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VEHICLE TECHNOLOGY

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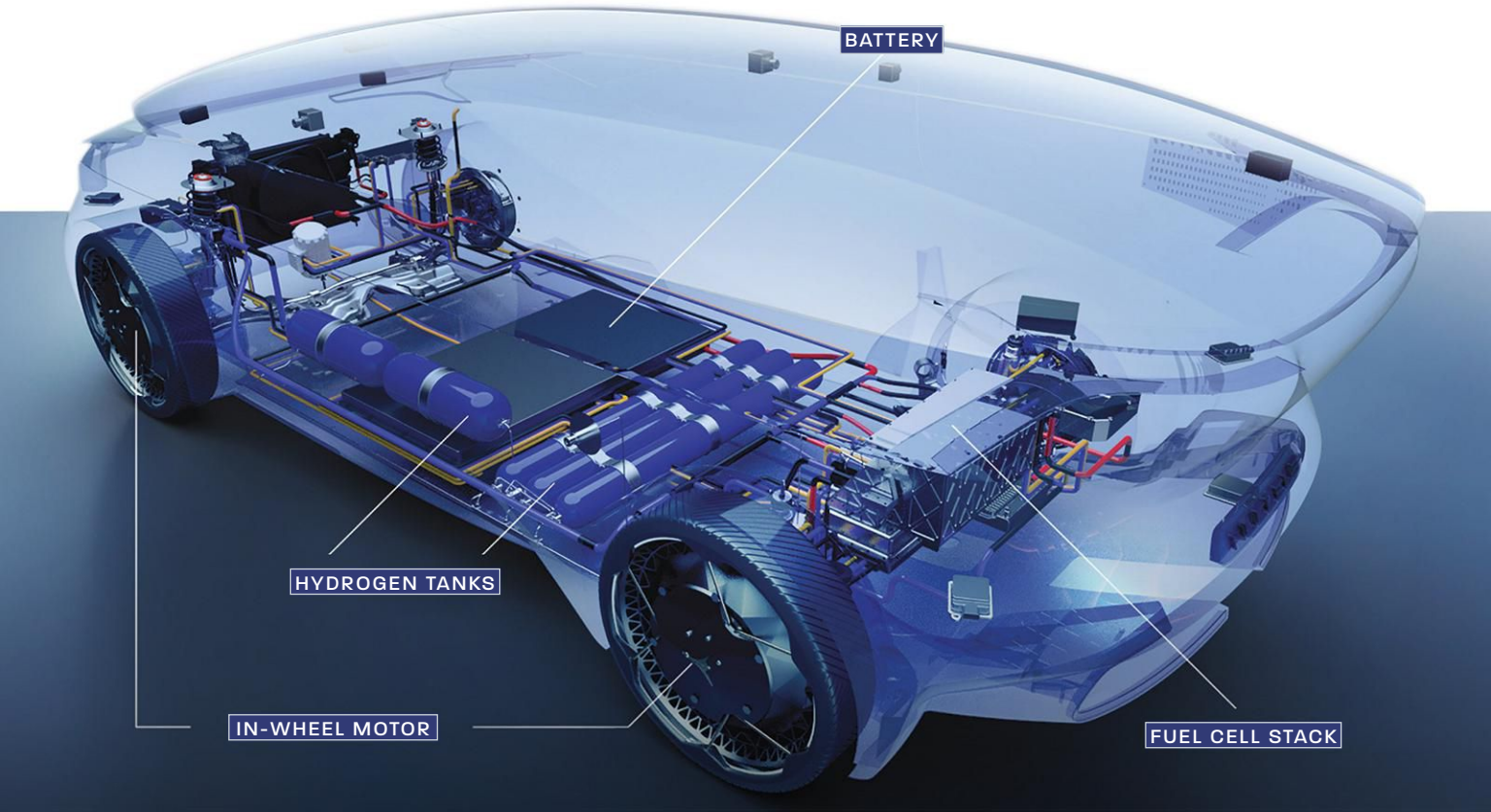
JUNE 2018 // VOLUME 2 // ISSUE 6



Icona Nucleus

EV with Elaphe in-wheel technology designed for fully autonomous driving

PLUS

DSRC vs. C-V2X: vehicles connect with everything

Sensors: more is not necessarily merrier

Consumers' views on driverless cars in flux

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DEPARTMENTS

4 Message from the Publisher

6 Editorial

8 News

12 Tech | Systems

12 SENSORS
High autonomy for BMW 2021 production
In what is said to be one of the first serial production contracts for solid-state LiDAR, Magna and Innoviz will supply the BMW Group with the technology for upcoming autonomous vehicle production platforms starting in 2021.

