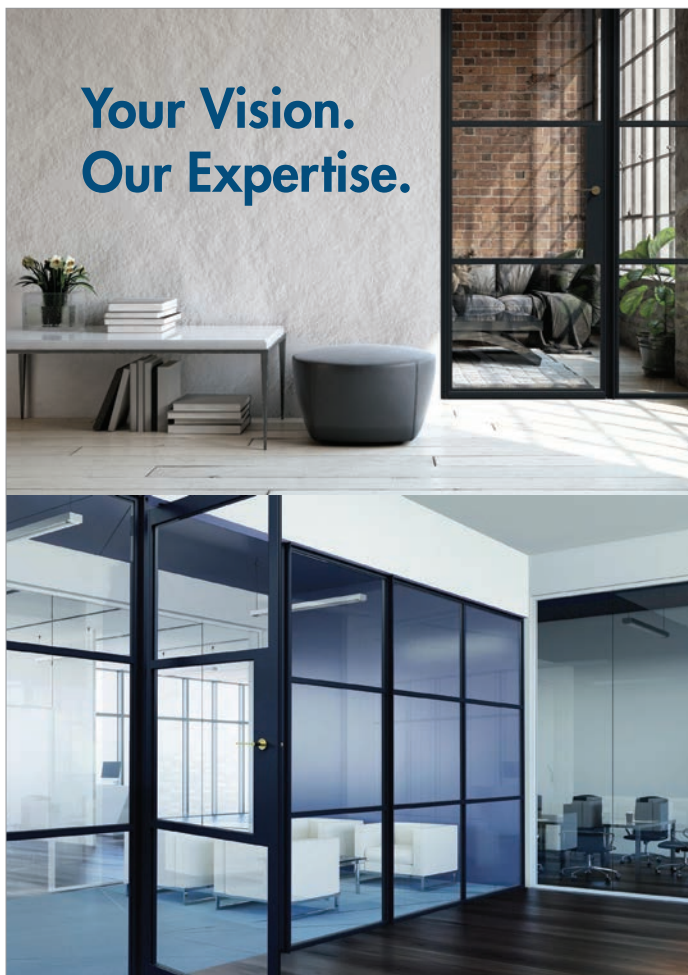
Navigating the intricate labyrinth



of self-building has thrust us into unexpected trials, highlighting the importance of foresight and preparation. As we stand in the present, our journey has encountered an unforeseen plot twist. Securing a self-build mortgage, despite our meticulous planning and groundwork, has evolved into an unexpectedly strenuous endeavour. My

status as a self-employed individual, often a thorn in the side when it comes to banks' perspectives on lending, has introduced complexities, elongating our journey to over a year. This unanticipated obstacle stands as a resonant reminder that certain facets of the self-build process demand a timeline longer than initially envisioned. Hence, our counsel to fellow self-build enthusiasts is to initiate this process well in advance, recognising that the intricate nature of specific financial aspects necessitates ample time for successful resolution.

As we await the fruition of our financial options, we continue to amass our final crew, including our timber frame from the esteemed PYC Construction (pycgroup.co.uk), all poised for that inaugural first day we turn over and call "action". Our cinematic perspective informed our decisions, how our collaboration with a visionary architect elevated our aspirations, and how our commitment to sustainability and design excellence shaped our dream home. From the cutting room floor to soon the construction site, our story is hopefully a testament to the power of creativity, collaboration, and the belief that with the right script, any vision can be brought to life. Follow us on Instagram at [@skippings_house_build](https://www.instagram.com/skippings_house_build).



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Breathe easy



Jay Vitale of Air For Life looks at the essential importance of indoor air quality, and the practical considerations around purification systems, while addressing common self-builder concerns to help you breathe easier

Building a home from scratch is a rewarding endeavour, offering the chance to customise every aspect of your living space. However, ensuring a healthy indoor environment is crucial, especially in this era of increasing environmental pollutants and airborne diseases. One key solution that self-build homeowners often look to is an air purification system. With a plethora of options available, making an informed choice tailored to your specific needs is vital.

WHAT TYPE OF AIR PURIFICATION SYSTEM IS BEST SUITED FOR MY SELF-BUILD?

With so many options on the market, you have to evaluate what is important to your build. Is it an easy-to-use system, the highest grade of filtration, or the option with the best aesthetic? One area that all self-builders should take into consideration is that many of the air purifiers on the market have filters which require the filter to be changed periodically, meaning you have to open up the system exposing your house to bacteria and other dangerous particles. Opting for filterless technology when installing an air purifier in your house is an excellent choice. It ensures that after the purifier has effectively cleaned the air, you won't need to risk exposing yourself and your family to harmful particles.

Purifiers should be carefully positioned around the house to allow maximum airflow within the indoor spaces. Windows and doors should remain closed at all times while using the air purifier to prevent further contaminants from entering the indoor space and polluting the purified air. It is important to know how much area the air purifier covers to ensure that you are getting the best possible outcome, this will then





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We would advise choosing an ionising system without filters, as opposed to a filtered air purifier, to reduce the maintenance and health risks

determine the number of air purifiers you will need within your home.

HOW CAN I ENSURE PROPER VENTILATION & AIR CIRCULATION WHILE USING AN AIR PURIFIER?

To balance air purification and ventilation, consider integrating air purifiers into your HVAC (Heating, Ventilation, and Air Conditioning) system. Place portable purifiers strategically in areas with high traffic.

HOW CAN AIR PURIFIERS HELP MITIGATE SPECIFIC POLLUTANTS IN NEW BUILDS?

With new developments, there are many volatile organic compounds (VOCs) that can be found in the air of a new building, from materials that have been used, such as paint, glue, and chemicals from new carpets. Alternatively, dust particles in the air during the build can linger in the air.

These harmful VOCs and odours can be destroyed with a filterless ionising air purifier whereas a HEPA filter purifier can take longer, but does not guarantee that the VOCs will be eliminated. An air purifier helps to reduce dust particles that are in the air and can either capture them if the purifier has a filter which will

lead to regularly changing the filter and exposure to the dust or for the dust to be turned into H₂O if using a filterless purifier with ionisation technology.

If anyone is changing the filter, we would strongly recommend that a mask is worn to protect yourself against contaminants that are in the air. Many dangerous contaminants are exposed into the air from the filter which has built up over time, including bacteria that can multiply and mutate on these filters.

The person who is changing the filter is at risk of breathing this into their lungs and damaging their health, which can cause long term problems. This is why we would advise choosing an ionising system without filters as opposed to a filtered air purifier, to reduce the maintenance and health risks and also to reduce ongoing costs, as you don't have to purchase expensive filters to ensure your system is working efficiently.

WHAT MAINTENANCE IS REQUIRED FOR AIR PURIFICATION SYSTEMS, & HOW OFTEN DO THEY NEED TO BE REPLACED?

Maintenance requirements vary, but generally, regular cleaning of the pre-filter and replacement of HEPA

and activated carbon filters is necessary. This is why we would suggest choosing a system without filters to reduce the maintenance and ongoing costs, as you don't have to purchase expensive filters to ensure your system is working efficiently.

CAN AIR PURIFIERS HELP WITH ALLERGENS & IMPROVE INDOOR AIR QUALITY IN MY SELF-BUILD HOME?

Depending on the system you are using, you should anticipate the system should remove all harmful allergens eliminating bacteria, viruses including Covid-19, E. coli, Salmonella, VOCs, mould and odours ensuring clean air. The combined effects of ambient air pollution and household air pollution are associated with 6.7 million premature deaths annually (WHO 2022).

Certain air purifiers have the capability and scientific research behind them to demonstrate how they can help relieve symptoms of hay fever and allergens, and even help reduce symptoms of asthma within an indoor environment. Choosing them means interior spaces that are safer for you and your family.

Jay Vitale is CEO at Air For Life

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OPEN UP YOUR HOME TO A WORLD OF COLOUR

Whether building a house from scratch or renovating a period property, choosing colour is intrinsic to creating the spaces you desire. Dawn Scott of Dulux Trade explains how to create a colour scheme which closely reflects your personality and lifestyle

When you think of 'home,' what comes to mind? For many people, a home is a safe haven. It is a place where you can take off your shoes, relax and unwind with friends and family. In fact, our homes experience it all – from long, hot showers in the bathroom to chilling out in the living room or socialising with friends in the kitchen/diner.

With this in mind, when it comes to choosing a colour scheme for your home, it is important to assess each space individually. You need to think about the positioning of the room – is it north or south facing, how you use the space, and more importantly, how you want to

feel when you're in the room. These are essential factors to consider, as colours can not only look different in various light, but they can also evoke a range of emotions and moods.

So, what colours should you choose for each area of a home? Of course, there is no firm rule about what shades should be used where. However, here's some inspiration for the type of colours you should be considering.

HALLWAYS

Let's start with the first impression. Hallways are often the first room we enter and as such, these spaces should be welcoming, and provide you with that 'and...relax' feeling that you want, when you return home from a long day at work, a fun day out or a holiday. When it comes to choosing colour for hallways, there are two routes you could explore. You could opt for warmer shades which will provide a comforting welcome, or you could choose more uplifting colours that bring a sense of joy and friendliness.

KITCHEN/DINER

Depending on what colour scheme you choose for the hallway, you may want to extend this through to the kitchen/

diner to provide a coherent and fluid design. Alternatively, you may want to change the shades used, but remain within the same colour palette. For example, if you select a yellow shade for the hallway, which exudes optimism, you may want to choose a complementing colour such as greys to provide a more mature aesthetic.

BEDROOMS

When it comes to bedrooms, we all want to create our very own sleep sanctuary – and this can be achieved in multiple ways. Selecting warm shades, such as neutral biscuit hues, dusty pink shades, or even colours that are reminiscent of seascapes, woodlands, or an awe-inspiring sky, will help to 'cocoon'





the room, and provide a sense of belonging. However, for those who want to dramatise the space, choosing dark shades like a rich blue will certainly add depth and a touch of luxury – especially when paired with lighter, more tactile soft furnishings.

HOME OFFICES

Since the pandemic, more people than ever are hybrid working, which means there is a rise in the creation of home offices. One trend that is taking the office world by storm is biophilic design. Biophilic design is a concept that seeks to connect building occupants more closely to nature and the great outdoors. In fact, biophilic design can help to, improve your mood and make you feel

calmer and more relaxed overall. As such, choosing shades that can be found in nature, such as fluid green and blue hues for a home office can help to bring the outside in.

USING THE COLOUR OF THE YEAR

There are many colours available on the market to help personalise your home. However, Dulux recently announced its Colour of the Year 2024, and its three supporting colour palettes, which will provide you with a wealth of colour inspiration.

Colour of the Year for 2024 is Sweet Embrace™ – a delicate, optimistic, and modern tone that is understated and comforting and brings a sense of stability and softness to a space. To

complement Sweet Embrace™, three versatile colour palettes have also been developed: a Warm palette for comforting spaces; a Calm palette for quiet spaces; and an Uplifting palette to create friendly spaces.

WHAT TYPE OF PAINT SHOULD YOU CHOOSE FOR YOUR HOME?

Colour aside, when it comes to deciding on what type of paint you should opt for, it's best to look for a product that is highly durable for areas such as hallways, kitchens, and dining rooms. For areas such as bedrooms and offices, a vinyl matt is the perfect choice.

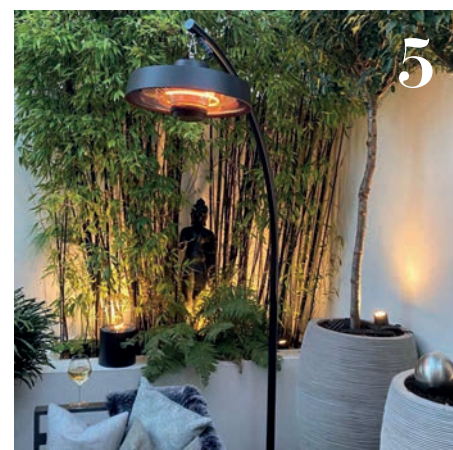
Dawn Scott is senior colour designer at Dulux Trade



EXTERIOR INSPIRATION: Outdoor Living

A home's outdoor space serves as a private sanctuary, offering an opportunity to step outside and immerse yourself in nature. With that in mind, explore our curated selection of exterior products which we hope will inspire you and infuse character into your outdoor haven





1. This beautifully presented straight **Vantage Outdoor Kitchen** from **Grillo** has everything you need to get the party started. From the built-in fridge and sink to the shelves to hold the drinks, this striking kitchen looks well-appointed for the next social gathering; even the dog agrees! Price: £9300. www.grilloliving.com

2. The **Charlie Oven** in Honeycomb by **Cheeky Charlie Oven Company Ltd** is a BBQ, a smoker, a charcoal oven, and a pizza oven. It's an infinitely better way to cook outdoors, with proper, professional-grade materials, the oven is built to last and work in snow, rain, or shine. Price: £5250. www.charlieoven.com

3. The **Langley Corner Set** by **Daro (Trading) Ltd** has been designed to add some drama to any large patio. Created using a chunky 10 mm raffia weave and bordered with a powder coated, all weather aluminium frame, this furniture set is perfect for entertaining family and friends. Price: £3915. www.daro-cane.co.uk

4. Made from high-quality wood and dark matte metal, the **Taymar Sofa** by **Sweetpea & Willow** sofa features a plush seat and backrest upholstered in your choice of bespoke fabric. In the summer months, soak up the sun and spend your days enjoying the good weather outdoors. Price: £2360. www.sweetpeaandwillow.com

5. Add a touch of style and luxury to your outdoor entertaining area with the **Hawaii Wave 2000 W Free Standing Patio Heater** from **Lime Lace**. The heater has a stylish, circular design that is ideal for ensuring 360° focused heat coverage, which guarantees to keep your guests toasty warm. Price: £649. www.limelace.co.uk

6. The **Adezz Corten Steel Gas Firepit** by **Garden House Design** is gas fired and stores the gas bottle neatly away. Starting out as 'blue' steel, once corten steel is exposed to the elements it will naturally weather over time and develop a protective layer of rust, producing a distinctive orange colour. Price: £934. www.gardenhousedesign.co.uk

Open to alternatives to open-plan living

Ben Brocklesby of Origin offers his advice to self-builders looking to create more functional floor plans, which move away from open-plan to 'broken-plan'

The way we use our homes has changed significantly in the past three years. The pandemic made home and work life collide with each other in new ways, and the need for separate work and entertaining spaces remains even now the pandemic is behind us. This means that the open-plan layout that was coveted for decades is falling out of favour.

