00:05

I love cars. I really do. But what we are currently doing is a bit insane. Cars put smog in the air, create traffic and congestion and cause accidents. This might seem like a crazy thing for me to say, but I am hoping for a future with fewer cars, mostly smart EVs and cars that can do more for us.

00:31

Some of the biggest changes that ever took place in the auto industry are happening right now, affecting not only the cars, but the very fabric of the cities in which we live. Governments across the world are committing to change the way we move, and EVs are at the center of this change. Today, most of the cars powered by engine or battery are not truly smart vehicles. Only smart EVs are computers on wheels. They not only connect vehicles, but more importantly, use a lot of technology, including artificial intelligence, autonomous driving, big data, cloud and agile computing, 5G connectivity and highly efficient e-powertrain, etc. These technologies are creating cars that can talk to us and the world around them, and act accordingly. This will have a huge impact on our cities and the way we live in them.

01:37

Let's start with something that's always a challenge in a city: parking. The reality is that cars are parked nearly all of the time, taking space in our cities, costing us money. But right now, technology that allows your car to drop you off and then go park itself exists. My company, with our partners, has created an autonomous valet parking system which will be powerful enough to allow you to step out of your car and leave it to park itself hundreds of meters away. This technology is real. It's already in our production car. In the near future, your car will be able to book a space beforehand, and it doesn't take up room and cause traffic jams looking for one, simply by talking to the parking lot. When full autonomy becomes the norm in just five to 10 years, the car won't even need to park. It will be driving other people around on a car-sharing platform, plugging itself into the grid to charge when needed. When this is the case, we don't need so many cars on the road. Access to cars will be prioritized over ownership, and this will be great for cities.

02:51

In my vision of future mobility, autonomy will reduce congestion and necessary infrastructure, creating more room for better-looking, greener spaces. Imagine a shopping center next to a huge playground for our kids, instead of miles of concrete and cars lined up in the sun. And what about all those roads and bridges and signage that carry us through a city? That will, of course, change, too. Autonomous cars will be designed to read the environment around them, knowing the best routes and guiding passengers to their destination with less congestion. We won't need

signs for one-way streets or pedestrian crossings or how to get to the bridge or when not to take a left turn. Imagine an intersection between two busy roads that has no traffic lights. Cars will speed up and slow down automatically to avoid other cars in the intersection. The sky above the road will be clear and open.

03:54

In the auto industry, the ability for vehicles to interact with their environment while taking data from essential storage in the cloud about roads and navigation is called V2X or "vehicle-to-everything." V2X is what needs to happen in order for us to take the final steps toward a city where cars can drive themselves, because it is at that point that our vehicle will hold everything us humans need in order to drive at an even greater scale and definitely more safely. The number of cars with V2X capabilities is growing rapidly around the world, and especially in China. In Wuxi, a city of 6.5 million people in China's Jiangsu province, there are already experiments with V2X in autonomous driving. Around 220 square kilometers of the central city is designed for V2X, with over 40 assistance-driving solutions. You will see traffic lights automatically adjust to green for ambulances as they approach intersections. Cameras spot pedestrians on the road and deliver a warning directly to the cars if they are approaching too quickly. Smart EVs can also receive alerts about unexpected situations, such as nearby construction sites, accidents, traffic jams or emergency vehicles.

05:34

And with this comes massive implications for safety. Imagine someone is having a medical emergency. Today, getting yourself or someone else to a hospital in a hurry can put you and others in danger. A car can only tell you the best routes to the hospital. In the future, the car will be able to send the medical information ahead of time to the hospital, allowing them to prepare corresponding medical equipment in advance. The car could signal to the city that it has a sick person on board, and the whole city can respond, making traffic lights green the whole way, clearing bus lanes and letting the medical response teams automatically tie into the car through the connecting systems. This new era where our cars talk to the world and the world talks back will dramatically change us, our mobility and our cities. I believe we'll have fewer cars on the road, but we'll get where we need to go more efficiently, safely and with more fun green space and blue skies along the way.

06:47

Thank you.