

Integrated Report

2021

Integrated Report 2021

Fiscal year ended March 31, 2021

The *Integrated Report 2021* is intended to communicate to stakeholders Toyota's policies and strategies for addressing management issues to achieve its vision for the future. More detailed information is available from the Toyota Times website as well as Toyota's other reports and websites.

(Published January 2022)

Toyota's Reports and Publications



Period Covered

Fiscal 2021 (April 2020 to March 2021). Some initiatives in fiscal 2022 (April to December 2021) are also included.

Scope of Report

Initiatives and activities of Toyota Motor Corporation and its consolidated subsidiaries, etc., in Japan and overseas

Reference Guidelines

This report was prepared with reference to the International Integrated Reporting Framework issued by the Value Reporting Foundation (VRF).

About the PDF

This file is an interactive PDF and can be navigated by clicking on the following elements.

Main menu	Jump to the beginning of each of the report's main sections
Sub-menu	Jump to specific parts within each section
Icons	Each section contains icons that link to related pages of the report, as well as and icons that link to relevant web pages online. * Requires an internet connection.

A screenshot of the Toyota Integrated Report 2021 PDF page. The page shows a navigation structure with several sections and sub-sections. Red callout boxes point to specific elements: one points to the 'Main menu' entry in the table above; another points to a red 'Info' icon in the sidebar; a third points to a red 'Play' icon in the sidebar; and a fourth points to a red 'Toyota Times' icon in the sidebar. The main content area displays various sections of the report, including 'Initiatives to Achieve Carbon Neutrality: Battery EV Strategies' and 'Toyota Times' news articles.

Contents

2 Message from the President

5 The Source of Our Value Creation: What Makes Us Toyota

- 5 Our Founding Spirit
- 6 The Toyoda Principles and Toyota Philosophy

- 7 Toyota Production System (TPS)

8 Value Creation Story: Working toward the Mobility Society of the Future

- 8 Making Ever-better Cars
- 12 Initiatives to Achieve Carbon Neutrality
- 25 Software and Connected Initiatives

- 28 Commercial Sector Initiatives
- 29 Woven City

30 Business Foundations for Value Creation

- 30 Messages from the Outside Directors
- 31 Corporate Governance
- 34 Capital Strategy
- 35 The Environment
- 37 Safety
- 38 Quality, Information Security, and Privacy
- 39 Human Rights and Supply Chains
- 40 Diversity and Inclusion
- 42 Employees, Safety and Health, and Social Contribution Activities
- 43 Risk Management and Compliance

44 Corporate Data

- 44 Board of Directors and Audit & Supervisory Board Members
- 47 Operating Officers and Organizational Structure
- 48 Global Perspective/Data by Region

- 49 History
- 50 Financial Summary
- 52 Corporate Information and Stock Information

Message from the President

Taking action with a strong will and passion can absolutely change the future

Akio Toyoda Reflects on His 12-year Presidency

The COVID-19 pandemic is still affecting regions around the world to this day. Against this backdrop, we at Toyota have continuously worked shoulder to shoulder with fellow manufacturers who together constitute the automotive industry, with the aim of supporting people's mobility and energizing the economy as a whole. At the same time, as we aim to pass down to the next generation a beautiful Earth in which everyone can live more happily, we have accelerated investment in initiatives aimed at achieving carbon neutrality as well as those related to CASE technologies, including Woven City. The continuation of these endeavors is, we believe, only possible due to stakeholder support. We hereby extend our wholehearted gratitude to all our stakeholders.

Our total sales over the past 12 years reached 300 trillion yen. However, the automotive industry has a broad supply chain. About 70 percent of the parts we use are purchased from suppliers, meaning that about 70 percent of our sales income can be attributed to what we paid for such parts. The cumulative total of these payments to suppliers is about 230 trillion yen. Considering that the annual national budget of Japan is 100 trillion yen, I think we can say that a considerable amount of money was made outside of Toyota. In addition, the consolidated number of employees increased by 50,000 to 370,000.

I believe that I was able to continue as president because of various crises. One after another, we have dealt with "once-in-a-century" crises, such as our fall into the red due to the global financial crisis, followed by the recall crisis, the U.S. Congressional hearings, and the Great East Japan Earthquake. I believe that it is precisely due to these crises that Toyota—and me as its president—have endured to this day. It is due to these crises that more and more of my Toyota colleagues started to listen to my perspective and to try to change.

Over the past 12 years, my colleagues and I have tirelessly taken action and faced reality together with those in the *genba* (on the front lines), trying to find the way forward through an uncharted world, working toward our mission of determining how Toyota should be.

Not all of the actions we took during this difficult period were correct or successful. We experienced countless failures and made countless mistakes. But it is because I, together with my colleagues, took action, that our failures came to light, upon which we stopped and took steps to improve. This has led us to where we are today.



(Photo: Noriaki Mitsuhashi/N-RAK PHOTO AGENCY)

Pursuing Best-in-town Around the World

The world is changing faster and on a grander scale than we have ever seen. The changes taking place now call into question even things that many of us previously took for granted, such as liberalism and globalization. Witnessing these changes has made me feel more strongly than ever the importance of aiming to be the best in town.

It's not about aiming for global scale or trying to become the best in the world; it's about being the best in town. Our goal is to be the most trusted, most loved company in the towns where we operate. The idea is to work to bring smiles to the faces of the people in the towns we serve.

We might call this idea "give and give." Not "give and take," but "give and give." It means trying to do what you think will be purely good for others, without expecting anything in return, and always doing so with a sense of gratitude.

Adhering to this idea will, over time, create trust, leading to mutual growth and development. And that, I believe, will lead to Toyota becoming best in town.

Toyota's Mission of "Producing Happiness for All"

With the CASE revolution, I believe that the cars of the future will be connected to communities and people's lives through information, becoming part of our social systems.

Amid this changing landscape, we are striving to completely redesign ourselves as a mobility company and ambitiously working to create an "ever-better mobility society" in which people can live happily, with smiles on their faces.

As an automobile company, our history is one of manufacturing industrial products. Uniformity in our workforce was necessary for this work, because it is important to produce consistent quality regardless of the product or who is working on it. However, the needs of customers and society are becoming more diverse, and, going forward, mobility will need to offer attractive performance in terms of both hardware and software. Under such circumstances, I feel that human resources with diverse values and abilities are increasingly important. I also believe that such a diverse and talented workforce will be the driving force behind innovation.



Woven Planet, the software company of the Toyota Group, is at the forefront of such innovation. In Woven City, we will demonstrate a mobility society on the level of a city, going beyond hardware and software to connect hearts, and, together with diverse partners, make people in the community happy.

The Toyota Philosophy, which we established in 2020, defines our mission as “producing happiness for all.” I believe that happiness can take various forms, depending on the person. “Producing happiness for all” does not mean producing the same thing for everyone. Thinking through diversification and engaging in high-mix, low-volume production is the kind of “production of happiness for all” for which we aim.

At Toyota, a great many people are working together with various stakeholders in their respective *genba* on tasks of the present, past, and future.

Those working on present-oriented tasks continue to build up strength for the work of the future. Those working on past-oriented tasks are continuously making improvements to avoid bringing negative things forward to the future. Those working on future-oriented tasks are using the strength generated by the work on the present and the past to take on new challenges—making mistakes along the way—to push forward into uncharted territory.

I have realized something about how Toyota has changed—Toyota, which used to be siloed by function, has now become united as one. What is the driving force behind this? I think it is our mission.

“Let’s make ever-better cars.”

“Let’s aim to be the best in town, not the best in the world.”

“Let’s achieve sustainable growth.”

“Let’s work for the sake of others.”

During my time as president, the entirety of what I have tried to convey to our 370,000 colleagues around the world comes down to the importance of thinking through the questions, “What is our purpose as a company?” and “How can we contribute to the world?”

I believe that a mission is not something to be shared through words, but rather, through work and action in the *genba* that represents the mission on the basis of *genchi-genbutsu* (onsite, hands-on experience).

When I was appointed president 12 years ago, I was asked about my aspirations. I said that I wanted to be the most “*genba-oriented*” president. I cannot foresee the future. All I can do, instead, is to give it a try together with my colleagues at the *genba* and never stop moving forward, making mistakes and improvements along the way. I believe that there is a world of difference between where we might end up simply by letting things run their course for the next 20 to 30 years and how that same future might look if we continue to take action with passion and the will to make the future better.

As the most *genba-oriented* president, I will continue to try to prove through my actions that we can absolutely change the future if we are all united as one under the mission of “producing happiness for all.”



Our Founding Spirit: For the Sake of Others

Sakichi Toyoda Sought to Ease His Mother's Burden

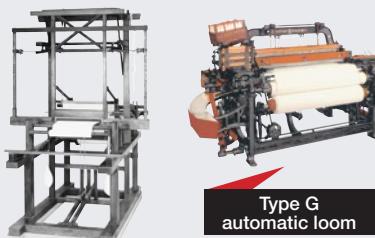
Sakichi Toyoda, the founder of the Toyota Group, was born the son of a carpenter in the village of Yamaguchi, now part of Kosai City, Shizuoka Prefecture, in 1867. Full of curiosity, Sakichi is said to have spent his early years reading a wide range of books, thinking about how he might make a contribution to society. One day, Sakichi was thinking about his mother, and how every evening she toiled at her loom, weaving fabric late into the night. He wondered if there might be a way to make her work easier. At the time, weaving was a laborious process, requiring the use of both hands and legs to control the threads of warp and weft in sequence. At the age of 23, Sakichi invented his first loom, the Toyoda Wooden Hand Loom, which could be operated with only one hand and greatly increased efficiency. He patented the loom in May 1891.

Seeking to more dramatically increase capacity, Sakichi turned his attention to developing a powered loom and invented Japan's first, the Toyoda Power Loom, for which he received a patent in August 1898.

Sakichi continued to invent and improve looms for more than two decades. This work came to head with the Non-Stop Shuttle Change Toyoda Automatic Loom, Type G, invented in 1924 in collaboration with his son, Kiichiro.

At the time, automatic looms had to be constantly watched over by human operators so that they could intervene when unpredictable anomalies, such as threads breaking, occurred. The Type G automatic loom used a mechanism to detect anomalies like running out of or breaks in the thread, stopping automatically in response.

Sakichi's first invention:
The Toyoda wooden
hand loom
(photo provided by the
Toyota Commemorative
Museum of Industry
and Technology)



Furthermore, the Type G automatically changed the loom's shuttle when the thread was close to running out. When changing the shuttles holding the weft thread, operators previously had to use their mouths to suck the end of the thread through the eye of the shuttle, inhaling cotton dust, which caused problems in the lungs of many workers. Sakichi, Kiichiro, and the colleagues invented a way to pull the thread through using a simple manual action that took advantage of the thread's tension.

The drive to serve others and make their work easier—like Sakichi's desire to ease the burden of his mother and employees—was carried on by his son Kiichiro and remains a core value of Toyota today.

The Type G automatic loom was said to boast the best performance of any loom in the world, improving productivity more than twentyfold and dramatically increasing textile quality. The success of the Type G empowered Kiichiro Toyoda to take on the challenge of establishing a Japanese automotive industry, which many at the time, more than 80 years ago, considered beyond the capabilities of Japanese industry. This was the work to which he would dedicate the rest of his life.

Making Domestic Cars and Establishing a Japanese Auto Industry

Kiichiro Toyoda, the son of Sakichi, was born in 1894. After graduating from college in 1921, he went to work at Toyoda Boshoku, his father's company, and traveled to Europe and the United States for the first time. In the 1920s, the streets of the United States were teeming with Ford Model Ts. The automotive era was dawning. In Japan, the number of imported automobiles was gradually rising, but their use was confined to the very wealthy.

Kiichiro was already determined to produce domestic cars and establish a Japanese auto industry. In 1926, Kiichiro was named managing director of the newly established Toyoda Automatic Loom Works, Ltd. and began studying automobiles in earnest. The company established an automotive department in September 1933 and in 1934 officially entered the automotive business, completing its first engine prototype.

In 1935, the first Toyoda Model A1 prototype passenger car was completed, and the Toyoda Model G1 Truck was announced. The very next year, in 1936, mass production of Model AA passenger cars commenced. Toyota Motor Co., Ltd. was established in 1937, with Kiichiro becoming its president in 1941.

Management Crisis, Labor Disputes, and Commitment to Providing Employment

In post-war 1949 Japan, measures to curb inflation rapidly stabilized prices, but the resulting reduction in the money supply plunged industry into serious funding shortages, triggering the so-called "Dodge Line Recession." The prices of iron, steel, and other materials rose, but the officially fixed price of automobiles stood unchanged, causing the profitability of the automotive industry to decline significantly.

In December of that year, Toyota Motor Co., Ltd. and its labor union signed a memorandum aimed at cooperating to overcome the crisis, stating that that the Company was at all costs to avoid job cuts as a means of overcoming the crisis. Kiichiro had faced employment issues at Toyoda Automatic Loom Works during the Showa Depression in 1930 and was determined to never again allow such a situation to arise. His entry into the automotive industry had been in part a strategy to diversify and thereby avoid the recurrence of employment problems, so he was, of course, resolved to avoid job cuts at all costs in the face of the 1949 business crisis.

In January 1950, negotiations with the Bank of Japan began on the Toyota Motor Co., Ltd. reconstruction plan. In April of that year, Toyota

Motor Sales Co., Ltd. was established to resolve the problem of delays in payments for vehicles, a major cause of the Company's financial troubles. Far from improving, however, the situation worsened further. As the Company's business results showed no sign of improvement, labor-management negotiations with the Toyota Motor Co., Ltd. labor union deteriorated into a protracted dispute. During collective bargaining that April, the Company made reconstruction proposals centered on job cuts that the labor union could not accept, and the dispute continued for another month and a half until a memorandum was finally signed in June.

Accepting responsibility for the labor disputes, Kiichiro Toyoda resigned as president of the Company in May 1950. In March 1952, he agreed to make his much-awaited return to the position, but, before he could do so, he passed away at the age of 57. Nevertheless, his aspirations were kept alive by his colleagues, who persevered with purely home-grown technologies as other Japanese automakers were forming technology alliances with U.S. and European manufacturers. These efforts led to the 1955 launch of the Toyopet Crown, the first passenger car to be developed and built entirely in Japan, a long-held dream of Kiichiro Toyoda.

The Spirit of Sakichi and Kiichiro Toyoda

Born into a poor family, Sakichi Toyoda was driven to make others' work easier, teaching himself in order to invent automatic looms and going on to build Toyota's foundations. Not content to simply follow the easy path set by his father, Kiichiro Toyoda took on the challenge of domestic car-making, which many at the time said was impossible, navigating tremendous social changes as he built the Company and the foundations of Japan's automotive industry. The spirit they embodied—of striving to stay ahead of the times and endeavoring to be studious and creative for the betterment of lives and society—lives on in Toyota today. It is the core of what makes us Toyota.



The Toyoda Principles and Toyota Philosophy

In 1935, five years after the passing of Sakichi Toyoda, the Company had grown to more than 10,000 employees as the automotive business ramped up. The Toyoda Principles were compiled at this time to convey Sakichi's teachings to all employees and provide guidelines for all aspects of their work.

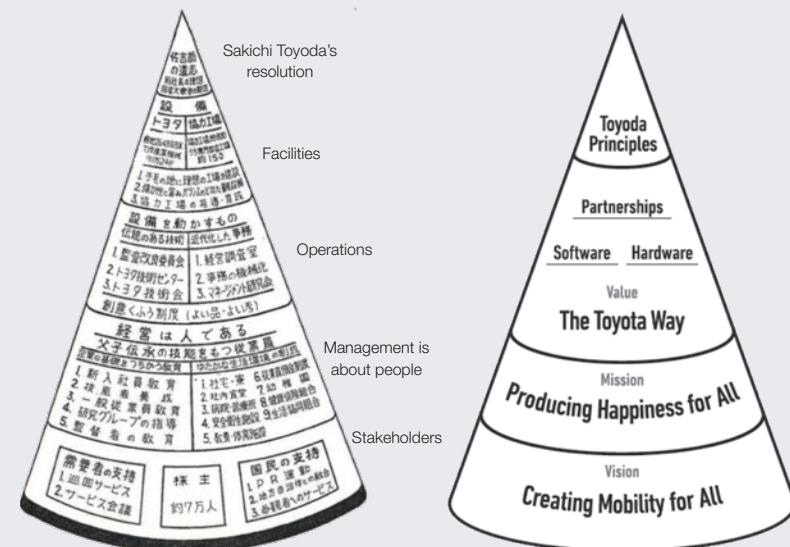
The top management of Toyota that took over from Kiichiro, Sakichi's son, further codified the Toyota Philosophy, encompassing Toyota's values, priorities, and strengths. This philosophy provided the answer to the fundamental question, "What is Toyota?" as a touchstone for the entire Group.

The automotive industry is experiencing a once-in-a-century transformation. In the same way that Toyota transitioned from loom maker to automaker, we are now reinventing ourselves as a mobility company.

To guide us as we push forward into the future amid an era of uncertainty, we have now created the Toyota Philosophy Cone, a graphic representation of the Toyota Philosophy presented in a shape that evokes both the spools of thread used in looms and the traffic cones used to guide cars.

What is Toyota?

Toyota Philosophy Cone



DNA

Toyota's basic principles Toyoda Principles

The Toyoda Principles, or Five Main Principles of Toyoda, have since been handed down to every Toyota Group company and serve as guidelines for all employees.

Modern Interpretation

- We unite as one team regardless of rank in order to contribute to our people, society, and communities.
- We develop and learn from outstanding ideas and cutting-edge technologies across the world. We enhance our capabilities utilizing our own wisdom and create new value to continue to lead the change.
- We focus on work that is value-adding, with integrity and practicality, by avoiding superficial matters.
- We build a sense of community and promote the personal growth of our people while valuing mutual trust and equal partnership with our stakeholders.
- We show humility for the support of our business by our valued stakeholders and society while also respecting the diversity of the world.



Five Main Principles of Toyoda

MISSION

Toyota's mission since its foundation

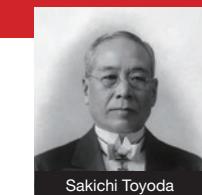
Producing Happiness for All

Born into a family of poor farmers, Sakichi Toyoda built the bedrock of today's Toyota by inventing the Toyoda Automatic Loom by himself. Abandoning the easy path left by his father, Kiichiro Toyoda took on the challenge of making cars. Many at the time said it was impossible.

Their passion was carried on by those who worked with them, shaping the Toyota we know today. What they truly wanted to make was a sense of happiness for any customer who used their products, as well as happiness for every person involved in the work related to those products. The core of this aspiration was the idea of producing happiness for all.

However, during Toyota's long history, there was a brief time when we turned our focus to numbers and gave less thought to people. Primarily due to our rapid expansion in the late 20th century, we faced many problems, including quality concerns and trade friction.

Let us not forget that there are some things that machines cannot create. Only humans can invest the time and energy to bring life to such things. We strive to stay ahead of the times, endeavoring to be studious and creative for the betterment of lives and society. Using our technology, we work toward a future of convenience and happiness available to all. This is our mission, producing happiness for all, and the core of what makes us Toyota.



VISION

The future vision that Toyota aspires to Creating Mobility for All

Toyota strives to raise the quality and availability of mobility, so that individuals, businesses, municipalities, and communities can do more, while achieving a sustainable relationship with our planet. This is our new destination.

Motorization has enabled freedom of movement and has brought people and society closer. As a result, more people than ever can now experience mobility, including the "fun to drive" experience.

And yet, challenges related to mobility persist. There are still many potential opportunities to overcome inconveniences and break through the impossible with new possibilities.

"To move" can refer to physical motion, but also to the experience of being emotionally moved. It is our role to move people and bring mobility to life—to move hearts, minds, and bodies. To move society.

VALUE

Value that Toyota can promise to stakeholders Toyota Way

As we work to realize mobility for all, the road will be rough at times.

In addition to our commitment to *monozukuri* (manufacturing), we must foster imagination regarding the possibilities of people and society. These tangible and intangible aspects together power Toyota: imagination fuels *monozukuri*, and *monozukuri* sparks new imagination. In advancing this cycle, it is essential to center the perspectives of our many stakeholders, imagining their points of view.

We work with our stakeholders and partners, each elevating the other, uniting the strengths of all three to create new and unique value. This is the new Toyota Way.

Toyota Production System (TPS)



What is the
Toyota
Production
System?

Akio Toyoda's View

In May 2020, at Toyota's financial results briefing, President Akio Toyoda reflected on the efforts the Company had made over the previous few years, saying:

"Over the past few years, we came to feverishly engage in both a fight to bring back what makes us Toyota and the complete redesign of Toyota for the future."

Revisiting messages President Toyoda gave starting from a few years ago, two of the things he repeatedly has said that makes us Toyota are the Toyota Production System, or TPS, and cost reduction.

Last year, at Toyota Motor Corporation in Japan, a new training program was started to nurture a select group of "TPS leaders" from various divisions across the Company. To emphasize the importance of the program and to share his own thoughts about TPS, President Toyoda joined the kick-off session.

1. Sakichi Toyoda Sought to Ease His Mother's Burdens

This training program was created for Toyota's management leaders who don't work at manufacturing front lines to gain a deeper understanding of TPS in order to help the Company accelerate its efforts to bring back the essence of what makes it Toyota as it looks to completely redesign Toyota for the future.

Toyoda

I was a little concerned to hear today's participants' statement of determination to "change Toyota any way possible by utilizing what's learned and obtained through this program."

There are two key concepts deeply rooted in Toyota since its foundation, or even before then. Does anyone know what they are?



Participant A

I think they are "Just-in-Time" and "automation with a human touch," or "*Jidoka*."

Toyoda

That's it! That's what I wanted to hear! (everyone laughs) That's why I volunteered to be the lecturer today to help kick off the TPS training program. Hopefully, I can help narrow the gap between my understanding of *Jidoka* and Just-in-Time and yours.

First of all, let's talk about *Jidoka*. It'll be easier to explain the concept by first looking at the automatic loom invented by Sakichi Toyoda. Thinking about his mother, and how she toiled to weave fabrics every evening and late into the night, the young Sakichi wondered if there might be a way to ease her burden.

When Sakichi developed his first automated loom, both hands were used to control the threads of warp and weft. His invention allowed his mother to operate a loom using only one hand. It also helped improve quality, increasing overall efficiency and dramatically improving productivity.

Often at Toyota, TPS is considered the process of making things efficient, and people talk about it as if changing work processes is TPS's purpose. But, I think the purpose should always be to make someone's work easier.

2. Improving Productivity was not the Main Purpose

The Type G automatic loom is the machine that helped drive a redesign of Toyota's business. Automatic looms back then were always monitored by one operator, based on a mindset of "one person, one machine." Each person was the "guard" of their machine. This was because operators were unable to predict abnormalities.

With this automatic loom, Toyota was able to secure the capital required to shift its business model from an automatic loom manufacturer to a car manufacturer. This was because a world-leading automatic loom company in the United Kingdom asked Toyota to sell its automatic loom technology.

The most common abnormalities that occurred when weaving fabric with automatic looms were when thread ran out or broke. The Type G was able to detect such abnormalities at a time when there were no sensors.

ToyotaTimes



What is the Toyota Production System?
Akio Toyoda's View



When the thread ran out, it automatically changed to another wooden shuttle with a new thread.

The shuttle needs to have the thread end out on the surface. Before this machine was invented, workers had to suck it out themselves. The problem was that there was a lot of cotton dust in the air in textile factories, which could damage workers' lungs when they inhaled deeply. Sakichi invented a new feature that automatically brought out the thread end. This invention was the result of Sakichi simply exploring a desire to do something for his team members on the manufacturing front lines who were suffering damage in their lungs.

Thus, Sakichi determined what the abnormalities were and then came up with system to prevent or stop them. As a result, productivity improved—not the other way around. He did not do all this just to improve productivity.

3. How President Toyoda Sees *Jidoka* (Automation with a Human Touch)

In my view, *Jidoka* is about being centered on people. It's about putting yourself in the shoes of someone working there. You can't just issue orders to improve efficiency or reduce resources from the safety of your position far from the front lines. Toyota also has this idea about adjusting the work per person to match the full output of one unit of manpower (pursuing *ichi-nin-ku* in Japanese).

This concept of *ichi-nin-ku* means the amount of work that one worker can or should accomplish in a day.

We all only have 24 hours in a day. This applies equally to everyone. And employees spend a lot of that time devoted to work for a company. Knowing this, supervisors must make the work being done by team members as meaningful as possible. That is what Toyota's manufacturing front lines have been pursuing.

The focus is creating more free time for workers by eliminating waste in work processes to reduce overtime. Pursuing *ichi-nin-ku* means valuing each person's time.

4. How President Toyoda Sees Just-in-Time

A phrase that is commonly associated with the concept of Just-in-Time is "provide what is needed, when needed, in the amount needed." The key to understanding Just-in-Time is the idea of "lead time," the amount of

time required for products or services to be delivered after they are ordered.

Toyoda

What comes to mind when you think about Just-in-Time?

Taking a "what is needed when needed" approach, to respond quickly to customer needs, there would need to be a lot of inventory, right? One finished vehicle consists of about 30,000 parts. So, it would follow that for a production line to flexibly produce orders quickly, a tremendous amount of inventory would need to be on hand, right?

Participant B

But if we know and can meet what customers want...

Toyoda

Who do you mean by "customers"?

Participant B

Each downstream process... or our final end users.

Toyoda

But we sell around 10 million new vehicles annually, and that means we have the same number of customers. How can we understand what is needed by each specific customer? We can't, so instead, we have to have a lean operation in place to detect abnormalities right away and halt the pipeline so that we can make improvements quickly. And that's why we need Just-in-Time.

In this way, I think the key concept that makes Just-in-Time easier to understand is "lead time."

At Toyota, a common term for the next process in a workflow, whether it be in manufacturing or in an office, is "downstream process." Those in the downstream are considered a "customer." President Toyoda was trying to convince the participants to think of "Just-in-Time" in the context of the bigger picture, to consider not only the immediate downstream, but how things relate to the company as a whole to deliver Toyota's vehicles to the end customers "just-in-time."

5. Achieving the Lead Time of a Sushi Restaurant?

Take, for example, sushi. When you go to an authentic sushi restaurant, are the finished orders just waiting in front of the chef? I don't think so. Each piece is made to order. You can't prepare every specification in advance for 10 million customers. It's important to understand what we can't do. The key, then, is trying to shorten lead time.

Making Ever-better Cars: Product-centered Management

At the November 2021 Nationwide Toyota Dealers Convention, President Toyoda Spoke About Product-centered Management.

Over the decades, Toyota has provided society with a wide range of products aimed at meeting customer needs, beginning with the Toyoda Model AA in 1936. Looking back on our history of car making, I see two key themes.

The first is “sports cars.”

The 1960s were a key era for Toyota’s sports cars. This decade saw the birth of many sports cars that would eventually achieve legendary status, such as the Publica Sports, Sports 800, and 2000GT. Then, in the 1980s, Toyota launched the Supra, MR2, Celica, and Levin/Trueno. In this way, Toyota has created sports cars that bring together the most cutting-edge technological prowess of the era every two decades.

Why is that? I think it is because Toyota treats sports car development as the front line for developing the skills and knowledge that will be passed down as well as human resource development. For Toyota, sports car development has been like a rite of renewal and rebirth carried out every 20 years.

Following this cycle, the next generation of Toyota sports cars should have hit the scene in the 2000s. They did not.

Around that time, Toyota was growing its vehicle sales, mainly outside Japan, and pursuing scale expansion. Amid that push, the role of its old renewal rite was forgotten, and sports cars disappeared from Toyota’s vehicle lineup.

I was not the only one who sensed how dangerous this was. Our test drivers, in fact, felt the danger more keenly than I did. I think that feeling was part of why Hiromu Naruse, then Toyota’s chief test driver, told me, very frankly, that he didn’t want to be preached to about cars by someone who didn’t know

anything about them. But, he said, if I was interested, he would teach me to drive. That was the start of my journey, under the new nickname Morizo, to becoming a master driver.

From there, though a decade late, Toyota went on to develop the LFA in the 2010s, recapturing the “secret sauce,” that flavor unique to Toyota and Lexus cars.

We went on to revive the 86 and the Supra, as well, but all of these were made in collaboration with outside partners. We still wanted to once again make a sports car that would be all our own. This dream led to the development of the GR Yaris.

For years, I have constantly been talking about “ever-better car making.” Now, as the number of my colleagues taking action with me has grown, this has evolved into “ever-better car making from a starting point in motorsports.”

The second key theme is “long sellers.” Toyota’s long sellers have included the Crown

and Corolla, which drove the motorization of Japan, as well as the Prius, which created the hybrid electric vehicle market. More rugged long sellers include the Land Cruiser, Hiace, and Probox. The Coaster and Century were long sellers, too. Indeed, Toyota boasts numerous models that have been beloved by customers for decades.

Despite this, when Toyota was focusing on the number of vehicles sold and making vehicles mainly for overseas markets, the position of long-selling cars within the Company shifted greatly. The Crown and Corolla began to undergo regular model changes based solely on an annual schedule, while rugged vehicles like the Land Cruiser and Hiace no longer had model changes at all. These long-selling cars had been beloved by customers and an integral part of their lives for so long, but now it was considered unimportant for them to change or evolve.

However, I believe that only by constantly changing to meet the needs of the times can



a car be a long seller. We have already begun working to reclaim this approach.

The Vitz, as it was known in Japan, was unified under the name Yaris, which had taken root overseas, and we expanded its lineup to include the GR Yaris and Yaris Cross. Similarly, the Corolla lineup saw the addition of the Corolla Sport and Corolla Cross. Our strategy was to build a lineup tailored to current needs while leveraging the brand strength of our long sellers.

"Let's make ever-better cars." This idea was the impetus for the transformation of Toyota's car making. Three pillars supported this transformation.

The first pillar, and the first that we took on, was the Toyota New Global Architecture (TNGA). To achieve excellent performance in the basic functions of a car—propulsion, turning, and stopping—a solid platform is essential.

However, creating a new platform and promoting standardization is not so easy. I found myself wishing that Toyota had moved away from the one-model, one-platform approach and implemented platform reforms while its sales volumes and revenues had been expanding.

During the very difficult time after the 2008 global financial crisis, when Toyota fell into the red and we could not increase unit sales, we all had to grit our teeth and work even harder. The fruit of this labor was a powerful tool—the TNGA.

I believe that it is precisely because we have the TNGA that we are able to restore the sports cars and long sellers that for so many years have supported the Toyota brand to their proper places and tackle the challenge of building up their lineups.

The second pillar is the in-house company system. A defining characteristic of Toyota is its full lineup of diverse vehicles that meet a comprehensive range of customer needs.

Offering a full lineup means that we must always have people who are passionate and responsible about creating cars in all genres, from sports cars to commercial vehicles. Ensuring this is the true objective of the in-house company system.

The lure of increasing unit sales and revenue in the short term is hard to resist. This is why we must nurture people and organizations capable of focusing and placing the highest priority on creating the cars that Toyota and society really need.

The final pillar is a figure at the top who can take final responsibility. It's embarrassing to say so myself, but I think that one thing that sets Toyota apart, that it has and other OEMs don't, is a master driver in top management. A president who can take responsibility for the "flavor" of the products we put out. A president who is able to definitively say "no" to projects, even ones that our development teams have worked hard on, if they don't have that unique Toyota/Lexus flavor.

Morizo, master driver, and president of Toyoda.

Wearing these three hats at once, I have gone to front lines myself and worked alongside my colleagues these past 12 years. I am sure that all of that effort shows in our products.

By continuing to make ever-better cars, our brand will continue to evolve. This is what I believe to be the essence of product-centered management. It means not aiming to be the biggest in the world in terms of units sold, but aiming to be the best in town by creating better cars that bring smiles to customers' faces.

At first, when I spoke about making ever-better cars, few understood me, or tried. However, thanks to the support of my colleagues who believed in me and to the support of our dealers, I think that Toyota's products have slowly but surely changed for the better.

Going forward, we will continue to do our utmost to make ever-better cars.

I hope to convey the heart and the story of Toyota, which we put into every product, to all our dealers and as many customers as possible. Nothing would please me more than if that story were to become one of the many new stories connecting the hearts of our dealers and customers.

