EUROPEAN SMART HOMES MARKET

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1 INTRODUCTION

1.1 KEY TAKE-AWAYS

- European Smart Homes market by product, service, and country statistics with detailed classifications and splits by revenue
- Analysis of the European Smart Homes market by products with a special focus on high growth areas
- Porter’s analysis in detail, market life cycle analysis along with technology and market roadmaps, evolution of smart home markets, and comparison with retrofit homes
- Major market trends, drivers, and inhibitors for the European Smart Homes market and its various product sub-markets
- Illustrative segmentation, analysis, and forecast of the major countries’ markets to give an overall view of the European Smart Homes market
- The future of each type of smart home market by products, from both—technical and market-oriented perspectives, with techno-market oriented roadmaps
- Detailed competitive landscape with identification of the key players in each type of product market; in-depth market share analysis with individual revenue, market shares; and market share rankings
- Competitive intelligence from the company profiles, key player strategies, and game-changing developments such as product launches and acquisitions
1.2 REPORT DESCRIPTION

'Smart home’ is the term commonly used to define a residence that uses a ‘home controller’ to integrate the various home automation systems in the house. The most popular home controllers are connected to a computer, and are then left to perform the home control duties on a standalone basis. Integrating these systems allows them to communicate with one another through the home controller, thereby enabling control of the various home systems; simultaneously, in preprogrammed scenarios or operating mode. Smart homes use electronic networking technology to integrate the various devices and appliances found in almost all homes. These are also common in building environment systems, such as in factories and offices, so that an entire home can be controlled centrally or remotely–as a single machine.

The best in safety, security, and comfort that was originally intended for the ‘technologically inclined’ is now reaching the general public through smart homes. It not only makes daily routine convenient and time saving, but also provides energy efficiency. Elderly and disabled rely heavily on home care, and a smart home promises to improve their living standards. The benefits of smart home can be endless. Starting from the gate access to the irrigation of a garden, all such activities can be done with ease. Smart homes have already started attracting the stakeholders in the market including architects, developers, and device manufacturers. The possibility of reduction in the prices of smart homes and expected adoption of the technology is the key to the market’s growth in the future.

With the stakeholders becoming active in the market for developing new and improved standards in smart home, this market is expected to grow at a decent pace for many years to come. Smart home technology offers the prospect of significant improvements in the living standards of the elderly, infirm, and disabled; who may otherwise be totally reliant on home care. These benefits can only be realized if the technology becomes affordable and accessible to those who need it the most. However, this is only likely if a broader consumer market develops–thus, pushing down prices and increasing availability. In this report, we provide size and estimates of European Smart Homes market and its various products and services. A geographic split comprising top five countries, namely, U.K., Germany, France, Spain, and Italy are also detailed in the report.
Some of the key players in this market include Siemens AG (Germany), Schneider Electric S.A. (France), ABB Ltd. (Switzerland), Ingersoll-Rand PLC (Ireland), Tyco International Ltd. (Switzerland), Legrand S.A. (France), Hager Holdings GmbH (Germany), Albrecht Jung GmbH & CO. KG (Germany), Control4 (U.S.), Tyco International Ltd. (Switzerland), and Nice SPA (Italy).

### 1.3 MARKETS COVERED

European Smart Homes market can be divided into products and services. The European Smart Home products market includes security control, access control, lighting control, entertainment systems, energy management systems, home health systems, HVAC control, and others. The services market comprises installation & repair and renovation & customization. We have covered an in-depth analysis of both these categories in our report. We have also included the sub segments of home control and monitoring such as smart home control services and technologies, intrusion detection, door contacts, sensors, and other segments in great detail. The major types of network and IP-based consumer electronics such as digital home audio devices, DVD players, televisions, and others have also been covered in this report. The important standards of smart homes such as KNX, Insteon, X10, CEBus, and Lon Works are also explained in detail in this report. An in-depth geographic analysis for the European markets has been done and the major countries, such as, U.K., Germany, France, Spain, Italy, and Rest of the Europe have been covered.
1.4 **STAKEHOLDERS**

- Raw material and manufacturing equipment suppliers
- Semiconductor foundries
- Original Equipment Manufacturers (OEMs) (end-user application or electronic product manufacturers)
- Smart home device manufacturers (ODM) and OEM technology solution providers
- Research organizations
- Electronic & consumer electronics products manufacturers
- Technology standards organizations, forums, alliances, and associations
• Technology investors
• Housing developers
• Architects
• System Integrators and installers

1.5 RESEARCH METHODOLOGY

This research study involves the usage of extensive secondary sources; directories, and databases such as Hoovers, Bloomberg, Business week, Factiva, and OneSource to identify and collect information useful for the extensive technical and market-oriented study of the European market.

