TERADAR

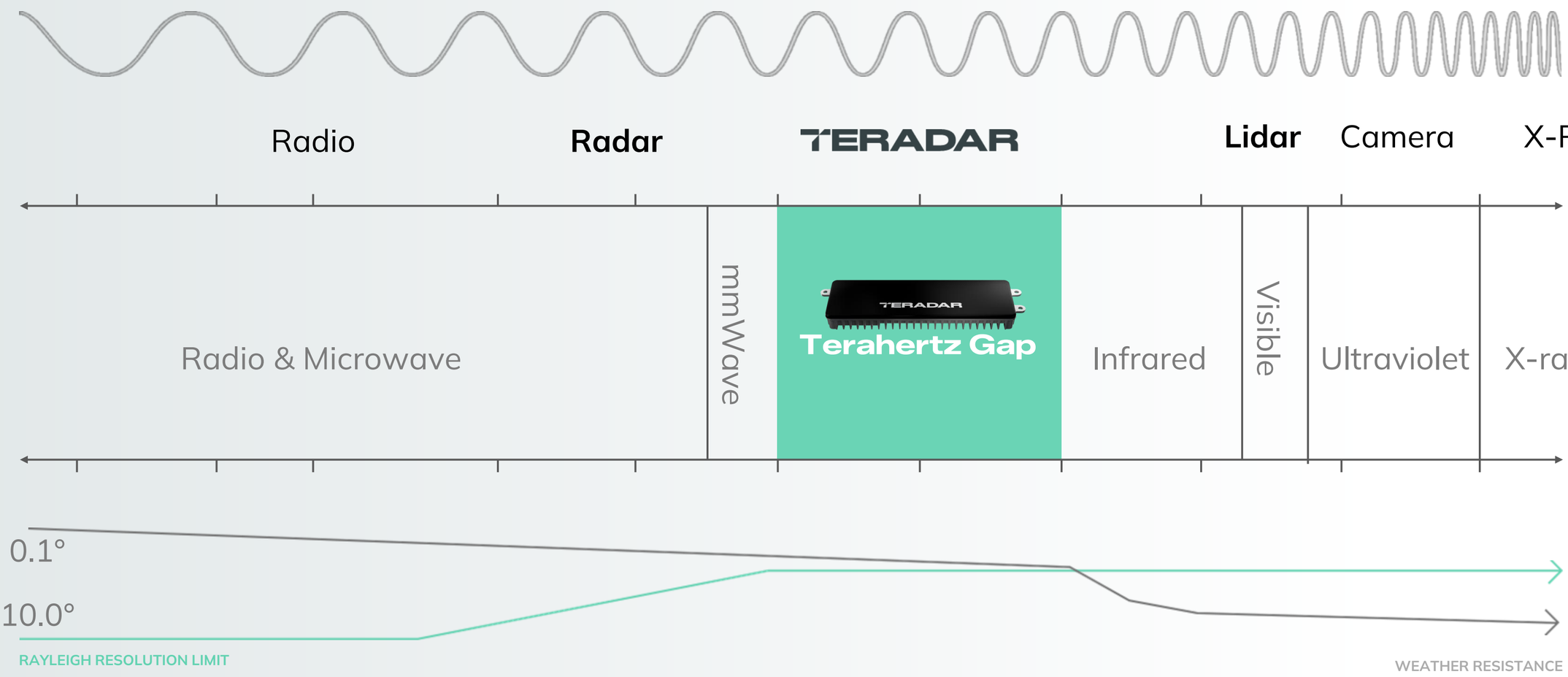
Terahertz Vision is Here

Introduction to Terahertz Imaging and Compatibility Study

CORF monthly meeting, 6th July 2026

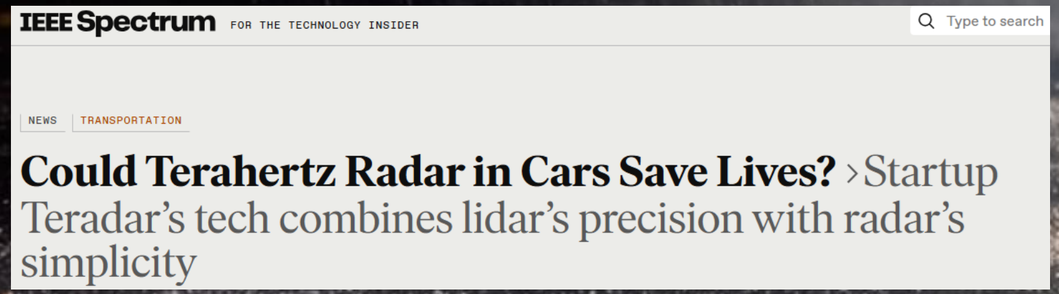
The Last Untapped Portion of the Spectrum: **Terahertz**

