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AGENDA

Awards Ceremony

Welcome and Introduction of Hosts

Jason Stein  
Automotive News

Joe Vitale  
Deloitte

Flavio Volpe  
Automotive Parts Manufacturers’ Association

Introduction of the Finalists

Presentation of the Innovation Partnership Awards

Introduction of the PACE Judges

Presentation of the Automotive News PACE Award Winners

Ceremony Concludes
Agero
Agero + Swoop Roadside Services Network
joinswoop.com
Agero’s roadside platform delivers a fully digital experience for roadside services management, giving an automaker more tools to give the consumer, tow operator, dealer and automaker real-time visibility. It includes multiple service request channels, truck tracking, customer-feedback capture mechanisms, real-time event information and automaker client dashboard data and analytics.

First Customer: Lincoln Motor Co.

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American Axle & Manufacturing
Electric driveline
aam.com
American Axle & Manufacturing produced an e-drive system that delivers tight packaging and a unique high-speed planetary gear system with class-leading noise-vibration-harshness reduction. The system also met vehicle water-fording requirements. Its compact footprint enabled vehicle designers to increase cabin and storage space, package a large high-voltage battery and allow the vehicle to have a low hood line and short overhangs.

First Customer: Jaguar I-Pace

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Aptiv
Android infotainment compute platform
aptiv.com
Aptiv addressed the limitations of traditional infotainment systems, which lock into a proprietary operating system at the time of the vehicle’s development and remain fixed for the life of the car. By instead enabling Google Automotive Services in the system, vehicle owners can have a fresh system every day, downloading a favorite new app as they do with their cellphones.

First Customer: Volvo Car Corp.

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Bluewrist
3D automated wheel installation solution
bluewrist.com
Bluewrist vision solution software enables a vehicle assembly line to automate the wheel installation process, with two standard industrial robots installing wheels and tightening bolts in less than 60 seconds with 99.5 percent uptime reliability. In addition to saving an automaker approximately $1.1 million a year in labor costs per line, the system can accommodate multiple vehicle models and wheels on the same line.

First Customer: SAIC Motor Corp.
**Bosch**

Advanced rider-assistance systems  
*bosch-mobility-solutions.com*

The advanced rider-assistance systems bring passenger-car driver-assistance safety technology to two-wheel vehicles using midrange radar and motorcycle motion control. Bosch has packaged blind spot detection, motorcycle stability control, forward collision warning and adaptive cruise control to safely integrate brake, engine and human machine interface management.

**First Customer:** Ducati

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**Continental Structural Plastics, A Teijin Group Company**

CarbonPro pickup box  
*csplastics.com*

By developing a composite pickup box made of carbon-fiber nylon thermoplastic, Continental Structural Plastics allowed an automaker to compete on a large-scale production basis with the lightweighting gains of an all-aluminum pickup box. The new carbon-fiber material solution cut more than 100 pounds of mass from the vehicle and requires no paint or bedliner. Unlike other thermoset composite materials, CarbonPro is recyclable.

**First Customer:** GMC Sierra Denali

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**Dana Incorporated**

Metallic bipolar fuel cell sealing system  
*dana.com*

Dana’s approach to creating a metallic bipolar plate with an integrated metal bead seal for fuel cells is a robust and durable manufacturing solution that is simpler and less expensive. The proprietary production integration process results in a product with outstanding seal performance under extreme conditions, as well as longer life.

**First Customer:** Confidential

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**Dana Incorporated**

Rhombus TireAnalytics  
*rhombusanalytics.com*

Dana’s Rhombus TireAnalytics is a cloud-based platform that enables commercial-truck owners and fleet maintenance managers to identify best practices for tire maintenance and optimize tire life-cycle management. Customers can view tire history, pressure, tread data and wear rates, and track cost per mile — all to minimize unexpected tire costs and reduce tire-related truck breakdowns, the cause of half of all trucking interruptions.