In fact, nearly a quarter of homeowners in the UK say they'd like to reconfigure their home to better suit their needs. So, you're not alone if you've fallen out of love with open-plan living.

Instead, families increasingly need separate zones that can perform different functions to suit their lifestyles. This might include an entertaining space, a home office, or even a gym. As a result, we are seeing the rise of 'broken plan living' – flexible layouts which are divided into separate, private spaces but which can be opened easily to create extra space.

However, this mustn't come at the expense of natural light, which we know is essential for our mental and physical wellbeing.

Glass doors or partitions are a great solution, offering privacy and soundproofing without blocking natural light like solid walls, and are growing in popularity due to their style and flexibility. There are internal doors on the market for example that are bespoke and offer several configuration options to help families divide rooms, or even create a whole new room. Plus, you have the option to either make them with vertical or horizontal bars which can create the classic Georgian-style look



that never goes out of style.

Bespoke internal glazed doors can also accommodate frosted or 'reeded' glass for added privacy, or to disguise clutter, which is ideal for use in bathrooms or utility rooms. For high-traffic areas, consider adding kickplates to minimise scratches when opening and closing the doors when hands are full.

The cost of an internal glazed wall or door depends on the quality of the product and the material it's made from. The ultra-traditional steel options look fantastic, but often come with a high price-point. A more affordable option is products made from aluminium; these still offer a sleek aesthetic and the robustness to handle everyday life,



but are at a more affordable price. Plus, aluminium is inherently lightweight, making the doors easier to operate.

Ben Brocklesby is the director of Origin

Glass doors or partitions are a great solution, offering privacy and soundproofing without blocking natural light like solid walls

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CASE STUDY

SEEING THE LIGHT

Sally and David Jensen love their Edwardian home, so they found extra space for their growing family with a clever rear extension

TEXT ALEXANDRA PRATT IMAGES LUKE WELLER/MITCHELL & CORTI



Sally and David bought their Edwardian mid-terrace home in 2018. The couple loved the property and its location in Greater London, but with two small boys, the house was beginning to fill with all the clutter of family life. Rather than move, however, the couple decided to extend.

"It's a lovely house, but the side return was just dead space and became a dumping ground for the kids' stuff," explains Sally.

Even when they bought their home, Sally and David knew some form of building work was likely, as the house already had a typical older, single-storey extension to the rear that wasn't up to the demands of modern family life.

"The kitchen stuck out, it was very old and had the original aluminium double glazing. It was functional, but there was no space to sit," says

Sally. The couple met their architects Ester Corti and Andrew Mitchell of London-based practice Mitchell and Corti, through friends "who raved about them." Sally and David really liked the practice, and how they focus on inexpensive, out-of-the-ordinary design solutions. Their enthusiasm led them to commission Ester for the design of a new addition to their home.

Sally and Jensen's brief was for a side and rear ground floor extension to add family space and turn the terraced house into a long-term home. The property had some interesting challenges, including being situated on a road which slopes downhill (making one neighbour higher than the other), as well as a change in levels between the front reception rooms and the rear garden. Sally, who wanted lots of light in the new extension, had her heart set on wide bi-fold





doors, but “Ester talked us out of that, as we’re south-facing (at the back) and we would just overheat. Instead, we have off-set double doors, skylights, and a large, fixed window with a seat underneath.”

The result is a lovely, welcoming space, with a vaulted ceiling, an asymmetrical pitched roof, and skylights the family can open for ventilation. The exterior is clad in charred larch, which contrasts with the original Edwardian brick facade. The interior style reflects the contemporary architecture yet is sympathetic to the original building.

“With extensions, you have a choice of either making it seamless, or making a statement, and that’s what we chose,” says Sally.

The most striking aspect of the design is the off-centre pitch, making one side of the extension lower than the other. This addressed one of the key challenges, which was boundary height restrictions.

“What Ester did with the roof was very clever,” says Sally. “It’s a nice way to deal with the slope.” The vaulted ceiling means not only is there plenty of headroom inside the extension but also a sense of airiness. This is enhanced by the strategically placed skylights (the smaller ones are from Velux and the larger ones are bespoke), which let in both early morning and evening light.

The levels also change from front to back, and originally, there were two large concrete steps between the kitchen and the garden. Apart from

being unattractive, they also presented a danger for the couple’s two small boys and created a sense of being ‘cut off’ from the outside space. Ester solved this by putting in new steps going down between the sitting room and the kitchen extension. This allows for greater ceiling height in the extension, which, in turn, opens straight into the garden. “I was reluctant at first, but actually it works,” says Sally.

The choice of charred larch as cladding on the outside of the extension was also bold. Almost black in colour, the process of charring timber to create the effect is an ancient Japanese technique, known as ‘Shou-sugi-ban’. This technique has lots of practical advantages, including not requiring any maintenance. It doesn’t even need to be sealed, as the carbon outer layer protects the wood, just like a stain or varnish. “I work in financial services,” says Sally. “So, I had limited imagination for this, but I got a sample, which I liked. It’s weathering nicely, but for us, the key feature was the minimal upkeep.”

The Shou-sugi-ban method is also environmentally friendly, as there are no chemicals involved, just fire. In fact, even competent DIY builders can achieve a good result, using minimal equipment, although most, like the Jensens, order the cladding already treated. Charred wood is also naturally resistant to both weather and insects. The timber doesn’t rot, even in damp conditions and at the other extreme, it also has good levels of fire retardancy. For many self-builders

ADVICE FOR SELF-BUILDERS

“Invest time in the layout of the kitchen – we did on this build, and the result really works.”

“We were novices and it is important to look for advice and guidance. Ester has a keen eye for the aesthetic details.”



however, the best thing about Shou-sugi-ban is the appearance, as it enhances the beauty of the timber by raising the grain. The distinctive colour (which can vary), also works with both contemporary and more rustic designs.

Ester says that they chose to clad the extension in dark charred timber "to ensure longevity, and minimal maintenance." They also wanted to avoid any issues around discolouration that can occur when using a pale timber. "We wanted to acknowledge the contemporary nature of this addition to the house by using a material distinctly different from those of the host building."

The Jensens hired a main contractor to carry out the building works, and they were "amazing," says Sally. ABR Contractors built the extension, using masonry construction before attaching the cladding. The firm also renovated the bathrooms and made changes to the plumbing system. With four people in the family, Sally and David opted for a new 'Megaflo' central heating system. This system – mainly a steel storage cylinder – mimics the pressure of the water mains, ensuring reliable and constant hot water throughout the home, even when a second tap or shower is running elsewhere.

Naturally, with so much building work going on, the couple did consider fitting underfloor heating, but decided against it for two reasons; cost and concerns about access for repairs, should anything go wrong. In the end, Sally

chose column-style period radiators, which she describes as "a nice bridge" between the old and the new parts of the house. Successfully merging the old and new was a significant part of the project.

"The new extension would add space both to the side and the rear of the property," says Ester. "It would also create an open plan feel and connection to the more formal living rooms at the front of the house."

Within the extension itself, there is a utility room, a coat cupboard, a kitchen with a large island, full-height pantry cupboards on one side, a sideboard, a dining area, a window seat, and an informal lounge and TV area with a sofa. Within all this, the kitchen is the focal point of not just the extension, but the entire house.

"I think it is possible to get carried away with the aesthetics in a kitchen, but it needs storage," says Sally. "With kids you always need more storage, and I was very specific with Ester over this. We bought a whiteboard and workshopped ideas together."

Sally and David bought their kitchen from supplier DIY Kitchens, which they describe as "super." The cabinetry has a flat panel and modern doors, and the worktop is composite quartz from Surfaceco. The Jensens chose this product as it is far more hard-wearing and family-friendly than its pricier rival, marble. Matching wall and pendant light fittings make the design feel even more cohesive and complement the neutral colours. With an induction hob,



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concealed appliances and a cooker hood that blends into the wall, the kitchen is simple, efficient, and quietly elegant.

The window seat adds a lovely, homely touch to the space, creating an informal spot to sit, read, or just look out at the garden through the oversized window. Created bespoke for the family and made from pale oak, the window seat also provides more essential built-in storage, helping to keep the floor free of toys

and other clutter.

Mitchell & Corti like to play about with paint colour combinations, and the Jensen's extension was no exception.

"We wanted to keep the room feeling bright yet practical. However, we wanted to add some character and continuity throughout the room, and a touch of signature colour and vibrancy to the design," says Ester. The colour, a muted sage green, is painted below the



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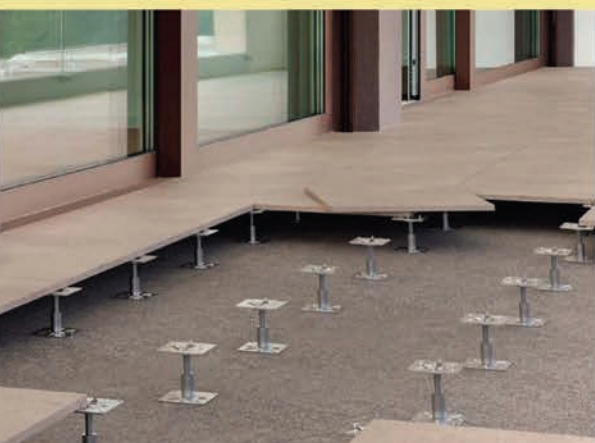
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dado rail level and unifies the room, despite the different levels and zones (such as cooking and eating areas). A wooden dining table and chairs bring a more traditional feel to the space, echoing the older parts of the house, and the engineered wood floorboards were not only a cost-efficient option, but also bring warmth, as well as practicality to the space.

"I didn't want a kitchen I would be worrying about," laughs Sally. "And my two boys really test it to its limit."

For Sally, the biggest challenge was completing the project during the Covid lockdowns. Not only did this delay the start of the building works, but the family found they needed to stay living in the property, and not relocate to Sally's parents, as originally planned.

"My memories are that it was a very intense period," recalls Sally. "The saving grace was the nurseries were still open, but it was a juggling act." Instead, the builders, ABR Contractors, created a temporary kitchen in the double reception room, which was sealed off from the

extension by a plywood wall.

"That was my high point," says Sally. "I loved them taking down that temporary wall, despite the new kitchen not being quite finished, but I got a sense it was worth it."

The build itself went very smoothly (apart from a leaking pipe at 6 am, which was swiftly fixed by their builders) and now the family have lived in their new space since 2021. By extending out, up and even to the side, the Jensen family now have all the space they need with two growing boys, making this the 'forever' home they had dreamed of.

Their new extension has transformed not just how they use the house, but how they live, too.

"The kitchen is where we spend most of our time," says Sally. "We have oodles of space, which is exactly why we did it. It is a very social space; I love that we can have people around, as it just absorbs people. But the thing I love most, is the sense of light. We spent a lot of time talking about it with Ester and now I just love it here at all times of the day." ■

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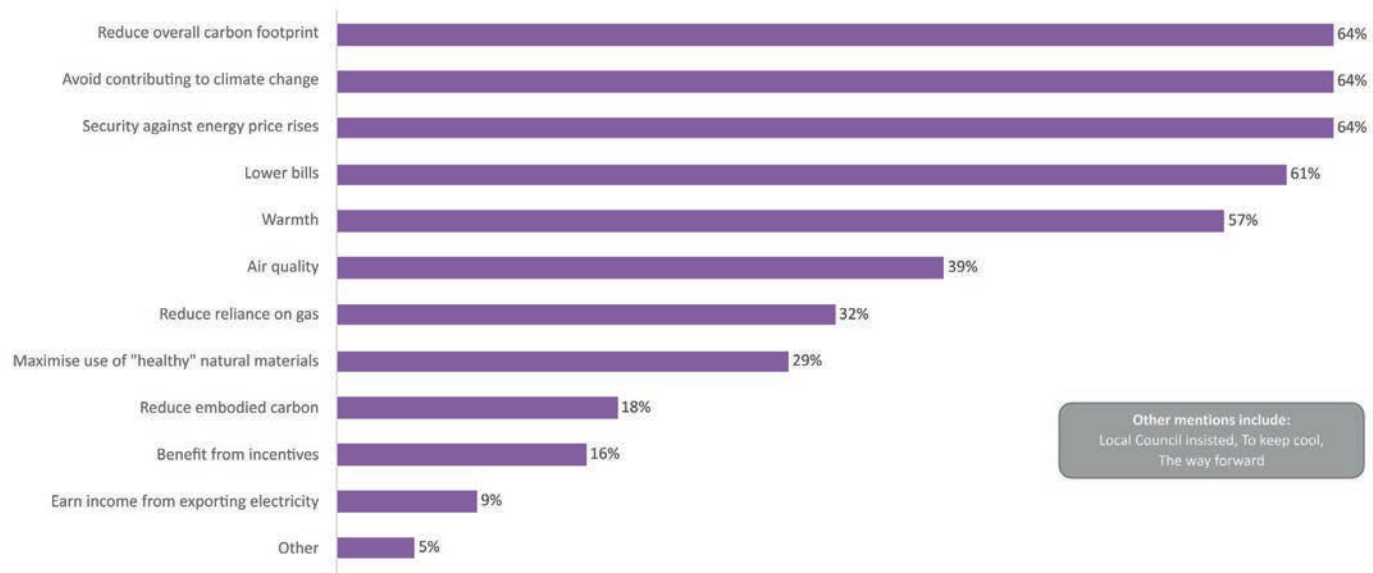
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EXECUTIVE SUMMARY

Why low carbon matters more than ever

Far from only being the concern of a small but determined band of eco-zealots, as it was in previous decades, the fate of the planet is now front and centre of discussion at every level of industry and public life in the UK.

