NOFFZ Recognized as the



# **Company of the Year**

European Automotive Radar Test Industry *Excellence in Best Practices* 

FROST & SULLIVAN

## FROST 🔗 SULLIVAN

# **Best Practices Criteria for World-Class Performance**

Frost & Sullivan applies a rigorous analytical process to evaluate multiple nominees for each award category before determining the final award recipient. The process involves a detailed evaluation of best practices criteria across two dimensions for each nominated company. NOFFZ Technologies excels in many of the criteria in the automotive radar test space.

AWARD CRITERIA	
Visionary Innovation & Performance	Customer Impact
Addressing Unmet Needs	Price/Performance Value
Visionary Scenarios Through Mega Trends	Customer Purchase Experience
Implementation of Best Practices	Customer Ownership Experience
Leadership Focus	Customer Service Experience
Financial Performance	Brand Equity

#### NOFFZ Technologies: Provider of Industry-leading Automotive Radar Test Technology

Founded in 1989 in Toenisvorst, Germany, NOFFZ Technologies' outstanding reputation is built on its market-leading Universal Tester Platform (UTP) that boosts the performance and reliability of automated test solutions for customers across diverse industrial sectors worldwide. The company's UTP

"Founded in 1989 in Toenisvorst, Germany, NOFFZ Technologies' outstanding reputation is built on its market-leading UTP solution that boosts performance and reliability of automated test solutions for customers across diverse industrial sectors worldwide."

-Maksym Beznosiuk, Best Practices Research Analyst solution enables companies in the automotive sector to reach higher efficiency and quality in developing and producing radio-frequency modules such as infotainment and navigation systems, radar, and connected gateways.

By leveraging its highly innovative radar tester, hands-on experience and excellent know-how about RF, mechanics as well as automation, the company outpaces its competitors and maintains an outstanding position among its partners in the automotive industry.

Notwithstanding harsh competition and a challenging economy, NOFFZ Technologies advances its automotive radar test technology, improving its position in

the market and bringing its high-performance solutions to customers.

In less than a decade, NOFFZ Technologies has expanded commercial operations and presence in Europe (Serbia, Hungary, Germany) and North America (the United States and Mexico). At the same time, the NOFFZ Group has tripled its revenue and number of employees in less than five years. Currently, the company plans to boost its presence in APAC. To this end, in July 2020, NOFFZ Technologies opened a new subsidiary office in Suzhou, China, with new test development and production capabilities to support an increasing customer base in China and APAC region.

NOFFZ Technologies works hard to advance its manufacturing capabilities to meet ever-changing customer needs. For instance, in 2019, the company acquired a majority stake in Forsteh d.o.o., a Serbian system integrator company, to get hold of additional engineering and manufacturing capabilities with hands-on expertise in the automated test systems industry. Additionally, such a step has enabled NOFFZ Technologies to expand its engineering and service portfolio to new markets and industries. As a result, the company increased its presence in Europe and further strengthened its industry-leading capabilities in developing and manufacturing test solutions for automotive, electronics, semiconductor and other segments.

Since the early 2000s, the company has entered into extensive cooperation on testing, automation, and digitalization with leading technology companies such as Siemens, Rohde & Schwarz, and dSPACE. Furthermore, NOFFZ Technologies has built a strong 22+-year relationship with National Instruments, a company that offers hardware and software products for automation and measurement, and became one of the few Vehicle Radar Test System specialty partners.

#### Helping Companies with Effective Automotive Radar Test Solutions

Today, autonomous driving advancements lead to more spatial awareness of the vehicle's environment and surroundings. As a result, car manufacturers require integrating different radar sensors to enhance the recognition of obstacles, such as vehicles and pedestrians, and ensure safe and autonomous driving.

"NOFFZ Technologies is at the forefront of providing automotive radar test solutions for players in the automotive industry, helping them to achieve higher accuracy and cost efficiency, unmatched by the competition."

#### - Maksym Beznosiuk, Best Practices Research Analyst

Specifically, vehicle manufacturers look for ways to provide distance and projector feedback as they equip cars with features such as adaptive cruise control, traffic detection, blind-spot detection, and collision warning. Lately, in-vehicle radar applications are becoming more and more popular.

NOFFZ Technologies is at the forefront of providing vehicle radar test solutions in the automotive industry, helping them achieve higher accuracy and cost

efficiency, unmatched by the competition. Therefore, NOFFZ is proud to help pave the way for autonomous driving in this way. Currently, the company provides a UTP 5065 Radar Test System (RTS), an industry-leading radar test platform that offers several competitive advantages:

**Flexibility:** The UTP 5065 RTS platform has a vertical design with a limited footprint of only 1.2 square meters, ensuring effective floor space utilization and saving around 70% compared to horizontal test solutions offered by the competition. Furthermore, NOFFZ Technologies also provides front or rear operation of its platform, allowing both manual and automated external device under test handling.

At the same time, the platform ensures automatic and precise rotation of tested devices around the sensor beam center over two axes in the horizontal (azimuth) and vertical (elevation) directions, ensuring its quick characterization and measurement.

**Compatibility:** The UTP 5065 RTS platform's design includes an integrated quick exchangeable test fixture that enables users to change the sensor type from outside the platform chamber quickly. Also, the platform can interface with various factory automation concepts or use a more basic manual operation approach catered to customer needs. Moreover, the solution also provides the possibility to integrate radar target simulators from different vendors when needed.

