

**Safer and  
Smarter  
Home:**

**Benefits**



**Smart Technology Product  
Safety Stakeholder Group**



# Safer and Smarter Home

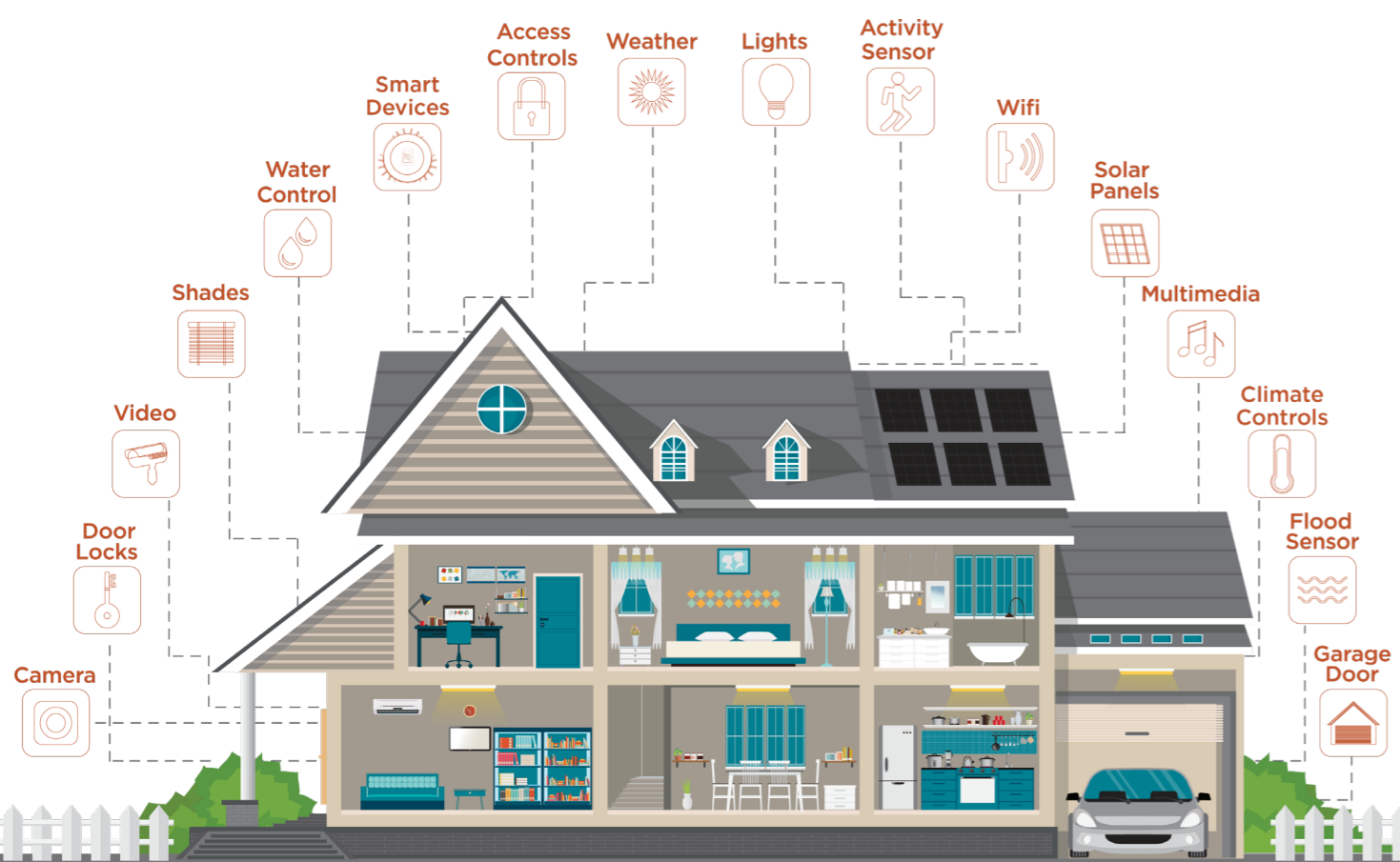
## Benefits

Smart Technology Product Safety Stakeholder Group

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## Introduction

This guide is the second in our series of guides helping consumers buying and using Smart technology in their home.

