

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

# BEST PRACTICES

AWARDS

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

BEST  
2020 PRACTICES  
AWARD

# O P E N E T

An Amdocs Company

**2020 GLOBAL DIGITAL BSS  
ENTREPRENEURIAL COMPANY OF THE YEAR AWARD**

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## Background and Company Performance

### *Industry Challenges*

The global telecommunications industry is in the midst of profound disruption. New technology developments and shifting demands of customers have created new challenges for the existing products, services, and investments of communication service providers (CSPs). In an experience economy<sup>1</sup>, it is more critical than ever for CSPs to evolve into *digital service providers* (DSPs<sup>2</sup>) that can offer data-driven hyper-personalized interactions across the full customer life cycle. The strategic imperatives for CSP success, particularly in 5G include:

- *Support the scalability, customization, and real-time service delivery requirements in 5G.* For example, 5G operations entail rapid commissioning of virtual network resources, such as policy and charging functions for network slices created by enterprise customers in a self-serve manner. CSPs must also deliver defined levels of service quality to different customer segments in IoT deployments. Handling such network demands without adversely impacting network performance or inhibiting the customer experience is a key challenge for CSPs.
- *Implement digitally-enabled offerings for distinct industry verticals and use cases.* Understanding how to successfully penetrate the enterprise market will be critical to succeed in 5G; however CSPs must act fast as large companies in many industry verticals are considering deploying their own private 5G networks.<sup>3</sup> Providing platforms, networks, and intelligence 'as a service' and leveraging edge computing for service enablement should be a priority need for CSPs. The ability to proactively partner with third party providers, and enterprises themselves, to co-create customized 5G solutions will be a critical differentiator as next generation networks advance.
- *Extract actionable intelligence from network data.* CSPs have access to massive volumes of data flowing through their network, website, apps, call centers, retail stores and marketing programs – all of which will further accelerate with 5G deployments. The challenge for CSPs is to develop a comprehensive understanding of

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<sup>1</sup> The term "Experience Economy" was first used in a 1998 article by B. Joseph Pine II and James H. Gilmore. In an experience economy, the products offered become a stage or a conduit for selling experiences focused on engaging customers in a meaningful way to create memorable events.

<sup>2</sup> In telecom, a DSP delivers an integrated set of communication and media services that have traditionally been delivered by over-the-top or web-based service providers. While a DSP will continue to offer communications connectivity services, it will also expand its portfolio of services and add value to the connection, in part by building an extensive partner ecosystem and by taking steps such as adopting open networking technologies and practices.

<sup>3</sup> TM Forum operator survey -5G Future: Targeting The Enterprise (September 2019)

their customers and prospects data, and translate this data into actionable insights to drive customer loyalty and generate higher average revenue per user (ARPU).

- *Leverage AI for customer success.* AI-driven contextual and dynamic experiences are essential for success in 5G, however, the concept of 'the customer' will continue to evolve. With the expected growth in intelligent, mobile, and autonomous IoT supported over 5G, the customer base for CSPs will be comprised of more 'digital' than 'human' customers. These relationships will be supported through AI-driven real-time network operations, orchestration, analytics, and monetization capabilities. Enhancing the customer experience is an ongoing process; ultimately, the optimization of various network parameters to deliver the best experience to subscribers in micro-moments must be the objective of CSPs.
- *Support new policy and monetization requirements.* 5G networks are significantly more dynamic than 4G networks. New capabilities, such as network slicing and microservices provided by logical network nodes distributed dynamically, leverage the core tenets of distributed cloud computing. The inherent flexibility in service delivery presents new challenges in monetization and policy control, and must be appropriately addressed. Examples of new pricing models envisioned in 5G include session-based pricing, service-level agreement dependent pricing, slice-aware charging, charging for enterprise functions, and connection, location and analytics-based charging rules.<sup>4</sup>

BSS solutions play a foundational role in driving the transformation of CSPs to DSPs by supporting new monetization, customer management, partner management, and product management features. However, neither the technological architecture nor the manner in which legacy BSS solutions are configured, implemented, and updated are suitable to help CSPs offer differentiated services in the dynamic, software-defined 5G environment. The interfaces into the network from a monetization perspective are more dynamic. Thus, the core network functions for charging and billing interfaces must be rapidly instantiated and automatically scaled in 5G. Moreover, the evolution from physical network infrastructure to network function virtualization (NFV) that took place with IMS deployments continues with cloud-native network functions for 5G, adding to the complexity of the implementation and integration of 5G BSS solutions.<sup>5</sup>

Frost & Sullivan expects the deployment of cloud-native solutions for BSS and OSS that can help overcome the limitations of the previous generation solutions and support CSPs' digital transformation objectives to become table stakes in the global telecommunications industry. In fact, Frost & Sullivan research indicates a strong CSP interest in an IT-based, cloud-native architecture built using the fundamental technologies of containerization, dynamic orchestration, and microservices. According to the Cloud Native Computing

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<sup>4</sup> Frost & Sullivan's Research Study titled "5G Monetization – A Critical Need for Next-Generation Wireless Networks" presents details of the new pricing models and monetization challenges in 5G.