More than an improvement to what we already know, it’s an entirely new category of sensor



We Elevate Sensing Performance in All Conditions

By seeing with higher resolution through rain, fog, snow and glare where cameras and lidar degrade, Terahertz Vision™ gives your next generation ADAS and AD higher confidence detections, fewer misses and more time to avoid collisions.


IEEE Spectrum FOR THE TECHNOLOGY INSIDER

Type to search

NEWS | TRANSPORTATION

Could Terahertz Radar in Cars Save Lives? › Startup Teradar's tech combines lidar's precision with radar's simplicity

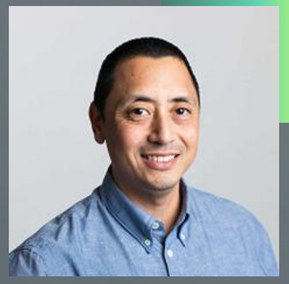
https://spectrum.ieee.org/terahertz-radar

Strong Backing.
Clear Vision. Real Roadmap.

Teradar is a Boston based startup founded in 2021 by bringing together the best in radar and electromagnetic imaging systems with the best of terahertz chip design.

Matthew Carey, MIT
Co-founder and Chief Executive Officer (CEO)

Gregory Charvat, PhD - Michigan State
Co-founder and Chief Technology Officer (CTO)



Nicholas Saiz, PhD - Stanford
Co-founder and Chief Silicon Architect

Pavan Mudunuru
Head of Engineering

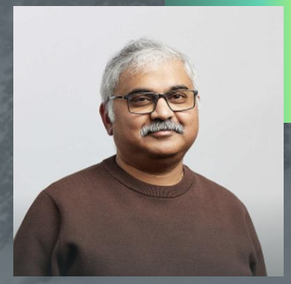
Motional · Analog Photonics · veoneer

Gunnar Juergens PhD - TU Stuttgart
SVP of Product

Continental · Fraunhofer

Jason Wallace
VP of Marketing

HESAI · tusimple · SPACEX



Sunil Chomal
Head of Software

UHNDER · TATA ADVANCED SYSTEMS

Backed by Leaders. Built for Safety.

Teradar is backed by more than **$181M** in funding from institutional investors that includes:

