



2017 European Connected Driver Solutions Enabling Technology Leadership Award

FROST & SULLIVAN

BEST
2017 **PRACTICES**
AWARD

EUROPEAN CONNECTED DRIVER SOLUTIONS
ENABLING TECHNOLOGY LEADERSHIP AWARD

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Background and Company Performance

Industry Challenges

In 2016, the automotive industry spent an estimated \$44.0 billion on information technology (IT), of which connected living, Internet of Things (IoT), and Big Data analytics alone accounted for \$4.5 billion, or 10.2% of the total expenditure. By 2025, expenditure by the automotive industry on connected living, IoT, and Big Data is expected to reach \$28.2 billion (16.7% of total IT spending). These technologies are expanding the ecosystem of the car into mobile devices to understand user preferences and requirements. This has resulted in many technology companies—established and startups—gearing up to provide connected-driver solutions to car manufacturers by analyzing various data points from mobile devices.

However, this expanding market space has given rise to key challenges in the areas of data monetisation, validation, digital security, and software platform complexities. Data monetization depends on identifying the right data set for the right applications. Technology companies often focus on a specific application development limited to their offering, which restricts their ability to gather various other data points that could prove invaluable to a vehicle manufacturer. The downside to collecting multiple data points is the numerous security concerns and infringement of privacy experienced by the application users. Moreover, the complexity of developing a common platform to utilize various sensor suits on the mobile devices' drive is a drain of cost and time. This often results in product launch delays, inefficient services, and a potentially serious privacy infringement that could permanently damage a brand's reputation, let alone the revenue loss.

Anagog is a technology pioneer addressing key market challenges through its innovative business models and patented technologies for connected-driver solutions. Through its suite of software modules, Anagog enables its clients to offer a range of applications that can leverage all available sensors in a mobile phone. The company's innovative software development toolkit (SDK) platform enables car manufactures to leverage data analytics from applications that go beyond the ecosystem of the vehicle itself. This vast coverage of data gives Anagog the freedom to develop unmatched accuracy of predictive analysis while empowering its clients to provide connected-driver solutions.

Technology Leverage and Customer Impact

Application Diversity

Anagog's SDK uses the sensors available on a smartphone, which include the global positioning system (GPS), Wi-Fi, cellular reception, Bluetooth, barometer, accelerometer, magnetometer, gyroscope and more. This access means application developers can create

a wide range of applications for various users that leverage on the sensor suits. Anagog relies on the data generated by the applications to provide various connected-driver solutions. For instance, based on the different anonymized data inputs from the applications developed, Anagog can analyse the data and predict a user's parking behaviour. Through Anagog's real-time predictive parking analysis, original equipment manufacturers (OEMs) are able to offer their customers information on parking availability in advance, improving their customer services. Similar to this, Anagog is able to provide a wide range of predictive data analytics that enables OEMs to develop their products and services in tune with the customer requirements.

Commercialization Success

In a span of 2 years of commercialization, Anagog has developed a data base of over 11 million active users. Predictive parking is one of the first solutions Anagog has offered as part of the connected-driver solution to OEMs and to parking operators. Through the predictive parking solution, Anagog is detecting over 30 million parking events per day, making it one of the fastest-growing companies managing one of the largest parking networks.

Anagog's success is attributed to its business model, which enables it to access data from a wide range of applications that are implementing the open Anagog SDK platform. Hence, Anagog gathers over two billion data points every day globally, increasing overall system accuracy and providing flexibility in terms of data analytics applications. This gives the company an advantage over the major competition, which drains the users' device batteries through their respective applications.

Commitment to Innovation

Anagog has over 16 patents and has developed a wide range of solutions through its user-driven data. There are three steps Anagog uses to generate data-driven solutions for its customers. First, Anagog applies its patent algorithms to access the on-board sensor suit on users' smartphones. Second, the algorithms are used to collect high value real-time user data. And last, the data points are further analysed to yield real-time connected-driver solutions.

The enormous amount of data collected through its patented algorithms enable the company to constantly innovate new solutions such as predictive parking, location-based advertisements, traffic and infrastructure information, car sharing automation, and other customer-driven requirements that help bridge the gap between OEMs and their customers.

Price/Performance Value

Anagog offers its SDK platform for free to all of its prospective partners and customers in return for the rights to anonymised data collected. The anonymised data is then monetised through data analytics providing various solutions such as connected driver to car manufacturers. This enables them to improve the return on investments for their customers as they do not need any capital for software development. This also gives Anagog's customers the opportunity to reduce their product development cycle, decreasing the time to market. Further, Anagog's market position allows it to stay above market segments by focusing on analytics, so it can provide solutions for a range of industry verticals.

Customer Service Experience

The biggest challenge for application developers is the battery consumption in smartphones due to running various applications. According to AVG, the top 5 applications most commonly used on smartphones often rely on Wi-Fi and GPS and cause the major battery drain to the devices, affecting both performance and battery life.

