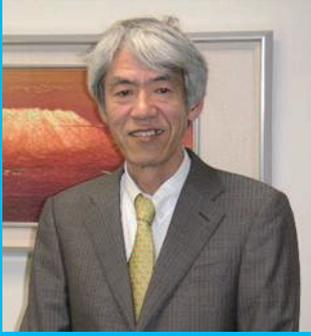


Creating Ever-Better Cars



Providing smiles to our customers through "Creating Ever-Better Cars"

As we develop products at Toyota Auto Body, we imagine the smiling faces of our customers as we look to exceed expectations and deliver happiness and excitement.

In order to do so, our technical development engineers travel not only in Japan but around the world to see with their own eyes and listen to the customers, and to determine how our vehicles are actually used in the markets as they carry out development.

Development Management Headquarters
Hiroshi Ohashi,
Executive Vice President

Fundamental Thinking for Our Efforts

1. Sincerely listen to the voice of our customer, and deliver products that surpass their expectations and requests from customer's point of view.
2. Provide balanced products with design, marketability, performance, quality and safety.

Our customers' smiling faces



Placement Product Development

Toyota Auto Body is a complete vehicle manufacturer that is involved in the overall process from design to development, and our development headquarters has unified ourselves to work on "Creating Ever-Better Cars."

Creating Ever-Better Cars				
Meeting the expectations of our customers			Creating high-quality cars that provide safety and security	
Development (planning, image design, technical design)			Safety	Quality
Product planning			Testing and evaluation	
Image design			Quality assurance	
Technical design				
From development to quality assurance				
	Investigating how customers use our products and customer requests	Imaginative designs	High-quality designs	Actual vehicles are produced to confirm safety performance (E.g.: Collision testing)
	Creating plans based on market investigations	Making models that express the design image	Using CAE to achieve both stylishness and performance	Performance verification using actual vehicles based on predicted usage and environmental conditions (E.g.: Snow road testing)
				Delivering high quality to customers by making processes easier to perform (E.g.: Molded headlining installation)
			Customer evaluations: Positively evaluated at IQS (Initial Quality Surveys) conducted in the US and Japan by J.D. Power.	

Creating Ever-Better Cars

Meeting Customer Expectations

Aiming to Create Cars that Exceed Customer Expectations

We place great value on our customers' opinions, and we carry out product development aiming to create ever-better cars that exceed the customers' expectations. (The re-designed Alphard and Vellfire were launched in January 2015.)

Working to Satisfy Every Customer

When developing the re-designed Alphard and Vellfire, we aimed to create better cars that exceed expectations by focusing on families with children, and by listening not only to the needs of drivers, but also of the children, elderly persons, and others who occupy the back seats.



Making best use of our customers' valuable opinions and feedback

In response to the many different opinions that we receive from customers, our development engineers travel to the markets themselves to observe how the cars are actually used and listen directly to the customers.

< Feedback from customers: >

- Nice, large interior
- The wide range of rear seat arrangements makes for improved comfort.
- Good stylish design
- Visibility and field of view from the driver's seat are excellent.
- More comfortable
- More storage space would be nice.
- A higher-grade interior would be better.
- It should be easier to get into and out of the car.
- A wider front passenger seat would be a good idea.



Checking customer preferences and trends regarding the feeling of front seat visibility

To exceed customer expectations

From the opinions we receive, we strive to identify what the customers truly want, and incorporate the results into our ideas. The ideas born from customer opinions are reproduced in the interior models. With the cooperation of company staff users and others, repeated verification is carried out as the product is created.



Verifying the user-friendliness of the front passenger long sliding seat



Verifying the ease of getting into and out of the car after lowering the step height

Comment by an Alphard and Vellfire developer



Product Planning Center
Teruji Kuroyanagi

There was a lot that we gained from customer opinions and observing how the cars were actually used in the market. I could clearly feel the importance of the customer's perspective.