The reference in our first guide [Your Guide to a Safer, Smarter Home](#) to Le Corbusier's description of a house as 'a machine for living in' is more relevant than ever given the economic constraints of energy cost and other economic pressures. The ability to measure and manage that 'machine' is paramount. If operated and installed as the manufacturer has intended, smart technology - be it single or interconnected devices - has the capability to assist with that aim. There are various benefits for its use in the home environment as stated later in this guide.

Whilst the first guide was focussed on plug and play smart devices used at home, this guide could apply equally to more complicated smart or connected devices or systems (referred to collectively as "Smart Home devices" in this guide), with the use of a reputable brand or product and a properly qualified installer to set it up.

The aim of this guide is to build on the first guide and to highlight to consumers examples of the benefits of Smart Home devices and allay some myths, as well as providing reassurance that there are legal protections in place in the same way there are for other household electrical goods and related services. These include addressing any possible concerns that:

- the Smart Home devices don't work or aren't safe,
- the Smart Home devices or related services are not what you were expecting
- these goods or services were oversold
- your personal data that Smart Home devices need or acquire will not be used in the way you have agreed to or will not be protected.

The legal protections afforded to consumers for Smart Home devices do not differ in terms of safety, quality and ability to perform the tasks they are promoted to achieve: they form part of normal household electrical goods. The services associated with the use of Smart Home devices such as installation services are also subject to legal protections that apply to non-regulated services.

As a visualisation, at the top of this page is an illustration highlighting multiple aspects of a connected home and the types of Smart Home devices that are available on the market.

## The benefits of a Smart Home

In our post-pandemic world, living in a home where electronic devices and products are connected is increasingly a necessity. Professionally integrated and managed, they can bring positive differences to the way we live at home, making life easier, keeping us safe and connected and saving us money.

Here are a few examples:

### Monitor, Control and Save - energy efficient and customised

Connected devices can help you monitor your heating, water and energy usage, so you can control it better, keep track of what you're using and reduce your costs.

Smart and adaptable technologies can deliver services such as Demand Side Response (DSR). DSR is where energy consumption patterns can be altered in response to a signal or incentive from the network operator. DSR can be used to move loads to when there is an excess of supply and help to reduce demand during peak periods. There are also other technologies that can make use of DSR such as heat pumps and hot water storage; when equipped with Smart Home devices, these appliances can be turned on or off or up and down depending on the supply and demand of energy.

### Working From Home

We don't just relax and unwind at home, now, many of us work part-time or full-time from home too. With a professionally set up home network, TV, audio, lighting and other smart systems you can be set for efficient and secure working from home, without overwhelming your infrastructure.

### Convenience

Access and control appliances in your home environment using your smart phone, a dedicated touchscreen or your voice for the ultimate convenience. It makes your life easier, more enjoyable and saves you time too. You would have the option to switch your heating and lighting on and off remotely, when you're away from home - handy, if you've gone on holiday and forgotten to switch your electrical devices off, or if you are returning ahead of schedule and want your

home to be just right on arrival, you can adjust accordingly. Your home can be customised to reflect your personality and suit your individual needs, making your house more of a home.

### Security

See who's at the door and talk to them too when the doorbell rings, without having to open it. Check out the live stream on your phone from connected security cameras around your home, when you're not even in the country. Smart Home devices open up a door of options in terms of protection, ensuring you feel safe and secure in your own home. On this, smart locks could even be used to open the door, to allow controlled access to people such as cleaners/service personnel.