15 SENSORS
Evolution in automotive LiDAR: avalanche photodiodes and pulsed laser diodes perspectives
The 905-nm pulsed laser diodes are matched up perfectly with the peak response of the paired silicon APDs, making for an optimal range-finding pair.

16 CYBERSECURITY
Connectivity's expansion yields security concerns
Telematics will drive strong revenue growth, but it won't happen without strong security.

18 STARTUP SPACE
Automakers, startups, tech companies launch Mobility Open Blockchain Initiative
New consortium to explore how blockchain could reinvent mobility and address industry shifts.

20 PROCESSORS | MANUFACTURING
Arbe Robotics selects GlobalFoundries process for high-resolution imaging radar
Arbe Robotics' chipset leverages GF's 22FDX technology to deliver real-time 4D imaging radar for levels 4 and 5 autonomous driving.

21 NUMBERS & STATS
Autonomy and consumer perception
Those who work in and around AVs see and hear about them just about every day, so they're familiar with the potential impacts. But what does the average consumer think the impacts of AVs will be?

22 INTERIOR | SENSORS
Subaru introduces facial-recognition technology to identify driver distraction, fatigue
When the 2019 Forester reaches the U.S. market in the fall, it will be the first with the feature in an under $70,000 car, claims Subaru.

23 ARTIFICIAL INTELLIGENCE
Artificial intelligence gains traction from automotive
The PRAIRIE Institute aims to enable innovation by joining prominent scientific and corporate AI players.

24 RESEARCH
Researchers at Purdue, Stanford devise ultrafast laser-beam steering for autonomous cars
Researchers say the method is faster, more robust, and uses less power than conventional systems using phased antenna-array technology.

27 TESTING
New Eagle kit transforms Pacifica into autonomous vehicle testbed
The kit, designed using New Eagle's Raptor platform and control algorithms, transforms the Chrysler Pacifica Hybrid into drive-by-wire vehicles, giving autonomous vehicle developers plug-and-play control of throttle, brake, steering, and shifting on a production vehicle.

28 ADVANCED DRIVER ASSISTANCE
Nissan to expand ProPILOT technology to additional models
Rogue Sport among the vehicles to receive technology following a strong global market performance.

29 MOBILITY SERVICES
New business models such as mobility-as-a-service to gain traction
Research by Frost & Sullivan projects that the overall carsharing market will expand by 26% from 2017 to 2018.

30 CONNECTIVITY
New framework allows self-driving cars on new roads without 3D maps
Communications technology is one of the primary enablers of connected vehicles now and will certainly be even more important for automated vehicles in the future. A fast-developing V2X landscape is headlined by the incumbent and long-awaited DSRC and upstart C-V2X technology.

50 Vehicles | Concepts

50 Infiniti concept headlines Nissan EV ambitions
At Auto China 2018, the Infiniti luxury brand confirmed a new electrified vehicle platform influenced by the Q Inspiration concept car as part of a broader electrification effort at Nissan.

52 Full electric mobility arrives at BMW
The Concept iX3 shown at Auto China 2018 provides a glimpse at the BMW brand's first pure-electric model due in 2021.

54 Unique SUV/sedan EV concept shown by Mercedes-Maybach
The high-riding vehicle, looking like a SUV from the front and a notchback sedan from the rear, was conceived as an electric vehicle with four electric motors for fully variable all-wheel drive.

56 Icona partners on autonomous design study
Designed for fully autonomous SAE Level 5 driving, the mobile living space concept rolls on Elaphe in-wheel technology.

58 Curtiss Motorcycles' Zeus electric concept prototype
The vision for the motorcycle is based on sustainability, minimalism, and fun.

60 Parts | Components

63 Editorial | Advertiser Index

64 Market Analysis - Autonomy
Eight million vehicles forecast to ship with SAE Level 3, 4, and 5 autonomous technology in 2025
LiDAR sensors are the key for the transition from current ADAS packages to higher level autonomy.

create a more open platform where users, owners, mobility service companies, and infrastructure providers can better control and monetize their assets, including their data.

"Blockchain and related trust-enhancing technologies are poised to redefine the automotive industry and how consumers purchase, insure, and use vehicles," said Ballinger. "By bringing together automakers, suppliers, startups, and government agencies, we can accelerate adoption for the benefit of businesses, consumers, and communities."

