

METTLER TOLEDO

2014 Global Process Tunable Diode Laser Analyzers
Competitive Strategy Innovation & Leadership Award



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



50 Years of Growth, Innovation & Leadership

Contents

Background and Company Performance	3
<i>Industry Challenges</i>	3
<i>Strategy Innovation and Customer Impact</i>	3
<i>Conclusion</i>	6
Significance of Competitive Strategy Innovation and Leadership	7
Key Benchmarking Criteria	8
Best Practice Award Analysis for Mettler-Toledo	8
<i>Decision Support Scorecard</i>	8
<i>Strategy Innovation</i>	9
<i>Customer Impact</i>	9
<i>Decision Support Matrix</i>	10
The Intersection between 360-Degree Research and Best Practices Awards.....	11
<i>Research Methodology</i>	11
Best Practices Recognition: 10 Steps to Researching, Identifying, and Recognizing Best Practices	12
About Frost & Sullivan	13

Background and Company Performance

Industry Challenges

Service and support from analyzer manufacturers are significant competitive factors in the process analytical market, particularly for new and emerging products - such as tunable diode laser spectroscopy (TDLS) analyzers. Despite the remote locations of customers, equipment vendors are expected to have an extensive global support network to resolve unexpected challenges. Customers have inquiries related to the process adaptation of the product - and not just the performance. As such, the support engineers are expected to possess knowledge on the process to assist their customers with the installation and continuous operation of the product in the respective manufacturing process. Frost & Sullivan notes that service and support is increasingly becoming an important competitive aspect. If it is not provided, customers are likely to shift to another vendor in this competitive market.

Frost & Sullivan independent analysis confirms that the tunable diode laser analyzer market is highly competitive, with customers rapidly migrating to this technology for oxygen and moisture measurement, due to the product's low cost of ownership. Although the technology has existed for over 15 years, growing awareness of the benefits of this solution has witnessed a strong uptake over the last 2-3 years. This has intensified market competition, and when combined with the competitive pricing pressure in emerging markets such as Asia-Pacific, creates a significant challenge for equipment vendors.

Strategy Innovation and Customer Impact of Mettler-Toledo

Product Value of Mettler-Toledo's GPro 500 TDL Series

Mettler-Toledo's top-of-the-line TDL series GPro 500 TDL has 3 products designed for 3 different types of measurements: oxygen, carbon monoxide, and moisture. The company offers both a probe and a wafer cell for measurement of gases in different types of processes. The GPro 500 TDL series has a robust probe with a shielded particle filter that eliminates the need for purge gas and makes the analyzer fit to operate in dusty environments and processes operating at a high temperature. The series also has a wafer cell, which has empowered accurate measurement in a confined space (such as a 2" pipe). By enabling the possibility of inserting a TDL analyzer inside a narrow pipeline through a wafer cell adaptation, Frost & Sullivan appreciates the fact that Mettler-Toledo has relieved its customers from the challenging implementation of sample conditioning system for measurement of gases required in a narrow space.

The GPro 500 TDL has the laser source and a detector in a single unit, which makes the alignment perfect, as the laser beam from the source is reflected by a 3-sided mirror and reaches the detector. The product has a lower detection limit of 100 ppm-v and a response time of less than 2 seconds. Research indicates that a global user in the

petrochemical industry foresees a huge operating profit through the application of the GPro 500 TDL series. This particular customer was initially disappointed with other competitive TDL techniques available in the market, as the other products do not adapt as well to the process as Mettler-Toledo's product.

The GPro 500 TDL series, with its simple probe design and single flange connection, allows for a simple installation procedure for its customers. Mettler-Toledo has created a unique value proposition for the GPro 500 series due to its adaptability to multiple processes, thereby eradicating the challenge of installing the TDLS analyzer in narrow spaces. Mettler-Toledo is not a newcomer in the process gas analytics market; the company has not replicated its competitors' product design, but has instead developed a unique solution through innovative product design and application areas.

