# Detroit Auto Scene®

# Tech Center News®

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# **OEMs' Financial Reports Show Different Levels of Profitability**



Trucks like the 2020 GMC Canyon in GM's portfolio proved a success.

### GM Earns \$6.7B for 2019 Despite Lengthy UAW Strike

solid 2019 full-year earnings that were heavily impacted by a work stoppage in the third and fourth

However, underlying performance remained strong, said GM Chief Financial Officer Dhivya Suryadevara, driven by sales of GM's new full-size pickups and the company's ongoing cost ac-

That's what the company told investors in the earnings and 2020 financial report presented to the public on Feb. 5.

The company's financial report stated that GM made a \$6.7

General Motors Co. reported billion profit for the year despite losses it took in the fourth quarter related to the lenghty strike by UAW employees.

The report stated that "four weeks of vehicle production were lost in the fourth quarter due to the work stoppage, reducing wholesales by 191,000 units year over year. The net strike impact to fourth quarter EBIT-adjusted was \$2.6 billion, or \$1.39 per diluted-adjusted share. For the full year, the strike reduced EBIT-adjusted by \$3.6 billion and lowered adjusted auto free cash flow by \$5.4 billion.

That was the bad news. The company declared that its pickup truck portfolio was in good shape and that "Chevrolet and GMC full-size pickups drove GM's underlying business performance in 2019. Combined sales of the Chevrolet Silverado and the GMC Sierra were strong, totaling 802,962 pickups, while combined retail market share grew almost one full percentage point, according to J.D. Power. The final variants of the Silverado and Sierra heavy-duty pickups launched in the fourth quar-

**CONTINUED ON PAGE 4** 

#### FCA Cites 2019 'Historic Year' Because of Merger, Profits

of Ram trucks and the launch of the new Jeep Gladiator helped fourth-quarter profits at Fiat Chrysler Automobiles grow by more than a third, the U.S.-Italian company reported Feb. 6.

Fiat Chrysler, which is in the process of merging with French rival PSA Peugeot, reported net profit in the three months ended Dec. 31 of 1.58 billion euros (\$1.74 billion), up from 1.17 billion euros last year.

CEO Mike Manley called 2019 "a historic year" for the company, citing its strengthened financial position, key product invest-

by Jim Stickford

of 2020.

The Super Bowl and Ground-

the same Groundhog Day.

MILAN (AP) – Record U.S. sales ments and the nearly \$50 billion merger agreement with PSA Peugeot.

> Its North America division reported record adjusted earnings before taxes, depreciation and amortization of over 2 billion euros. It accounted for 97 percent of adjusted EBIT generated world-wide.

> That was against losses in Asia and at luxury carmaker Maserati and declining profits in Europe and the Middle East. Outside of North America, only Latin America contributed to boosting quarterly profits, up 9 percent to 135 million euros.

During the full year, Ram sales in the United States soared 18 percent, led by the Ram Heavv-Duty, Ram 1500 and Ram 1500 S Classic.

Still, 2019 global deliveries were down 9 percent, to 4.4 million units, which Fiat Chrysler said was due to dealer stock reductions in North American, lower shipments by the joint venture in China along with efforts to destock and discontinued products in Europe.

The company confirmed 2020 guidance of adjusted earnings

> CONTINUED ON PAGE 4 Vehicles like the 2020 Ram 1500 drove profits for FCA in 2019.





Ford said cars like E-Mach will help the bottom line this year.

#### Ford Looks to 2020 as 2019 Financial Figures Disappoint "America's best-selling brand with the F-Series, Deep said. The

Ford vehicle sales kept on trucking for the year 2019, with the F-150 pickup truck leading all vehicle sales in the United States for the 43rd year in a row, according to Ford spokesman Said Deep.

Ford truck sales for the year, including pickups and vans, climbed 9.1 percent with more than 1.24 million trucks sold. In the fourth quarter of 2019, Ford's overall truck sales closed strong, increasing 15.9 percent.

It was Ford's best overall fourth quarter truck sales result since 2001, Deep said, and the F-Series achieved its 43rd straight year as America's best-selling pickup.

FCA Super Bowl Success Repeats With its Ground Hog Ad

for the past decade is on a roll," said Mark LaNeve, Ford vice president, U.S. Marketing, Sales and Service. "F-Series celebrates 43 years as the country's favorite truck and 38 years as its overall vehicle, and Transit stood at the top of the van podium again.

"We promised a winning portfolio and that's what we're delivering with more on the way, including Mustang Mach-E, an allnew F-150 and the return of Bronco. It's going to be an exciting year for new product at Ford."

But the good news didn't end

Ranger finished its best sales quarter since its reintroduction in early 2019.

Combined sales of F-Series and Ranger totaled almost 1 million pickups at 986,097 vehicles for

**CONTINUED ON PAGE 4** 

#### **Auto Industry Among Those Hurt by Virus**

WASHINGTON (AP) – Hyundai Motors is suspending production in South Korea, a sign that the economic fallout from China's viral outbreak is spreading.

For other companies bracing for losses from coronavirus, the damage has so far been delayed, thanks to a stroke of timing: The outbreak hit just when Chinese factories and many businesses were closed anyway to let workers travel home for the weeklong Lunar New Year holiday.

But the respite won't last.

If much of industrial China remains on lockdown for the next few weeks - a very real possibility - Western retailers, auto companies and manufacturers that depend on Chinese imports will start to run out of the goods they depend on.

In order to meet deadlines for summer goods, retail experts say that Chinese factories would need to start ramping up production by March 15. If Chinese factories were instead to remain idle through May 1, it would likely cripple retailers' crucial backto-school and fall seasons.

CONTINUED ON PAGE 4



Murray's commercial featuring his character from "Ground Hog Day" proved to be popular with ad experts.

**CONTINUED ON PAGE 4** 

## Ford GT's Slick Look Possible Via New Liquid Carbon Fiber

Ford has some super news about its super car.

Ford Performance revealed its upgrades to the Ford GT supercar for 2020, including increased engine power to 660 horsepower and improved cooling, said Ford spokesman Jiyan Cadiz.

Much of the 2020 Ford GT's advancements are a result of Ford's continuous technological innovation, especially GT's 3.5-liter Eco-Boost twin-turbo V6, said Ed Krenz, Ford Performance chief program engineer.

"Ford GT continues to be the pinnacle of Ford performance," said Krenz. "GT is always the ultimate expression of Ford racing innovation, and as we know from the 1966 Le Mans through today, that means constantly raising our game for our customers as well as earning the checkered flag."

Beyond 13 additional horsepower compared to 2017-19 GT supercars, the 2020 GT's Eco-Boost engine features a broader torque band and revised engine calibration plus mechanical upgrades that include gallerycooled pistons and higher-energy ignition coils, thanks to lessons learned from the limited-edition, track-only GT Mk II, Krenz said.

Additional engine cooling and airflow updates includes new buttress air ducts designed to increase air flow by 50 percent while larger intercoolers keep charge air temperatures cooler, preserving peak power for the most strenuous, high-temperature sessions at the track.

Suspension damping is increased in track mode to further enhance handling and body control, particularly for those highspeed transient sections of closed-course circuits.

Ford Performance is also introducing the premium Akrapovič titanium exhaust as standard equipment for GT, Krenz said.



The newly-available Ford GT places an emphasis on a sculpted look and its lightweight body.

Boasting the signature craftsmanship of these renowned race experts, this exhaust provides a nine-pound weight savings over the previous system while "featuring that deeply resonant, unmistakable sound emanating from the more powerful Eco-Boost engine," Krenz said.

Newly available Ford GT Liquid Carbon places an emphasis on GT's lightweight sculpted carbon fiber body completely free of paint color.

A special clearcoat punctuates each GT's unique carbon fiber weave in this limited-edition appearance option.

"This next chapter in the Ford GT story allows us to fully demonstrate our mastery in both the art and science of carbon fiber craftsmanship and finishing," said Angus Smith, General Manager of Multimatic Niche Vehicles, North America. "The results of this ongoing partnership between Multimatic and Ford Performance speak for themselves, as each visually stunning and unique Liquid Carbon GT is a manufacturing marvel, showcasing the characteristics and nuances inherent in carbon fiber composites."