**First Customer:** Not disclosed.
**Delphi Technologies**

**DIFlex-integrated circuit**

delphi.com

Delphi’s DIFlex circuit introduces more flexibility in accommodating software changes in a vehicle’s fuel delivery system. It can be used across different engines in a multi-powertrain vehicle program, and the same circuit can be used in both passenger cars and commercial vehicles. Its expanded diagnostic capabilities can pinpoint a number of problems on the fly, ensuring continuous fuel delivery precision for optimal engine performance.

**First Customer:** Great Wall Motors

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**Gentex Corporation**

**Integrated toll module**

itmsignup.com

Gentex’s mirror-integrated toll module provides a single, universal hardware and software system to manage different toll protocols across the United States. Drivers benefit from a clear line of sight and have unencumbered toll road access without the need for multiple transponders cluttering the windscreen or multiple accounts to manage.

**First Customer:** Audi e-tron

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**EJOT Fastening Systems**

**EJOWELD friction element welding**

ejoweld.com

Ejoweld is a friction element welding technology that uses a steel fastener to form a solid-state joint between an aluminum top sheet and a steel base sheet. The four-step process can join any aluminum alloy to ultrahigh-strength steels without necessary pretreatment or preparation.

**First Customer:** Audi Q7

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**Hella**

**Brake system sensor**

hella.com

Electrohydraulic brakes typically operate with two separate magnetic sensors — a pedal travel sensor that detects brake pedal position, and a motor position sensor that determines the position of the brake motor. Hella has developed a technology that combines both sensors into one integrated inductive sensor, achieving significant cost reduction and performance benefits, while shaving time off the brake system assembly process.

**First Customer:** Chevrolet Silverado
Hella

Rain/light/climate sensor

The RLS 4.8, Hella’s new approach to rain, light, solar and humidity sensors, is a cost-effective modular solution in a small and lightweight package. The standardized and scalable sensor package allows customers to select a la carte functions, and its small size means it can be placed on a windshield without hindering the driver’s view.

First Customer: BMW X5

Hyundai Mobis

3D rear combination lamp

To deliver slimmer headlamps and taillamps with advanced design features, Hyundai Mobis has applied the lenticular lens technology used in 3D displays. Through processes similar to those used in semiconductor manufacturing, Hyundai Mobis is able to produce lenses made of layered structure, as thin as 1.4 millimeters to 2 millimeters, that are capable of generating 3D and gemstone lighting effects for styling.

First Customer: Hyundai Motor Co.

Joyson Safety Systems

3D switch

Joyson’s 3D Switch is a force-sensing active haptic digital switch that helps minimize driving distraction by enabling a driver to locate a desired button by feel, activate functions deliberately through the application of force and receive feedback when the system has been activated or deactivated — all while keeping eyes on the road and hands on the wheel. The technology allows different sensitivity settings for individual vehicle models.

First Customer: Karma Revero

Lear Corporation

Xevo commerce and service platform

Xevo Market allows Lear, automakers and merchants to generate revenue through apps that consumers download to their vehicle through proprietary software. The platform allows people to safely and conveniently perform simple tasks with third-party merchants through their vehicle, such as ordering coffee or finding the nearest preferred-brand fuel station, while on the road.

First Customer: Not disclosed
Magna
Composite space frame
magna.com

Magna developed a new approach to high-volume production of lighter-weight tailgates and liftgates using a composite space frame reinforcement. The structure meets automaker performance standards while delivering a 10 percent mass reduction from steel reinforcements. The innovation also gives auto designers greater flexibility for new styling features with more complicated and bolder shapes.

First Customer: Toyota Supra

Marelli
h-Digi lighting module
al-lighting.com

Using a digital micromirror device, Marelli has created a 1.3-million-pixel digital light headlamp with improved illumination and finer resolution, and the ability to project weather and road condition warnings for the driver. The mirror matrix is illuminated by innovative high-current LEDs projected onto the street within milliseconds by means of a multilevel lens system.