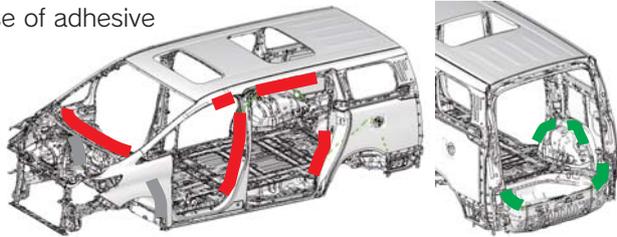
Creating Ever-Better Cars

Meeting Customer Expectations

Responding to the request for minivan comfort on the same level as a luxury car

A new double-wishbone rear suspension was developed together with Toyota, achieved without harming the balance of a low floor and optimal seat layout. Increasing the number of spot welds and using the same structural adhesive that is used in luxury cars helped to increase body rigidity and improve riding comfort.

- Increased number of spot welds
- Use of adhesive



Improved riding comfort resulting from higher body rigidity

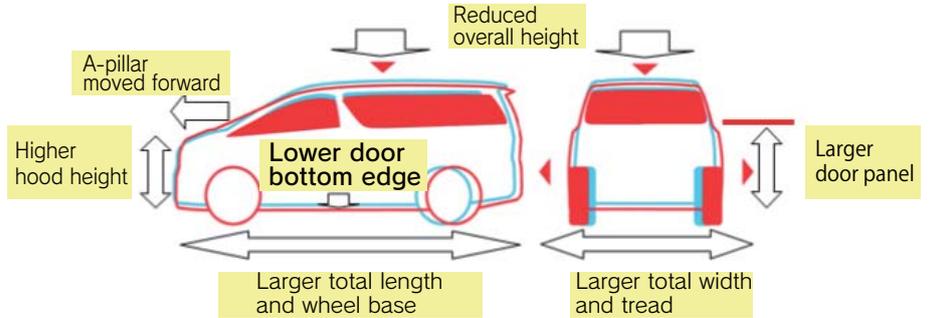


New rear double-wishbone suspension together with a low floor and optimal seat layout

Responding to requests for further style improvements

Aiming to further improve on the popular design of the previous models, we adopted a package that provides a stately shape and curvy surface configuration.

- Old model —
- New model —



Responding to requests for a wide and comfortable front seat as well as rear seats

The seat rails were connected from front to rear, increasing the front passenger seat movement range. This produces a seat arrangement where the front passenger seat can also be comfortably used in a wide range of configurations.



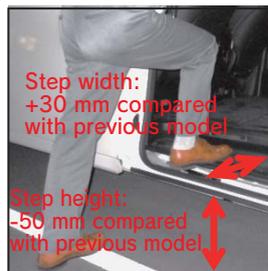
Front passenger super long sliding seat



Sample arrangement

Responding to requests for easier entry and exit

So that people can more easily get into and out of the car, a lower and wider step was installed. A long assist grip was also adopted so that it can be gripped easily by small children. In addition, the door opening was widened for even easier entry and exit.



A lower and wider step



Long assist grip



A wider door opening

Even greater appeal of the re-designed Alphard and Vellfire

Creating Ever-Better Cars

Meeting Customer Expectations

For the Safety of Our Customers

We are pursuing safety from the two directions of helping to prevent accidents with active safety technology and reducing damage in the event of a collision with passive safety technology in order to continue providing safe and dependable cars to the customers.

Strengthening Safety Functions for Helping to Prevent Accidents (Active Safety)

The re-designed Alphard and Vellfire support the driver and help ensure safety with vehicle periphery sensors and automatic brake control.

When the car is stopped in a parking lot or elsewhere, objects that are difficult for the driver to see are displayed on a monitor.

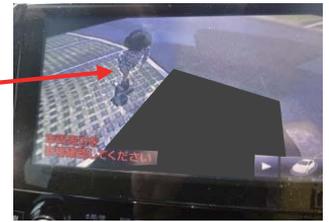
The panoramic view monitor allows the driver to check the conditions all around the vehicle from the driver's seat. The see-through view function displays the view with a transparent vehicle body.



View from outside the car



Not visible from the driver's seat



Can be seen on the monitor.

During expressway driving, a system tracks the car ahead and smoothly brings the car to a stop

The radar cruise control (with all-speed tracking function) can maintain a suitable following distance behind the car ahead in a wide speed range from 0 to 100 km/h.