Ford GT Liquid Carbon features carbon fiber wheels as standard equipment. Owners can choose titanium lugnuts, sixpoint racing harness anchors, five interior options and five caliper colors, Cadiz said.

Further personalization is available through two over-thetop stripe options – the dual center stripes offered on the standard Ford GT or the single stripe found on the Carbon Series as well as optional painted mirror caps.

Stripes and mirror caps are available in any of the seven standard paint colors as well as the extended color palette, Cadiz said. For the first time, these features can be ordered independently of one another.

Ford Performance is also updating GT's iconic heritage livery with a new design that includes a black pinstripe to divide the distinct blue and orange colors, recalling the 1968-69 Le Mans-winning GT40.

The optional carbon fiber number switches from 9 on the 2019 model to 6 for 2020, matching that of the historic back-to-back winning car, chassis No. 1075.

### MCC Job Fair Now Seeking Employers

Registration is now open for employers interested in participating in the annual Macomb Community College and City of Warren job fair to be held Wednesday, April 22, 4 – 7 p.m., at the Sports & Expo Center on the college's South Campus in Warren.

Employers have until March 31 to register and pay the \$100 entry fee per table. The fair typically attracts more than 1,100 job seekers, said Sean Patrick, MCC manager of Media Relations. The annual job fair is open to community members as well as current and former MCC students, and allows employers to meet a diverse group of qualified candidates and conduct preliminary informational interviews on-site.

Employers are encouraged to register as soon as possible as space is limited. Registration is not complete until payment is received. Both registration and payment by credit card can be done online at macomb.edu/mclemployer.

For more information, contact the college's Career Services office at 586.445.7321 or by email at careerservices@macomb.edu.

Macomb Community College (www.macomb.edu) is one of the nation's leading community colleges, providing learning experiences to nearly 38,000 students annually. Macomb nationally ranks in the top two percent in the number of associate degrees awarded by community colleges and is one of the largest grantors of associate degrees in Michigan. The college's comprehensive educational programming includes pre-collegiate experiences, university transfer and career preparation programs.





This rendering shows what GM's auto racing tech center in Charlotte, N.C., will look like once it's completed.

# **GM's Latest Tech Center Devoted to Racing**

Call it fishing where the fish provide an opportunity to recruit are.

General Motors will open a new technical center focused on performance and racing in the Charlotte, North Carolina region. a major racing hub in the United

The facility will expand GM's performance and racing capabilities, with a focus on transferring knowledge and resources from the racing programs to core vehiengineering, said spokesman Stefan Cross.

The goal for the new Charlotte Technical Center is to eventually house future technology and engineering development capabili-

The 75,000-square-foot facility will be located in Concord, NC, off Interstate 85 and less than 10 miles from the Charlotte Motor

The new technical center will teams.

potential GM employees from the growing pool of technical talent in the Charlotte area. It's expected to open by mid-2020.

'We're thrilled to expand GM's U.S. footprint by establishing a greater presence in Charlotte, a community that has become a racing and engineering mecca," said Jim Campbell, Chevrolet U.S. vice president of Performance and Motorsports.

The new facility will be close to a number of key Chevrolet and Cadillac racing partners, teams and suppliers. This will allow for improved collaboration as well as access to some of the industry's best talent."

The new technical center provides GM the opportunity to expand and enhance its support for Chevrolet NASCAR race teams as well as various other GM racing

The facility will feature Driverin-the-Loop simulators, vehicle simulation, aero development and other practices designed to advance racing and production capabilities.

'Chevrolet and Cadillac Racing are two of the winningest brands in motorsports. This new facility will build upon their legacies and hopefully lead to even more success on the track," said Campbell. "Racing helps us accelerate the development, performance and popularity of our cars and trucks across the world."

Development technologies often make their way from the racing world to production vehicles,

Computational Fluid Dynamics, scale model testing and rolling wind-tunnel testing were all pioneered in racing and are now used extensively in production vehicle development.

# Japanese Government Going After Ghosn

by YURI KAGEYAMA AP Business Writer

TOKYO (AP) - Tokyo prosecutors issued an arrest warrant last month for Nissan's former chairman Carlos Ghosn, who skipped bail while awaiting trial in Japan and is now in Lebanon.

Japan has no extradition treaty with Lebanon, so he's unlikely to be arrested. Lebanon has indicated it will not hand over Ghosn.

Tokyo prosecutors also issued arrest warrants for three Americans they said helped and planned his escape, Michael Taylor, George-Antoine Zayek and Peter Taylor.

Deputy Chief Prosecutor Takahiro Saito declined to say where the three men were thought to be staying. He said Michael Taylor and George Zayek are suspected of helping Ghosn flee by hiding him in cargo at a Japanese airport and getting him into a private jet to leave the country.

Saito would not say if Japan has asked U.S. authorities for help, though he said all options were being explored. Japan and the U.S. have an extradition treaty.

Michael Taylor is a former Green Beret and private security specialist. Peter Taylor appears to be his son. Security footage released earlier showed Zayek and Taylor transiting Istanbul Airport at the same time Ghosn allegedly passed through Turkey on his way to Beirut.

Prosecutors suspect Peter Taylor met several times with Ghosn in Tokyo, starting in July last year, to plot his escape. Saito said Ghosn was given a key to a hotel room in Osaka near the Kansai Airport that Ghosn left

Prosecutors say Ghosn broke the law by violating bail conditions that required him to stay in Japan, mostly at his Tokyo home.

"We want to stress that the act his future income and committed of fleeing was clearly wrong," Saito told reporters. "We need to erase the misunderstanding.'

Separately, Saito said prosecutors on Jan. 29 forced open a lock to search the Tokyo office of Ghosn's former defense lawyer Junichiro Hironaka for records of people Ghosn met with while out on bail, and other materials. Prosecutors are asking a judge for help in accessing contents of a computer Ghosn used at Hironaka's office that the lawyer has refused to hand over, citing attorney-client privilege.

Ghosn has said he is innocent of allegations he under-reported a breach of trust by diverting Nissan money for his personal gain. He says the compensation was never decided on or received, and the Nissan payments were for legitimate business purposes.

Ghosn has lashed out at the Japanese judicial system, saying he fled because he could not expect a fair trial, was subjected to unfair conditions in detention and was barred from meeting his wife under his bail conditions.

He contends others at Nissan Motor Co., which he led for two decades, drove him out to prevent a fuller merger with its French alliance partner Renault.

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# 'Light' Nominations Sought

Altair of Troy, a global technology company providing solutions in product development, high-performance computing and data analytics, said the 2020 Altair Enlighten Awards is now open for submissions.

Presented jointly with the Center for Automotive Research (CAR), the 8th Annual Enlighten Awards were created to acknowledge the world's best initiatives to reduce vehicle weight and meet emissions targets, inspiring breakthrough innovations to push the industry towards a more sustainable future.

Recognizing commercial automotive lightweighting achievements and technologies, the Enlighten Awards will be presented in four categories Full Vehicle exceptional achievement in the lightweighting of an entire vehi-

Module - innovation in the lightweighting of a subsystem or component and Enabling Technology - any technology that enables lightweight innovation in a vehicle, such as a material or joining technology as well as Future of Lightweighting - innovative ideas, processes, materials, and technologies that have significant potential to support lightweighting initiatives.

"At Altair, when we contemplate the perils of global warming and climate change, we think 'what can we do to help?' We believe passionately that our solutions help customers fundamentally rethink and redesign vehicles to reduce weight without reducing performance," said James Scapa, Altair's CEO.

To submit an entry please visit altair.com/enlighten-award/. Entries must in by May 31, 2020.



# **OEMs' Financials Varied in FY 2019**

**CONTINUED FROM PAGE 1** 

ter, completing the company's full-size pickup truck lineup. GM will now benefit from a full year of these highly profitable vehicles in 2020."

The Associated Press reported that, excluding one-time items for employee separations and the sale of a Chinese joint venture, GM made 5 cents per share, soundly beating Wall Street estimates. Analysts polled by Fact-Set expected a profit of 1 cent per share.

Revenue for the quarter was \$30.8 billion, down almost 20 percent from a year ago. That fell short of Wall Street estimates of \$31.2 billion.