Anagog as a philosophy prioritises its consumers and ensures low battery consumption through its patented SDK platform. Anagog holds an industry best with an average of 1% battery life of the smartphone consumed over one day of background activity, the gathering of required data points. This gives an advantage to Anagog over its competitors.

Furthermore, based on its patented algorithms, Anagog understands the real-time mobility status and activity of the users, hence allowing the application developers to offer more contextual services that result in better user engagement.

Brand Equity

Low power consumption, privacy protection, and free application development enable the company to gain high brand visibility. Prospective customers have the potential to realize gains for return on investment, and end users have the advantage of enhanced features based on their real-time context while benefiting from low power consumption. Further, Anagog has filed for patents on privacy protection, which ensure data security for the end users and customers.

This is evident from the fast-paced growth of Anagog, which has witnessed over 17 million SDK downloads for the development of various applications within the first 2 years of operation.

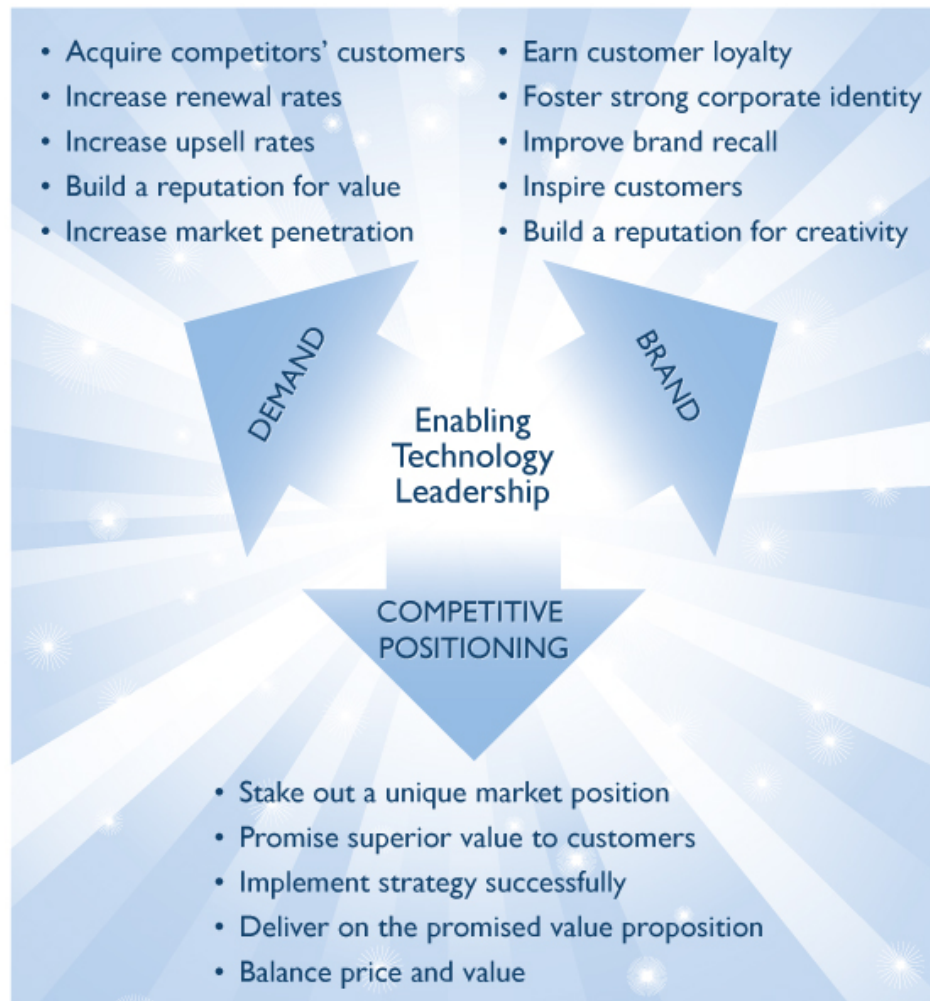
Conclusion

Anagog, headquartered in Tel Aviv, Israel, was founded in 2010 by Gil Levy (Chief Technology Officer) and Yaron Aizenbud (Chief Operating Officer). The company leverages on the smartphone sensor suite to empower its customers to develop applications on its patented SDK. Anagog's business model enables it to provide its SDK as a free open platform for developers and leverage on the anonymised data collected by the developed application to perform predictive analysis. For car manufacturers, Anagog's data analytics focuses on connected-driver solutions including parking, mapping, advertising, car dealerships analytics and other predictive services that fit the fast approaching autonomous car.

With its strong overall performance, Anagog has earned Frost & Sullivan's 2017 Enabling Technology Leadership Award.

