

Entrepreneurial Company of the Year Award Plant-to-enterprise Integration Solutions North America, 2012

Frost & Sullivan's Global Research Platform

Frost & Sullivan is in its 50th year in business with a global research organization of 1,800 analysts and consultants who monitor more than 300 industries and 250,000 companies. The company's research philosophy originates with the CEO's 360-Degree Perspective™, which serves as the foundation of its TEAM Research™ methodology. This unique approach enables us to determine how best-in-class companies worldwide manage growth, innovation and leadership. Based on the findings of this Best Practices research, Frost & Sullivan is proud to present the 2012 North American Entrepreneurial Company of the Year Award in Plant-to-enterprise Integration Solutions to C-Labs for the company's leadership in the discrete manufacturing space.

Significance of the Entrepreneurial Company of the Year Award

Key Industry Challenges

ERP and other manufacturing automation solutions are effective in bringing about shop floor integration and efficiency. However, they are not as strong in distributing the information when and where needed on a real-time basis irrespective of the location of the people who need access to this information. Implementing mobility on the automation software front is an abundantly time consuming and expensive process, and reliability can be quite uneven. Frost & Sullivan independent analysis concludes that the market is in dire need of information distribution software that does not compromise on function or security, but at an economically viable cost.

Key Benchmarking Criteria for the Entrepreneurial Company of the Year Award

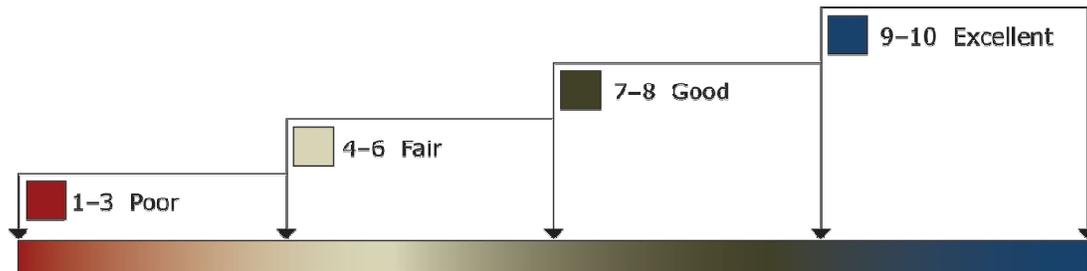
For the Entrepreneurial Company of the Year Award, the following criteria were used to benchmark C-Labs' performance with key competitors:

- **Growth Strategy Excellence**
- **Degree of Innovation with Products and Technologies**
- **Leadership in Customer Value**

Decision Support Matrix and Measurement Criteria

To support its evaluation of best practices across multiple business performance categories, Frost & Sullivan employs a customized Decision Support Matrix (DSM). The DSM is an analytical tool that compares companies’ performance relative to each other with an integration of quantitative and qualitative metrics. The DSM features criteria unique to each award category and ranks importance by assigning weights to each criterion. The relative weighting reflects current market conditions and illustrates the associated importance of each criterion according to Frost & Sullivan. Fundamentally, each DSM is distinct for each market and Award category. The DSM allows our research and consulting teams to objectively analyze each company's performance on each criterion relative to its top competitors and assign performance ratings on that basis. The DSM follows a 10-point scale that allows for nuances in performance evaluation; ratings guidelines are shown in Chart 1.

Chart 1: Performance-Based Ratings for Decision Support Matrix



This exercise encompasses all criteria, leading to a weighted average ranking of each company. Researchers can then easily identify the company with the highest ranking. As a final step, the research team confirms the veracity of the model by ensuring 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.

Chart 2: Frost & Sullivan’s 10-Step Process for Identifying Award Recipients



Best Practice Award Analysis for C-Labs

The Decision Support Matrix, shown in Chart 3, illustrates the relative importance of each criterion for the Entrepreneurial Company of the Year Award and the ratings for each company under evaluation. To remain unbiased while also protecting the interests of the other organizations reviewed, reference to other key players is shown as Competitor 1 and Competitor 2.

