



2015 European Corporate Ridesharing
Technology Leadership Award



FROST & SULLIVAN



50 Years of Growth, Innovation & Leadership

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Background and Company Performance

Industry Challenges

The ridesharing industry is at a nascent stage and has experienced a pattern of growth that suggests that the concept is providing clear benefits to adopters and will be accepted on a larger scale in the future. Corporate ridesharing, which deals with connecting enterprise employees desiring to share rides, is an important subset of the entire industry. It helps enterprises to reduce expenditure on facility management and decrease their carbon footprint as part of their corporate social responsibility initiatives - and also serves as a branding strategy. For employees, ridesharing can help in reducing fuel expenses, while also making them eligible for incentives, such as free or preferred parking and tax benefits. Besides that, ridesharing also helps in fostering networking among employees, to develop healthy relationships among team members, thus proving advantageous to the company.

Corporates have identified ridesharing as a high-potential savings medium in work-related travel, and hence are encouraging employees to follow suit. The increasingly flexible work practices and the corresponding changes to company travel policies are working in their favour. In a study conducted by Frost & Sullivan, 57% of corporates stated that their total cost of mobility requires rethinking and optimization. Encouraging ridesharing among employees would cater to that requirement by reducing funds spent for daily employee travel. Furthermore, 31% of respondents does not actively monitor environmental footprint, which showcases an opportunity for ridesharing service providers; while majority of the respondents showed an increased interest in employing an integrated mobility solution to cater to the employee travel needs.

However, Frost & Sullivan independent analysis suggests that this industry has its own share of challenges to tackle. Issues like trust and security factors related to travelling with strangers, protecting user data privacy, abiding by legislations set for sharing rides, and creating preferred ride scenarios remain the main hurdles for the industry. Moreover, Frost & Sullivan notes that ridesharing companies are required to create effective solutions that aid in reducing the number of cars on the road, thereby keeping track of carbon emissions.

Frost & Sullivan independent analysis reveals that TwoGo by SAP has helped to properly address these challenges by developing a solution which enables ridesharing, while building a trusted environment for its users and ensuring data privacy; furthermore, this solution automatically matches users based on their specific preferences. The solution is used by enterprises to drive collaboration and employee engagement as well as to introduce a medium of cash savings, especially in company related travel and reduce the company's expenditure on parking facilities. TwoGo by SAP was formed in 2011, the idea for which was generated through an internal programming contest. As a result, SAP employees have benefitted from being able to share rides, both to and from work. Business cases were made to evolve the solution and make it available to other companies.

Technology Leverage and Business Impact of TwoGo by SAP

Commitment to Innovation

TwoGo by SAP aids in reducing the carbon-emission rate in enterprises. The solution measures the miles or kilometres shared and carbon-emission savings. As such, the more employees that use the solution, the greater will be the savings in emissions and parking spaces. Initially, SAP was forced to build parking houses and decks to cope with the increasing number of employee vehicles, which had threatened to go over the allocated budget. The solution also received additional support from SAP's facility management department by reserving parking spaces in preferred areas to users of the system. As a result, TwoGo by SAP helped to reduce the real space consumed and parking issues.

SAP also employs corporate cars for employees. TwoGo by SAP helped reduce the number of corporate cars used and hence reduced fuel consumption by encouraging ridesharing in corporate vehicles between employees travelling in the same direction for business purposes. Finally, TwoGo by SAP also helped networking among employees, which fostered innovation and collaboration among them while travelling to and from work; this proved to be an indirect benefit to the company. The solution was first tested internally among SAP employees and eventually saved 100 parking spaces. There are currently 12,000 registered users internally at SAP.

Technology Incubation

TwoGo by SAP targets short-distance frequent commuters. The company primarily focuses on Business-to-Business (B2B) services—although they also have a Business-to-Consumer (B2C) version. TwoGo by SAP is the only provider that protects the private data of its users by sharing it only once a ride is matched. TwoGo by SAP automatically matches rides based on user preferences, unlike the list-based systems used by competitors. Thus, the solution helps users travel to work, without having to reduce productivity by browsing through a list of rides. Besides Web and App access, the solution also incorporates emails and meeting requests into the system, so that users can send an invite from their calendar requesting a ride; TwoGo by SAP then responds to these requests with an automatically matched ride. That way users can synchronise their rides with all the other activities in their calendar; moreover, its efficient email and calendar user-interface is a key advantage over other competitors. The company thrives to achieve optimised commutes among their expanding client base.

