

As with most revolutions, the first steps are small. But clearly it's only a matter of time, and as this revolution gathers speed, chemical manufacturers need to keep pace with industry changes or be left behind.

Getting up to speed on the new mobility

The automotive industry is speeding toward a new era marked by electric-powered vehicles, autonomous vehicles and shared mobility. Even as global sales tick downward, individual vehicles will be used more intensively, spending less time parked and more time on the road, transporting people and goods in a growing number of ways. For automotive chemical companies in particular, the new mobility will mean a dramatic shift in product portfolios, clients, end users and business models to address an industry ecosystem that's becoming larger, more dynamic and far more interconnected.

How far, how fast, and in what direction?

Are we there yet? The signs of a revolution in the global automotive industry are unmistakable. The rise of electric vehicles, autonomous vehicles and shared mobility services cannot be denied. The only question is how and where these developments are taking us in an increasingly urbanized, technology-dependent and mobile world.

On the one hand, sales of electric and alternative fuel hybrid vehicles are expected to steadily increase, especially in China where tougher regulations are creating huge markets for low-emission transportation. Global automotive OEMs have already pledged a total investment of US\$90 billion for electric vehicles, and that figure continues to rise. Ford Motor plans to double its electrified vehicle spending as part of a major investment initiative for batteries and electric cars. Daimler has said it will spend at least US\$11.7 billion to introduce 10 pure electric and 40 hybrid models, and that it intends to electrify its full range of vehicles, from commuter vehicles to heavy-duty trucks. Volvo will electrify its entire vehicle line by 2019, with five all-electric models scheduled to roll out from 2019 to 2021.

On the other hand, we need to keep in mind that these growth rates are calculated from a relatively small base. Yes, over two million electric vehicles are on the road today, but that still makes up less than one percent of the total number of vehicles in use worldwide.

The rise of autonomous and shared vehicles will be equally disruptive and complex. In KPMG's 2018 global survey of automotive executives, over 70 percent of respondents said that traditional public transport solutions could be replaced by on-demand autonomous capsules within 10 years. In the US alone, vehicle ownership could drop as much as 43 percent due to the rise of self-driving cars, and US auto sales might drop by 40 percent over the next 25 years with the growth of shared-driverless cars.

However, as with electric vehicles, consumer adoption rates for autonomous and shared vehicles can differ significantly according to demographics, region, economic factors and culture. For example, car-sharing start-ups in emerging markets are growing at a faster rate than their predecessors in established markets, with services now available in 41 cities. But in the US, a recent survey of car owners showed that 67 percent of respondents prefer driving their own cars over using ride-hailing apps, and 63 percent are not interested in trading their vehicles for shared-mobility rides — even if the rides are free.

So are we there yet in terms of electric, autonomous and shared vehicle revolution? No, not yet. As with most revolutions, the first steps are small. But clearly it's only a matter of time, and as this revolution gathers speed, chemical manufacturers need to keep pace with industry changes — or be left behind.

The excerpt was taken from the publication entitled The Pulse of Fintech 2018.

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