Nowhere is the debate more ferocious than amongst self-builders, almost two thirds (64%) of whom, according to our second Selfbuilder Survey of our magazine readers, want their new home to reduce their carbon footprint and avoid contributing further to climate change.

But this might be in the face of a new prevailing wind from London. In the autumn of 2023, Prime Minister Rishi Sunak announced a series of about-turns related to the Government's previous commitment to achieving net zero emissions by 2050. Although he increased (by 50%) the grants available to UK homeowners seeking to install renewable energy heat pumps to

£7,500, he also significantly backpedalled on the move away from gas boilers.

Plans to ban the installation of new oil or LPG boilers or coal heating for off-grid homes will now be delayed by nine years, from 2026 to 2035. Sunak has also exempted around a fifth of all householders from upgrading to non-fossil-fuel boilers from 2035 – if they will 'struggle' to switch.

At the same time, his Government remains committed to introducing the much-anticipated Future Homes Standard in 2025, which will require self-builders to cut carbon emissions on their projects (on previous Building Regs) by 75-80%, through use of sustainable design and materials, installation of renewables, and adhering to a raft of complex legal criteria relating to airtightness, ventilation and thermal performance.

Our readers, and the wider self-building community, including architects, sustainability consultants and build/design professionals,





Despite colossal rises in the prices of gas and electricity over the last 12 months, 'lower bills' is cited by only 61% of people as their reason for building low carbon

can be forgiven for feeling not only confused, but even angry at the recent changes.

As Federation of Master Builders chief executive Brian Berry said in response to 'Rishi's Row-back,' "Consistency of policy is key to achieving net zero and reducing carbon emissions, but the trend of stop-start energy-efficiency policies continues, leaving consumers and builders confused."

That's just one of the reasons why our Selfbuilder Survey is so important; we wanted to see how our readers' views on creating lower energy-use homes had changed over the course of 12 months. And our findings make fascinating reading, from the number of self-builders seeking the highest standard of energy efficiency (Passivhaus), to their levels of frustration at the rising price of basic materials such as timber, and their thoughts on the new-found willingness from (some) local council planning departments to push for new low carbon homes to be built in their area.

By exploring in-depth your peers' attitudes towards low carbon self-building, identifying the ambitions and challenges met during a project, and looking at some of the solutions available in terms of design, products and materials, we put ourselves at the forefront of this very current debate. *Selfbuilder + Homemaker* is harnessing its unrivalled position to take the temperature of this crucial sector of housebuilding in the UK.

It has often been said that what the self-builder does today, the rest of the world will do tomorrow. At a time of intense global conflict and evidence of rapidly-evolving climate change, we are helping foresee what that tomorrow looks like, one brick – or even straw bale or ICF panel – at a time.

Energy still in crisis

Events in the Middle East are adding ever louder warning bells to the energy crisis caused by the war in Ukraine, which has already put pressure on supplies of gas from Russia, the second-largest gas producer in the world, behind the USA, according to a recent IEA report.

The result, as the UK discovered last winter, was record-breaking home energy bills. Although the price cap for typical dual fuel

use has now dropped by 7% to £1,834 (from £1,976), with gas costing around 10.3 per kWh (prices per kWh do vary around the UK), homeowners are still worried about future rises, as confirmed by a 2023 report from Eco Experts.

While gas continues to be subject to global turmoil, at around 34p per kWh, the cost of electricity is three times higher, leading many embarking on a low carbon build to scratch their heads over the sums when it comes to installing electricity-powered technology such as air source heat pumps. The only sure-fire solution is to use less energy, and that's the reason why low carbon self builds are so important.

Surveying self-builders

Our first Selfbuilder Survey in May 2022 was so successful in achieving our initial aim of opening up the debate on low carbon homes, exploring why and how far self-builders were committed to reducing carbon emissions and highlighting the challenges they face, we decided to do it again.

The aim was not only to take the temperature 12 months down the line, when global events have put further squeeze on energy costs, the Bank of England interest rate has climbed to 5.25% (at the time of writing) putting pressure on self-build budgets, and yet more extreme weather conditions point further towards climate change, but also to examine current trends and concerns amongst self-builders working on, embarking on, or planning a low carbon project. We wanted to find out about the obstacles they face, the low carbon priorities they hold dear, the costs involved in low carbon building, and where our self-builders seek and find expert advice on everything from calculating carbon emissions to catching rainwater for harvesting.

For the second year running, we've partnered with audience research specialists Edge Insight to speak to our readership of self-builders and ask a series of searching questions about their journey to zero carbon, and the answers are revealing.

Once again, the team at *Selfbuilder + Homemaker* are very grateful to everyone that took the time to respond to the survey.



INTRODUCTION: COMMITTING TO LOW CARBON

This year's survey tells us that despite challenges, not least the cost of building materials (54% of self-builders are saying that they're finding timber more expensive, for starters), there is still a significant commitment towards creating low carbon homes in the UK.

More than a third (37%) of respondents said that they are building, retrofitting or aspiring to build a low carbon home – an increase of 6% on last year.

A combination of factors underpin this upwards trajectory: the Future Homes Standard 2025 is now starting to influence self-builders, architects and local authority planning departments (certainly in some areas if not all), there's concern about energy costs and security due to global events, so futureproofing home

energy needs is an immediate concern, and acceptance that a low carbon home can be equally as impressive architecturally as what we might call a 'normal' dwelling. Only 10% said that they had to change the initial intended look of their build significantly to make it a low carbon project.

What we're also seeing is that the construction industry, manufacturers and suppliers and yes, those planning departments, are becoming much more familiar with the concept of low carbon. In fact, some self-builders report deviating from original plans and doing a low carbon build because their local authority has demanded it as a condition of planning permission. Reflecting the increased familiarity in the industry, only 12% of our readers said that getting their build passed was 'extremely challenging.'

A GLOBAL & LOCAL PROBLEM

Self-build homes contribute a relatively small amount to the UK's built environment (still only around 10% of the UK's total homes). But self-build homes can play a huge part in setting the highest standards for reducing carbon emissions, showing volume housebuilders and social housing providers how to build for the future wellbeing of local communities and the world. What challenges have they faced in 2023, as global weather patterns give cause for concern and smart meters clock up the cost of keeping warm?

Climate crisis

There is certainly an overwhelming consensus among scientists globally that the world is not only getting warmer, but that that warming is causing a shift in weather patterns, with more extreme weather events such as flooding, and increased likelihood of global problems such as forest fires.

The summer of 2023 saw forest fires decimate parts of Greek islands and the mainland, and other areas around the Mediterranean, and in October, the UK experienced one of its wettest days ever, with up to 220 mm of rainfall in areas of Eastern Scotland, bringing this close to the previous high of 238 mm in Sloy Main Adit in Argyll and Bute in January 1974.

The low carbon self-builder knows that by following the best

sustainable practice, they will be doing all they can to avoid contributing to further climate change. This year, 64% of our respondents said that the twin aims of 'reducing overall carbon footprint' and 'avoid contributing to climate change' were the main motivators for their projects.

Energy crisis

The war between Russia and Ukraine put a squeeze on gas supplies from early 2022. Although the UK imports only about 4% of its gas from Russia, and supply chain issues have eased slightly since, with a corresponding modest drop in the cost of gas to the consumer (prices per kWh unit do vary around the UK), there is still huge concern about future energy security.

Until recently, electricity was considered as the cheaper alternative to gas, but it's now typically around three times the cost of gas per unit. The full impact of this is yet to be explored, but it is an important consideration for low carbon self-builders looking to save not just on emissions, but ongoing energy bills.

The big question for the next 12 months is whether self-builders really will make the total switch to electricity, or hedge their bets and install hybrid energy systems in their low carbon builds, maybe combining renewable energy with high-performance fossil fuel applications.



Government action

Condemnation followed Prime Minister Rishi Sunak's autumn 2023 U-turn on a raft of key climate pledges, when he announced that the UK needs a more 'pragmatic and realistic' approach to net zero targets which eases the 'burden on British people'.

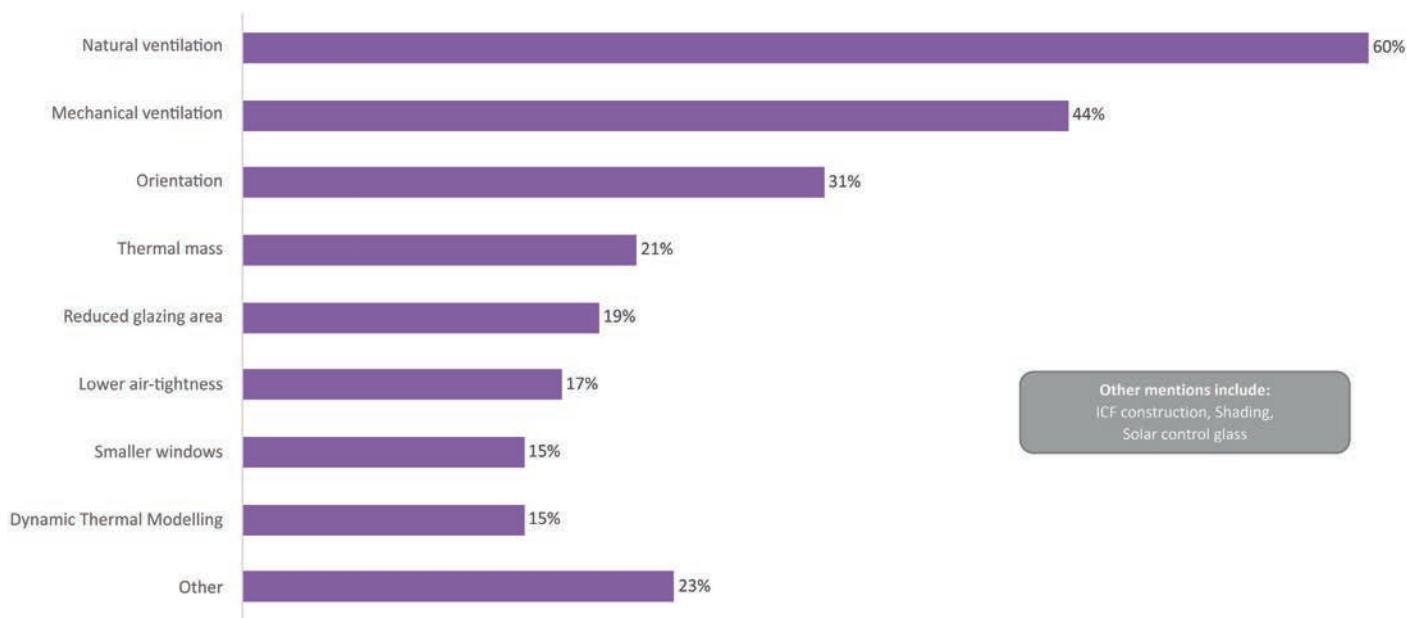
It's not just climate change protestors who argue that Sunak's decisions to scrap key climate change pledges put in place by previous administrations are short-sighted. Many eco-aware architects and sustainable building experts fervently believe that his policies, including scrapping fines on landlords who do not upgrade their properties to an EPC C or higher by 2025, and a watering down of the ban on new gas boilers (now postponed to 2035), will reverse years of good work to reduce our country's carbon emissions from the built environment.

Tighter Regs

It's not just in recognition of higher summer temperatures in the UK – with the hottest day of 2023 recorded as 33.2°C (91.8°F) at Kew Gardens, south-west London in September – that the

Future Homes Standard now includes a regulatory requirement to mitigate overheating, and for homes to have adequate means of cooling. A new Building Regulation, Part O, will ensure that more energy efficient homes are not subject to overheating as a result, and that an adequate method of cooling is provided. This marks an interesting shift in priorities, coming in the wake of homes becoming more airtight following Part L of Building Regulations, introduced in 2013.

Although Part L has achieved much in creating buildings which perform much better on energy use, there is clearly a need for balance. Our self-builders now face the challenge of achieving an optimum internal temperature year-round, and meeting two differing Parts of the Building Regulations, which may take some settling down to work together. 'Achieving natural ventilation' and 'airtightness' are already the top two Building Regulations challenges for our survey respondents, with 43% and 35% respectively finding these demands 'moderately challenging.'



How are you addressing potential overheating?

The Future Homes Standard

In 2025, the Government has said that all new homes will need to meet its new Future Homes Standard. That means that in under two years, carbon emissions produced by all new homes will need to be 75-80% lower than those built to the previous Building Regulations. In June 2022, an interim standard was introduced by way of an update to Part L, which demanded a 31% reduction in carbon emissions from any new home being built, through a combination of low carbon heating and improved fabric. Essentially, this means

including higher levels of insulation and higher standards of airtightness and ventilation.

The Future Homes Standard sets a framework for self-builders embarking on a low carbon build, and prepares the ground for an ambitious future in which fossil fuels will be phased out entirely, the electricity grid decarbonised and heating will become largely electric, with a shift towards heat pumps and district heating networks.



KEY SURVEY FINDINGS

Projects & roles

Overall, the number of people building, retrofitting or aspiring to build a low carbon new home has gone up since our 2022 Selfbuilder Survey, from 31% to 37%. Of this number, 19% said they were aspiring to do their low carbon build, but hadn't started work yet.

The percentage of people saying they saw themselves as 'self-builders' stayed relatively similar, with this year's figure being slightly down at 54% versus 56% (people selecting 'self-builders' plus 'hands-on builders') in 2022. The number of people describing themselves as 'custom-builders' has however halved since 2022, from 12% to 6%.

A higher proportion (62%) are employing an architect compared to last year (58%), with just 38% designing a home themselves, against the previous 42%. Almost a quarter of respondents (23%) said they were project managers on their build, more than double the number last year (13%), and 15% were architects, compared to 13% last year.

The Government's own figures, covering October 2021 - October 2022, show a drop of 34% from the same period a year earlier in registrations of interest in serviced self-build and custom-build plots, totalling just 8,034 new individuals. Planning permissions granted for serviced plots suitable for self and custom-build were down too, by 23%, to a total of 6,374, pointing to either lack of interest – or lack of plots. It's over to the Government for an answer to that one.