History of Toyota's car making

Two key words

1. **Sports car**
2. **Long seller**

The three pillars of ever-better car making

1. Platform reforms via the **TNGA**
2. **In-house company system** transforming people and organizations
3. **A master driver** in top management taking final responsibility

Making Ever-better Cars: From a Starting Point in Motorsports

Recently, President Akio Toyoda has often been adding “from a starting point in motorsports” when using the phrase “ever-better car making.” He spoke about the idea behind this at the press conference announcing the 2022 TOYOTA GAZOO Racing drivers and management members.



In 1952, shortly before his death, the founder Kiichiro Toyoda wrote the following.



“The Japanese automobile production industry must master the art of manufacturing passenger vehicles. In order to test the durability and performance of their cars, companies ought to participate in auto races, demonstrate the full performance of their vehicles, and compete for superiority. This will both lead to progress in their vehicles and spark the enthusiasm of automobile fans. Such races must not be regarded as a simple matter of curiosity, for they are indispensable to the development of Japan’s automobile manufacturing industry.”

I think that these words provide the core principle of “ever-better car making from a starting point in motorsports.” There were two cars that led me to this core principle.



I rode in the first of these cars with racer Kamui Kobayashi at Gamagori four months before entering the Super Taikyu 24-hour race. It was while I was in the car that I made

up my mind to enter the race. Although four months was hardly enough time for the engineers to prepare, I safely finished the 24-hour race as well as three subsequent races. For each race, they continued to improve the car, making it stronger and faster.



The other car is the GR Yaris.

We made this car for a specific purpose: to win the World Rally Championship.

Until now, Toyota has made its race cars by modifying its mass-production cars. That was the limit of what we could do. The GR Yaris is our attempt to flip this approach by designing a race car from the ground up. From the initial stages of development, we reached out to professional drivers to have them drive the car. When problems came to light during their drives, they were fixed, and then we had them drive the car again. Development progressed nimbly, and the car evolved into one that is fun to drive. As Morizo (my driver name), I partnered with this car on the Gamagori dirt course for training to hone my driving skills.

Drive it, break it, fix it, strengthen it, drive it again, and break it again. By repeating this process, the engineers not only advanced the car’s development, they also changed

themselves. I think that they came to understand Kiichiro’s words not just intellectually, but in a deeper, visceral way.



Come to think of it, it has been 14 years since Hiromu Naruse and I drove used Altezzas in the 24 Hours of Nürburgring endurance race. Racing on the streets toughens people up and makes cars stronger. I want to enable Toyota to make cars that way again. That may be what I have been working toward all along.

In 2009, when I became president, I implored our employees to make ever-better cars. Since then, I often get asked what kind of cars are ever-better cars.

I have a certain idea of what makes a better car. It’s not necessarily the same as someone else’s idea of a better car. What makes a better car depends on the driver. It is for this reason that cars can only be made in the streets and not at a desk.

However, back in 2009, not many people understood what I meant by this. It’s not enough to simply tell someone that the

streets make the car. I knew I had to show them what it means. That's why I continued to take part in the 24 Hours of Nürburgring endurance race.

"The streets make cars and toughen people up" became something of a catchphrase. However, changes in car making do not happen so fast.

On the front lines, each department was focused on its own specialized area of car making, and they were not handling the overarching car making process as a united team.

That was when I first went to Le Mans. It was the year after the car driven by Kazuki Nakajima, which was in the lead, suffered a mechanical failure just before the finish line. When I dropped into the pit, the drivers talked with me. In a qualifying race, Kamui Kobayashi had seized pole position with an astounding time. He passed the trophy to me while thanking me. It made me want to get closer to the drivers and race alongside them.

Racing, however, is hard. That year, only Kazuki's car finished the race, with the team coming in 8th overall, and 2nd in its class.



The other two cars had to be retired from the race. After the race, the drivers said to me, "We're sorry it won't be at the very top, but would you stand on the winner's podium with us?"

The difference between first and second place podium was a height of about 70 centimeters. I thought, is this frustration—this second-place podium—the highest we can reach? I desperately wanted to help the drivers stand at the top. I wanted to prove that Toyota could make the kind of strong car that they would want to drive. I swore to myself, standing on that podium one level down, that we would change Toyota to be capable of the kind of car making needed to achieve that, no matter what.

That year, we took on another new challenge: The World Rally Championship, or WRC. We entrusted the task of putting together a team from scratch to Tommi Mäkinen. A legend himself, having won the WRC four times, he knew how to win. However, that was not the only reason I asked for his help.



There were many things I wanted to learn from him, with his knowledge of a wide range of cars, including those of Mitsubishi and Subaru. We made only one promise to each other: to make the Yaris at the end of the season the strongest Yaris ever. The team kept this promise.

Our current team principal, Jari-Matti Latvala, was a star driver for other teams before Toyota returned to the WRC. He was such a star, in fact, that I waited in the hotel lobby for him to come out when I first went to watch the WRC. Since then, he has helped secure numerous victories as a Toyota driver, and this season, as team principal, became a triple crown holder.

Over the past five years, Latvala has, without a doubt, constantly helped make the Yaris stronger as both a driver and principal. For next year's WRC, to which Toyota will bring a new car, I am sure he will assemble a team of professionals that is like a close family and hates to lose.

Recently, I have been deliberately adding "from a starting point in motorsports" to the phrase "ever-better car making."

For 12 years, people have told us that there's no way that Toyota can realize this kind of car making. Now, however, Toyota has finally changed, realizing a kind of car making in which not only its engineers and mechanics, but its professional drivers, professional engineers, and professional mechanics all work together, as a team, to advance car making.

Now that this team has come together, we have at last reached the point where we can begin ever-better car making from a starting point in motorsports.

Motorsports is
**a starting point for
 ever-better car making**

Motorsports are the starting point for making ever-better cars.

We will leverage motorsports to make ever-better cars, from the top categories driven by professional drivers, to customer motorsports driven by amateur racing drivers, the sports cars driven by our many customers, and even down family cars, and beyond that, automated driving.

As for myself, what I know is that I love cars, and I love driving.

I am very fortunate to now have others who love cars, love driving, and are passionate about motorsports working alongside me.

Quickly Adapting to Changes in the Future Is More Important than Trying to Predict the Future



Initiatives to Achieve Carbon Neutrality: Battery EV Strategies

On December 14, 2021, Toyota held a briefing on its battery electric vehicle (BEV) strategy.

Toyota announced at the briefing that it is boosting its plans for BEV sales in 2030 from 2 million to 3.5 million units and that Lexus is aiming for BEVs to account for 100 percent of its sales in Europe, North America, and China by the same year, followed by BEVs accounting for 100 percent of its sales globally starting in 2035.

The ambitious figures and the array of planned-for-launch BEVs on the stage at the briefing led some observers to suggest that Toyota, which had been viewed by some as not having a positive position on BEVs, had changed its policy and shifted to focusing on BEVs. However, in his presentation, President Akio Toyoda stressed the importance of having diverse options. He also shared his sentiments regarding the people of the automotive industry.

Toyota's part for carbon neutrality

As the opening video ended and the venue lit up, the audience could see Akio and five new different types of vehicles filling the stage. After presenting the vehicles with arms outstretched, Akio began to speak.

Akio

Thank you very much for taking time out of your busy schedule to join us today. Today, I would like to talk about Toyota's strategy for achieving carbon neutrality—particularly our strategy for battery electric vehicles, which represent one of the most promising options.

I believe that achieving carbon neutrality means realizing a world in which all people living on this planet continue to live happily. We want to help realize such a world. This has been and will continue to be Toyota's wish and our mission as a global company.

For that challenge, we need to reduce CO₂ emissions as much as possible, as soon as possible.

We are living in a diversified world and in an era in which it is hard to predict the future. Therefore, it is difficult to make everyone happy with a one-size-fits-all option. That is why Toyota wants to prepare as many options as possible for our customers around the world.

We believe that all electrified vehicles can be divided into two categories, depending on the energy that they use.

One category is that of "carbon-reducing vehicles." If the energy that powers vehicles is not clean, the use of an electrified vehicle, no matter what type it might be, would not result in zero CO₂ emissions.

The other category is that of "carbon-neutral vehicles." Vehicles in this category run on clean energy and achieve zero CO₂ emissions in the whole process of their use. We at Toyota will do our utmost to realize such vehicles.

Five Toyota bZs revealed

Akio

Today, we would like to present to you what we have been preparing for the future. Let's start with the Toyota bZ series of our dedicated battery EVs.

The Toyota bZ means going "beyond Zero."

Freedom of movement and fun to drive for all. Our goal is not only to reduce CO₂ emissions and other negative impacts to zero. Our goal goes beyond that.

For the bZ series, we developed a dedicated platform for battery EVs to meet the diverse needs of the global market.

Akio walked up to the bZ series behind him and began to explain the highlights of each vehicle one by one.

Akio

The first model in the lineup is the bZ4X, which we recently announced. Jointly developing it with Subaru

enabled us to pursue smoothness and maneuverability as well as the drivability of a genuine SUV.



(Photo: Noriaki Mitsuhashi/
N-RAK PHOTO AGENCY)

For its launch next year, we are preparing for the production of the bZ4X at Toyota's Motomachi Plant right this very moment. We will soon begin delivering it to our customers.

Furthermore, we are expanding the bZ series lineup.

This midsize SUV has a beautiful silhouette that presages a new era for battery EVs. With just a single glance, its styling invites you to get in and go for a drive.



(Photo: Noriaki Mitsuhashi/
N-RAK PHOTO AGENCY)

And, this is the most compact SUV in the series—a small battery EV with a comfortable interior designed with Europe and Japan in mind.



(Photo: Noriaki Mitsuhashi/
N-RAK PHOTO AGENCY)

The more batteries you add to extend cruising range, the bigger, heavier, and more expensive a vehicle becomes. Because this SUV is a small vehicle, there is something we must be thorough and very particular about—power efficiency.

The important thing is determining to what degree we can increase a vehicle's overall energy efficiency, in other words how much less energy a vehicle needs to run. This is exactly the technology that Toyota has been refining for more than 30 years.

Putting our best efforts into addressing all aspects of this question, with this vehicle, we are aiming for a power efficiency of 125 watt-hours per kilometer, which would be the highest efficiency rate in the compact SUV class.

The next model is a midsize sedan that meets customers' expectations for a first car.



(Photo: Noriaki Mitsuhashi/
N-RAK PHOTO AGENCY)

We also have a large SUV with an optional third row of seats that facilitates families experiencing fulfilling times together.



(Photo: Noriaki Mitsuhashi/
N-RAK PHOTO AGENCY)

What do you think? We will not only add battery EV options to existing vehicle models but will also offer a full lineup of reasonably priced mass-production models, such as the bZ series, to meet the needs of all kinds of customers.

By doing so, we hope to deliver to customers around the world the unique and beautiful styling as well as fun-to-drive aspects of battery EVs, and the experience of a life with battery EVs.



Toyota Strengthens BEV Lineup
to Keep Offering Options for
Everyone (Full Text of President
Toyoda's Presentation)



Offering a full lineup of BEVs

Akio

Toyota is a global company supported by customers around the world.

The Toyota brand now offers more than 100 models of engine-only vehicles, hybrid electric vehicles, plug-in hybrid electric vehicles, and fuel cell electric vehicles in more than 170 countries and regions.

The Lexus brand has introduced more than 30 models of engine-only vehicles, hybrid electric vehicles, and plug-in hybrid electric vehicles in more than 90 countries and regions.

Furthermore, we will expand the options for carbon-neutral vehicles by offering a full lineup of battery EVs. Specifically, we plan to roll out 30 battery EV models by 2030, globally offering a full lineup of battery EVs in the passenger and commercial segments.

Please take a look. This is Toyota's great battery EV lineup.

A new chapter for Lexus

With Akio's arms once again stretched wide, the white wall of curtain behind the bZ series cascaded down to reveal 11 more vehicles. Akio led the applause standing in front of a total of 16 BEVs.

Akio

Welcome to our showroom of the future!

First, let's start with the Lexus brand. Lexus strives to be the brand that people who know authenticity choose at the end of the day. As brand holder, I continue to believe that.

Lexus has pursued unique styling and a unique driving signature, and, as a pioneer in hybrid electric

technology, it has refined its electrification technology. Now, Lexus is embarking on a new chapter.

Koji Sato, President, Lexus International & Chief Branding Officer
LEXUS ELECTRIFIED

This is the name of our electrification efforts here at Lexus.

Extracting the full potential of the vehicle through electrification technology—that is what electrification means to Lexus.

We will deliver a unique electrified Lexus that combines linear motor acceleration/deceleration, brake feeling, and exhilarating handling to further pursue the joy of driving.

In particular, we believe that the battery EV will become the future symbol of Lexus as a model that most clearly expresses the evolution of the automobile brought about by electrification.

The latest of these models is the Lexus RZ.

The process of strengthening the fundamentals and pursuing the Lexus Driving Signature will not change even if it is a battery EV.

The endless pursuit of the Lexus Driving Signature will move to the next stage through development of the new sports battery EV.

With bold proportions and the low ride height essential to a sports car, it will showcase the unique driving performance of a Lexus and become a model that symbolizes the future of the brand.

Acceleration time will be in the low 2-second range with a cruising range over 700 km, and, with the possible use of solid-state batteries in mind, we will

aim to create a truly high-performance battery EV.

Through battery EVs, we will develop Lexus into a brand that offers a variety of experiences harnessing performance developments that only a carmaker like Lexus could achieve and by honing the craft of making ever more personal products.

Akio

Lexus will develop a next-generation battery EV sports car that inherits the unique flavor, or secret sauce, of performance cultivated via the development of the LFA.



We will extend the flavor refined this way to other models as we evolve Lexus into a brand centered on battery EVs.

We can position batteries and electric motors to bring more freedom to battery EVs. This freedom will allow us to be more attuned to our customers, such as by meeting the various needs of different regions, the various lifestyles of our customers, and, when it comes to commercial vehicles, everything from long-distance transport to last-mile delivery.

An EV for everyone

Simon Humphries, Design Senior General Manager

The world is becoming ever more diverse. People are increasingly confident in making their own choices to lead free and enjoyable lifestyles.

At Toyota we believe that truly good products create new experiences for the customer, enhancing their

chosen lifestyle directions. From that point of view, each electric vehicle should be unique and special, not only those on dedicated platforms but also those related to existing models.

Whether that means building on Toyota's off-road heritage to create new and exciting recreational experiences or finding new ways to combine versatility with dynamic driving.

Commercial-use models such as the e-palette will change the face of daily life in the city. But we will also challenge smaller size model segments for new mobility solutions.

Compact ultra-versatility will open up new and exciting possibilities for both work use and for youngsters. And, we will take new approaches for the smallest segments, such as "Made-for-sharing," where different variations cater to different business scenes.

And, last, but certainly not least, car fans like Akio Toyoda will certainly not be disappointed.

The EV era is an opportunity and a chance for more variety and more fun!

An EV for you, an EV for me, and an EV for everyone.

Many years of accumulated experience gives Toyota a competitive edge

Akio

"An EV for everyone." So, what did you think about Toyota's battery EVs?

The future that we showed you today is by no means far away. Most of the Toyota battery EVs that we introduced here are models that will be coming out in the next few years.

We aim to achieve global sales of 3.5 million battery EVs per year by 2030.

Lexus aims to realize a full lineup of battery EVs in all vehicle segments by 2030 and to have battery EVs account for 100 percent of its vehicle sales in Europe, North America, and China, for a total of 1 million units globally. And, it aims for battery EVs to make up 100 percent of its global vehicles sales in 2035.

With that, Akio began to explain Toyota's BEV initiatives in more detail.

He walked the audience through all areas, starting with Toyota's history of vehicle and battery development and the securing of resources and energy to achieve carbon neutrality, going even so far as to introduce initiatives undertaken at Toyota's manufacturing sites.

Akio

To achieve these goals, we have invested in various areas for a long time.

In the area of vehicle development, in 1997, Toyota launched the Prius, the world's first mass-production hybrid electric vehicle. But in fact, our development of battery EVs had started before that.

In 1992, we established the Electric Vehicle Development Division, and we introduced the RAV4 EV to the market in 1996.

After that, in the 2000s, we demonstrated our small prototype commuter EV "e-com" in various places. Furthermore, in 2012, we introduced the "COMS," an ultra-small EV, and the small "eQ" EV. Thus, we have long explored the potential of battery EVs. We launched the "C+pod" and "C+walk" this year and have accelerated the development of battery EVs, including the "e-Palette," that provide people with freedom of movement in various scenes. At the same time that we started our development of battery EVs

in the early 1990s, we also began our development of fuel cell electric vehicles, which run on hydrogen. In 2002, we introduced the Toyota FCHV to the market and went through various demonstrations, and in 2008, the vehicle was redesigned into the Toyota FCHV-adv. Based on such long-term efforts, in 2014, the first-generation Mirai was finally launched. Since then, using technologies concerned to power other vehicles, such as buses and large trucks, our fuel cell electric vehicles have also continued to evolve.

In the area of batteries, Toyota has continued to research, develop, and produce batteries in-house for many years.

In 1996, we established what is today Prime Earth EV Energy. While refining our technologies related to nickel-metal hydride batteries, we started accelerating the development of lithium-ion batteries in 2003.

Furthermore, since establishing our Battery Research Division in 2008, we have been advancing research on solid-state batteries and other next-generation batteries.

Last year, we established Prime Planet Energy & Solutions to accelerate integrated efforts in the battery business.

Over the past 26 years, we have invested nearly 1 trillion yen and produced more than 19 million batteries. We believe that our accumulated experience is an asset that gives us a competitive edge. Going forward, we will increase our new investment in batteries from the 1.5 trillion yen announced in September 2021 to 2 trillion yen, aiming to realize even more-advanced, high-quality, and affordable batteries.

When it comes to natural resources, Toyota Tsusho began conducting lithium and other surveys as early as 2006 and has been working to secure stable sources.

And, in the area of energy, Toyota Tsusho has been working to secure renewable energy sources such as wind and solar power generation for more than 30 years.

Furthermore, at manufacturing plants, we are aiming to achieve carbon neutrality by 2035 by continuously making steady improvements toward reducing energy use and by expanding the use of innovative production engineering technology.

In this diversified and uncharted era, it is important to flexibly change the type and quantity of products produced while keeping an eye on market trends.

We believe that the reduction in lead times and high-mix, low-volume production methods that we have cultivated through the Toyota Production System, along with the steady efforts of Japanese manufacturing, will enable us to be competitive going forward.

We will continue to advance initiatives in all areas together with many of our partners.

"The future is something to be created by all of us."

Akio, who had thus far detailed Toyota's sincere approach to BEVs, concluded with a reiteration of Toyota's reasons for adhering to a multi-solution strategy and his thoughts on an automotive industry united in striving to achieve carbon neutrality.

Akio

Energy plays a critical role in achieving carbon neutrality. At present, the energy situation varies greatly from region to region. That is exactly why Toyota is committed to providing a diversified range of carbon-neutral options to meet whatever the needs and situations might be in every country and region.

It is not us but local markets and our customers who decide which options to choose.

As for why we try to keep so many options open, in terms of business management, one might think it would be more efficient to focus on fewer choices.

However, we believe that quickly adapting to changes in the future is more important than trying to predict the future, which is uncertain. That is why we want to keep options available for our customers until the right path is clear.

We at Toyota aim to be a company that contributes to the global environment, seeks to bring happiness to people, acts, and stays close to its customers. To sum it up, we want to become a company that produces happiness for all, for both individuals and society.

We want to pass on an ever-better future for the children of today and those who will come after them. We always want the future to be brighter.

I believe that the future is something to be created by all of us together. Japan's automotive industry is home to our 5.5 million colleagues who have supported Japanese manufacturing and mobility. And, we have many more colleagues throughout the world.



550万人の仲間
5.5 million colleagues in the industry

If we all take action with unity of mind and with will and passion, we will be able to leave behind many smiling faces and a beautiful Earth for the next generation.

That is what I believe and that is what we will achieve.



Answers to Five Questions
about Toyota's BEV Strategy
(Report on Media Q&A Session)



"Do you like
battery EVs?" Akio
Toyoda's Response



(Photo: Noriaki Mitsuhashi/N-RAK PHOTO AGENCY)

At a Q&A session with the media after his presentation, President Akio Toyoda talked about his ideas.

Why the BEV sales forecast for 2030 has been revised upward

— What is the reason for this large upward revision from 2 million BEVs by 2030 to 3.5 million?

The 2 million units mentioned by the reporter was the initial forecast Toyota announced back in May, and was, in fact, sales of zero emission vehicles, including fuel cell electric vehicles. Only seven months later, Toyota added 1.5 million more BEVs and revealed a new guideline of 3.5 million BEVs.

Akio

Firstly, the 2 million units of zero emission vehicles is a significant amount. Most Chinese automobile companies record roughly the same amount of vehicle sales. To that, we are adding another 1.5 million to make it 3.5 million, which is equivalent to the volumes sold by Daimler, PSA, and Suzuki Motors if they made all their vehicles BEVs.



Regardless of the powertrain, whether it is a BEV or an FCEV, what matters in achieving carbon neutrality is the energy that the vehicle uses. Whether the vehicles are carbon-reducing vehicles or carbon-neutral vehicles will rely on the energy situation in each region.

At COP26 this year, various countries' policies became clear. As that happened, after revisiting our plan, we realized that we could achieve a higher level of carbon-neutral vehicles sales than previously anticipated. We came up with this revised figure after that discussion and plan review.

Is this a strictly BEV shift or part of a multi-solution approach?

— Going forward, are you going to focus more on BEVs amid a variety of other electrified vehicles? Or has your strategy of BEVs being just one part of a full lineup of electrified vehicles not changed?

Toyota's consistent approach to vehicle electrification has been a multi-solution strategy. The company has committed to offering a wide variety of products to meet diverse customer needs, instead of focusing on fewer choices.

In his presentation, Akio clarified his stance on the multi-solution strategy, saying "we want to keep options available for our customers."

However, one might think that Toyota is shifting its focus to BEVs, with the upward revision of the sales volume,

Lexus becoming a brand dedicated to BEVs, and the growing investment of 4 trillion yen for BEVs (including 2 trillion yen for batteries).

Akio

We have made the utmost efforts toward achieving carbon neutrality, and we will continue to do so going forward.

Toyota is a global company with a full lineup of products. We have seen changes in the energy situation in each country, and the way customers use vehicles is now more diversified.

It is the customers, not us at Toyota, who choose which options to use. So, no solution will come from our decision alone.

What we will do is have a wider range of available options, and to make serious efforts across our full lineup of options.

We want to be prepared to meet customer and market expectations and preferences more quickly, and more flexibly. In this way, I believe that we will be able to enhance our competitiveness, and that is how we will be able to survive.

Just because I drive a hydrogen-powered vehicle, it does not mean that I am prioritizing it over others.

All of our employees, suppliers, affiliated companies, and the 5.5 million people working in the automobile industry, have made serious efforts in Japan in achieving carbon neutrality.

For us at Toyota, we do business and operate worldwide, and the full lineup of products is key in our global operation. I hope you see that we are putting serious effort into this approach.

Why not pursue 100% BEVs across the whole lineup?

— As the largest carmaker in the world, why are you targeting only 35% of your current volume? Why not go for 100% or 50% as many of your competitors have now done? Why is 3.5 million sufficient in your mind?

As Akio pointed out at the beginning, the upwardly revised figure of 3.5 million in global BEV sales is equivalent to the entirety of sales of one of the top ten automakers in the world.

However, in many cases, the assessment of an automaker's attitude toward BEVs is not based on the absolute number of vehicles sales, but on the sales ratio. This question reflects precisely that attitude.

Akio

With a baseline toward 2030, we want to increase our carbon-neutral vehicles as much as possible.

However, the energy situations in individual countries have had a big impact on the path to carbon neutrality. That is the reality. I hope you understand that this is something Toyota cannot control.

If no sufficient clean energy and charging infrastructure exists in a market, expanding our BEVs and limiting options for customers will result in inconveniencing customers. We want to avoid that.

When we look at the global market, it is a diversified market that we are dealing with, and that is what Toyota does.

Diverse solutions are necessary in diverse situations. Also, the best solution for the average person will not necessarily be the best solution for everyone.

Therefore, as we are in uncharted territory with lots of uncertainty about the future, we want to take a diversified approach. That is why we have worked hard to maintain our full lineup. We will take on this challenge together with our suppliers, affiliated companies, and partners. That is what I would like you to understand.

Toyota vehicles are used all over the world to fill various needs, not just for one particular market or one specific need.

Thoughts on preserving jobs

— Your suppliers are closely watching this announcement, since some of them could face major impacts. What are your thoughts on employment within the industry?

Since the end of last year, in his other role as chairman of the Japan Automobile Manufacturers Associations (JAMA), Akio has pointed out that the rapid shift to BEVs would lead to risking automotive jobs.

The question was about whether he has changed his stance on the employment issue as he announces this enhancement of Toyota's BEV strategy. Akio responded to this question, expressing his passion for suppliers and, by extension, the automotive industry.

Akio

First of all, it is the market and customers who decide which carbon-neutral options to choose. This is the premise here.

The numbers related to carbon neutrality that we have heard so far are goals for 2040 or 2050.

We don't want to be a company that sets an appealing target but doesn't bother trying to achieve it when the announcement is done. What we are announcing today is a bit more in the near term.

Many of the cars that you are looking at right now will be launched on the market very soon.

Looking at the run up to 2030, what we present today will be a good tool to start discussions and take action with various stakeholders while leaving room to imagine more what the next 8 years will be like.

By presenting a guideline in the product planning area, we will be able to examine the potential impact on our suppliers or our production plants.

As the chairman of JAMA, I have warned that the jobs of 1 million of the 5.5 million people employed in the automotive industry would be lost if new car sales in Japan become 100% BEVs. At that time, various companies came out with some vague target numbers and not any specific figures or road maps to achieve them.

But recently we have seen more concrete plans for the near-term future from different OEMs. Now, at Toyota, we're also coming up with very concrete plans including for models to be launched. We'll have a renewed discussion based on this.

The automotive industry accounts for 75% of the components procured from suppliers and there are tier one, tier two and tier three suppliers supporting the industry. Even if we emphasize the importance of keeping many options available, that change becomes a critical issue for suppliers who have until now produced only engine-related parts.

We shouldn't just say that it changed because the market chose it. I would like to make the automotive industry such that the people and companies who have been doing a certain business for a long time, no matter what kind of work they do or the size of the company, will not be disappointed about their lives and we will continue to show respect for their meaningful work.

The future is not determined by the goals presented by leaders, but by purposeful passion and action. Toward the goal for carbon neutrality in 2050, the view of the future in 2050 will change depending on how we act in the next few years, five years, and ten years, and we want to make the change happen.

The future will not suddenly emerge from the present; rather, the future will be created by the accumulation of present moments as they become the past. We hope that you will allow us to leave many options open in this process.

It is not true that we are not fully committed because our goal is not 100%. We hope you will understand that we would very much like to continue our work in this industry.

Evaluation by environmental groups and the future of engines and BEVs

— An environmental group put Toyota at the bottom of the climate action rankings. Let me ask you again. What is Toyota's position on BEVs? Also, what is the future plan for engine development?

Last month, one environmental group ranked Toyota the lowest in its climate action ranking of automakers, which has become a major topic of discussion.

From early on, Toyota has been making more efforts to promote more fuel efficient engines and electrified vehicles, including hybrid electric vehicles, to reduce CO₂ emissions more than any other automaker. Currently, Toyota is in the most advantageous position to comply with strict fuel efficiency regulations, but the company received this unfortunate ranking.

Akio explained Toyota's commitment to car manufacturing.

Akio

It is their ranking, so we take it seriously, but if we are still not considered proactive toward BEVs with our 3.5 million BEVs and 30 new models to come, what should

we do? If that's the case, I would like to ask them to let us know what would improve their evaluation.

Things look differently if we go by percentage or by absolute numbers. Vehicles are for individual customers. One vehicle, for one customer. It's not a percentage business, it's the absolute numbers that we want them to look at when evaluating.

No matter how many vehicles we sell, we will make and deliver them to customers one by one, without compromise.

Whatever powertrain it is, or whatever type of BEV it is, Toyota and Lexus vehicles should continue to offer the value of fun to drive. We will continue to make products with the unique character of Toyota and Lexus that makes customers happy.

We will continue to take proactive action for carbon neutrality. In a world where there is no right answer, we are committed to solving problems with a wide variety of options. We hope you understand that we are working really hard on every option.



(Photo: Noriaki Mitsuhashi/N-RAK PHOTO AGENCY)

The speakers stressed the importance of Toyota's multi-solution strategy while strengthening BEVs. This

represents not only Toyota's way of fighting for the future, but also its history of listening to customers and responding to their needs.

In other words, it is the result of Toyota's commitment to diversity.

Toyota is now moving with all its power toward carbon neutrality while leaving no one in the industry behind, and without giving up on any technology that still has potential.

What has been, and will continue to be, at the center of Toyota's full-lineup strategy is a strong will to leave no one behind.

“Do you like battery EVs?”

During the question and answer session, there was a scene in which President Akio Toyoda revealed his honest thoughts.

— I was quite surprised with today's announcement, but what I want to know more about are President Toyoda's true feelings about BEVs.

I think you have a lot of aspirations for hydrogen and hybrids, and your true thoughts have been made public on many occasions, but for battery EVs, I think it's more like “here, we're doing it”—kind of a business-like presentation.

I want to clarify this. Personally, President Toyoda, do you like BEVs or not? If it's difficult to respond as the president of the company, you can respond as driver Morizo.

Akio is known to be a petrolhead. During a talk session at the Tokyo Motor Show 2019, while showcasing Toyota's future concept cars at the venue, he shared his honest feelings toward engine vehicles, saying, “I like

cars with wild flavors such as the smell of gasoline and a lot of noise.”

As part of Toyota's endeavor in expanding options for carbon neutrality by 2050, from May of this year, he himself has taken the wheel of a hydrogen-powered vehicle in the Super Taikyu Series races.

From the perspective of fostering environmentally friendly technology, Akio sends enthusiastic encouragement to the team that has been competing in the 24 Hours of Le Mans and the WEC (FIA World Endurance Championship) with Toyota's hybrid system from 2012.

With that in mind, Akio, either as a Master Driver of Toyota or driver Morizo, has not shown a moment in which he enthusiastically enjoys driving BEVs.

As most of the reporters asked questions to delve into the company's BEV strategy, this straightforward and personal question thrown to Akio put a smile on his face, making him admit that “it's a great question.” Akio responded as follows.

Akio

If I have to answer, honestly, in the past I was not interested in Toyota's BEVs, but I am getting interested in the BEVs that we are now developing for the future.

After improving my driving skills, I test-drove a battery electric Toyota 86 for the first time here at MEGA WEB. The comment that I gave after my test drive was that “it's an electric vehicle.”

We have the Lexus brand and the Toyota brand, and we are an OEM pursuing distinctiveness in each brand. But when it comes to BEVs, the car becomes more like a commodity.

I think you saw my honest feeling. Of course, I support BEVs in terms of business, but the question is whether I support them as driver Morizo.

I'm a master driver, and in the training I went through back in the day, I always drove an FR vehicle.

But now I participate in rally races and the Super Taikyu races. In these motorsports, I now drive a four-wheel drive vehicle as well. My sensibility as a master driver has changed with these vehicles.

I now think that electric motors have higher efficiency than gasoline-only-powered vehicles. If we have a good four-wheel drive platform, it can become an FF vehicle or an FR vehicle through control technology.

So, with that kind of control technology, I think Morizo will be able to drive fast and safely on any circuit or rally course.

Nori-san (rally driver Norihiko Katsuta) has won the All-Japan Rally Championships this year. The professional drivers of ROOKIE Racing are very active in various motorsports circuits.

Those driving skills of professional drivers are reflected in our vehicles to make them safer and more fun-to-drive. I have such expectations.

At the same time, this platform has enabled us to make vehicles that allow amateur drivers like me to enjoy driving on various roads, however rough, whether it's a mountainous road or snowy road or whatever. This is a big change in our company.

Control technology plays a key role there, but it alone can't push major improvements. If we try to create driving flavor only through control technology, it's like adding crispy tempura to overcooked noodles.

But over the past several years, starting with our Toyota New Global Architecture (TNGA) initiatives, we have made steady improvements in the vehicles' basic frame, chassis, and body rigidity, under the banner of “let's make ever-better cars.”