First Customer: Mercedes-Benz S-Class Maybach

Mobileye
Road Experience Management
mobileye.com

By equipping customers’ vehicles with Mobileye’s EyeQ4 chips and software capable of collecting and uploading up-to-date road data to the cloud, Mobileye is harvesting, aggregating and localizing data to create high-definition digital maps that work anywhere. The maps provide path sensing and foresight for autonomous driving at Level 2 and higher. The sensing systems record information on lane conditions, drivable paths through complex intersections and static scenes to 10-cm accuracy.

First Customer: Volkswagen

Nemak
CPS casting process
nemak.com

Nemak is giving automakers greater design freedom to create electric drive units as more architectures go electric. The approach allows for the next generation of electric vehicles to work with more complex castings with thinner walls to integrate electric propulsion components, power electronics and transmissions into a single compact unit, replacing the need to manufacturer multiple high-pressure die casting components.

First Customer: Jaguar Land Rover
Nylok
Corrosion barrier fasteners for lightweight materials
nylok.com

Nylok's NyShield coating gives fastener engineers the freedom to use steel fasteners in contact with lightweight magnesium, carbon fiber and aluminum without the occurrence of galvanic corrosion. The coating addresses a growing industry need for options in securing lightweight materials, while eliminating the need for additional barrier materials such as aluminum fasteners, washers or exotic materials.

First Customer: Romeo Power Technology

Schaeffler Technologies
Compact coaxial transmission for e-axle
www.schaeffler.com

Schaeffler developed a transmission for e-axles that consists of a planetary gearset combined with a spur gear differential, in a shared housing with the e-motor A-shield. The packaging arrangement requires less space and delivers 30 percent more torque density than conventional transmissions. The improved efficiency also enables passive lubrication with a minimal amount of lubricant.

First Customer: Audi e-tron

Perceptron
AccuSite optical tracker
perceptron.com

The AccuSite Optical Tracker metrology system combines high-precision accuracy with increased speed and flexibility to inspect auto parts without the need to transfer them off the manufacturing line. The system allows customers to use measurement data immediately without comparison or correlation to another metrology device. The technology works with a manufacturer's existing robots and can be installed in process without specially designed processes.

First Customer: Daimler

Shape Corporation
Curved carbon-fiber bumper
shapecorp.com

Shape created a curved multi-hollow-section carbon-fiber pultruded rear bumper that weighs just 2.9 pounds. The component was achieved through unique advancements in the engineering of the material's fibers. It not only delivered a lightweight solution for the customer, but contributed to protecting the expanded trunk and rear of the vehicle.

First Customer: Chevrolet Corvette Stingray
Stoneridge

MirrorEye camera monitor system

MirrorEye replaces traditional rearview and side mirrors with five digital cameras to remove blind spots and enhance visibility in difficult driving conditions. An advanced image-rendering system blocks direct sunlight reflections, and an infrared color night-vision display improves maneuvering at night.

First Customer: Undisclosed commercial vehicle manufacturer

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Tenneco

IROX2 bearing coating

Tenneco developed an approach to bearing coatings that uses a single polymeric material to replace the various layers of electroplating traditionally needed. IROX 2 provides a hardness and seizure and wear resistance that supports a wide spectrum of engines, from high-performance cars to heavy-duty diesel truck engines.

First Customer: Volkswagen/Audi

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Toyota Boshoku Corporation

Lightweight foam-molded trim

By developing a foam injection molding with a high expansion ratio, Toyota Boshoku has been able to mass-produce ultralightweight door trim at a low defective rate equal to or less than that of conventional injection parts. The ultralightweight, high-impact-resistant material comes with 21 percent lower weight while keeping the impact resistance comparable with that of conventional solid PP.

First Customer: Volkswagen/Audi

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Valeo

XtraVue trailer

Giving drivers improved rear visibility when pulling a trailer, Valeo’s system creates an unobstructed view from the cockpit, as though the trailer isn’t there. XtraVue works by combining the real-time video feeds of two cameras — one mounted on the back of the towing vehicle and the other on the back of the trailer — aligning the two images and matching their lighting in a single enhanced rear view.