The company still made \$8.2 billion in North America for the full year, so about 44,000 U.S. factory workers will get \$8,000 profit-sharing checks this month. That's down from \$10,750 in

GM said the strike, which ran from Sept. 16 through Oct. 25, cost the company sales of 191,000 vehicles and cut quarterly pretax earnings by \$1.39 per share. For the full year, the strike Blazer and Cadillac Escalade

company said.

GM Earns Billions for 2019 Despite Lengthy UAW Strike

The strike paralyzed GM's U.S. factories and cut production in Mexico and Canada before it was

Shares of GM rose 2.2 percent in premarket trading to \$35.15.

GM said it expects pretax earnings of \$5.75 to \$6.25 per share this year, about flat with 2019 when strike costs and profits from its investment in the Lyft ride-hailing company and stock warrants in France's PSA Peugeot are backed out.

Globally, GM's vehicle sales fell nearly 8 percent to just over 7.7 million last year. In the U.S., sales dropped 2.5 percent.

Strong U.S. pickup truck sales helped GM weather the strike and other financial headwinds, Suryadevara said Feb. 5. The company rolled out new lightand heavy-duty pickups during the year, gaining a full point in market share of sales to individual buyers, she said.

The company's 2020 outlook is supported by more new products coming this year, including the Chevrolet Trail

cost GM \$1.89 per share, the SUVs and two new Cadillac sedans, she said.

> Government steps to stop the Coronavirus from spreading have forced GM to close 15 assembly plants there, and Suryadevara said it's too soon to talk about how long it will take to reopen the factories. "We've activated contingency plans across the enterprise," she said. "People are working around the clock here trying to mitigate the impact of this going forward. But it's really early days and it's very fluid."

> Suryadevara said parts flow from Chinese factories to GM's U.S. factories and other plants around the world. The company is looking at what vehicles could be affected by a prolonged shortage if Chinese factories stay closed.

> "It's an integrated supply chain," she said. "We are looking at all of that and figuring out what are the key components, which are the vehicles that are impacted and which are the trims and models that are impacted and what we can do for each of those parts to mitigate the impact," she said. "We'll have more to say as the situation unfolds.'

# FCA Super Bowl Commercial Repeats Company's Success

CONTINUED FROM PAGE 1

to meet the day because he gets to go Jeeping.

CNN wrote, "Bill Murray in a 'Groundhog Day' spoof - reunited with co-stars like Stephen Tobolowsky - on Groundhog Day? The closest the day came to advertising perfection."

The Murray Jeep ad trended number one on Google as well as USA Today's "Ad Meter." It also was the top ad on iSpot.tv.

In addition to the USA Today Ad Meter accolade, "Groundhog Day" was ranked by Adweek as the number one Super Bowl commercial in 2020 and Advertising Age gave the commercial a rating of "five footballs," one of only four brands to receive that highest ranking.

Across all Jeep brand digital and social channels, the video has been viewed 85,020,893 times from the time it launched at 6 a.m. ET on Sunday, Feb. 2, through Tuesday, Feb. 4, at 6 a.m.

Additionally, visits to Jeep.com were up 50 percent on Sunday. Feb. 2, over the January daily average, while lower funnel activity (LFA) is currently up 18 percent over average, said FCA spokeswoman Diane Morgan. Also, the Jeep Gladiator vehicle landing page visits on Sunday, Feb. 2, were up 261 percent from the January daily average, coming in at the second highest volume after the November 2018 reveal of the vehicle at the Los Angeles Auto Show.

Jeep Gladiator LFAs were also up 96 percent the day of the game, Feb. 2.

Getting Murray to appear in a television commercial wasn't easy, said Olivier Francois, chief marketing officer, FCA.

"In my wildest dreams, any advertiser's dream, really, could you dare to believe that Bill Murray would agree to be in your Super Bowl commercial, and on top of that, ask him to relive his iconic role in 'Groundhog Day'?" asked Francois.

"How do you even have that make sense and not be forced? Magic first happened when I had the incredible luck to meet Bill in person a few years ago, and I knew then that he was perfect for Jeep. Because like Jeep, Bill is a free spirit, he intentionally seeks out ways to find adventure and live an extraordinary life."

Francois said that "when we learned that Groundhog Day fell on Super Bowl Sunday for the second time in 54 years, we couldn't help but take that chance. The stars magically aligned. Bill agreed to do the first national broadcast commercial in which he's ever appeared, and not only that, relive his role as Phil Connors for our Jeep Gladiator. But this time, in our spot, the hero makes a different choice by choosing a different pickup truck - the Jeep Gladiator - and it changes everything for him."

"This is my first commercial. I'm glad I did it with you (Jeep)," said Bill Murray. "And I'm glad that this is my last commercial, as well.

The Jeep brand commercial was created in partnership with Chicago-based agency Highdive, the Jeep Brand Agency of Record and 2019 Ad Age Small Agency of the Year (Midwest, Gold).

#### Ford Looks to 2020 as 2019 Financial Figures Disappoint

CONTINUED FROM PAGE 1

the year - an increase of 8.4 percent. Ranger fourth quarter sales hit 33,059 pickups for the quarter, totaling 89,571 for the year.

As America's best-selling commercial van line, Ford's overall van sales delivered their best fourth-quarter results since 1978 on sales of 59,930 vans, Deep said. For the year, Ford van sales totaled 240,529 vehicles - a 10.5

Additionally, Ford Expedition sales posted their best results in over a decade, while EcoSport had its best sales year since launch, Deep said.

Expedition sales accelerated in the fourth quarter with a gain of 71.6 percent, while the affordably priced EcoSport reported gains of 19.1 percent for the year, said

Ford Explorer sales gained big. In the fourth quarter, on improved availability, sales of the new Ford Explorer continued to expand - totaling 48,083 SUVs. This represents a 52.4 percent increase over third-quarter volumes, LaNeve said.

In December, Explorer had its strongest monthly retail sales Vs sold. Lincoln Corsair contin-

performance since its launch in ues to grow, representing 43 per-

Sales of America's best-selling sports car, the Ford Mustang, saw a strong gain of 20.4 percent in the final quarter of the year on sales of 17,124 cars, Deep said. Overall, Mustang sales totaled 72,489 cars this year, making it America's best-selling sports car for a fifth straight year. Mustang began its first sales of GT500 in Q4, with GT350/GT500 sales up 35.2 percent.

And the good news was not limited to just sports cars. The Lincoln SUVs had their best annual sales results since 2003 on sales of 87.893 SUVs. In the fourth quarter, Lincoln SUVs were up 30.9 percent, making it Lincoln's best Q4 sales performance for its SUVs since 2001, Deep said.

Overall, Lincoln continued its growth with the strong performance of its new products, Deep said. As Aviator stock levels build and Aviator Grand Touring models are added, sales continued to climb, posting sales of 6,424 in the fourth quarter. Aviator had its best sales performance in December with 2.810 SU-

cent of Corsair/MKC retail sales mix in December.

Sales numbers for 2019 compared to 2018:

- Ford 2,310,494 compared to 2,393,731 for a 3.5 percent
- Lincoln 112,204 versus 103,587 for an 8.3 percent in-
- Total sales for all Ford brands - 2,422,698 versus 2,497,318 for a 3 percent de-

Deep said that, overall, Ford saw a 28.2 percent decline in sales of traditional cars. The company sold a total of 349,091 in 2019 compared to 486,024 in 2018. Sales of traditional cars, he said, will continue to drop over time as Ford stops making most models.

SUV sales went from 872.215 in 2018 to 830,471 in 2019 for a 4.8 percent drop. But sales of trucks went from 1,139,079 in 2018 to 1,243,136 in 2019 for a 9.1 percent increase.

The Associated Press reported that overall vehicle sales in the North American market for OEM brands dropped 1.2 percent in

# Virus Hurts OEMs' Supplies

CONTINUED FROM PAGE 1

'There's complete uncertainty," said Steve Pasierb, CEO of the Toy Industry Association. "This could be huge if it goes on for months."

Wuhan, the Chinese city where the outbreak hit hardest, is a center of automotive production. It's been closed off, along with neighboring cities, isolating more than 50 million people and bringing factories to a standstill.

