

# Automotive Brain Power

Four Key Takeaways from CTI  
Symposium USA 2026



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*Delegates from Stellantis, Linamar, McLaren, Horse and Stellantis discuss the future of hybrid technology at the CTI Symposium USA 2026 in Novi, MI. (All images: Matthew Jaster)*

One of my favorite events each year is the Car Training Institute (CTI) Symposium USA in Novi, MI. The program brings together engineers to discuss and debate the current state of the North American automotive market from a powertrain, transmission, and electrification perspective.

Recently, many U.S. automakers have retracted their “all-in” EV strategies while others continue to promote a multifaceted approach where internal combustion engines (ICE), battery electric vehicles (BEV), plug-in hybrid electric vehicles (PHEV), range extended electric vehicles (REEV) and full and mild hybrids all have a place at the architectural layout table.

Our kind CTI host and chair, Patrick Lindemann, president, e-Mobility and chassis mechatronics, Americas, Schaeffler Group USA Inc., said it best when he compared the 2026 North American auto market to the Wild West. “You wake up one morning and you really don’t know what direction the industry is going.”

Lindemann promised two full days of legislation, technology, and engineering advancement discussions as well as a much-needed wake-up call on the

China dilemma. He also didn’t shy away from the potential complacency that has taken place across the U.S. automotive industry regarding China.

“Is the China threat a wake-up call to get better and faster? Did we get a little bit lazy over the years? I mean, in the old days, everything was remarkably simple and clear, right? Today, it’s not as easy as it looks to figure out what the consumer wants.”

## 1. A Diverse Vehicle Portfolio

Market forecasts say ICE, hybrids, range extenders, and all-electric vehicles will all play a role in the auto industry through 2040. Ingo Scholten, CTO, Horse Powertrain, said these are the products that will be sharing the roads in the next 15 years. “We’re obligated to make these vehicles as good as possible. It’s no longer a question of picking a single solution but focusing on all the solutions available. What design elements from commercial electric drive vehicles can we bring to the U.S. automotive market? What areas do hybrid teams need to focus on in the future? The consensus is electrification is still the way forward but

how fast before we truly get there? The key will be collaboration and ingenuity.”

## 2. The EREV Alternative

If the initial costs of EVs (as well as range anxiety) still frightens consumers, extended-range electric vehicles (EREVs) continue to be a gateway to full battery electric vehicles. In standard range extenders, a combustion engine drives the electric motor, charges the high-voltage battery and extends the range. This continues to be a popular alternative to BEVs as these vehicles remain independent of the messy charging infrastructure. Trucks and large SUVs have the necessary space for both powertrains, but the jury’s still out on other vehicle segments. EREV models coming out in 2026-2028 include the Ram 1500 REV, Nissan Rogue e-Power, Ford F-150 Lightning EREV, Audi SUV EREV, Ram EREV SUV, Jeep Grand Wagoneer REEV and more.

## 3. The China Dilemma

The U.S. automotive road map has little time to figure things out before China comes knocking down the door with a

plethora of efficient and cost-effective automobiles just waiting for the average American consumer to test drive. However convoluted or messy the current automotive industry looks like today in America, it's scarier to think about what it could look like ten years down the road. The Chinese are competing across several industrial segments. They own the cars, the battery technology, they own their own shipping fleets to deliver vehicles across the globe. They're capable of delivering more than a million vehicles worldwide.

"The thing that makes China formidable competitors is that they're highly vertically integrated. The best example of this is BYD, not only do they make their own batteries, their own battery cells, their own processing capabilities, but they see North America as the final prize," said Michael Dunne, Dunne Insights. "Here in the West, the saying 'win-win' means both parties win, right? What does 'win-win' mean in Chinese? It means China wins twice."

If we look at Tesla as an example, Dunne said two years ago Elon Musk said Tesla was no longer an EV company. They became an AI and robotics company. Why did he do that? He knew nobody could go toe-to-toe with the Chinese on cost or price. Nobody can do it. The only way to stay ahead in the automotive market is through dramatic innovations, not incremental changes or upgrades. Dunne said we need to do more than just make X percent improvements to hybrid powertrain efficiency, for example.

"Who do the Chinese fear and admire the most? Tesla. Musk has created an amazing company, vertically integrated, supercharger stations. He has his own batteries. He's got a lithium refinery. The thing that the Chinese spirit admires the most is in our own backyard, but we were like, 'no, no, that's Tesla.' There's so much we could learn from them. Just look at what Tesla's doing and model that. That's what the Chinese do. Innovation is the way forward," Dunne said.

#### 4. Automotive Brain Power

The companies that refused to put all their eggs in one electrification basket are the companies that have a better path toward future growth and success in automotive.

"We've continued to solidify our portfolio via new engines even for high performance vehicles, or to support electrified powertrains. We continue to expand and push out the hybrid system across the entire lineup," said Jordan Choby, group vice president, powertrain engineering, Toyota. "The hybrid is becoming really our core, right? We have been able through continuous evolution of that system, via cost performance, driving engagement, etc. to create a great value proposition for the customer."

Micky Bly, senior vice president, propulsion systems, Stellantis, said engineers must take a Rubik's Cube approach to the automotive market today. "We need to take every type of powertrain technology today and study the various combinations. Maybe the EV solution is the potential path to simplify some of these challenges, but you should not overreact in the short term."

The threat from China, however, doesn't need to cause panic if the engineering teams continue to do what they do best here in North America.

"We don't crawl under a rock and hide, right? China is a competitor, a worthy competitor. Let's start by leading in powertrain technology. It's still just physics. How do you produce an engine? How do you convert the energy and transmit it down to the wheels? What are the advantages of powering the vehicle electrically or mechanically along the way? Globally, the goal is to provide the most competitive technology we can in this space," Bly added.

Knowledge is power and both Bly and Choby strongly agree that the entire Chinese automotive ecosystem should be examined—the engineering technology and speed alone should be cause for concern. The amount of automation and robotics being utilized inside their plants is staggering. Bly said, "China has blinding fast cycle times." And even with the fastest cycle times, the engineers are still not happy with the numbers. They plan to drop cycle times even more by the end of 2026.

The U.S. automotive market needs to work on the engineering technology, really lean-in on the automation capabilities and see where AI and robotics can add even more value to the production lines.



Michael Dunne, Dunne Insights, discusses the 2026 Chinese automotive industry outlook.

During Dunne's presentation on China, he recommended that the engineers go to Canada or Mexico and see how these Chinese vehicles run and operate and the technology they're learning in on. The goal is to see how the Rust Belt can be the innovators, technophiles and champions in powertrain and drivetrain technology for years to come.

The CTI Symposium was a room full of gearheads and engineers, but also people directly involved with the entire automotive supply chain. China's ability to keep costs down and see their investments paying off is something everyone in that room needs to understand and pay attention to moving forward.

Bly learned a lot from his visits to automotive plants in Asia. "We're not going to win this race on human power, we're going to win this race with brain power."

The CTI Symposium is one great example of why face-to-face technical events are still so important and relevant to the future success of manufacturing and engineering.

"I love this conference. I've said it many times. This is one of the last hard-core technical powertrain gatherings," said Bly. "There's only a few left and this is one that continues to be important and relevant to the industry, especially for the driveline and propulsion team members."

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