TwoGo by SAP users are encouraged to key in their preferences, such as maximum detour time, departure time, and arrival time to ensure a satisfactory match. The company uses real time data or historic traffic-data to predict the exact time of arrival, which is optimised to fit into the user's daily work-scheme. The solution incorporates three different settings: driver, passenger, and both. The ratio between the number of drivers and passengers is 50:50; most users sign-up for the third setting that enables them to offer a ride as well as request one. This distinction is very unique and is a key advantage among competitors. In competing systems, users are required to create two different profiles—one as a passenger and another for posting an offer of a ride.

Frost & Sullivan feels that TwoGo by SAP solves this issue better than other competitors through synchronisation.

Commitment to Creativity

TwoGo by SAP also employs a state-of-the-art algorithm; this is different from a list-based system and matches users automatically. The user is prompted with a matched carpool as soon as TwoGo by SAP determines a matching ride based on trip preferences, start and end locations, timings, and driving route. At SAP, there is a 'ride-home' guarantee that is incorporated into TwoGo by SAP. If there is more than one potential ride available, the solution will provide the user with a list of those rides; however, if there is an optimum match, both driver and user are automatically matched.

As a side effect of automatic matching, TwoGo by SAP takes over the communication between the participants of the carpool, letting them know about fellow participants, contact details, calculated pick-up and drop-off times. Hence, private contact information is published only within a matched carpool. Details such as the user's name, email, mobile number, and license plate are shared only in the last step of the process—unlike other competitors that employ a list-based system.

Even though TwoGo by SAP is headquartered in Germany within the SAP office, the company has employees and sales executives in different locations across the world. The solution is available in 10 different languages and works worldwide. The largest market is in Germany, with the United States in the second position.

Customer Acquisition

Other industry participants are start-up companies that have raised funds to enter the ridesharing industry. SAP is a proven, industry player in software production and is known for its complex and robust software. The company's innovation, funding power, and brand name have aided TwoGo by SAP in entering different markets. SAP acquired Concur, the leading travel platform for corporates across the world, for \$8 billion dollars. The solution is powered with their large customer base, thereby providing the company with another clear advantage among its competitors. In business travel, there are different scenarios where TwoGo by SAP can integrate with various mobility services from Concur. Moreover, SAP has a large automotive industry-practice that works on connected cars and telematics. These different entities connect with each other, thus proving the built-in advantage that TwoGo by SAP possesses as a part of SAP.

TwoGo by SAP designs top-quality products by keeping client requirements in mind; they also consider how future changes can be incorporated into these products. In addition, the company's technical superiority evolves from carefully developed best-practices that have constantly enabled the development and updating of TwoGo by SAP.

Operational Efficiency

The TwoGo by SAP team is based on transparency, where every member can share inputs regarding development of the solution. The company also works closely with their clients and supports them during the preparation of go live, which are mainly organizational tasks as TwoGo by SAP is a cloud based solution and companies do not have to touch their own IT. Once up and running, user support is available round the clock and in several languages. Furthermore, The solution has daily deployment windows, where the latest updates to the solution are made to engage end users.

The company also channelizes feature-change requests to keep track of the changing needs of their clients. Small-scale change requests are received mainly through the support team, while the larger variants are obtained through market research and communications with clients, partners and competitors. SAP, the parent company, is also a client of TwoGo by SAP; it provides feedback on the performance of updated features before releasing it to the company's external clients. A world-leading engineering manufacturer stated that deploying TwoGo by SAP at their office had resulted in increasing employee networking levels beyond departmental boundaries, savings in the form of parking spaces and reduction in their carbon-emission levels.

Growth Potential

TwoGo by SAP is built as a service and sells licenses to enterprises. The company employs the business model of charging per user on an annual basis. For end users, the service is offered free in order to encourage them to adopt the service. Furthermore, TwoGo by SAP recommends the 'fair-share' amount be paid for each ride, a factor that differentiates The solution from other vendors in the market. The solution is cloud-based and is operated from Germany at the SAP data-centre. TwoGo by SAP also uses Nokia Maps to determine addresses, convert them to geo-locations, and determine the best routes based on traffic situations. However, the company does not share personal user data with Nokia. SAP also has a corporate agreement with Nokia, in which data privacy plays a significant part.