The primary sources mainly consist of several industry experts from core and related industries; and preferred suppliers, manufacturers, distributors, administrators, solution providers, technology developers, alliances, standards, and certification organizations from companies, organizations related to all the segments of this industry’s value chain. All the primary sources were interviewed to obtain and verify critical qualitative and quantitative information as well as to assess the future prospects.

The following illustrative figure shows the market research methodology applied in making the report on the European Smart Homes market.
MARKET RESEARCH METHODOLOGY

Secondary Research
- Value Chain
- Key Players
- End-user Applications
- Market Classification
- Annual Reports of Key Industry Players
- Geographical Markets with their Market Shares
- Market Trends
- Technological Developments

Primary Research
- Numbers validation
- Competitive Landscape Validation
- Market Dynamics Validation

Market Crackdown
- Top-Down Approach
- Bottom-Up Approach
- Data Triangulation
- Qualitative & Quantitative Analysis
- Market Segmentation
- Market Estimates
- Market Forecasts

Source: MarketsandMarkets Analysis
1.5.1 MARKET SIZE ESTIMATION

Both “top-down” and “bottom-up” approaches were used to estimate and validate the market size of the European market, and for market size estimation of various other dependent sub-markets in the overall Smart Home segment.

FIGURE 3

MARKET SIZE ESTIMATION

- Derived Total Available European Market
- Segregated Smart Homes Market By Products, Services
- Evaluated upcoming products of Smart Homes Technology
- Evaluated significant Products & Services of Smart Homes & their scope & future
- Understood the geography as per the market share
- Final Forecast

- Evaluated the major players & their sales turnover
- Analyzed smart home devices deployed in Smart Homes in the European market
- Evaluated growth of Smart Homes based on home automation systems installed in Europe
- Evaluated the total European Smart Homes market based on products & services areas
- Final Forecast

Source: MarketsandMarkets Analysis

The research methodology used to estimate the market size also includes the following details:

The key players in the industry and markets were identified through secondary research; also, formulation of the industry value chain and estimation & forecast of market revenue was done through primary and secondary research. This includes study of the annual and financial reports of top market players and extensive interviews for key opinions from leaders such as CEOs, directors, and marketing executives.
All the percentage shares, splits, and breakdowns were determined using secondary sources, and verified through primary sources. All the possible parameters that affect the markets covered in this research study have been accounted for, viewed in extensive detail, verified through primary research, and analyzed to get the final quantitative and qualitative data. This data is consolidated and added with detailed inputs and analysis from MarketsandMarkets and presented in this report.

1.5.2 MARKET CRACKDOWN & DATA TRIANGULATION

The overall market size obtained from the market size estimation process has been split into several segments and sub-segments, by various types of classifications. In order to finish the overall market engineering process and reach the exact statistics for all the market segments and sub-segments, data triangulation, and market crackdown procedures explained below were implemented wherever applicable. The following figure shows the market crackdown structure and the data triangulation procedure implemented in the market engineering process of making this report.
The figure above shows the core data triangulation procedure used in this report for every market, sub market, and sub-segment. The percentage split-up of various major market segments (by products, services, and geography) was used to arrive at the market sizes of the major segments of the total market when classified by products and geography.

The estimated percentage shares of the sub-segments listed in the geographical market segmentation in this report were used to calculate the market sizes of the respective individual sub-segment markets. Similar procedure was used for market classifications by products and by services.

The exact reverse of the above procedure, that is, using “bottom-up” from “products” and “geography” segments to arrive at the overall market; and “top-down” from overall market to arrive at the individual company (key players) revenue, was also done to validate all the market sizes arrived at in the procedure mentioned above and shown in the figure. Thus, data was triangulated among three major categories—market size by products, market size by geography, and market size by company revenue.

The major aspects focused on while interconnecting the values deduced from products, geography, and company revenue are illustrated through the arrows in the figure above. Besides, the other forms of data triangulation were also implemented in specialized market sizes; analogous to these, the market volume and Average Selling Prices (ASPs) in each of the market segments were arrived at, by using similar methods and procedures. Data was also triangulated among the revenue, volume, and calculated ASPs. Thus, validation of data was done by deriving it from several aspects of the respective market segments.
2 MARKET OVERVIEW

2.1 MARKET DEFINITION

The European Smart Homes market is systematically analyzed by different standards & organizations related to Smart Homes; by services such as installation & repair, renovation & customization; and by types of technologies such as network technologies, protocols, and wireless technologies. It includes detailed analysis of different products installed in a smart home. Also, the geographical split across the Europe is provided. The prominent players in this segment of the smart homes market were recognized through secondary research and their market revenue was determined through primary and secondary research. The size of the overall market was derived by forecast techniques based on—the top-down and bottom-up approach, the study of the products and services areas, and the trend for various geographical regions.

- **Scope of the report:** This research report categorizes the European Smart Homes market on the basis of the smart home products being used in combinations for different needs such as security, comfort, entertainment, health care, and communication. The services consist of installation & repair and customization & renovation. The report also provides detailed country analysis, forecast revenue, market modeling, and evaluating trends in the market.