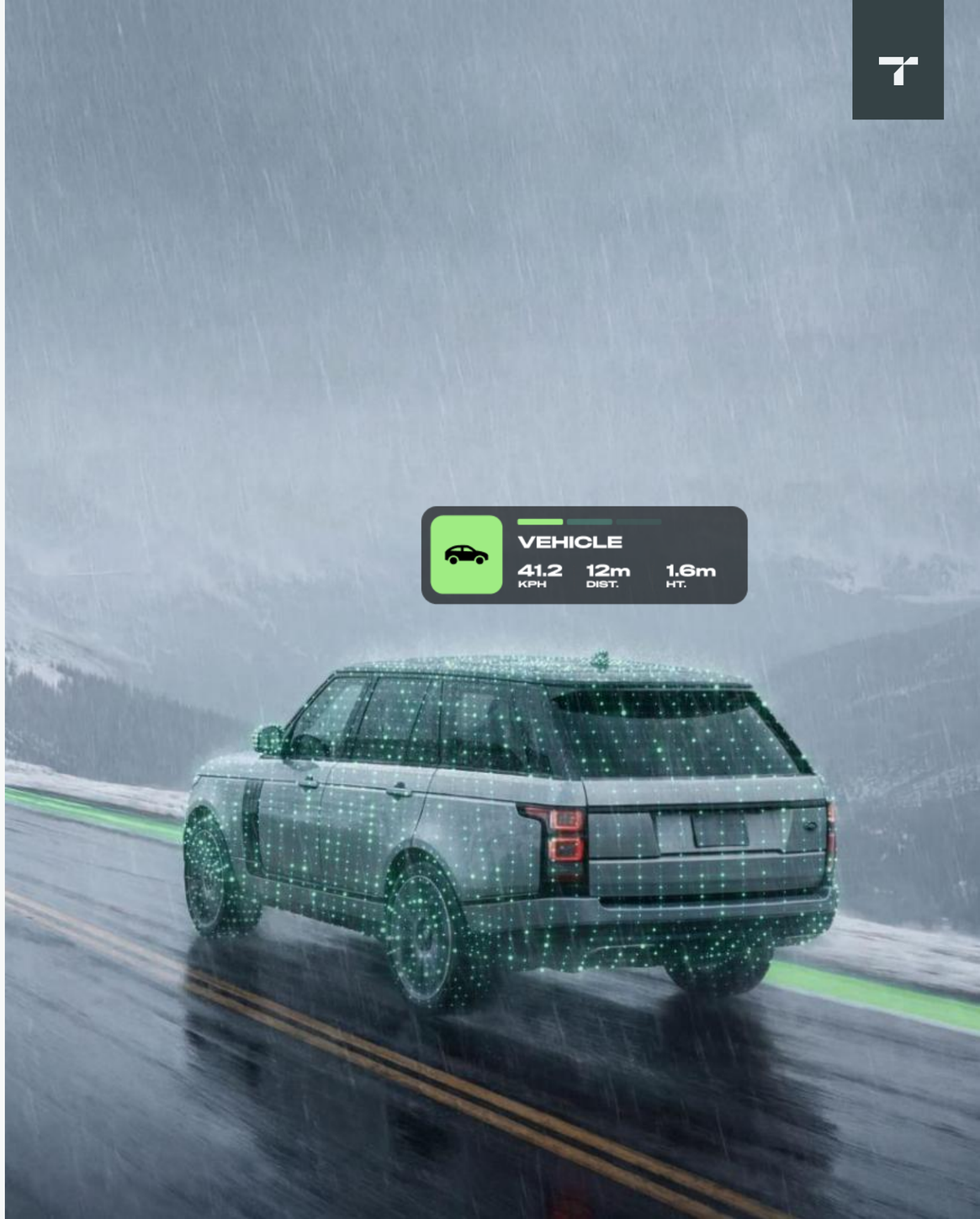
CAPRICORN INVESTMENTGROUP

V I CAPITAL

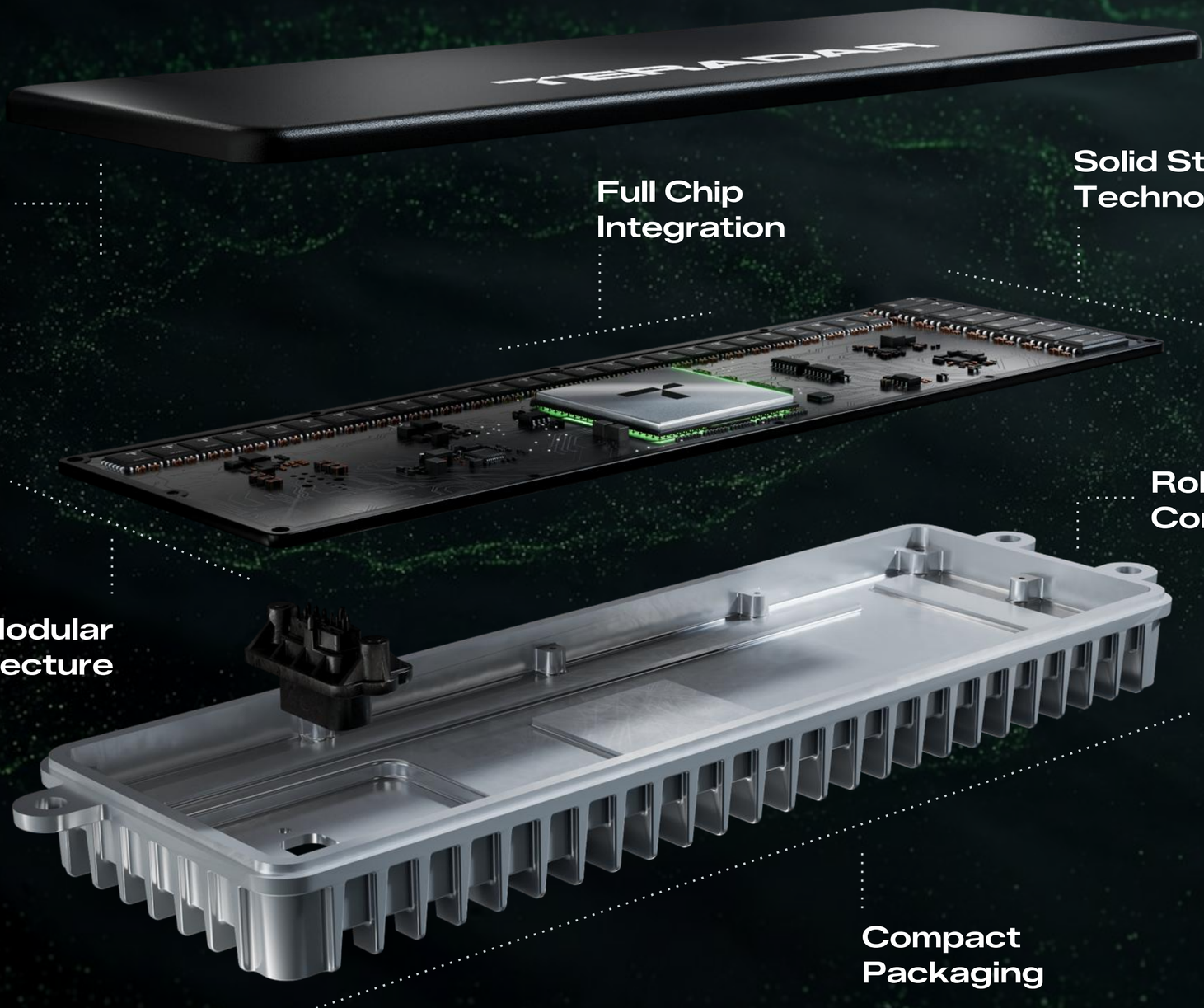
ibex INVESTORS

THE ENGINE

