

F R O S T & S U L L I V A N

FROST & SULLIVAN BEST PRACTICES AWARD

SMART HOME THERMOSTATS - EUROPE

Company of the Year 2019

eQ-3

FROST & SULLIVAN

2019

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Background and Company Performance

Industry Challenges

Global climate change, shifting demographics, and advancing technologies—resulting in extreme temperatures, an aging society, and increasing demand for consumer convenience—are driving the popularity of smart buildings. In particular, smart homes equipped with a high-tech digital network linking sensors, devices, and appliances that residents can control promise to enhance domestic comfort, convenience, and security while reducing energy use through optimized management. A surge in the sales of various smart home voice assistants (e.g., Amazon Echo and Google Home) coupled with the improving quality of Wi-Fi in homes is boosting connected home growth. Also, technology convergence among the Internet of Things (IoT), Big Data analytics, cloud computing, artificial intelligence (AI), blockchain, and edge intelligence is penetrating the heating, ventilation, and air conditioning (HVAC) market, changing the industry dynamics and creating opportunities for smart HVAC solutions and services—including smart thermostats.

Smart thermostats, used in HVAC equipment to control and manage temperature, are an essential component of the fast-growing connected home ecosystem. Unlike traditional, static thermostats, smart thermostats empower users to program and operate them from multiple mobile devices, to make adjustments or review usage as and when needed. Increasing consumer awareness about the safety and efficiency of smart thermostats is likely to propel the global smart thermostat market with utilities, energy retailers, and (online) retail sales channels using these devices to drive customer engagement.

As connectivity and convergence continue to drive innovation in HVAC control and home automation, integration across both residential and commercial applications will result in more intuitive systems and smart solutions. Furthermore, regulations enforcing energy efficiency and ensuring safe indoor air quality will propel product development, particularly regarding remote servicing of HVAC to improve the operational effectiveness of equipment and controllers, including remote diagnostics and predictive maintenance.

Frost & Sullivan's independent research reveals that energy-saving devices such as smart thermostats will accelerate home automation adoption by broadening the range of products offered as well as providing the added value of energy management analytics—a practice encouraged by government policies. Smart thermostats are also facing an uptick in adoption across small and medium enterprises, due to the growing trend of digitization and the availability of building automation solutions. The top six buying influences are affordability, energy-saving potential, reliability, usability, and ease of installation comfort as well as an increase in comfort. Despite the rise in consumer acceptance, however, the high cost, inadequate communication networking standards, limited understanding of thermostat differentiation, customer fear of hackers taking over their system, and device adaptability restrain widespread market uptake.¹

¹ *European Smart Thermostats Market, Forecast to 2022: Partnerships with Energy Utilities will Drive the Next Wave of Growth* (Frost & Sullivan, April 2018)

However, increasing demand for smart thermostat applications will likely encourage venture capitalists to focus on smart thermostat technology in the next few years. Also, as smart thermostats gain traction, market participants will progressively focus on reducing the thermostats' prices and on developing additional application technologies. Frost & Sullivan estimates the global smart thermostats market will grow by a compound annual growth rate of 16.7% between 2018 and 2025, reaching total revenue of \$81 billion by the end of 2025.²

Visionary Innovation and Performance and Customer Impact

Frost & Sullivan recognizes eQ-3, a privately owned, German-based home controls provider, as the European market leader for smart home control products, based on the installed base of whole home solutions. The company is a pioneer in offering IPv6 solutions for smart home control, and its products (e.g., Homematic, Homematic IP, and MAX!) are distributed by several partners across Europe. The company has had a successful track record over the last 30 years fueled by its ability both to innovate and cater to specific customer needs. Apart from heating and cooling control, the company offers home control solutions, such as smart plugs, controls for shutters, and blinds; security and surveillance products; weather sensors; and a Homematic IP-wired system for smart home installations.

Whole Home Solutions from eQ-3

The latest offering from eQ-3 is the Homematic IP radiator thermostat, which delivers control over room temperature by connecting with window sensors, home sensors, and the building's heating equipment. Apart from regulating room temperature, Homematic products help create a pleasant indoor climate while concomitantly pointing out if humidity is too high or too low. This protects building fabric and ensures mold avoidance. Different rooms are warmed up based on the time of utilization. For example, the bathroom is slowly warmed up to 24°C in the morning without wasting energy maintaining this temperature throughout the night. Similarly, the temperature is automatically set to 23°C in the kitchen; living, and dining area after 17:00 hrs. The thermostat is set to eco mode at 17°C between the hours of 8:00 and 17:00, when there is no occupancy.



Image Source: [Homematic IP](#)

eQ-3's Homematic IP thermostats are connected to other smart home products to facilitate temperature control inside the household. Window shutters automatically operate based on sensor inputs tied to sun rise and sun set. The sensors can also communicate with the system to identify empty rooms that are not in use and do not need heating.

² *The Global Smart Thermostats Market, Forecast to 2025* (Frost & Sullivan, February 2019)

Breaking Price Barriers and Facilitating Entry for All

The major barrier for any new technology or product to gain market share is price. eQ-3 does not follow predatory pricing; rather, it offers an attractive price without compromising on product quality or profit margins. The retail price of Homematic IP thermostat starter pack is approximately 40% less than the average selling price of its competitors' solutions.