Chart 3: Decision Support Matrix for Entrepreneurial Company of the Year Award

<i>Measurement of 1-10 (1 = lowest; 10 = highest)</i>				
	Growth Strategy Excellence	Degree of Innovation with Products and Technologies	Leadership in Customer Value	Weighted Rating
Relative Weight (%)	20%	40%	40%	100%
C-Labs	7	9	9	8.6
Competitor 1	7	7	8	7.6
Competitor 2	6	6	7	6.4

Criterion 1: Growth Strategy Excellence

ERP and MES systems are a norm in today’s world, with companies implementing various solutions for day-to-day business operations. While these systems have always been strong on the front and back-end, they have predominantly fallen short on mobility. The aging workforce is progressively being replaced by a younger workforce who lack, in some degree, requisite skill sets and that require informed intelligence. Discrete manufacturing industries are usually characterized by high-speed, volume, and product mixes in multiple manufacturing lines. Therefore, end-users realize the need to have real-time informed intelligence compared to data collection.

However, Frost & Sullivan notes that the implementation of real-time distributed intelligence to the end-point is often complicated by convergence requirements, high cost involvement and intricate security demands. Additionally, the progressive movement of small and medium enterprises toward achieving global competitiveness opens up the need for intelligence at shop floors across business of all sizes. Although enterprise solution providers report to Frost & Sullivan that they offer mobility through loosely coupled solutions, there is a void in delivering solutions that drive true business analytics to reduce performance

variability.

C-Labs' revolutionary product, C-DEngine, is a tailor made solution that enables mobility on top of enterprise solutions, making the data available internally and externally (e.g. mobile devices) based on a company ordained hierarchy. C-DEngine aggregates information by traversing siloed data sources. C-DEngine facilitates services including IT services, cloud services, and mobile service traversal without adding any IT overhead, as it leverages 'the cloud'. C-Labs' product enables these services to communicate with each other to drive factory floor efficiency and make available the decision process to all stakeholders on a real-time basis. Frost & Sullivan expects this functionality to become a 'must-have' solution within the manufacturing space of the future.

C-Labs' growth strategy can clearly be seen by its focus on getting its products out to SME customers. While the solution is in its pilot stage, its potential is immense due to the need for real-time data across multiple end-points.

Criterion 2: Degree of Innovation with Products and Technologies

When implementing mobility on the client side, it is important to cover every aspect of the solution base, as an unintended opening can represent a major security threat. Since ERP or MES are implemented at every step of the supply chain, it is crucial to offer a single source for taking care of mobility needs throughout the supply chain.

C-Labs, through its unique C-DEngine, implements mobility throughout the spectrum while making abstraction changes, per client requirements, all without the need to add IT overhead. The C-DEngine is a framework that is fed directly into PLCs and enterprise solutions, and it works at a granular level in tandem with the devices/solutions they are stacked on. They use single port forwarding with support for HTTPS and encryption on multiple levels for security-reliant customers. The data is forwarded into the cloud, which is then used as a relay point to forward the data to the mobile devices, viewable to the end user. Thus, by using the cloud as just a relay point, they are able to avoid security related issues by avoiding storage of any data on the cloud.

C-DEngine is also innovative with its use of (NMI) Natural Machine Interface over the HMI (Human Machine Interface) that is prevalent today. NMI offers better visualization, easier to understand charts and enhanced clarity for a non-technical operational level user who is more worried about the data rather than how the data is coming. The data presentation is augmented over HMI's, while still maintaining the same depth of information. This also helps ease the use of interfaces with support for gestures and air touch. Using NMI, system upgrades to Windows 8 is also expected to become very simple. The new operating system claims to give a major push to touch-based feedback. The significance of touch and natural gestures in the future of system interaction, and C-DEngine is at the forefront of this revolution. Frost & Sullivan firmly believes that C-Labs is in the unique position of offering cutting-edge technology, coupled with low implementation costs and human-centered

interfaces, making it a promising company to watch in the future.

Criterion 3: Leadership in Customer Value

Having someone on-site to make decisions will be optional in the future. Mobile devices have come a long way, and the rapid penetration of these 'smart devices' is slowly filtering into shop-floor applications in order to drive productivity, efficiency, and decision effectiveness, and to eliminate the need for siloed training initiatives.

C-DEngine facilitates this scenario, with low integration costs and relatively short implementation times (which will only grow shorter as adoption rates and standards increase). Previously, high cost implementation from ERP, MES, and other solution providers was a major hindrance to further deployment. However, with C-Labs taking care of cost-effective implementation, its impact on functionality is magnified. Through its solution, it will now be possible to unite plants across the world and have a top-level information flow from every plant in the format of corporate key performance indicators. Change happening in one area will now be passed over to all other factories seamlessly. Today, the solution is in its initial phase, but implementing mobility of data and future builds could harness the C-DEngine right at the core of ERP, MES systems integrated right into the HMI's.