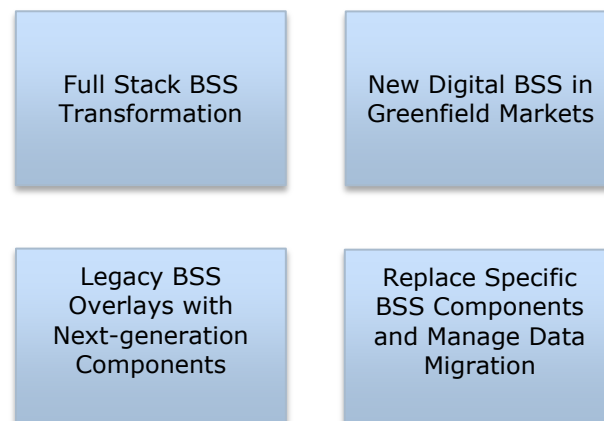
<sup>5</sup> Frost & Sullivan's Research Study titled "Growth Opportunities in the Next-Generation Wireless BSS Market" highlights the limitations of legacy BSS solutions.



Foundation (CNCF), cloud-native implementations allow organizations to build and run scalable applications in modern, dynamic environments such as public, private, and hybrid clouds.<sup>6</sup> Containers, service meshes, microservices, immutable infrastructure, and declarative application program interfaces (APIs) exemplify this approach. When combined with appropriate automation, cloud-native technologies enable high-impact changes frequently, predictably, and efficiently. By offering high levels of agility and on-demand scalability, cloud-based solutions can help support 5G service innovation such as partner-enabled service models and edge computing.

The migration to a technologically advanced, cloud-native BSS is likely to take place in phases. Importantly, not every component of existing BSS stacks needs to be cloud-enabled. The term 'cloud' itself can refer to public, private, or hybrid cloud deployments, although public cloud providers are expected to play a greater role in the 5G BSS ecosystem. For example, charging and policy controllers can be deployed on public, private or hybrid cloud platforms such as Amazon Web Services (AWS), Google Cloud Platform, or Microsoft Azure. These components can also be deployed at central, regional, and edge data centers to allow CSPs to support next-generation 5G use cases.

Exhibit A shows the deployment options for CSPs BSS transformation.



Source: Frost & Sullivan

Frost & Sullivan believes that 5G is an inflection point for IT initiatives inside CSP organizations. CSPs are likely to re-examine all of their applications and deploy 5G platforms that are based on best-of-breed vendor selections (open, cloud-native and automated) and diverge from the traditional monolith approach to network system deployments.

<sup>6</sup> CNCF Cloud Native Definition: <https://github.com/cncf/toc/blob/master/DEFINITION.md>

## *Entrepreneurial Innovation and Customer Impact*

Openet, an Amdocs Company, is a leading provider of software and services to communication service providers. The company has supported the service monetization and control needs of CSPs since the 2G era, and is a trusted provider of digital BSS solutions to leading, global CSPs. Frost & Sullivan believes that Openet has successfully addressed the key industry challenges in the digital BSS markets and the company should be strongly considered for CSPs' transformative BSS initiatives. Key success factors for Openet are presented below.