Also, eQ-3's Homematic IP thermostat is incredibly user-friendly. Easy installation eliminates the need for an installer; it requires no technical expertise, is easy to install, and requires negligible effort from customers. The thermostat has its own power supply and integrated radio technology, so the device operates wirelessly. For user convenience, the smart radiator thermostat can be remotely controlled through a free mobile application. All communication between the access point, cloud, and mobile application is encrypted. Since private data such as name, e-mail address, or mobile phone number are not requested during or after installation of the app, user anonymity remains 100% secure. Also, Homematic IP thermostats can be operated through voice control, currently, via Amazon Alexa and Google Assistant.

To support product reliability, eQ-3 ensures the availability of panel functions and spare parts for its Homematic IP devices until at least December 31, 2030. Frost & Sullivan believes such a customer-focused approach, which prioritizes affordability, reliability, ease of installation, user friendliness, and personal data privacy, is the reason for widespread adoption of eQ-3 products in Europe.

Market Leadership through Seamless Availability and Superior Performance

The impressive value proposition offered by eQ-3 is that customers can extend the thermostat services to the company's other smart home solutions. This makes integration of over 80 different eQ-3 home products easy for customers, which is an offering unmatched in the industry. Customers can expand vertically or horizontally through the flexibility eQ-3 smart home products provide. The connection between smart home devices is through next-generation Internet protocol, Ipv6. Frost & Sullivan applauds eQ-3 for being the first company to embrace this version of Internet protocols as IPv6 ensures seamless communication between different smart home products.

eQ-3 adopts an omni-channel strategy for marketing and sales. Its products are available on Amazon, Conrad, Otto, Mediamarkt, Saturn and several other online eCommerce portals. Typically, with competing products, issues with online sales result in product returns from customers due to several reasons. The most prominent issues are compatibility between thermostats with existing systems, installation problems, and defective products. In contrast, returns from online sales of eQ-3 thermostats are one-fifth that of returns on other brands. This fact establishes that eQ-3 thermostats are true to what is advertised—extremely compatible and easy both to install and use.

To uphold its well-reputed brand name, eQ-3 receives feedback on its products and performance from several channels, including social media. There are separate enthusiast forums for Homematic and ELV Elektronik, the product manufacturer. The several forums

for Homematic have a total of 70,000 followers while ELV Elektronik has 75,000 forum users. These forums are used for discussion on product performance and scope for improvement. Customers of eQ-3 organize end-user conferences, funded by the company, to share innovative ideas for the future. Frost & Sullivan acknowledges the strong end-user orientation that is visible through these proactive efforts.

eQ-3 generated revenue of over €80 million in 2018, 30% growth from 2015. Homematic IP revenue alone grew by 72% during the same time period. The company has had more than 150 successive profitable quarters, which very few of its competitors can advertise. Looking ahead into the next few years, the company is focused on expanding its presence beyond Germany, UK, France, and Italy to serve other European countries.

Conclusion

Utilities are focused on reducing network load and on monitoring electricity usage and consumption by end customers. Customers are also looking to reduce energy consumption within households. Frost & Sullivan recognizes eQ-3's Homematic IP for offering a promising solution to regulate energy consumption among utilities and end users, by reducing energy demand in modern and renovated houses while enhancing indoor climate and living comfort at the same time.

With its low-cost entry pricing, an array of smart home devices on offer, seamless purchase experience, interactive customer base, and adoption of latest technologies for wireless communication, eQ-3 leads the race among several participants in the European smart thermostats market.

For its strong overall performance, eQ-3 is recognized with Frost & Sullivan's 2019 European Smart Thermostats Company of the Year Award.

Significance of Company of the Year

To receive the Company of the Year Award (i.e., to be recognized as a leader not only in your industry, but among non-industry peers) requires a company to demonstrate excellence in growth, innovation, and leadership. This excellence typically translates into superior performance in three key areas—demand generation, brand development, and competitive positioning—that serve as the foundation of a company's future success and prepare it to deliver on the 2 factors that define the Company of the Year Award: Visionary Innovation and Performance, and Customer Impact).



Understanding Company of the Year

Driving demand, brand strength, and competitive differentiation all play critical roles in delivering unique value to customers. This three-fold focus, however, must ideally be complemented by an equally rigorous focus on Visionary Innovation and Performance to enhance Customer Impact.

Key Benchmarking Criteria

For the Company of the Year Award, Frost & Sullivan analysts independently evaluated each factor according to the criteria identified below.

Visionary Innovation & Performance

Criterion 1: Addressing Unmet Needs

Requirement: Implementing a robust process to continuously unearth customers' unmet or underserved needs, and creating the products or solutions to address them effectively.

Criterion 2: Visionary Scenarios through Mega Trends

Requirement: Incorporating long-range, macro-level scenarios into the innovation strategy, thereby enabling first-to-market growth opportunity solutions.