Despite huge publicity about the importance of retrofitting to keep energy use and therefore costs low, only 5% said they were working on a low carbon retrofit; less than half the number last year, when this figure stood at 12%. And only 13% were aspiring to do such a low carbon retrofit project in future, against 14% in 2022. This is unlikely to see a marked change until VAT is completely abolished for renovation projects; it only had a qualified reduction in 2023 despite the promises.

The biggest survey response from our readers came from the South East of England, where a quarter (25%) of respondents were based, followed by the South West (22%) and Scotland (12%), suggesting that these are the areas of the UK where self-build is most popular.

Eco goals

The most surprising facet of the responses to the 'eco goals' questions we asked was the big increase in the number of people aiming to achieve Passivhaus-level performance; the very highest standard in energy efficient buildings. The proportion has gone up from 24% saying this was their goal in 2022 to 35% this year, with a healthy 16% of respondents saying they would be going full-throttle and seeking Passivhaus certification, compared to only 2% last year.

This suggests that in the face of wider public awareness of energy-efficiency, ambitious self-builders want to stand out from the crowd by hitting the gold standard.

Passivhaus is the answer, it would seem. While 40% of last year's respondents said 'very low emissions' was a major self-build aim, only 23% stated this as an ambition this year. Those hoping to achieve 'fairly low emissions' stayed around the same, 23% this year compared to 24% last year.

Reasons for building a low carbon home

Last year, achieving lower energy bills was top of the list of key reasons for building to high energy efficiency levels, with 69% of survey respondents admitting this was their main motivation.

However, despite colossal rises in the prices of gas and electricity over the last 12 months, 'lower bills' is cited by only 61% of people – in 2022 it was the favourite choice of 69% of respondents.

Saving money in the short term has been superseded by the winning triumvirate of 'reduce overall carbon footprint', 'avoid contributing to climate change' and 'security against energy price rises', all coming in at 64%. Last year, minimising individual contribution to climate was cited by 63%, but just 57% of the survey sample were concerned about reducing their overall carbon footprint, and 60% wanted security against energy price rises.

This new interest in saving the planet suggests that public opinion is now being swayed by compelling and widely disseminated arguments about the need to reduce carbon emissions from the built environment. Not to mention fears over reliance on imported fossil fuels in future.

However, interest in installing renewables to earn income from the grid – for those lucky enough to be able to generate more electricity than they use – has actually dropped, from 11% of respondents, to just 9%, perhaps underlining the impact of confusion over Government policies in this area.

Levels of understanding

We were really keen to find out if levels of understanding about building or retrofitting low carbon homes had increased in the intervening 12 months since our previous survey. In 2022, 45% of respondents were confident they had a 'strong' level of understanding, with 17% saying that their knowledge was 'very strong.'

Only 37% this year fell into the 'strong' category, but 24% pointed out that they considered themselves to have a 'very strong' level of understanding. This suggests a trend that self-builders are increasingly keen to educate themselves and learn about low carbon techniques and materials. Correspondingly, only 3% of respondents admitted to either 'weak' or 'very weak' understanding, compared to 8% for both last year.



Problems & obstacles

Is it becoming easier to undertake and complete a low carbon build? Our respondents seemed to think so. Last year, 6% said it was 'very difficult' to meet the challenge, with 4% complaining it was 'extremely difficult'. This year, 9% said it was 'very difficult' (11% last year), and those finding it 'extremely difficult' dropped slightly from 4% to 3%, against suggesting that knowledge levels and

expert advice to hand are on the up.

This was backed up by only 34% of respondents saying that achieving a low carbon build is 'moderately difficult' now, compared to 40% in 2022. A 16% asserted that it was 'not at all difficult', a strong uptick from last year given the confidence of the statement; in 2022 it was the response of 11% of those surveyed.

CONCLUSION

Despite all the challenges faced, and shifting political priorities regarding how the UK might reach net zero by 2050, our Selfbuilder Survey proves that a significant number of people would still like to build their own low carbon home, or are already engaged in the process.

While keeping down the cost of energy and moving towards self-sufficiency remains an aim for almost two thirds (61%) of our respondents, interestingly, it's less of a priority than last year, when 69% said that 'lower bills' was the top 'key reason' behind opting for a low carbon project.

Most of this year's respondents (35%) expected an annual energy bill of between £500 and £999. Last year, 43% of respondents expected to pay the same kind of figure. But back then, 20% expected to annually pay £1,000 to £1,499 for their energy, compared with just 16% this year.

However, the ongoing cost of living crisis, fuelled by high interest rates, is definitely impacting low carbon self build budgets. Low carbon builds do tend to cost more than a standard home, due to factors like the higher levels of insulation, greater levels of design work, air-tightness measures, and higher spec products such as glazing and membranes that may be used.

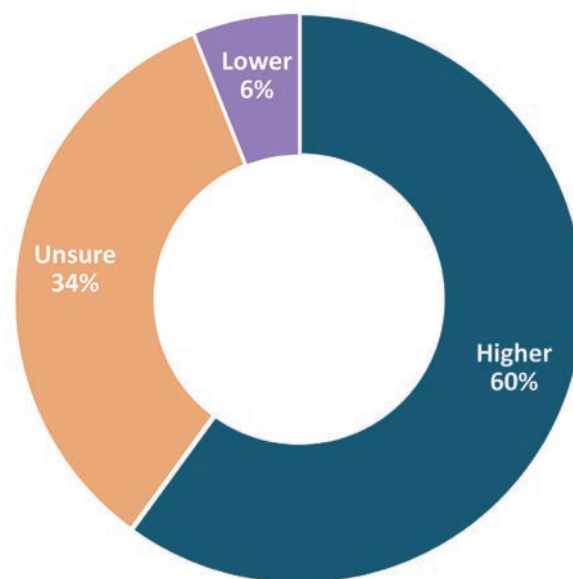
Almost two thirds (60%) of our respondents said that the cost of building their low carbon home was higher than expected. However, this was actually a lower proportion than last year (68%), so perhaps our self-builders are taking a more realistic approach to budgeting to avoid shocks down the line. Only 6% found their build costs lower than anticipated, compared to 9% last year.

We're also seeing low carbon self-builders tackling emerging issues in construction, such as overheating. In the face of rising UK temperatures, yet again, self-builders are setting an example to others; 60% said they would be incorporating natural methods of ventilation, with 44% bringing in mechanical ventilation. Mention was also made of the importance of shading and solar control glass, to help keep indoor temperatures ambient.

Going forward, the onus will be on manufacturers and suppliers to keep pace with demand for the latest products self-builders working on low carbon homes desire. Solar control glass, for example, was number four on the list of products suffering from

Has the build cost of your low carbon home been lower or higher than expected?

■ Higher ■ Lower ■ Unsure



availability problems, behind heat pumps, sustainable concrete and solar PV, with 13% of our respondents citing delays.

Increasing costs for products and materials is also a major concern. More than half (54%) said the cost of timber had affected them, with prices for insulation (38%), heat pumps (29%) and solar PV (25%), also causing consternation.

To help meet rising costs, a small but ambitious cohort (6%) among our respondents said that they intended their project to become 'carbon positive,' meaning they were pursuing microgeneration so they could gain an income from their onsite renewables, assisted by their efficient fabric design. This is double the number of self-builders of low carbon homes surveyed last year (3%) who held the same hopes, confirming what we know – that those who build for themselves tend to push the agenda in terms of ambition and innovation.

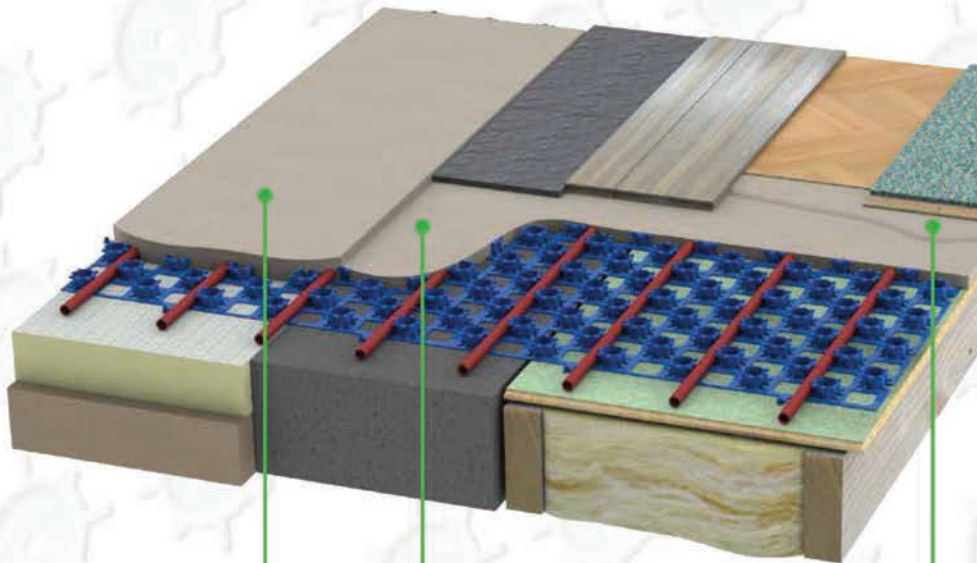
Our second Selfbuilder Survey gives cause for some positivity around how self-builders are continuing to strive for greater sustainability. The climate – in all senses – may be challenging, but it is spurring our self-builders onwards, not holding them back.





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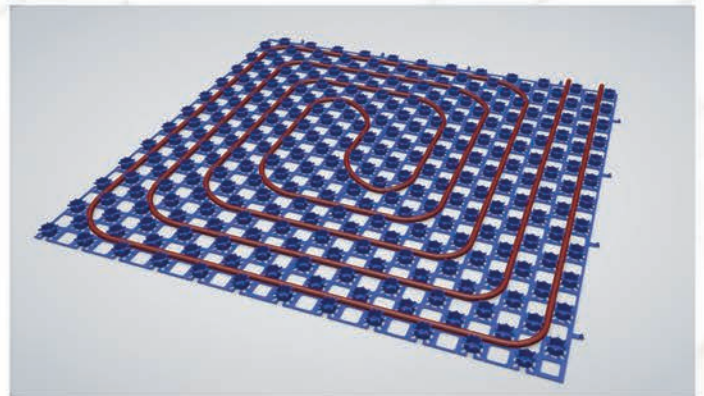
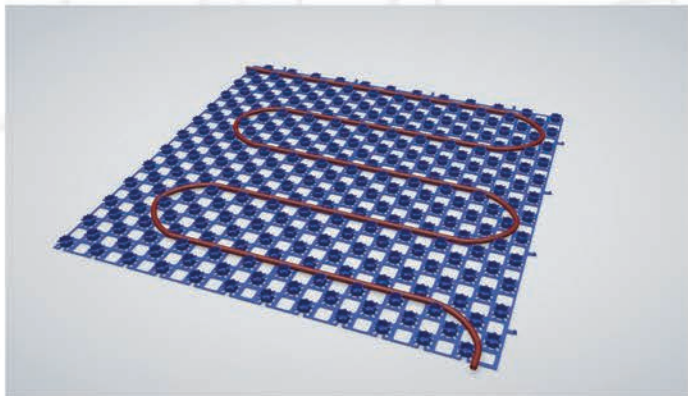
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The ever-popular National Self Build & Renovation Show returns in the New Year!

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to help inspire your homebuilding plans. Alongside 200+ exhibitors within the NSBRC's 'Trade Village', the 'Professional Services Hub' is the place to go for independent, expert advice from a range of specialists. You'll find a number of Architects and Designers, as well as experts on Planning, Project Management, Renewables, Landscaping and more.

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Our top 3 tips for making the most of your visit to the National Self Build & Renovation Show:

- Bring your plans, drawings and

sketches – it will help the experts and exhibitors give you the best advice.

- Arrive early! There is a packed programme of talks, demos, case studies and tours. The show starts at 10am each day and you'll want plenty of time to browse over 200 exhibitor displays.
- Don't be shy to ask questions! Many experienced representatives will be on hand to answer your questions and offer support based on their experience.

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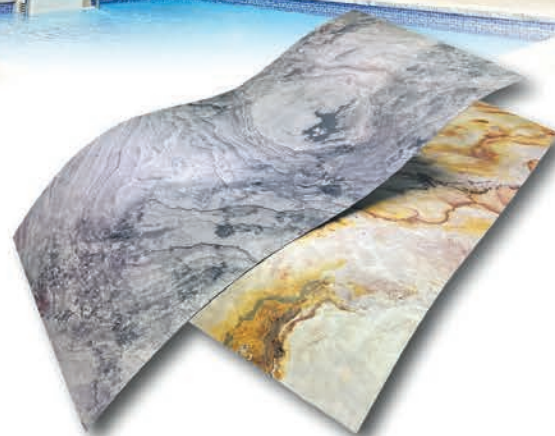
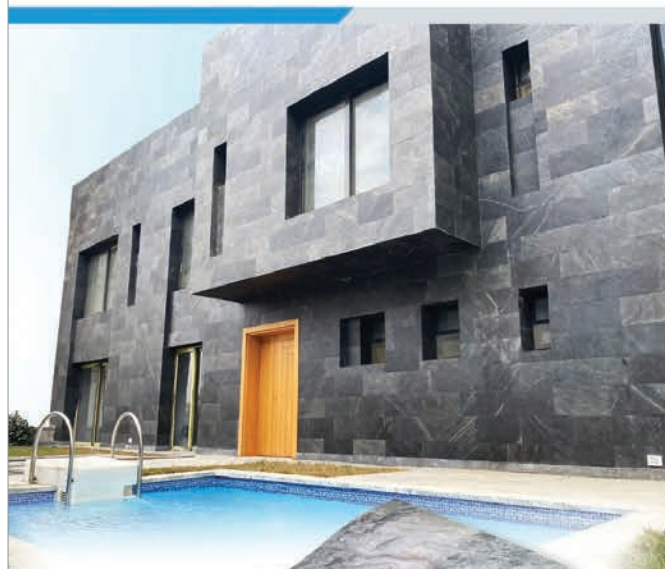
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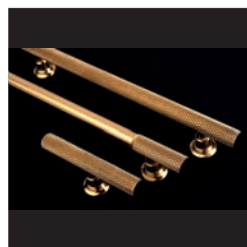
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The power of daylight

David Clarke of IDSystems explains the transformative power of bringing abundant natural light into the home, and how innovative glazing solutions are reshaping our modern living spaces

Over the past decade, there has been a substantial shift in the way modern homes are designed and built, and at the heart of those changes has been the desire to create bright, contemporary spaces which are full of natural light.

