

WHERE THE HOUSEBUILDING COMMUNITY MEETS

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# INITIAL THOUGHTS

**SME** Finance

## A TALE OF TWO CITIES

London & Manchester

### TECH TRUMPS

American innovation





# The smart

A trip to this year's CES in Las Vegas was worth it for housebuilders, as the smart home went mainstream. NIGEL WALLEY, founder of proptech start up Chimni, reports



A trip to the Consumer Electronics Show in Las Vegas has become part of the yearly calendar for anyone working in new technology. But, while it is traditionally full of interesting home tech, it has yet to achieve that must-see status for homebuilders. This year may have changed that, as CES 2017 was full of new smart home and internet of things technologies that appear poised to make the leap into the mainstream and therefore into our homes.

CES is a vast, city-wide event with features on a wide variety of industries, from motoring and health to music and



TV. However, there is always a core focus on the way technology affects how we live and this year smart home tech was at the fore.

The explosion of internet connected devices is not in itself new. The number of power sockets requested by homeowners in new units was a first hint that a new wave of tech innovation was hitting our market. But this is simply about helping homebuyers who want to buy clever kit after purchasing a property; CES 2017 suggested the extent to which new tech will impact, and have to be built into new homes before purchase.

However, when we walk round a show like CES, we should be careful not to think the impact of new technology on housebuilding is a new phenomenon. Tech innovation perpetually affects our industry's product and there was a time when including a central heating system was seen as a property tech innovation. But this current wave of smart home tech does seem all consuming.

CES 2017 had technology innovation that touched on the usual white goods, security, entertainment and monitoring but this year seems to have gone further into the fabric of our homes with cupboards, windows and walls all covered.

White goods manufacturers have grasped the idea of smart tech as a way of increasing the premium they can charge. Every device a homebuilder may install in a new build, from washing machines, fridges to hobs now have an operating system and an app to manage them. GE demonstrated a suite of smart hobs and cookers that accessed and stored not just recipes but the settings needed to deliver them.

Even cupboards couldn't escape connectivity. LG demonstrated clothing storage that managed dry-cleaning rotas and offered different storage solutions for different fabrics. There is still no hint that consumers are expecting this level of connectivity in their appliances (in fact many possibly still view it with alarm), but this may change.

Better examples of more useable innovation were the security products, with innovative, software-driven door locks and monitoring systems everywhere. We have previously seen locks that can be controlled by apps but this year voice control and integration with larger smart home systems arrived in a big way. Brinks showed off its Array locks that can be voice controlled via an Amazon Echo, and Yale demonstrated locks that can









#### Top 10 things coming our way

- Voice activation in everything is going to be a huge factor in our homes in 2017
- Netatmo smart voice-controlled smoke detector controlled with Apple's Siri voice assistant.
- The voice-controlled HiMirror with five different makeup lighting settings helps users analyze skin conditions and recommends customised skincare routines.
- The LG Smart fridge screen offering Netflix, so we can be watching House of Cards on our humble fridges before long
- ShadeCraft smart patio shades that can follow the sun without you having to move them by hand.
- The Smart Table from Panasonic's concept lab lets users check their emails and read documents via the screen built into the surface of their kitchen table
- MySmartBlinds automated venetian blinds controlled by a Bluetooth app, which can open and close them to order, to a pre-programmed schedule, or in response to a change in the sun conditions.
- Zeeq Smart Pillow from Rem-Fit plays music and meditation sounds, while monitoring and reacting to snoring intensity before making recommendations to improve it.
- Smart pour technology from Berg which includes a spirit dispenser cap for a spirit bottle connected to a barman's smart watch. Bartenders select a drink code on their watch and the cap pours the exact amount, then transfers data to the till.
- · Connected hairbrushes even we struggled with this!





integrate with Apple's HomeKit smart home software.

Around these systems, voice activation was the big control story with Google's Home and Amazon Echo dominating a crowded field. Most security products on show could integrate with one of these devices. The big operating systems companies – Apple, Google, Microsoft and Amazon – don't officially demonstrate at CES, but their products and services were everywhere. Amazon Echo's 'Alexa' voice control alone had a presence on 700 different stands.