We also opened the Shimoyama proving ground, and we are now testing and developing cars under these tough conditions.

With this environment, I think we are now at a point where we can develop safer and faster vehicles with more fun-to-drive aspects. I look forward to developing such BEVs as well moving forward.

That's why it's not just a business matter anymore. Even as driver Morizo, I have strong expectations for and a desire to give my feedback to our development, such as “making this kind of car would be fun” or “as an automaker we want to create autonomous driving that is unique, even in an era of autonomous driving.”

We will continue to make serious efforts in BEVs and other powertrains such as fuel cell electric vehicles, hybrid electric vehicles, and gasoline-only vehicles that have exciting sounds.

I'm still quite serious about them as Morizo and as the president of Toyota. We're working with our colleagues and partners very seriously in all of these fields. We want to provide customers with vehicles that can make them happy.

This comment could only come from Akio, who takes the wheel himself and is responsible for the driving feel of Toyota vehicles as Master Driver and Morizo. “We will continue to make ever-better cars with BEVs” —this might be the very message that he wanted to convey the most to car enthusiasts.

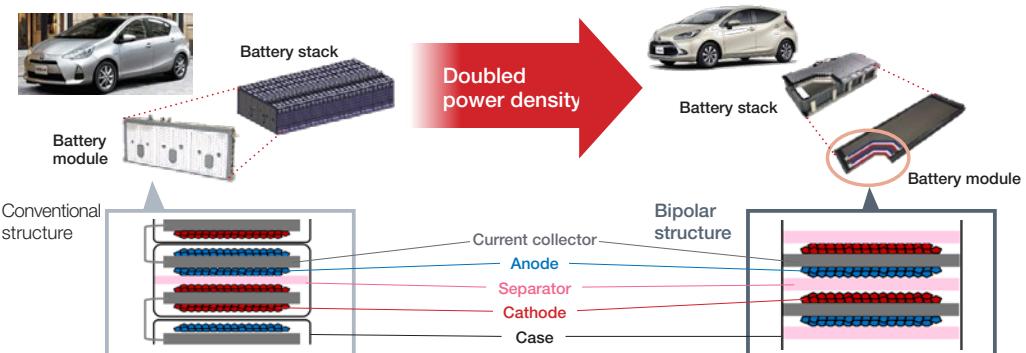
Initiatives to Achieve Carbon Neutrality: The Development and Supply of Batteries

Blazing a Path toward the Future of Electrified Vehicles through the Integrated Development of Batteries and Vehicles

Toyota's Plans for a Full Lineup of Batteries

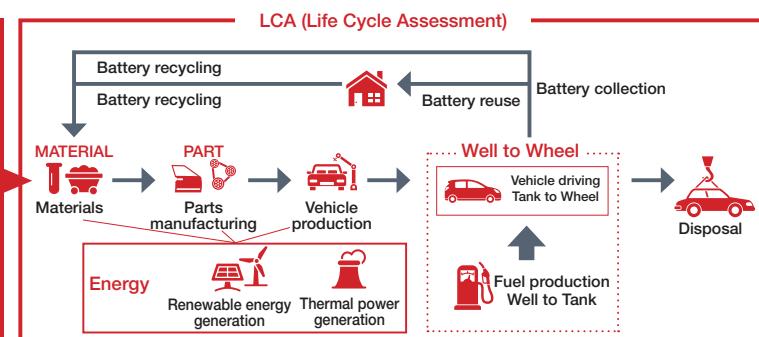
While promoting a full lineup of electrified vehicles, we have also been developing and manufacturing a full lineup of batteries. These development efforts are organized by type of electrified vehicle. For HEVs, our focus is on power output, or in other words, instantaneous power, while, when it comes to PHEVs and BEVs, our focus is on capacity or what can be called "endurance."

Bipolar Nickel-metal Hydride Battery



Taking up the challenge of innovating battery structure for more powerful acceleration
Power density doubled from the conventional batteries for the Aqua

What Is Carbon Neutrality
With regard to industrial products, for example, carbon neutrality means reducing CO₂ emissions to zero throughout the product life cycle, starting from the procurement of raw materials, manufacturing, and transportation through use, recycling, and disposal.



As for batteries for HEVs, we have been continuously upgrading nickel-metal hydride batteries and lithium-ion batteries, taking advantage of their respective characteristics. In particular, we took on the challenge of developing a bipolar structure in the course of creating a nickel-metal hydride battery to be installed in the Aqua, which underwent a full-scale redesign completed in July 2021, and have become the first in the world to commercialize a battery of this kind as an onboard battery for driving. Compared to the batteries used in the previous generation of the Aqua, the output density has been doubled, giving the car a powerful acceleration sensation. We are currently engaged in development aimed at creating more-advanced lithium-ion batteries by the second half of the 2020s.

In the new Aqua—the world's first use as a vehicle drive battery

Striking a Balance among Five Factors

To develop batteries that our customers can use with peace of mind, we focus on producing batteries that stand out for their "safety," have "long service life," boast "high-level quality," and are "good yet affordable" as well as capable of "outstanding performance."

For example, a longer service life affects a vehicle's residual value. In terms of cruising range, high energy density and high-level performance are also necessary. On the other hand, over emphasis on a fast charging speed may increase the danger of overheating or even fire and thus decrease battery safety.

This concept has remained unchanged since batteries were installed in the first-generation Prius, and it applied to all the batteries in all of our electrified vehicles.

Although Toyota is committed to balancing the five factors, too much emphasis on one could be detrimental to the others. That's why we believe that the integrated development of batteries and vehicles is essential.

How batteries are used depends on how the vehicles in which they are installed are used. For example, the environments in which vehicles are operated differ according to each vehicle's mode of use, for example, if it is being used as a taxi or for commuting, as well as geographic location, and these factors will affect such conditions as charging frequency and battery temperature. Accordingly, we carry out mock driving tests that assume a diverse range of vehicle usage in order to obtain data on actual usage environments and provide feedback to inform the evaluation and design of batteries.

To determine the balancing point of the five factors discussed above, it is necessary to obtain driving data that includes driving conditions and usage environments, find out what the conditions would be like if batteries were used instead, and repeatedly verify what is happening inside the batteries. Such steady and earnest efforts for both batteries and vehicles are the secret behind Toyota's advantages.

Toyota's Efforts for Batteries That Enable Peace of Mind

Here, we introduce three examples of the effort required to produce batteries that can be used safely, using lithium-ion batteries as the focus of our explanation.

The first example is about our pursuit of safety. It is known that each battery cell shows signs of localized abnormal heat generation during spirited driving or other driving that places a large load on the battery. By analyzing the phenomena occurring inside the battery and conducting a vast number of model experiments, we have been able to clarify the effect of driving style on the battery, as well as the mechanism of this effect. Based on the results, we have been able to detect signs of abnormal local heating of cells through multiple monitoring of voltage, current, and temperature of individual cells, blocks of cells, and the entire battery pack. The battery is then controlled to prevent abnormal heat generation. We adhere to our concept of ensuring safety, security, and reliability right down to the local areas within each battery when it comes to BEV systems.

The second example is our commitment to long service life. We have applied the technologies that we have cultivated through the development of batteries for HEVs to PHEVs, and the batteries in the C-HR BEV have a much higher capacity retention rate after 10 years than the batteries hitherto used in our PHEVs. Furthermore, for the Toyota bZ4X, which is scheduled to be launched in mid-2022, we have set a target of 90 percent endurance performance,* which is one of the highest in the world, and we are currently finalizing our development efforts to achieve it.

* This represents a target value for a model in the development process and does not indicate the performance of vehicles to be released. In addition, the figure applies only to a vehicle that has operated for 10 years or been driven 150,000 miles (240,000 kilometers).

The third example has to do with our efforts to achieve high-level quality. If metallic foreign matter enters a battery during the manufacturing process and causes a direct electrical connection between the anode and cathode, the possibility of product failure increases. To address this issue, we confirm the shape, composition, size, and possible effect on endurance of every piece of foreign matter that could enter during the manufacturing



process, and we clarify how that item may affect the battery. Based on this analysis, we are extremely attentive to the size and shape of foreign matter, and we are managing processes in a way that is aimed at preventing the generation or entry of relevant foreign matter.

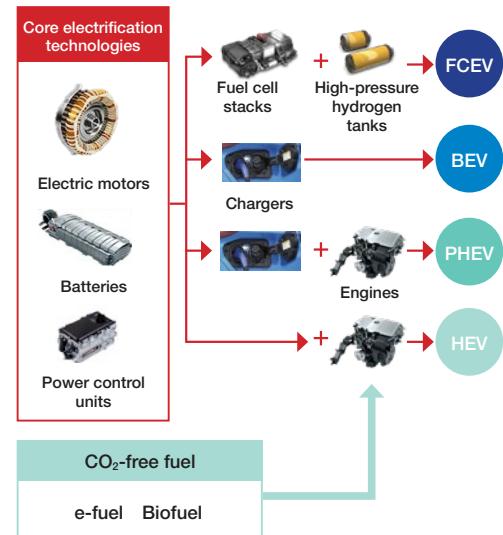
Halving Battery Costs through the Integrated Development of Vehicles and Batteries

To popularize BEVs, we strive to reduce costs via the integrated development of vehicles and batteries to provide BEVs at a reasonable price.

To start with, we aim to reduce the costs of batteries themselves by 30% or more by developing materials and structures. Then, for the vehicle, we aim to improve power consumption, which is an indicator of the amount of electricity used per unit of distance, by 30%, starting with the Toyota bZ4X. Improved power efficiency leads to reduced requirements for battery capacity, which will result in a cost reduction.

Through this integrated development of vehicles and batteries, we aim to reduce the battery cost per vehicle by 50% compared to the Toyota bZ4X in the second half of the 2020s.

Technologies Supporting Full Lineup of Electrified Vehicles



Using Solid-State Batteries Starting with HEVs

In the near future, the energy density of conventional lithium-ion batteries per unit of weight is expected to see its peak. Accordingly, vigorous efforts are now under way to develop next-generation lithium-ion batteries, aiming to achieve longer service life, greater energy density, more compact size, and lower costs. At Toyota, we push ahead with the development of such batteries by employing the following three approaches.

For liquid batteries, which use liquid electrolyte, we are taking on the challenge of realizing "material evolution" and "structural innovation." At the same time, we are aiming to commercialize all-solid-state batteries that employ solid electrolyte instead of liquid electrolyte. As such, our wide-ranging development efforts are aimed at creating three types of batteries, and by the second half of the 2020s, we hope to improve the characteristics of each type so that we can provide batteries that can be used with peace of mind.

With regard to all-solid-state batteries, we promote development aimed at achieving higher output, longer cruising range, and shorter charging

times. In June 2020, we built a vehicle equipped with all-solid-state batteries and conducted test runs on a test course to obtain driving data. Based on that data, we continued to make improvements, and in August 2020, we obtained license plate registration for vehicles equipped with all-solid-state batteries and conducted test drives.

In the course of the development process, we discovered that the fast movement of ions within all-solid-state batteries could possibly enable them to achieve higher output. On the other hand, it was revealed that these batteries tend to deteriorate faster due to the formation of gaps within the solid electrolyte, posing an issue of shorter service life. Therefore, we need to continue development, mainly of solid electrolyte materials.

We will start the introduction of all-solid-state batteries with those for HEVs as these vehicles require high output. We have also accumulated a wealth of know-how regarding HEVs. We will release these batteries to the market as soon as possible in order to gain customer feedback and continue to improve them.

Flexible Battery Supply

With the rapid expansion of EV usage, we are working to build a flexible system that can stably supply the required volume of batteries at the required time while meeting the needs of various customers in each region around the world.

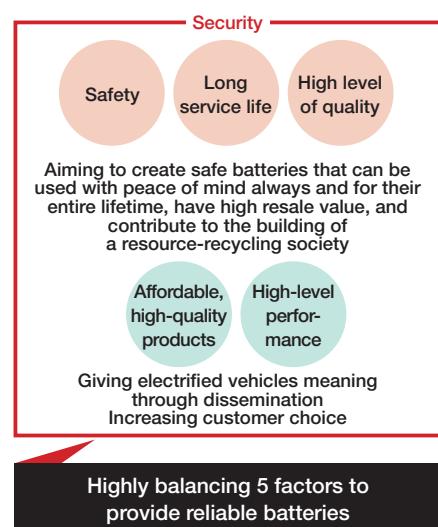
To this end, we will establish needed technologies by conducting a certain amount of in-house production in the pursuit of our battery development concept of achieving batteries that can be used with peace of mind. We will then cooperate and collaborate with partners who understand and will put into practice our concept. We will also proceed with discussions with new partners in some regions.

Our approach to production within the Group can be described as "starting up using small basic units." This approach draws on lessons learned from the global financial crisis. It is difficult to notice latent risks when production is growing. Because of this, we have to take a risk-controlled approach to growth based on Toyota's philosophy of "making only what is needed, when it is needed, and only in the amount needed."

For example, the production of all-solid-state batteries will start with batteries for HEVs, which

Toyota Concept for Battery Development

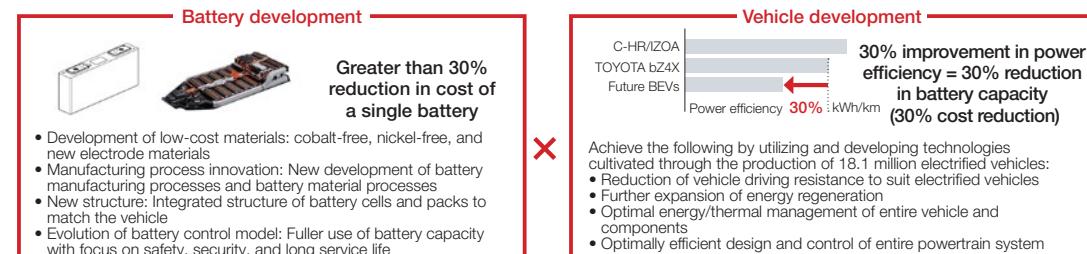
Universally applied to HEV, PHEV, BEV and FCEV batteries



Next-generation BEVs



Battery Cost Targets: Integrated Vehicle-battery Development



we have been developing for years and that require a small battery volume, rather than building a massive production line for batteries for BEVs, which require a larger volume of batteries. This will not only enable us to accelerate the release of the products but also position us to better focus on improving manufacturing technologies. Moreover, Toyota's strategy of "starting up using small basic units" is also meant to enable the company to swiftly respond to changes arising from the arrival of a new technology, which often occurs in the course of a product cycle when the manufacturing costs for the old model come down and stabilize.

Batteries for 260,000 BEVs Can Reduce CO₂ Emissions 20 Times More if Used in HEVs

Since the introduction of the first-generation Prius in 1997, Toyota has also introduced PHEVs, FCEVs, and BEVs, while improving their performance. Over the course of more than 20 years, our cumulative sales of HEVs have reached 18.1 million units as of July 2021.

Next-generation Lithium-ion Battery

Aims

Longer service life	Greater energy density	More compact size	Lower cost
Evolution in liquid-based battery materials	Innovation in liquid battery structure	All-solid-state batteries	
Composition	Electrolyte	Solid electrolyte	
Structure	Prismatic	New Structure	Laminated

Taking on the challenge of developing a wide range of batteries for the second half of the 2020s Providing BEVs equipped with batteries with improved characteristics that enable driving with peace of mind

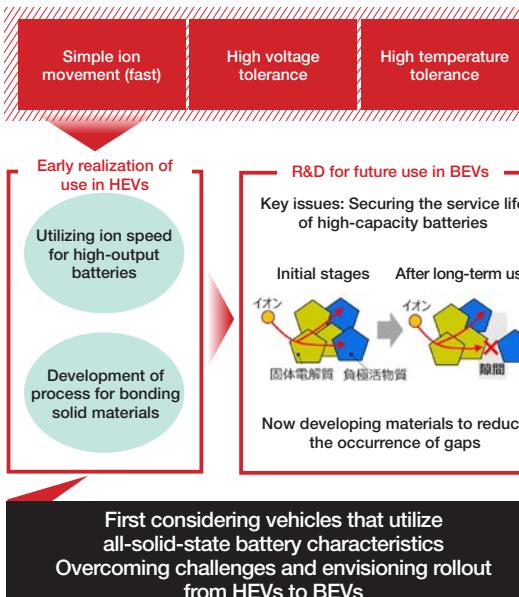
According to a Toyota estimate, the CO₂ emissions reduction effect of three HEVs is equivalent to the reduction effect of one BEV. Accordingly, the 18.1 million HEVs sold to date are equivalent to the CO₂ reduction effect of introducing to the market about 5.5 million BEVs. The volume of batteries for HEVs that we have produced so far is the same as that of the batteries installed on about 260,000 BEVs. In other words, we can say that the batteries needed for 260,000 BEVs have been used to achieve the CO₂ emissions reduction effect of 5.5 million BEVs.

Developing FCEVs to Realize an Ideal Vehicle

In the field of fuel cell electric vehicles (FCEVs), we released the completely redesigned Mirai in December 2020. Premised on the use of an FCEV system, the development of the second generation Mirai was promoted to deliver a futuristic premium car that will be genuinely appreciated and sought after by our customers. Specifically, we strove to deliver a vehicle that can win drivers'

Future Developments and Challenges Associated with All-solid-state Batteries

Merits of all-solid-state batteries



hearts during and after driving, if not from the moment when they first catch sight of it.

Moreover, Toyota aims to become a fuel cell (FC) system supplier supporting the realization of a hydrogen-powered society. In line with this aim, we provide a variety of business operators with a compact FC system module package that we have developed. This package consists of FC stacks for the second-generation Mirai, which boast higher performance, as well as air supply, hydrogen supply, cooling, power control and other FC system-related parts.

In North America, we have unveiled a new prototype for an FC commercial heavy-duty truck that uses the second-generation FC system installed on the new Mirai. This truck boasts considerably improved performance, including more powerful acceleration and flexible driving response. Furthermore, having attained a maximum loaded weight of 80,000 pounds (approximately 36 tons) and cruising range of 300 miles (more than 480 kilometers), the truck is designed to accommodate a range of commercial truck needs. We will conduct the verification

testing of this new FC truck in actual cargo transport operations.

Utilizing "e-Fuel" Made of Hydrogen

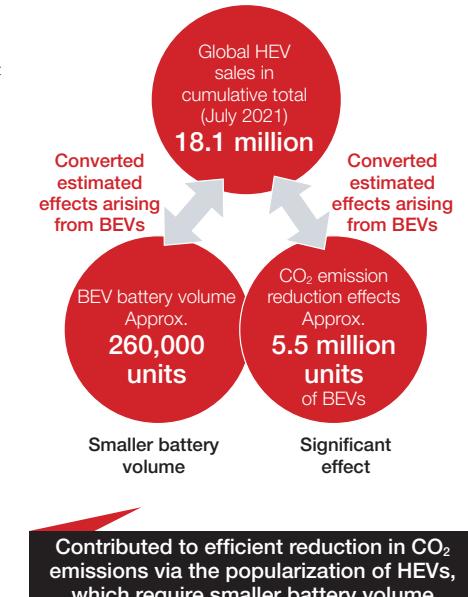
Toward achieving carbon neutrality, we are also considering a revolutionary approach expected to enable us to drastically curb CO₂ emissions through the combination of such "carbon-neutral fuel" as "e-Fuel" made of hydrogen and biofuel, with high-efficiency engine and motor technologies. Not only is the above approach practicable via the use of existing infrastructure, it could help us reduce CO₂ emissions from all types of vehicles currently being used.

For example, when gasoline vehicles are fed gasoline mixed with a certain amount of "e-Fuel," the volume of their CO₂ emissions declines to a level on par with emissions from HEVs. The mix of "e-Fuel" in gasoline will similarly curb the volume of CO₂ emissions from HEVs to a level on par with PHEVs. Even PHEVs can benefit from the use of "e-Fuel," which will help reduce their CO₂ emissions to be close to emissions from BEVs.

Battery Procurement and Collaboration Structure



CO₂ Emission Reduction Effects Realized thus Far



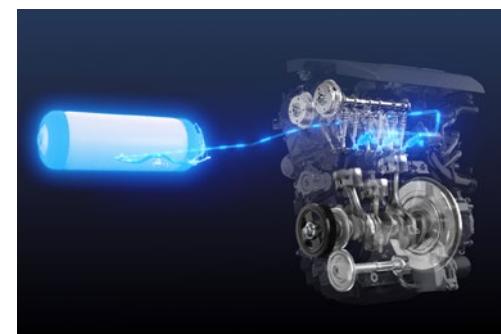
Initiatives to Achieve Carbon Neutrality: Hydrogen Engine

Building a Carbon-neutral Future Is an Intentional Passion and Action

A New Approach to Carbon Neutrality

Toyota Motor Corporation announced in April 2021 that it is working on the technological development of a hydrogen engine. While fuel cell electric vehicles (FCEVs) are driven by electric motors powered using electricity generated by a chemical reaction between hydrogen and airborne oxygen, vehicles powered by hydrogen engines get their zoom by directly burning hydrogen as fuel in a modified conventional gasoline engine setup. The fuel is 100-percent pure hydrogen, unmixed with gasoline. As no fossil fuels are burned, except for the combustion of minute amounts of engine oil during driving, hydrogen engine vehicles emit nearly no CO₂ when in operation. To realize carbon neutrality, it will be important to increase people's options without losing sight of the goal.

Hydrogen engine technology, which draws on many decades of tried and tested internal combustion engine technology, holds the major hidden possibility of contributing to carbon neutrality. It is one option for safeguarding engine-related employment in Japan's auto industry.



At the end of 2020, Master Driver Morizo (President Akio Toyoda, using his race driver name) swiftly came to a decision: he would drive

a prototype vehicle, enter the 2021 Super Taikyu Series race, and thereby train on the front line of motorsports. Development in motorsports takes place on a much shorter timeline than it does for mass-produced automobiles. It is also more flexible. To realize carbon neutrality, we determined that motorsports is the most appropriate venue for training on and developing hydrogen engines.

To realize carbon neutrality, we need to expand options for creating, distributing, and using energy, and cooperation with a wide range of companies will be indispensable. While training with the hydrogen engine at the 2021 Super Taikyu Series, we gained many friends with the requisite will and passion for such collaboration.

In May, the third 24-hour race held in Fuji took on the challenge of using alternative energy. The Super Taikyu institution supported our racing with a hydrogen engine. We were able to complete the 24-hour race with the cooperation of many supporters, including Denso Corporation, which collaborated with us on the development of basic parts; Iwatani Corporation and Taiyo Nippon Sanso Corporation, which collaborated on the supply of hydrogen; and FH2R in Namie-cho, Fukushima Prefecture.



At the fourth race held in Oita, we worked to expand options for creating energy. We used hydrogen that was refined using the geothermal power of Obayashi Corporation in Kokonoe, Oita Prefecture, and the photovoltaic power of Toyota Motor Kyushu's Miyata Plant in Miyawaka, Fukuoka Prefecture.

At the fifth race held in Suzuka in September, we took on the challenge of energy distribution. We used hydrogen derived from Australian brown coal in collaboration with Kawasaki Heavy Industries, Iwatani Corporation, and Electric Power Development.

In Japan, hydrogen is shipped in small fuel cell (FC) trucks, made by Commercial Japan Partnership Technologies (see page 28), and Toyota Transportation's biofuel trucks. Options for distributing energy within Japan have expanded as have those for distributing energy overseas.

At the sixth (and final) race held in Okayama in November, we made further progress on building partnerships for expanding fuel options for internal combustion engines. In cooperation with Kawasaki Heavy Industries, SUBARU, Mazda, and Yamaha Motor, we announced that we would try to (1) enter races using carbon-neutral engines (Mazda: using next-generation bio-diesel fuel) (SUBARU, Toyota: using bio-mass derived synthetic fuel and entering the 2022 Super Taikyu Series) and (2) consider using hydrogen engines for two-wheeled vehicles (Kawasaki Heavy Industries, Yamaha Motor: began considering joint research). Furthermore, in joint research for hydrogen engines with an eye toward installing them in two-wheeled vehicles, four companies (including Honda Motor and Suzuki) will continue searching for possible ways to realize carbon neutrality.

TOYOTA Times



Why Race with a Hydrogen Engine Not Yet Ready for Sale



In this way, the auto industry will become a pacesetter promoting initiatives that play to industry strengths while aiming for the realization of a carbon-neutral society. Through this such intentional application of passion and action, the future vision for the next 10 to 20 years will evolve. With courage and determination, we can shape this future vision and continue to take on challenges and go beyond the industry borders going forward.



Initiatives to Achieve Carbon Neutrality: *Monozukuri* (manufacturing)

Taking on the Challenge of Embodying Skilled Manufacturing, a Key to the Future

Manufacturing has long been the main driving force behind Japan's industrial development. However, we cannot take it for granted that Japan's strength in manufacturing will last forever. This strength, which has been nurtured over many decades, could be lost for good if we fail to hold on to it. Japan is an earthquake-prone country, and its manufacturing prowess has been refined by adversity. In truth, Japan's manufacturers have been made even stronger by overcoming one natural disaster after another.

When the Great East Japan Earthquake struck in 2011, our plants and equipment suffered grave damage due to the unprecedented scale of the disaster, and the restoration of their operations took a long time. However, having gone through this trial, we have become even better at minimizing disaster damage through the emergency handling of equipment and immediate crisis response in other areas.

When the COVID-19 pandemic forced automakers to suspend production in 2020, we voluntarily started to produce masks, face shields,

and foot-operated disinfectant application devices. We also employed our TPS (Toyota Production System) to assist in the production of such goods as medical gowns. In sum, it was proven that our response to emergencies has become prompter and more proactive.

When a fire broke out at a semiconductor parts manufacturing plant in 2021 and forced it to halt production, we pulled together to support its restoration efforts. With our teams in charge of parts procurement and equipment manufacturing demonstrating outstanding collaboration, the damaged equipment was reconstructed in two months. We thus accomplished a difficult task that would otherwise require at least seven months.

Monozukuri (manufacturing) is about developing people. It is not an exaggeration to say that Japan, which turns hardships into strengths, is an optimal place for manufacturing.

A Path toward a "Green Factory"

Toyota is currently taking on the challenge of creating a "green factory" on various fronts to realize a target of reducing the volume of CO₂ emissions from its plants worldwide to zero, that is, achieving carbon neutrality, by 2035.

Our commitment to the above target was announced in June 2021.

We believe that striving for carbon neutrality presents an opportunity to fundamentally innovate manufacturing.

Technological Development Aimed at Contributing to Carbon Neutrality

For example, we are engaged in technological development that makes full use of new ideas.

Painting and casting are the most carbon-intensive automobile manufacturing processes. Based on new ideas, we are taking on technological development focused on decarbonizing the above two processes.

Conventional air-spray technologies are designed to deposit paint over broad areas. Moreover, with the air blown toward the target surface rebounding off it and scattering paint particles, only approximately 70% of the paint being sprayed successfully adheres to the target surface, while the remaining 30% goes waste. To eliminate such waste, our airless painting machines take advantage of the world's first technology that uses static electricity to cause fine paint particles to adhere to the target surface. This technology enables us to achieve a coating adhesion efficiency of more than 95%. Furthermore, having combined

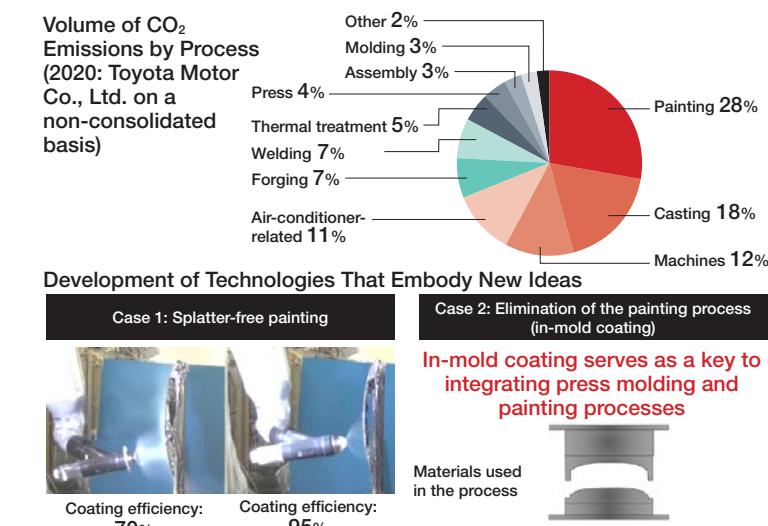
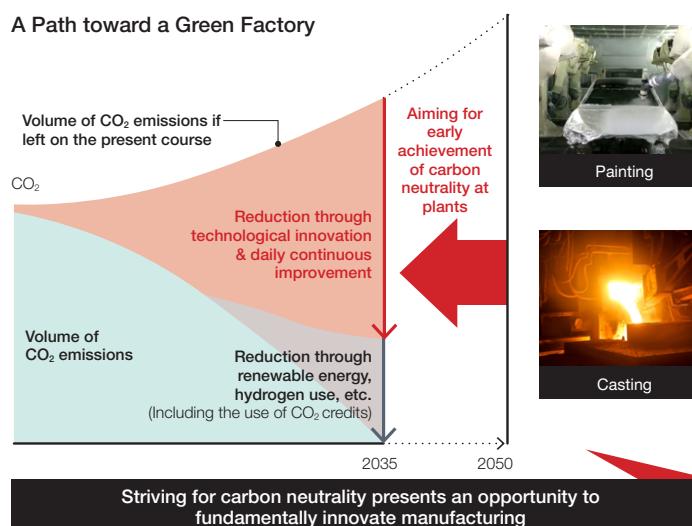
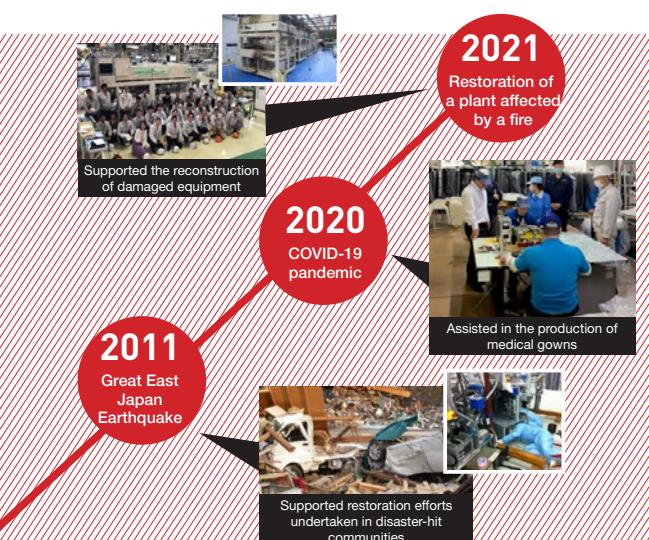


Is Manufacturing Past Its Prime? Toyota Chief Production Officer Says "No"

this technology with the innovative concept of a rotating paint ejection head, we have made it possible to create even finer paint particles with minimal variation in size, thereby achieving even higher painting quality. In addition to curbing CO₂ emissions from our manufacturing operations via the introduction of airless painting machines, we are also able to reduce the size of paint recovery equipment as the volume of waste paint is considerably smaller. Thus, airless painting machines will help us achieve a significant reduction in the volume of CO₂ emissions.

Also, in an effort to upgrade the press molding process for body panels, we are striving to make use of in-mold coating technology in which paint is applied to body panel parts as they are shaped within the metal press molds. The integration of press molding and painting into one process is an epoch-making idea that could eliminate the conventional painting process.

Other new ideas include replacing paint with adhesive film, effectively eliminating the painting process. Adhesive films can be customized to make them special, and they can also be replaced for fun. Drawing on this idea, we intend to take on a new business in which we renovate used vehicles, make them look fantastic, and offer them to the users of the KINTO subscription service.