First Customer: GMC Sierra Heavy Duty
W.L. Gore & Associates
Condensation management device for LED

gore.com

W.L. Gore’s device can actively remove moisture and prevent condensation in a sealed headlamp by reducing its internal humidity, even with the lower temperatures of LEDs. Designed as a maintenance-free electromechanical solution, the Innovation uses a flexible proprietary microporous desiccant that absorbs and releases moisture, with the ability to regenerate tens of thousands of times.

**First Customer:** Confidential

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Yazaki Corporation
Battery mounted power management module

yazaki-group.com

Yazaki’s smart circuit protection and power distribution unit can be attached directly to a battery or other electrical devices in a vehicle to integrate the power distribution function to protect all wires and improve reliability and safety. The unit replaces the common architecture of a fuse box and plug-in cartridge-type fuses with a standard component that is smaller and lighter.

**First Customer:** Nissan

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Congratulations
to the 2020 Innovation Partnership Award Winners

**Jaguar Land Rover**
for the partnership on the Electric Driveline with American Axle & Manufacturing

**General Motors**
for the partnership on the Curved Carbon-Fiber Bumper with Shape Corporation
<table>
<thead>
<tr>
<th>Name</th>
<th>Title / Organization</th>
</tr>
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<tbody>
<tr>
<td>J FERRON, JURIS DOCTOR</td>
<td>Director of Judges, Automotive News, PACE Awards</td>
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<tr>
<td>JOHN ADAMS</td>
<td>Director and Executive Vice President (retired), Honda of America Manufacturing Inc.</td>
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<tr>
<td>DR. ANDREW BROWN JR., P.E., FESD, FSAE, NAE</td>
<td>Vice President and Chief Technologist - Innovation and Technology Office (retired), Delphi Automotive</td>
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<tr>
<td>HOWARD COMSTOCK</td>
<td>President and CEO, Regional Auto Centers</td>
</tr>
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<td>JOHN R. CRARY</td>
<td>CIO (retired), American Red Cross</td>
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<td>BETH FITZSIMMONS, Ph.D.</td>
<td>Founder, Information Strategists LLC</td>
</tr>
<tr>
<td>RON GRAVES, Ph.D.</td>
<td>Director, Fuels, Engines, Emissions Research Center (retired), Oak Ridge National Laboratory</td>
</tr>
<tr>
<td>GERALD GRUBER, Ph.D.</td>
<td>CEO (retired), Aculon, Inc.</td>
</tr>
<tr>
<td>THOMAS HACHIYA</td>
<td>Principal, Sansei Technik Services</td>
</tr>
<tr>
<td>SUSAN HELPER, Ph.D.</td>
<td>Carlton Professor of Economics at the Weatherhead School of Management, Case Western Reserve University</td>
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<tr>
<td>ALAN C. JOHNSON</td>
<td>Principal, ACJ Ventures LLC</td>
</tr>
<tr>
<td>WILLIAM L. KATH</td>
<td>Executive Engineer, Technology Strategy Manager (retired), Product Development Group, Ford Motor Company</td>
</tr>
<tr>
<td>LIDIA KOSTYNIUK, Ph.D.</td>
<td>Research Scientist, Emerita, Behavioral Sciences Group, University of Michigan, Transportation Research Institute</td>
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<tr>
<td>FRANCIS G. LEO</td>
<td>President and CEO, IAT Group</td>
</tr>
<tr>
<td>MAKOTO MAKINO</td>
<td>President (retired), Honda Engineering of North America Inc.</td>
</tr>
<tr>
<td>LAURA D. MARLINO</td>
<td>Technical Program Manager for Power Electronics and Electric Machinery, Oak Ridge National Laboratory</td>
</tr>
<tr>
<td>ALLAN D. MURRAY, Ph.D.</td>
<td>President, Ecoplexus Inc, Chief Technology Officer, Allied Composite Technologies LLC</td>
</tr>
<tr>
<td>DOUGLAS A. OBER, CFA</td>
<td>Senior Vice President (retired), BNY Mellon Asset Management</td>
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<tr>
<td>MICHAEL PECHT, Ph.D.</td>
<td>Founder and Director of CALCE (Center for Advanced Life Cycle Engineering), University of Maryland</td>
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<tr>
<td>NANCY PHILIPPART, Ph.D.</td>
<td>General Partner and Co-Founder, BELLE Michigan</td>
</tr>
<tr>
<td>MICHAEL J. SMITKA, Ph.D.</td>
<td>Professor of Economics, Washington and Lee University</td>
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<tr>
<td>LYNN ST. JAMES</td>
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<tr>
<td>CARY A. WILSON</td>
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See complete judge bios at autonews.com/pace
The global automotive industry is one of highs, lows, and everything in between. We understand the challenges you face because we've spent years working in this industry. We're here to help you respond, recover and thrive even as you may face the unknown. And when something happens, we've got the people, solutions, and resources to help you move forward with confidence to ignite your business.