So far, U.S. automakers haven't had to curb production for want of Chinese parts. But David Closs, professor emeritus at Michigan State University's Department of Supply Chain Management, said the clock is tick-

ing.
"I would say it's weeks at the most," Closs said. "One to two to three weeks."

The partial shutdown of Wuhan has already harmed the production of TV display panels and raised prices, according to a report by research group IHS Markit.

David Hsieh, an analyst at IHS Markit, said in a report that "these factories are facing shortages of both labor and key com-

Auto Industry

ponents as a result of mandates designed to limit the contagion's spread," leading suppliers to raise panel prices more aggres-

In the meantime, economists are sharply downgrading the outlook for China's economy, the world's second-biggest. Tommy Wu and Louis Kuiis of Oxford Economics have slashed their forecast for Chinese economic growth this year from 6 percent to 5.4 percent. They expect most of the damage to be inflicted in the first three months of 2020.

"But a more serious and longlasting impact cannot be ruled out," they wrote Feb. 4.

Forecasters are contending with unknowns. No one knows how long the outbreak will last, how much damage it will cause or how policymakers will respond to the threat.

"We're grasping for precedents," said Phil Levy, chief economist at the freight company Flexport who was an economic adviser in the administration of President George W. Bush.

Some look back to the SARS outbreak, which paralyzed the Chinese economy for the first few months of 2003. But the damage from SARS faded quickly: China was booming again by year's end.

And the world economy emerged mostly unscathed.

But times have changed in ways that are not favorable to containing the economic dam-

The health crisis coincides with an especially difficult time for China's factories. Many are moving to Vietnam or other lowwage countries to dodge President Donald Trump's taxes on Chinese-made goods.

The coronavirus, along with fears that U.S.-China tensions over trade and geopolitics will persist, gives them one more reason to reduce their reliance on

### FCA Cites 2019 'Historic Year' Because of Merger, Profits

CONTINUED FROM PAGE 1

amortization above 7 billion eu- 13, 2020. Approximately 44,000 ros, and industrial cash flow of employees are eligible to receive more than 2 billion euros.

FCA also announced the com-

Based on the Company's 2019 financial performance, FCA US LLC announced today that ment was calculated on the

the eligible profit sharing amount of \$7,280 will be paid to UAW-repbefore taxes, depreciation and resented employees on March the payment.

With this payment, U.S. hourly pany's profit-sharing figures for employees have received on average more than \$36,000 in profit sharing since 2009.

The 2019 profit sharing pay-

terms negotiated as part of the 2015 FCA-UAW Collective Bargaining Agreement. It is based on the adjusted EBIT margin performance of the North American region reported in the FCA N.V. financial results and on individual compensated hours.

In total, FCA has invested more than \$14 billion and created nearly 30,000 new jobs in the U.S. since 2009.





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**FEBRUARY 10, 2020 DETROIT AUTOMOTIVE MANUFACTURING AND TECHNOLOGY INDUSTRIES** 

# FCA's Airflow Concept Vehicle Points Way to Future Design

of automobiles will be dull to drive and look at? Not the people at FCA.

The automaker recently unveiled its "Airflow Vision" concept vehicle in Las Vegas at the January Consumer Electronics Show.

The Airflow Vision is a sculptural design concept that envisions the next generation of premium transportation and User Experience (UX) by considering how the driver and passengers could interact with advanced technologies, said FCA spokesman Nick Cappa. It is created for customers with an onthe-go lifestyle and a desire for a first-class travel experience while balancing their technology needs within a serene environment.

Inside, UX plays a prominent role and is designed to be a captivating experience using multi-layered, high-contrast graphics and thoughtful details that provide a clean, sophisticated appearance. Built on the principles of depth, hierarchy, consistency and legibility, the user will be able to see and experience the interface in a way that is safe, easy to use and understand.

Using a menu-based format, screens can be personalized, simplified and grouped to individual needs and interests, Cappa said.

multiple display Offering screens, the user can access needed information and determine how it's displayed. Information on the screens can be

Who says the next generation shared with all passengers by swiping, allowing each passenger to participate in the experience. Customization and personalization are key, whether driving or acting as a co-pilot.

A simple, modern and spacious interior, accented by a light, calming color palette, offers passengers a home-awayfrom-home environment and a first-class travel experience. Using the dimensions and flat-load floor of the Chrysler Pacifica PHEV, the interior creates a spacious environment for all occu-

Premium suede and leather materials are abundant, offering luxurious touchpoints to its occupants, said Cappa. Seating uses a unique slim structure that rests on a pedestal base, enhancing comfort and roominess and allowing for maximum legroom, shoulder space and personal storage for each passenger.

Functional and ambient lighting enables the driver and passengers to create a personalized inner sanctum, he said.

"Outside," said Cappa, "the Airflow Vision captures a new proportion with an elegant and clean design statement, and hints at the future of premium design. It features an athletic profile, long wheelbase, sleek lines and wide stance that creates a dramatic persona and aggressive, yet elegant silhouette.

"Simplified to its purest artistic expression, the Airflow Vision reimagines a muscular body that

cnwglobal.com



The concept vehicle by FCA shows how future cars have individualized seats in the rear of the vehicle.

flows into and becomes one with the wheels. The wheels are inspired by mechanical elements of an electric motor and give the sense of motion similar to the internal mechanisms of a watch.'

Crystalized textures throughout the vehicle, he said, add a sense of precision and intricate transition from exterior to interior. LED crystal lighting flows seamlessly into a cross-car blade that conveys a commanding presence

The Airflow Vision's dramatic expression is completed by an Arctic White body color that conveys a sense of calm and serenity and is supported with a Celestial Blue underbody, Cappa said.



This concept interior has an uncluttered look along with new tech.

# Company Shows its Voice Recognition Tech

Cerence Inc. of Massachusetts has introduced new innovations to its Cerence Drive platform, including enhanced, button-free interaction that leverages voice recognition, gaze detection, touch, and gesture to create the most natural, human-like in-car experience available now.

At CES 2020, Cerence showcased how voice recognition and head tracking can be used together to open windows and doors, and how the automotive assistant will bring the outside world in, tracking users' gaze combined with their voice to provide information about points of interest outside the car, said Cerence spokeswoman Kate Hick-

Alongside these multi-modal innovations, the demo featured intelligent voice traffic notifications that use natural language generation to assist drivers with

route selection; new Cerence Emergency Vehicle Detection: and Cerence's new Car Life suite of solutions that support drivers through the entirety of the car ownership life cycle.

In addition, Cerence Drive now includes gesture-based interaction with a windshield user interface. Drivers can use gestures to move, select and interact with on-windshield widgets for turnby-turn navigation, music, weather, and more.

For example, the driver can use a grab-and-drop motion combined with eye tracking to move the navigation widget in front of the passenger so they can serve as the "co-pilot," or use a tapping motion to pause and un-pause the music or move to the next

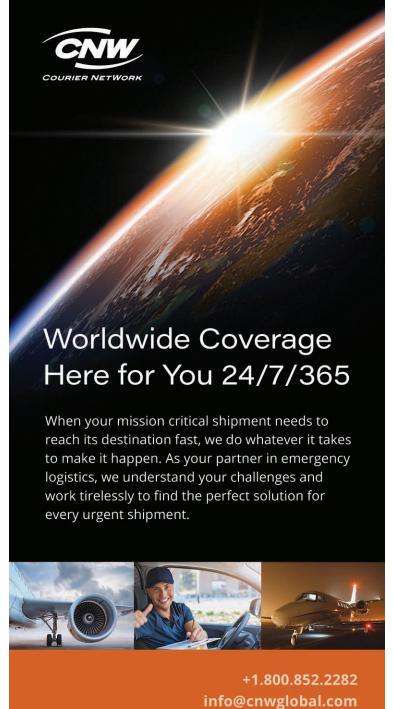
"We believe that the best in-car experience is one that makes interacting with your car as close

to interacting with another human as possible: a multi-sensory, conversational experience in which voice, eye movements, and gestures are all part of the interaction," said Sanjay Dhawan, CEO, Cerence.

"What we're showcasing at CES, especially gesture-based interaction, does just that, and creates a safe, productive, entertaining environment that will be core to the automotive experience both now and in the level-three and beyond autonomous vehicles of the future.'