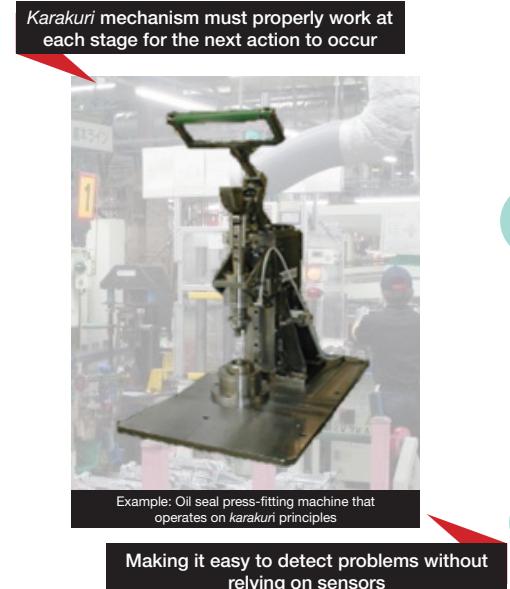
Karakuri for Non-powered Devices

We wonder if some of our readers have heard of *chahakobi* dolls, tea-serving dolls manufactured in the Edo period. Such mechanical dolls, designed to carry cups of tea to guests and collect empty cups, perform combinations of simple fundamental movements (*karakuri*) and can be considered a precursor to robots. The Japanese term *karakuri* generally refers to non-powered mechanical automata operating through a combination of gears and shafts. They can therefore be deemed the ultimate carbon-neutral devices.

At Toyota's Honsha Plant, we maintain a production line called the TPS basic line. This facility was built upon our predecessors' wisdom as well as our ingenuity. In fact, going back to the concept of *karakuri*, we have created an automated line that does not use sensors or control devices.

The use of *karakuri* is intended to nurture human sensibilities and inform our development of equipment. For example, because at each stage a *karakuri* mechanism must work properly for the

Toyota's Honsha Plant TPS Basic Line



next action to occur, such mechanisms make it easy to detect problems without relying on sensors.

At Toyota, we replace pallets containing production parts via non-powered operation, using this mechanism in combination with automated conveyance carts to achieve an unmanned process.

Collaboratively Employing the Latest Technologies and the TPS

Toyota's efforts to create a "green factory" are being promoted by collaboratively employing the latest technologies and the TPS.

The first technology is automated conveyance. At Toyota, transporting, itself, is considered wasteful. The starting point is trying to not transport at all. But, as that can often not be done, if something needs to be transported from point A to point B, we revise facility layouts to shorten the distance between the two locations while reducing the bulk of cargo and number of items per load. We then develop an automated conveyance system covering only the remaining distance and carrying lightest possible loads.

In Woven City, a similar concept is utilized, in which above ground and underground roads are developed separately, with the latter used only by fully automated logistics vehicles for the purpose of goods distribution.

The second technology is automated inspection using AI. There are many examples in the world of automated inspection of defective products using machine learning to reduce the need for human labor. However, our goal is to use the vast amount of data we are collecting from this process to make essential improvements that will prevent defects from occurring in the first place.

The third technology has to do with digital transformation (DX) and IoT. With regard to IoT, a technology that connects nearly everything to the internet, we have experienced setbacks despite our best efforts to become a forerunner in the rush toward IoT. Although we raised the equipment utilization rate on production lines to 98% by pursuing continuous improvement and applying the TPS, there remains the problem of how to address the last 2%. It is a real problem that can only be solved by the power of people.

Toyota believes that people should not be turned into machine-keepers. To get that final 2%, we aim to simplify equipment and create equipment that does not break down.

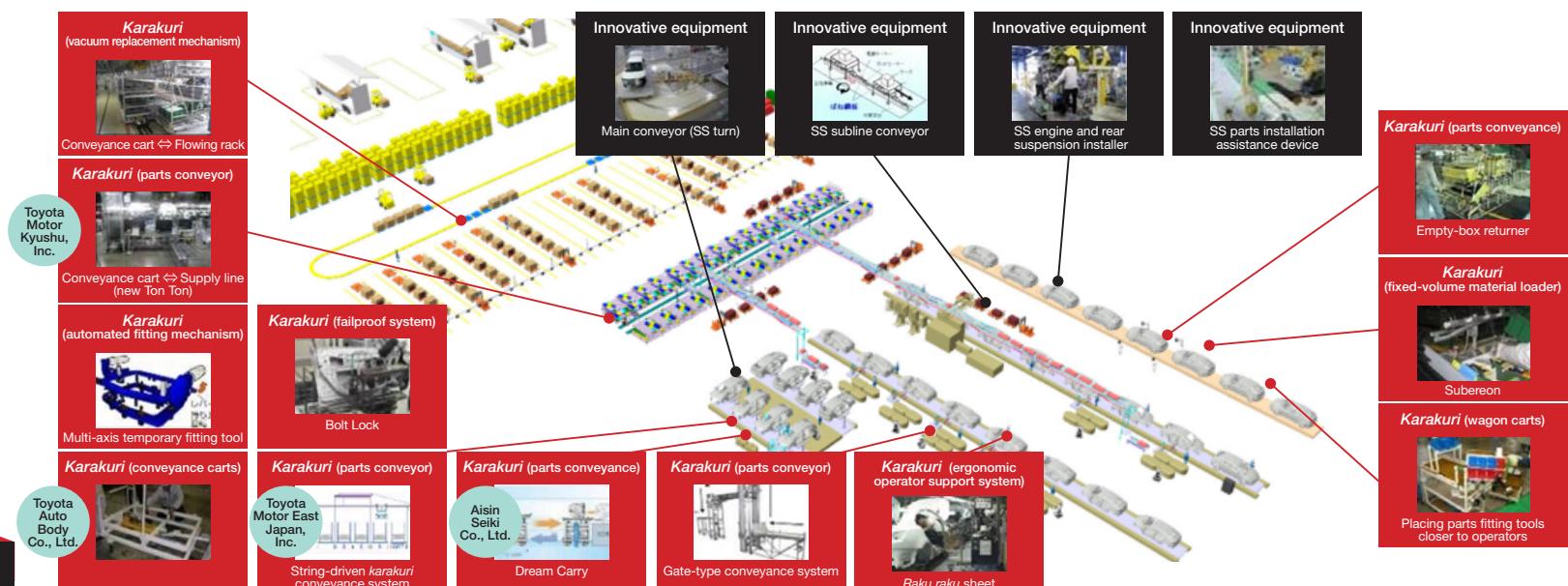
By combining this unique, human-centered, Toyota thinking with DX and IoT, we hope to create the next generation of advanced production lines.

In 2019, we launched a vehicle production line that collaboratively employs the latest technologies and the TPS in Mexico (see the diagram below).

Taking Full Advantage of the Power of Monozukuri (manufacturing) Unparalleled by Global Peers

In the face of a forthcoming wave of new challenges, such as calls for carbon neutrality and the need for DX, we at Toyota stand with our fellow manufacturers around the world. Working hand in hand with them, we will take on these challenges and become the best automaker in town in each region in which we operate.

Collaboratively Employing the Latest Technologies and the TPS





Software and Connected Initiatives

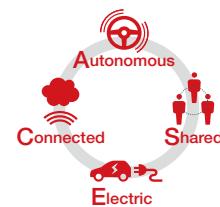
How Toyota Is Taking on Car-making Going Forward

Amid this once-in-a-century era defined by major CASE* transformation, automobile manufacturing requires technological development in such new fields as electrification, automated driving, and connectivity. Among these fields, software is becoming an important factor in determining product appeal.

Today's cars are equipped with more than 50 electronic control units, or ECUs, and use as many as 1,000 chips. Furthermore, society has entered the age of the internet of things, and things being connected has become the norm. Cars are also equipped with communication devices, further advancing their electronification, and the volume of software (lines of code) is thus growing ever larger.

Facing this major transformation in the auto industry, Toyota is paying particular attention to the transition of cell phones. As the shoulder phone evolved into the feature phone and then into the smartphone, the commoditized product of the phone became linked with information, creating new value through new experiences and quickly spreading around the world. This transition is supported by software and connected technologies.

Due to the CASE revolution, cars are becoming more deeply connected to communities and people's lives through information, becoming a more integral part of social systems. At the same time, cars will become more linked to information, and through the movement of people, goods, and things, Toyota aims to provide new value through new experiences and by bringing excitement to customers.



Focusing on the Real World and Internalization

When it comes to the manufacturing of cars, Toyota has a basic stance that has been handed down internally over the years: we stick to our principles and internalize important elements by attempting to first achieve them on our own. We also continuously introduce improvements on the front lines to enhance our competitive advantage.

Since its founding, Toyota has been producing various production equipment in-house as necessary. In the 1990s, we pursued the in-house design of ECUs and established an electronics plant, a chip plant, and a battery plant. These efforts eventually led to the commercialization of the Prius, the world's first mass-produced hybrid electric vehicle (HEV).

Toyota has always maintained a strong awareness of the real world regardless of the era at hand, pursued our principles, and promoted internalization. That is why in the area of software and connected technologies, we established the Toyota Research Institute (TRI), Woven Planet



Holdings, and Toyota Connected, and it is why we are working on the development of the e-Palette, the construction of Woven City as a town for pilot testing, and the development of the Arene platform and other technologies.

Progress on Connected Cars and Connected Technologies

To date, Toyota has sold 10 million Lexus and Toyota vehicles that are connected cars, mainly in Japan, the United States, Europe, and China.

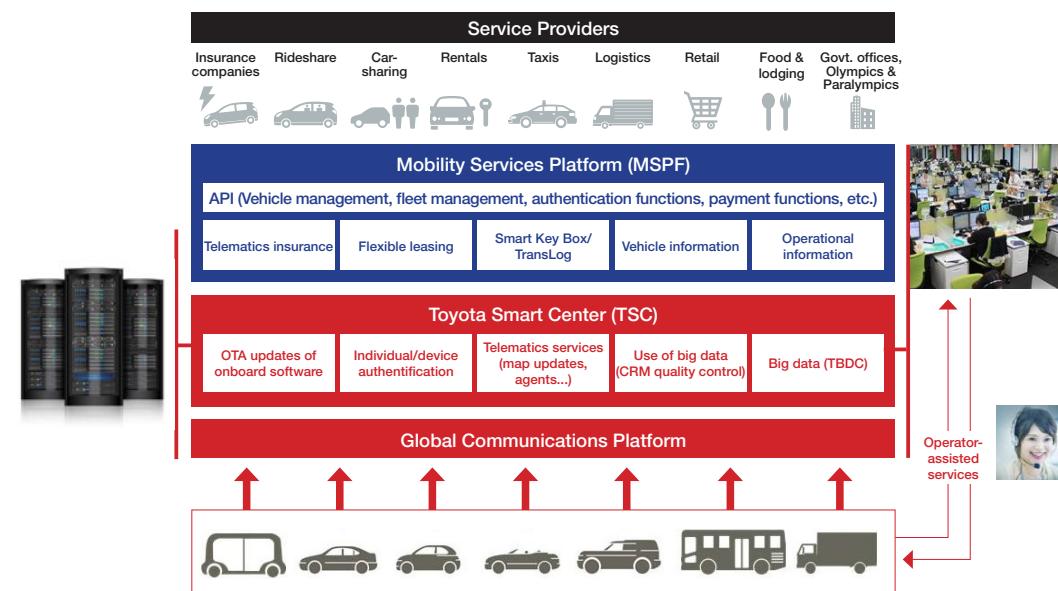
Toyota's vision of the connected car is not simply one of connecting the car to the internet. Rather, it is about providing customers with emotional experiences through the movement of people, goods, and activities—a vision centered on people that we call "human connected."

To achieve this, we are operating a call center as a point of contact with customers; the Toyota Smart Center, which provides a variety of services; and the Toyota Big Data Center, which utilizes vehicle information gathered from cars. In addition, we have established the Mobility Service

Platform (MSPF) to provide mobility services and are promoting collaboration with service providers.

Connected cars and connected technologies will be applied to a variety of areas, and that which is to be connected will expand to include people, cars, communities, and society (business-to-society, or BtoS). Toyota will handle the information gathered from customers and vehicles with care, utilizing it for the happiness of customers and the development of society while creating new value from experiences centered on mobility.

With the e-Palette battery electric vehicle (BEV) used in the Olympic Village for the Olympic and Paralympic Games Tokyo 2020, our goal was to create mobility that integrates cars and information and that coordinates with the community. During the Games, 49,000 athletes, staff, and volunteers used e-Palette. We also developed a fleet management system for e-Plettes based on the principles of the Toyota Production System (TPS) to ensure effective, efficient, and accurate operation. The system monitors the vehicles remotely and operates them in a just-in-time fashion according to the conditions of the surrounding



environment and the number of passengers. All of this was realized via the MSPF that Toyota has been building and refining.

In the future, these technologies will be applied to the Sienna Autono-MaaS minivan being developed in the United States for use as a robotaxi, and the MSPF will be used not only for automated vehicles, but also for regular commercial vehicles and logistics.

Innovation through a New Mobility Software Platform

In this way, software has the power to promptly turn ideas into products. The aim of Arene, the vehicle development platform that Toyota and Woven Planet are focused on, is to continue fundamentally changing the development of software for vehicles.

The most notable characteristics of Arene are that it absorbs the differences in vehicle hardware specifications (abstraction) and employs hardware abstraction layers (HAL) that enable hardware to be controlled with universal methods. This, in turn, enables the independent development of hardware

and software as well as the reuse of software. Arene leverages the strengths of hardware cultivated by Toyota to achieve the development of safe, high-quality, and advanced software.

Because increasingly complicated software development is becoming a bottleneck for cars, too, there is a need for a revolutionary vehicle OS that can solve these issues. The vehicle OS will achieve TPS in software development as well, and we must continue to realize combinations of good hardware and software.

For example, when developing automated driving software, the on-board software needed for automated driving actually makes up only 10%; the other 90% comprises various tools, such as data processing by the machine learning system, mounting, code review, software updates, log analyses, and simulations. Basically, most of the software we develop is used off-board (outside vehicles) or through the cloud.

Arene is used to develop frameworks for vehicle development and development environments based on those frameworks as well as to build ecosystems for mobility development. Using industry-leading software technologies, we will

continue providing privacy-conscious, secure, and safe cars.

Furthermore, application development on Arene is also easy. Partner companies will be able to program applications more efficiently using the Arene's application programming interface (API, a mechanism that can share software functions) and software development kit (SDK), which includes simulation environments.

In this way, development on Arene swiftly realizes commercialization and enables users to share the fun of providing new ideas that appeal to customers while meeting the expectations of worldwide partners and developers as well as the Toyota brand's high-quality standards.

The portion of a car's value attributable to software is growing. By internalizing the parts central to Toyota's future, we will strategically ensure the strengths of our hardware and software through internal production, compartmentalize development undertaken with partners, and accelerate the speed of mass production.

For these initiatives, we are building a software development structure on a 3,000-person scale for Toyota, Woven Planet, and Toyota Connected

and on a 18,000-person scale for the entire Group. We are also strengthening the teams responsible for the internal production and development of software.

Geofencing Technology Expands the Possibilities of HEVs and PHEVs

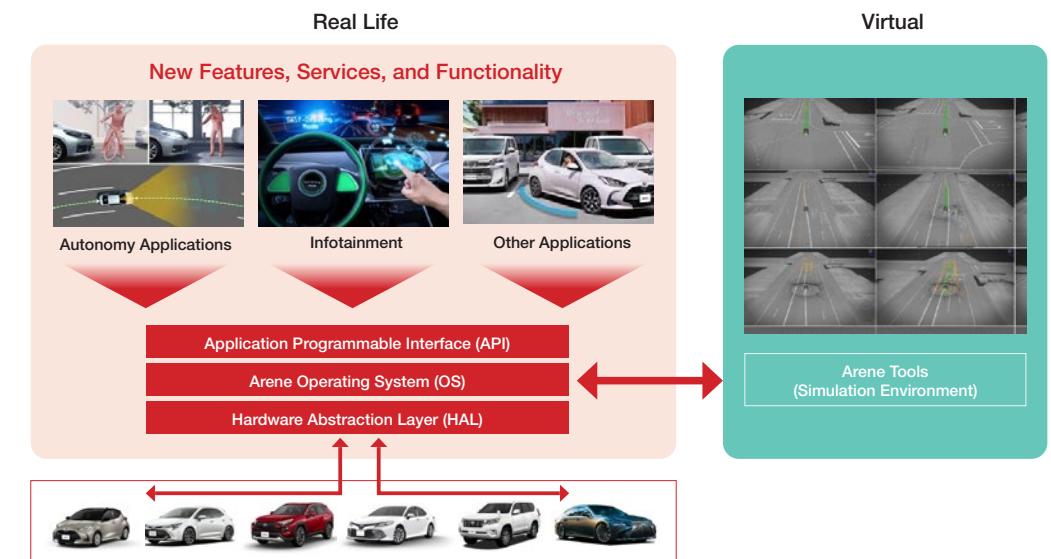
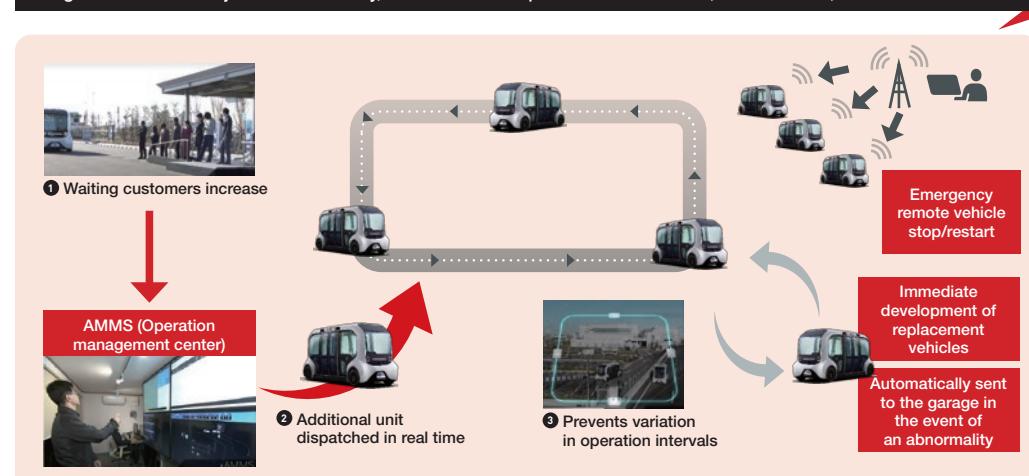
Through connected technologies, we can contribute to carbon neutrality by gaining a better understanding of the characteristics of each region in the form of data and combining this knowledge with realized technologies.

According to market data, in Japan, the engine is turned off for half of all driving time in hybrid electric vehicles, or HEVs, while for plug-in hybrid electric vehicles, or PHEVs, the engine is turned off for as much as 80 percent. HEVs and PHEVs can evolve into environment-friendly vehicles to an even higher degree by upgrading the switching control of engines and electric motors. In other words, there is room to expand the possibilities of both HEVs and PHEVs.

One mechanism that will enable this is geofencing technology. A portmanteau of geography and

Fleet Management System Based on the Toyota Production System (TPS)

Aiming for the ultimate in "just-in-time mobility," e-Palettes are dispatched "when needed, where needed, and in the amount needed."



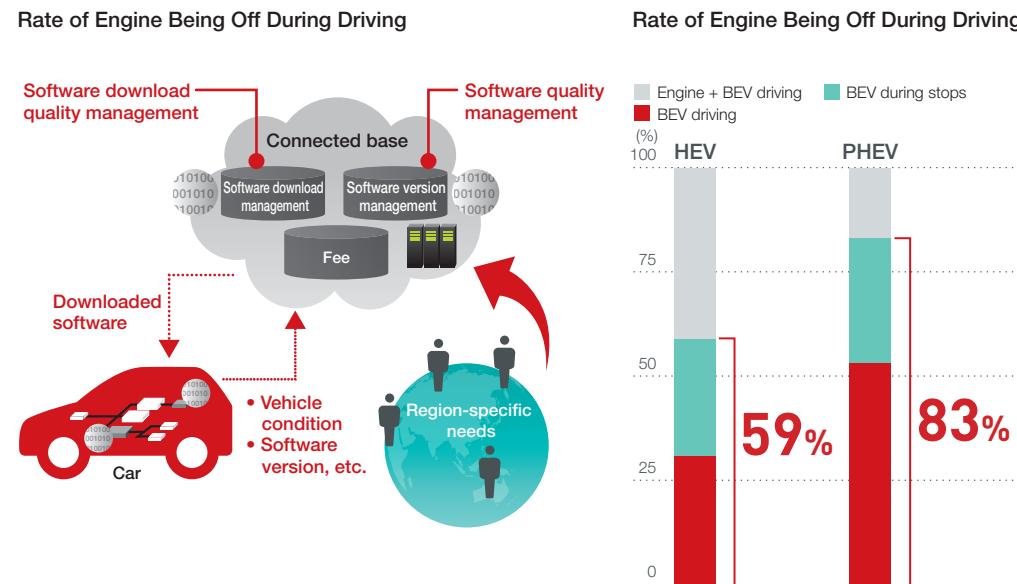
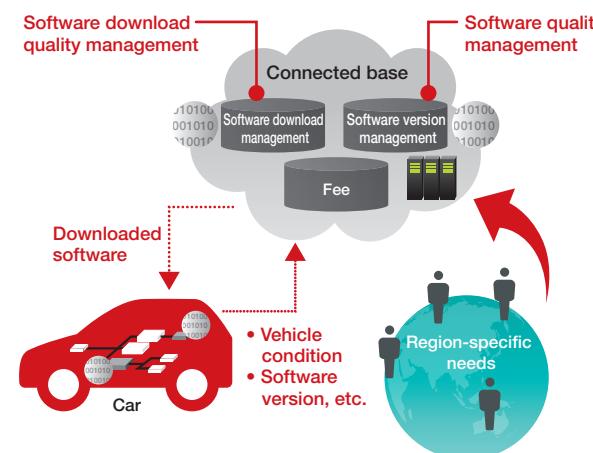
fence, geofencing refers to the combination of navigation and cloud technologies to enable the automatic switching of engine and motor functions in real time to reflect driving locations and driving times based on geographic data. For example, in zero-emission regulation regions that limit vehicle operation to only battery electric vehicles (BEVs) during certain time periods, geofencing automatically controls the functions of HEVs and PHEVs to ensure compliance with regulations.

Furthermore, geofencing enables anticipatory eco-driving that switches over to BEV driving as appropriate by predicting the driving burden based on the driving environment up to the destination. Utilizing connected technologies makes it possible to further promote energy saving in cars the smart control of HEVs and PHEVs.

The new NX features a mechanism that switches to HEV control. We expect that in the near future it will be able to use geofencing technology with over-the-air (OTA) update of its software.

In October 2021, in advance of introducing geofencing technology under development with an eye toward practical application, we introduced

Rate of Engine Being Off During Driving



anticipatory eco-driving (anticipatory EV/HEV mode switching control) in the Japanese market. It realizes highly efficient driving by automatically switching between EV and HEV modes depending on the charge left in the battery and the road conditions and characteristics.

Continuing to Evolve through Software Updates

OTA refers to using wireless connections to continuously update to the latest software (control software and high-precision mapping software). This means that after a car's purchase, new functions continue to be added and performance enhanced, while the latest driving assistance technology is installed, thereby continuing the vehicle's evolution into a safer and more secure car.

For the LS and Mirai launched in Japan in April 2021, we have included cars that feature the latest Advanced Drive function of the newest sophisticated driving assistance technologies developed by Toyota Teammate/Lexus Teammate, and they are eligible for related software updates on an ongoing basis.

The GR Yaris "Morizo Selection" is a new initiative based on GR Yaris that combines the ROOKIE Racing privateer team run by Morizo (President Akio Toyoda's racing driver name) and Toyota's KINTO car subscription.

We will continue to evolve each car to best match each customer by reflecting updates (which are based on feedback and data gained in races participated in by Morizo and ROOKIE Racing) and personalization (which is based on customer driving data) in the software in GR Garage shops. Furthermore, we offer better driving methods and support the enhancement of driving skills. Basically, we realize cars that evolve to suit people by updating the latest software in line with each customer.

Note: These updates are not OTA. They are done through a wired connection at stores.

The Auto Industry Going Forward and the Possibility of Cars

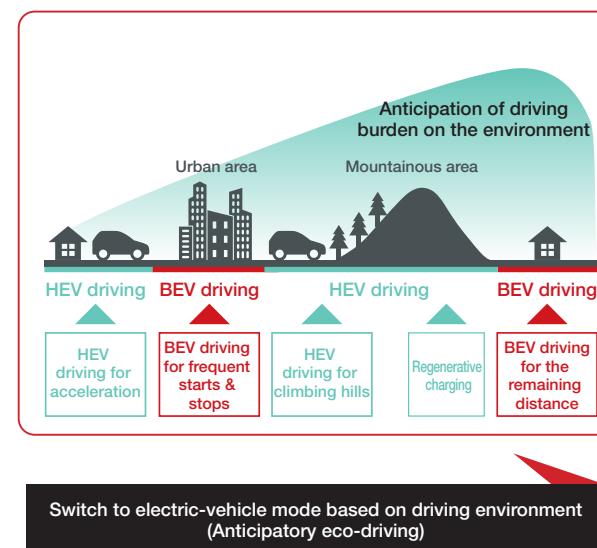
Cars have a wide range of applications from passenger cars to MaaS and commercial vehicles,

and we will continue to expand the regions where we operate going forward. Needs are increasingly diversifying, and cars can be used in a myriad of ways to meet them. Our efforts thus encompass people's problems and social issues, smiles and joy, and needed technological development.

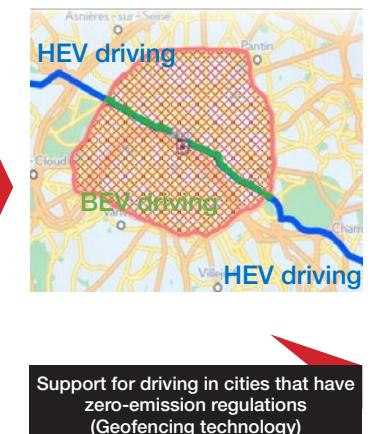
The auto industry must move people while also achieving coexistence with local communities. For the future and for children, the Toyota Group is working on producing happiness for all through freedom of movement for all and the provision of exciting experiences.

We will continue to enhance the excitement that can be experienced by being able to move by combining real cars and the power of software. If we combine innovation with technology, the value of cars will rise higher. We will also contribute to the further development of society by going beyond the borders of cars and contributing to community building and the creation of society-wide platforms.

Energy Conservation



Harmony between Society and Cars



Commercial Sector Initiatives

Contributing to Carbon Neutrality through Electrification and Enhanced Logistics Efficiency

Isuzu, Hino, and Toyota Accelerate Commercial Vehicle CASE Initiatives

On March 24, 2021, Toyota, Isuzu Motors Limited, and Hino Motors, Ltd. agreed to form a new partnership in commercial vehicles and established Commercial Japan Partnership Technologies (CJPT) to promote this partnership. CASE technologies can only contribute to society once they become widespread. Commercial vehicles can play important roles in CASE technology dissemination, as they travel long distances for extended periods of time to support the economy and society and can be easily linked with infrastructure development. By combining the commercial vehicle foundations cultivated by Isuzu and Hino with Toyota's CASE technologies, the companies aim to accelerate the societal implementation and adoption of CASE technologies and services and thereby help address social issues and contribute to the realization of carbon neutrality.

Specifically, the three companies are jointly working on the development of battery electric vehicles (BEVs) and fuel cell electric vehicles (FCEVs), autonomous driving technologies, and electronic platforms centered on the domain of small commercial-purpose trucks. While working together on BEVs and FCEVs to reduce vehicle costs, the companies plan to advance infrastructure-coordinated societal implementation, such as introducing FCEV trucks to hydrogen-based society demonstrations in Japan's Fukushima Prefecture, thereby building an implementation

model for a city with a population of 300,000 people before endeavoring to apply this model in the many similar-sized cities nationwide. Furthermore, working toward carbon neutrality, in addition to promoting the spread of electrified vehicles that are suited to logistics uses, the companies will work to increase transport efficiency based on the Just-in-Time (JIT) logistics approach of delivering what is needed, when it is needed, in the amount needed, expanding the range of the options for achieving carbon neutrality.

Partnership with Isuzu

Working together, Isuzu and Hino are able to reach 80 percent of Japan's truck customers and learn about their real needs and concerns. Distribution by truck accounts for about 90 percent of overland logistics in Japan, and the transportation sector (including buses and taxis) involves 2.7 million people. Commercial vehicles account for about 40 percent of total distance traveled by automobiles and about half of all CO₂ emissions from automobiles in Japan. Furthermore, the more than 60,000 logistics companies operating in Japan currently face numerous management issues, such as high-frequency distribution, harsh work environments, labor shortages, and rising burdens. The power of CASE, centered on connected technologies and services, is expected to deliver improvements that help resolve these issues.

Solving these kinds of social issues is not something that one company can accomplish alone. It is necessary to seek a wide range of like-minded partners, apply their different strengths, and work together for the sake of those supporting transportation and for society. As solutions to such issues progress, we expect

work in overland transport to become more appealing, leading to an increase in the number of drivers and other logistics professionals.

Expanding into the Commercial Minivehicle Business

On July 21, 2021, Suzuki Motor Corporation and Daihatsu Motor Co., Ltd. joined the Commercial Japan Partnership (CJP), a commercial vehicle project started by Toyota, Isuzu and Hino. Minivehicles account for about 31 million of the approximately 78 million vehicles owned in Japan. Furthermore, 85 percent of Japan's roads are so narrow that only minivehicles can easily use them. In this sense, minivehicles are collectively a kind of "people's car," made to suit the roads of Japan. They are a practical and sustainable lifeline for people across the country and have continued to evolve alongside changing lifestyles. For more than 60 years, Suzuki and Daihatsu have been protecting this lifeline and driving forward the market. By working together, these two companies will be able to access the real needs and concerns of nearly 70 percent of Japan's minivehicle users. Commercial minivehicles, which account for 58 percent of all commercial vehicles in Japan, are able to effectively cover areas that their small size makes accessible, supporting logistics operations mainly in the last mile.

Expanding the CJP-based partnership to include minivehicles will enable efficient, integrated logistics, linking the main arteries of logistics (handled by trucks) with the capillaries of logistics (the domain of commercial minivehicles) while leveraging connected technologies and abundant data. This new collaboration is also aimed at promoting the broader use of affordable advanced

ToyotaTimes



CEOs on Why Toyota,
Isuzu, and Hino Formed
CASE Partnership



Aiming to Improve
Logistics and Lives of
People: Toyota's New
Collaboration with
Suzuki and Daihatsu



safety technologies and electrification by leveraging Suzuki and Daihatsu's strengths in high-quality, low-cost manufacturing and Toyota's CASE technologies.

Leveraging Electrification and Connected Technologies to Realize JIT Logistics

Amid pressure to enhance cost competitiveness, maintaining a competitive edge in the area of commercial vehicle electrification is increasingly challenging. Competitiveness increasingly hinges on connected technologies and uses of batteries and other technologies. Accordingly, manufacturers must step up the unique added value that they offer.

In addition to electrification, improving transport efficiency will contribute greatly to realizing carbon neutrality. The five companies of the partnership will link their connected technology platforms to build a more comprehensive platform for commercial vehicles and leverage the Toyota Production System (TPS), one of Toyota's strengths, to realize JIT logistics and increase transport efficiency, thereby helping to reduce CO₂ emissions. Using connected technologies to link logistics from the major arteries to the fine capillaries, from producers to consumers, using truck logistics and local minivehicle-based distribution, JIT logistics have the potential to lower running costs for logistics vendors and sustainably improve logistics.

Going forward, the five companies will deepen their collaboration while openly considering cooperation with other like-minded partners, working to help fulfill the automotive industry's mission of helping improve people's lives and leave a better Japan and a better planet for the next generation.

Commercial Japan Partnership



Primary and trunk line transport
(main arteries)



Secondary and intermediate
transport (arteries)



Last-mile transport (capillaries)



Vehicle electrification (FCEVs, BEVs, etc.)



Improving logistics efficiency and energy management

Woven City: Aiming to Create a City Where People Live Happily.



The Woven City project, first announced in January 2020, officially broke ground on February 23, 2021. Woven City will demonstrate cutting edge technologies in such areas as automated driving, mobility as a service (MaaS), personal mobility, robotics, smart homes, and artificial intelligence (AI) in a real living environment. By rapidly implementing development and demonstration cycles of technologies and services in this human-centered city, we aim to continuously produce new value and business models by utilizing the mobility of “information,” “goods,” and “people” to support daily life.