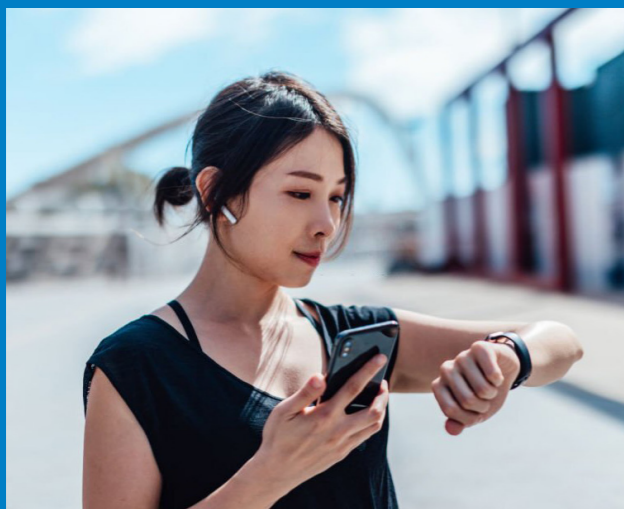
### Safety

Some appliances in your home can give rise to a hazard if left operated unattended. Many of us have likely had a moment where we've left our houses and have questioned ourselves whether or not we've switched off an appliance, such as the oven or hair straighteners. Smart Home devices removes these doubts as you are able to monitor your connected appliances through your phone and with the touch of a screen you can turn them off. You can check if an appliance has been left on - and turn off any potential fire hazards, for example - if needed. Electricity is the cause of over half of all fires in UK homes but, with a Smart Home device, potential hazards can be prevented from occurring. For example, Smart Home sensors can detect temperature, levels of carbon dioxide, or water leaks. They can automatically adjust the settings and disconnect, or isolate (or disconnect), a product if necessary - while keeping you regularly updated. These devices could help save you and your family from an electric shock, fire or flood and also help with reducing the cost of insurance.





For the elderly or disabled, Smart Home technology can make a huge difference to quality of life – and to the peace of mind of care-givers. Individuals with dementia, for example, could have their home fitted with automated sensors that check if a cooker has been left on, or a bath is overflowing. Or their homes could have lighting activated by motion sensors, so that if they need to get up in the night, they can avoid falls from stumbling in the dark. Voice-controlled Smart Home devices can also help people with limited mobility by making household appliances easier to use.



## Well-being

Technology to enhance our well-being is creating new ways for people to achieve their desired health outcomes. That can be from lighting that syncs to your daily routine, helping with sleep and living patterns, proper air filtration that offers relief for allergy sufferers and more such as smart watch, pulse and sleep monitoring devices.

## Frequency Asked Questions

### Practical – Have you thought about it?

**Q:**  
**Is Smart Home technology very complicated?**

**A:**  
Smart Home technology can be complex behind the scenes, but they are predominantly very easy to set up and use.

In fact most Smart Home devices can be installed and activated by the average customer through a few clicks. More complex devices and systems however require a professional installer.

**Q:**  
**Can Smart Homes be hacked?**

**A:**  
With or without Smart Home devices in your home, your network can be hacked. Manufacturers of Smart Home technologies work very hard to make sure their devices can withstand intrusion and ensure suitable due diligence has been followed over security measures, however most of the time the weak link in most networks is the human user.

Therefore, consumers should be aware of the best practices for safe and secure internet use, following

these measures will significantly reduce the risk of hacking.

In the past, there have been instances where devices on the market were found to lack basic security measures. To tackle this, guidance and regulatory measures are being introduced to protect security.

The ETSI European Standard 303 645 published in June 2020 establishes a security baseline for internet-connected consumer devices and provides a basis for future Internet of Things product certification schemes.

**Q:**  
**Is WiFi everything you need?**

**A:**  
Not at all. While convenient, WiFi is not a fully reliable and secure option and many professionals recommend hardwired cabling, which is more robust and causes less connectivity issues. Hardwired infrastructure is challenging to retrofit, but very easy and not too costly to install during the early stages of a newly built or renovated house. If hardwired connection is not achievable, then consumers should consider investing in a more robust WiFi by installing Wireless Access Points (WAPs) for equal coverage in their homes.

There are other Smart Home protocols such as Bluetooth, Zigbee and Thread. Those protocols typically support small, low-powered devices such as sensors while WiFi and Ethernet are needed for high-bandwidth devices such as cameras.