When the car ahead stops, the system brings the car to a stop while keeping a suitable distance from the car ahead.

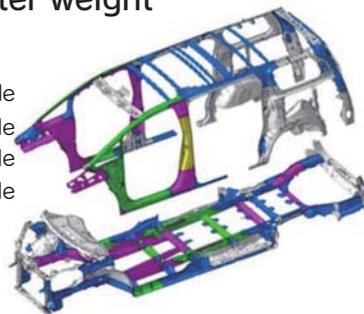


Improving Safety in Various Situations (Passive Safety)

Achieving both collision safety and lighter weight

A high-strength cabin is used to protect the passenger space in the event of a collision, and at the same time expanded use of high-tension steel sheet reduces the vehicle weight. In particular, 980 MPa grade and higher high-tension steel sheet is positioned optimally as the structural members

- 1500MPa grade
- 980MPa grade
- 590MPa grade
- 440MPa grade



Comment from a collision safety evaluation team member

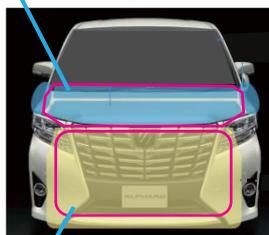
Collision Safety Test Dept.
Shinichi Yamaguchi



We completed development of a lightweight and high-strength body. We are confident that we can deliver safety and security to customers.

Reducing injuries to pedestrians Mitigating impact to the head

An impact-absorbing structure is used on the hood, bumper, and other parts in order to mitigate the impact on the pedestrian in the event of a collision.



Mitigating impact to pedestrian legs



The moment when a head dummy strikes the hood



The slits on the inside of the hood deform to absorb the impact

Creating Ever-Better Cars

Meeting Customer Expectations

Developing more Customer-Friendly Commercial Vehicles and SUVs

We are working on developing the most suitable products by monitoring and analyzing how our vehicles are used in countries and regions around the world using the genchi-genbutsu (going to see the actual site and actual object) approach in consideration of the customers' tastes and conditions of usage.

Incorporating the Ways Customers Use our Products around the World to Product Development

Responding to requests for Hiace improvements

Changing to a sliding front passenger seat

The Hiace is broadly popular both in Japan and overseas. In order to meet the expectations of customers, we investigated actual vehicles in the local markets, strengthened our means of rapidly acquiring customer information, and took other steps to identify the ways the vehicles are used and requests for improvements in great detail so that we could apply them to product development.



Australia investigation: In response to numerous comments that the front passenger seat does not have enough leg room, we adopted a sliding passenger seat.

(From Dec. 2014)

Responding to requests from many Land Cruiser 70 fans

To commemorate its 30th anniversary, we have re-introduced the Land Cruiser 70 in Japan for the first time in 10 years.

In active service around the world, the Land Cruiser 70 also has a large fan base in Japan. In response to their requests, we resumed sales of the Land Cruiser 70 for a limited one-year period.

(Vehicles will be produced up to the end of June 2015.)

To meet the needs of users worldwide, in addition to compliance with the latest laws and regulations, we have also carried out development aimed at improving safety.



Semi-long van



Double-cab pickup

Responding to requests for Coaster improvements

Development of new Coaster rear seats

In response to customer requests obtained from local investigations in Australia, we developed large-size seats with an extra margin of space.

We will continue to carry out product development that is tailored to satisfy customers' intended requirements.



Rear seat for Australia
(Figure shows 2-person seat)
From Jan. 2015



Investigation in Papua New Guinea:
Many Coasters transporting passengers at a bus terminal

TOPICS

Dakar Rally 2015 We finished first and second in the Cross-Country Series Production Vehicles class with the same vehicle that our worldwide customers are driving! (2nd consecutive victory)



Finished first and second in the Cross-Country Series Production Vehicles class!

The Dakar Rally is another opportunity to prove the reliability and off-road performance of the Land Cruiser.

In this race, we use eco-friendly 100% biodiesel fuel that is refined from used cooking oil provided by people in areas nearby our company.