Building on Our History of Manufacturing

Woven City will be constructed on the site of Toyota Motor East Japan's former Higashi-Fuji Plant, which was a pillar of production for Toyota for 53 years, starting in 1967. At its peak, the plant had 2,000 employees, and a total of 7,000 individuals worked there over its history, producing such vehicles as the Toyota Century, Toyota's flagship chauffeur car infused with Toyota craftsmanship, and the JPN Taxi, a car that requires many times the durability of an ordinary passenger car.

The concept for Woven City can be traced back to the Great East Japan Earthquake in 2011. President Akio Toyoda sought to create jobs for the region's people, who were hit hardest by the disaster, by creating a third base of operations in the Tohoku region. Guided by his strong leadership, Toyota established Toyota Motor East Japan, Inc. in 2012. However, this also led to the

difficult decision to close the Higashi-Fuji Plant. Looking for a way to carry on the Higashi-Fuji Plant's legacy of manufacturing to help create future mobility for the next 50 years, he arrived at the idea of transforming the site into a connected city as a large-scale demonstration experiment.

Our Unwavering Principles: “Human-centered,” “A Living Laboratory,” and the “Ever-evolving City”

Under the Woven City project, we are imagining the life of each resident as we seek to design a city that will most make people happy. Working with researchers, engineers, and scientists, we will demonstrate future technologies in both the virtual and the real world and will roll out the resulting technologies and products developed around the globe. Woven City will be a constantly improving, ever-evolving city rooted in Toyota's *kaizen* approach—thinking that there is always a better way. We will work with partners who share our aspiration in this quest to realize better living and mobility for all.



TOYOTA TIMES



“Within Reach If You Just
Keep Climbing”: Akio's
Message on Woven City



A Test Course For Toyota as a Mobility Company

Woven City will comprise three types of roads, woven together like warp and weft: paths for people, roads shared by people and personal mobility devices, and roads for autonomous vehicles. Aimed at realizing safe mobility, it will be a sort of test course for the integrated three-part development of automated driving at the levels of people, vehicles, and the traffic environment. In its early stages, Woven City will house around 360 residents, comprising mainly seniors, families, and inventors. In the future, the city will have more than 2,000 residents, including Toyota employees, demonstrating technologies in mobility and a wide range of other fields, from logistics to energy, food and agriculture as it grows into an environment conducive to the timely generation of new inventions that address social issues.

Carrying on a Commitment to “Human-centered” Operations

The name “Woven City” comes from Toyota's origins in automatic looms. Toyota Group founder Sakichi Toyoda was driven to invent an automatic loom out of a desire to make his mother's work easier. We have guarded and nurtured this spirit of service to others ever since. Woven City will take up this commitment from the Higashi-Fuji Plant, growing and evolving as the foundation for a new era at Toyota.

Messages from the Outside Directors

Helping Increase Value for those Surrounding and Connected to Toyota

Ikuro Sugawara



Looking back over the discussions of the Board of Directors in the past year, I feel that our perspectives have broadened from surviving as an automobile manufacturer amid tremendous environmental change to include coexisting with the global environment and contributing to the lives of people in a wide range of circumstances and positions. In other words, the focus of our discussions has expanded from advancing Toyota's interests to helping increase value for those surrounding and connected to Toyota.

Specifically, in addition to discussing the profitability and future potential of projects under consideration, the Board of Directors now proactively spends time examining matters in terms of contribution to carbon neutrality and the Sustainable Development Goals. I think that doing so has conveyed to Toyota's executives the importance of thinking from the perspectives of diverse stakeholders, beyond just that of Toyota itself. For my part, as an independent Outside Director, I feel that I have been able to proactively contribute to such discussions based on my experience dealing directly with environmental issues and energy policy as a public servant as well as the latest information about companies in Japan and around the world.

Toyota's business environment is expected to become even more challenging and uncertain going forward. At times like these, it is crucial to not only focus on solving the issues immediately before us, but to take a long-term perspective to discuss what Toyota should do and how it must change. Only by doing so can Toyota achieve its mission of producing happiness for all—part of its founding spirit and a theme being strongly promoted by President Toyoda. I will do my utmost to help Toyota in these endeavors.

Leveraging Both Toyota's Robust Business Base and Start-up Spirit to Push into the Future

Teiko Kudo



Toyota is evolving at a tremendous pace. The Company is taking dramatic leaps forward even while continuing to incrementally implement *Kaizen* (continuous improvement). Toyota's focus is always turned outward, not inward, constantly asking how it can continue to provide essential value to society and, based on its conclusions, continuing to take on new challenges. Despite its global scale, Toyota maintains the ambitious spirit of a fledgling neighborhood workshop.

The Outside Directors take the perspectives of Toyota's diverse stakeholders to engage in serious discussion with the internal members of the Board of Directors and executives. This often means that we challenge the ideas presented in Board of Directors Meetings. For example, we have recently been dedicating a considerable amount of time to discussing Toyota's Woven City. I didn't see how building a community made sense as a use of Toyota's resources. I voiced my many doubts, and we discussed the issue at length. As a result, I came to understand that Woven City will help address the environmental problems and other growing challenges of urbanization around the world, that it embodies Toyota's mission of "producing happiness for all," and that it aligns with the aspiration Toyota has maintained since its founding of contributing to the overall good as well as the Sustainable Development Goals.

On top of all this, Woven City is also an ambitious push to refine Toyota's strengths as a mobility company.

Toyota must learn from and tolerate failures and continually transform itself. As an Outside Director, I will provide oversight in order to maximize the value of Woven City to Toyota by enabling agile development, with corrections made as needed. I hope to play my part as a co-driver* so that Toyota can drive toward the future at full speed.

Under the leadership of President Toyoda, Toyota's diverse human resources are doing their utmost to unify their focus as one team and move forward quickly, leveraging both Toyota's robust business base and start-up spirit to push into the future.

* In rallies and other motor sports, a co-driver is a person who rides in the vehicle to assist the driver.

Encourage and Inspire People Worldwide to "Start Your Impossibles."

Sir Philip Craven



We have seen President Toyoda launch Toyota's transformation from a vehicle manufacturer to a mobility provider. This launch has faced the worst pandemic in 100 years, and I was proud to be a small part of the Toyota Group as it swung into action to produce PPE in Japan and provide rescue equipment around the world.

Being part of Toyota during these two difficult years has shown me a new, positive side to this global company.

Toyota partnered with the International Paralympic and Olympic Committees to support Paralympic and Olympic athletes all over the world, and I quickly realized how Toyota intended their amazing athletic performances to encourage and inspire people worldwide to "start their impossibles."

The fundamental principles of the Paralympic movement and the Toyota Motor Corporation are very similar: Determination, the Spirit of Challenge, Equality of Opportunity, Respect, and Inspiration.

The Olympic and Paralympic Games Tokyo 2020 showed the triumph of the human spirit and the athletes' determination to succeed within the rules of the game. President Toyoda often says, including within Board meetings, that Toyota's key ambition is to provide the necessary mobility products to better lives worldwide. He also has said, and this is something I particularly support, that Toyota will pay all due taxes to support society around the world.

This once-in-a-century transformation of Toyota into a mobility supplier has to incorporate carbon neutrality, which must be achieved by around 2050. No one exactly knows what will happen over the next 30 years, so it seems totally logical to me that Toyota will develop diversified power trains using different fuels and technologies. Similarly, we must not forget that there will be millions of vehicles powered by internal combustion engines well into the 2030s, 40s and even 50s, so developing less carbon-intensive fuels is crucial to achieving carbon neutrality.

I have been involved in developing leadership development programs aimed at developing vibrant teams and partnerships. This training fosters a more open style of management that encourages two-way communication and ensures the right ideas and solutions will be found for a prosperous and productive future.

Positive human energy, the most carbon neutral of all the Earth's energy sources, is fundamental in oiling the parts of all teams and partnerships. I look forward to working with my fellow Outside Directors to help Toyota advance toward this prosperous and productive future.

I am proud to be a Toyota person!

Corporate Governance

Fundamental Approach

Toyota regards sustainable growth and the stable, long-term enhancement of corporate value as essential management priorities. Building good relationships with all stakeholders, including shareholders, customers, business partners, local communities, and employees, and consistently providing products that satisfy customers' needs are key to addressing these priorities. To this end, Toyota constantly seeks to enhance corporate governance.

[Corporate Governance Report](#) [Securities Report](#)

Business Execution and Supervision

Toyota's Corporate Governance

Contributing to society through *monozukuri* (manufacturing) is the basis of Toyota's corporate value. To enhance its corporate value in the medium- to long-term, it is appropriate for Toyota to be a company with an Audit & Supervisory Board, where internal executives who have been long engaged in and have deep knowledge of manufacturing and outside executives who are capable of providing advice for the creation of

new value from a broad perspective can participate in well-balanced decision making at the Board of Directors' meetings.

With respect to its framework for executing operations, Toyota has been continuing its efforts to respond swiftly to the external environment, which is changing faster than ever. Following the introduction of "region-based management" in 2011, the "business unit system" in 2013, and the "in-house company system" in 2016, in 2017, Toyota further clarified that Members of the Board of Directors are responsible for decision making and management oversight and that operating officers are responsible for operational execution for the purposes of further accelerating implementation of decisions.

Furthermore, in 2018, Toyota brought forward the timing of executive changes from April to January, in order to further accelerate management oversight and ensure full coordination with the workplace. In addition, Toyota transformed the company structure into one that enables decision making that is both close to the needs of customers and close to where the action takes place, by taking measures such as reviewing the corporate strategy function and restructuring the Japan

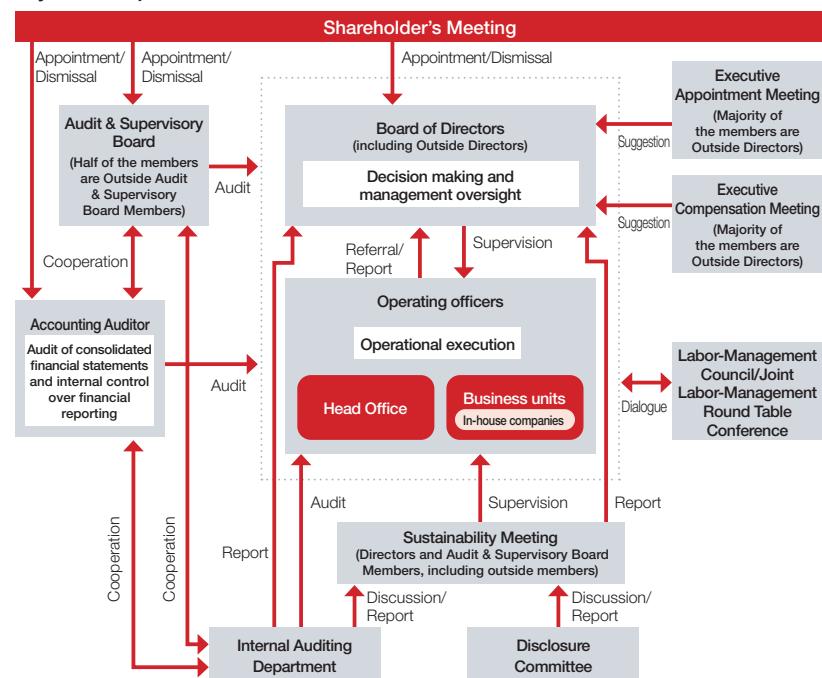
Sales Business Group into an organization based on regions rather than sales channels.

In 2019, to further advance its "acceleration of management" and the development of a diverse and talented workforce, Toyota made executive and organizational changes as follows: 1. Executives are composed of only senior managing officers and people of higher rank. 2. A new classification called "senior professional/senior management" (*kanbushoku* in Japanese) grouped and replaced the following titles or ranks: managing officers, executive general managers, (sub-executive managerial level) senior grade 1 and senior grade 2 managers, and grand masters. With an eye to appointing the right people to the right positions, senior professionals/senior management hold a wide range of posts, from chief officer, deputy chief officer, plant general manager, and senior general manager to group manager, regardless of age or length of employment, in order to deal with management issues as they arise and to thereby strengthen their development as members of a diverse and talented workforce through *genchi genbutsu* (on-site learning and problem-solving).

In April 2020, Toyota consolidated the post of executive vice president and the post of operating

officer into the post of operating officer and, in July 2020, clarified the responsibilities of operating officers. We redefined the role of operating officer to be members who, together with the president, have cross-functional oversight of the entire company. Furthermore, in-house company presidents, regional CEOs and chief officers, as on-site leaders of business implementation elements, were given authority while being consolidated into the rank of senior professionals/senior management. The roles of operating officers and senior professionals/senior management are to be determined where and as needed, and persons appointed as operating officers and senior professionals/senior management are to change in accordance with the challenges faced and the path that should be taken, as the company exercises greater flexibility than ever in appointing the right people to the right positions. Toyota, based on its basic policy of appointing the right people to the right positions, has been swiftly and continuously innovating. We will further press forward with the tide of such innovations, aiming for a corporate structure capable of carrying out management from a viewpoint that is optimal for a global company.

Toyota's Corporate Governance



Changes in Governance Structure

	-2010	2011–2015	2016–2021
Number of Directors (total)	27	2011–2016: between 11 and 16 (temporarily increased due to the introduction of Outside Directors) 2013: 3	2017: 9
Outside Directors			
Executive Vice Presidents		2011–2020: between 4 and 7	
Senior Managing/Managing Officers	64	2011–2018: between 42 and 49	
Operating Officers			June 2021: 11
Advisors/Senior Advisors		2011–2017: between 55 and 68	2018: 9 due to organizational changes, July 2020: 0
Executives			
Region		2013: Restructuring of groups	
Company			2016: Introduction (from function-based to product-based)
Audit & Supervisory Board Members (total)		7	2014: 6
Outside Audit & Supervisory Board Members	4	2014: 3	
Meetings			
Executive Appointment			2017: Outside Members accounting for half
Compensation			2019: Outside Members accounting for a majority
Sustainability	2007–2014: CSR Committee	2014: Corporate Governance Meeting	2018: Sustainability Meeting
			Current
April 2011	<ul style="list-style-type: none"> Reduced the number of Members of the Board of Directors from 27 to 11 members (currently 9 members) Reduced decision making layers (discontinuing the positions of executives responsible for the operations involved and introduced the two-tiered arrangement of Executive Vice President and Chief Officer) Made flexible assignment of Senior Managing Officer or Managing Officer to Chief Officer post (abolition of Senior Managing Director) Established the role of Executive General Manager Stationing of, in principle, regional chief officers in their respective regions 		
April 2013	<ul style="list-style-type: none"> Established business units Reorganized regional groups Appointed Outside Board Members 		
April 2015	<ul style="list-style-type: none"> Changed the roles of officers Enhancement of diversity (appointing non-Japanese executives and female executives) 		
April 2016	<ul style="list-style-type: none"> Established in-house companies, shift from functional to product-based focus 		
April 2017	<ul style="list-style-type: none"> Further clarification of the responsibilities of Members of the Board of Directors as decision making and management oversight and of Operating Officers as operational execution Reduced the number of Members of the Board of Directors (including Outside Directors) to 9 (June) 		
October 2017	<ul style="list-style-type: none"> Changed the system of advisors and senior advisor system 		
January 2018	<ul style="list-style-type: none"> Increased appointment of people with high expertise from both within and outside of the Company (the Toyota Group, people with technical positions, backgrounds, etc.) Executive Vice President, in addition to supporting the President, personally leads the field as an in-house company president and organizational group chief officers Newly established a fellow system to secure people with high level of specialist expertise and expand the breadth of executive human resource development 		
January 2019	<ul style="list-style-type: none"> Created a new classification: "senior professional/senior management," integration of Managing Officer, Executive General Manager, (sub-executive managerial level) Senior Grade 1 and Senior Grade 2 Manager, and Grand Master 		
January 2020	<ul style="list-style-type: none"> Discontinued use of Field General Manager rank, shifting to Senior General Manager and Fellow Integrated the roles of Executive Vice President and Operating Officer into Operating Officer 		
April 2020	<ul style="list-style-type: none"> Further clarified the roles of Operating Officers 		
July 2020			

Members of Board of Directors and Audit & Supervisory Board

Board of Directors and Related Structures

With respect to the system regarding Members of the Board of Directors, Toyota has comprehensively considered and appointed the right person for the right position to make appropriate and prompt decision making. Toyota believes that it is critical to appoint individuals who contribute to decision making aimed at sustainable growth into the future according to the concept of the "Toyoda Precepts," which set forth our founding philosophy. Moreover, these individuals should be able to play a significant role in transforming Toyota into a "mobility company" by responding to social change using CASE^{*1} technologies and building external partnerships, contributing to provide solutions for social issues including the SDGs. The Board of Directors should consist of members who have the abundant knowledge, deep insight and the highly professional expertise needed by Toyota, and members are appointed with consideration for diversity. For each Director candidate, members of the Executive Appointment Meeting, of which the majority are Outside Directors, make recommendations to the Board of Directors.

Furthermore, 3 Outside Members of the Board of Directors have been appointed in order to adequately reflect the opinions of those from outside the Company in management's decision-making process, and all of them are registered as independent officers with the relevant financial instruments exchanges.

Toyota considers the appointment of Outside Members of the Board of Directors as independent officers in accordance with the requirements for Outside Members of the Board of Directors set out in the Companies Act and independence

standards established by the relevant financial instruments exchanges.

Outside Members of the Board of Directors provide advice in Toyota's management decision-making process based on their broad experience and insight, independently from the management structure. To allow the insight of Outside Members of the Board of Directors and the Audit & Supervisory Board to be fully made use of, Toyota has launched the following measures:

- ① Review the criteria for the submission of proposals to the Board of Directors as needed to reduce the number of proposals submitted, so that sufficient time can be secured to discuss each proposal.
- ② Provide an explanation of all proposals in advance to help understand the background of the proposals.
- ③ Remove the time limit for discussions at Board of Directors' meetings to ensure sufficient discussion can be held.
- ④ Besides the Board of Directors meetings, set periodic opportunities for two-way communication between Outside Members of the Board of Directors and the Audit & Supervisory Board and the operational execution side on important management issues and medium-to long-term issues.

In recent years, to facilitate active discussion at Board of Directors' meetings, Toyota has reduced the number of members (Directors and Audit & Supervisory Board Members) of the Board of Directors' Meeting (from 34 in 2010 to 15 in 2020). As a result, opportunities for each member to speak at Board of Directors' meetings have increased, enabling Outside Members of the Board of Directors and the Audit & Supervisory Board to speak on almost all proposals.

*1 CASE: Connected, Autonomous/Automated, Shared, Electric

Personnel Structure of the Board of Directors (As of May 12, 2021)

Name	Sex	Age	Length of service	Attribution	Current position/responsibility at Toyota		Attendance at Board of Directors' meetings (No. of meetings attended) ^{*2}	
					Meeting			
					Executive Appointment	Compensation		
Takeshi Uchiyamada	Male	74	23 years		Chairperson	Chairperson	Chairman of the Board of Directors 100% (17/17)	
Shigeru Hayakawa	Male	67	6 years				Chief Privacy Officer 100% (17/17)	
Akio Toyoda	Male	65	21 years				Chief Executive Officer 100% (17/17)	
Koji Kobayashi	Male	72	3 years		Member	Member	Chief Risk Officer 100% (17/17)	
James Kuffner	Male	50	1 year				Chief Digital Officer 100% (13/13)	
Kenta Kon	Male	52	—				Chief Financial Officer —	
Ikuro Sugawara	Male	64	3 years	Outside independent	Member	Member	100% (17/17)	
Sir Philip Craven	Male	70	3 years	Outside independent	Member	Member	100% (17/17)	
Teiko Kudo	Female	56	3 years	Outside independent	Member	Member	94% (16/17)	

^{*2} Status of attendance at Board of Directors' meetings in the fiscal year ended March 2021

Audit & Supervisory Board System

Toyota has adopted an Audit & Supervisory Board system. 6 Audit & Supervisory Board Members (including 3 Outside Audit & Supervisory Board Members) play a key role in Toyota's corporate governance by undertaking audits in line with the audit policies and plans. In appointing Audit & Supervisory Board Members, Toyota believes it is necessary to elect individuals who have broad experience and insight in their respective fields of expertise and can advise management from a fair and neutral perspective, as well as audit the execution of business. Toyota's Executive Appointment Meeting discusses recommendations to the Audit & Supervisory Board regarding appointment or dismissal of Audit & Supervisory Board Members.

Toyota has appointed 3 Outside Audit & Supervisory Board Members, all of whom are registered as independent officers with the relevant financial instrument exchanges. When appointing Outside Audit & Supervisory Board Members, Toyota considers the requirements set out in the Companies Act as well as the independence standards established by the relevant financial instrument exchanges. In recent years, the Audit & Supervisory Board and the internal audit function have been strengthening their ties by increasing the opportunities to share their audit results, with the aim of improving the effectiveness of their audits.

Analysis and Evaluation of the Effectiveness of the Board of Directors

In order to improve the effectiveness of the Board of Directors, Toyota has been conducting an analysis and evaluation of the Board of Directors every year. The most recent evaluation is performed as below.

1. Analysis and evaluation

After a survey about the composition, operation and efficacy of the supervisory function of the Board of Directors was conducted, interviews were held with the Outside Members of the Board of Directors, the Audit & Supervisory Board Members, and certain management Members of the Board of Directors based on results of the survey. Once views and proposals regarding the background and causes of the identified issues, as well as the improvement trajectory for such issues, were compiled and reported to the Board of Directors, they were discussed at the Board of Directors' Meeting.

- Method of evaluation: Self-evaluation through surveys and interviews
- Subject of evaluation: Members of the Board of Directors and Audit & Supervisory Board Members
- Implementation period: February 2021 to April 2021

- Matters to be evaluated: Matters including
 - ① composition and operation of the Board of Directors
 - ② management and business strategy
 - ③ corporate ethics and risk management
 - ④ communication with stakeholders such as shareholders

2. Summary of the findings

As a result of the evaluation, it was confirmed that the operation of and the quality and content of the discussions at the Board of Directors were improving year by year, and that effectiveness was therefore ensured, through measures such as providing sufficient explanations of the presented agenda items in advance and having periodic exchanges of views with external officers on matters such as medium- to long-term management challenges.

Toyota identified issues to be resolved in order to further enhance effectiveness, such as increasing opportunities to discuss important matters related to management strategies and enhancing the provision of information in order to decide on investments such as those in new businesses. The Board of Directors will make improvements on these issues.

Training for Members of the Board of Directors and Audit & Supervisory Board Members

In order to ensure that Outside Members of the Board of Directors and Outside Audit & Supervisory Board Members understand Toyota's philosophy and efforts, Toyota arranges on-site inspections, including at its subsidiaries, and other opportunities. Also, as explained above, besides the Board of Directors Meetings we offer opportunities to help deepen their understanding, such as advance explanations on proposals submitted to the meetings and two-way communication with the operational executive on important management issues and medium- to long-term issues.

Executive Compensation

The amount of executive compensation, how its calculation method is determined, and the calculation method are described below.

Decision Policy and Process

Toyota believes that it is critical to appoint individuals who contribute to decision making aimed at sustainable growth into the future according to the concept of the "Toyoda Precepts," which set forth our founding philosophy. Moreover, these individuals should be able to play a significant role in transforming Toyota into a "mobility company" by responding to social changes using CASE and external partnerships, while working towards providing solutions for social issues such as the ones represented in SDGs.

Toyota's executive compensation system is an important means to promote various initiatives and is determined based on the following policy.

- It should be a system that encourages Members of the Board of Directors to work to improve the medium- to long-term corporate value of Toyota
- It should be a system that can maintain compensation levels that will allow Toyota to secure and retain talented personnel
- It should be a system that motivates Members of the Board of Directors to promote management from the same viewpoint as our shareholders with a stronger sense of responsibility as corporate managers

The Board of Directors decides by resolution the policy for determining remuneration for and other payments to each member of the Board of Directors. Remuneration is effectively linked to corporate performance while reflecting individual job responsibilities and performance. Remuneration standards in each member's home country are also taken into account when determining remuneration amounts and methods. Remuneration for Outside Members of the Board of Directors and Audit & Supervisory Board Members consists only of fixed payments. As a result, this remuneration is not readily impacted by business performance, helping to ensure independence from management.

The amounts of remuneration and other payments to each member of the Board of Directors and the remuneration system are decided by the Board of Directors and the "Executive Compensation Meeting," a majority of the members of which are Outside Members of the Board of Directors, to ensure the independence of the decisions.

The Board of Directors resolves the policy for determining remuneration for and other payments

to each member of the Board of Directors and the executive remuneration system as well as the total amount of remuneration for a given fiscal year. The Board of Directors also resolves to delegate the determination of the amount of remuneration for each Member of the Board of Directors to the Executive Compensation Meeting. The Executive Compensation Meeting reviews the executive remuneration system on which it will consult with the Board of Directors and determines the amount of remuneration for each Member of the Board of Directors, taking into account factors such as corporate performance as well as individual job responsibilities and performance, in accordance with the policy for determining remuneration for and other payments to each member of the Board of Directors established by the Board of Directors. The Board of Directors considers that such decisions made by the Executive Compensation Meeting are in line with the policy on determining remuneration and other payments for each member of the Board of Directors.

Remuneration for Audit & Supervisory Board Members is determined by the Audit & Supervisory Board within the scope determined by resolution of the shareholders' meeting. To decide the compensation for the fiscal year under review, the Executive Compensation Meeting was held in May 2020, March 2021, and April 2021. Also, preparatory meetings attended solely by Outside Directors were held five times in August, September, and October 2020 and February and March 2021 to hold discussions in preparation for the Executive Compensation Meeting. The compensation for the Members of the Board of Directors was decided with the agreement of all members of the Executive Compensation Meeting.

Major Matters Discussed at the Executive Compensation Meeting

- Compensation levels according to position and responsibilities
- Benchmarks and actual results evaluation for FY2021
- Individual performance evaluation
- The remuneration for each individual

Method of Determining Performance-based Remuneration (bonuses, share-based compensation)

1. Directors with Japanese citizenship (excluding Outside Directors)

Toyota sets the total amount of remuneration (Annual Total Remuneration) received by each director in a year based on consolidated operating income, the volatility of the share price of Toyota and individual performance evaluation. The balance after deducting monthly remuneration, which is fixed remuneration, from Annual Total Remuneration constitutes performance-linked remuneration.

Toyota sets an appropriate executive compensation level for the Annual Total Remuneration based on position and duties by referencing a benchmark group of companies located in Japan.

Table 1 Table 2

Method of Setting the Annual Total Remuneration
 Annual Total Remuneration is set according to a formula based on the benchmark results of executive compensation. Annual Total Remuneration for each position is set based on consolidated operating income and the volatility of the share price of Toyota, and then adjusted based on individual performance evaluation. Individual performance evaluation is conducted in view of the efforts made according to the concept of the "Toyoda

Precepts," which set forth our founding philosophy, and other aspects such as the trust of others and promotion of employee development, based on which the amount of Annual Total Remuneration for each director is determined within the range of 25% above or below the Annual Total Remuneration for each position.

2. Directors with foreign citizenship (excluding Outside Directors)

Fixed remuneration and performance-based remuneration are set based on remuneration levels and structures that allow Toyota to secure and retain talented personnel. Fixed remuneration is set, taking into account each member's job responsibilities and the remuneration standard of his/her home country. Performance-based remuneration is set based on consolidated operating income, the volatility of the share price of Toyota, and individual performance, taking into account each member's job responsibilities and the remuneration standard of his/her home country. The concept of each item is the same as for directors with Japanese citizenship (excluding Outside Directors). Differences in tax rates in Japan and their home countries may be considered and compensated for.

Share-based Compensation System

The Board of Directors decides the share-based compensation, using the maximum share-based compensation (4.0 billion yen per year) set in the 115th Ordinary General Shareholders' Meeting held on June 13, 2019. For more details, please refer to p. 90 of the Securities Report (for fiscal year ended March 2021).

Table 3 Table 4

Table 1 Explanation of Indicators

Consolidated operating income	Indicator for evaluating Toyota's efforts based on business performance
Volatility of Toyota's share price	Corporate value indicator for shareholders and investors to evaluate Toyota's efforts
Individual performance evaluation	Qualitative evaluation of each director's performance

Table 2 Evaluation Method and Reference Value for Indicators, and Evaluation Result for the Current Fiscal Year

	Evaluation weight	Evaluation method	Reference value	Evaluation result for the current fiscal year
Consolidated operating income	50%	Evaluate the degree of attainment of consolidated operating income in the current fiscal year, using required income (set in 2011) for Toyota's sustainable growth as a reference value	1 trillion yen	
Volatility of Toyota's share price	50%	Comparatively evaluate the volatility of Toyota's share price up to the end of the current fiscal year, using the share price of Toyota and the Nikkei stock average at the end of the previous fiscal year as reference values	Toyota's share price: 6,501 yen Nikkei average: 18,917 yen	150%

Table 3 Remuneration by Executive Category, Remuneration by Type, and Number of Applicable Executives

Category	No. of applicable executives	Amount of remuneration [million yen]			Other	Total remuneration by type (million yen)
		Fixed remuneration	Performance-linked remuneration	Monthly remuneration	Bonuses	Share-based compensation
Directors (of which Outside Directors)	10 (3)	735 (159)	748	364* (36,000 shares)	747	2,595 (159)
Audit & Supervisory Board Members (of which Outside Audit & Supervisory Board Members)	6 (3)	251 (54)	—	—	—	251 (54)

(Notes) 1. Cash compensation consists of monthly remuneration and bonuses.
 2. Performance-based remuneration is set based on the resolution of the Board of Directors' Meeting on May 12, 2021. Share-based compensation is the number of shares presented in the table multiplied by the closing price on the day prior to the date of resolution for the allocation.
 * Share-based compensation presented above is the amount calculated using the closing price on the day prior to the date of the resolution to allocate the number of shares resolved.
 3. The figure for "Other" is the amount of compensation for taxes on remuneration paid to Didier Leroy, former Director who resigned on June 11, 2020, during his term of service as Director.

Table 4 Names and Details of those who Receive, in Aggregate, Consolidated Remuneration of One Hundred Million Japanese Yen or More

Name (executive category)	Company category	Total consolidated remuneration by type (million yen)				Total consolidated remuneration (million yen)	
		Fixed remuneration	Performance-linked remuneration		Other		
			Monthly remuneration	Bonuses	Share-based compensation		
Takeshi Uchiyamada (Director)	Reporting company	110	61	50 (5,000 shares)	—	222	
Shigeru Hayakawa (Director)	Reporting company	66	41	33 (3,000 shares)	—	140	
Akio Toyoda (Director)	Reporting company	185	25	231 (23,000 shares)	—	442	
Koji Kobayashi (Director)	Consolidated subsidiary Daihatsu Motor Co., Ltd.	69	12	49 (4,000 shares)	—	134	
Didier Leroy (Director)	Reporting company	57	515	—	747	1,451	
Shigeki Terashi (Director)	Consolidated subsidiary Hino Motors, Ltd.	12	—	—	—	138	
James Kuffner (Director)	Reporting company	23	28	—	—	284	

(Notes) 1. The figure for "Other" is the amount of compensation for taxes on remuneration paid to Didier Leroy, a former Director who resigned on June 11, 2020, during his term of service as Director.

2. The fixed remuneration paid to Director James Kuffner by Woven Planet Holdings, Inc., a consolidated subsidiary, includes the amounts of fixed remuneration paid every three months and every 12 months.

Capital Strategy

Three Pillars

The three pillars of Toyota's financial strategy are stability, growth, and efficiency. By maintaining adequate stability while pursuing growth and efficiency over the medium and long terms, we aim to build a robust financial foundation to support sustainable growth.

1. Stability: Securing Liquidity

Having experienced financial crises and the Great East Japan Earthquake, in order to ensure business continuity in any business environment, we maintain a sufficient level of liquidity to cover half a year of both fixed costs in the automotive business and refinancing requirements in the financial services business.

Ample liquidity is essential to maintaining a full line-up in each region and retaining the ability to respond to all options and opportunities in this era of profound transformation in mobility. As such, it is a vital part of the foundation supporting the creation of corporate value.

2. Growth: Aggressive Forward-looking Investment

As the auto industry approaches a once-in-a-century turning point, Toyota is focusing on

technological innovation aimed at transforming into a mobility company. Every year, we spend more than 1 trillion yen on R&D. By enhancing efficiency in existing areas, we are strategically increasing the portion of R&D spending allotted to cutting-edge fields.