**Accuracy:** The UTP 5065 RTS measuring chamber enables users to reach high low-reflection to suppress any interfering signals and various reflections. NOFFZ Technologies assesses the UTP 5065 RTS anechoic chamber to exclude any unwanted multiple reflections and achieve a stable and reproduceable measurement quality.

At the same time, the solution comprises an alignment tool that enables precise position synchronization between radar sensor and radar target simulator, ensuring the best possible calibration and measurement results. Namely, the company's solution helps to simulate single or multiple targets of different sizes and velocity, and at varying distances. In addition to the sensor calibration, NOFFZ Technologies also enables customers to perform extra measurements like signal anomalies, noise measurement, pulse width, and ramp analysis.

Frost and Sullivan believes that the company's UTP 5065 RTS radar test platform provides the flexibility and adaptation to meet and exceed the requirements for validation and production test of any radar sensor, unmatched by the competition. With its high precision, flexibility, and customization, NOFFZ Technologies will capture a higher share of this vibrant and challenging market. Additionally, NOFFZ is developing new technologies and tester frameworks including compact range tester designs for testing bigger sensors with wider far-field ranges in low-footprint setup.

#### **Providing Versatile Customer Support**

At the heart of NOFFZ Technologies' success story is its determination to meet and exceed versatile customer needs. The company has at its disposal an interdisciplinary team of software specialists and engineering experts supporting clients throughout the entire lifecycle of its automotive radar test solutions worldwide. The team provides both on-site and off-site support to NOFFZ Technologies' clients helping them to seamlessly utilize and customize automotive radar test solutions to meet their requirements. Simultaneously, the company also offers versatile resources, e.g., informational data and workshops on test systems, allowing clients to use the automotive radar test solutions at their facilities more effectively.

# Conclusion

An increasing number of companies in the automotive segment look for ways to boost the efficiency and reliability of various kinds of radar sensors to ensure safer and more effective driving.

NOFFZ Technologies is leading the way by providing automotive radar testing technologies to automotive companies, enabling quick and effective automotive radar testing with precision and reliability unmatched by competitors. The company offers UTP 5065 Radar Test System (RTS), an industry-leading radar testing platform that combines supreme efficiency, accuracy, and cost-saving.

For its unrivaled expertise and experience, innovation-driven solutions, and customer-centric approach, NOFFZ Technologies earns Frost & Sullivan's 2021 Europe Company of the Year Award in the automotive radar test market.

## What You Need to Know about the Company of the Year Recognition

Frost & Sullivan's Company of the Year Award is its top honor and recognizes the market participant that exemplifies visionary innovation, market-leading performance, and unmatched customer care.

#### **Best Practices Award Analysis**

For the Company of the Year Award, Frost & Sullivan analysts independently evaluated the criteria listed below.

#### Visionary Innovation & Performance

Addressing Unmet Needs: Customers' unmet or under-served needs are unearthed and addressed by a robust solution development process

Visionary Scenarios through Mega Trends: Long-range, macro-level scenarios are incorporated into the innovation strategy through the use of Mega Trends, thereby enabling first to market solutions and new growth opportunities

**Leadership Focus**: Company focuses on building a leadership position in core markets and on creating stiff barriers to entry for new competitors

**Best Practices Implementation**: Best-inclass implementation is characterized by processes, tools, or activities that generate a consistent and repeatable level of success

**Financial Performance**: Strong overall business performance is achieved in terms of revenue, revenue growth, operating margin, and other key financial metrics

#### **Customer Impact**

**Price/Performance Value**: Products or services provide the best value for the price compared to similar market offerings

**Customer Purchase Experience**: Quality of the purchase experience assures customers that they are buying the optimal solution for addressing their unique needs and constraints

**Customer Ownership Experience**: Customers proudly own the company's product or service and have a positive experience throughout the life of the product or service

**Customer Service Experience**: Customer service is accessible, fast, stress-free, and high quality

**Brand Equity**: Customers perceive the brand positively and exhibit high brand loyalty

#### FROST 👉 SULLIVAN

### **About Frost & Sullivan**

Frost & Sullivan is the Growth Pipeline Company<sup>™</sup>. We power our clients to a future shaped by growth. Our Growth Pipeline as a Service<sup>™</sup> provides the CEO and the CEO's growth team with a continuous and rigorous platform of growth opportunities, ensuring long-term success. To achieve positive outcomes, our team leverages over 60 years of experience, coaching organizations of all types and sizes across 6 continents with our proven best practices. To power your Growth Pipeline future, visit Frost & Sullivan at http://www.frost.com.

#### The Growth Pipeline Engine™

Frost & Sullivan's proprietary model to systematically create on-going growth opportunities and strategies for our clients is fuelled by the Innovation Generator<sup>™</sup>. Learn more.

#### Key Impacts:

- **Growth Pipeline:** Continuous flow of Growth opportunities
- Growth Strategies: Proven Best Practices
- Innovation Culture: Optimized Customer Experience
- ROI & Margin: Implementation Excellence
- Transformational Growth: Industry Leadership

#### The Innovation Generator™

Our six analytical perspectives are crucial in capturing the broadest range of innovative growth opportunities, most of which occur at the points of these perspectives.

#### Analytical Perspectives:

- Mega Trend (MT)
- Business Model (BM)
- Technology (TE)
- Industries (IN)
- Customer (CU)
- Geographies (GE)