**Q:**  
**Do Smart Homes use a lot of energy?**

**A:**  
Quite the opposite. Smart Home devices can lower your electricity bill and carbon footprint by reducing accidental energy use and ensuring the optimal usage of your home's appliances. If you are unsure what are the best options for your home, speak to a professional who will be able to recommend a solution that fits your needs.

**Q:**  
**Are Smart Homes expensive?**

**A:**  
The Smart Home industry is rapidly growing which means that consumers now have a wide choice of devices in various price ranges. Smart Home systems are fully scalable particularly in the areas of weak WiFi with cabling infrastructure if required and they can evolve consumers' needs, allowing them to add technology over time and therefore avoid high upfront costs.

**Q:**  
**Are Bluetooth and WiFi the same?**

**A:**

- Bluetooth is not WiFi but a different type of home network.
- It uses short range communications, mobile phone or home computer to a single device or small group of related products.
- Historically used for computer keyboards, mice, wireless headphones. More recently used to connect to home appliances, keyless door locks and other household items.
- Connection is generally via a computer or mobile app that interfaces with the connected device.
- Bluetooth connections often not as stable as good WiFi, particularly when multiple devices are connected.





The different characteristics of Bluetooth and Wi-Fi networks means that you should think very carefully and seek retailer/installer advice about how you will use the product before you decide on the connected technology. These include:

BLUETOOTH	WIFI
Generally easier to set up	Can be harder to set up
Limited Range – device and control (mobile) only connect when in close proximity <=10m apart	Greater range
Limited connection – control devices have to be set up to connect to the product	Broader connection but access can be password protected
No access from outside the house	Can be accessed from outside the house; but can require password to access



**Q:**  
Is there any difference between buying a Smart Home device from an online shop or offline from a physical shop?

**A:**  
Both online and physical shops must ensure the same standard and quality of the product that they sell.



## Legal – your rights

OK so how do I know that legally I am protected? We set out below answers to questions you may not have dared to ask.

**Q:**  
As a consumer, what can I expect from a shop selling me a Smart Home device?

**A:**  
The seller must ensure that the device they sell you is:

- of reasonably satisfactory quality in its state and condition;
- fit for the purpose for which you indicated to the shop that you were buying the device
- match the product's description for example the specifications and other information on the packaging, labelling and advertising.

If you buy instore and you are not happy with the product for whatever reason i.e. performance, quality, usability – you can get a refund if its quality and characteristics do not match what you can expect from it (see previous Q&A) within 30 days of receiving the product. You must return it or, if agreed, allow it to be collected by the seller. The seller must bear reasonable costs of returning the device and give a refund. After 30 days, you may still be entitled to repair or replacement of the device or a refund.

If you buy online, you can cancel your purchase within 14 days of your purchase and get a refund, even if there is no issue with the product. You must return it or, if the trader offers to collect it, hand it over within 14 days of your cancellation. You must however bear the cost of returning the device unless the seller has agreed to do so or failed to make this information available before your purchase. If you damage the device or make it less worthy while handling it, the seller can reduce the amount of refund so you should not do more than checking the device's condition before you cancel and return it. You can also expect to receive written confirmation setting out certain

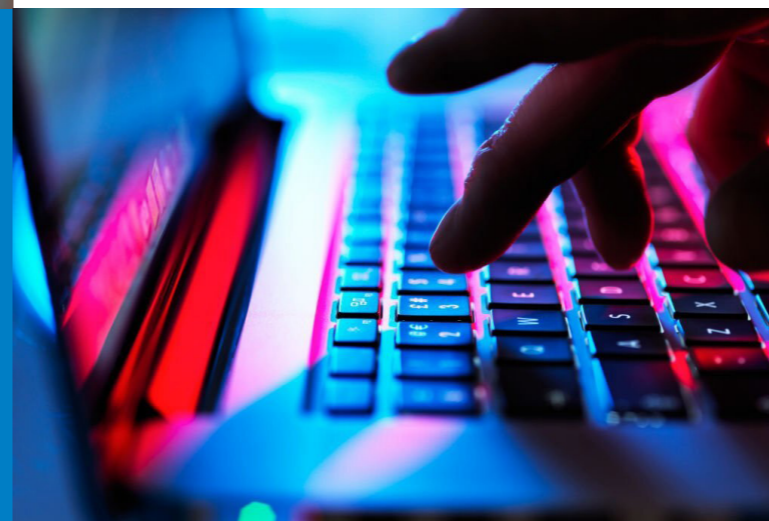
information on the product and your purchase unless this is given or made available before your purchase.