The Cerence booth also featured first-of-its-kind voice and multi-modal interaction in an autonomous, electric and shared vehicle, in partnership with e.GO MOOVE GmbH and Saint-Gobain Sekurit.

For those interested in learning about Cerence, please contact press@cerence.com.







The space normally used for an engine can be used for all sorts of different things in Ford's Mach-E Mustang.

## The Mach-E 'Frunk' Offers New Possibilities

hood of a car actually a food cooler? When it's under the hood of the upcoming Ford Mach-E.

"Kansas City football fans can bask in the glory of a world championship - at least for the next six months or so - but for fans across the country, it's not too early to start thinking about next season. Specifically, the tailgating," said Ford spokeswoman Emma Bergg.

fans can elevate their tailgates for next season with the all-electric Mustang Mach-E's front trunk, or frunk, a 4.8-cubic-foot plastic space – the equivalent to a 36-gallon cooler - that sits underneath the hood. (In a gasgine is typically located.)"

The trunk in the front is about the size of a large cooler, so fans can forget about lugging a heavy cooler to a tailgate, Bergg said. "Just fill the front trunk with ice and beverages and cruise right up to your tailgate. When you're done, open the drain cap at the bottom of the front trunk and let gravity do the rest.

"Sign up to bring a gameday "Here are four ways football spread best served chilled? Top off the frunk with some shaved ice to keep veggies, dips and even shrimp cold and ready to eat," Bergg said. "Feed an entire team by loading the front trunk with hot wings: you can hold more than 1,000 regular-sized

When is the space under the powered vehicle, where the en- wings with the extra storage space. And don't worry about the sauce - you can open the drain cap and hose down the front trunk when you get home."

Deliveries of the electric SUV begin late 2020. Reserve the Mustang Mach-E to secure yours for next season.

# Ford Shakes Up Leadership, Hinrichs to Retire in March

Ford Motor Company has named Jim Farley as chief operating officer of Ford, reporting to Jim Hackett, the company's president and CEO, as Ford continues to carry out its Creating Tomorrow Together strategic plan.

Ford also announced on Feb. 7 that Joe Hinrichs is retiring as Ford's president, Automotive, after a highly accomplished 19year career with the company.

The press release announcing the changes said the move was done because Ford is moving with urgency to fully integrate and accelerate its transformation into a higher-growth, higher-margin business by leveraging smart, connected vehicles and services.

Since 2017, Ford has made important progress in transforming the company in the face of sweeping technological change and disruption in the auto industry while working to improve the fitness of its base business - restructuring operations, invigorating the product portfolio and reducing bureaucracy.

"Jim Farley is the right person to take on this important new role," Hackett said. "Jim's passion for great vehicles and his intense drive for results are well known. He also has developed into a transformational leader with the imagination and foresight to help lead Ford into the future."

Farley, 57, joined Ford in 2007 as global head of Marketing and Sales and went on to lead Lincoln, Ford South America, Ford of Europe and all Ford global markets in successive roles. Since April, Farley has led Ford's New Businesses, Technology & Strategy team, helping the company determine how to capitalize on the powerful forces reshaping the industry – such as software platforms, connectivity, AI, automation and new forms of propulsion.

Farley now will lead Ford's drive to strengthen its Automotive operations and deliver a sustainable global EBIT margin of at least 8 percent. He also will retain leadership of Ford Smart Mobility, Ford's AV LLC and Ford's partnership with Argo AI.

"I'm thrilled and humbled by the opportunity to work with Jim Hackett and the entire Ford team to advance our vision to design increasingly intelligent vehicles and connect them to the world around us, all to make life better for our customers and communities," Farley said. "Ford is blessed with great people and an incredible brand, and together we will build a very bright fu-

In addition, Ford announced that Hau Thai-Tang, chief product development and purchasing officer, will take on an expanded role, reporting to Jim Farley. Thai-Tang, 53, will continue to lead Product Development and Purchasing, while adding responsibility for Enterprise Product Line Management and connectiv-

"Hau will be the primary architect as we bring together the vehicle architecture and software stack to create products, services and experiences our customers will love," Hackett said. "We are moving forward with an integrated approach to vehicles and connected services, all anchored in an obsession for the customer, great design and a commitment to strong returns.'

Hackett lauded Hinrichs' contributions to Ford.

All the changes announced will be effective March 1.

# Ford has F-150 Tailgate Woes

by TOM KRISHER AP Auto Writer

DETROIT (AP) - Ford is recalling its popular F-150 pickup truck in Canada to fix a problem with electric tailgate latches, but identical trucks aren't being recalled in the U.S.

Ford's F-Series pickups are the top-selling vehicles in the U.S. An auto safety advocate says the company is avoiding a U.S. recall to save money.

The recall covers nearly 90,000 trucks in Canada that were built at two U.S. factories. Water can get into the electrical wiring and cause a short-circuit in the electric latch release switch. That can activate the switch and cause the tailgates to open unexpectedly, possibly allowing unsecured cargo to fall

The trucks are from the 2015 through 2018 model years.

Ford said in statement that it has received far fewer reports of the problem in the U.S. than in Canada. It said the problem occurs mainly in areas of Canada that are cold and wet and far from the U.S. border. Ford says it will notify U.S. owners that they can get a free repair if they have the problem.

But Jason Levine, executive director of the nonprofit Center for Auto Safety, said the problem is just as likely to happen in the U.S. as it is in Canada.

"This isn't about weather and it isn't about safety," he said in an e-mail. "It's about the money Ford doesn't want to pay for a recall of its most popular vehicle in America.'

The U.S. National Highway Traffic Safety Administration, the government's vehicle safety agency, said it is reviewing F-150 data to determine if further action is needed.

"So far, NHTSA has not seen the frequency of complaints in the United States as Canada has on this issue," the agency said.

In December, Ford recalled nearly 262,000 heavy-duty pickup trucks in both Canada and the U.S. for a similar electric tailgate problem. The recall covers F-250, F-350 and F-450 trucks from the 2017 through 2019 model years. Trucks with manual tailgates are not affected.

A Ford spokeswoman said the heavy-duty trucks have different electrical systems and a higher rate of problems than the F-150s.

In both the light-duty and heavy-duty recalls, dealers will change the tailgate frame wiring and install a new tailgate handle release switch, Ford said.

Ford sold just over 3.4 million F-Series pickups in the U.S. from 2015 through 2018, and about two-thirds of those were F-150s. Ford only reports a combined number for the F-Series and does not break out numbers for the lighter-duty F-150s.



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# **Michigan Students Getting Help From FCA Foundation**

The FCA Foundation is helping scholars close to home.

The Michigan College Access Network (MCAN) has received a \$50,000 grant from the FCA Foundation that will enhance programs and activities to help Michiganders - particularly lowincome students, first-generation college-going students and students of color - pursue college and postsecondary degrees and credentials, said FCA spokesman Kevin Frazier.

The grant, the second of its kind from the charitable arm of Fiat Chrysler Automobiles, will also help foster the growth of the college-going culture and process - particularly in southeastern Michigan.

"This continued investment will enhance our capacity to increase postsecondary attainment in Southeast Michigan," said Rvan Fewins-Bliss, executive director of the Michigan College Access Network. "We appreciate that the FCA Foundation's interests align with our central work in the region. They clearly understand the need for developing talent through education.'

"Research tells us that education, particularly a postsecondary education, can have a profound effect that can extend generations into the future," said Christine Estereicher, global chief operating officer for the FCA Foundation.

"We are pleased to support MCAN in its efforts to ensure students and their families have access to the knowledge, tools and support to make college, and the completion of postsecondary degrees and credentials, a reality."

This funding and these efforts will help MCAN achieve its "Sixty by 30" goal – 60 percent of Michi-

Warren, MI 48092

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gan's residents will have a postsecondary degree or credential by 2030.

The FCA Foundation, the charitable arm of Fiat Chrysler Automobiles, supports organizations and initiatives that help empower people, build strong, resilient communities and generate meaningful and measurable societal impacts particularly in the field of education, said Frazier.