Through an open-source approach to blockchain software tools and standards, the MOBI consortium hopes to stimulate more rapid and scalable adoption of the technology by other companies developing autonomous vehicle and mobility services.

MOBI is inviting stakeholders from across the entire mobility value chain to establish a "minimum viable network." This includes automakers, public transportation and toll road providers, other forms of transportation, technology firms, blockchain firms, academic institutions, startup innovators, and regulatory bodies across the globe.

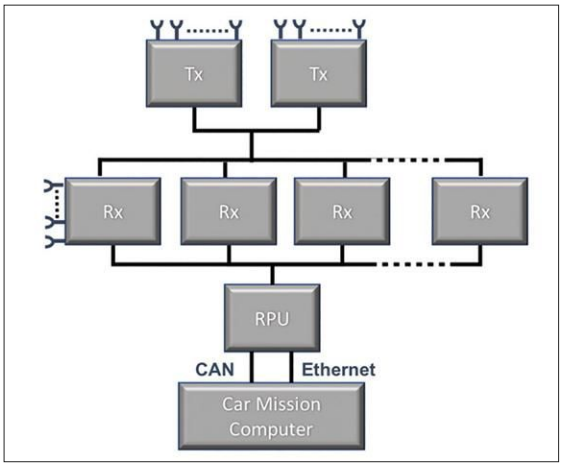
Joining Chris Ballinger as co-founders and members of the initial Board of Directors are Ashley Lannquist from Blockchain at Berkeley and David Luce, a veteran technology leader. Dan Harple, CEO of Context Labs; Joseph Lubin, Co-Founder of **Ethereum** and Founder of ConsenSys; Brian Behlendorf, Executive Director of Hyperledger; Jamie Burke, CEO of Outlier Ventures; and Zaki Manian, Executive Director of the Trusted IoT Alliance, join MOBI's Board of Advisors.

Initially, MOBI will be working with its partners on projects related to:

- Vehicle identity, history, and data tracking
- Supply chain tracking, transparency, and efficiency
- Autonomous machine and vehicle payments
- Secure mobility ecosystem commerce
- Data markets for autonomous and human driving
- Car sharing and ride hailing
- Usage-based mobility pricing and payments for vehicles, insurance, energy, congestion, pollution, infrastructure, etc.

// BY LINDA TREGO

Arbe Robotics selects GlobalFoundries' process for high-resolution imaging radar



The transistor density and low power consumption of GF's 22FDX process supports multiple transmit and receive units. (Arbe Robotics)

GlobalFoundries (GF) announced that **Arbe Robotics** has selected GF's 22FDX process for its imaging radar that will reportedly achieve fully automated system capabilities and enable safer driving experiences for autonomous vehicles. Arbe Robotics' radar is claimed to be the first in the world to show real-time 1-degree resolution and provide the required enhancements for sensors and ADAS technologies.

The new chipset is designed to increase the amount of transmitting and receiving channels on a chip and allow for better integration to Arbe's proprietary processor. According to the company, GF's 22FDX process provides the superior RF performance, power consumption, low noise, and high digital density to increase range and improve resolution for autonomous driving applications such as 360-degree surround view monitoring.

Arbe Robotics' radar technology can reportedly detect pedestrians and obstacles at a range of 300 m (984 ft) in any weather and lighting conditions. The processor creates a full 3D shape of the objects and their velocity, and classifies targets using their radar signature.

"Arbe Robotics' imaging radar is optimized for providing a real-time 4D picture of the environment at ultra-high resolution," said Kobi Marenko, CEO of Arbe Robotics. "The collaboration with GF is a significant step toward archiving the high-performance level required for autonomous driving safety. With over a decade of automotive industry experience, GF's 22FDX delivers a performance on-demand, energy-efficient solution for our current and future radar technology needs."

"The trend of autonomous driving is progressing rapidly, and with it is the need for high-resolution radar. The future will rely on a mix of real-time maps, advanced navigation software, and live data from vehicle sensors," said Mark Granger, Vice President Of Automotive at GF. "That's why GF is pleased Arbe Robotics has chosen our 22FDX platform, together bringing valuable attributes that support the explosive growth of the autonomous driving industry."

GF's 22FDX platform is part of the company's AutoPro solutions, which provide customers with additional access to manufacturing services that support the full range of AEC-Q100 quality grades from Grade 2 to Grade 0 to minimize certification efforts and speed time-to-market.

// BY LINDA TREGO