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Toyota fuels science center's 'Big Idea'

BY DANIEL HOWES (excerpt)

Less than four years after averting liquidation, the reconstituted Michigan Science Center is shaping what CEO Tonya Matthews calls its "Big Ideas." ...

... "The point is to change negative attitudes and misperceptions about engineering," Matthews says. "The field of automotive engineering has grown. It's not what it was even five years ago."

Not even close. The confluence of traditional automotive metal-bending with advanced technology is redefining engineering (but producing fewer engineers) in the era of self-driving cars, fuel-cell propulsion systems and increasingly sophisticated infotainment.

Trends in mobility — ride-sharing, car-sharing and self-driving vehicles, among others — mean fewer people are likely to feel compelled to lease or own vehicles. Why shoulder the total cost of ownership when those same cars spend the vast majority of their time parked ... and rides can be had as-needed?

The melding of transportation and technology is changing both industries. Silicon Valley is pushing deeper in the auto industry (see Tesla Motors Inc.) as Detroit is buying autonomous vehicle expertise, founding mobility subsidiaries, expanding its presence in California's tech epicenter and partnering with ride-sharing providers.

General Motors Co. "is positioning itself as not just an auto manufacturer, but also as a tech-transportation company," David Kudla, CEO of Grand Blanc-based Mainstay Capital Management LLC, wrote in a note Wednesday. "GM is beating Tesla at its own game with the Chevy Bolt. The Bolt is the first mass-market long-range electric vehicle."

Maybe so. But perceptions, especially of the tumultuous Detroit auto industry, are stubbornly hard to change. Investors, opinion-makers, even the young talent needed in

Michigan's interdependent auto and tech communities, remain skeptical that a new, vibrant and sustainable industry is emerging from the ashes of the old.

Starting as young as middle school, too few young people are pursuing the science and math tracks that can lead to college engineering degrees and careers at the likes of Toyota, GM, Ford Motor Co. and the continually changing supply base. ...

... Four years ago this month, the shuttered Detroit Science Center was set to be auctioned off to raise cash to satisfy debts totaling \$6.2 million. Ann Arbor businessman Ron Weiser, former chair of the Michigan Republican Party, purchased the assets from Citizens Bank and helped form MiSci.

It's on a roll. The center, on John R in the museum district, hosts about 180,000 visitors each year; accommodates roughly 25,000 students, teachers and parents in the existing Toyota theater; and operates in 36 counties statewide — all in an effort to draw more into the excitement of science and technology.

That's no easy sell, especially in a state where academic achievement is lagging further behind rival states with each passing year. Interesting kids in so-called STEM careers is one thing; preparing them properly to succeed is another test entirely, one Michigan fails more than it should given its legacy of technical know-how.

"We are just not generating enough kids who are interested and growing up and wanting to do these things," Matthews says. "Engineers are no longer just working on machines. It's a different concept."

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