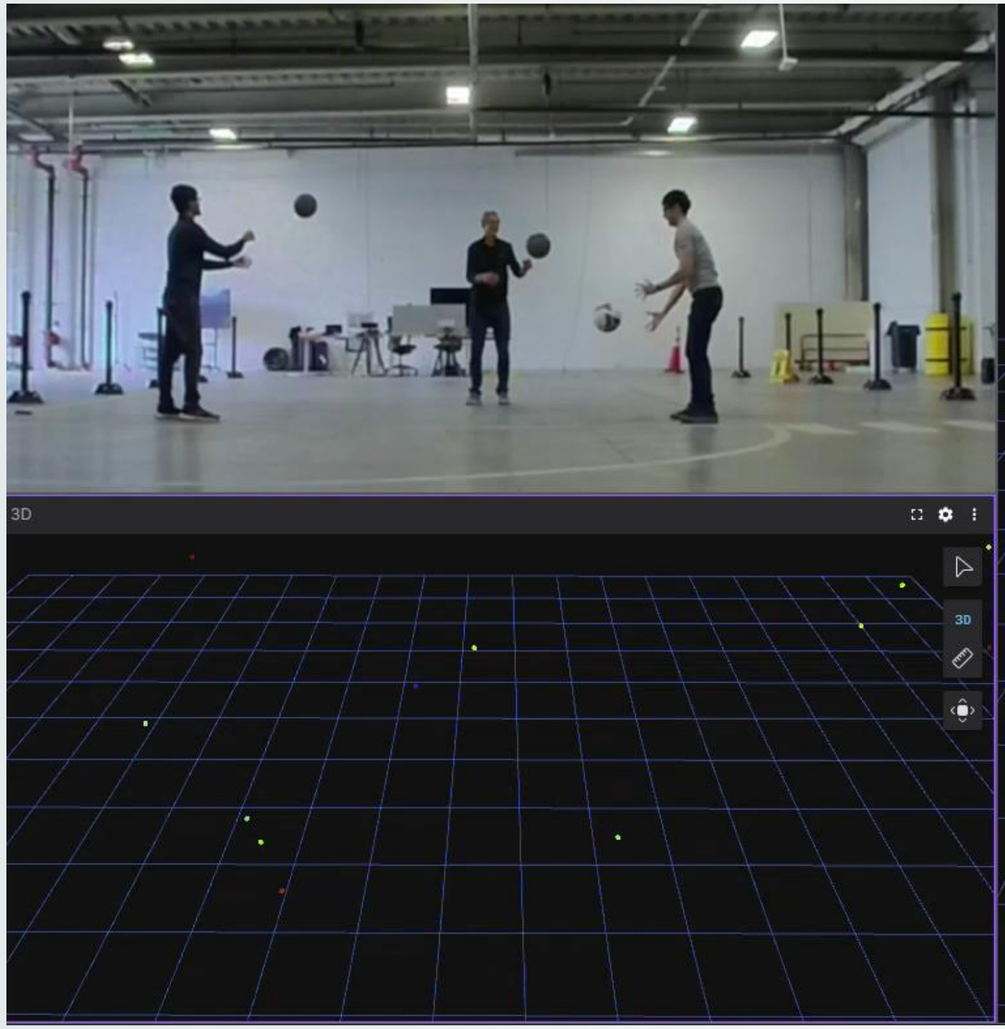
This foundation allows us to focus on eliminating accidents by giving every vehicle safer, smarter perception in inclement weather.