Comment from a local investigator



Product Planning Center
Hisashi Takemoto

Our products are used as means of transportation by customers around the world. We will continue making advances to meet customer expectations not only by increasing durability, but also by further improving safety systems and comfort.

[Dakar Rally HP](#)

Creating Ever-Better Cars

Meeting Customer Expectations

Producing Cars to Meet the Needs of a Diverse Range of Customers Around the World

We are developing assisted mobility vehicles that can be enjoyed by disabled persons, as well as by elderly persons, nursing caregivers, and family members, and are also developing and providing a wide range of special purpose vehicles that are built to meet market needs.

Assisted mobility vehicles: Providing Freedom of Mobility and Joy to Everyone

In order to satisfy our customers, we visited nursing care facilities and facilities for the elderly to see how our products are actually used and to acquire user opinions – information which we apply to product development.

We are also actively carrying out activities in Japan and overseas so that more people know about these vehicles.

 Lineup of Assisted Mobility Vehicles and Equipment

Comment from a team member in charge of marketing for China

Conversion & Mobility Vehicle Center Hirotsugu Okuya



It is expected that the number of elderly people in China will exceed 500 million in 2020. In cooperation with Toyota, we are carrying out activities aimed at expanding the use of assisted mobility vehicles, and are working to contribute to this field in China based on the freedom of mobility concept.

 Activities in China (TAMI)

Special Purpose Vehicles: Supporting Everyday Living

Our subsidiary Tokai Utility Motor Co., Ltd. develops and manufactures utility vehicles to meet a broad range of needs.

Among the diverse lineup of products, the mobile sales vehicles helped to support the lives of persons affected by the Great East Japan Earthquake.

 Lineup of Special Purpose Vehicle Equipment

For Full and Happy Living

We want people to enjoy happiness and excitement during their everyday lives, and propose ideas for vehicles that can be used for multiple purposes from commuting to leisure. (Tokai Utility Motor Co., Ltd.)

 Activities of Tokai Utility Motor Co., Ltd.

Investigating how our products are used at nursing care facilities and facilities for the elderly



Assistance by nursing caregivers and facility staff



Elderly persons and caregivers on the same platform

Japanese and overseas promotion activities



Using a real vehicle to explain the characteristics of assisted mobility products to customers (Barrier-free exhibition in Japan)



Introducing assisted mobility vehicles to customers in China (China International Exhibition of Rehabilitation, Nursing & Healthcare)

Mobile sales vehicles that played an important role at temporary housing facilities following the Great East Japan Earthquake



Visiting a temporary housing facility on high ground in Ofunato City



Full product shelves inside the vehicle

Exhibiting and introducing actual vehicles in different areas



Noah *Tokimeki* (excitement) (Friendly Festa)



Esquire *Tokimeki* (excitement) (Nagoya Camping Car Fair)

Creating Ever-Better Cars

Meeting Customer Expectations

Preparing for a New Kind of Automotive Society

We are working to develop and produce the core components for Toyota's fuel cell vehicles that are leading the way to a hydrogen society. Aiming to achieve a low-carbon society utilizing COMS, we have begun verification testing both in Japan and overseas.

Creating the Ultimate Eco-Car

Development and production of the core components for fuel cells

The world's first 3D fine-mesh flow field that was developed by our company is a core component in the fuel cell stack of the Mirai fuel cell vehicle that was marketed by Toyota.

This flow field structure simultaneously improves both drainage performance and air diffusibility, and achieves even power generation across the cell surfaces. This yields a more compact size and higher performance, with 2.2 times the output of previous products. We are also producing components developed using the original ultra-precise stamping technology that was developed by Toyota Auto Body.



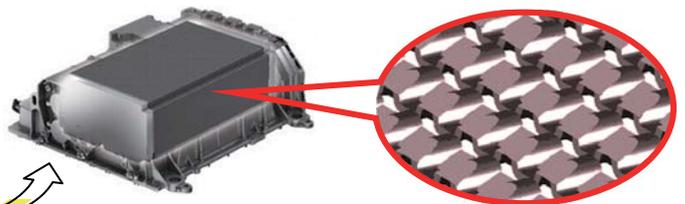
Toyota Mirai fuel cell vehicle

Comment from a developer of fuel cell core components

New Business Development Div. Naoki Yoshioka



By further improving the power generation efficiency and productivity of our 3D fine-mesh flow field, we are working to improve the performance of next-generation fuel cell vehicles and contribute to their wider use.