As the leader in the state's college access movement, MCAN has a mission to increase Michigan's college readiness, participation and completion rates, particularly among low-income students, first-generation college-going students and students of color, Frazier said.

For the eighth year in a row, Michigan's postsecondary educational attainment rate has increased - from 35.7 percent of 25-to-64-year-olds possessing at least an associate degree in 2008, to 41 percent in 2018. Additionally, it is estimated another 4 percent of Michiganders have a postsecondary certificate, bringing Michigan's official 2019 attainment rate to 45 percent.

## Attempt to Recover Stolen Car Now in Court

MADISON, Wis. (AP) - An attempt to recover a rare car that thieves smuggled from Milwaukee to Europe more than a decade ago can continue, the Wisconsin Supreme Court ruled

According to court documents and Milwaukee Journal Sentinel newspaper reports, millionaire Roy Leiske's 1938 Talbot Lago, a rare French sports car, was stolen from the Milwaukee factory where he had been restoring it in March 2001.

The vehicle was one of only about 16 of its kind produced. Justice Brian Hagedorn, writing for the majority in the ruling, said the car "is considered by some one of the most beautiful and innovative cars in the world."

Leiske died in 2005 and bequeathed the car to his cousin, Richard Mueller, who in turn sold a percentage of ownership to Joseph Ford III, a classic car seller from Florida. Together they tried to find the car without suc-

In 2015, an Illinois dental company founder Rick Workman purchased the car from Christopher Gardner, an American living in Switzerland.

The asking price? \$7.6 million, with \$6.8 million going directly to Gardner.

Gardner shipped the car from Switzerland to Chicago. Workman's holding company TL90108 LLC, named for the car's serial number - tried to register it in Illinois, triggering a hit on a stolen vehicle report.

A federal grand jury in Milwaukee indicted Gardner this past May on four counts of wire fraud and one count of transporting a stolen car in foreign commerce.

According to the indictment, Gardner stole the Talbot Lago from the Milwaukee factory, stored it until mid-2005 and forged documents showing he was the legal owner. He shipped the car to Switzerland in 2006 and restored it in France before selling it to Workman, falsely representing to Workman that he was the legal owner.

Workman's attorney, Larry Heftman, said Workman bought the car in good faith and paid a fair price.

Mueller and Ford demanded TL90108 return the car to them and sued the company in 2017 when the company refused to hand it over.

Then-Milwaukee County Cir-

cuit Judge Rebecca Dallet, now a Wisconsin Supreme Court justice, dismissed the case, finding a six-year statute of limitations on such action expired in 2007 and the clock didn't restart when the company acquired the car.

A state appeals court reversed

The company subsequently asked the state Supreme Court to reinstate her ruling.

The court upheld the appellate ruling, finding unanimously that Mueller and Ford aren't timebarred from trying to recover the car because the clock started when TL90108 acquired it in

Therefore their lawsuit was filed within the six-year window, the court found.

Dallet didn't participate in the

Mueller's attorney, Matthew Fisher, said the court got the ruling 100 percent correct. Ford, who is representing himself, said he was pleased with the deci-

Heftman said Workman disagrees with the ruling but declined further comment, saying the lawsuit is still pending.

Online court records didn't list an attorney for Gardner.

#### Penksi Automotive Reports Earnings

BLOOMFIELD HILLS, Mich. (AP) - Penske Automotive Group Inc. (PAG) on Feb. 5 reported fourth-quarter net income of \$101.6 million.

On a per-share basis, the Bloomfield Hills, Michigan-based company said it had profit of

The results surpassed Wall Street expectations. The average estimate of five analysts surveyed by Zacks Investment Research was for earnings of \$1.20 per share.

The auto dealership chain posted revenue of \$5.88 billion in the period.

For the full year of 2019, the company reported a profit of about \$435.8 million, or \$5.28 per share.

Revenue was reported as \$23.18 billion.

Penske shares have declined 6 percent since the beginning of

The stock has decreased nearly 1 percent in the last 12 months.

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#### Salvalaggio Made **Chief Operating** Officer at AMT

Applied Manufacturing Technologies (AMT) of Orion, North America's largest independent automation engineering company supporting manufacturers, robot companies, systems integrators, line builders, and users of robotic automation worldwide. has promoted Craig Salvalaggio, AMT vice president of Operations Services to Chief Operating Officer (COO), said AMT spokeswoman Georgia Whalen.

"Craig is an accomplished leader with a passion for people and for the business of AMT. As he has risen through the organization, Craig has lived and breathed AMT's purpose and core values earning the respect and trust of our employees, as well as our customers and partners." said CEO Michael Jacobs. "Of all the people I know, no one is more capable and better suited for this role than Craig, and I would like to offer him my heartiest congratulations.'

As COO, Salvalaggio will lead overall operations of Applied Manufacturing **Technologies** services along with sales, engineering, and talent management. His unique combination of technical expertise in automation and robotics combined with his visionary leadership ability led to his promotion.

Joining AMT in 2003, Salvalaggio was hired as a robotics software engineer before being promoted through the ranks to project manager, engineering general manager, v.p. of engineering, v.p. of operations. He holds a Bachelor of Science in mechanical engineering from Lake Superior State University, a Master of Science in operations management, and an MBA from Kettering University.

THE ART OF MAKING PEOPLE HAPPY

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# GMC Revives 'Hummer' with a Green EV Twist

NBA star LeBron James officially told the public about GMC's new Hummer EV in a commercial during the Super Bowl Feb. 2.

The GMC Hummer EV is a modern green version of the former vehicle better known for its size and poor fuel economy.

The new vehicle, when fully shown to the public on May 20, will bring bold design and remarkable capability to the electrified vehicle space, said GM spokesman Stuart Fowle.

The Super Bowl spot juxtaposed the anticipated performance metrics of GMC's first allelectric truck with the quietness inherent in the operation of an electric vehicle, said Fowle.

The GMC Hummer EV truck will showcase the GMC brand's design and engineering potential, Fowle said, and will feature:

- 1,000 horsepower.
- 11,500 lb.-ft. of torque.
- 0 to 60 mph in 3 seconds.

"GMC builds premium and capable trucks and SUVs and the GMC HUMMER EV takes this to new heights," said Duncan Aldred, vice president of Global Buick and GMC. "We are excited to debut our revolutionary zeroemissions truck during the biggest night in TV advertising."

Teaming up with GMC," said LeBron James, "to introduce the Hummer EV is a natural fit. Everyone knows about my love for Hummer since high school and I'm proud to be a part of announcing the new EV model. "The truck may be quiet, but the performance numbers speak for themselves."

The 30-second TV spot featuring James aired during the second quarter of the big game in the U.S. and during the fourth quarter in Canada

The spot highlighted the antic-

ipated performance of GMC's allelectric super truck, said Fowle, which will generate remarkable metrics in terms of horsepower, torque and acceleration "while providing incredible on- and offroad capability."

All of this is combined with the vastly reduced noise and zero emissions inherent in the operation of an electric vehicle, Fowle said.

The GMC Hummer EV will be revealed on May 20. It's built in Michigan at General Motors' Detroit-Hamtramck assembly plant, Fowle said.

This move by GMC is just the latest chapter in the interesting history of the Hummer.

The Web site History.com reported that on March 22, 1983, "the Pentagon awards a production contract worth more than \$1 billion to AM General Corporation to develop 55,000 High Mobility Multipurpose Wheeled Vehicles (HMMWV). Nicknamed the Humvee and designed to transport troops and cargo, the wide, rugged vehicles entered the spotlight when they were used by the American military during the 1989 invasion of Panama and the Persian Gulf War in the early

History.com further reported that in 1992, a civilian version of the Humvee, known as the Hummer, went on sale.

"The hulking, attention-grabbing road warrior tipped the scales at some 10,000 pounds and got less than 10 miles per gallon. It was an early hit with Hollywood celebrities such as Arnold Schwarzenegger, who went on to own a fleet of Hum-

In December 1999, when the economy was strong and gas prices were relatively low, General Motors purchased the rights from AM General to market and distribute the Hummer. In 2002, the Hummer H2, a smaller (some 8,600 pounds), less expensive version of the original model, debuted.