Whether it is an extension, a renovation or a complete self-build home, large open-plan spaces project have become the starting point for many plans and ambitions. These open plan spaces are designed with large amounts of glazing that flood natural light into the interior like never before, but why has this become such a staple of residential architecture?

While every home is different, two driving factors have underpinned the style choices of homeowners – technical development of products and the increased access to inspiration for planned projects.

From home renovation programmes on TV through to the lifestyle of those who influence modern styles and trends on social media platforms, the visibility of what can be achieved is greater than ever before and those influences are drawn from far wider than ever before.

Almost every project that we get to work on now features large open plan rooms, complete with the obligatory kitchen island, designed to bring people together. Gone are the box shaped individual rooms of traditional house building and in their place are contemporary modern spaces that the whole family can enjoy.

The growth of large open-plan spaces hasn't simply been limited to the interior of a home either, the addition of large amounts of glazing to wrap these modern homes has broken down the boundaries between inside and out,



extending the living space out onto the patio and into the garden.

The technical product development that has driven this has been the production of larger and larger double glazed sealed units and the development of slender and thermally-broken aluminium profiles, making sliding doors with minimal frames that allow for almost uninterrupted views as a viable solution for almost any budget.

Where once the size of windows was governed by the size of the available glass unit, now almost entire walls of glass can be created that draw more natural light further into homes than ever before.

WHY IS NATURAL LIGHT SO APPEALING FOR MORE AND MORE SELF-BUILDERS?

We are often drawn to create light-filled spaces without necessarily understanding

why, and it comes down to evolution. Historically, our ancestors relied almost entirely on natural daylight to live their daily lives. It is only in the last century that artificial light has come to dominate our homes and workplaces.

The challenge is that natural light brings measurable health benefits to us in a way that artificial light cannot. Exposure to sunlight prompts our bodies to produce serotonin, a hormone that is associated with well-being.

Sunlight also prompts our skin to produce vitamin D, which research shows can improve emotional regulation as well as boost our physical health by helping our bodies to absorb calcium and even reduce fatigue.

With our in-built desire for natural light – and influences from across the globe, particularly from areas where traditionally they enjoy a brighter and sunnier climate than the UK, it is understandable to see why the design of living spaces has changed, even if the underlying reasons aren't always considered.

From a glazing perspective delivering products and solutions to meet ever increasing demand for glass has been a constant area of development. Demand from homeowners has driven product development that in turn has helped create the stylish contemporary homes that have become the inspiration for so many planning projects.

Historically the glazing industry has relied on timber or more recently PVCu to frame windows and doors, so the development of aluminium frames that benefit from the innate strength of the material, has allowed for door and window systems that are more akin to commercial glazing solutions than traditional residential design.

The products now available are designed not just to look good,

Where historically, windows have been the least efficient elements, now glass technology provides ultra-efficient options



but to meet the stringent thermal performance standards required by Building Regulations. Where historically windows have been one of the least efficient elements of a home, now glass technology provides ultra-efficient options, even for those tackling Passivhaus standard homes.

These developments and standards mean that for those choosing doors and windows to enclose their homes,

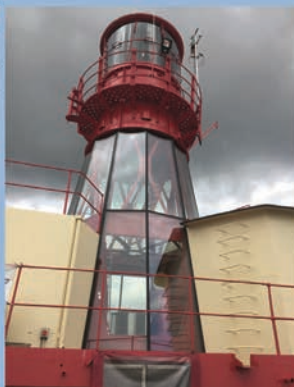
the choice has come more down to functionality and usability than size and scale. Bi-fold doors, with their ability to completely open up to connect inside and out, were the first to benefit from changes to customer demand, whereas more recently, slim-framed sliding doors have become the go-to option; their ultra-narrow frames maximising the size of glass to provide a connection between home and garden

all year around, while drawing more natural light into indoor spaces.

The popularity of bright, contemporary homes, enhanced by their light-filled open-plan spaces, seems set to grow and grow for self-builders even as Building Regulations become stricter. For us at IDSystems it means constantly looking at research and product development to continue to be able to meet customer demand.



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Variety is the spice of self-build facades

Combining cladding with stone, brick and other materials on your exterior can give your home added character and create a strong aesthetic statement, as Lisa Grosse from Cedral explains

While brick is widely used for residential exteriors in urban settings, and in much of the countryside stone is dominant – in particular, limestone, sandstone, bluestone or quartzite, we are seeing many more creative construction solutions that employ a range of colours and materials. These include using glass, stone, brick and wood in a variety of combinations. Plaster is also still in very much in fashion, and rough concrete has gained acceptance as a stylish cladding for residential design.

Combining materials when building or updating a property can create character and add an original, eye-catching look. Other advantages are that this can give rhythm to the facade and can also underline the character of the house.

One way to use cladding with other materials is by adding shiplap sidings, 'New England'-style weatherboarding characterised by long planks, mounted horizontally to evoke the exterior of a ship. This style choice, long seen on coastal or beachfront properties, has become a popular design choice more generally. Scandi-style slatted wood cladding, an interior trend, can also be used on the facade to add texture and dimension. It doesn't have to be used for the entire exterior, as slatted walls can work as accents or half walls, breaking up solid colour and changing the overall look. The cladding can be used to cover a gable and provide a contrast with the rest of a building.

Fibre cement cladding, which imitates wood with a grain imprinted along its length, can work well with different styles of homes. This is a strong, versatile and



sustainable material containing cement and fibres, its inherent formulation means it does not rot, rust, warp or crack under extreme weather conditions. It also has excellent fire performance, and uses fewer raw materials and less energy in its manufacture – and produces less waste – than some traditional building materials. It is also easy to install, and low maintenance. It can partner with brick, natural stone, tiles, stucco, even metal.

For one new build in Chepstow, the homeowners chose Cedral fibre cement cladding in slate grey for a design that matched the modern and minimal interior and complemented the

home's beautiful countryside location. The combining of the horizontal boards above the brick at the base and with vertical metal joints placed at intervals around the facade, provided them with the clean lines, modern appeal and low maintenance that they wanted.

Another example where fibre cement cladding combined with other materials in a new development is a home in Newport-on-Tay. The homeowners wanted the architects to create a low maintenance property while still being aesthetically striking against the scenic surroundings. BlackDog Architecture mixed tones and textures on the facade to create a unique and contemporary

Fibre cement cladding, which imitates wood with a grain imprinted along its length, can work well with different styles of homes



property. Pairing wood effect Cedral Click fibre cement cladding in white with a soft tone in muted shades provided a different lighter tone and contrasting texture that complemented the overall design.

While, contemporary houses are particularly suitable for combining cladding with other materials, incorporating cladding onto the facade of an older building can also refresh a dated exterior. The new owners of a 100-year-old, run down farmhouse in Westerham, Kent decided to use a combination of materials for the exterior of the renovation. They wanted a new facade which would significantly improve the look and quality of the house and be in keeping with the surroundings of 16 acres of wooded land and paddocks. After looking for a material that would provide a realistic timber appearance which was also low maintenance, they decided to use black cladding together with a new brick plinth to give it a barn-like feel.

While white, cream and beige are top colour choices for home exteriors, we are seeing others such as sage green, grey brown, blue grey and sand yellow appearing more often. Our research project into colour and lifestyle trends which was key in developing a new and

refreshed range of colours for facades confirmed this trend. Natural colours are gaining popularity with muted colours becoming less so.

There are endless combinations that might work for a home's exterior – both practically and aesthetically and people are wanting to be creative with unique, updated looks. Here are some tips to help achieve a harmonious result:

- Consider the environment, the surrounding buildings and the context. Keep the number of materials used down to a maximum of two or three.
- Stick to two or three colours at most. Too much input can overwhelm the eye.
- Alternating a warm shade with a darker one always looks effective. On the other hand, using the same material in two different configurations, such as using the same bricks horizontally and vertically, does not give good results.
- Respect the alignments, otherwise the lines of perspective will lose cohesion. In the end, it's all about choosing the materials that suit you best.

Lisa Grosse is brand manager at Cedral



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CASE STUDY

RURAL CHARM & HERITAGE IN HARMONY

Discover the remarkable journey of Chris and Sarah Dale as they breathe new life into a centuries-old barn, turning it into a light-filled haven

TEXT EWEN MACDONALD IMAGES MATTHEW SMITH ARCHITECTURAL PHOTOGRAPHY





When Chris and Sarah Dale purchased their home in the village of Ugborough, Devon over 15 years ago, it had already undergone a conversion from an agricultural outbuilding to a dark and cramped two-bedroomed home.

Originally built around 1750 as a pig shed, the building, named Lutterburn, featured a hay loft and was surrounded by an ancient orchard. The house was set around a dark hallway with limited views and restricted access to an overgrown garden.

Having lived in the existing house for more than a decade, the couple were clear on what they wanted. Their shopping list for the house had three main components: more space, good natural lighting and better access to the garden.

The couple also sought to bring back some of the building's agricultural heritage – minus the pigs, of course.

"We always liked Ugborough and loved the external look of the barn and its sizeable garden as well as its location within the village." It also sits on the edge of a conservation area in South Hams, but very little of the garden and the surrounding views were visible from the house.

This was their first adventure into bespoke building work on this scale. "We'd undertaken full redecoration and converted a downstairs shower room to a utility room – neither of which is in the same ballpark."

Barn conversions have long been a popular self-build project type. Their configuration allows for high ceilings, open-plan living and haylofts to convert into mezzanine floors for bedrooms.

The building style suits large-scale windows to let in plenty of natural light. And there's the extra factor of location: barns by definition tend to be in unspoilt areas surrounded by countryside offering incomparable views.

If you look online for 'barn conversions,' there is a tendency to see a centuries-old building that has been gutted to insert a contemporary home. The level of finish on both the outside and inside can end up making the building look new. But Chris and Sarah wanted to preserve some of its agricultural history through clever design. The couple did endless amounts of homework on what makes a good barn conversion. "We spent months looking around at other barn conversions and farm buildings to ensure we kept an agricultural feel."

"We wanted a modern twist on a barn extension with an obvious delineation of old and new," explains Chris. "We needed more space, but also more light, as well as better connection with the garden."

"When we moved in, there were a lot of things that had been done cheaply," adds Sarah. Good advice on revamping a home is to live in it for at least a year and learn how you use the spaces before reconfiguring the building. For Chris and Sarah, it became a decade – but that meant they knew in great detail what they needed from their new house.

The project began when the couple first met architect Tim Offer in 2016, with work commencing two years later in September 2018.

Choosing an architect to trust your life savings and design your family home is a challenge in

HIGH POINT

"The whole process! We loved popping on site and seeing the progress each week."



LOW POINT

"Not so much a low point, but we regret not getting all the amazing people who worked on the project to pose for a photo to frame and hang on a wall as a reminder."

BEST BUY

"Our Centor bifold doors. Like our windows, they are aluminium clad but what you see on the inside is wood. They have both an internal blind and fly screen. In the summer when these are opened up the house extends out into the garden."

itself. When the couple initially moved in, they met with an architect who drew up plans, but Sarah admits, "we really didn't like them," and it put them off the idea for a while.

Fast forward a decade, and they met with Ivybridge-based architect Tim Offer. "We really liked his approach and his ideas," says Sarah. "He sat and listened to us about how we lived our lives and how we interacted with our home."

The family moved out of the house for a year while the major work was carried out in stages and there's still a list for further work. The exterior work took about a year, with another year to complete the interior work. Work continues as budget allows, with plans to install solar panels, as well as landscape the large garden they can now see from the house. "We ran out of budget for solar panels but that is the next thing on our list!"

For the owners and the architect of Lutterburn, sitting on the edge of a conservation area and working with a traditional centuries-old building meant that extensive discussions were required with the planners and neighbours to get support for the project. For the couple, the back and forth between planners meant an opportunity to fine-tune the design – although the lack of feedback from the local planning department was a major headache. "It would have been easier if they had just told us what it was they wanted us to do," says Sarah.

"At the heart of the brief was the requirement to bring natural light into the property," says architect Tim. The original property was

Barn conversions have long been popular self-build project type – their configuration allows for high ceilings, open-plan living and haylofts to convert into mezzanine floors for bedrooms

organised around a hallway and stair in the centre of the plan, the layout was dark and disconnected from its garden.

"The brief called for much-needed additional space and a re-think of the layout to provide improved access and circulation. We needed to connect the house to the garden and create a light and relaxed home."

With the project now complete, the Dales have almost doubled the size of the old 80-square metre house they bought in 2006.

The project has seen the renovation of the



original building while adding an extension which sits at a right angle to the original barn and is around 75% of its size. The new extension, which is clad in zinc and cedar with open gables, increases the number of bedrooms to three.

The zinc roof was Sarah's idea, and is in keeping with the metal roofs used on farm outbuildings. There is cedar wood cladding to match the traditional wooden construction and the large windows that reflect the large openings that barns traditionally have at their gable ends.

The building also features local stone to fit in with the area. "We wanted to be able to see where the original building was," explains Chris.

The first thing you notice with the new extension is its open gables that draw light deep into the house. The gabled form of the original barn has been repeated at the rear, building over an existing terrace. New bi-fold doors – which both Chris and Sarah list among their favourite features – bring the outside in, encouraging them to spend more time in the garden.

The front door has been moved, with a vaulted entrance connecting all of the rooms of the house. The sense of a central hallway leading off to individual rooms has gone, with a more sociable open plan area.

The front door has been moved to the new building, with a vaulted entrance replacing the dark hallway to connect all of the rooms. The entrance leads through to a new dining room with views right through to a new terrace beyond. Inside, the first impression of the house is glass and wood, slate and stone. The vaulted spaces are lined with ply, and the stonework has largely been left exposed.