Fuel cell stack

3D fine-mesh flow field (magnified view)

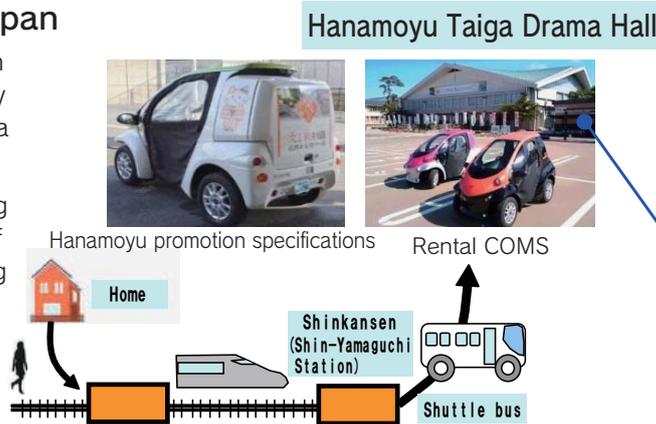
(Image provided by Toyota Motor Corporation)

Creating a New Society that Uses COMS

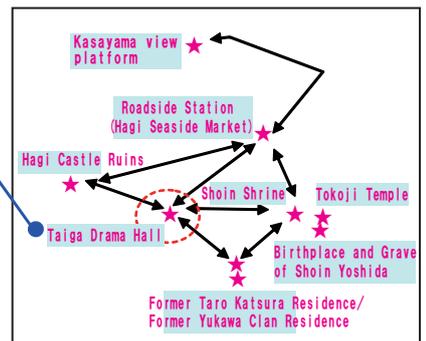
Verification testing in Japan

COMS are being used in verification testing in many regions with the goal of creating a low-carbon society.

The use of COMS is also being studied as a means of transportation to sightseeing spots located around Hagi City.



Use of COMS for movement to historical sites and sightseeing spots around Hagi City



Verification testing overseas

In Grenoble, France the Cité lib by Ha:mo* verification testing program for car sharing using an ultra compact Toyota Motor EV was started in early October 2014 using 35 COMS.

* Joint project by Cité lib which operates the sharing business, Électricité de France (EDF) which constructs the charging infrastructure, Grenoble City, and Toyota Motor



Grenoble, France (verification testing using i-Road and 35 COMS vehicles)

Creating Ever-Better Cars

Creating High Quality Cars

Delivering High Quality Products by Putting the Customer First

Quality is created by coordination among development, production engineering, production, and our suppliers. All Toyota Auto Body employees share and practice the Customer First and Quality First ideals with a high level of *kaizen* spirit. In the future, we will continue to coordinate among all areas as we work to further improve customer security and satisfaction.

Putting Customer First into Practice Throughout the Company

To set the Customer First and Quality First ideals deeply into the minds of all of our employees, we regularly conduct quality lectures and exhibit quality case studies, and provide multi-level quality training. In FY 2014, in addition to the above, we also collected letters of thanks from the customers regarding high quality car production, and sent them to all employees each month so that each employee could understand the importance of the Customer First ideal and apply it in his or her everyday work.

