This year, renowned manufacturers are once again presenting new solutions for intelligent homes at the International Consumer Electronics Show (CES) and the Mobile World Congress (MWC). In the USA in particular, both the telecommunications giant AT&T with their “digital life” products and the start-up SmartThings are causing a stir. Both providers are banking on a trend that promises the greatest growth in the digital home segment over the next few years: Good value do-it-yourself (DIY) solutions for private building automation and monitoring.

Digital home is divided into home entertainment (networked consumer electronics) and smart home. In the four functional fields of smart home – security, health, energy efficiency and comfort – examples already in use include controllable switches for lighting and heating, sensors for measuring smoke, humidity and movement, and CCTV cameras. Two categories can currently be seen in this market: Products installed by professional installers and DIY products, which can be retrofitted with no specialist expertise.

The market forecasts for smart home have been euphoric in recent years. With annual growth of over 30% (e.g., Berg Insight 2011), a global market volume of around € 7.5 billion was predicted for 2015. But there is reason to be skeptical. The products available so far have not received a broadly positive reaction from consumers. Not just telecommunications companies and energy suppliers but also end device manufacturers such as Samsung, Internet companies such as Google, building automation specialists such as Gira, and providers from many other sectors have all been working on the topic for years.

But this could now change. The high distribution of smart phones and tablets and the comparatively low manufacturing
and acquisition costs for actors and sensors for building automation allow providers to create solutions at ever lower cost. The aim of this white paper is to state the causes for the lack of marketing success suffered by smart home products so far and to recommend courses of action for the DIY segment.

The DIY upgrade market has the greatest market potential

As the examples above show, smart home upgrade options that are of high technical quality, good value and easy to install are already available. In Germany, energy supplier RWE brought a relevant product onto the market very early, while in the USA, the home improvements chain Lowe’s is already successfully active in the market with its own system, Iris, and has very much set the benchmark.

It would seem sensible to draw an analogy to the GPS market between 2004 and 2008 in order to make the current and future features of this market clearer.

There were fixed installed systems in that market, too, and the automotive manufacturers and dealers had access to potential customers. Meanwhile, the lack of access to customers for systems in the higher price range was a significant hurdle for new providers hoping to enter the market.

A very similar phenomenon can be seen in smart home products. In the premium segment, end customers are generally accessed via installers (B2B2C) who have long been tied to one or more of the less established providers (e.g., Gira). In contrast, established premium brands used to invest in strengthening their own brand, brand awareness and image, as well as in research and development. The key demands of end customers in this segment are quality and prestige. The (acquisition) cost therefore plays a subordinate role in the decision-making process. This is a considerable barrier to new providers entering the market and to their prospects for success in this segment.

At the same time, this apparent protection against new competitors also justifies the (innovator’s) dilemma of the established providers in the building automation market. The primary method of generating fast growth on the smart
home market is using upgrade systems – just like on the car navigation market. To do this, smart home upgrade systems need to have particularly attractive prices and be easy to install – but this alone is nowhere near enough.

**Marketing activities need to be targeted better at the end customer segments**

The marketing activities currently in place for smart home upgrade systems in Germany speak the language of the average customer on the mass market. Using classic channels (TV, print and online), the message is transmitted that the user can above all make savings. But this is not a reasonable justification for purchase, as the initial investment only pays off through savings after a number of years.

The success of product innovations depends significantly on whether customers have a specific need for them. Only then is the product noticed and considered relevant. Models of diffusion theory (see image) help to identify the success factors for marketing smart home products and to draw specific conclusions regarding marketing activities. We will go into this aspect in more detail below.

---

**Framework for recognizing the necessity of action when developing and marketing innovative products.**

Some innovations are accepted by potential users quickly and willingly; others are not.

Knowing the correct factors (product features = left-hand white box) makes three things possible. Firstly, being able to better estimate the probability of success of innovative projects; secondly, being able to (further) develop a product in good time in order to significantly increase the probability of success on the market; and thirdly, adapting the marketing activities in such a way as to emphasize the factors in which the innovation is relevant and good and to balance out the factors in which the innovation is weaker.

In doing so, it is also important to remember the target group perspective (= right-hand white box), as innovations have to fight their way to the desired market success chronologically, from user type to user type. The first two user types (innovators and early adopters) have their own information needs and their own motives for purchase, so it is vital that they are addressed in a different way to later, standard customers (the mass market).

This makes innovators and early adopters the crucial target groups in an innovation’s launch campaign.