Total Customer Experience

Mettler-Toledo has operated in the process gas analytics market only for the last 2 years, yet continues to develop the technical expertise of its sales force to help customers with the proper solution matched to their needs. The company has an extensive customer feedback system to understand client satisfaction levels and application requirements. The company spends a significant amount of time in the field with its customers, educating the market on the capabilities of TDL technology and the solutions best suited for individual company requirements.

Asia-Pacific, a market with a high growth rate for TDL analyzers, demands that vendors be flexible. Clearly understanding the emerging nature of the market, Mettler-Toledo provides free support to its customers in that region to configure the product according to their needs. Mettler-Toledo works through well-established distributors in Asia-Pacific with local and regional expertise. The organization trains its third-party representatives and has them report to their internal managers. The company also appoints experienced application managers in key developing regions to avoid misinterpretation of its customers' needs and to support clients with process adaptation of the product. The company aims at providing a quick response to customers through these initiatives, as a few minutes of downtime can result in severe operating losses for firms. Mettler-Toledo, known for its reputation in servicing and supporting customers in the field, is now receiving new orders to replace other vendors' TDL analyzers.

Navigational Positioning

The company understands the market needs quite clearly and extends its offering as per the requirements. This approach is the key reason for the rapid increase in the company's market share in the process tunable diode laser analyzer market. Mettler-Toledo's GPro 500 TDL series can be used for both in-situ and extractive measurement. In-situ measurement is increasingly preferred by customers, as direct measurement in the process is fast and reliable. Certain customers prefer the extractive type of measurement,

due to the familiarity with this system and a sample conditioning system that can be reused. In-situ analyzers don't require a sample conditioning system, and customers are left with unused sample conditioning systems.

Understanding the customers' requirements, the company offered an extractive cell with the GPro 500 TDL series that can be mounted to a TDL head to extract the sample, which can be used for further measurement and analysis. This solution provides customers the flexibility of both in-situ and extractive measurement with a single analyzer. The company analyzes the most critical needs of the market through interactions with its customers and uses the expertise of its senior product managers to develop solutions that cater to those needs. Mettler-Toledo continuously observes the market to keep track of the most demanded gas measurement by end customers and then adds products to its GPro 500 TDL series that can be used to measure that particular gas. The company initially introduced the product for oxygen measurement, followed by carbon monoxide and moisture measurement applications, through products such as the Oxygen gas sensor GPro 500, Carbon monoxide sensor GPro 500, and Moisture sensor GPro 500. All 3 measurements are significant gas measurements that are demanded by the end customers. Mettler-Toledo has also invested significantly in ongoing research and development, with the aim to introduce TDLS analyzers that can measure 2 different gases per year in addition to the capability of its existing TDLS analyzers. Frost & Sullivan firmly believes that Mettler-Toledo, through its ongoing efforts, is moving closely towards its impressive vision of evolving into a top competitor in this market.

Execution Excellence

Mettler-Toledo's strength lies in its ability to integrate unique and standout features into its product line that distinguishes it from its other competitors. Mettler-Toledo's GPro 500 TDL series is compact and lightweight, which aids in easy installation. On the other hand, other competitive offerings are considerably heavier and, in certain cases, need a team of technicians to install the product.

Mettler-Toledo has a clear picture of the requirements of its customers with regard to TDL. FM Global certification is a key requirement in petrochemical plants globally, particularly in the United States, a requirement that is satisfied by the GPro 500 TDL series. The company keeps pace with various local approval boards to ensure that regulations are met. The company also provides a demo or test product for its customers to review before purchase of the product. After witnessing the performance by Mettler-Toledo, end customers add Mettler-Toledo to their approved vendor lists to procure a high volume of products for their requirements. This particular strategy helps the company to increase the unit volume growth of the GPro 500 TDL series product tremendously.