In both cases, you need to tell the shop your decision to cancel and return the product.

Some shops may agree to a longer period for you to cancel and return your purchase under their sales terms.

you can cancel your contract within 14 days from entering into your service contract and get a refund. However, you must pay for the service received before your cancellation if you ask for the service to start within this period and this information has been made available to you before your purchase. In such case, the amount of refund may be reduced or, if the service has already been fully provided, you can no longer cancel your service contract.

The supplier must provide their service with reasonable care and skill. What this means depends on the type and nature of service however you are entitled to rely on what the supplier has said or written to you if you have taken them into account in choosing their service. It is therefore worth asking questions and addressing concerns to the supplier before you agree to their service.



**Q:**  
Would it be any different if I book for a related service or subscribe to a paid-for service?

**A:**  
If you sign up for the service online, which might be, for example, an alarm monitoring service,

**Q:**  
Is there any difference if I sign up for a service (service being the supply of connected services/products) during or after the supplier's visit?

**A:**  
Your rights are similar to when you buy a device online (see above). You have the same right to cancel your contract within 14 days of your purchase and get a refund.





Unlike online purchases, the supplier must give you (rather than only making available to you) certain information on the product and your purchase before you enter into a contract. The supplier must also give you a copy of the signed contract or confirmation on paper unless you agree to receive in a different form that allows you to consult at a later time or the same has been given before your purchase.

**Q:**  
**Is a Smart Home device safe? How do I know it should be?**

**A:**  
Different requirements can apply depending on the device but manufacturers and sellers are only allowed to sell 'safe' products.

A safe product can become unsafe if not used as intended so it is important to use it in accordance with the user instructions and warnings.

A Smart Home device which is safe on its own can become unsafe if the data used for its operation is not accurate or available or the network that supports the smart device has an issue (e.g. health data not sent to the Smart Home device for the body's condition to be monitored). A malfunctioning or failure of the device to perform properly can also put the property and people around the device at risk, even if the device itself may be a safe product (e.g. a fire alarm which does not operate due to an issue with the Wi-Fi). You should therefore

ensure that the network and other products connected to a device are also secure and reliable.

Reputable businesses take data protection seriously. The processor of your personal data (a person who collects, records, stores, uses etc. your data) has a legal obligation to implement appropriate technical and organisational measures to ensure certain level of security for personal data. Such measures can include regular testing, assessment and evaluation of the effectiveness of those measures to ensure the security of processing.

**Q:**  
**Where can I find information on how to use a Smart Home device safely?**

**A:**  
Safety-related information is often found on the packaging, labelling and/or the user manual. User instructions and safety information typically accompany the product but may also be available online.

You should read the user manual or other information accompanying the device carefully and only use the device in accordance with the instructions for use. You could also check the manufacturer's website or, if you cannot find the information you are after or have any concern, make an enquiry to the manufacturer and/or the retailer.

**Q:**  
**What do I need if I want to know whether a Smart Home device will work at where I intend to use it?**

**A:**  
You need to use a Smart Home device in the environment and setting that it is designed for its use. When it does not work, it may well be not due to the device and could be a user error.

A Smart Home device needs to be connected to the relevant network such as WiFi or Bluetooth. The network must be working properly when you use the device.

The device also needs to be compatible with your other smart devices. You should check whether the device will connect to your existing devices before you purchase it. Your seller must give or make available (and therefore the manufacturer must provide the relevant information to the seller)



any relevant compatibility of digital content with hardware and software before sale if they are aware of them or are expected to do so. If you cannot find relevant information, ask the seller before purchase by explaining what you are trying to do with your purchase and the details of other devices with which you want the new device to operate.