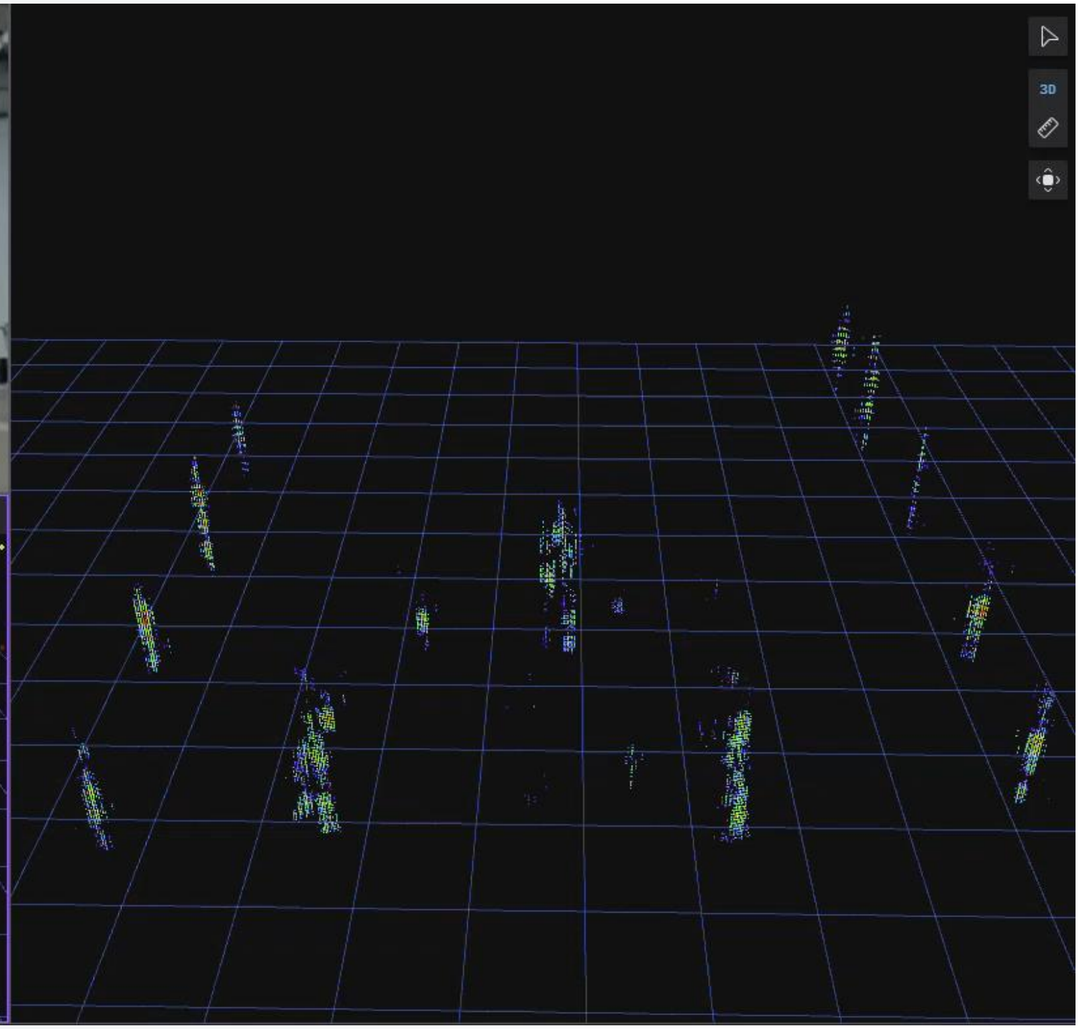
Design simplicity



High Resolution Imaging in 3D



Current Automotive Radar (Conti ARS540)