Criterion 3: Implementation of Best Practices

Requirement: Best-in-class strategy implementation characterized by processes, tools, or activities that generate a consistent and repeatable level of success.

Criterion 4: Blue Ocean Strategy

Requirement: Strategic focus on creating a leadership position in a potentially uncontested market space, manifested by stiff barriers to entry for competitors.

Criterion 5: Financial Performance

Requirement: Strong overall business performance in terms of revenue, revenue growth, operating margin, and other key financial metrics.

Customer Impact

Criterion 1: Price/Performance Value

Requirement: Products or services offer the best value for the price compared to similar offerings in the market.

Criterion 2: Customer Purchase Experience

Requirement: Customers feel they are buying the optimal solution that addresses both their unique needs and their unique constraints.

Criterion 3: Customer Ownership Experience

Requirement: Customers are proud to own the company's product or service and have a positive experience throughout the life of the product or service.

Criterion 4: Customer Service Experience

Requirement: Customer service is accessible, fast, stress-free, and of high quality.

Criterion 5: Brand Equity

Requirement: Customers have a positive view of the brand and exhibit high brand loyalty.

Best Practices Recognition: 10 Steps to Researching, Identifying, and Recognizing Best Practices

Frost & Sullivan analysts follow a 10-step process to evaluate award candidates and assess their fit with select best practice criteria. The reputation and integrity of the awards are based on close adherence to this process.

STEP	OBJECTIVE	KEY ACTIVITIES	OUTPUT
1 Monitor, target, and screen	Identify award recipient candidates from around the world	<ul style="list-style-type: none"> • Conduct in-depth industry research • Identify emerging industries • Scan multiple regions 	Pipeline of candidates that potentially meet all best practices criteria
2 Perform 360-degree research	Perform comprehensive, 360-degree research on all candidates in the pipeline	<ul style="list-style-type: none"> • Interview thought leaders and industry practitioners • Assess candidates' fit with best practices criteria • Rank all candidates 	Matrix positioning of all candidates' performance relative to one another
3 Invite thought leadership in best practices	Perform in-depth examination of all candidates	<ul style="list-style-type: none"> • Confirm best practices criteria • Examine eligibility of all candidates • Identify any information gaps 	Detailed profiles of all ranked candidates
4 Initiate research director review	Conduct an unbiased evaluation of all candidate profiles	<ul style="list-style-type: none"> • Brainstorm ranking options • Invite multiple perspectives on candidates' performance • Update candidate profiles 	Final prioritization of all eligible candidates and companion best practices positioning paper
5 Assemble panel of industry experts	Present findings to an expert panel of industry thought leaders	<ul style="list-style-type: none"> • Share findings • Strengthen cases for candidate eligibility • Prioritize candidates 	Refined list of prioritized award candidates
6 Conduct global industry review	Build consensus on Award candidates' eligibility	<ul style="list-style-type: none"> • Hold global team meeting to review all candidates • Pressure-test fit with criteria • Confirm inclusion of all eligible candidates 	Final list of eligible award candidates, representing success stories worldwide
7 Perform quality check	Develop official award consideration materials	<ul style="list-style-type: none"> • Perform final performance benchmarking activities • Write nominations • Perform quality review 	High-quality, accurate, and creative presentation of nominees' successes
8 Reconnect with panel of industry experts	Finalize the selection of the best practices award recipient	<ul style="list-style-type: none"> • Review analysis with panel • Build consensus • Select winner 	Decision on which company performs best against all best practices criteria
9 Communicate recognition	Inform award recipient of recognition	<ul style="list-style-type: none"> • Present award to the CEO • Inspire the organization for continued success • Celebrate the recipient's performance 	Announcement of award and plan for how recipient can use the award to enhance the brand
10 Take strategic action	Upon licensing, company able to share award news with stakeholders and customers	<ul style="list-style-type: none"> • Coordinate media outreach • Design a marketing plan • Assess award's role in strategic planning 	Widespread awareness of recipient's award status among investors, media personnel, and employees

The Intersection between 360-Degree Research and Best Practices Awards

Research Methodology

Frost & Sullivan's 360-degree research methodology represents the analytical rigor of the research process. It offers a 360-degree view of industry challenges, trends, and issues by integrating all 7 of Frost & Sullivan's research methodologies. Too often companies make important growth decisions based on a narrow understanding of their environment, resulting in errors of both omission and commission. Successful growth strategies are founded on a thorough understanding of market, technical, economic, financial, customer, best practices, and demographic analyses. The integration of these research disciplines into the 360-degree research methodology provides an evaluation platform for benchmarking industry participants and for identifying those performing at best-in-class levels.



About Frost & Sullivan

Frost & Sullivan, the Growth Partnership Company, helps clients accelerate growth and achieve best-in-class positions in growth, innovation, and leadership. The company's Growth Partnership Service provides the CEO and the CEO's growth team with disciplined research and best practices models to drive the generation, evaluation, and implementation of powerful growth strategies. Frost & Sullivan leverages nearly 60 years of experience in partnering with Global 1000 companies, emerging businesses, and the investment community from 45 offices on 6 continents. To join Frost & Sullivan's Growth Partnership, visit <http://www.frost.com>.