We also saw previously separate items like smart lighting, heating, alarms and monitoring now integrated into bigger, cohesive home systems, with an emphasis on various competing 'hub' technologies - WiFi routers that can send messages between connected devices and the apps that control them. By connecting to a router, they also control the link between devices and the outside world. Amazon Echo and Google Home are both hubs and standalene solutions like British Gas' Hive also comes with a hub. These hubs can support a network of clever devices around our homes.

Every consumer electronics manufacturer was showing their own propriety hub solution – often accompanied by a voice-controlled unit like the Lenovo SmartAssistant and LG's anthropomorphic Hub Robot, both of which compete with Amazon Echo and Google Home. However, the breakout contender was the Samsung SmartThings hub, which comes with its own brand of smart sockets, light bulbs and sensors. It also integrates with various other manufacturer brands and most smart tech products boasted a SmartThings integration.

For the homebuilder the difficult question is when to include these technologies in new build homes. Will wall sockets continue to evolve to have hub integration included?

The message from CES this year is that there are still too many competing WiFi and connectivity standards to be able to commit to any particular device or network yet. But this doesn't mean homebuilders escape dealing with the implications of homeowners wanting to install this stuff. Homes will increasingly need tech cupboards with distributed power and shelving just to hold and manage the growing number of internet related boxes, routers and splitters we will need to manage this new world.

Walking round CES the spread of screens into every device and surface was also noticeable. Most fridges being demonstrated included some form of screen, normally showing an elongated, vertical version of the Windows OS. Some manufacturers



like Panasonic, went as far as turning glass-fronted fridges into interactive touch screens that helped you interrogate their contents.

But screens had spread even further. Panasonic demonstrated glass room dividers and cupboard doors that doubled as PC and TV screens. Seemingly any surface in our homes will, at some point, be able to double as an interactive screen. For all the screen solutions on offer, none of the manufacturers could square the circle that digital technology has a much shorter lifespan than fridges or cupboards. Will people be willing



to replace a clothes cupboard or a fridge because iPlayer no longer works on its screen?

Most products on display only offered increased product complexity and cost for homebuilders, with the mitigating factor being the lack of clear consumer demand. However, homebuilders can't bank on this lasting. Amazon Echo sold five million devices in the US before its UK launch last year and it was the fasting selling piece of consumer electronics in the UK and US over Christmas. The smart home is mainstream whether we build it or not.

### NEW HOMES TECHNOLOGY NEWS



### Chimni

London-based proptech start-up Chimni has called for the UK's housebuilding community to work more closely with the proptech and smart home industries on data and analysis standards. Housebuilding is currently pursuing its own digital innovation agenda, through building information management (BIM) while the smart home and internet of things tech specifications are being created separately by the tech industry.

We currently have two parallel strands of innovation around housing data and property technology. The two groups aren't talking and are creating incompatible outcomes, says Chimni managing director Nigel Walley. The proptech world is not creating information to help housebuilders include their tech in new home designs and both industries are working on separate formats for data and house performance analysis.

"This hasn't previously mattered because proptech innovations tended to be a consumer add-on to any home. Now the two worlds are colliding as proptech starts to get built into the fabric of new homes.

"Most proptech manufacturers we speak to are completely unaware of the BIM revolution sweeping construction or what it means for data or analysis. There is no awareness of BIM Objects or data formats, and no understanding of why or how they would create BIM objects for their devices". At last month's CES in Las Vegas, Chimni released a white paper, BIM for proptech people', explaining the data and analysis implications of the construction industry's BIM revolution to the proptech community. Chimni is calling for co-ordination between the standards bodies in both industries, and joint working to understand how data can be shared and new forms of home data analysis can be pioneered. In the UK, this collaboration could be led by standards bodies such as the RICS, while manufacturers of new proptech devices can ensure that there are data sets created for their products in BIM compatible languages so that their systems can be

included in new homebuilders specifications from the initial drawing stage.