3. Efficiency: Enhancing Capital Efficiency

Using cost reduction and the thorough application of the Toyota Production System (TPS), we are reinforcing the profit structure and securing funds to invest in advanced and cutting-edge technologies.

In capital expenditure other than R&D expenses, as well, we are carefully assigning priority to individual projects and tracking their progress while advancing measures to improve productivity, such as streamlining development in existing fields, making equipment more compact, shortening processes, and facilitating faster response to changes in production quantities.

Furthermore, in addition to sustainably increasing ROE by repurchasing shares, we are strengthening investment management by regularly evaluating the rationality of our strategic shareholdings in terms of the needs of our business strategies and economic utility. In these ways, we are striving to enhance capital efficiency.

Dividend Policy

Toyota deems the benefit of its shareholders an important element of its management policy and continues to work to improve its corporate structure and enhance its corporate value in order to realize sustainable growth. Toyota strives to ensure the stable and continuous payment of dividends, seeking to maintain and improve upon the consolidated payout ratio of 30%. To win out over tough competition, Toyota will utilize retained earnings mainly for investment in next-generation growth, such as environmental technologies aimed at realizing a carbon-neutral society and safety technologies for the safety and peace of mind of customers.

Toyota's basic policy for paying dividends from surplus is to pay dividends twice a year, as an interim dividend and year-end dividend. Based on Toyota's Articles of Incorporation, these dividends are decided by resolution of the Board of Directors. In accordance with this policy, for the year ended March 2021, Toyota paid an interim dividend of 105 yen per share and a year-end dividend of 135 per share, for an annual dividend of 240 yen per share. For the year ending March 2022, Toyota has decided to pay an interim dividend of 120 yen per share.

Strategic Shareholdings

1. Policies on Strategic Shareholdings

Toyota's policy is to not maintain strategic shareholdings except for in cases where such holdings are deemed to be meaningful. Cases where such holdings are deemed to be meaningful are defined as cases where it is determined that, in the business of manufacturing of automobiles, in which it is essential to maintain a variety of cooperative relationships throughout the entire process of development, procurement, production, distribution, and sales, such holdings contribute to the improvement of corporate value from a medium- to long-term perspective based on a comprehensive consideration of business strategy, the establishment, maintenance, and strengthening of relationships with business partners, and contribution to and cooperation in the development of society.

2. Assessment of the Propriety of Strategic Shareholdings

When necessary, Toyota engages in constructive dialogue with the issuers of shares that it holds to encourage them to improve corporate value and achieve sustainable growth. These dialogues provide opportunities to share and address business challenges. Every year, at the Board of Directors, Toyota reviews whether its individual shareholdings are meaningful in light of changes in the business environment, specifically examines whether the benefits and risks from such holdings are commensurate with the cost of capital, etc., and assesses the propriety of Toyota's strategic shareholdings.

If Toyota determines that a shareholding is no longer meaningful or the meaning of a shareholding has been diluted due to changes in the business environment or other reasons, Toyota will proceed with the sale of such shares once it has adequately explained its reasons for doing so to the issuer.

Consequently, the number of companies whose shares Toyota strategically holds has been reduced to 157 (including 54 listed companies) as of March 31, 2021 from 200 (including 80 listed companies) as of March 31, 2015.

Woven Planet Bonds

In the year ended March 2021, Toyota issued Woven Planet Bonds to raise funds for projects that contribute to the achievement of the United Nations Sustainable Development Goals (SDGs). The issuance comprised 100.0 billion yen in yen-denominated straight bonds for individual investors, as well as 130.0 billion yen in yen-denominated sustainability bonds and 275.0 billion yen in foreign currency-denominated sustainability bonds for institutional investors.

Stock Split

To reduce its minimum investment price and create an environment that better facilitates investing in Toyota's shares, Toyota implemented a five-for-one stock split of its common shares with a record date of September 30, 2021.

	2017/3	2018/3	2019/3	2020/3	2021/3
Dividend per share (yen)	210	220	220	220	240
Total amount of payment (billions of yen)	627.5	642.6	626.8	610.8	671.0
Payout ratio*	34.6	26.1	33.8	30.2	29.8
Share repurchases (billions of yen)	449.9	549.9	549.9	199.9	249.9
Total shareholder return** (billions of yen)	1,082.4	1,200.0	1,186.7	810.8	921.0
Total return ratio***, 4	59.1	48.1	63.0	39.8	41.0

*1 Payout ratio: This is the ratio of (i) the amount of dividend per common share to (ii) net income attributable to Toyota Motor Corporation per common share.

*2 Includes dividends paid to First Series Model AA Class Shares

*3 Excluding repurchase made to avoid dilution of common shares.

*4 Total return ratio: This is the ratio of (i) the sum of dividends on both common shares and the First Series Model AA Class Shares and the amount of repurchase of common shares for shareholder returns to (ii) net income attributable to Toyota Motor Corporation.

The Environment (Climate Change-related Disclosures Based on the TCFD)

Toyota endorsed and signed on to the recommendations of the Financial Stability Board's Task Force on Climate-related Financial Disclosures (TCFD) in April 2019 and appropriately discloses information concerning risks and opportunities related to climate change and their analyses.

Governance

Environmental Management Structure

At Toyota, operating officers and executives make timely decisions and carry out initiatives to address climate change-related issues from positions that are closer to customers and actual sites under the supervision of the Board of Directors. Strategies and policies in each area in light of risks and opportunities are set mainly by the Environmental Product Design Assessment Committee, the Production Environment Committee and the Resource Recycling Committee and all relevant organizations work together to carry out initiatives.

Environmental secretariats have been established in six regions (North America, Europe, China, Asia, South America and South Africa) in order to undertake globally integrated environmental initiatives while taking local conditions into consideration. The secretariats share a commitment to the Toyota Environmental Challenge 2050 and promote cooperation.

Moreover, the Sustainability Meeting, which is chaired by the Chief Sustainability Officer (CSO), deliberates in a timely fashion the long-term enhancement of competitiveness and responses to risks considering internal and external changes on issues such as environment, social and governance, and reports the results to the Board of Directors.

Progress regarding measures to reduce CO₂ in the areas of product development and production are regularly reported as key management indicators at meetings attended by all of those at the chief officer or company president level and above.

Strategy

Toyota Environmental Challenge 2050

Toyota formulated the Toyota Environmental Challenge 2050 in October 2015 and the 2030 Milestone in 2018, ensuring that it would continue to tackle challenges from a long-term perspective that looks to the world 20 and 30 years ahead and addresses such global environmental issues as climate change, water shortages, resource depletion, and loss of biodiversity.

Risks and Opportunities Relating to Climate Change

Toyota strives to identify the various risks and opportunities that will arise from environmental issues and takes action accordingly while continuously confirming the validity of strategies such as the Toyota Environmental Challenge 2050 and working to enhance its competitiveness.

Among these risks and opportunities, climate change requires measures in various areas, including the adoption of new technology and response to tighter government regulations. As climate change progresses, higher temperatures, rising sea levels, and an increase in the severity of natural disasters such as typhoons and flooding are expected.

These changes may have various impacts on Toyota's business fields and may also pose risks to Toyota's business. However, it is our understanding that if we can respond appropriately, this will lead to enhanced competitiveness and the acquisition of new business opportunities.

In accordance with this understanding, we have organized the risks relating to climate change and identified particularly significant risks in line with risk management processes based on the degree of impact and stakeholders' interest.

Scenario Analysis Assuming Risks and Opportunities

Climate change and the policies of various countries may expose the automobile industry and the entire mobility society to substantial changes. These changes will present both risks

and opportunities to Toyota. We used scenarios such as those of the IEA* to examine future images of society based on the current policy scenario, below 2°C scenario, and 1.5°C scenario at around 2030 for Toyota's external environment, in light of risk and opportunity analysis.

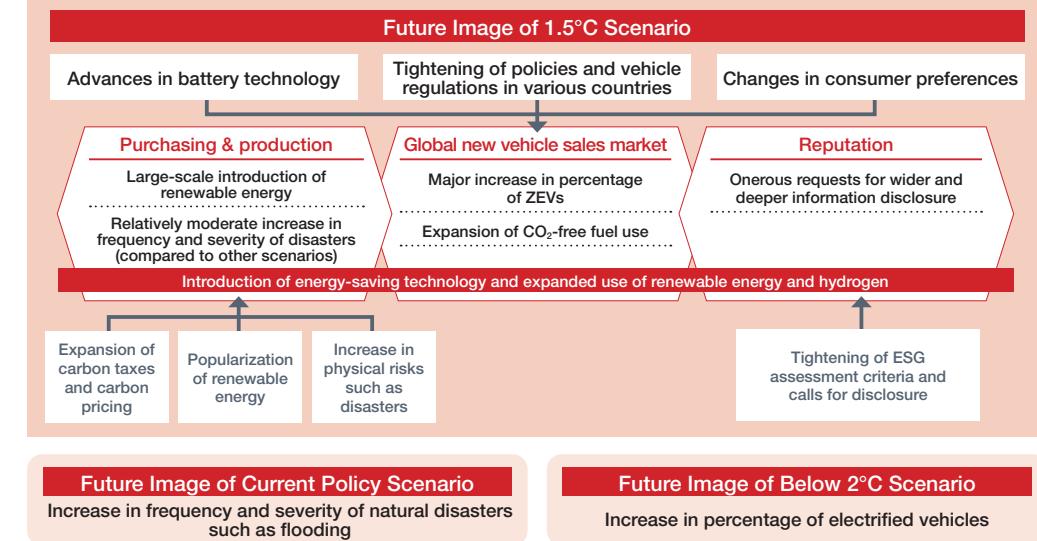
In a society based on the below 2°C scenario or 1.5°C scenario in which climate change measures proceed, the percentage of electrified vehicles

(ZEVs in particular) will increase. In case of a society based on the 1.5°C scenario in particular, it is said that the percentage of ZEVs among new vehicle sales will increase greatly and the use of CO₂-free fuels such as biofuels will also expand, mainly for large cargo and marine/air transport.

* Set using scenarios such as the IEA's Stated Policies Scenario (STEPS), Sustainable Development Scenario (SDS), and Net Zero Emissions by 2050 Scenario (NZE) as reference

Significant Risks and Opportunities and Toyota's Measures

	Risks	Opportunities	Toyota's Measures	Relationship with Climate Scenario	
				Current Scenario	Enhanced Measures Scenario (below 2°C/1.5°C)
Tightening of regulations for fuel efficiency and ZEVs (acceleration of electrification)	<ul style="list-style-type: none"> Fines for failure in achieving fuel efficiency regulations Decrease in total vehicle sales due to delays in complying with ZEV regulations Stranded assets related to internal combustion engine manufacturing facilities 	<ul style="list-style-type: none"> Increase in sales of electrified vehicles Increase in profits from external sales of electrification systems 	<ul style="list-style-type: none"> Maintenance of the top-level fuel efficiency (currently the highest in Europe) Increase in investment in batteries and shift of resources Start of external sales of electrification systems Expansion of electrified vehicle lineup Reduction of CO₂ emissions from vehicles currently in use 	Impacts will be an extension of current status	Impacts will increase
Expansion of carbon pricing	<ul style="list-style-type: none"> Increase in production and purchasing costs due to the introduction of carbon taxes, etc. 	<ul style="list-style-type: none"> Decrease in energy costs due to promoting the introduction of energy-saving technology 	<ul style="list-style-type: none"> Reduction of energy use through comprehensive energy conservation and promotion of renewable energy and hydrogen use Promotion of emission reductions in collaboration with suppliers 	Impacts will be an extension of current status	Impacts will increase
Increase in frequency and severity of natural disasters	<ul style="list-style-type: none"> Production suspension due to damage to production sites and supply chain disruptions caused by natural disasters 	<ul style="list-style-type: none"> Increase in demand for electrified vehicles due to increased need for supply of power from automobiles during emergency situations 	<ul style="list-style-type: none"> Implementation of continuous adaptive improvements to our BCP in light of disaster experiences Reinforcement of information gathering in collaboration with suppliers to avoid purchasing delays 	Impacts will increase	Impacts will be an extension of current status



In April 2021, Toyota proclaimed that it would address global-scale challenges to achieve carbon neutrality by 2050.

To achieve carbon neutrality, Toyota will continue implementing electrified vehicle strategies that contribute to reducing CO₂ emissions throughout the product life cycle while coordinating with national governments regarding energy policies, including renewable energy and charging infrastructure, and public policies, including purchasing grants, supplier support, and battery recycling systems.

Toyota has sold a cumulative total of over 18 million electrified vehicles worldwide. As one of the first companies to respond to climate change risks, it has achieved a CO₂ emissions reduction of over 140 million tons.

Going forward, with regard to battery electric vehicles (BEVs), we will successively introduce models with dedicated platforms starting in 2022 and seek to achieve practical vehicle supply through battery development and production strategies.

In consideration of diverse customer needs and region-specific electric power conditions, we are promoting electrification from all directions, including hybrid electric vehicles (HEVs), plug-in hybrid electric vehicles (PHEVs), and fuel cell electric vehicles (FCEVs) in addition to BEVs.

In December 2021, we announced our aim of developing 30 types of BEVs and achieving a full lineup in the passenger and commercial segments globally by 2030 to reach 3.5 million annual global vehicle sales by 2030.

We will continue to respond to market changes with flexibility and use the strengths we have gained through experience to date to expand electrified vehicle options. In this way, we will be the choice of customers in each region and continue accelerating the realization of carbon neutrality.

In addition to increasing the number of electrified vehicles, it is important to expand technology options to reduce the CO₂ emissions of vehicles currently in use as well. This may include the adoption of CO₂ emissions-reducing off-cycle technology*1 (items not necessarily reflected in

driving mode fuel efficiency) and the development of engines that can use CO₂-free fuel, such as hydrogen engines.

In the production field, we announced that we aim to achieve carbon neutrality at our global plants by 2035. We are promoting the reduction of CO₂ emissions through comprehensive energy conservation and the introduction of renewable energy and hydrogen at plants. We have already achieved a 100 percent renewable electricity introduction rate at all plants in Europe and South America.

To confirm the validity and progress of Toyota's strategies, we will conduct appropriate information disclosures regarding various ESG assessment indicators and enhance dialogue with stakeholders, including institutional investors. We believe that this will enable stable fund procurement and lasting corporate value enhancement.

*1 Technologies such as high efficiency lighting, waste heat recovery, active aerodynamic improvement, and solar radiation/temperature management that improve actual fuel consumption.

Risk Management

Risk Management through the Toyota Global Risk Management Standard (TGRS)

Under supervision of the Chief Risk Officer (CRO), we promote management focused on proactive preventive measures by gathering and analyzing all risks related to Toyota's corporate activities and behavior, including in the area of the environment, and developing a system (TGRS) under which we take countermeasures.

Risk Management Relating to Climate Change

We strive to understand the various risks and opportunities arising due to climate change and always check the validity of our strategies using scenario analysis to minimize risks and enhance our competitiveness.

Metrics and Targets

The 2030 Milestone envisions our future as of 2030 toward achieving Toyota Environmental

Challenge 2050. Steady action is being taken while confirming progress each year.

Furthermore, the Scope 1, 2, and 3 results from 2018 to 2020 are as detailed in the tables below: CO₂ Emissions.

Toyota Environmental Challenge 2050	2030 Milestone	2020 Initiatives Results
 Completely eliminate all CO ₂ emissions throughout the entire vehicle life cycle	<ul style="list-style-type: none"> Reduce CO₂ emissions by 25% or more throughout the vehicle life cycle compared to 2013 levels by promoting activities for the milestones of New Vehicle Zero CO₂ Emissions Challenge and Plant Zero CO₂ Emissions Challenge, and with support from stakeholders such as suppliers, energy providers, infrastructure developers, governments, and customers 	<ul style="list-style-type: none"> Steadily promoted life cycle CO₂ emissions reduction through environmental management for product development
 Reduce global *2 average CO ₂ emissions (TtW*3) from new vehicles by 90% compared to Toyota's 2010 levels by 2050	<ul style="list-style-type: none"> The estimate of global *2 average CO₂ emissions reduction (TtW*3 g/km) from new vehicles will be 35% or more, which may vary depending on market conditions, compared to 2010 levels. 	<ul style="list-style-type: none"> Reduced global *2 average CO₂ emissions from new vehicles by 23% compared to 2010 levels by improving environmental performance and expanding electrified vehicle lineups Achieved cumulative global sales of 16.98 million electrified vehicles, exceeding our 2020 target of 15 million units
 Achieve zero CO ₂ emissions at global plants by 2050	<ul style="list-style-type: none"> Reduce CO₂ emissions from global plants by 35% compared to 2013 levels 	<ul style="list-style-type: none"> CO₂ emissions were 4.9 million tons (down 22% compared to 2013 levels) Introduced innovative technologies, including an airless paint atomizer, and promoted energy-saving through daily kaizen Achieved an 11 percent introduction rate for renewable electricity. Continuously conduct various verification tests to support the utilization of hydrogen.

*2 Japan, the U.S., Europe, China, Canada, Brazil, Saudi Arabia, India, Australia, Taiwan, Thailand, and Indonesia

*3 Tank to Wheel: CO₂ emissions during driving (CO₂ emissions during the production stage of the fuel and electricity are not included; TtW emissions are zero in the case of battery electric vehicles and fuel cell electric vehicles)

CO₂ Emissions: Scopes 1 through 3; Global (million t-CO₂)

	2018	2019	2020
Scope 1 (Direct emissions)	1.92	1.90	1.64
Scope 2 (Energy indirect emissions)	4.08	3.78	3.26
Scope 3 (Other indirect emissions)	414.91	397.94	341.35
Total	420.91	403.62	346.25

Organizational Boundary and Coverage:

Scopes 1 and 2:

All plants of Toyota Motor Corporation and consolidated subsidiaries and all Toyota vehicle production plants of unconsolidated subsidiaries (100% coverage)

Scope 3:

Mainly covers automotive business of Toyota Motor Corporation and consolidated subsidiaries

CO₂ Emissions: Scope 3 (Other Indirect Emissions); Global (million t-CO₂)

	2018	2019	2020
1 Purchased goods and services	63.29	65.10	54.40
2 Capital goods	4.54	4.23	3.93
3 Fuel- and energy-related activities (not included in Scopes 1 or 2)	0.93	0.96	0.84
4 Upstream transportation and distribution	0.89	0.91	0.79
5 Waste generated in operations	0.12	0.09	0.08
6 Business travel	0.15	0.17	0.05
7 Employee commuting	0.64	0.68	0.74
8 Upstream leased assets	—	—	—
9 Downstream transportation and distribution	0.01	0.01	0.01
10 Processing of sold products	1.17	1.24	0.77
11 Use of sold products	339.25	320.50	276.21
12 End-of-life treatment of sold products	3.84	3.96	3.46
13 Downstream leased assets	—	—	—
14 Franchises	—	—	—
15 Investments	0.08	0.09	0.07
Total	414.91	397.94	341.35

Organizational Boundary:

Mainly covers automotive business of Toyota Motor Corporation and consolidated subsidiaries

Scope of Calculation:

Category 11 is calculated from the average fuel efficiency and estimated lifetime mileage of vehicles in Japan, the U.S., Europe, China, Canada, Brazil, Saudi Arabia, India, Australia, Taiwan, Thailand, and Indonesia

For details, refer to Environment—Environmental Data of the Sustainability Data Book:

https://global.toyota/pages/global_toyota/sustainability/report/sdb/sdb21_en.pdf 

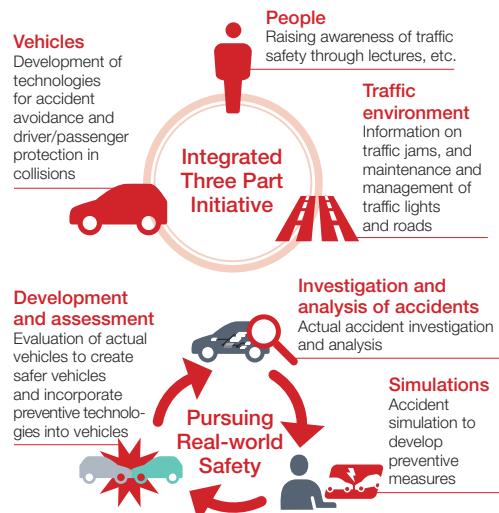
Safety

Fundamental Approach

According to a World Health Organization (WHO) survey,* 1.35 million people per year die in traffic accidents worldwide. While the number of deaths due to traffic accidents has been gradually decreasing in Japan, the United States, and Europe, it has been increasing elsewhere, especially in emerging nations, as improvements in safety education and transportation infrastructure have not kept up with increases in cars on the road. Unless countermeasures are implemented, traffic accident causalities are predicted to become the seventh leading cause of death globally by 2030.

For Toyota to achieve its ultimate goal of eliminating traffic accident causalities, the development of safe vehicles is of course important, but it is also essential to educate people, including drivers and pedestrians, and to ensure safe traffic infrastructure, including traffic signals and roads.

To achieve a safe mobility society, Toyota believes it will be important to implement an integrated three-part initiative involving people, vehicles, and the traffic environment, as well as to pursue real-world safety by learning from actual accidents and incorporating that knowledge into vehicle development.



Toyota has defined its Integrated Safety Management Concept as the basic philosophy behind its technologies for eliminating traffic casualties and is moving forward with development.

* Source: Global Status Report on Road Safety 2018, WHO

Integrated Safety Management Concept

Toyota provides optimized driver support at every stage of driving, from parking to normal operation, the moment before a collision, during a collision, and post-collision emergency response. We also aim to enhance safety by strengthening inter-system coordination, rather than considering each system separately. These are the approaches behind our Integrated Safety Management Concept.

Active Safety

The Toyota Safety Sense system packages multiple active safety functions based around three major functions considered effective in reducing serious traffic accidents causing death or injury. These are Pre-Collision Safety (PCS), which helps avoid and mitigate damage from collisions with cars ahead or pedestrians; Lane Departure Alert (LDA), which contributes to preventing accidents caused by leaving the lane of travel; and Automatic High Beam (AHB), which helps ensure clear sight in front of the vehicle at night. In 2018, we expanded the system's driving assistance functions, such as nighttime pedestrian and daytime cyclist detection and Lane Tracing Assist (LTA).

Since its market launch in 2015, Toyota Safety Sense has been installed in more than 27 million vehicles globally (as of October 2021). Toyota Safety Sense is now available on nearly all passenger car models (as standard or option) in the Japanese, U.S., and European markets. It has also been introduced in a total of 120 countries and regions, including such key markets as China, other select Asian countries, the Middle East, and Australia.

Passive Safety

Passive safety combines a body structure that absorbs collision energy with that support to protect the vehicle occupants to minimize collision

damage. In 1995, in the pursuit of world-leading safety, Toyota created its own stringent internal target related to passive safety performance called "Global Outstanding Assessment (GOA)" and developed a collision-safety body structure and passenger protection devices. Since then, to maintain its leadership in this field, Toyota has continued to evolve GOA, striving to improve the real-world safety performance of its vehicles in a wide variety of accidents.

To analyze vehicle-related injuries, Toyota collaborated with Toyota Central R&D Labs., Inc. to develop the Total Human Model for Safety (THUMS), a virtual human body model. THUMS is being used in the research and development of a variety of safety technologies, including seat belts, airbags, and other safety equipment, as well as vehicle structures that mitigate injuries in accidents involving pedestrians. Toyota made THUMS freely available through its website in January 2021 in the hope that it will be used by more people across more applications.

Emergency Response

Every minute counts in the response to an accident or medical emergency. In 2000, Toyota rolled out its HELPNET® service, an emergency reporting system utilizing the G-Book information network (now T-Connect) and G-Link in Japan. In the event of an accident or medical emergency, HELPNET® contacts a dedicated operator who will arrange for the rapid dispatch of an emergency vehicle

from the police or fire department/emergency services. HELPNET® automatically contacts an operator when the airbags deploy and supports D-Call Net®, a service available throughout Japan that makes quick deployment decisions for air ambulances. This service is provided by sending vehicle data to the HELPNET center from an on-board data communication module (DCM). DCM is installed as a standard feature in all new passenger vehicles in Japan.

Initiatives for People

Toyota believes that education is an important part of preventing traffic accidents.

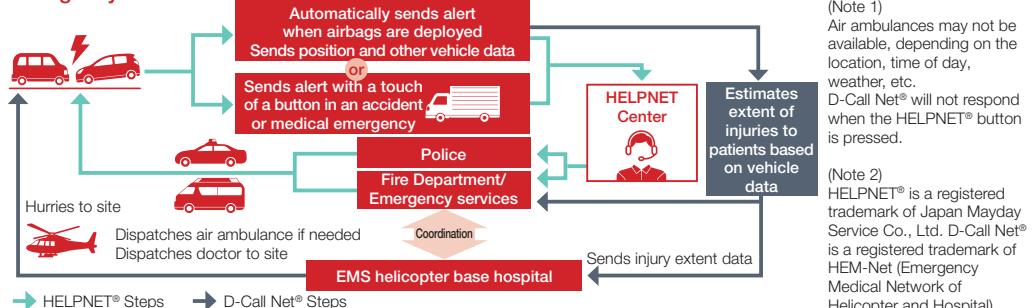
To prevent accidents involving small children, in cooperation with Toyota dealers across Japan, Toyota has been donating traffic safety teaching materials to kindergartens and nursery schools nationwide since 1969. In 2020, we revamped our educational website for children and guardians, and we use our website and social media to raise awareness of traffic safety while walking and cycling.

For drivers, we periodically hold the Toyota Driver Communication safe driving technique seminar at Toyota Safety Education Center Mobilitas, on the grounds of Fuji Speedway.

Additionally, in step with the government-promoted Safety Support Car program, we are working with Toyota dealers across Japan to roll out safety and assurance activities under the name "Support Toyota" to help realize car ownership experiences that offer safety and assurance.

HELPNET® (Airbag-linked Type)

Emergency arises



Quality, Information Security and Privacy

Quality

Fundamental Approach

The origins of Toyota's "Customer First" and "Quality First" principles lie in the Five Main Principles of Toyoda, which embody the thinking of Sakichi Toyoda, and the spirit of audit and improvement espoused by Kiichiro Toyoda. Since its foundation, Toyota has built a corporate culture that focuses particular attention on quality that will produce customer smiles and on *Kaizen* (continuous improvement) achieved through *Genchi Genbutsu* (onsite, hands-on experience). Each employee in every area maintains a constant and strong awareness of issues and a sense of ownership and makes ongoing efforts to implement *Kaizen* and collaborate closely with personnel in other fields in order to enhance customer safety, peace of mind, and satisfaction.

Toyota sees quality as the combination of product quality, sales and service quality, and, as

the foundation supporting these, the quality of the work performed by each employee.

We believe that products and services that gain the confidence of customers can be created only when all employees across every process—from development, purchasing, production, and sales to after-sales service—build quality into their work, coordinate with one another across processes, and implement the quality assurance cycle.

Fostering Awareness and Corporate Culture

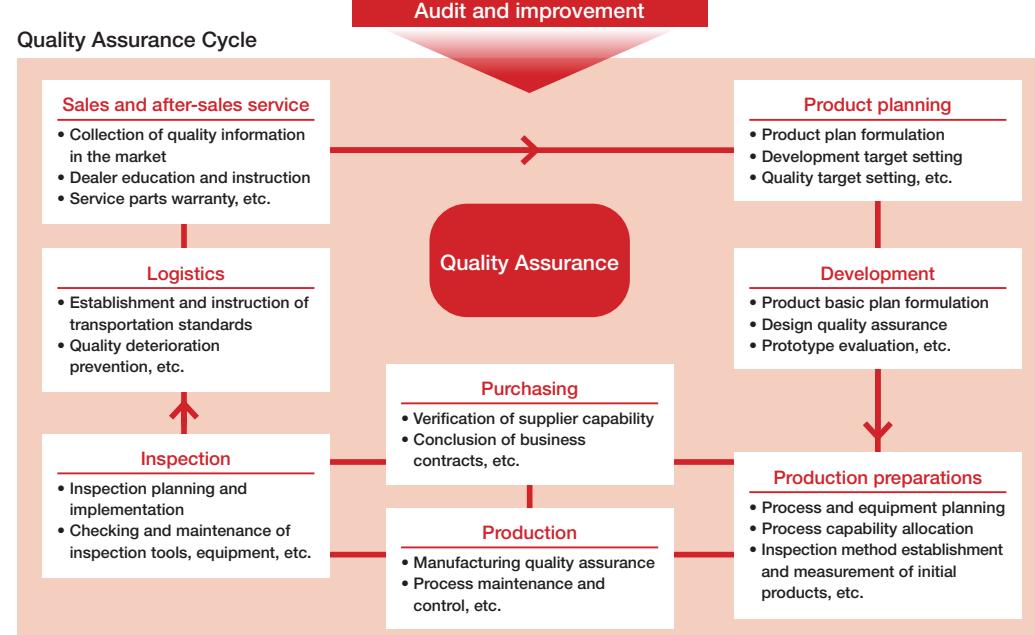
To foster a corporate culture in which each member is committed to building in high quality, Toyota works to develop human resources and improve work quality by holding quality awareness promotion events for all employees every year and by providing qualification-specific education in quality assurance. Furthermore, February 24, the anniversary of the day that President Akio Toyoda attended the U.S. Congressional hearings held to investigate the series

of recall issues that occurred in 2010, has been designated "Toyota Restart Day." We have created mechanisms and are taking measures to raise awareness in order to keep the lessons learned from the series of recall issues fresh.

In 2014, Toyota established its Customer Quality Learning Center as a crucial education facility for conveying the experiences and lessons learned from the series of recall issues to future generations of employees. Using exhibits that engage the five senses, such as actual examples of faulty parts and vehicle simulators, the Center serves the important role of conveying the situation back then to current Toyota employees.

In addition to information about the series of recall issues, recent quality issues are added to update the program every year. In this way, we strive to ensure that the facility effectively maintains focus on lessons we have learned. We have also set up customer quality learning centers unique to individual plants and global sites as part of efforts to ensure employees in each region and at each plant thoroughly understand the importance of quality.

Quality Assurance Cycle



Information Security and Privacy

Fundamental Approach

Cyber attacks are growing more sophisticated and complex. Their corporate targets have expanded from confidential information and information systems to include the networks of systems that control plants and vehicles, such as those for on-board devices. Information security is thus an increasingly important priority for Toyota.

Toyota considers ensuring the safety and peace of mind of its customers as well as protecting its customers' personal information and other assets to be its social responsibility.

Information Security Initiatives

Toyota has established the All Toyota Security Guidelines (ATSG) covering subsidiaries and

affiliates, as an information security framework for comprehensively preventing information leaks and responding to cyber attacks.

ATSG ensures information security through a multi-faceted approach encompassing organizational management, human resource management, technical security, physical security, and incident/accident response. To adapt to recent environmental changes, ATSG is revised periodically.

By annually inspecting the information security initiatives being implemented at each company in line with ATSG, Toyota works to ensure the continuous maintenance and improvement of their information security. Since fiscal 2019, a specialized team has been continuously carrying out on-site audits of all of our consolidated subsidiaries to check responses to ATSG and the status of implementation of physical security measures at each company.

Furthermore, in terms of automobile-related initiatives, Toyota is a member of the Automotive Information Sharing & Analysis Center (Auto-ISAC) in Japan and the United States, a framework for sharing knowledge related to information security, and actively utilizes it to learn promptly about cases that occur within the industry and put them to use in our development.

Initiatives to Ensure Respect for Privacy

In line with changes in the business environment, including business model transitions for the CASE era and recent increases in consumer awareness, the importance to Toyota of protecting personal information and ensuring respect for privacy is greater than ever. Accordingly, Toyota established the Privacy Code of Conduct in 2021. These guidelines lay out Toyota's ideals for handling personal information and privacy-related information, indicating the way forward for the Company and employees as part of efforts to ensure that we can provide products and services that are sympathetic towards society and individuals.

Human Rights and Supply Chains

Human Rights

Fundamental Approach

Toyota refers to and respects the United Nations Guiding Principles on Business and Human Rights (UNGPs) and promotes actions related to human rights based on the UNGPs. Seeking the happiness of others than ourselves is a part of Toyota's founding principles and was a driving force that led to the invention of the automatic loom, which can be considered the beginning of Toyota. This spirit and pursuit is still within us today. Under the mission of "Producing Happiness for All," within every country and every region in which we operate, we aim to be the best company in town, one that is both loved and trusted by the people. The automobile industry depends on the support of numerous people, including local communities, business partners (such as suppliers and dealers), and customers. We will continue to protect the human rights of our employees, customers, and all people involved in our business activities and to improve such protections in order to benefit society.