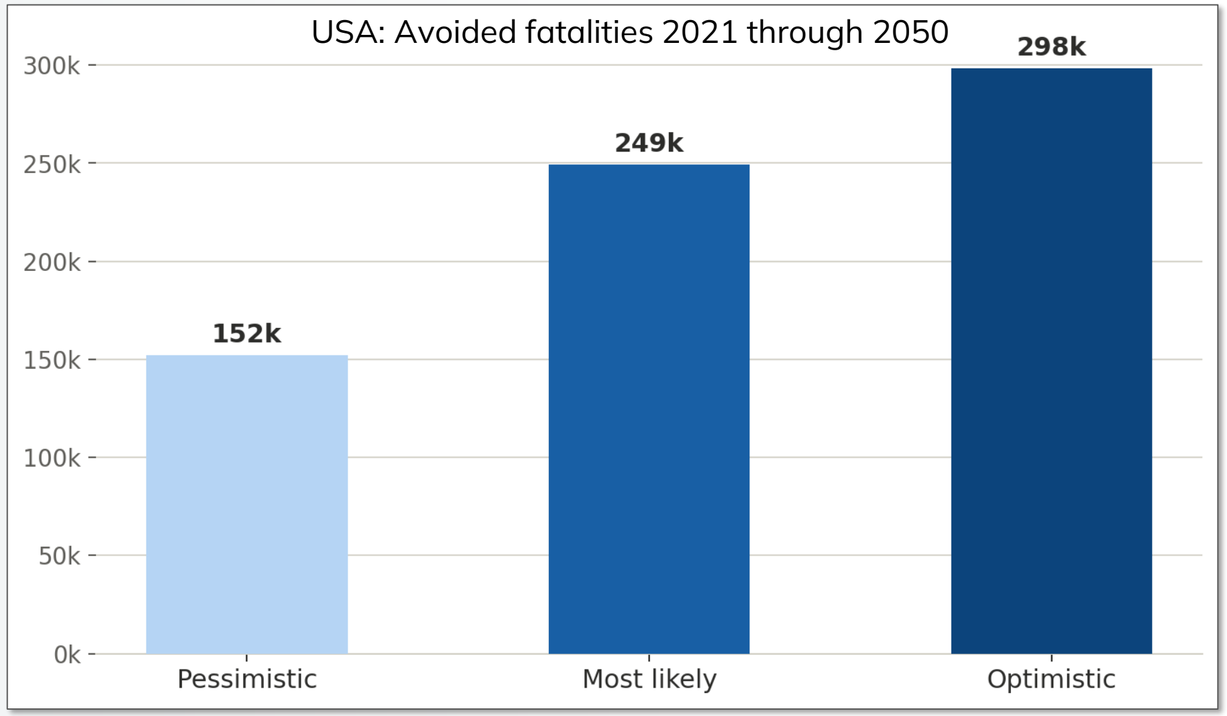
Teradar

Built for Scale.
On Track for 2028 SOP

Actively engaged with **5** leading OEMs across the U.S. and Europe, in partnership with **3** Tier-1 suppliers, to bring Teradar toward series production in 2028.

All-weather sensing technology saves lives

- **>5,000 people killed in USA annually**
  in weather-related crashes (DOT: 16% of all vehicular deaths weather related)
- **Globally > 100,000 traffic fatalities could be avoided**
  (16% of 1.19 million p.a. (WHO: Safety Report 2023))
- **USA: ADAS technologies can avoid 249,400 fatalities**
  (AAA Foundation / NSC National Safety Council)



https://injuryfacts.nsc.org/motor-vehicle/occupant-protection/advanced-driver-assistance-systems/data-details/