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Deloitte’s Global Automotive Practice is at the forefront of top trends and issues facing the automotive industry. We can help you navigate through today’s complex issues and challenges impacting your business. Our industry professionals deliver strategic, operational, and technical services designed to help those across the automotive ecosystem—from OEMs to Dealers, to Suppliers to Captives. We strive to help companies execute innovative ideas in exceptional ways.

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The Automotive Parts Manufacturers’ Association is Canada’s national association representing Original Equipment Manufacturers (OEM) of parts, equipment, tools, supplies, and services for the worldwide automotive industry.

The Association was founded in 1952 and its members account for 90% of independent parts production in Canada. In 2018, automotive parts shipments were over $35 Billion and the industry employment level was over 100,000 people.

The Association’s fundamental objective is to promote the OE automotive supply manufacturing industry both domestically and internationally. The Association provides important representation to both Federal and Provincial Governments, supports regional government initiatives and creates and executes global marketing initiatives in order to develop trade and business opportunities for the membership.

APMA members participate in the Association’s affairs through Committees such as: Human Resource Development, Industry 4.0, Trade, Logistics, Cyber Security, and our Annual Conference. Members also participate in trade and procurement missions to Asia, Europe, and North America; attend conferences; regional meetings and specific issue workshops and seminars.

APMA has working agreements with our counterparts in Brazil, Europe, India, Japan, Mexico, China and the United States. These agreements have been formed to promote an exchange of market information and to create strategic alliances to strengthen Canada’s position in the global automotive industry.

The association obtains its direction through our Board of Directors who are leaders in the industry. New members are elected to the Board annually by the membership to provide a continuous focus on the interests of the membership in particular and on the industry in general.
Canada’s Automotive expertise will develop and build cars of the future

- Cutting edge R&D in all areas of the automotive value chain
- World-leading expertise & talent in artificial intelligence & alternative powertrains
- Best in the G7 for available engineers and skilled trades
- Award winning, high quality, productive auto plants – J.D. Power and Associates
- Enabling, competitive business and R&D Environment

Whether you are considering expanding your footprint in Canada, working with Canadian suppliers or innovating with Canada, the Consulate General of Canada in Detroit will help you. Save time, effort and resources in your search for innovative technologies and new supply sources; we will provide you with Canadian company profiles and coordinate Canadian Innovation Days at your facility. Our services are free of charge and confidential.

Contact us and let us be your guide to the expertise and talent offered by Canada’s supply base, start-up and R&D communities, along with our competitive business environment. We have supported hundreds of companies in their journeys into Canada and we look forward to assisting you.

Joseph Comartin, Consul General
Joseph.Comartin@international.gc.ca
313-446-7010

Anne Cascadden, Trade Commissioner
Anne.Cascadden@international.gc.ca
313-466-7023
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