"The Hummer became a symbol of America's super-sized lifestyle; however, the gas-guzzling vehicle was also a target of heavy criticism from environmentalists. According to a 2008 report on Salon.com, in August 2003, 'Hummer-hating eco-vandals [struck] four car dealerships in Southern California's San Gabriel Valley, destroying, defacing and burning dozens of Hummers and other SUVs, while scrawling love notes like 'Fat, Lazy Americans' about the premises.

In 2005, the Hummer H3, an even smaller (5,800 pounds), more fuel-efficient (16 to 20 miles per gallon) vehicle, was released.

The following year, GM ended production of the original Hummer, due to low sales.

In 2008, as Americans faced a growing economic crisis and rising gas prices, along with increasing environmental concerns, Hummer sales shrunk by more than 50 percent.

In December 2008, General Motors, which was hard hit by the global recession and slumping auto sales, received a multi-billion-dollar federal bailout loan in order to stay afloat and avoid going out of business.

On June 1, 2009, the auto giant, which until 2008 had been the world's top-selling maker of cars and trucks, filed for Chapter 11 bankruptcy protection. The following day, GM announced that as part of its reorganization plans it would sell the Hummer brand to a Chinese machinery company.



This 2006 Hummer H1 Alpha Wagon came equipped with a GM Duramax diesel engine and weighed 7,847 pounds and averaged about 15 miles to the gallon.

# **Envision Solar Shows Off** Its New EV Technologies

Envision Solar International, they need, from a renewable Inc., a producer of unique and sustainable infrastructure products for electric vehicle charging, energy security and outdoor media, today announced that the Company introduced the new EV ARC 2020 and EV ARC DC Fast Charging to fleet management and procurement professionals at FedFleet in Washington, D.C., held in January.

FedFleet 2020 is a unique, onestop educational experience that assembles fleet management and automotive procurement professionals in one place for three days of training, said Envision spokesman Jules Abraham.

In 2018 more than 90 percent of Envision's revenues came from government sales and in the first three quarters 2019 almost two thirds also came from government, with many sales resulting from exposure to the Company's products and sales personnel at government fleet trade shows.

Due to its unique design, Envision's EV ARC 2020 will continue to operate in flood waters of up to 9 ½ feet deep It provides a source of electricity to charge vehicles and support other vital services during blackouts and other emergencies.

It is transportable and rapidly deployed. EV ARC DC Fast Charging offers a 50kW charge which provides up to 1,100 miles per day, and like all EV ARC products requires no construction, electrical work or utility bill. The company believes these attributes to be meaningful contributors to the continued strength in its government sales, Abraham said.

"Government fleets need rapidly deployed and highly scalable EV charging infrastructure solutions," said Desmond Wheatley, Envision Solar's CEO. "Our products get them the charging source that meets their carbon reduction goals. Our products also keep their vital fleet vehicles running during blackouts. All of this from a Made in America product. FedFleet is a great place for us to tell this story and demonstrate our products. We look forward to winning more business with government agencies and to enabling them to save taxpayer money on construction and utility bills and to drive on sunshine.

Invented and manufactured in California, the patented EV RC and EV ARC HP products fit inside single parking spaces without reducing available parking.

The EV ARC product generates enough clean solar electricity to power up to 225 miles of EV driving in a day. EV ARC HP DC fast charging systems provide up to 1,100 miles per day. The EV ARC system's solar electrical generation is enhanced by EnvisionTrak (patented) which causes the solar array to follow the sun, generating up to 25 percent more electricity than a fixed array.

The energy is stored in the EV ARC product's on-board energy storage for charging day or night, and to provide EV charging and emergency power during grid failure.

The EV ARC product is a permanent solution that provides Level I, Level II and DC Fast Charging but because it requires no trenching, foundations or installation work of any kind, is deployed in minutes and can be moved to a new location with

EV ARC products are manufactured in the company's San Diego facility by highly talented, mission-driven team members, including combat veterans, individuals with disabilities and other underserved demographics.



Welcomes Dennis Thacker, who brings 25 years

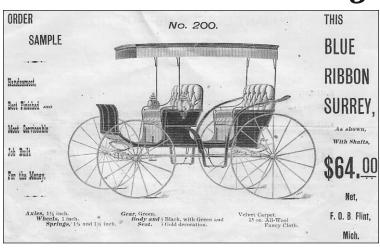
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# GM Tech Center Design Team Makes 1896 Buggy Like New



This classic carriage made in Flint only cost \$64 when it was brand new.

by Jim Stickford

The folks at GM Design recently celebrated a relatively unknown piece of GM's history when a fully-restored horsedrawn buggy was unveiled in the lobby of the Warren Tech Center's Design Building.

The vehicle made its public debut on Jan. 24.

"This buggy is historically important because it was made in Flint in, we think, 1896," said Kevin M. Kirbitz, manager of GM's Heritage Operations. "The company was called Durant-Dort. Michigan's lumber industry in the second half of the 19th century was huge. As the soft tree lumber ran out, many companies transitioned to carriage making. Durant-Dort became the biggest carriage maker in the country.

"So you could say Flint put the U.S. on wheels even before the advent of the automobile. The company's factory became Durant-Dort Factory One, considered to be GM's birthplace and epicenter of the global auto industry at one time."

Kirbitz said that GM got the buggy last year from Dennis and Marcia Tipsword of Ray City.

"I belong to a local club of buggy enthusiasts," Dennis Tipsword said. "I received a call from a lady who had two of these buggys in her barn. She called me and asked if I was interested in purchasing them. I was and paid about \$500 for both."

Tipsword restored one himself and ended up selling it at an auction for \$1,500.

"I was going to restore the second one, but decided that it would be better to send it to a place where it would be appreciated," Tipsword said. "That was GM, so when I called them about the buggy, they 5were most interested in taking it."

Tipsword said that he had already started doing some restoration work when he decided to donate the buggy.

"I put in about 80 hours of work and spent about \$400," Tipsword said. "I contacted nearby Amish craftsmen and they re-

#### O'Reilly Auto Has Strong Profits In 4Q 2019

SPRINGFIELD, Mo. (AP) \_ O'Reilly Automotive Inc. on Feb. 5 reported fourth-quarter net income of \$324.9 million.

The Springfield, Mo.-based company said it had profit of \$4.25 per share.

The results fell short of Wall Street expectations. The average estimate of eight analysts surveyed by Zacks Investment Research was for earnings of \$4.26 per share.

The auto parts retailer posted revenue of \$2.48 billion in the period, exceeding Street forecasts. Five analysts surveyed by Zacks expected \$2.47 billion.

For the year, the company reported profit of \$1.39 billion, or \$17.88 per share. Revenue was reported as \$10.15 billion.

stored the wheels. This particular type of buggy is called a fringe-top surrey carriage."

It took several months to fully restore the carriage, Kirbitz said. To complete the project, he called in experts from GM's fabrication shops. The effort was spearheaded by Keith Popis, superintendent of design fabrication at the Tech Center.

"I'm proud to say that our team was up to the challenge of restoring this classic buggy," Popis said. "This was a complicated job that took a full team of people to do. We ended up getting people from our wood shop and our metal shop as well as our paint shop and our trim shop involved. The trim people had to do a lot of research on the original buggy's trim — the paint shop people, too."

A lot of the work was difficult because even though experts were called in, they weren't experts in vehicles made before the founding of GM, Popis said.

"Plus, we had to fit all the restoration work in during our normal working hours," Popis said. "We talked with Peter Randazzo, who was able to tell us about how to recreate the stitching on the fringe top. We ended up purchasing a special sewing machine to do the stitching for the patent leather."

Kirbitz said that Popis and his team did a great job restoring the buggy to mint condition. It's final resting place is at GM's Durant-Dort Factory One museum in Flint.

"I can't tell you how lucky we were to find carriages that were actually being kept in a barn," Tipsword said.

"It's been my experience that when people get a carriage, they turn it into a lawn ornament and



This is what a vehicle dealership looked like back when GM's predecessor was making carriages in Flint.



This barn find of a horse-drawn buggy was restored by technicians from GM's design department in Warren.

it just rots thanks to time and weather."

When asked what he meant by lawn ornament, Tipsword said that he's seen many carriages parked in front of a house and

people have done things like put potted plants in the carriage.