- **On the basis of products of smart homes:** The smart homes market is segmented by products into eight categories, namely security control, access controls, lighting control, entertainment systems, energy management systems, home health systems, HVAC control, and others. These categories are further divided by the different smart homes products under them.

- **On the basis of services:** The different services of smart homes market are segmented by installation & repair and customization & renovation. These services are deployed in different products offered as per the need and requirement of a home owner.
• **On the basis of technologies:** Smart homes deploy technologies, which are segmented into network technologies, protocols/standards, and wireless technologies. The network technologies include GSM/HSPA, CDMA, and LTE networks that provide communication services along with the smart home products. The standards & protocols include Digital Addressable Lighting Interface (DALI), NEMA protocols, Digital Multiplexer (DMX), LonWorks, KNX, HomePlug, HomePNA, CEBus, X10, INSTEON, and Universal Powerline Bus (UPB). The wireless technologies cover Zigbee, Z-Wave, Wi-Fi network, EnOcean, Bluetooth, and infrared.

• **On the basis of Country:** U.K., Germany, France, Spain, Italy, and rest of the Europe.
2.2 MARKET SEGMENTATION

The European market for smart homes market is segmented into four categories. Each category is further classified into various sub-segments as follows:

![FIGURE 5](image)

**EUROPEAN SMART HOMES MARKET SEGMENTATION**

As shown in the figure, the European market for smart home is classified by products, services, protocols & technologies, and geography. The segments are further classified into sub-segments by different types of products and services offered.

Source: MarketsandMarkets Analysis
2.3 HISTORY & EVOLUTION OF SMART HOMES

Smart homes have been introduced with a view to save energy, and at the same time, make life easier and luxurious. Smart homes include automated devices that can be handled remotely; for example, the lights and washing machine can be switched ON or OFF from a remote location. The owner can keep a check on visitors and, thus, safeguard the home.

The smart homes market has grown considerably due to the technology developments. Technology has transformed retro homes with manual devices, such as basic television sets (without remote control) and the likes, into semi modern homes with non-intelligent remote control devices; and furthermore, to automated homes with minimal user interface (not necessarily smart homes), and ultimately to smart homes that barely need human resources to operate. The information technology revolution that facilitated integration and centralized
control has also boosted the smart homes market. With such innovations, features such as lighting, HVAC, security, and entertainment can be accessed with a single remote control, Smartphone, or via the Internet.

Presently, on the basis of functionality, smart homes may be classified into four hierarchical types:

- Basic smart homes that have single standalone applications and objects that function in an intelligent manner
- A little more advanced smart homes, wherein the devices exchange information for better functionality
- More advanced connected homes that consist of systems with internal and external networks that allow interactive, remote control of systems; and access to information, both, within and beyond the home
- Very advanced learning and attentive smart homes that consist of systems that record patterns of activity and function accordingly. For example, turning lights ON when an individual enters the room
FIGURE 7

HIERARCHY OF SMART HOMES

Source: MarketsandMarkets Analysis
3 EUROPEAN SMART HOMES MARKET, BY PRODUCT

3.1 INTRODUCTION

Today, connectivity is regarded as a high novelty in home devices such as thermostats, security cameras, utility meters, TVs, blu-ray players, home appliances, and more. The smart homes contain connected devices and sensors, all linked through a home area network and connected to back-end systems and the internet. Basically, the devices for the smart homes are covering four distinct principles, namely the security, health, energy efficiency, and comfort.

There are various factors that are driving the implementation of home automation systems, some of which include the need to reduce home energy consumption, maturity of technologies & simplification of interfaces, regulatory initiatives, and more. Also, it is observed that there are numerous startup companies that offer smart homes solutions, and there has been a rise in partnerships among the industry players.

The smart homes products market can be broadly classified into security controls, access controls, lighting controls, entertainment systems, energy management systems, home health systems, HVAC controls, and appliances.
The smart homes market is, currently, in the growth phase and is expected to grow from $XX million in 2012 to $XX million in 2020, at a CAGR of XX% from 2013 to 2020. Security control, lighting control, HVAC control, energy management systems, and entertainment systems are the major products in a smart homes system market.
European Smart Homes Market
By Products, Services & Country – Analysis & Forecast (2013 – 2020)

TABLE 1

EUROPEAN SMART HOMES MARKET VALUE, BY PRODUCT, 2013 - 2020 (MILLION)

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Source: MarketsandMarkets Analysis

The security control systems accounted for, almost, around XX% of the total European Smart Homes market in 2012, and this segment is expected to grow at a CAGR of XX% from 2013 to 2020. In U.K., it is observed that most of the homes are installed with electronic home security systems and hence it holds the largest share in Europe. The key factor that encourage the development of smart homes in the European market are the regulatory initiatives; for instance, the European commission has set a target to equip at least 80% European homes with smart meters, by 2020.
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