Conclusion

Frost & Sullivan applauds the fact that TwoGo by SAP has demonstrated steady growth in the ridesharing industry by creating a state-of-the-art corporate ridesharing solution; furthermore, the solution offers users maximum data security, as the company focuses on handling large amounts of data effectively. TwoGo by SAP is the only system in the market owned by a technology giant that facilitates customisable ridesharing solution for corporates, while also offering free services for end users. The solution also automatically matches rides compared to the list-based systems used by competitors. The company has large expansion plans that have already been deployed in SAP offices around the world. This provides them with a key advantage in the industry.

With its strong overall performance, TwoGo by SAP has earned the 2015 Frost & Sullivan Technology Leadership Award.

Significance of Technology Leadership

Technology-rich companies with strong commercialization strategies benefit from the increased demand for high-quality, technologically innovative products. Those products help shape the brand, leading to a strong differentiated market position.



Understanding Technology Leadership

Technology Leadership recognizes companies that lead the development and successful introduction of high-tech solutions to customers' most pressing needs, altering the industry or business landscape in the process. These companies shape the future of technology and its uses. Ultimately, success is measured by the degree to which a technology is leveraged, and the impact that technology has on growing the business.

Key Benchmarking Criteria

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

Technology Leverage

- Criterion 1: Commitment to Innovation
- Criterion 2: Commitment to Creativity
- Criterion 3: Technology Incubation
- Criterion 4: Commercialization Success
- Criterion 5: Application Diversity

Business Impact

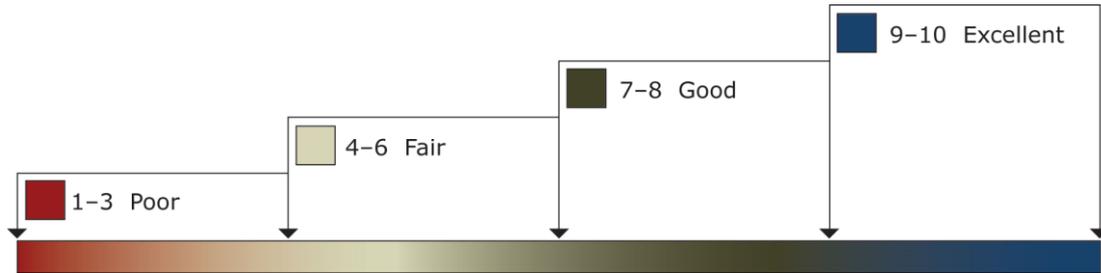
- Criterion 1: Financial Performance
- Criterion 2: Customer Acquisition
- Criterion 3: Operational Efficiency
- Criterion 4: Growth Potential
- Criterion 5: Human Capital

Best Practice Award Analysis for TwoGo by SAP

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 Technology Leverage and Business 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 Company2 and Company3.

DECISION SUPPORT SCORECARD FOR TECHNOLOGY LEADERSHIP AWARD

| <i>Measurement of 1-10 (1 = poor; 10 = excellent)</i> | | | |
|---|---------------------|-----------------|-----------------------|
| Technology Leadership | Technology Leverage | Business Impact | Average Rating |
| TwoGo by SAP | 9 | 9 | 9.0 |
| Competitor2 | 8 | 7 | 7.5 |
| Competitor3 | 7 | 7 | 7.0 |

Technology Leverage

Criterion 1: Commitment to Innovation

Requirement: Conscious, ongoing development of an organization culture that supports the pursuit of groundbreaking ideas through the leverage of technology

Criterion 2: Commitment to Creativity

Requirement: Employees rewarded for pushing the limits of form and function, by integrating the latest technologies to enhance products

Criterion 3: Technology Incubation

Requirement: A structured process with adequate investment to incubate new technologies developed internally or through strategic partnerships

Criterion 4: Commercialization Success

Requirement: A proven track record of successfully commercializing new technologies, by enabling new products and/or through licensing strategies