### **Entrepreneurial Innovation**

- *Technology benefits.* Openet products are built on microservices, use Kubernetes and SBA, and support DevOps in CI/CD (continuous integration / continuous development) environments. In order to address the volume, latency and dynamic needs of 5G applications, Openet products (such as policy and charging functions) are designed to be distributed, support flexible deployments (core and edge) and are built using cloud-native principles. This agility enables operators to monetize different features of the network (e.g. QoS, latency) and explore new opportunities such as B2B, IoT, smart cities and industry 4.0. Openet has made an impressive start in 5G. Their 5G policy and charging functions are integrated to service catalogs in existing BSS stacks and also to the 5G network. This enables the creation of a Value Plane that bridges IT & business in a CSP and the 5G network. This provides the agility needed for CSPs to quickly develop, launch, manage and monetize new 5G offers, open new revenue streams and develop new business models.
- *Product features.* Openet's Evolved Charging Suite is a cloud-native, real-time system that enables distributed 5G charging. A truly agile system, it offers the desired monetization flexibility and performance characteristics for 5G as well as hybrid 4G/5G environments. The Evolved Charging Suite delivers optimal flexibility to support new business models and supports hybrid 4G/5G deployments to help CSPs migrate efficiently to full 5G core deployments. Openet Policy Controller for 5G enables CSPs to control multiple service slices and allows them to apply new rules – such as QoS for network slices and specific devices on sub-slices quickly and easily. It supports more efficient roll outs of new slice-based offers, and the seamless management of network and slice performance. The Openet Policy Controller includes various editable blueprints, which are out-of-box (and editable) policy templates for automated service and slice lifecycle management.
- *Advanced data solutions.* Openet's 5G Data Bridge facilitates conversion from 4G to 5G, and in the reverse direction if needed. It enables 5G services rollouts while safeguarding 4G assets. The Openet Data Bridge offers the ability to handle Diameter-dependent services on CHF / PCF (5G charging and policy functions) and is adaptable for reverse-direction REST to Diameter network flows for cross-generational network controls. Openet Data Fabric enables the integration of all data sources into a common format, processing and enriching this data to deliver purposeful data sets to meet specific business needs. Data sources encompass all manner of telecom access

networks (wireless, fibre, satellite, cable) and a multiplicity of external sources (sensors and connected objects) as required.

### Customer Impact

- *Product configurability* – an extensive library of reusable microservices delivers superior product configurability and reduces the speed-to-market for Openet’s products. Frost & Sullivan’s research confirms an ongoing shift from traditional licensing to subscription models on a per-microservices basis in the global B/OSS markets. Openet’s microservices-based offerings can be monetized according to CSPs preferred commercial models – such as subscription-based pricing – to deliver pricing flexibility and greater value to CSPs.
- *Updates, instead of upgrades* – unlike legacy monolithic solutions, Openet’s solutions can be updated with ease, without disruption to CSP’s business operations. Openet has successfully enabled phased delivery of large digital BSS projects to allow CSPs to rapidly expand and innovate, while seamlessly updating existing platforms and components. The ability to ease this transition while leveraging available resources is a critical benefit of Openet’s offerings.
- *Deployment flexibility* – Openet’s products have been implemented using all the deployment options highlighted in exhibit A. CSPs, in particular, rely on Openet’s unique ability to anticipate future requirements and remove technology constraints to support business innovation. Strategic partnerships with leading cloud providers, including AWS and Microsoft Azure ensure that Openet’s virtualized solutions can be deployed universally. Openet also provides independent consulting and managed services to facilitate frictionless transformation of CSPs BSS environments.

### Competitive Assessment

Existing customers have consistently extended Openet’s involvement in their network operations. Openet has also acquired new customers, providing them with advanced BSS solutions for increased agility and efficiency. Commercial wins against much larger network equipment providers who have been working with tier-1 CSPs for several years, is a testament to the robust capabilities of Openet’s products.

The delivery pedigree for Openet over the past 20 years is evident in the longevity of its customer relationships.<sup>7</sup> By implementing Openet’s solutions, CSPs have achieved more than 40% reduction in time to market for new service offerings.<sup>8</sup> They have also generated an approximate 30% uplift in offer uptake, and have seen double digit increase in mobile data revenues.<sup>9</sup> As CSPs embark on digital journeys to become cloud-based service providers, vendors such as Openet, with a proven set of implementations in pioneering hybrid/5G deployments, are likely to see expanding growth opportunities.

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<sup>7</sup> A partial list of Openet customers is available at [https://www.openet.com/success\\_stories/](https://www.openet.com/success_stories/)

<sup>8</sup> Source: Frost & Sullivan research, Openet.

<sup>9</sup> Ibid.

Solution flexibility, thought leadership, and speed-to-market advantages are key differentiators for Openet. Unlike competitors, Openet has a reusable microservices-based architecture available today; it is being used to support highly demanding use cases commercially. While competitive solutions struggle to address new market requirements, Openet consistently scouts and detects unmet customer needs, and has proven to proactively address them with solutions that cater to evolving customer demands.