[Human Rights Policy](#)

Human Rights Due Diligence*

To address human rights-related issues throughout the supply chain, Toyota applies the Toyota Supplier Sustainability Guidelines, which specifically state its expectation that its suppliers respect human rights. Working together with suppliers on risk monitoring, countermeasure development, tracking, and remediation, Toyota provides guidance and support to potentially affected stakeholders.

Furthermore, we work with NGOs and other external stakeholders to both understand societal expectations and assess our prioritized activities from a third-party perspective. By doing so, we hope to increase transparency and ensure that corporate activities are fair and appropriate.

Toyota's Action Taken for Forced Labor of Migrant Workers (Statement on the Modern Slavery Acts)

To comply with the United Kingdom's Modern Slavery Act 2015 and other similar legislation (such as Australia's Modern Slavery Act 2018), Toyota issued the statement "Toyota's action taken for Forced Labor of Migrant Workers (Statement on the Modern Slavery Acts)," covering its domestic and overseas production facilities.

In this statement, we disclose Toyota's commitment to the relevant laws and describe measures we have implemented to prevent any instance of modern slavery, including human trafficking, in either our direct operations or supply chain.

[Toyota's action taken for Forced Labor of Migrant Workers \(Statement on Modern Slavery Acts\)](#)

* The process of identifying, preventing, and mitigating negative human rights impacts

Measures to Protect the Human Rights of Foreign Workers: Participation in the Japan Platform for Migrant Workers towards Responsible and Inclusive Society

Toyota participates in the Japan Platform for Migrant Workers towards Responsible and Inclusive Society established by the Japan International Cooperation Agency (JICA). This platform is aimed at the protection of the human rights of foreign workers and the improvement of their working and living environments.

In accordance with the platform's code of conduct, Toyota recognizes that it has an obligation to protect the human rights of foreign workers and to support the development of appropriate working and living conditions throughout the

Foreign trainees with one-year internship (Global Skill-up Training) completion certificates



supply chain. We expect that collaboration with our platform partners will have a positive impact on the overall supply chain.

Toyota will continue its efforts toward the realization of decent work in its direct and indirect operations.

[Japan Platform for Migrant Workers towards Responsible and Inclusive Society](#)

Supply Chain

Fundamental Approach

Since its establishment, Toyota has worked closely with its suppliers in its manufacturing operations. As part of these efforts, Toyota has globally implemented its Basic Purchasing Policies in accordance with the spirit of mutual benefit based on mutual trust. We strive to maintain close relationships with existing and new suppliers as we work together to promote our Customer First policy.

In 2009, we established the Supplier CSR Guidelines, laying out the role of businesses in society to facilitate efforts undertaken with our suppliers. In 2012, Toyota revised the guidelines to more clearly indicate its approaches to strengthening human rights monitoring and corrective actions taken in the supply chain and to conflict minerals.

In 2021, we made further revisions focused mainly on addressing environmental and human rights issues that have grown more serious in recent years.

When conducting business transactions, we conclude contracts that clearly spell out legal compliance, respect for human rights, and considerations for local and global environments.

Internally, we work to raise the awareness of all our employees, including buyers, through seminars and training.

[Toyota Supplier Guidelines](#)
[Conflict Minerals Report](#)

Initiatives for Compliance and Implementation

To ensure their understanding and implementation of the guidelines, all Toyota suppliers are requested to periodically check the status of their implementation using a self-inspection sheet.

In October 2020, around 350 Tier-1 suppliers, which account for over 90% of our purchase volume in Japan, submitted the results of their self-inspections, indicating their status of implementation. At the same time, if we receive a report of a problem from an outside source, we investigate and, if needed, ask the supplier in question to correct it. We subsequently keep lines of communication with the supplier open to ensure the correction is made, thereby preventing recurrences and escalations.

Responsible Sourcing of Cobalt

Cobalt, used in batteries and other products necessary for automobile electrification, is an important mineral resource for Toyota. Toyota recognizes that there are concerns associated with the mining of cobalt regarding child labor and other human rights violations and abuses.

Toyota has formulated its Policies and Approaches to Responsible Mineral Sourcing based on the OECD Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-affected and High-risk Areas, and promotes responsible mineral procurement by such means as conducting surveys aimed at enhancing the transparency of its supply chain.

Meanwhile, by participating in the activities of the RMI Cobalt Working Group, Toyota Motor North America (U.S.) is encouraging smelters and refiners to acquire related certifications.

Toyota has been advancing activities to clarify its supply chain and identify smelters using the Cobalt Reporting Template, or CRT, provided by RMI. As of March 2020, the supply chain related to batteries, the primary component in which cobalt is used, has largely been clarified, with several smelters identified.

Diversity and Inclusion

Fundamental Approach

Toyota's strength lies in our capacity to respect our employees' abilities to think and promote transformation involving every member. Toward the transformation from an automotive company into a mobility company to leverage recent technical innovations centered on CASE, this capacity is growing increasingly important as we continue to create innovations steadily in existing areas while taking on challenges in new areas. Amid such an environment, Toyota considers diversity and inclusion to be one of the key elements of our business infrastructure, and we are working to create an attractive workplace where employees with wide-ranging skills and values, irrespective of gender, age, nationality, race, ethnicity, creed, religion, sexual orientation, gender identity, disability, marital status or the presence of children, can demonstrate their abilities to the fullest and achieve self-realization. In order to become a company that is needed and chosen by society, we are promoting collaboration with a wide variety of partners both inside and outside the company while putting into practice the values Toyota has embraced since our founding, such as the attitude of humbly learning and taking on challenges from the customer's viewpoint.

Women's Participation in the Workplace

Although we have constantly striven to nurture a corporate culture where all employees including women can demonstrate their full potential across our operation around the world, we recognize that gender diversity has been an issue, particularly at Toyota Motor Corporation in Japan.

In 2002, we started initiatives at Toyota Motor Corporation centered on expanding and establishing measures to support women who are trying to balance work and childcare. Then, in 2012, we began focusing on initiatives for creating a work environment that would help women gain motivation and supporting their participation (especially the development of female managers).

Initiatives to Empower Persons with Disabilities

We provide various work opportunities to those with disabilities based on the concept of a harmonious society in which all persons with or without disabilities work and live together in harmony. We offer a variety of support to enable people with disabilities to work energetically, utilizing their abilities to the full.

For example, we have assigned a job consultant to each office, created a consultation hotline that ensures privacy, and introduced a special

holiday system that can be used by employees when going to hospital or other clinics. To ensure that people with disabilities are given fair opportunities, we send with them sign language interpreters, provide a variety of support tools and make workplace improvements as needed.

(Our employment rate of people with disabilities, including those serving at a special subsidiary, is 2.46% as of June 2021.)

Creating a Work Environment “Toyota Loops”

Toyota Loops Corporation began operation in April 2009 with 28 people with disabilities and received certification from the Minister of Health, Labour and Welfare as a special subsidiary of Toyota Motor Corporation in October of that year.

Toyota Loops primarily handles work that is outsourced from Toyota such as internal printing, mail services, enclosing catalogues and document digitization, performing a variety of office support tasks. As of June 2021, Toyota Loops employed 340 persons with disabilities. The number of support staff has also been increased to eliminate or reduce any anxieties that employees may have regarding their health or work.

Toyota Loops Employees Participating in Development

As a form of work and contribution uniquely available to people with disabilities, some of the

Toyota Loops employees participate in the development of assisted mobility vehicles. For example, they have participated in evaluations (evaluating ease of getting in and out with a wheelchair) for vehicle development and provided opinions on aspects of the development of automated driving vehicles.

LGBT-related Initiatives

Toyota has launched initiatives with the aim of creating workplaces with a good understanding, awareness and inclusion of LGBT people.

At Toyota Motor Corporation, prohibition on discrimination or harassment of LGBT people has been incorporated into the employee behavioral guidelines, and we no longer require new graduates to fill in their sex on their job application sheets. We have been introducing measures related to facilities, such as establishing an internal harassment consultation hotline and allocating dedicated toilets for LGBT people at Head Office and the Nagoya office. Starting from July 2020, we have introduced revised internal systems to allow employees in same-sex marriages or common-law marriages to use the same internal benefit systems as those in legal marriages (holidays, employee benefits, etc.).

Promotion of Female Employee Participation: Our Challenge and Course of Action (Toyota Motor Corporation)

Our Challenge	The ratio of females in managerial positions is low		
Target	The number of females in managerial positions in 2014 to be increased fourfold by 2025, and fivefold by 2030		
Our Course of Action	Hiring	To maintain certain hiring rates for female graduates (40% or above for administrative positions and 10% or above for engineering positions) and the active hiring of women throughout the year	
	System Development	The creation of a system that reports on the progress of female training in each department to our board members	
	Employee Development Action Plan	The development and implementation of a plan for individual employee development action plan as well as the utilization of a mentoring system	
	Networking	Host a global women's conference and symposium that the managerial class and female promotion candidates can participate in	

Social Recognition

In May 2021, Toyota Motor North America was ranked seventh in the comprehensive category of the “Top 50 Companies For Diversity 2021,” a diversity ranking sponsored by U.S.-based Diversity Inc.



Promotion of Female Employee Participation: Initiatives at Major Global Operations

Toyota Motor Europe NV/SA (TME) (Belgium)



- Held company-wide events during the week of International Women's Day (Video message by top management, workshops, etc.)
- Working couple support: Home-working system, part-time working regimes, support in finding employment for spouses of employees temporary transferred to TME
- Female career development: Mentorship system, sponsorship system

**Toyota Motor (China)
Investment Co., Ltd.
(TMCI) (China)**



- Networking to promote gender diversity
- Active hiring of promising candidates to career positions
- Conducted unconscious bias awareness training for all managers
- Set targets in employment and management positions
- Breastfeeding break of up to one hour each day for lactating female employees

Toyota Motor North America (TMNA) (The United States)



- Annual North American Women's Conference, to which all executive level women and many high-potential women in middle management positions, as well as male directors and executives are invited to attend for networking and encouraging women's participation and advancement in the workplace
- Executive D&I scorecards have KPIs on managers making improvements in their areas to promote initiatives
- Established the Outside Advisory Committee Focusing on Diversity, which is responsible for monitoring and reporting on the progress of diversity, including career development for women
- Set up childcare facilities at multiple operation sites to allow flexible workstyles for employees taking care of their children

**Toyota South Africa Motors (Pty) Ltd. (TSAM)
(South Africa)**



- Leadership workshops for management to ensure acceptance of women and promote their participation and advancement in the workplace
- Set employment targets

**Toyota Daihatsu
Engineering &
Manufacturing Co., Ltd.
(TDEM) (Thailand)**



- Set up nursing rooms
- Female prayer room
- Reserved parking area for pregnant employees

**Toyota Motor Corporation
Australia Ltd. (TMCA)
(Australia)**



- Held Annual Toyota Women's Conference Australia
- Assigned a special day when employees are allowed to bring their children to work
- Introduced female voices in the Executive Management Committee
- Sponsorship program for female executive candidates
- Set employment targets and management position targets, conducted strategic recruitment activities
- Offered reskilling programs for career development (specialized knowledge on IT, etc.)



**Toyota do Brasil Ltda. (TDB) (Brazil)
+ Toyota Argentina S.A. (TASA) (Argentina)**



- Designated Women's Day, which promotes an open conversation about the challenges women face in balancing their professional and personal lives
- Allowed working from home
- Healthy pregnancy program for pregnant employees: Guidance and advice related to health conditions, as well as orientation on breastfeeding and baby care
- Conducted unconscious bias awareness training for all managers
- Set employment targets
- Held dialogue between human resources division and management to promote diversity within the company
- Introduced the mentor system to support female leaders
- Introduced Soft-Landing Program in support of employees returning to work after childbirth
- Support for nursing care costs for employees who return to work early
- Provide all employees with children with equipment necessary for school

Employees, Safety and Health, and Social Contribution Activities

Employees

Fundamental Approach

Toward achieving transformation into a mobility company, Toyota is committed to both “realizing advanced *monozukuri* (manufacturing) with higher quality and efficiency based on Toyota Production System (TPS)” and “taking on challenges in new areas.” To this end, Toyota encourages its employees to reexamine their workstyles and hone their individual abilities, thereby enhancing the workplace structures.

Toyota also seeks employees equipped with both the ability to act and empathy,* and promotes the recruitment, training, and evaluation of employees based on these abilities. In this process, Toyota identifies the roles and abilities of each individual, ensuring the placement of the right person in the right position regardless of their nationality, gender, year of joining Toyota, form of recruitment, academic background, job type, and other factors, with the aim of enhancing the competitiveness of the company and its organizations.

* Empathy: The ability to make efforts for others, such as customers and teammates, and the ability to learn respectfully from others and keep improving

Recruitment

To hire an ideal candidate profile, Toyota has revised its conventional recruitment course as follows:

① Recruitment criteria

- To accelerate the introduction of workstyles based on teamwork and alliances in preparation for the launch of mobility services, recruit more people who are attractive for other employees to work with.
- Place greater emphasis in recruitment on empathy and the passion to realize their dream at Toyota.

② Enhancing mid-career recruitment

- To introduce external knowledge and promote the reexamination of work processes and workstyles, increase mid-career hires from 10% to 34% (FY2021 result). The medium-term target is to increase mid-career hires to 50%. (Administrative and engineering positions)
- Introduce referrals (introduction by Toyota employees) and other new means of recruitment.

③ Hiring new graduates with diverse backgrounds

- To ensure diversity in our employees, hire persons with empathy who passionately want to

work at Toyota, regardless of their school or academic background.

- Promote the recruitment of diverse people from universities from which no graduates have previously been hired by Toyota, technical colleges, vocational schools and high schools.

④ Course-specific recruitment of new graduates

- To accelerate the development of professional human resources, hire students who have a concrete vision of what they want to do at Toyota and determine the course they will be assigned to at the time of recruitment, thereby ensuring the recruitment of diverse human resources suited to the characteristics of specific workplaces, such as with IT-related personnel.

Evaluation of and Feedback to Employees

The work roles of Toyota employees and the main focus of their work are to be fulfilled in accordance with policies. Evaluation and feedback are based on close communications between subordinates and superiors.

Specifically, roles and main focus are determined at the beginning of each fiscal year and employees consult with their supervisors periodically. Through these consultations, supervisors assess the employees' self-evaluations and provide feedback. Repeating this cycle leads to employees' capacity development. In addition, we carry out 360-degree feedback for the purpose of employee growth. By giving employees feedback on their strengths and weaknesses from people working with them, we help them reflect on their own actions and make improvements.

The revision of our personnel system in 2019 brought a shift in the system, allowing hard workers to be rewarded regardless of age or qualifications. Furthermore, in 2020, we introduced a system capable of centrally managing employees' individual information, including employee evaluations, the results of consultations with their supervisors and questionnaire results regarding workplace management. This system has made it possible to refer to each employee's previous evaluations, personnel information and stated intent, thereby enhancing the development and allocation of employees with consistency through job assignment based on a better understanding of employee aptitude and intent. Results for each half year are reflected in bonuses and performance abilities demonstrated over the past year are reflected in salary raises for the following year.

ToyotaTimes



A Case Study: Response to the COVID-19 Pandemic
How it happened: Toyota Production System Leads to 100-fold Increase in Protective Gown Production



properly to the occurrence of infection as an urgent issue and is working to address this issue in view of the impact not only on its own business activities but also on society.

Our measures to prevent the spread of COVID-19 therefore place the highest priority on the safety and security of our employees and their families, customers, suppliers, and all other stakeholders.

Workplace Vaccination

In June 2021, to help as many local people as possible get vaccinated as soon as possible, Toyota launched its workplace vaccination program for approximately 80,000 persons, including its employees, suppliers, and in-plant contractors.

Social Contribution Activities

Toyota has a long history of social contribution that traces back to the desire of Sakichi Toyoda—the father of Toyota Motor Corporation's founder, Kiichiro Toyoda—to support inventions that would enrich people's lives.

Kiichiro and his team, who together built Toyota's automotive business, kept this spirit of social contribution alive after Sakichi's death, espousing the concepts of contributing to the development and welfare of the country and remembering to always be grateful. These concepts were eventually woven into the Five Main Principles of Toyoda. In various forms, this spirit of social contribution has been handed down to today.

We have identified the areas that we will focus on: a “harmonious society”; “human asset development” and “community co-creation” aimed at achieving the SDGs; and “Mobility for All,” which Toyota is working to promote through our main business. In these areas, we will contribute to establishing a global society in which everyone can live a rich and dynamic life.

For the issues in each area, we all have a sense of ownership and take action on a *genchi genbutsu* (onsite, hands-on experience) basis. We will work together with our partners who share the same aspirations for the future in addressing issues that are difficult to solve solely by ourselves.

Details of our social contribution activities



Response to the COVID-19 pandemic: Supporting the manufacture of protective gowns

Risk Management and Compliance

Risk Management

Fundamental Approach

Amid a period of tremendous change in the conditions and priorities of the automotive industry, including the push toward carbon neutrality and CASE, Toyota is always taking on new challenges and has been working to reinforce its risk management structure to handle the corresponding increase in uncertainty. Toyota has appointed a Chief Risk Officer (CRO) and Deputy Chief Risk Officer (DCRO) charged with global risk management. Under the supervision of the Board of Directors, the CRO and DCRO are working to prevent and mitigate the impact of risks that could arise in Toyota's global business activities.

Beneath the CRO and DCRO are Regional CROs appointed to manage risk management in specific regions. At head office departments (such as Accounting and Purchasing), risk management by function is assigned to chief officers and risk managers of individual divisions, while at in-house companies, risk management by product is assigned to the company presidents and risk managers of individual divisions. This structure enables coordination and cooperation between the regional head offices and sections.

Business Continuity Management at Toyota

Following the Great East Japan Earthquake and other major disasters, Toyota has in the past been unable to continue production for long stretches of time, causing difficulties for customers. Based on these experiences, to prepare for such emergencies, we formulate business continuity plans (BCPs) for quickly restoring business operations using limited resources. Toyota works to constantly improve the practical effectiveness of its BCPs through the implementation of a PDCA cycle, including training. These activities constitute our business continuity management (BCM), promoted through coordination among employees and their families, Toyota Group companies and suppliers, and Toyota.

Through this process of BCP formulation and review, we aim to develop risk-resilient organizations, workplaces, and individuals.

Building a Disaster-resilient Supply Chain

Toyota provides disaster recovery support in the following order of priority: (1) Humanitarian aid; (2) Early recovery of the affected area; (3) Restoration of Toyota's operations and production. Since the Great East Japan Earthquake, we have worked with suppliers in each country and region to build a disaster-resilient supply chain by sharing supply chain information and setting up measures for prompt initial action and early recovery.

Compliance

Fundamental Approach

The Guiding Principles at Toyota state that Toyota shall "honor the language and spirit of the law of every country and region, and undertake open and fair business activities to be a strong corporate citizen of the world." Toyota believes that by adhering to this principle in its actions, it can fulfill its corporate social responsibility and ensure compliance.

The Toyota Code of Conduct outlines the basic frame of mind that all Toyota personnel should adopt. It sets forth concrete guidelines to assist them in upholding the Guiding Principles at Toyota and doing their part to ensure that Toyota carries out its corporate social responsibility. A booklet containing the Toyota Code of Conduct is distributed to all employees as part of efforts to ensure compliance.

[Toyota Code of Conduct](#)

Bribery and Corruption Prevention Measures

Toyota adopted the Anti-bribery Guidelines for internal divisions and business partners in 2012 to promote the eradication of bribery and corruption. In addition to prohibiting the bribery of public

officials, the Guidelines include stipulations that prohibit bribery and corrupt practices involving others who are not public officials and require the preparation and retention of accurate accounting records, the reporting of any improprieties discovered, and cooperation with investigations. Through these and other measures, we strive to prevent bribery and corruption.

[Anti-bribery Guidelines](#)

Taxation-related Initiatives

Since its founding, Toyota has aspired to enrich peoples' lives through car making and to enrich local economies by creating employment and paying taxes as a corporate presence firmly rooted in local communities.

Toyota seeks to achieve sustainable financial performance through the Toyota Production System (TPS) and cost reduction and commits to its responsibility to making appropriate tax payments as the most basic form of social contribution in the communities in which it operates.

[Tax Policy](#)

"Speak Up" Hotline

Toyota's "Speak Up" Hotline enables quick and appropriate responses to workplace- and work-related concerns, complaints, or questions that employees and other relevant parties may

Key Compliance Enforcement Initiatives

Compliance training	To ensure that awareness of compliance extends from top management to each employee, Toyota provides compliance training at career milestones, such as upon hiring, promotion, and foreign assignment.
Business Compliance Seminar	Personnel from related specialist divisions hold the Business Compliance Seminar every year, providing lectures on laws and regulations that employees must understand when carrying out their work.
Legal Handbook for Corporate Officers	The Legal Handbook for Corporate Officers is posted on the Company intranet, and relevant explanations are provided for newly appointed officers.
Individual training	Individual training is carried out in the form of e-learning and lectures provided in response to individual divisions' needs and requests.

have. We promote awareness of the hotline using the Company intranet and various other media. Consultations can be submitted through a law firm, the Company website, email, telephone, or other means. For topics related to employees or workplaces, the hotline is also open to third parties, including employees' family members and business partners, in addition to employees.

The content of a consultation is passed to the division responsible either anonymously or openly, as requested by the hotline user, and is investigated carefully to ensure that hotline users who wish to remain anonymous cannot be identified. If the results of the investigation indicate an issue, a response is implemented immediately.
(Hotline consultations handled in fiscal 2021: 624)

Checks to Enhance Compliance

Every year, we implement checks including global subsidiaries, to enhance compliance. Fields to be checked are selected by assessing risk levels and importance to Toyota. In fiscal 2021, checks were carried out to examine compliance with the Antimonopoly Law, bribery/corruption prevention, compliance with the Act on the Protection of Personal Information, and other topics. Issues or matters requiring improvement identified through checks are incorporated into the next fiscal year's action plans to ensure ongoing improvement and engagement after the checks conclude.

Board of Directors and Audit & Supervisory Board Members



Takeshi Uchiyamada
Male
August 17, 1946
Chairman of the Board of Directors

Position and areas of responsibility
Chairman of the Board of Directors
Chairman of the Executive Appointment Meeting
Chairman of the Executive Compensation Meeting

Brief career summary

Apr. 1969 Joined Toyota Motor Corporation
 Jan. 1996 Chief Engineer of Vehicle Development Center 2 of Toyota Motor Corporation
 Jun. 1998 Member of the Board of Directors of Toyota Motor Corporation
 Jun. 2001 Managing Director of Toyota Motor Corporation
 Jun. 2003 Senior Managing Director of Toyota Motor Corporation
 Jun. 2005 Executive Vice President of Toyota Motor Corporation
 Jun. 2012 Vice Chairman of Toyota Motor Corporation
 Jun. 2013 Chairman of Toyota Motor Corporation (to present)



Shigeru Hayakawa
Male
September 15, 1953
Vice Chairman of the Board of Directors

Position and areas of responsibility
Chief Privacy Officer

Brief career summary

Apr. 1977 Joined Toyota Motor Sales Co., Ltd.
 Jun. 2005 Division General Manager of Public Affairs Division of Toyota Motor Corporation
 Jun. 2007 Managing Officer of Toyota Motor Corporation
 Sep. 2007 President of Toyota Motor North America, Inc.
 Jun. 2009 Retired as President of Toyota Motor North America, Inc.
 Apr. 2012 Senior Managing Officer of Toyota Motor Corporation
 Jun. 2015 Member of the Board of Directors and Senior Managing Officer of Toyota Motor Corporation
 Apr. 2017 Vice Chairman of Toyota Motor Corporation (to present)



Akio Toyoda
Male
May 3, 1956
President, Member of the Board of Directors

Position and areas of responsibility
Chief Executive Officer

Brief career summary

Apr. 1984 Joined Toyota Motor Corporation
 May 2000 Project General Manager of GAZOO Business Division and Domestic Marketing Division's Operational Improvement Support Office of Toyota Motor Corporation
 Jun. 2000 Member of the Board of Directors of Toyota Motor Corporation
 Jun. 2002 Managing Director of Toyota Motor Corporation
 Jun. 2003 Senior Managing Director of Toyota Motor Corporation
 Jun. 2005 Executive Vice President of Toyota Motor Corporation
 Jun. 2009 President of Toyota Motor Corporation (to present)

(Note) Akio Toyoda, who is President, Member of the Board of Directors, concurrently serves as an Operating Officer (President).



Koji Kobayashi
Male
October 23, 1948
Member of the Board of Directors

Position and areas of responsibility
Chief Risk Officer
Member of the Executive Appointment Meeting
Member of the Executive Compensation Meeting

Brief career summary

Apr. 1972 Joined Toyota Motor Corporation
 Jun. 2004 Executive Director of DENSO CORPORATION
 Jun. 2007 Senior Executive Director, Member of the Board of Directors of DENSO CORPORATION
 Jun. 2010 Executive Vice President of DENSO CORPORATION
 Jun. 2015 Vice Chairman of DENSO CORPORATION
 Feb. 2016 Advisor to Toyota Motor Corporation
 Apr. 2017 Senior Advisor to Toyota Motor Corporation
 Jan. 2018 Operating Officer (Executive Vice President) of Toyota Motor Corporation
 Jan. 2018 Member of the Board of Directors of DENSO CORPORATION
 Jun. 2018 Retired as member of the Board of Directors of DENSO CORPORATION
 Jun. 2018 Member of the Board of Directors of Toyota Motor Corporation
 Apr. 2020 Member of the Board of Directors and Operating Officer of Toyota Motor Corporation (to present)



James Kuffner
Male
January 18, 1971
Member of the Board of Directors

Position and areas of responsibility
Chief Digital Officer

Brief career summary

Aug. 1999 Japan Society for the Promotion of Science (JSPS)
Postdoctoral Research Fellow
 Jan. 2002 Research Scientist of Carnegie Mellon University
 Jan. 2005 Assistant Professor of Carnegie Mellon University
 Jan. 2008 Associate Professor of Carnegie Mellon University
 Sep. 2009 Adjunct Associate Professor of Carnegie Mellon University
 Sep. 2009 Research Scientist of Google Inc.
 Jul. 2013 Engineering Director of Google Inc.
 Jan. 2016 Retired as Engineering Director of Google Inc.
 Jan. 2016 Chief Technology Officer of Toyota Research Institute, Inc.
 Mar. 2018 Retired as Adjunct Associate Professor of Carnegie Mellon University
 Mar. 2018 Chief Executive Officer of Toyota Research Institute - Advanced Development, Inc.
 Mar. 2018 Executive Advisor to Toyota Research Institute
 Jan. 2020 Senior Fellow of Toyota Motor Corporation
 Jun. 2020 Member of the Board of Directors and Operating Officer of Toyota Motor Corporation (to present)
 Jan. 2021 Toyota Research Institute—Advanced Development, Inc. changed its corporate name to Woven Core, Inc. and was reorganized into the Woven Planet Group.
 Jan. 2021 Chief Executive Officer and Representative Director of Woven Planet Holdings, Inc. (to present)



Kenta Kon
Male
August 2, 1968
Member of the Board of Directors

Position and areas of responsibility
Chief Financial Officer

Brief career summary

Apr. 1991 Joined Toyota Motor Corporation
 Jan. 2017 Division General Manager of Accounting Division of Toyota Motor Corporation
 Jun. 2018 Managing Officer of Toyota Motor Corporation
 Jul. 2019 Operating Officer of Toyota Motor Corporation
 Jun. 2021 Member of the Board of Directors and Operating Officer of Toyota Motor Corporation (to present)



Ikuro Sugawara

Male

March 6, 1957

Member of the Board of Directors

Outside

Independent

Brief career summary

- Apr. 1981 Joined Ministry of International Trade and Industry
- Jul. 2010 Director-General of the Industrial Science and Technology Policy and Environment Bureau, Ministry of Economy, Trade and Industry
- Sep. 2012 Director-General of the Manufacturing Industries Bureau, Ministry of Economy, Trade and Industry
- Jun. 2013 Director-General of the Economic and Industrial Policy Bureau, Ministry of Economy, Trade and Industry
- Jul. 2015 Vice-Minister of Ministry of Economy, Trade and Industry
- Jul. 2017 Retired from the Ministry of Economy, Trade and Industry
- Aug. 2017 Special Advisor to the Cabinet
- Jun. 2018 Retired as Special Advisor to the Cabinet
- Jun. 2018 Member of the Board of Directors of Toyota Motor Corporation (to present)

Position and areas of responsibility

- Member of the Executive Appointment Meeting
- Member of the Executive Compensation Meeting



Sir Philip Craven

Male

July 4, 1950

Member of the Board of Directors

Outside

Independent

Brief career summary

- Jul. 1989 Founding President of the International Wheelchair Basketball Federation
- Dec. 2001 President of the International Paralympic Committee
- Jul. 2002 Retired as President of the International Wheelchair Basketball Federation
- Sep. 2017 Retired as President of the International Paralympic Committee
- Jun. 2018 Member of the Board of Directors of Toyota Motor Corporation (to present)

Position and areas of responsibility

- Member of the Executive Appointment Meeting
- Member of the Executive Compensation Meeting



Teiko Kudo

Female

May 22, 1964

Member of the Board of Directors

Outside

Independent

Brief career summary

- Apr. 1987 Joined Sumitomo Bank, Limited
- Apr. 2014 Executive Officer of Sumitomo Mitsui Banking Corporation
- Apr. 2017 Managing Executive Officer of Sumitomo Mitsui Banking Corporation
- Jun. 2018 Member of the Board of Directors of Toyota Motor Corporation (to present)
- Apr. 2020 Senior Managing Executive Officer of Sumitomo Mitsui Banking Corporation
- Apr. 2020 Senior Managing Executive Officer of Sumitomo Mitsui Financial Group, Inc.
- Mar. 2021 Director and Senior Managing Executive Officer of Sumitomo Mitsui Banking Corporation (to present)
- Apr. 2021 Senior Managing Corporate Executive Officer of Sumitomo Mitsui Financial Group, Inc.
- Jun. 2021 Director and Senior Managing Executive Officer of Sumitomo Mitsui Financial Group, Inc. (to present)

Position and areas of responsibility

- Member of the Executive Appointment Meeting
- Member of the Executive Compensation Meeting