The ply-lined entrance has a feature staircase with a striking wooden balustrade, inspired by a cathedral in Copenhagen.

Sarah wanted to avoid the feeling of being confined in the kitchen, so she designed it as part of a spacious open plan area that incorporates the dining space. However, the family also desired a separate, enclosed sitting room connected to the hall, primarily used for relaxation after dinner.

A doorway halfway up the stairs connects to the garden at a higher level. "I love coming down the stairs in the morning and looking out the door," says Chris. "It's the first time you see the outside world."

On the first floor, there is a new ply-lined vaulted bedroom, while the existing part of the house has been reconfigured to provide two further bedrooms and a bathroom.

CONTACTS/ SUPPLIERS

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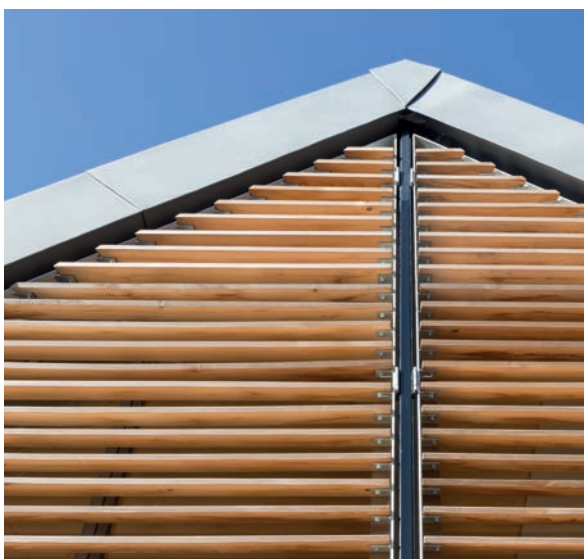
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“During the day, the zinc roof creates a striking contrast with the cedar cladding and original stone”

Despite the amount of glass used in the home, the project achieved a low U-value, indicating effective insulation. The final transformation only reveals itself as you get near. On the approach to the house from the lane it sits on, only the original barn is in view. It isn't until turning the corner that the new elements are visible. “It's a nice surprise to turn the corner and see the contrasting modern extension,” says Chris.

“We have lots of favourite features,” says Chris. “Internally the glass door halfway up the stairs gives a great view of the garden from the landing, the oak staircase, and the beautiful bathroom. During the day, the zinc roof creates a striking contrast with the cedar cladding and original stone. And at dusk, looking towards the house from the garden, when the lights are on, is one of my favourite things to do.”

Chris has plenty of advice for anyone thinking of undertaking a similar project. “Everyone will tell you that projects go over budget so make sure you have a contingency pot. Agree

on what you are not willing to compromise on. Go to home build shows to make contact with manufacturers/distributors, and stay in contact and ask for discounts.

“Also, shop around. We tried to buy from local sources/suppliers where possible but for some things especially as the budget is running out spread the net wider,” he says. “Have a conversation with your builder about what you can supply. You will save money and your builder doesn't have to outlay so much.”

The couple learned a lot along the way, but their top tips are relatively simple. “Keep your architect involved throughout. Build a good relationship with everyone who comes to work on your house. Be polite, be friendly, be respectful. But be firm about what you want – and pay invoices promptly.” Since completion, their home has gone on to win an award from the *Daily Telegraph* which named it Homebuilding & Renovating Home of the Year – Best Extension, showing the quality of this build. ■

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Time to turn off the gas

When choosing a heating system for your new-build project, it's now time to move away from the previous default option of a conventional gas boiler. James Chaplen of Mitsubishi Electric says that UK's net zero target is just one reason to shift your decision-making criteria

Net zero is now high on the Government's agenda, meaning the days for fossil fuel heating solutions are numbered. Opting for a low-carbon alternative, such as a heat pump, not only helps you stay ahead of upcoming regulations but also comes with a host of other benefits that are good for your wallet and the planet.

One of the big benefits of choosing a heat pump is that it saves money in the long run. While the upfront cost may be a bit higher than traditional systems – like gas boilers – the energy savings and reduced heating bills over time make it a smart financial move.

But it's not just about the money. Choosing a low-carbon heating option like a heat pump also aligns with the broader goal of sustainability. By cutting back on fossil fuels, you're directly reducing harmful greenhouse gas emissions, which is crucial for combating climate change. Additionally, having an eco-friendly heating system can enhance the value of your property, making it more attractive to environmentally conscious buyers.

In this changing landscape of eco-awareness and evolving energy choices, opting for a low-carbon heating solution like a heat pump is not just a practical decision; it's a step towards a brighter, greener future. It saves you money, makes a positive impact on the environment, and keeps your project in line with future regulations – a win-win for you and the planet.

WHAT ABOUT HYDROGEN?

Hydrogen has been a buzzword in the low-carbon world for a while, and while it sounds promising, it's not always as energy efficient as it's made out to be.

Producing hydrogen requires a huge



amount of electricity. The electricity used to produce hydrogen could be put to much better use. One compelling alternative is to channel that electricity directly into heat pumps. By opting for heat pumps instead of hydrogen production, the UK will be able to reach net zero in a more efficient way that is more manageable for consumers over time.

Hydrogen also is not guaranteed as a fully renewable energy source due to its varying production methods – known as Grey, Blue, and Green. While Green runs off renewable energy sources like solar and wind, Blue and Grey still use fossil fuels to power production. Grey is also the most toxic to the environment, as carbon emissions are not captured once released. Unfortunately, Grey is the most widely used production method at the moment – with 92% of global hydrogen

produced this way in 2022.

So, while hydrogen might be getting some attention in the context of low-carbon heating options, sometimes the simplest solutions are the best. Heat pumps are a proven way to achieve efficient, eco-friendly heating for a home.

THE HEAT PUMP SOLUTION IN A COST-OF-LIVING CRISIS

The cost of home heating is at front of mind for us all, and recent research by Mitsubishi Electric and Ipsos shows that 55% of Britons want the cost-of-living crisis to be a priority on the Government's agenda. As we approach winter, this concern is ever present. How can we heat our homes in a way that is both cost-effective and healthy for the planet?

Luckily, there is a solution. Heat pumps are extremely energy efficient – capable of providing up to three times more energy than they consume. This makes them a great choice for savvy homebuilders looking to save money while reducing carbon emissions. Heat pump technology allows for highly energy efficient residential heating, as for every kW of electricity consumed, a heat pump can produce 3 kW of heat energy. In comparison, a typical gas boiler produces less than 1 kW of heat energy.

Less energy used means less money spent on bills. When two in three Britons think that the worst is yet to come with the cost-of-living crisis, a money saving option like heat pumps couldn't be more relevant.

FUTUREPROOFING WITH HEAT PUMPS

Investing in a heat pump is not just a smart choice for today, but also a crucial step towards futureproofing your home. In an era marked by growing

When two in three Britons think that the worst is yet to come with the cost of living crisis, a money-saving option like heat pumps couldn't be more relevant



climate consciousness and stringent environmental regulations, making sure you are prepared for the future is essential.

By harnessing renewable energy sources such as air and ground, heat pumps operate with significantly lower carbon footprints. Installing one will help you contribute to the fight for net zero while also avoiding potential future penalties or restrictions associated with fossil fuel-based heating.

Not only this, but heat pumps also futureproof the value of your home if you choose to sell. As more buyers seek energy-efficient, environmentally friendly homes, having a home purpose-built to house a heat pump can significantly increase your property's marketability. It sets your house apart as a forward-thinking, sustainable choice in a competitive market.

As we get closer to the 2050 net zero target, regulations for energy efficiency

will likely tighten as we drive forward to a decarbonisation of home heating. Hence, it becomes more imperative to consider the benefits of low-carbon heating. Doing so means you can begin to futureproof your home, and with that can come reduced costs and lower carbon emissions.

James Chaplen is head of product marketing & communications, residential product group at Mitsubishi Electric



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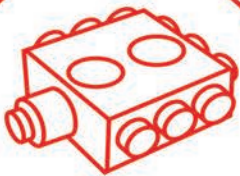


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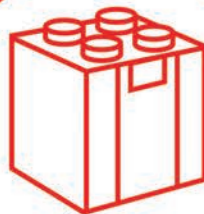
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CASE STUDY

FORM FOLLOWS FAMILY

Simon and Jo Morris made over their home in Hitchin with their architect, transforming it from an open-plan layout to a set of distinct, harmonious spaces that worked better for their growing family

TEXT TOM BODDY IMAGES JWB ARCHITECTS



The couple recognised the need for a complete reconfiguration of their home to meet the evolving needs of their family

In the historic market town of Hitchin, Hertfordshire, a Victorian terrace has been delightfully renovated and extended to create a modern and very functional family home. The original layout has undergone a significant overhaul, featuring a loft conversion, the addition of a family bathroom on the first floor, and a spacious rear extension that effectively doubled the size of the original ground floor.

The inception of the project was born out of a practical necessity – after nearly a decade in their home, the homeowners Simon and Jo Morris found themselves yearning for more space as their two young children, Eli and Indi, grew, and their needs evolved.

While they considered the possibility of relocating, Simon and Jo couldn't bring themselves to leave Hitchin. The town was not only highly commutable to London, which is where Jo worked, but as Simon describes, Hitchin has "its own identity, with plenty of cafes, restaurants and good schools."

Despite their attachment to the town, the couple recognised the need for a complete reconfiguration of their home to meet the evolving needs of their family.

The existing open-plan design, while having its own charm, occasionally felt cramped. Simon admits, "We did sometimes feel like we got on top of each other, and craved our own space." Thus, a primary goal of



the project was to create distinct areas that allowed privacy within the home.

The biggest restriction of the house's previous layout was the downstairs bathroom being located at the rear of the ground floor, completely blocking any connection to the garden. To access the garden the family had to go through a side door which was situated next to the downstairs toilet.

Despite the desire for a substantial layout change, the family aimed to preserve elements of the original Victorian design. "The brief was essentially 'not a box stuck on the end of the house'! We wanted a modern, interesting style but one which worked in harmony with and echoed the forms of the rear of the original property," explains Simon.

The architect that the couple tasked with the renovation of the home was Joe Williams, of practice JW Bespoke. "We looked at several architects online, but we wanted to find a local one with more creativity to their work than many had," explains Simon.

The couple were blown away by Joe's portfolio, and his style, which closely aligned with what they wanted to achieve on their build. As Jo and Simon both work in creative industries (Jo is an account director for a large design and marketing agency, and Simon an interior designer), they had already developed some good ideas, but Simon comments that they "just needed someone to bring these to life in a real and practical way!" Describing Joe's contribution as "incredible," the couple credit him for bringing reassurance and a calm demeanour, as well as valuable advice throughout their project.

PLANNING & CONSTRUCTION

Despite the proposal including a large extension, navigating the planning process proved relatively smooth. However, as they

were extending approximately 7.5 metres beyond the back of the house, the client and architect were "very conscious" of the neighbours. In an attempt to avoid any possible conflict, they created lower eaves in order to minimise the impact of their home on neighbouring properties.

That said, a neighbour on one side also had ambitions to extend in the future. "We liaised with them and agreed that we could build a new party wall 'across' the boundary," explains architect Joe. This had huge benefits for both parties and made for a much more efficient use of space. Another happy outcome was that he was also subsequently appointed to design and deliver their extension.

The construction process, while efficient, brought its own set of challenges. The builders' swift progress, though a positive, demanded quick decision-making which left little room to muse on an idea or approach. While the majority of their work was good, unfortunately some of the finishing wasn't up to Simon and Jo's standards. "Being a designer with an eye for detail, this was very important to me!" explains Simon.

Not only this but the project was built against the challenging backdrop of the Covid-19 pandemic, with material shortages and price hikes adding to the stress.

The build also had its challenges from a practical point of view. The house, like many Victorian properties, benefitted from a side access passage from the front through to the rear garden. Joe Williams emphasises, "Maintaining this was important from a practical point of view, but it did present design challenges!"

The passageway's narrow dimensions meant that only a mini-digger could fit through, meaning that "the build sequence was very important!" explains Joe. Fortunately, both

The extension has aluminium Crittall-style doors which open directly onto the slate-tiled patio, providing a more cohesive living and entertaining space for the family



neighbours were helpful and allowed the builders to extend their working area.

Further complications came with more unexpected costs. The area in which the original kitchen had been built was essentially sitting on sand. After discovering this, a completely new floor/foundation was to be constructed.

As with most construction endeavours, managing the budget took a central role. The unexpected costs meant remortgaging became a necessity, not once but twice. "We also had to remortgage for a second time towards the end of the build, as we realised we didn't have enough to complete the internal aspects such as the new kitchen," asserts Simon. Despite the kitchen being on a tight budget, the team managed to get clever with a combination of IKEA units and doors, with various suppliers providing other elements. "It doesn't have the look of a typical IKEA kitchen!"

RECONFIGURATION

The initial phase of the project involved the removal of the existing bathroom at the rear of the house. This made way for the primary extension encompassing a new modern kitchen, dining and seating area. It also facilitated the incorporation of additional storage, a combined downstairs WC and utility room, with a refined lounge space with ample room for a piano.

The extension has aluminium, Crittall-style doors which open directly onto the slate tiled patio and out into the garden, providing a much more cohesive living and entertaining space. "We use the garden so much more than we used to as we now also have a back gate onto the alley behind our house leading directly up to the kids' schools, which is very handy! It has completely changed the way

we live; we always say it is like having a new house!" asserts Simon.

The architect Joe says the challenge in terms of the new layout was deciding where to locate the new family bathroom, a decision which would have a major impact on the current bedroom arrangement. In the end it was decided to move it into a further first floor extension. Joe explains: "We also opted to extend upwards, also forming a loft conversion with a dormer window."

This redesign has not only added more living space downstairs but has also provided the children with their own areas. "By doing the loft conversion it has given our son a really good space for him to bring his friends back to," says Simon. "He is a very keen drummer and the space allows him to have rehearsals up there with his friends. Given they are hidden away at the top of the house it has not been too disruptive, however you would have to ask the neighbours for their side of the story!"