Significance of Enabling Technology Leadership

Ultimately, growth in any organization depends upon customers purchasing from your company, and then making the decision to return time and again. In a sense, then, everything is truly about the customer—and making those customers happy is the cornerstone of any long-term successful growth strategy. To achieve these goals through technology leadership, an organization must be best-in-class in three key areas: understanding demand, nurturing the brand, and differentiating from the competition.



Understanding Enabling Technology Leadership

Product quality (driven by innovative technology) is the foundation of delivering customer value. When complemented by an equally rigorous focus on the customer, companies can begin to differentiate themselves from the competition. From awareness, to consideration, to purchase, to follow-up support, best-practice organizations deliver a unique and enjoyable experience that gives customers confidence in the company, its products, and its integrity.

Key Benchmarking Criteria

For the Enabling Technology Leadership Award, Frost & Sullivan analysts independently evaluated two key factors—Technology Leverage and Customer Impact—according to the criteria identified below.

Technology Leverage

- Criterion 1: Commitment to Innovation
- Criterion 2: Commitment to Creativity
- Criterion 3: Stage Gate Efficiency
- Criterion 4: Commercialization Success
- Criterion 5: Application Diversity

Customer Impact

- Criterion 1: Price/Performance Value
- Criterion 2: Customer Purchase Experience
- Criterion 3: Customer Ownership Experience
- Criterion 4: Customer Service Experience
- Criterion 5: Brand Equity

Best Practice Award Analysis for Anagog

Technology Leverage

Criterion 1: Commitment to Innovation

Requirement: Conscious, ongoing adoption of emerging technologies that enables new product development and enhances product performances

Criterion 2: Commitment to Creativity

Requirement: Technology is leveraged to push the limits of form and function, in the pursuit of “white space” innovation

Criterion 3: Stage Gate Efficiency

Requirement: Adoption of technology to enhance the stage gate process for launching new products and solutions

Criterion 4: Commercialization Success

Requirement: A proven track record of taking new technologies to market with a high rate of success

Criterion 5: Application Diversity

Requirement: The development and/or integration of technologies that serve multiple applications and can be embraced in multiple environments

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 like they are buying the most 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

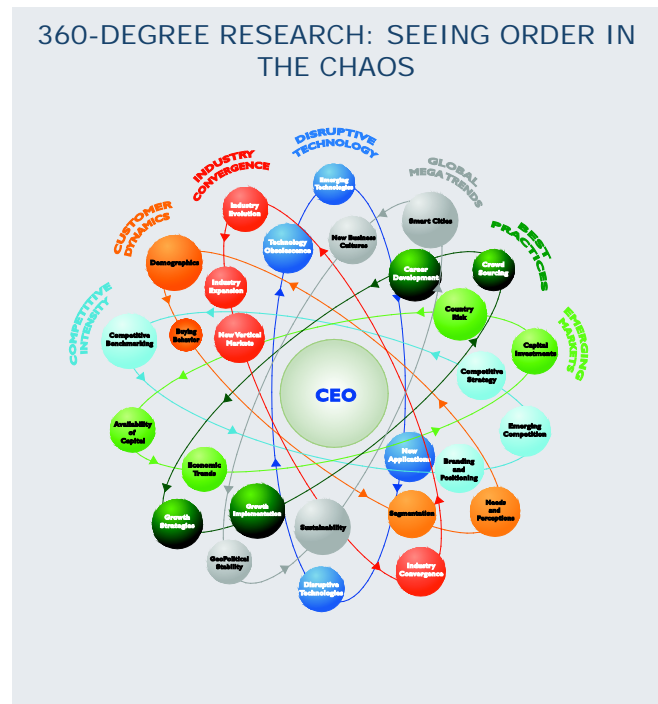
Criterion 5: Brand Equity

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

The Intersection between 360-Degree Research and Best Practices Awards

Research Methodology

Frost & Sullivan’s 360-degree research methodology represents the analytical rigor of our 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, leading to 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 players and for identifying those performing at best-in-class levels.



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

Frost & Sullivan Awards 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 globe	<ul style="list-style-type: none"> • Conduct in-depth industry research • Identify emerging sectors • Scan multiple geographies 	Pipeline of candidates who potentially meet all best-practice 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-practice criteria • Rank all candidates 	Matrix positioning 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-practice 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-practice 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-practice 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-practice criteria
9 Communicate recognition	Inform award recipient of award 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 may 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 future strategic planning 	Widespread awareness of recipient's award status among investors, media personnel, and employees

About Frost & Sullivan

Frost & Sullivan, the Growth Partnership Company, enables clients to 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 practice models to drive the generation, evaluation and implementation of powerful growth strategies. Frost & Sullivan leverages almost 50 years of experience in partnering with Global 1000 companies, emerging businesses and the investment community from 31 offices on six continents. To join our Growth Partnership, please visit <http://www.frost.com>.