**Haruhiko
Kato**
Male
July 21, 1952
**Full-time Audit &
Supervisory Board
Member**



**Katsuyuki
Ogura**
Male
January 25, 1963
**Full-time Audit &
Supervisory Board
Member**

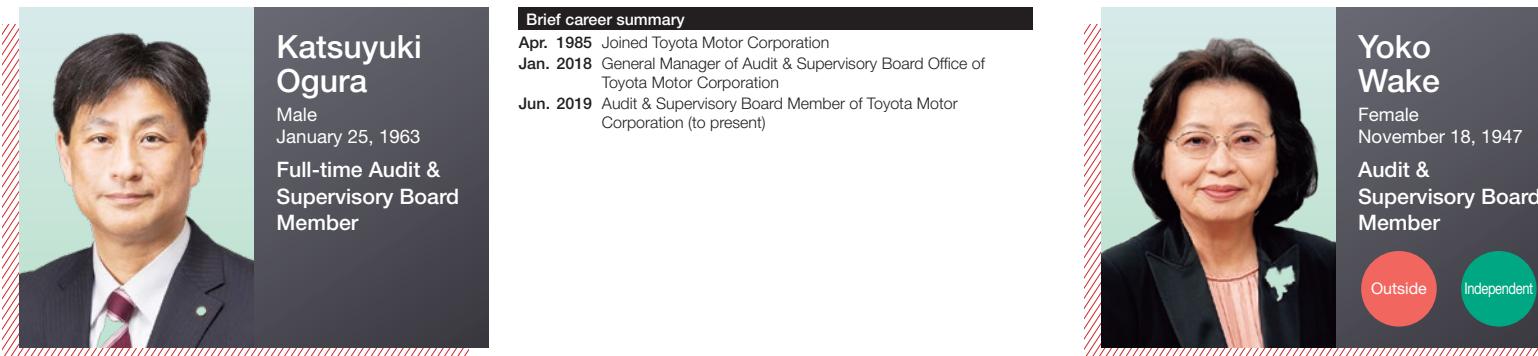


**Hiroshi
Ozu**
Male
July 21, 1949
**Audit &
Supervisory Board
Member**

Outside Independent

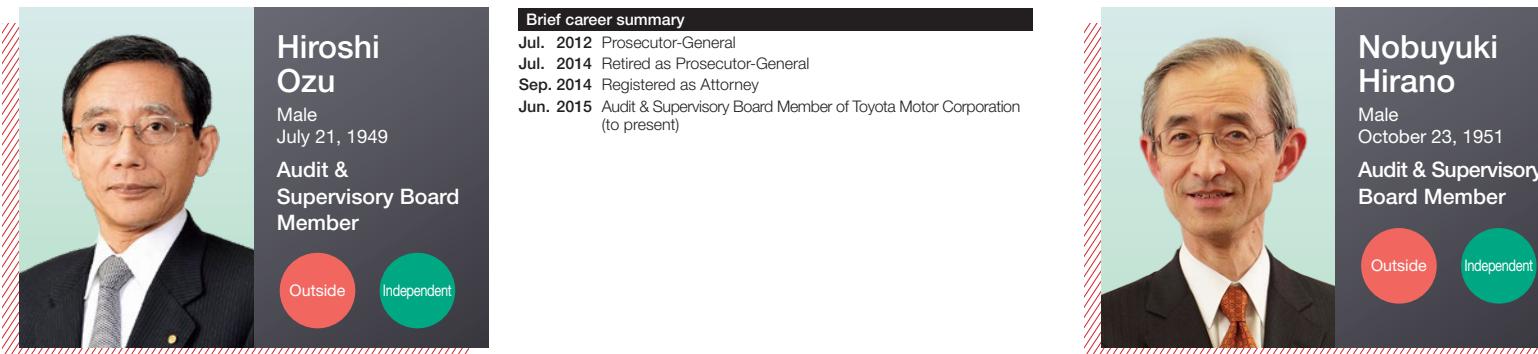


**Masahide
Yasuda**
Male
April 1, 1949
**Full-time Audit &
Supervisory Board
Member**



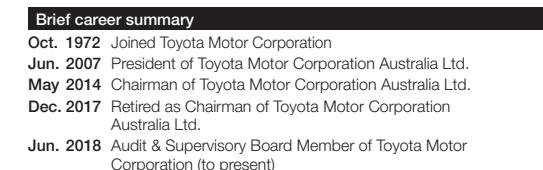
**Yoko
Wake**
Female
November 18, 1947
**Audit &
Supervisory Board
Member**

Outside Independent



**Nobuyuki
Hirano**
Male
October 23, 1951
**Audit & Supervisory
Board Member**

Outside Independent



Brief career summary
Oct. 1972 Joined Toyota Motor Corporation
Jun. 2007 President of Toyota Motor Corporation Australia Ltd.
May 2014 Chairman of Toyota Motor Corporation Australia Ltd.
Dec. 2017 Retired as Chairman of Toyota Motor Corporation Australia Ltd.
Jun. 2018 Audit & Supervisory Board Member of Toyota Motor Corporation (to present)



Brief career summary
Apr. 1993 Professor of Faculty of Business and Commerce of Keio University
Jun. 2011 Audit & Supervisory Board Member of Toyota Motor Corporation (to present)
Apr. 2013 Professor Emeritus of Keio University (to present)



Brief career summary
Apr. 1974 Joined The Mitsubishi Bank, Ltd.
Jun. 2001 Executive Officer of The Bank of Tokyo-Mitsubishi, Ltd.
Oct. 2005 Member of the Board of Directors of Mitsubishi UFJ Financial Group, Inc.
Jan. 2006 Member of the Board of Directors, Managing Executive Officer of The Bank of Tokyo-Mitsubishi UFJ, Ltd.
Oct. 2008 Member of the Board of Directors, Senior Managing Executive Officer of The Bank of Tokyo-Mitsubishi UFJ, Ltd.
Jun. 2009 Deputy President of The Bank of Tokyo-Mitsubishi UFJ, Ltd.
Jun. 2009 Managing Executive Officer of Mitsubishi UFJ Financial Group, Inc.
Oct. 2010 Member of the Board of Directors, Deputy President of Mitsubishi UFJ Financial Group, Inc.
Apr. 2012 President & CEO of The Bank of Tokyo-Mitsubishi UFJ, Ltd.
Apr. 2012 Member of the Board of Directors of Mitsubishi UFJ Financial Group, Inc.
Apr. 2013 President & CEO of Mitsubishi UFJ Financial Group, Inc.
Jun. 2015 Member of the Board of Directors, President & Group CEO of Mitsubishi UFJ Financial Group, Inc.
Apr. 2016 Chairman of the Board of Directors of Bank of Tokyo-Mitsubishi UFJ, Ltd.
Jun. 2018 Audit & Supervisory Board Member of Toyota Motor Corporation (to present)
Apr. 2019 Member of the Board of Directors, Chairman of Mitsubishi UFJ Financial Group, Inc.
Apr. 2019 Member of the Board of Directors of MUFG Bank, Ltd.
Apr. 2020 Retired as member of the Board of Directors of MUFG Bank, Ltd.
Apr. 2021 Member of the Board of Directors of Mitsubishi UFJ Financial Group, Inc.
Jun. 2021 Retired as member of the Board of Directors of Mitsubishi UFJ Financial Group, Inc.

Operating Officers and Organizational Structure

(As of December 2021)

**Akio Toyoda**

President, Chief Executive Officer

Operating Officers

**Koji Kobayashi**

Chief Risk Officer

**Keiji Yamamoto**Chief Information & Security Officer
Chief Product Integration Officer**Masamichi Okada**

Chief Production Officer

**Jun Nagata**

Chief Communication Officer

**Kenta Kon**

Chief Financial Officer

**Yumi Otsuka**

Chief Sustainability Officer

**Masahiko Maeda**

Chief Technology Officer

**Koji Sato**

Chief Branding Officer

**Masanori Kuwata**Chief Planning Officer
Chief Human Resources Officer**James Kuffner**

Chief Digital Officer

Audit & Supervisory Board Office / Internal Audit Dept.

Head Office		Business Unit			Fellow
		Region	Product		
CEO Office / Sustainability Management Dept. Toyota System Supply / Digital Transformation Promotion Dept.		North America Region	East Asia, Oceania & Middle East Region	Advanced R&D and Engineering Company	Mitsuru Kawai Executive Fellow
Toyota ZEV Factory	Information Systems Group	Europe Region	Latin America & Caribbean Region	CV Company	Shigeki Terashi Executive Fellow
Frontier Research Center	Accounting Group	Japan Sales Business Group	Africa Support Div. Business Planning Div. / Sales & Operation Planning Div.	Lexus International Co.	Shigeki Tomoyama Executive Fellow
TPS Group	Sales Financial Business Group	China Region	KD Business Planning Div. / Sales & Marketing Support Div.	Powertrain Company	Gill A. Pratt Chief Scientist and Executive Fellow for Research
Business Development Group	Purchasing Group	Asia Region		Production Engineering Development Center	
External & Public Affairs Group	Customer First Promotion Group			Vehicle Development Center	
General Administration & Human Resources Group	Production Group			Toyota Compact Car Company	
				Connected Company	
				GAZOO Racing Company	
				Mid-size Vehicle Company	
				Emerging-market Compact Car Company	

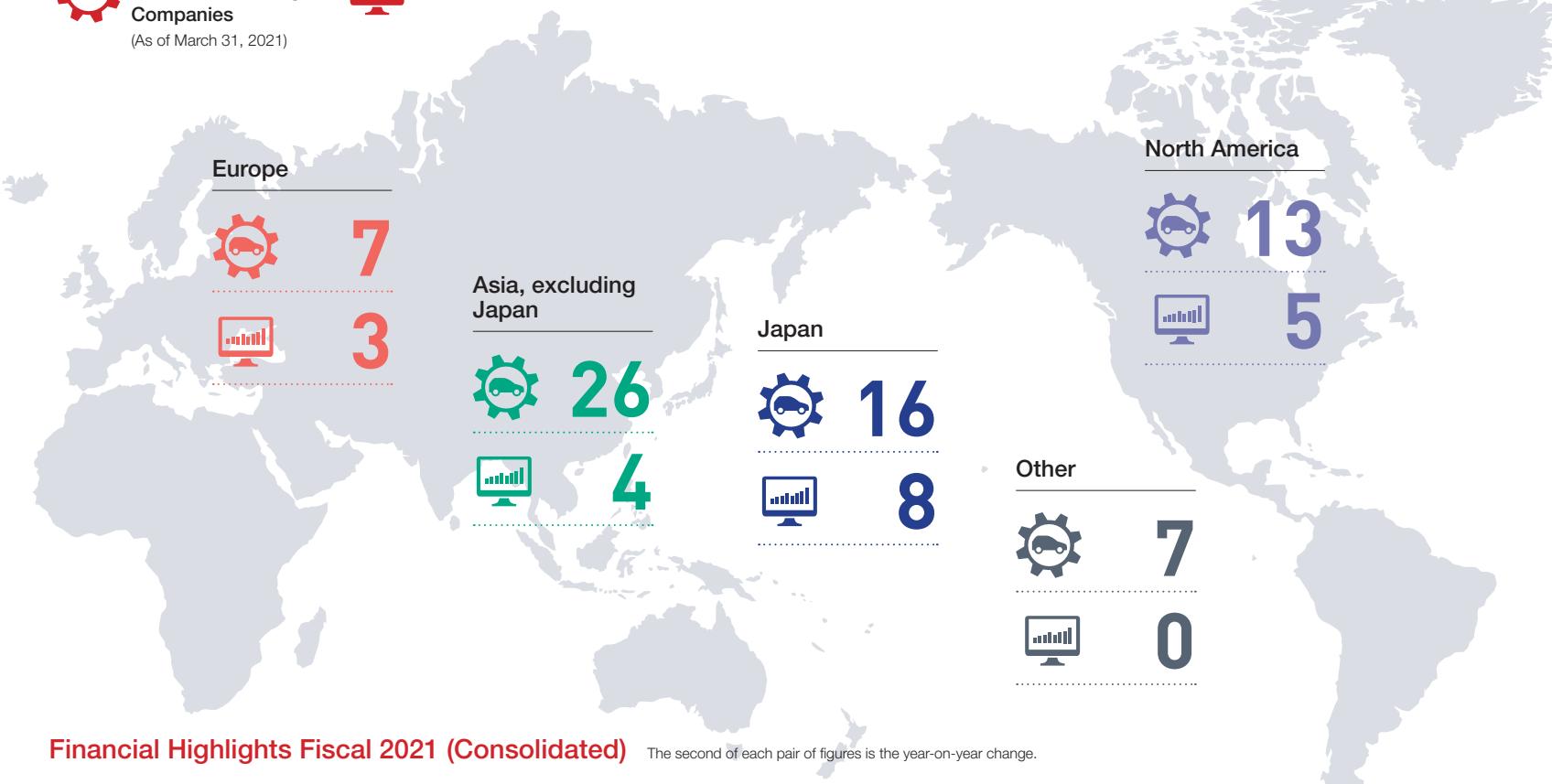
Global Perspective/Data by Region



Number of Plants
and Manufacturing
Companies
(As of March 31, 2021)



R&D Sites
(As of March 31, 2021)



Financial Highlights Fiscal 2021 (Consolidated)

The second of each pair of figures is the year-on-year change.

Total Vehicle Sales

7,646 thousand
-1,309 thousand

Sales Revenues

¥27,214.5 billion
-8.9%

Operating Income

¥2,197.7 billion
-8.4%

Net Income Attributable to Toyota Motor Corporation

¥2,245.2 billion
+10.3%

Total Liquid Assets

¥11,579.4 billion
+¥2,976.8 billion

Total Shareholder Return (Max)

¥921.0 billion
+¥110.2 billion

R&D Expenses

¥1,090.4 billion
-¥19.9 billion

Capital Expenditures

¥1,293.2 billion
-¥79.1 billion

Number of Employees

366,283

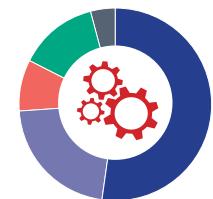
(Consolidated, as of March 31, 2021)



Total Vehicle Production

7,552,896

(Consolidated, fiscal 2021)



Total Vehicle Sales

7,646,105

(Consolidated, fiscal 2021)



● Japan ● North America ● Europe
● Asia, excluding Japan ● Other

History

Founding and entry into
the automobile industry

Establishing the Toyota identity

Leaping forward as a global corporation

Toward the mobility society of
the future

Domestic/Overseas Vehicle Production (Thousands of units)

(Including Daihatsu and Hino brands since 2002)

■ Domestic ■ Overseas

10,000

8,000

6,000

4,000

2,000

0

Toyoda Model AA passenger car launched (1936)

Toyopet Crown launched (1955)

Corolla launched (1966)

Celica launched (1970)

Soarer launched (1981)

Lexus LS400 launched (1989)

Prius launched (1997)

Mirai launched (2014)



History of Toyota

● Labor disputes (1950)

● Toyota Motor Co., Ltd. established (1937)

● Toyoda Model AA passenger car launched (1936)

● Five Main Principles of Toyota established (1935)

● The Toyota Production System established

● Total Quality Control (TQC) introduced (1961)

● Kanban method adopted (1963)

● Toyota Motor and Toyota Motor Sales merged with TMC (1982)

● NUMMI, a joint corporation with GM, established in the U.S. (1984)

● Guiding Principles at Toyota adopted (1992)

● Prius launched (1997)

● The Toyota Way 2001 adopted (2001)

● Recall issues (2009–2010)

● Losses (FY 2009)

● Mirai launched (2014)

● TRI established (2016)

● Construction of the "Woven City" launched (2021)

● Toyota Environmental Challenge 2050 established (2015)

● Toyota Philosophy and Toyota Way 2020 established (2020)

1935

1940

1950

1960

1970

1980

1990

2000

2010

2020

Major World Events

● Rapid economic growth period in Japan (1960s–1970s)

● Oil crisis (1973 & 1979)

● Tighter control on exhaust emissions (1970s)

● Berlin Wall comes down (1989)

● Kyoto Protocol adopted (1997)

● Rio Earth Summit (1992)

● Trade friction surrounding cars (1990s)

● The Great East Japan Earthquake, Thailand floods (2011)

● The 2008 financial crisis (2008)

● UN SDGs adopted (2015)

● Paris Agreement adopted (2015)

● The COVID-19 pandemic emerged (2019)

75 Years of Toyota

Financial Summary (Consolidated)

Fiscal years ended March 31		U.S. GAAP										IFRS		
		U.S. GAAP	IFRS	2012	2013	2014	2015	2016	2017	2018	2019	2020	2020	2021
Consolidated Vehicle Sales		(thousands of units)		7,352	8,871	9,116	8,972	8,681	8,971	8,964	8,977	8,958	8,955	7,646
Foreign Exchange Rates (Average)	Yen to U.S. Dollar Rate			79	83	100	110	120	108	111	111	109	109	106
	Yen to Euro Rate			109	107	134	139	133	119	130	128	121	121	124
Net Revenues	Sales Revenues	(billions of yen)		18,583.6	22,064.1	25,691.9	27,234.5	28,403.1	27,597.1	29,379.5	30,225.6	29,929.9	29,866.5	27,214.5
Operating Income (Loss)	Operating Income (Loss)	(billions of yen)		355.6	1,320.8	2,292.1	2,750.5	2,853.9	1,994.3	2,399.8	2,467.5	2,442.8	2,399.2	2,197.7
Income (Loss) before Income Taxes	Income (Loss) before Income Taxes	(billions of yen)		432.8	1,403.6	2,441.0	2,892.8	2,983.3	2,193.8	2,620.4	2,285.4	2,554.6	2,792.9	2,932.3
Net Income (Loss)* ¹	Net Income (Loss) Attributable to Toyota Motor Corporation	(billions of yen)		283.5	962.1	1,823.1	2,173.3	2,312.6	1,831.1	2,493.9	1,882.8	2,076.1	2,036.1	2,245.2
	Cash Dividends	(billions of yen)		157.7	285.0	522.9	631.3	645.5	627.5	642.6	626.8	610.8	610.8	671.0
Common Shares	Cash Dividends per Share	(yen)		50	90	165	200	210	210	220	220	220	220	240
	Payout Ratio	(%)		55.6	29.6	28.7	29.0	28.3	34.6	26.1	33.8	29.9	30.2	29.8
Value of Shares Repurchased [shareholder return] * ²		(billions of yen)		—	—	180.0	293.3	639.3	449.9	549.9	549.9	199.9	199.9	249.9
R&D Expenses		(billions of yen)		779.8	807.4	910.5	1,004.5	1,055.6	1,037.5	1,064.2	1,048.8	1,110.3	1,110.3	1,090.4
Depreciation Expenses* ³		(billions of yen)		732.9	727.3	775.9	806.2	885.1	893.2	964.4	984.8	812.8	803.3* ⁵	876.9
Capital Expenditures* ³		(billions of yen)		706.7	852.7	1,000.7	1,177.4	1,292.5	1,211.8	1,302.7	1,465.8	1,393.0	1,372.3	1,293.2
Total Liquid Assets* ⁴		(billions of yen)		4,968.1	5,883.1	7,661.9	8,508.2	9,229.9	9,199.5	9,372.1	9,454.4	8,685.1	8,602.6	11,579.4
Total Assets		(billions of yen)		30,650.9	35,483.3	41,437.4	47,729.8	47,427.5	48,750.1	50,308.2	51,936.9	52,680.4	53,972.3	62,267.1
Toyota Motor Corporation Shareholders' Equity	Toyota Motor Corporation Shareholders' Equity	(billions of yen)		10,550.2	12,148.0	14,469.1	16,788.1	16,746.9	17,514.8	18,735.9	19,348.1	20,060.6	20,618.8	23,404.5
Return on Equity	Return on Equity (ROE)	(%)		2.7	8.5	13.7	13.9	13.8	10.6	13.7	9.8	10.4	10.0	10.2
Return on Assets	Return on Assets (ROA)	(%)		0.9	2.9	4.7	4.9	4.9	3.8	5.0	3.7	4.0	3.8	3.9

*1 Shows "Net income (loss) attributable to Toyota Motor Corporation"

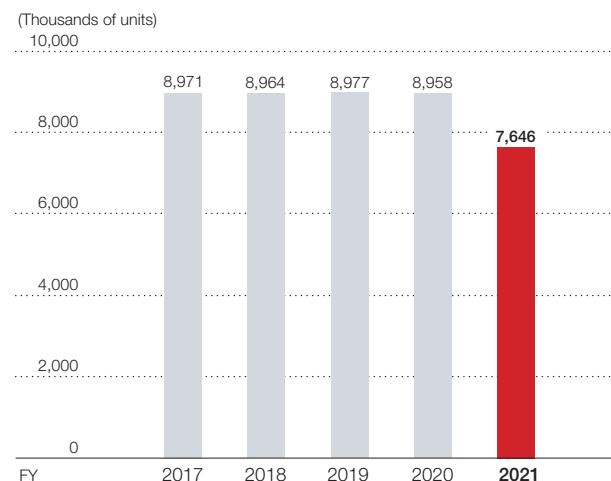
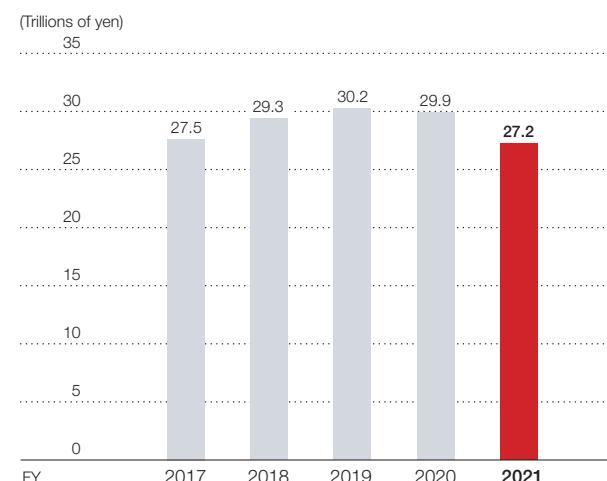
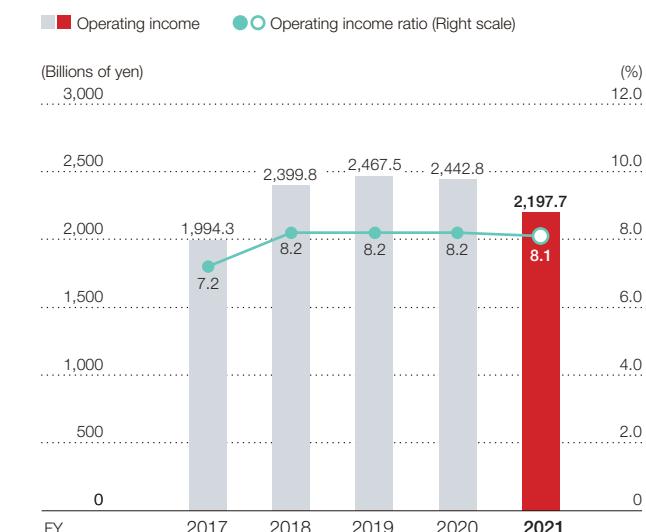
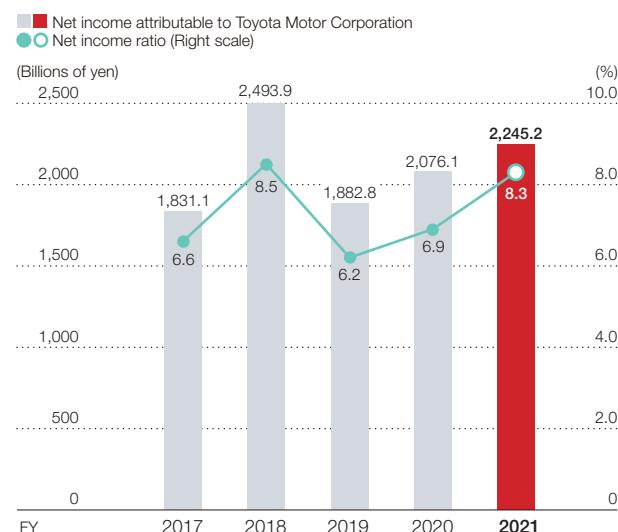
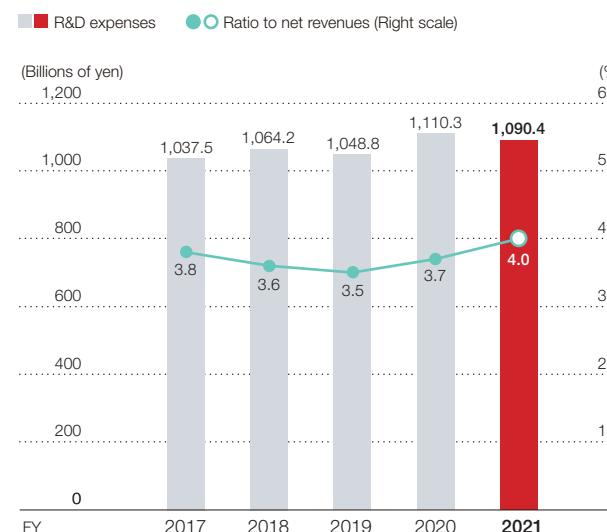
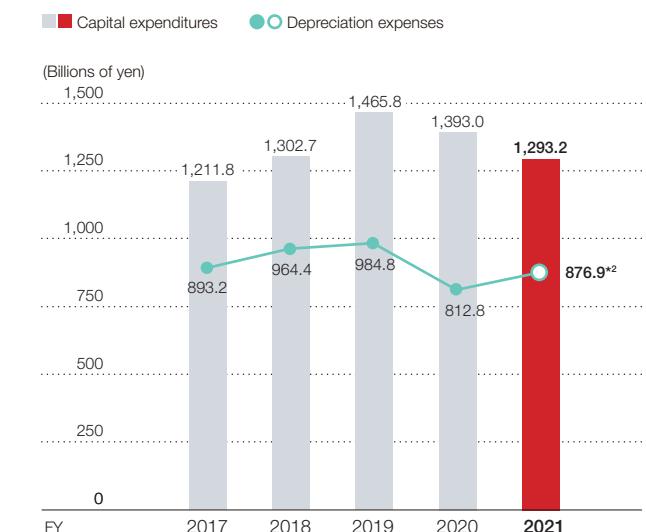
*2 Value of common shares repurchased (shareholder return on net income for the period, excluding shares constituting less than one unit that were purchased upon request and repurchases made to avoid the dilution of shares)

*3 Figures for depreciation expenses and capital expenditures do not include vehicles under operating leases and right of use assets

*4 Represents cash and cash equivalents, time deposits, and investments in public and corporate bonds and trust funds, excluding those deriving from the financial services business

*5 Depreciation methods were revised at the beginning of the fiscal year ended March 31, 2020

2017-2020 (U.S. GAAP) /2021 (IFRS)

Consolidated Vehicle Sales**Sales Revenues****Operating Income****Net Income Attributable to Toyota Motor Corporation****R&D Expenses^{*1}****Capital Expenditures**^{*1} Expenses incurred in connection with R&D activities during the reporting period^{*2} Depreciation methods were revised

Corporate Information and Stock Information

(As of September 30, 2021)

Corporate Data

Company Name	Toyota Motor Corporation	Number of Affiliates	
Established	August 28, 1937	Consolidated subsidiaries:	550
Common Stock	¥635,402 million	Affiliates accounted for by the equity method:	170
Fiscal Year-End	March 31		
Accounting Auditor	PricewaterhouseCoopers Aarata LLC	Number of Employees	372,286
			(Parent company: 71,206)
		Corporate Website	
		Corporate information: https://global.toyota/en/	
		IR information: https://global.toyota/en/ir/	
		Toyota Times: https://toyotatimes.jp/en/	

Stock Data

Number of Shares Authorized	10,000,000,000 shares
Number of Shares Issued	Common shares: 3,262,997,492 shares
Number of Shareholders	534,315
Stock Listings	Japan: Tokyo, Nagoya Overseas: New York, London Securities
Code	Japan: 7203
American Depository Receipts (ADRs)	Ratio: 1 ADR=2 common shares Symbol: TM
Transfer Agent in Japan	Mitsubishi UFJ Trust and Banking Corporation 1-1, Nikko-cho, Fuchu City, Tokyo 183-0044, Japan Japan toll-free: (0120) 232-711
Depository and Transfer Agent for ADRs	The Bank of New York Mellon 240 Greenwich Street, New York, NY 10286, U.S.A.

(Note) Toyota implemented a five-for-one stock split, with September 30 and October 1, 2021 defined as the record date and the effective date, respectively.

Contact Points

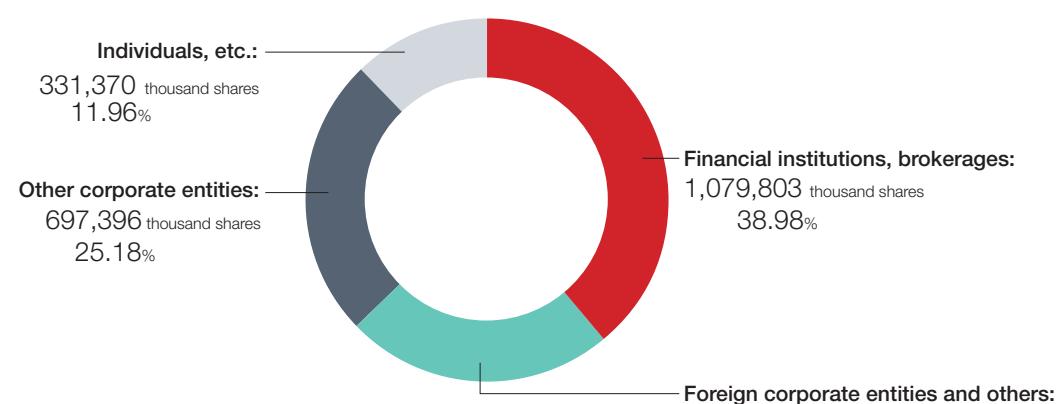
Toyota City Head Office:	1, Toyota-cho, Toyota City, Aichi Prefecture 471-8571, Japan
Tel:	(0565) 28-2121
Tokyo Head Office:	1-4-18, Koraku, Bunkyo-ku, Tokyo 112-8701, Japan
Tel:	(03) 3817-7111

Major Shareholders (Top 10)

Name	Common shares (1,000 shares)	Percentage of Shareholding (%)
The Master Trust Bank of Japan, Ltd.	324,364	11.71
Custody Bank of Japan, Ltd.	249,314	9.00
Toyota Industries Corporation	238,466	8.61
Nippon Life Insurance Company	126,775	4.58
JP Morgan Chase Bank, N.A. (Standing Proxy: Settlement & Clearing Services Division, Mizuho Bank, Ltd.)	107,607	3.88
DENSO Corporation	89,915	3.25
State Street Bank and Trust Company (Standing Proxy: Settlement & Clearing Services Division, Mizuho Bank, Ltd.)	73,812	2.66
Mitsui Sumitomo Insurance Company, Limited	56,814	2.05
The Bank of New York Mellon as Depositary Bank for Depositary Receipt Holders (Standing Proxy: Sumitomo Mitsui Banking Corporation)	56,465	2.04
Tokio Marine & Nichido Fire Insurance Co., Ltd.	51,064	1.84

(Note) Percentage of shareholding is calculated after deducting treasury stock (492,842 thousand shares) from the total number of shares issued.

Ownership Breakdown



(Note) The above percentages indicate the ratios of shareholdings to the total number of shares issued after deducting treasury stock (492,842 thousand shares).

Cautionary Statement with Respect to Forward-Looking Statements, and Other Information

This report contains forward-looking statements that reflect Toyota's plans and expectations. These forward-looking statements are not guarantees of future performance and involve known and unknown risks, uncertainties and other factors that may cause Toyota's actual results, performance, achievements or financial position to be materially different from any future results, performance, achievements, or financial position expressed or implied by these forward-looking statements.

These factors include, but are not limited to:

- (i) Changes in economic conditions, market demand, and the competitive environment affecting the automotive markets in Japan, North America, Europe, Asia, and other markets in which Toyota operates
 - (ii) Fluctuations in currency exchange rates, particularly with respect to the value of the Japanese yen, the U.S. dollar, the euro, the Australian dollar, the Russian ruble, the Canadian dollar, and the British pound, fluctuations in stock prices, and interest rate fluctuations
 - (iii) Changes in funding environment in financial markets and increased competition in the financial services industry
 - (iv) Toyota's ability to market and distribute effectively
 - (v) Toyota's ability to realize production efficiencies and to implement capital expenditures at the levels and times planned by management
 - (vi) Changes in the laws, regulations, and government policies in the markets in which Toyota operates that affect Toyota's automotive operations, particularly laws, regulations, and government policies relating to vehicle safety including remedial measures such as recalls, trade,
- environmental protection, vehicle emissions, and vehicle fuel economy, as well as changes in laws, regulations, and government policies that affect Toyota's other operations, including the outcome of current and future litigation and other legal proceedings, government proceedings, and investigations
- (vii) Political and economic instability in the markets in which Toyota operates
 - (viii) Toyota's ability to timely develop and achieve market acceptance of new products that meet customer demand
 - (ix) Any damage to Toyota's brand image
 - (x) Toyota's reliance on various suppliers for the provision of supplies
 - (xi) Increases in prices of raw materials
 - (xii) Toyota's reliance on various digital and information technologies
 - (xiii) Fuel shortages or interruptions in electricity, transportation systems, labor strikes, work stoppages, or other interruptions to, or difficulties in, the employment of labor in the major markets where Toyota purchases materials, components, and supplies for the production of its products or where its products are produced, distributed, or sold
 - (xiv) The impact of natural calamities as well as the outbreak and spread of epidemics, including the negative effect on Toyota's vehicle production and sales

A discussion of these and other factors which may affect Toyota's actual results, performance, achievements, or financial position is contained in Toyota's annual report on Form 20-F, which is on file with the United States Securities and Exchange Commission.



Worldwide
Olympic Partner

TOYOTA



Worldwide
Paralympic Partner

Toyota is a Worldwide Olympic/Paralympic Partner in the category of vehicles, mobility support robots and mobility services.