

# COLUMBUS JUST WON \$50 MILLION TO BECOME THE CITY OF THE FUTURE



Fully Autonomous Electric Vehicles (EAV) navigating public roadways near major employment centers. DEPARTMENT OF PUBLIC SERVICE

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HERE'S THE WORST case scenario: By 2045, 70 million additional car-bound people choke American highways. Heavy trucks—carrying 45 percent more goods than today—spew suffocating carbon dioxide across the land. Bridges, tunnels, and freeways [continue to crumble](#), risking lives and more traffic delays.

Luckily, solutions are on the way, many already accessible at the tap of an iPhone. Uber, Lyft, Zipcar, bike share, drone grocery delivery: Technology has repainted the picture of American mobility, and especially in cities. But this revolution isn't for everyone. Early adopters are those with the social capital, money, and time to play with radical new mobility options. Without access to credit cards or smartphones, most of these services are unusable. Some don't serve low-income areas.

“Whiz-bang” technology is fun to see, says US Secretary of Transportation Anthony Foxx. But “we want everyone to be thought about at the beginning.”

Good thing Columbus is on the case. If all goes according to plan, the Ohio capital will soon burst with electric vehicles, autonomous shuttles, platooning trucks, and bus rapid transit, which will sail through smart traffic lights that turn green just for them. Every resident will benefit.

## CITY PLANNING

Foxx today declared Columbus the winner of the \$40 million Smart City Challenge, [a competition that asked mid-size governments to envision how their city could capitalize on growing overlaps in transportation and technology](#). Announced in December, it's the first of its kind: a speedy grant process buttressed by public-private partnerships, with money for cities instead of states. Of the 78 cities that competed, seven made it to the final round: Austin, Texas; Denver; Kansas City, Missouri; Portland, Oregon; San Francisco; Pittsburgh, Pennsylvania; and Columbus.

The competition's implicit argument is that, just like education, housing, and health care, transportation is at the heart of this country's inequality problem. "We have begun really unmasking some of the disparities—some of the structural disparities—that exist in this country as part of past decisions," Foxx says.

### **City as Savior**

In the face of inexorable congressional deadlock, cities are increasingly responsible for pragmatic policy-making: on [Uber and Lyft](#), on [minimum wage](#), on [plastic bags](#).

Foxx, the former mayor of Charlotte, North Carolina, knows this. If your city doesn't have a detailed plan, he says, "you're really sunk." Given recent major shifts in transportation—vehicle to vehicle communication, autonomous cars, more people, shrinking budgets—[that planning matters more than ever](#).

Columbus came to this challenge prepared—a big reason why it won. The city hired a project manager and put out requests for contractors before finishing the application process, Mayor Andy Ginther says. It raised \$90 million from local organizations and businesses. Now, with the \$40 million from DOT and another \$10 million from Paul Allen's Vulcan, it has to execute.

### **Columbus Re-Discovered**

So what will life in Columbus look like? Let's start in Linden, the heart of the city's winning, 75-page proposal. The lower income northeastern neighborhood suffers from serious mobility issues: too few bus shelters, a lack of sidewalks and street lighting, and dangerous intersections, to name a few. Meanwhile, more than 20 of every 1,000 South Linden babies die before they turn one—almost four times the national rate—but there's not a single obstetrics or gynecology office in the area.

Some day soon (the timeline is hazy) a pregnant woman will walk up to an "ATM" near her house and add money to her city-issued all-access transit pass. She might use new [Sidewalk Labs' "Flow" kiosks](#) to check transit schedules, see bike availability at new Linden CoGo bike share stations, or call a ride share service. The kiosks will have another, more Linden-oriented feature—our protagonist can use them to make pre-natal appointments. She'll identify herself through her transit pass, so if she gets off halfway (maybe there was an emergency at home), the hospital will see she isn't coming.

When it's time for her appointment, she can board the new Cleveland Avenue bus rapid transit line. Thanks to a network of sensors that detect and prioritize transit and emergency vehicles, she'll see nothing but green lights. If a distracted pedestrian steps into the street, the vehicle will warn the driver to watch out.

After her appointment downtown, maybe our traveler hops into a self-driving shuttle to go shopping for onesies. Her ride might mix with electrified city vehicles, equipped with vehicle-to-vehicle tech to avoid crashes and traffic. Meanwhile, the onesie will be waiting at the store, after a trip in a semi-automated, cloud-linked platooning truck that saved travel time and fuel. And if she's feeling wiped afterwards, she can call a ride-share service at another kiosk and take a taxi all the way home, after a day made easier by a wealth of 21st century technologies.

### **Beyond Columbus**

Foxx says Columbus isn't the only winner here. The six losing finalists can pursue their own plans, with technical and financial assistance from the DOT and its private sector partners, including Alphabet, Mobileye, Autodesk, NXP Semiconductors, and Vulcan. Even those who didn't make it to the final round

now hold detailed plans that could lead to their own equitable transportation futures. Columbus is just the first guy on the dance floor.

Of course, things could go bad. “Of the many things one will need to watch out for is whether the funding approach for the competition was the right one,” says Kevin Desouza, an urban policy expert with Arizona State University. Maybe DOT should have used its large chunk of change to let more cities conduct smaller experiments, he says, instead of giving the whole pot to the player with the best hand. But a city of Columbus’s size makes a very nice test bed for a whole system of ideas and solutions.

Back in the 19th century, Columbus was [the buggy capital of the world](#), dominating the market. Now, it’s leading the world of transportation once again.