INTERIOR DESIGN

Downstairs, the interior conveys a modern, sleek aesthetic, blending bold contrasts of black and white with the warmth of natural wood. "We wanted to achieve a space that didn't feel the same as so many current interior schemes with the standard shaker kitchens with oak herringbone flooring," says Simon. The aim was to achieve a contemporary design that also gave a nod to the original house's character.

The kitchen features thin 12 mm marble-effect worktops, with a large island built with an integrated sink and brass tap. A separate built in hot drink/breakfast alcove within the kitchen units sits adjacent to this. The combination of oak veneered doors and matte black doors creates an overall sense of elegance in the space.



The couple also “couldn’t resist” choosing the jet black satin finish engineered wooden floor for the kitchen. “We could have had tiles but I’m not a fan of kitchen spaces that have tiled sections with wooden sections for the rest of the room. I prefer a floor that unifies a space,” explains Simon.

The theme of black extends throughout the home. One side of the new extension is painted completely black, including the sloped ceiling which counter-intuitively makes it feel much larger. “Black is an elegant, contemporary colour, and has so much depth. I much prefer it to the grey interiors which have become so ubiquitous,” says Simon.

The extension has delivered two generously sized bedrooms, as well as the new family bathroom, front living/TV room, and a large bedroom with expansive views from the loft room. “As with any extension to an existing house, making it feel part of the home, without the need to weave through endless corridors, is important,” asserts Joe. “But I think we achieved it here.”

Joe puts an emphasis on designing a route through the extended house that feels as though it ‘could have always been that way.’ The exception is arriving at the new open plan space to the rear which hits you with “the wow factor” – it’s an area filled with light, space, different levels and forms, which all provide a canvas for contemporary interior design finishes.

“It all combines to create a really warm environment that makes you feel cosy and comfortable straight away, while also being super striking and contemporary,” explains Joe.

EXTERNAL APPEARANCE

The external aesthetic of the renovation draws inspiration from the original house’s shapes and forms. An interesting aspect of the original home was that, despite being in a row of terraces, the plots were taken on by different builders at that time, so there are

subtle variations in their design.

Its original exterior boasted an asymmetric nature which the team wanted to introduce into the rear elevation of the extension. The team were also keen to avoid a large set of doors at the rear. “Having a separate window is super practical for natural ventilation – particularly when combined with the small window to the rear of the kitchen space for cross-winds,” explains Joe.

The picture window serves the dining space and provides another cosy nook for reading or pondering while looking out to the garden. A charred larch cladding was then specified for the recessed section, to contrast but also complement the brickwork.

Some sustainability considerations were woven into the project, with bricks sourced from large developments in London and the installation of a new gas combi boiler, coupled with underfloor heating. While low energy was not the couple’s primary focus, the measures reflected a conscientious approach to environmental impact within the project’s budget.

Now comfortably settled into their transformed home, the family are very happy with the way it’s turned out. They have found joy in the newly separated spaces – each area having its distinct purpose, from the front living/TV room to the large kitchen extension that now serves as the heart of the house. In stark contrast to the previous layout, the downstairs area is now a blend of openness and privacy, providing a balance of social and more tranquil, private spaces.

Reflecting on the project’s success, the couple’s architect expresses particular satisfaction with the ‘can-do’ nature that defined his clients’ attitude. Despite budget constraints and the unforeseen impact of external pressures like the pandemic, Joe enthuses: “Simon and Jo knuckled down and pulled through to create such a wonderful home that will serve them for many years to come.” ■

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Affordable warmth

Dean Asher from Polypipe Building Products uncovers the sustainability and practicality advantages of underfloor heating for modern homes

As carbon emissions are an increasing concern for homeowners and with the cost-of-living crisis not easing up anytime soon, many are on the hunt for a heating solution which is both eco and wallet-friendly.

While underfloor heating used to be seen as a luxury product, in reality, it can help homeowners save much-needed funds. This is because it uses less energy than traditional radiators. As well as being good for the planet, the energy savings will also keep bills low. In today's climate, that may be reason enough to install underfloor heating, but with a whole host of benefits, including having precise temperature control and the opportunity for space saving, it's no surprise that more people are making the switch.

KEEP COSTS DOWN FOR THE LONG-TERM

One of the main benefits of underfloor heating, probably more so now than ever, is that it is energy efficient. Underfloor heating works by heating the whole surface area of the floor, meaning that heat is evenly distributed across the room. It can therefore operate at lower temperatures than traditional radiators, which often only have around two square metres of heat emitting surfaces and distribute heat upwards towards the ceiling, which can lead to hot and cold spots within a room. As a result, less energy is needed to keep the room warm, resulting in both lower energy bills and an eco-friendlier home.

As well as the cost savings from lower energy usage, underfloor heating can also save homeowners a small fortune in maintenance costs. With traditional heating systems, such as radiators, regular maintenance is required to ensure they are working correctly. This can involve bleeding the radiators, checking for leaks, and repairing or



replacing broken parts. With underfloor heating, however, there are fewer moving parts or exposed elements to wear out or malfunction, making it a low-maintenance option for homeowners.

EXTRA COMFORT

Saving money on your energy bills is a big benefit, especially amid the ongoing cost-of-living crisis. But another major pull for homeowners is the deluxe feel of underfloor heating. This is because underfloor heating controls are specifically designed to deliver maximum comfort and optimum efficiency. You can control your underfloor heating either directly from the thermostat or, if you have smart controls, via an app for smartphones or tablets. Underfloor heating also works on a zonal system, so you're able to control each zone, or room, independently. Having precise control of the temperature throughout different areas of your home lets you create your perfect 'comfort zone,' meaning you don't need to waste energy

heating spaces that aren't in use.

On top of this, underfloor heating also brings several health benefits. Radiators heat a space through convection, meaning that heat rises and then falls when it gets cooler. While doing so, it is also circulating dust, allergens, and airborne particles around your space. As underfloor heating is radiant heat, there is much less movement of air, and therefore dust and pollutants. This creates a cleaner indoor air quality.

DESIGN FREEDOM

Not only does underfloor heating make your space feel better, but can make it look better too. Unlike other forms of heating, underfloor heating is 'invisible.' Traditional radiators can impinge on space and disrupt a room's aesthetics, whereas underfloor heating needs no visible pipework. This creates a more contemporary feel and gives you more space to make your own.

A common misconception with underfloor heating is that it only works

You can control your underfloor heating either directly from the thermostat, or if you have smart controls, via a smartphone app



with particular types of floor coverings. While it is true that underfloor heating works particularly well with tiles, concrete, and engineered timber, with the right system design it's also compatible with laminate, vinyl, and carpet. Underfloor heating can be fitted in pretty much any home, whether it's a new build or as part of a retrofit project. It can also be tailored to your needs, the room it will sit in and the flooring type, so that you get the right heat output for your home. No matter what floor

covering you opt for, you'll be able to reap the benefits of underfloor heating.

WORTH THE INVESTMENT

While it is true that the initial installation cost can be more than other heating systems, this should be weighed up against the savings on your energy bills for years to come.

Plus, in addition to energy bills, the initial investment also results in a future-proofed heating system that is compatible with low-carbon technology.

As legislation around reducing emissions continues to tighten and the Government invests more into initiatives to encourage the uptake of low-carbon technology, you can be confident that should you wish to change your heat source to a ground or air source heat pump, or other renewable technology in the future, your underfloor heating system will stand the test of time.

Dean Asher is head of technical services at Polypipe Building Products

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The lowdown on natural flooring

Crucial Trading's Scott Hosie walks you through the different looks and feels of natural flooring materials for each part of your home, to achieve a mix of healthy as well as characterful spaces

When determining the interior design scheme for your home-building project, one of the most influential decisions is what flooring you choose. Whether you are looking at a single room or an open plan space, how you bring in and layer different materials, textures and colours on the floor can help to not only define your aesthetic – contemporary or traditional, minimalist or maximalist – but how well your spaces stand up to the wear and tear of everyday life.

THE BENEFITS OF NATURAL MATERIALS

Natural materials have become a popular choice for all kinds of floor coverings, from rugs and runners to full carpets. Of course, this is nothing new. People have been drawing on the robust beauty of both animal and plant fibres to add warmth and personality to their homes for centuries. However, with trends towards organic, nature-inspired decor and a desire for durable finishes that will last, many homeowners are looking at ways they can use these beautiful materials.

So which natural materials should I use, and where? Ultimately, it all comes down to taste, preference and budget. However, there are some materials which are better suited for certain environments.

WOOL

It is often the go-to natural floorcovering material, and for good reason. Available in a myriad of colours and weaves, it is often used as a full carpet treatment, but can add a sense of warmth and luxury when used as a layering material over a wooden floor or highly textured materials like seagrass or coir. Its fluffy fibres help to better insulate spaces, keeping spaces cosy and reducing noise transmission from room to room – making it especially ideal for spaces in upper levels.

Despite this plush finish, wool isn't

reserved for bedrooms or other low-traffic rooms. The crimped structure and natural oil content of wool fibres means it has stain-resistant qualities and bounces back after being walked on, reducing the risk of tracking marks and keeping your carpet or rug looking good for years to come. This makes wool ideal for high-traffic areas such as hallways and living rooms.

Wool also carries some natural air purification qualities, trapping allergens until vacuuming and balancing humidity

by absorbing moisture and releasing it during dry spells.

PLANT FIBRES – SISAL, SEAGRASS, COIR & JUTE

For designs that really want to lean into the natural feel, floorcoverings made from plant fibres can be the ideal option. These can be woven to create different structures – like boucle, herringbone, basket weave – and some even subtly dyed to create a variety of finishes, making them ideal for all kinds of homes and aesthetic visions from country



house chic to boho elegance. Whilst they don't offer the same softness as wool, their hardwearing properties often see them used in high-traffic areas such as runners or carpets in hallways, or as rugs overlayed on wood or carpet for added interest and protection in places where people congregate like living and dining rooms.

To narrow down your material choices, it is important to be aware of the inherent differences between natural fibres.

For example, sisal is a hugely popular sustainable material choice that offers a rich palette of natural shades – from soft creams to deep browns. Made from tough agave plant fibres, it is naturally very dense, making it resistant to compression from constant foot traffic or heavy furniture. However, sisal fibres are absorbent, meaning it is not ideal in spaces where moisture could be present.

Alternatively, seagrass is non-porous, with a durable waxy coating. This makes it ideal for areas which may experience some moisture such as entryways or homes with children or animals. What's more, its natural green shade also mellows over time, giving you a floor covering that will evolve, becoming warmer and richer over time. It is also softer than other plant fibres, making it a tactile choice for areas where you'll be

For designs that really want to lean into the natural feel, floorcoverings made from plant fibres can be the ideal option

able to fully appreciate the fibres under your feet.

Another soft yet durable choice is jute. Typically used in rugs or runners, it can endure high levels of footfall while still offering an attractive, calming addition to spaces such as living rooms, snugs, or bedrooms.

For an even more robust finish, you can look to Coir. Crafted from the fibrous husks of a coconut, this is a low-maintenance and exceedingly tough choice perfect for transitional spaces where the interior meets the exterior, such as hallways, porches, or boot rooms

– making the most of both its natural dirt and water-resistant properties and its welcoming, golden brown hues.

HYBRID MATERIALS - SISOOOL

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NATURAL HARMONY

Whatever your style, using natural floorcoverings can not only add texture and tactility to your spaces, but also offer a multitude of benefits to your home. From improving air quality to managing dirt and moisture, embracing what nature has to offer can ensure your floors remain attractive, functional and loved for many years to come.

Scott Hosie is head of product at Crucial Trading



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At the beginning of 2023, Dutch kitchen manufacturer, **Keller Kitchens**, launched a range of utility room schemes; and now nine months later, Keller and parent company, DKG Group have been awarded the German quality standard TÜV GS certificate for the entire portfolio. The GS quality mark (Geprüfte Sicherheit – meaning ‘approved safety’) is a German quality mark awarded to furniture that meets the highest safety standards. Carried out by the renowned centre, TÜV Rheinland in Germany, the utility

range was rigorously tried and tested on various aspects including stability, durability and mechanical safety. As part of the process, the inspector also visited the DKG kitchen factory for a review of the production facilities.

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CASE STUDY

CHANGING THE GAME WITH ORIGAMI

For Hugh and Karen, the obvious response to improving a 1980s house near Stirling was to extend, however in the end a full ground floor reconfiguration with a 'folded' appearance was a game changer, creating 'the Origami House'

TEXT NIK HUNTER IMAGES GILLIAN HAYES, DAPPLE PHOTOGRAPHY





Even before Hugh Pizey and Karen Ferguson bought a house to convert in the Conservation Village of Buchlyvie near Stirling, Scotland in 2013 they had the foresight to contact the local planning department. "We liked the location and the garden," Karen recalls, "However, the house itself needed a lot of work and we knew that could be tricky in a conservation area."

Fortunately, the planners advised that it would be possible to renovate but care would need to be taken around the height of any extensions. With the green light given, the couple set about finding an architect and builder company to take their project forward. They cast their net around Glasgow, Stirling and Edinburgh and took on board soundings from friends who had experience with similar projects.

Loader Monteith was a practice that came highly recommended, and Hugh and Karen added them to their shortlist. "We met with four architects and our meeting with Matt (Loader) was great, with ideas and sketches helping us to shape possibilities. That was the decision made," Hugh remembers.

In terms of choosing a building company, Hugh and Karen opted to go with Las Construction, a company that had worked with Loader Monteith on previous projects. "This project was a step up from our previous experiences of home improvement," Karen explains. "The option of Loader Monteith managing the project was a very attractive one, especially as they had worked with Las before."

The couple briefed Loader Monteith that they wanted to connect the house to the garden and greenery outside the living space. They wanted to bring in more natural light as the

downstairs was very dark, and they also wanted a new heating system, sealed windows and a contemporary kitchen with a natural feel. The downstairs shower room needed modernising and a study area was required in the main living space so that their children could do their homework within a family space.

The main aim of the renovations was to connect the house to the large garden. None of the windows or doors opened or looked out onto the garden. "It didn't feel like it was part of the home," says Karen.