Conclusion

Mettler-Toledo truly believes in product innovation as a key strategy to increase its market penetration. Mettler-Toledo's GPro 500 TDL series has an innovative design that adapts to any kind of process, including the GPro 500 wafer cell, which allows for measurement in small pipes. The company constantly extends the application of its GPro 500 TDL series, which is one of its most popular offerings. In line with the company's objective, Mettler-Toledo is rethinking gas analytics by taking an innovative leap forward that will transform it into a top competitor in the process tunable diode laser analyzer market. For the above mentioned reasons, Frost & Sullivan is proud to present the 2014 Global Competitive Strategy & Innovation Leadership Award to Mettler-Toledo.

Significance of Competitive Strategy Innovation & Leadership

Any successful approach to achieving top-line growth must (1) take into account what competitors are, and are not, doing; (2) meet customer demand with a comprehensive, value-driven product or service portfolio; and (3) establish a brand that resonates deeply with customers and stands apart from other providers. Companies must succeed at these three things—brand, demand, and positioning—to achieve best-practice levels in competitive strategy.



Key Benchmarking Criteria

For the Global Competitive Strategy Innovation & Leadership Award, Frost & Sullivan analysts independently evaluated two key factors—Strategy Innovation and Customer Impact—according to the criteria identified below.

Strategy Innovation

- Criterion 1: Strategy Effectiveness
- Criterion 2: Strategy Execution
- Criterion 3: Competitive Differentiation
- Criterion 4: Executive Team Alignment
- Criterion 5: Stakeholder Integration

Customer Impact

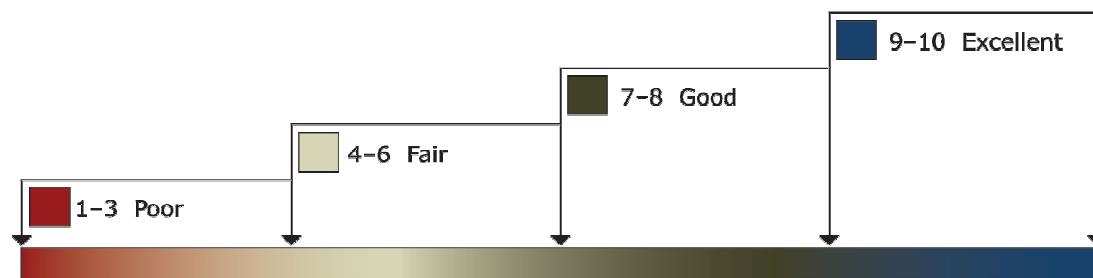
- Criterion 1: Price/Performance Value
- Criterion 2: Customer Purchase Experience
- Criterion 3: Customer Ownership Experience
- Criterion 4: Customer Service Experience
- Criterion 5: Brand Equity

Best Practice Award Analysis for Mettler-Toledo

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 our 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 is organized by Strategy Innovation and Customer Impact (i.e., the overarching categories for all 10 benchmarking criteria; the definitions for each criteria 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, we have chosen to refer to the other key players in as Company 2 and Company 3.

DECISION SUPPORT SCORECARD FOR COMPETITIVE STRATEGY INNOVATION & LEADERSHIP AWARD

<i>Measurement of 1–10 (1 = poor; 10 = excellent)</i>			
Competitive Strategy Innovation & Leadership	Strategy Innovation	Customer Impact	Average Rating
Mettler-Toledo	9.8	9.8	9.8
Competitor 2	8.6	8.4	8.5
Competitor 3	7.6	7.2	7.4

Strategy Innovation

Criterion 1: Strategy Effectiveness

Requirement: Strategy effectively balances short term performance needs with long-term aspirations and vision for the company

Criterion 2: Strategy Execution

Requirement: Adoption of best-in-class processes to support the efficient and consistent implementation of business strategy

Criterion 3: Competitive Differentiation

Requirement: Unique competitive advantages with regard to solution or product are clearly articulated and well accepted within the industry

Criterion 4: Executive Team Alignment

Requirement: The executive team is aligned on the organization's mission, vision, strategy and execution

Criterion 5: Stakeholder Integration

Requirement: Strategy reflects the needs or circumstances of all industry stakeholders, including competitors, customers, investors, and employees