A clear testament to the effectiveness of Openet's solutions and support abilities is their strong repeat business and client retention rates. The company continues to invest in new product enhancements and provides a solid foundation for CSPs to identify, implement and monetize emerging use cases in 5G. Frost & Sullivan believes Openet is particularly well positioned to strengthen its current leadership status in the global digital BSS market, even as the competitive environment intensifies in this rapidly evolving industry.

### *Conclusion*

By introducing the best of open source and cloud-optimized for the Telco world, Openet has delivered high-performance solutions in the digital BSS markets. Innovative product architecture, proven implementations, and a commitment to investments in new product enhancements are core reasons for the success of Openet. With its strong overall performance, Openet has earned Frost & Sullivan's 2020 Entrepreneurial Company of the Year Award.

## Significance of Entrepreneurial Leadership

Ultimately, growth in any organization depends on customers purchasing from a company and then making the decision to return time and again. In a sense, then, everything is truly about the customer. Making customers happy is the cornerstone of any successful long-term innovation or growth strategy. To achieve the dual goals of customer engagement and growth, an organization must be best in class in 3 key areas: understanding demand, nurturing the brand, and differentiating from competition.



## Understanding Entrepreneurial Leadership

Demand forecasting, branding, and differentiation underpin an entrepreneurial company's journey toward forming deep relationships with customers and permanently altering the market with their actions. Entrepreneurial Innovation and Customer Impact are the cornerstones of this award, as discussed further in the next section.

## Key Benchmarking Criteria

For the Entrepreneurial Company of the Year Award, Frost & Sullivan analysts independently evaluated Entrepreneurial Innovation and Customer Impact according to the criteria identified below.

### Entrepreneurial Innovation

- Criterion 1: Market Disruption
- Criterion 2: Competitive Differentiation
- Criterion 3: Market Gaps
- Criterion 4: Blue Ocean Strategy
- Criterion 5: Passionate Persistence

### Customer Impact

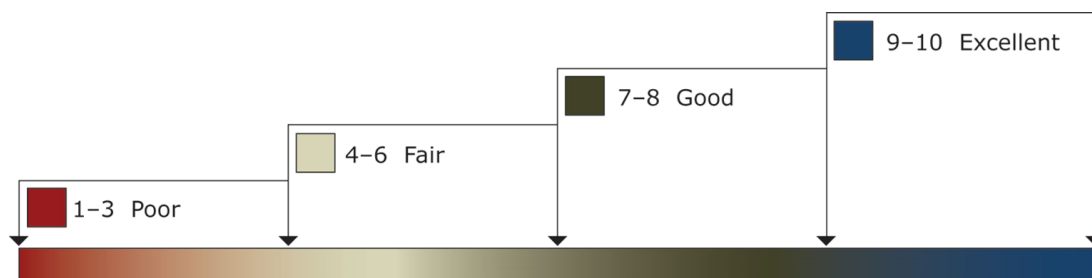
- Criterion 1: Price/Performance Value
- Criterion 2: Customer Purchase Experience
- Criterion 3: Customer Ownership Experience
- Criterion 4: Customer Service Experience
- Criterion 5: Brand Equity

## Best Practices Award Analysis for Openet

### Decision Support Scorecard

To support its evaluation of best practices across multiple business performance categories, Frost & Sullivan employs a customized Decision Support Scorecard. This tool allows research and consulting teams to objectively analyze performance according to the key benchmarking criteria listed in the previous section, and to assign ratings on that basis. The tool follows a 10-point scale that allows for nuances in performance evaluation. Ratings guidelines are illustrated below.

#### RATINGS GUIDELINES



The Decision Support Scorecard considers Entrepreneurial Innovation and Customer Impact (i.e., the overarching categories for all 10 benchmarking criteria; the definitions for each criterion are provided beneath the scorecard). The research team confirms the veracity of this weighted scorecard through sensitivity analysis, which confirms that small changes to the ratings for a specific criterion do not lead to a significant change in the overall relative rankings of the companies.



The results of this analysis are shown below. To remain unbiased and to protect the interests of all organizations reviewed, Frost & Sullivan has chosen to refer to the other key participants as Competitor 1 and Competitor 2.

<i>Measurement of 1–10 (1 = poor; 10 = excellent)</i>			
Entrepreneurial Company of the Year	Entrepreneurial Innovation	Customer Impact	Average Rating
<b>Openet</b>	<b>9.2</b>	<b>9.2</b>	<b>9.2</b>
Competitor 1	8.4	8.2	8.3
Competitor 2	8.0	8.0	8.0

## *Entrepreneurial Innovation*

### **Criterion 1: Market Disruption**

Requirement: Innovative solutions that have genuine potential to disrupt the market, making current solutions obsolete and shaking up competition.