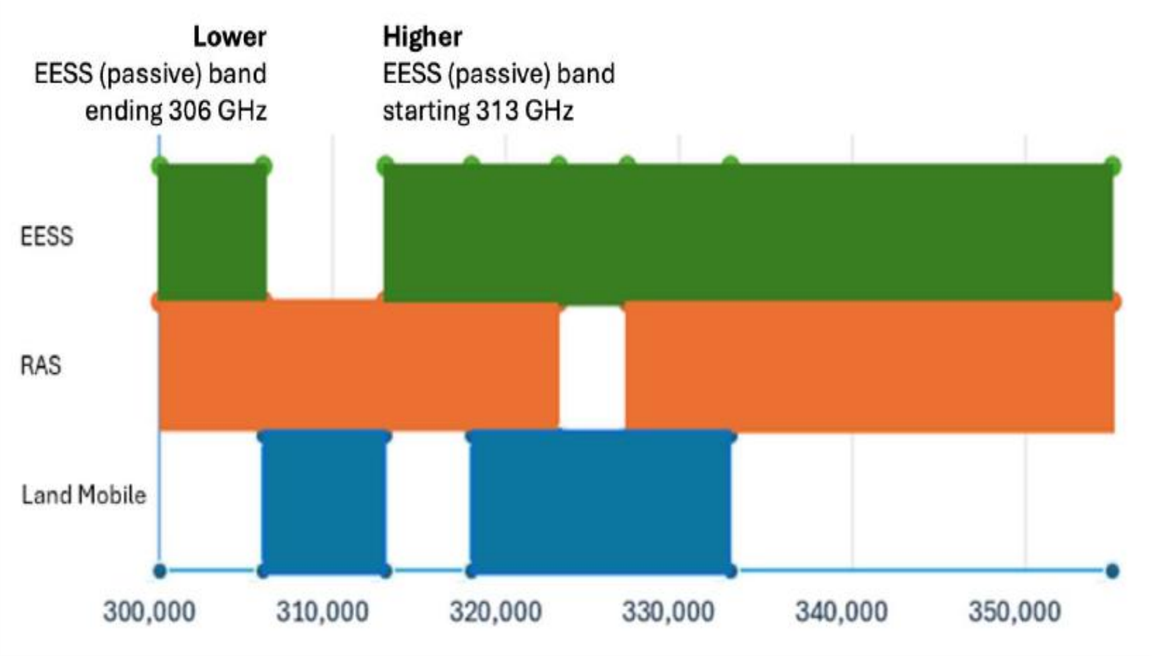
Regulatory Framework – TID spectrum

Coexistence is feasible

- Completed a compatibility study that confirm automotive deployments would not meaningfully impact current/planned EESS
- Soliciting feedback from stakeholders

Targeted Spectrum (300-320 GHz)

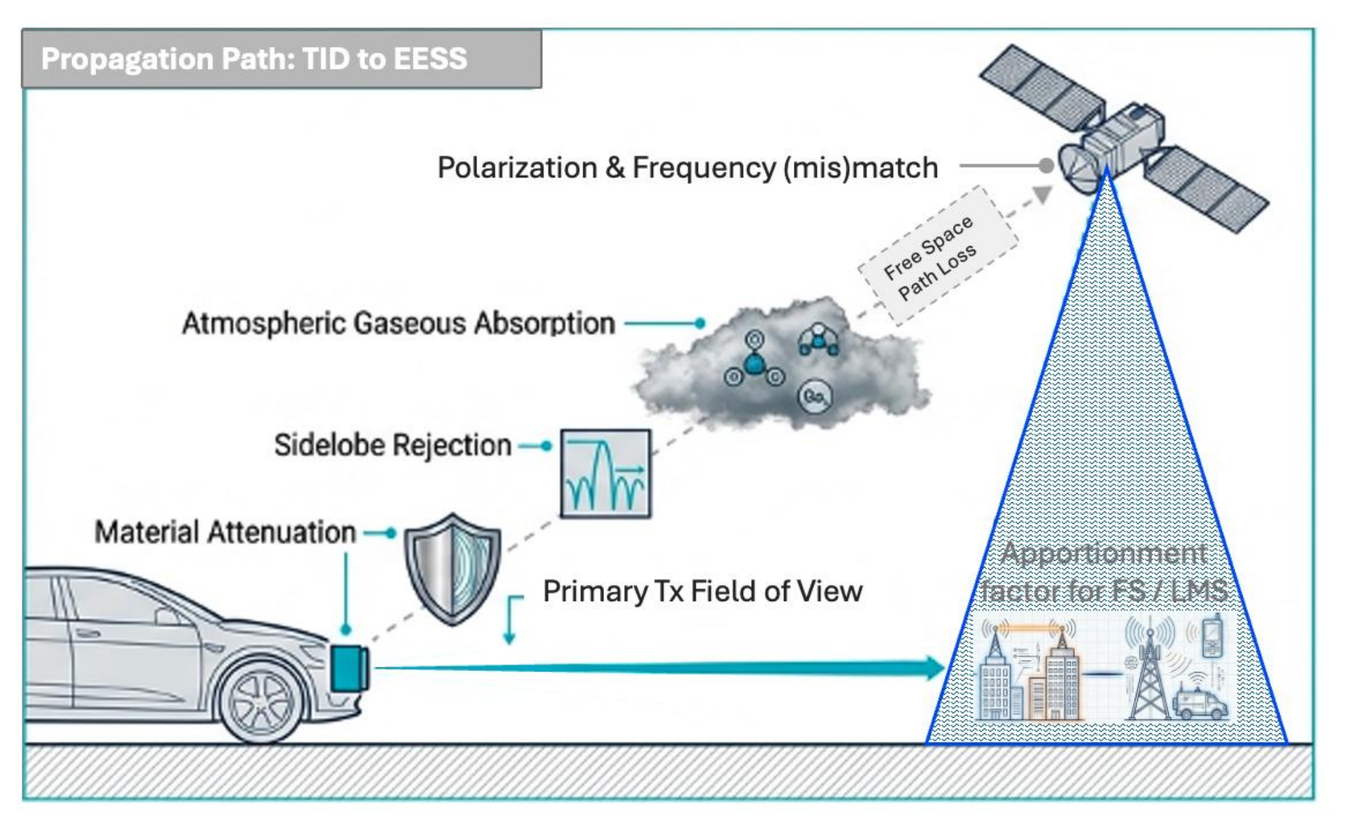
- Automotive-grade chips are ready for production
- Targeted band is ideal for safety and resolution performance of the system
- Willing to work with any stakeholder to address coexistence concerns

