

# MMWave Radar Industry News Summary - March 2025

This presentation summarizes key developments in the mmWave radar industry for March 2025, based on recent ChipsInsight publications.

 **by Chipsinsight Dennis**



# Automotive Radar Advancements



## Next-Gen Imaging Radar

Companies like bitsensing, Arbe, and Calterah are pushing boundaries with 4D imaging radar. These offer all-weather reliability and high resolution.



## High-Speed Applications

Beijing Autoroad Technology demonstrated 4D imaging radar in highway environments. Their system uses deep learning for real-time detection.



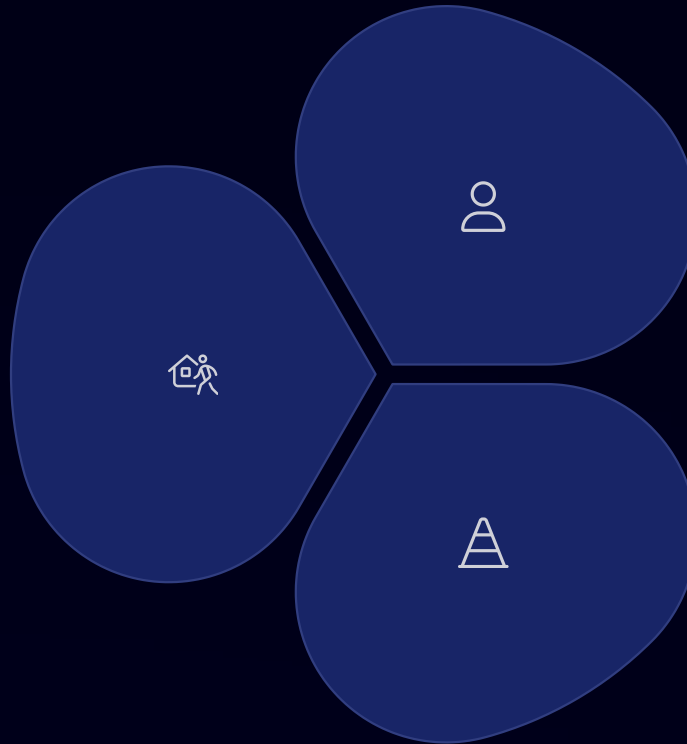
## Pedestrian Detection

Arbe addressed challenges in detecting pedestrians near guardrails. Their high dynamic range radar differentiates between strong guardrail reflections and weak pedestrian signals.

# mmWave Radar in Smart Applications

## Smart Home

TsingLan showcased AI Vital Sign Detectors for non-contact monitoring. Merrytek introduced PIR motion sensors with planar/curtain lens design.



## Smart Healthcare

TsingRay's digital medical solution enables non-contact vital sign monitoring. Interadar's "Xiaomei Baiying AI Health Island" captures vital signs.

## Smart Traffic

Smartmicro highlighted radar sensors for traffic applications. Xiangde's AI traffic control system improved peak efficiency by 50%.

# Industry Partnerships and Collaborations

1

## **NXP & Smartmicro**

Collaboration within IPCEI initiative, focusing on automotive radar innovation.

2

## **Nano Radar & Milestone**

Developed plugin for Milestone VMS, enabling seamless integration of security radars.

3

## **TsingLan & Ministry**

Assisted in releasing "Millimeter-Wave Radar Monitoring Alarm" industry standard.

4

## **Plextek & Flowcopter**

Integrated radar technology into heavy-lift UAVs for enhanced detect and avoid capabilities.





# New Product Launches and Company News

## SGR semi

Launched radar chips SRK1108 (high-performance) and SRK1107S (compact). Won 'Best Management Award' from Industrial Technology Research Institute.

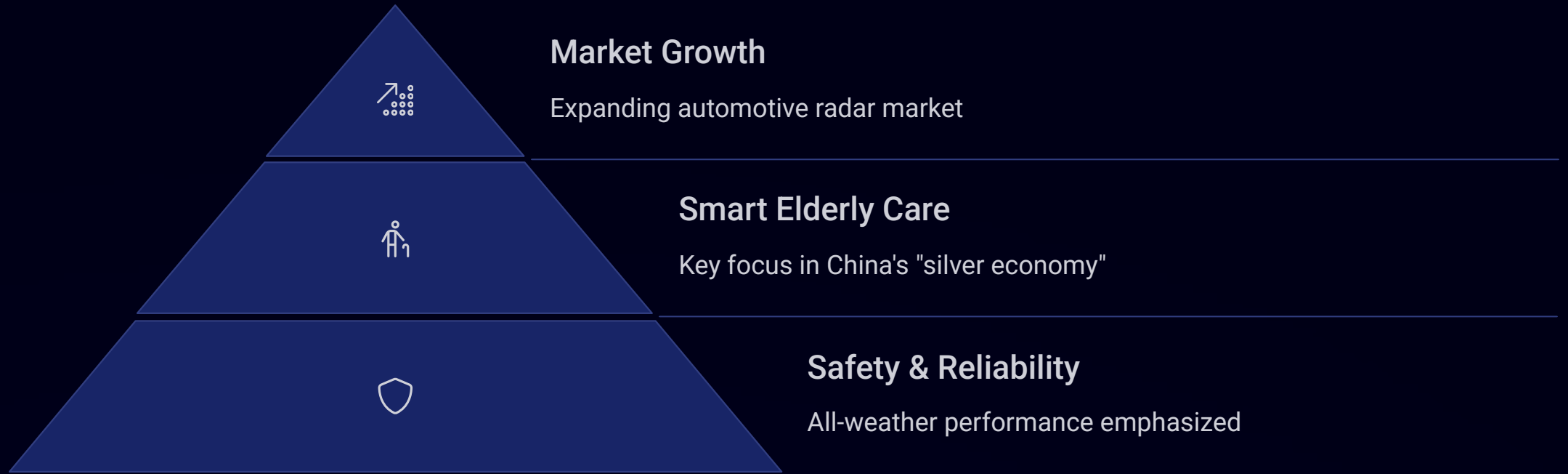
## InnoSenT GmbH

Launched IDR-2050 distance radar, a 60 GHz mmWave sensor for precise industrial measurement.

## HiLink

Released HLK-LD2460 radar module with Bluetooth for multi-target tracking. Offered HLK-LD2451 for vehicle collision avoidance.

# Market Trends and Analysis



IDTechEx report highlighted growth in automotive radar, driven by side radar and demand for high-resolution 4D radar. China's National Two Sessions emphasized smart elderly care solutions.

# Events and Conferences



## MWC 2025

Analog Devices showcased wireless solutions focusing on security and energy efficiency.



## Tech.AD Europe

Arbe presented Phoenix Perception Radar for autonomous vehicle safety.



## Sensor Shenzhen

SGR semi and Infineon showcased latest sensor products and solutions.



## Other Events

Kyushu Auto Expo, AWE 2025, and Embedded World featured radar technologies.

# Key Technological Focus Areas



## High-Resolution Imaging

Companies like Arbe and Calterah lead in advanced chipsets



## AI and Machine Learning

Increasingly important for signal processing and detection



## Low Power Consumption

Enabling new applications in power-constrained devices

Sensor fusion and software-defined radar are also becoming central to creating robust perception systems, with companies emphasizing software-defined solutions.



# Conclusion

## 4D

### Imaging Radar

Leading innovation in automotive applications

## 50%

### Traffic Efficiency

Improvement from AI traffic control systems

## 60GHz

### mmWave Frequency

Used in new precision distance measurement sensors

This concludes our summary of mmWave radar industry news for March 2025. For more details, please refer to the cited ChipsInsight articles.