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

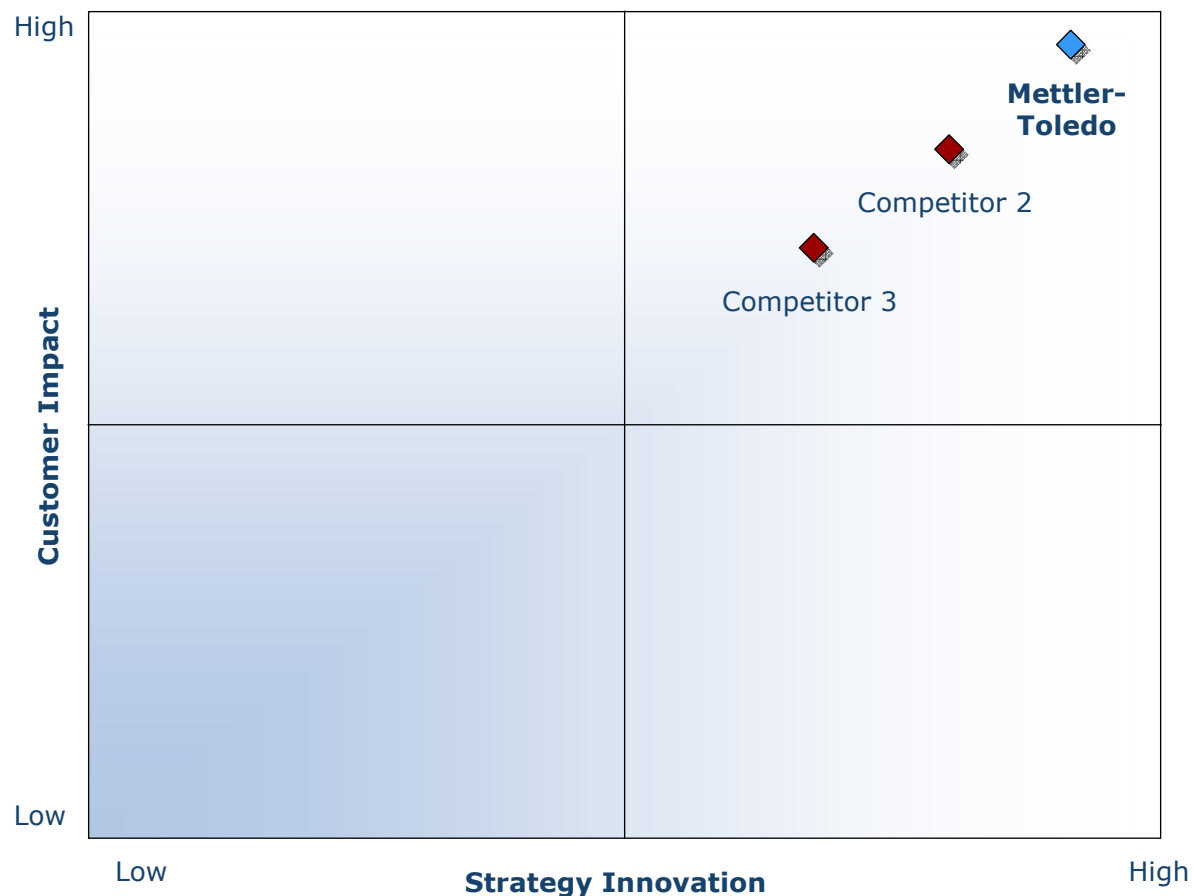
Requirement: Customer service is accessible, fast, stress-free, and of high quality

Criterion 5: Brand Equity

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

Decision Support Matrix

Once all companies have been evaluated according to the Decision Support Scorecard, analysts can 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.

DECISION SUPPORT MATRIX FOR COMPETITIVE STRATEGY INNOVATION & LEADERSHIP AWARD

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.

360-DEGREE RESEARCH: SEEING ORDER IN THE CHAOS



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>.