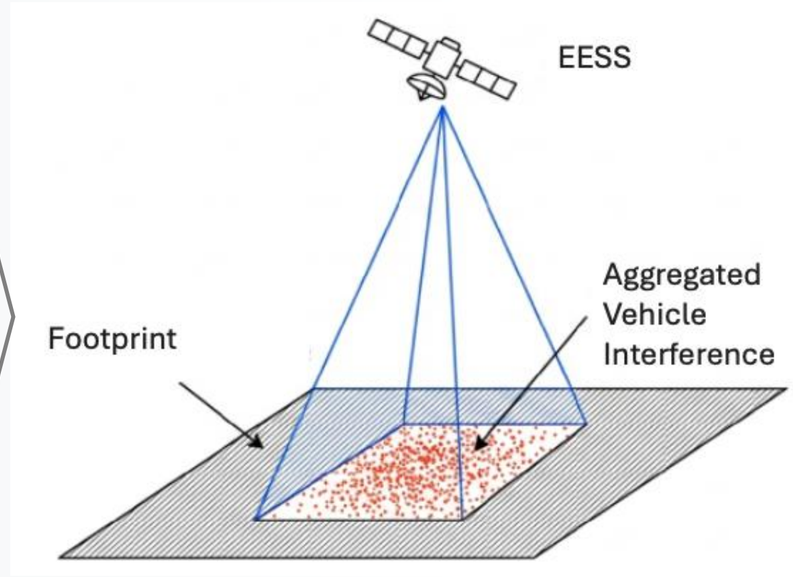


EESS: Earth Exploration-Satellite Service (passive); RAS: Radio Astronomy (passive);
TID: Terahertz Imaging Device operational frequency band 300-320 GHz

Active services are not precluded in EESS-identified bands under RR 5.565, and no EESS protection obligation applies in RR 5.564A (306–313 GHz)

Compatibility Study - Approach





Study applies ITU-R SM.2450 with EESS parameters per WP 5B/435 Annex 1.8, modelling TID-to-EESS paths, losses and aggregated interference within the EESS footprint.

Compatibility Study - Results

TID Bandwidth	Assumed EESS-band suppression	Worst-case margin	Limiting EESS case	Allowable TID density
1 GHz	30 dB	64 dB	ICI @ 315.7 GHz	~16k / km²
4 GHz	20 dB	70 dB	ICI @ 315.7 GHz	~65k / km²
10 GHz	none	54 dB	ICI @ 315.7 GHz	~1635 / km²
20 GHz	none	57 dB	ICI @ 315.7 GHz	~3271 / km²

While using conservative attenuations, 6 dB apportionment, and worst-case EESS protection criteria's & geometries. **TID densities are well above the expected field penetration**.

www.teradar.com

Contact

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