Criterion 5: Application Diversity

Requirement: The development of technologies that serve multiple products, multiple applications, and multiple user environments

Business Impact

Criterion 1: Financial Performance

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

Criterion 2: Customer Acquisition

Requirement: Overall technology strength enables acquisition of new customers, even as it enhances retention of current customers

Criterion 3: Operational Efficiency

Requirement: Staff is able to perform assigned tasks productively, quickly, and to a high quality standard

Criterion 4: Growth Potential

Requirements: Technology focus strengthens brand, reinforces customer loyalty and enhances growth potential

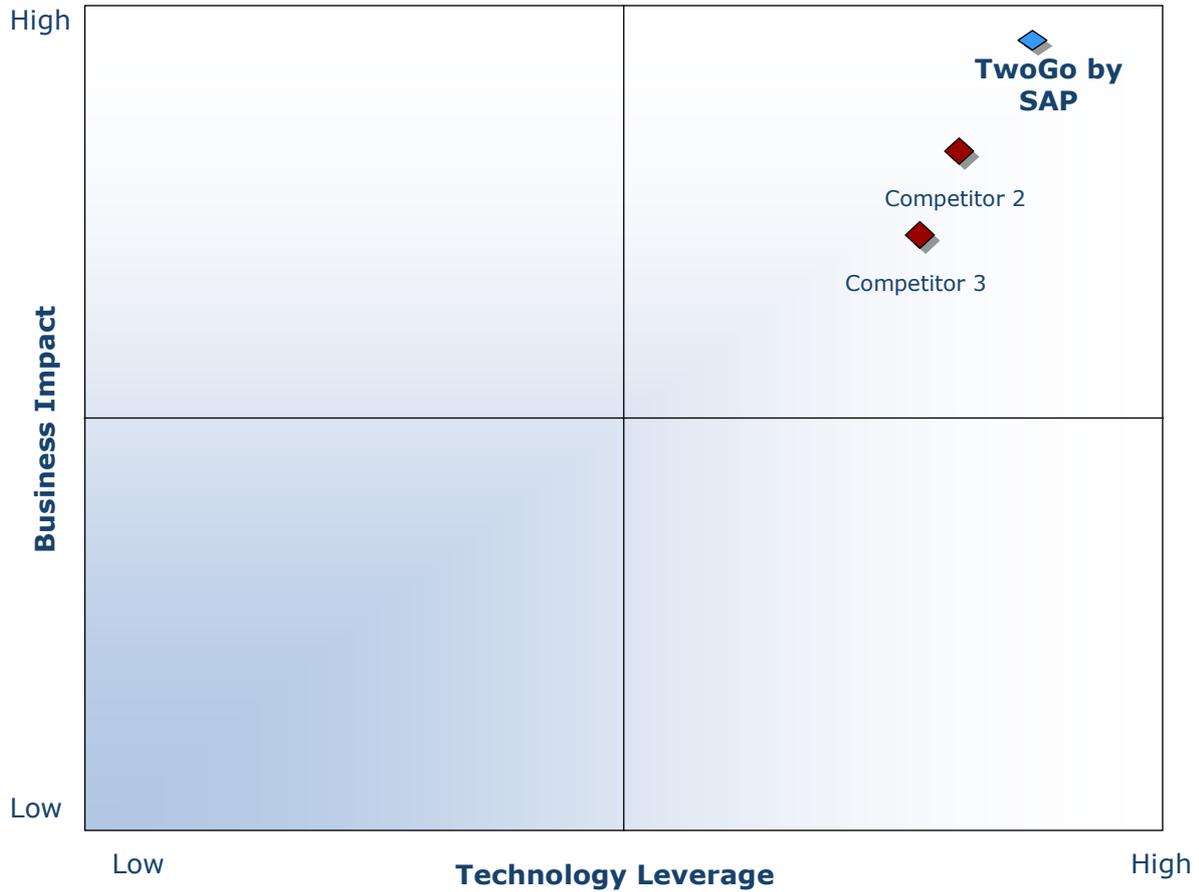
Criterion 5: Human Capital

Requirement: Company culture is characterized by a strong commitment to customer impact through technology leverage, which in turn enhances employee morale and retention

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 TECHNOLOGY 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



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>.