If your premises is part of a private network or if you want your place to be set up as a fully integrated Smart Home, consider engaging a professional installer for your planning and installation of Smart Home devices so that all devices and network will be set up properly and safely. If in doubt, use a professional installer. A list can be provided by your seller or CEDIA (Global

Smart Home Technology Association) or another appropriate organisation.

**Q:**  
**What kind of personal data are collected when I use a Smart Home device or related service?**

**A:**  
This depends on the product and service provider's privacy policy or relevant supply contract such as the terms and conditions for your purchase.





**Q:**

**Is a company free to decide whether to collect my personal data or what personal data to collect when I use a connected device?**

**A:**

No. A company must limit the personal data that is processed (collected, recorded, stored, used etc.) to what is necessary in relation to the purposes for which they are processed. Personal data (any information relating to an identified or identifiable natural person) must be collected lawfully and for specified, explicit and legitimate purposes.

It can be lawful to process personal data in different ways. For example a company is allowed to process (collect, record, store, use etc.) your personal data if it is necessary to perform its obligations under its contract with you, if it is in the company's "legitimate interests" (which they must justify) or when this is necessary to protect a person's vital interests for example to save your or someone else's life.



A company can also process your personal data if you agree them to do so for specific purposes. You can withdraw your consent at any time after which your personal data will not be allowed to be used for those purposes. You may be requested to give your consent at the same time that you agree to the supply terms or privacy policy which describe those purposes.

**Q:**

**Can I install a security or surveillance camera (CCTV) which captures the images of the street or my neighbour's house or garden?**

**A:**

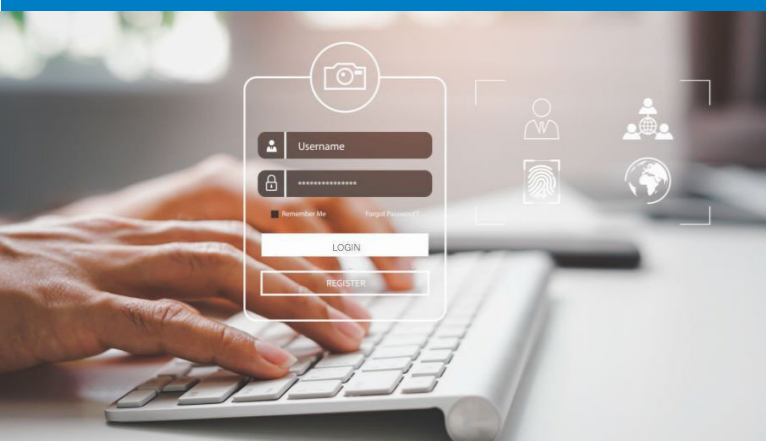
Yes, but you have certain obligations, and your neighbours and passers-by who are caught on your CCTV outside your property have certain rights, under data protection law.

You should first ask yourself whether your CCTV

needs to be positioned in a way that captures the images outside your property. If there is a good reason to do so, put up a sign in a place that is clearly visible and legible that your CCTV is in operation and why you are recording. You must limit the recording to the extent necessary and only keep it while you need it. The CCTV and its recording need to be secure so that they will not be used for other purposes.

Individuals have the right to access the personal data that you hold about them. If requested, within one month, you must give them a copy of their image caught in your camera or erase their images if you no longer need them.

If you want to stay away from the requirements under data protection law, position your CCTV in a way that it only captures the images within the boundaries of your property.





# Smart Technology Product Safety Stakeholder Group

The Smart Technology Product Safety Stakeholder Group was established by Electrical Safety First and DLA Piper (UK) LLP in March 2019. It is a round table forum for key stakeholders to discuss and promote best practice and safety in relation to Smart technology. The unique broad cross-sectoral membership allows different stakeholders to listen to each other, canvass the industry's views and act as a sounding board.

This guide\* has been produced by the following members of the Group (in alphabetical order):



AMDEA  
The Association of Manufacturers  
of Domestic Appliances



Electrical Safety First  
[electricalsafetyfirst.org.uk](http://electricalsafetyfirst.org.uk)



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