"One tool that was particularly helpful in the briefing process was a copy of a brief that Loader Monteith had used with a previous client," Karen explains. "It was a useful and detailed template, and to this we added images from various Pinterest boards which we shared with Loader Monteith."

Matt's first impression of the house was an interesting one, he recalls: "The original house was an absolute riot! It was very cramped, and the property didn't connect at all with the back garden, which was incredible." He adds: "The garden was absolutely beautiful, and reminded me of Alice in Wonderland. It went on and on – often quite unexpectedly, with these beautiful mature trees interspersed with floral ground cover."

After their visit, Loader Monteith's suggestion was not only to add an extension, but to re-organise the original ground floor of the house so that it had a clear 'front door' and 'back door.' This plan also allowed the introduction of a small shower room, utility space and an area for the heat pump and bin store at the side of the property. The new kitchen would replace the original, cramped dining room in the centre of

HIGH POINTS

"Briefings and meetings with Loader Monteith where designs were presented. Seeing the building site with excavations and the gutted downstairs of the house which was a real sense of achievement. The relationships between the project architect and builder made the process enjoyable; finally, it was moving in after Covid."

LOW POINT

"Covid! Luckily we moved into a rental flat with a garden next to a river."

the plan and would be accessible from the sitting room on one side and the dining area on the other.

This new layout also meant that the dining space and a small study nook were pushed into the new extension and towards the back garden, where a bay window space was created for the dining table to sit in.

"The briefing process was challenging as it forced us to decide what we wanted in detail," says Karen. "However, we thought we'd have to extend significantly into the garden to connect the house with the greenery, but Loader Monteith saw an opportunity to reconfigure the ground floor, resulting in a much smaller extension of just 15 square metres. This was a better use of space, saved on construction costs and prevented us encroaching on the garden too much."

Aside from giving the family a home that worked and flowed better, Loader Monteith were also charged with modernising the home as project architect, Iain King recalls: "It was a 1980s

cottage and an original cottage in the true sense of the word, certainly not thermally efficient; the clients really needed a more contemporary version."

In this respect, simply adding an extension was not going to solve their particular problems. "As part of the brief, the clients wanted a new, more efficient heating system but to do that we had to improve the entire property and the fabric of the building," says Iain.

The decision was made to install a renewable heating system with an air source heat pump and underfloor heating throughout the ground floor. New insulation was fitted, and the glazing was upgraded to a standard that would work with the new heating system. "The clients were able to obtain an interest free loan for renewable energy and that made it feasible to opt for a renewable system," says Iain. The clients did encounter a few objections because of the conservation status but they were keen to reduce their heating bills and





there was a lot of paperwork to complete. "Everything went through – eventually."

A wood burning stove was also fitted, creating a focal point in the sitting room as well as an additional heat source. The plant room was neatly tucked under the stairs and the kitchen has become more streamlined with the utility room now doing the heavy lifting and accommodating the major appliances.

"This was a project where the clients did have to move out," says Iain. Work started on site in October 2019 and with the clients living elsewhere, it enabled the contractors to knock through the ground floor with more ease, and manoeuvre materials through the cottage as well.

The movement of materials was a considered one as part of the property is linked with the neighbouring cottage by a shared passageway. "While this didn't cause any issues with the design it did make the extension more difficult to construct," Iain remembers. "And although the garden extends far beyond the row of cottages and the building line, the area in which we were building was the pinch point on the site; everything had to go through the tunnel or through the cottage."

Although the project was relatively straightforward in terms of construction, it was quite badly affected by the pandemic in terms of flow of work – and at certain points, scarcity of materials. The project was scheduled to take six months but it took 10 because of the pandemic. "Fortunately, we've worked with Las Construction before and they did everything they could to minimise delays."

Taking a holistic approach to the project, Loader Monteith were involved in the interior

finishes; and Iain affirms that it was a true collaboration: "The clients were very open to suggestions. They both had a genuine interest in product design and materials. If we suggested unusual or interesting materials, they were really on board."

The 'ultra matte' kitchen is a case in point with a micro cement floor, FENIX surfaces and clad in Douglas Fir and Austrian Pine. "The clients really understood that the composition of the project as a whole was important. There was a lot of discussion over samples and about what would go together; they often brought things that were interesting to us as well."

One of Iain's favourite features in the property is the light fitting in the dining space, as he explains: "The rooflights again helped us connect with the garden, when you're sitting in the dining space you feel very much 'inside the garden.' The light fitting is one I particularly like and it's one that Hugh picked out (with a little persuasion from ourselves!)."

Matt adds: "There was a planning requirement for the roof of the extension to be pitched, however we did persuade the planners to allow us a small section of lower pitch roof which created a 'folded' appearance to the extension (hence the name Origami House)," Matt explains. "This was both crisp and contemporary – following the client's brief, and this worked really well in terms of marking a lower ceiling to the 'working' areas of the house – to the back door and study area, with a warm, pitched timber ceiling over the dining area."

The renovations were finally completed in 2021 and now the cottage's biggest asset – the garden – takes centre stage. Bringing accommodation into that garden was the key

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archispek.com

KITCHEN WORK SURFACES

FENIX
fenixforinteriors.com

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thing we were trying to achieve. It's not a typical extension with patio doors, a vast expanse of glazing and an invisible threshold between outside and in. "We've located the dining space and the key living spaces of the home within the garden. It's a dining, living and contemplation space."

"It was always our intention to have a built-in window seat," says Hugh. "Now we can sit in the garden all year round. They also have many more spaces in the downstairs of the house that they can use, both together and independently. "This has been important as the children grow up, everyone needs their own space."

"There's always a challenge in developing an appropriate contemporary language within

a conservation area," Matt adds. "However, here I think we've achieved a very significant transformation within a minimal space – we hope at least!"

Hugh and Karen are very much in agreement with Matt and cite the relationships between Loader Monteith, Las Construction and themselves as one of their highlights. "For Karen and I the biggest stresses were making decisions on the 'client supplied items' and sourcing them to the builder's timescales, and the air source heat pump application was a lot of work," Hugh recalls. "There were great relationships between our project architect, Las Construction and ourselves; given the time, we'd do it again. perhaps if we win the lottery?" ■

Schlüter-LIPROTEC shines a light on interior design

Schlüter-Systems has strengthened its portfolio of bathroom systems for the UK domestic market through the availability of advanced control light technology which enhances aesthetics whilst also offering almost unlimited creative choice. Encompassing the latest LED technology, Schlüter-LIPROTEC creates restful lighting for relaxing spaces, or bright, colourful lighting for a busy family bathroom or kitchen. Schlüter-LIPROTEC has a broad range of applications, from direct or indirect lighting effects, enabling the interior designer, architect or property owner to illuminate feature walls, pictures, tiled areas such as shower enclosures or study spaces, kitchen countertops and stairways; in fact, anywhere the creative mind can conceive a plan for. The collection offers the option of neutral white, warm white or RGB+W LEDs; the latter allowing for coloured and white LEDs on a single strip, to generate coloured light or temperature-controllable white light, which can be selected from 2500 K to 6500 K. The system can be programmed to deliver a choice of 16 million colours via a Bluetooth app and remote control. Suitable for moisture-prone areas such as kitchens, bathrooms and showers, the LED strips are completely encapsulated and conform to IP67 protection rating. The lighting collection embraces the company's extensive range of bathroom finishing solutions. Schlüter-Systems' customer services team is on hand to offer project and technical support with CAD detail.

01530 813396 www.schluter.co.uk



Snug fit

Individual style is in and creating a snug room is a great way to show it – says **Crittall Windows**. Planning a new look for your home? It seems anything goes these days – the trend is for individual style. With many of us spending more time at home, householders are increasingly design savvy in creating a personal style to reflect their lifestyles. “An impactful way is to be inspired, be adventurous – be you,” says Russell Ager, managing director of Crittall Windows, a pioneer of bespoke steel frame window manufacture for almost 180 years. Creating a cosy snug room is a great way to show individuality and very in vogue. As is sharing natural light throughout your home. While the nature of a snug is to make it comfy, clever use of glazing via internal steel screens, doors and windows – made to order to your personal needs – ensure light is let in throughout the home and they look stylish, without compromising warmth and cosiness. For example, matching combinations of Crittall's minimal profile windows and Innervision internal glazed steel screens with sliding or hinged doors are bespoke and designed for modern living, providing a light and airy sense of space. Their elegance and clean lines, subtle detailing and excellent technical properties can transform your home's look. They make a snug room – although small by its nature – seem bigger, with the added benefit of keeping down your heating bills by using a smaller area.

01376 530800 www.crittall-windows.com



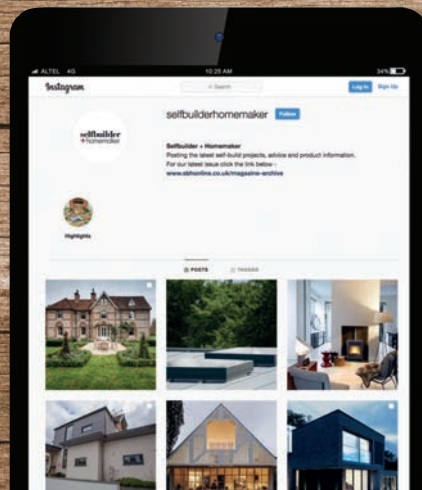
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Class 1 Magply boards withstand real life fire test

A potentially catastrophic blaze, which consumed the garage containing a parked vehicle adjoining a £1M house in rural Surrey, was stopped in its tracks thanks to the use of 12 mm A1 non combustible **Magply** being chosen as the render substrate board on the contract, the property was constructed using a Structurally Insulated Panel system construction (SIP) with A1 non-combustible Magply being used on the exterior of the building as the substrate panel for the proprietary render system. Magply is a multi-use A1 non-combustible board with an impressive library of testing for fire applications, in the offsite and timber frame sector the board is designed and specified to contain fire and support the emergency service with added crucial time!

The Contracts Manager for Fullers Plastering, James Corlett, commented: "The fire-resistant qualities of the Magply boards saved the day. We had utilised Magply as a render-backer on a number of projects before being awarded the contract to apply K-Rend to the half dozen homes here and have always been very pleased with the performance. It is an easy board to cut and fix, while we can now definitely confirm to clients that it fully complies with the fire requirements for domestic and commercial buildings."

01621 776252 www.magply.co.uk



New Marmox Fireboard offers ideal EWI and IWI substrate

Building on the broad benefits of its widely specified Multiboard, insulation manufacturer **Marmox** has introduced the highly versatile Fireboard into its range for both internal and external wall insulation (IWI/EWI) applications. The Marmox Stone Wool based product shares the unique Marmox honeycomb surface structure with its XPS forerunner, Multiboard, to create an A1 non-combustible certified render-backer which is fully waterproof. It can further be used internally across walls or ceilings to take a plaster finish, while providing sound decoupling and acoustic absorption properties, as well as thermal insulation. The 600 x 1,200 mm Fireboards are available in thicknesses from 20 mm up to 200 mm and with the polymer modified mortar honeycomb coating on one or both faces. With a nominal density of 150 kg/m³ the boards' core material offers a compressive strength of 90 kNm², making it three times stronger than standard mineral wool. The Marketing Manager for Marmox, Grant Terry, commented: "The introduction of Fireboard into our range significantly enhances our offer to the construction industry, meaning we have an A1 non-combustible backer board for internal or external use, which can safely be used across masonry as well as timber or steel framing systems. The Stone Wool the boards are made of is formed of molten rock, meaning it is impossible for the fibres to absorb moisture, so they will not degrade no matter what weather they are exposed to."

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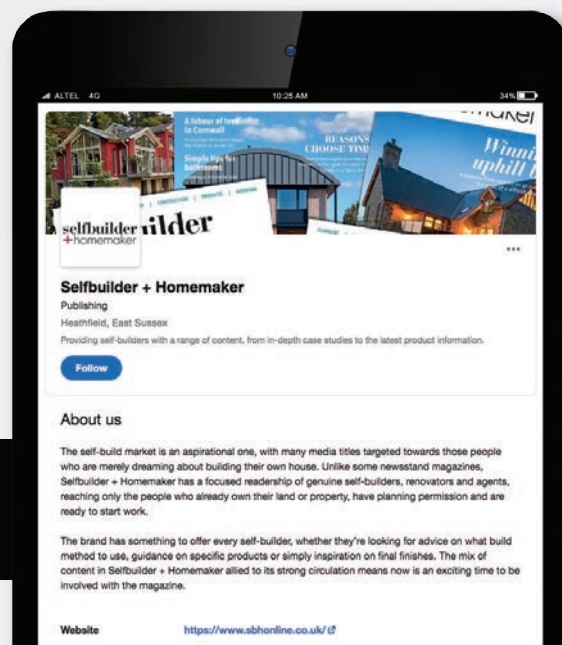
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SAMSUNG

Say hello to our new Heat Pump featuring R290



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[Samsung-climatesolutions.com/en-gb/r290](https://samsung-climatesolutions.com/en-gb/r290)

Meet Samsung's newest edition to its EHS heat pump line-up: the EHS Mono R290, a heating solution for residential homes. Available in a broad range of capacities -5, 8, 12, and 16 kW-, the EHS Mono R290 uses R290: a refrigerant with a much lower GWP (only 3) compared to other refrigerants. Next to its lower GWP, the EHS Mono R290 consistently provides consumers with hot water of up to 75°C* for domestic heating purposes. This can make it a suitable heating system replacement in older residential spaces. It boasts a reliable heating performance due to its larger heat transfer area, enabling it to deliver a 100% heating performance in temperatures as low as -10°C**. For professionals the EHS Mono R290 has an added bonus: installation and maintenance is easy and hassle-free without needing an F-gas certification.

*Leaving water temperature when the outdoor temperature is -10~35°C. **Domestic hot water (DHW) leaving the DHW tank is 70°C when the outdoor temperature is -10~43°C. Results may vary depending on the actual usage conditions. If the outdoor temperature is lower than -10°C, a booster heater is required. Results may vary depending on the actual usage conditions.