"They are literally treating an antique like a lawn ornament," Tipsword said. "I will drive by the house every now and then and I

will see that the carriage has become progressively more deteriorated over time. So having the chance to restore one that was in decent shape and donate the other to GM has been a great honor."

# Is Tesla's Stock Price Worth What People are Paying for It?

DETROIT (AP) – Eight months after it seemed headed for the corporate junkyard, Tesla is now worth more than General Motors, Ford and Fiat Chrysler combined, even though the Big Three together sell more cars and trucks in two weeks than Tesla does in a whole year.

In a reversal of fortune analysts find amazing if not nutty, the stock of the electric vehicle and solar panel maker has rocketed to nearly \$900, up over 30 percent in just the past two days. It is now worth five times what it was in June, when there were whispers of bankruptcy surrounding the company founded by the erratic visionary Elon Musk.

Among the world's automakers, Tesla, with a market value Feb. 4 just shy of \$160 billion, ranks behind only Toyota, at \$232 billion.

Many investors see it as justified for a company that is leading the world in electric vehicle sales amid an expected global transition from the internal combustion engine to batteries. Others see the meteoric rise as just plain crazy for a company that's never turned a full-year profit.

"It doesn't seem to be closely attached to reality," said Gartner

analyst Mike Ramsey.
Tesla sold only 367,500 vehicles last year, compared with millions at GM, Ford or Fiat Chrysler. GM alone sold 7.7 million, 21 times more than Tesla.

Just last spring, Tesla seemed to be in trouble. Its stock had fallen 40 percent largely on concerns that it was running out of buyers for its high-priced vehicles, which start at nearly \$40,000 and can run well over \$100,000.

Big debt payments were looming, the company was burning cash and losses were growing. Its federal tax credit was being phased out by the end of the year, and competitors were about to launch their own electric vehicles.

But sales emerged stronger than many expected, production problems were vanquished, and while Tesla lost \$862 million in 2019, it turned a profit during the last two quarters of the year, including \$105 million in quarterly earnings posted last week.

Among the positive signs coming from the automaker: Tesla said it expects to exceed produc-

tion of 500,000 vehicles this year at its factories in Fremont, California, and Shanghai. It appears to have worked the kinks out of making the Model 3 small car, the company's lowest-priced vehicle. And it announced it will start producing the Model Y, a small SUV with broad global appeal, sooner than expected.

"For Tesla worldwide, this will probably be their most important car," said Jessica Caldwell, executive director of insights at the Edmunds.com auto pricing site, which provides content for The Associated Press.

Tasha Keeney, an analyst at ARK Invest, one of the firms most bullish on Tesla, said investors have figured out that Tesla is ahead of competitors in such things as battery technology and software. Also, demand for electric vehicles over the next five years is probably underestimated, she said.

"We think an electric vehicle will be cost-competitive on a sticker price basis with a gaspowered car by 2022, and this is what's going to cause an inflection in demand," Keeney said.

The run-up in price is, like all stock investments, a bet on the

future. Electric vehicles account for just 2 percent of global vehicle sales, and Tesla is up against well-established competitors such as GM, Ford and Porsche.

Tesla's stock surge brought major pain to a cadre of investors who had bet the shares would fall. These "short sellers" borrowed stock and sold it in hopes of buying it back later at lower prices and pocketing the difference. Because of persistent doubts about Musk's ability realize his ambitions, Tesla is the most shorted company on the U.S. stock market.

But interest in shorting Tesla has been falling steadily since the summer, when its stock began climbing. When a heavily shorted stock jumps very quickly in price, short sellers often rush to buy it in hopes of limiting their losses. That in turn pushes the stock price even higher.

Still, the stock rise seems irrational to Gartner's Ramsey, who points out that Tesla is an auto company facing perpetually large capital expenditures on factories, vehicle development and raw materials.

"It doesn't make sense in a lot of ways," he said.

# Info on Michigan's New Car Insurance Regs

by DAVID EGGERT **Associated Press** 

LANSING, Mich. (AP) - Michigan's top insurance regulator said the state is committed to helping drivers navigate a new law that will let motorists save money by foregoing unlimited medical coverage for crash injuries.

The state Department of Insurance and Financial Services created a consumer hotline and email address to respond to questions and complaints. Also, a new website has information about the changes that take effect starting in July.

Department director Anita Fox detailed the resources, as well as sample forms that drivers will be asked to fill out when they buy or renew a policy, during a wideranging discussion with reporters Feb. 4 about the 2019

It was the most significant rewrite of Michigan's no-fault insurance in more than 45 years.

"We're really focused on the key aspects of the law ... that we are implementing a law that is a

better system for Michigan drivers," Fox said.

She did not rule out using advertising to make motorists aware of the changes.

Personal injury protection, or PIP, is the portion of an auto insurance premium that covers medical treatment and rehabilitation expenses. It also covers lost wages and assistance with things like cooking and cleaning.

The law will let drivers opt out of what has been mandatory, unlimited PIP coverage, in a state with the country's most expensive car insurance premiums. There will be six PIP levels: unlimited; \$500,000; \$250,000; another \$250,000 option that excludes medical coverage if the driver has other health insurance covering car crashes; \$50,000, if the motorist is enrolled in Medicaid; and zero coverage, if the driver has Medicare coverage.

"What I want consumers to know is the best thing we can do for you is help you get the information you need," Fox said. "What (are) the things you're going to need to know to make choices? Then sit down with your agent, your company, your family and kind of think about what it is that works for you."

The new PIP limits will still equal or exceed the highest benefits in the U.S, she said. Michigan will continue to be the only state where unlimited PIP is available.

Democratic Gov. Gretchen Whitmer encouraged motorists to use the educational resources before choosing a policy.

Under the law, insurers must reduce statewide average PIP medical premiums for eight years. They also will be prohibited from using certain non-driving factors - home ownership, educational level, occupation, ZIP code or credit scores – in setting

Fox said regulators hired outside firms to review insurers' filings. Previously, she said, actuarial reviews were done and certified by the companies.

The reviews will ensure "that the charges for premiums and the rates that they put in are going to have the right relationship to risk," Fox said.

# Nissan Sales Slump, Offers Buyout Packages

ing Nissan Motor Co. is offering voluntary separation packages to many of its U.S. workers as it tries to resize itself to match lower sales.

Japanese automaker wouldn't say how many employees it is targeting to leave, how much money it expects to save, or give details of the severance offers. The offers are being made to factory and white-collar workers over the age of 52.

Nissan's U.S. sales were down almost 10 percent last year, with the Nissan brand down 8.7 percent and its Infiniti luxury brand off 21.1 percent. Many analysts expect total U.S. auto sales to drop this year.

'To adapt to current business needs and improve efficiencies, Nissan will offer voluntary separation packages to eligible U.S.based employees," the company said in a statement Jan. 28.

Company spokeswoman Lloryn Love-Carter said although she couldn't give a specific number of workers the company is the thousands. She said the offers will be in the U.S. only.

Earlier in January, Nissan made its United States employees take two unpaid furlough days.

The company has more than 20,000 U.S. workers, concentrated mainly at its U.S. headquarters in Franklin, Tenn., at factory complexes in Canton, Miss., and Smyrna, Tenn., and a technical center in Farmington Hills.

Eligible workers were notified on Jan. 31 and would leave later in the year. Not all applications will be approved, Love-Carter said.

Nissan also said it would cut two sales regions and reduce the frequency of its sales reports to quarterly from monthly, following the lead of Detroit automakers.

Last summer, Nissan said it would cut 12,500 jobs, or about 9 percent of its global workforce, to pare costs and turn around its business.

The company reported in No-

FRANKLIN, Tenn. (AP) - Slump- seeking to cut, it would not be in vember that its July-September profit tumbled to half of what it earned the year before as sales and brand power crumbled following the arrest of its former chairman, Carlos Ghosn, by Japanese authorities.

Ghosn, who fled from Japan to Lebanon, was charged with under-reporting his future compensation and breach of trust in diverting Nissan money for personal gain.

He says the compensation was never decided on or paid, and the payments were for legitimate business.





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- Aluminum Wheels!
- Color Touch Screen Radio! Bluetooth for Phone! Stock# L55351

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