Data transfer from field devices and other sources usually happens through an application performance integrator or through virtual private networks. Both of these traditional ways require time to configure and security protocols must be established. C-Labs' CD-Engine revolutionizes this process using cloud-based relay options, without compromising the security protocols. In addition, its Intelligent Service Management (ISM) takes care of the distribution of updates across systems, services health monitoring, and alarm systems as well as remote control of services. The impact on functionality is realized through organizations that have implemented this solution. Frost & Sullivan feels that C-Labs is 'in the right place at the right time' to drive end-point intelligence using the cloud as a factor of innovation.

Conclusion

ERP and other enterprise manufacturing software solutions, such as MES, bring about efficiency on the shop floor. However, the ability to facilitate real-time dissemination of information among users, irrespective of where they are located, is not something these methodologies can traditionally accomplish in a cost effective manner and at an enterprise-wide level. C-Labs, through its C-DEngine, is able to nicely fill this gap by using the cloud as a relay point to securely and efficiently make shop floor information available to the mobile workforce. The company's solution does this by fitting seamlessly over existing enterprise solutions, eliminating the need for additional IT overhead. Apart from this, it also implements Natural User Interfaces to move from the old HMI's; these support better visibility of information and easier interaction with the information. C-Labs' distributed intelligence system is poised to see increased adoption in discrete

manufacturing industries. Based on Frost & Sullivan’s independent analysis of Plant-to-enterprise Integration Solution, C-Labs is recognized with the 2012 Frost & Sullivan Entrepreneurial Company of the year Award.

The CEO 360-Degree Perspective™ - Visionary Platform for Growth Strategies

The CEO 360-Degree Perspective™ model provides a clear illustration of the complex business universe in which CEOs and their management teams live today. It represents the foundation of Frost & Sullivan's global research organization and provides the basis on which companies can gain a visionary and strategic understanding of the market. The CEO 360-Degree Perspective™ is also a “must-have” requirement for the identification and analysis of best-practice performance by industry leaders.

The CEO 360-Degree Perspective™ model enables our clients to gain a comprehensive, action-oriented understanding of market evolution and its implications for their companies’ growth strategies. As illustrated in Chart 4 below, the following six-step process outlines how our researchers and consultants embed the CEO 360-Degree Perspective™ into their analyses and recommendations.

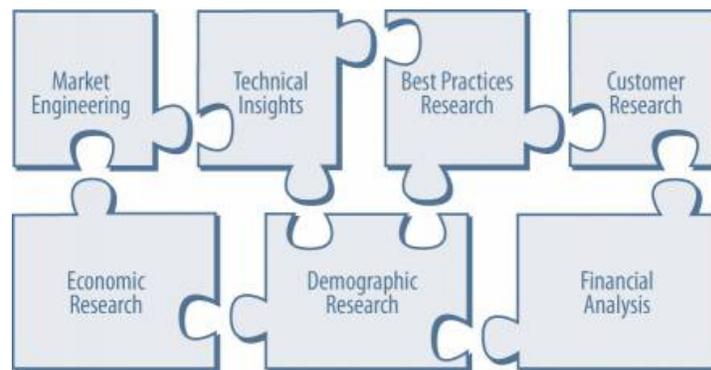
Chart 4: CEO's 360-Degree Perspective™ Model



Critical Importance of TEAM Research

Frost & Sullivan's TEAM 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 seven of Frost & Sullivan's research methodologies. Our experience has shown over the years that companies too often make important growth decisions based on a narrow understanding of their environment, leading to errors of both omission and commission. Frost & Sullivan contends that successful growth strategies are founded on a thorough understanding of market, technical, economic, financial, customer, best practices, and demographic analyses. In that vein, the letters T, E, A and M reflect our core technical, economic, applied (financial and best practices) and market analyses. The integration of these research disciplines into the TEAM Research methodology provides an evaluation platform for benchmarking industry players and for creating high-potential growth strategies for our clients.

Chart 5: Benchmarking Performance with TEAM Research



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 50 years of experience in partnering with Global 1000 companies, emerging businesses and the investment community from more than 40 offices on six continents. To join our Growth Partnership, please visit <http://www.frost.com>.