---

**Product perspective**

- Advantages over existing alternatives
- Social and technological compatibility
- Complexity of understanding and use
- Option of risk-free testing
- Visibility of other users (e.g. change agents)

**Target group perspective**

Innovations are adopted by user types one after the other

---

This makes innovators and early adopters the crucial target groups in an innovation’s launch campaign.

---


---

If one starts with the target group perspective, one sees that an innovative product first has to attract the interest of the ‘innovators’ and ‘early adopters’. The innovators are already impressed by the range of DIY upgrade products. This user type consists of talented handymen who are very interested in technology, like to get their hands dirty and are not afraid of any installation job.

The key to success on the mass market now is to convince the early adopters. Like the innovators, this user type has a very specific need for information and a sophisticated value system. The early adopter is also interested in the technical details of a solution or product but, in contrast to the innovator, is not able to fundamentally change them himself.

Classic advertising and simple benefit arguments are not enough to reach either the early adopters or the innovators.
Three factors in particular need to be focused on in order to appeal to these user groups: the advantages over the existing alternative, the option of risk-free testing, and the visibility of other users.

**Advantages over existing alternatives:** GPS devices were much more efficient, convenient and easy to use than paper maps. What about smart home solutions? Above all, the customer is choosing greater security, greater convenience and/or greater control. In contrast to this, the possible cost savings (e.g., in energy consumption) are not a decisive reason to buy, but are instead justification for the advantages with regard to cost neutrality. The advantages of new products compared to the existing alternative are a necessary factor in market success, but are not sufficient on their own.

**Option of risk-free testing:** The new type of GPS device can be tested directly and without risk in the shop before purchase. Those interested can hold the devices in their own hands in Germany’s many electronics stores, try out the operation and compare products. Translating this concept to the smart home application field, we see not only cooperation with prefabricated house providers and home improvement stores, but also opportunities to try the products in commercial vacation properties and in private homes offered for short-term rental, for example through www.airbnb.com.

**Visibility of use by others:** One explanation for the speed with which upgrade GPS systems flooded the market is the visibility of product use in cars. For smart home providers, this means that broad-based success on the market can only be achieved if they succeed in allowing the masses to see the solutions and to experience them at low risk. Doing this, however, will take significant changes to the marketing approach, going way beyond focusing communication on classic above-the-line (ATL) channels. It is important to appeal to the early, technically-skilled users – the innovators and early adopters – in a much more targeted way, with regard to both the messages and the communication channels.

**The variety of application cases supported decides on the market success**

As shown at the start of this white paper, there is already a series of sophisticated solutions in the USA and Europe. Competition will become even stiffer in 2013, as a series of telecommunications companies, energy suppliers, cable network operators and home improvement stores have announced that they will be launching their own smart home solutions onto the market. This will further increase the fragmentation of the entire market and it will become more and more difficult to distinguish a product by price. Reach and richness are therefore the crucial factors in market success.

Among other things, reach relates to the compatibility of the smart home solutions with other household devices and end devices in consumer electronics. Cooperation with leading industrial partners will be necessary in order to secure this aspect. These partnerships will cause the number of controllable end devices at home to rise constantly, with corresponding smart home products becoming increasingly relevant for customers. In addition, technological standards can be co-defined, providing the foundation for implementing further application cases and for product innovations in the intelligent home.

Richness relates to the number of application cases and functions offered. The application options have remained very limited up to now. End customers can see from afar whether anyone is at home, the doors and windows are closed, the light is on or off, etc. In this relatively limited and simple scope of functions, the products have remained very similar so far. The products with the widest variety of application cases will assert themselves in future.

The competition between rival smart phone platforms (iOS, Android, Windows Phone, Blackberry) has shown that the variety of apps available in the app store of each ecosystem is a significant factor for success. This variety persuades
customers to buy or prevents them from switching. The providers therefore fight for the favor of the software developers, who ultimately focus on the platforms with the greatest reach and the most attractive profit models. In order to create the basis for new, innovative application cases, providers of smart home solutions should see this as an example and open their platforms to software developers.

Summary

Smart home providers should not be put off by the so far hesitant demand. With the right range and marketing strategy, focusing consistently on the upgrade market can trigger a similar growth story to that seen on the GPS market between 2004 and 2008.

The keys to success in the upgrade market are, firstly, appealing to technically-skilled early users with independent usage benefits and marketing measures specific to the target group; secondly, focusing on broad public visibility of the smart home products and the wide range of specific usage options in the home; and thirdly, the broad range of application cases that can be achieved, especially by opening up the smart home platform to external software developers.