### **Criterion 2: Competitive Differentiation**

Requirement: Deep understanding of both current and emerging competition to create and communicate strong competitive differentiators in the market.

### **Criterion 3: Market Gaps**

Requirement: A clear understanding of customers' desired outcomes, the products that currently help them achieve those outcomes, and where gaps exist.

### **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: Passionate Persistence**

Requirement: A deep belief in the rightness of an idea and a commitment to pursuing it despite seemingly insurmountable obstacles.

## *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**

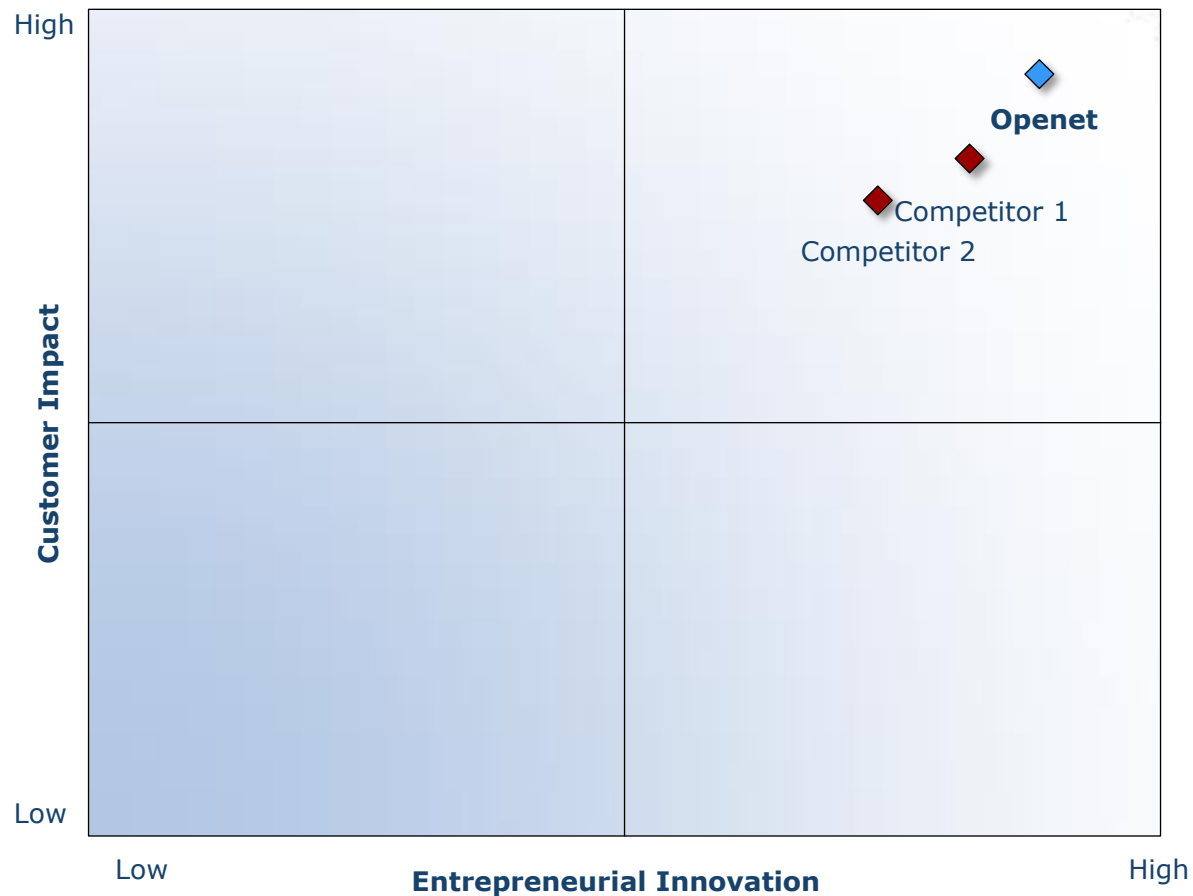
Requirement: Customer service is accessible, fast, stress-free, and of high quality.

### Criterion 5: Brand Equity

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

### Decision Support Matrix

Once all companies have been evaluated according to the Decision Support Scorecard, analysts then position the candidates on the matrix shown below, enabling them to visualize which companies are truly breakthrough and which ones are not yet operating at best-in-class levels.



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