

# 2020 Consumer Electronic Show: Toyota Press Conference, Akio Toyoda and Bjarke Ingels Remarks

January 23, 2020



Good afternoon, Ladies and Gentlemen, and thanks so much for joining us.

As evident from everything you see and hear at CES, virtually every industry is trying to predict the future.

And from my perspective, no one wants a crystal ball as much as the automotive industry.

Everyone wants to know:

When will cars truly drive themselves?

When will they know what I'm thinking?

When will they fly?

And more importantly, when will cars actually transform into giant robots?!

Now, we might not be working on a Toyota Transformer, but we are focused on the future of Connectivity, Autonomy, Shared Mobility, and Electrification—or CASE, as we call it.

In addition, we are pursuing the future of Artificial Intelligence, human mobility, robotics, materials science, and sustainable energy.

Currently, we research and test this technology in various labs around the world... such as the Toyota Research Institute and Toyota Connected.

But it occurred to us: what if we had the opportunity to do it all in one place, in a real-life environment, instead of a simulated one?

This was on our mind when we were making plans to close a factory in Japan and we were wondering what to do with this soon to be available land near Mt. Fuji.

We considered creating another testing site for autonomy like M-City in Michigan, but then we had one of those A-ha! Moments. You know, like Oprah does!

We thought, why not build a real city, and have real people live in it, and safely test all kinds of technology?

Well, ladies and gentlemen, that's what I'm here to announce today.

On this 175-acre site in Higashi-Fuji, Japan we have decided to build a prototype town of the future, where people live, work, play and participate in a living laboratory.

Imagine, a fully controlled site that would allow researchers, engineers and scientists the opportunity to freely test technology, such as autonomy, mobility as a service (MaaS), robotics, smart home connected technology, AI, and more, in a real-world environment.

This would be a truly unique opportunity to create an entire community, or “city,” from the ground up and allow us to build an infrastructure of the future that is connected... digital and sustainable powered by Toyota's hydrogen fuel cell technology.

It would be a chance to collaborate with other business partners and to invite all interested scientists and researchers from around the world to come work on their own projects for a few months at a time, or however long they please.

This was our idea when we called upon the legendary Danish architect Bjarke Ingels to help bring our vision to life.

Bjarke and his team, the Bjarke Ingels Group, also known as BIG, have created some of the most exciting and ground-breaking new architecture currently being built around the world, from skyscrapers in Vancouver and New York, to Number 2 World Trade Center, to Google's new headquarters, to museums for companies like Lego, to communities of the future on water—and even on Mars.

Our collaboration and friendship was immediate and intense, and we bonded over our mutual inability to speak English without an accent.

After 8 months of research, work and collaboration... this is our vision:

Ladies and gentlemen... to tell you a bit more about our Toyota Woven City, please welcome... Bjarke Ingels.

## **Bjarke Ingels**

Thank you, Akio.

And just for the record, to my ears you speak the most beautiful English.

So, let me quickly take you through our thinking as we designed the master plan with Akio and his team.

Today the typical street is a mess with everything and nothing everywhere...

So, we started by splitting the typical street into three separate forms of mobility.

The first type is for faster transportation... and every vehicle is autonomous with zero emissions...

Street trees create the necessary distinction between people and vehicles.

The second type will be an urban promenade shared by pedestrians and slower personal mobility...

And the final type of street will be a linear park with paths for pedestrians only.

So, imagine walking from one part of town to the other moving only through a park.

These 3 types of streets will then weave together into a woven grid of 3 x 3 city blocks... each framing a local park or courtyard.

This not only creates a more serene living environment... but also provides a wide variety of intersections between various kinds of users... humans, animals, vehicles, and robots... to help accelerate Toyota's testing of autonomy and smart city infrastructure.

This is one of the city's typical blocks.

The roofs are clad in photovoltaic tiles to power the city.

The buildings are made primarily of carbon neutral wood and combine the traditional craft of Japanese wood joinery with new robotic production methods.

In a way we can preserve and evolve the old traditions through new technology.

Each block is home to a mix of spaces for living and working.

Below ground we find the entire infrastructure of the city, including its hydrogen power storage and water filtration systems.

A network for the autonomous delivery of goods also takes place underground... connecting directly to the buildings above.

Homes in the Woven City will serve as test sites for new technology such as in-home robotics to assist with

daily life.

These smart homes will take advantage of full connectivity using sensor-based AI to do things like automatically restock your fridge or take out your trash or even take care of how healthy you are.

And, of course, the best part is that these homes will have spectacular views of Mt. Fuji!

Back on the ground of the woven city a major piece of the puzzle is the Toyota e-Palette an autonomous vehicle that will serve for shared transportation and mobile retail.

It will also make deliveries to the Research & Development labs which rise above the Central Plaza.

The e-Palette also helps create flexible programming in the central plaza making it the rebirth of the market place... the town square... the fairground.

In an age when technology, social media and online retail is replacing and eliminating our natural meeting places, the woven city will explore all kinds of ways to stimulate human interaction in the urban space, after all, human connectivity is the kind of connectivity that triggers wellbeing and happiness, productivity and innovation.

So here you have it nestled at the base of Mount Fuji – The Toyota Woven City!

Thank you very much.

**Akio Toyoda**

So Bjarke, I'm sure everyone here is wondering, when can they move in?

**Bjarke Ingels**

Well, I think to some degree that's up to you, boss!

But right now, we are planning to break ground in phases... beginning in 2021.

**Akio Toyoda**

You do know that's only a year away, right?

**Bjarke Ingels**

Yeah.

**Akio Toyoda**

OK, well get going!

Bjarke Ingels... Ladies and Gentlemen!

So, here's who we envision living in our woven city.

Toyota employees and their families, retired couples, retailers, visiting scientists, industry partners...

And of course, all of you!

Roughly 2000 people to start and more as it grows.

I suppose you could say this is my personal “Field of Dreams.”. You know, if you build it, they will come, but having the opportunity to build an entire city from the ground up—even on a very small scale like this—is in many respects the opportunity of a lifetime.

We plan to build our city in the virtual world first, creating a digital twin that will allow us to test our theories before we build.

This in turn will create a one-of-a-kind digital operating system for our city.

One that perhaps others will be able to use.

With people, buildings, and vehicles all connected and communicating with each other through data and sensors, we will be able to test AI technology in both the virtual and the physical world, maximizing its potential.

We want to turn artificial intelligence into intelligence amplified.

In a world where the negative aspects of Artificial Intelligence seem to be on the rise... this will be an opportunity to apply it with integrity and trust.

We also view this as a chance to work with like-minded companies, and individuals.

In fact, we plan to roll out the welcome mat to anyone interested in participating in this project with us, to anyone inspired to improve the way we live in the future.

So, by now you may be thinking...

Has this guy lost his mind?

Is he like a Japanese version of Willy Wonka?

Perhaps!

But I truly believe this is a project that can benefit everyone, not just Toyota.

If you didn't know, Toyota actually began as a loom manufacturer.

We didn't start by building cars. We began by weaving fabric, and now we hope to use our technology to weave together a new kind of city and a new way of enjoying life.

As a company committed to mobility for all, and as global citizens, I believe it's up to all of us... especially corporations like Toyota to do our part to help make the world a better place.

It's a responsibility and a promise we don't take lightly.

And this Woven City is one small, but hopefully significant step, toward fulfilling that promise.

Thank you very much.