Message from the president

2014年品質月間 岩瀬社長メッセージ

取締役社長 岩瀬 隆広

専ら品質向上とあわせ、新型ヴォクシー・ノア等の新製品およびランドクルーザー70の富士松工場並行生産等のプロジェクトでの品質確保に対する全社を挙げての推進に、心から感謝申し上げます。しかし、お客様の期待値（品質状況）を真に見ますと、『設計仕度点での重要品質問題の発生』『品質改善センターマークレベルまで向上していない等』等まだまだ十分ではありません。更なる改善に向けては、『真摯態度』『標準化』『再発防止・横展』をスピード感を持って推進してください。

また、「もっといいクルマづくり」を目指すミニバン・商用車・SUVの完成車メーカーとして、世界中のお客様の聲にもっと耳をかたむけ

①お客様の使用環境
②お客様の使用環境
③お客様の要求品質

に即った取組みをお願いします。

これを実現するために、『安全ベース』に『お客様第一・品質第一』の原点を大切にし、全員が『もてようからいっしょで夢を一緒にいっしょ』気持ちをもち、力を合わせて未来を拓いていきましょう。

Exhibit of quality case studies



Participants earnestly studying the case studies

Delivering High Quality to Our Customers

High quality car production that extends to the development phase

With the re-designed Alphard and Vellfire, coordination covers all stages from the development phase to production engineering, production, and our suppliers, as we worked for improvements focused on simplifying production.

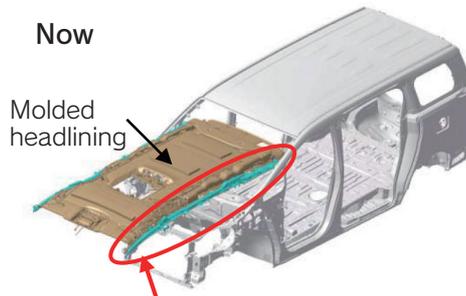
Delivering high quality to our customers (re-designed Alphard)

Previously:



The curtain shield airbag was installed in the ceiling by a worker facing upwards.
⇒The work posture was bad, and there was the risk of installation errors.

Now



The curtain shield airbag is integrated with the interior molded headlining, and is inserted automatically.



Work is now possible from outside the vehicle, making it more comfortable and ensuring quality.

Deciding procedures and creating high-quality standards for work

On the production floor and in our offices as well, we have introduced *JiKotei-Kanketsu* (JKK) activities (to take full responsibility for your work and processes to prevent problems being passed on to the next process) to achieve quality improvements by striving to never inconvenience the customer (i.e., the downstream process), and being able to judge the results of your own work. Specifically, this means continuing *kaizen* improvements by organizing and carrying out each task from the viewpoints shown below.

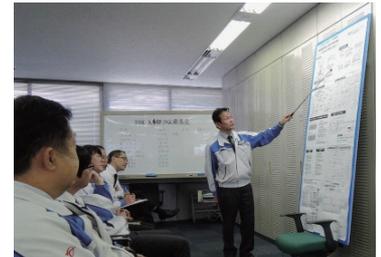
- ①First, identify the target and objective of the task.
- ②Identify the detailed procedure for the task.
- ③Identify the *ryohin jyoken* (quality points).
- ④Carry out the task. Immediately contact your supervisor if a problem and/or delay may occur (pull the *andon* cord) and carry out repeated *kaizen* improvements.

Group discussion of *JiKotei-Kanketsu* themes



Studying improvements to work methods in small groups

Division internal *JiKotei-Kanketsu* presentations



Examples of department activities are exhibited, and good ideas are shared and put into practice.



Examples of Quality Programs: (Activities for simplifying vehicle mass production, EDER activities, customer evaluations)

Creating Ever-Better Cars

Creating High Quality Cars

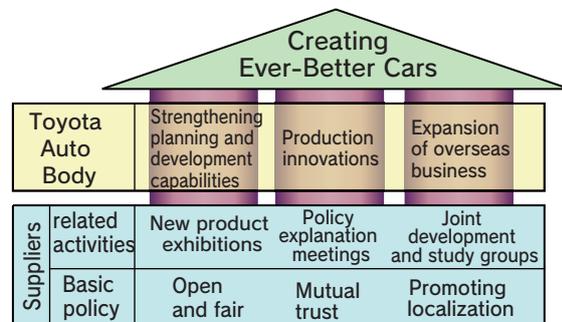
Working for Ever-Better Cars Production Together with our Suppliers

We are engaged in purchasing activities that are based on open and fair transactions, aiming for co-prosperity based on relationships of mutual trust with our suppliers, as we work to create ever-better cars.

Basic Approach to Purchasing

We provide open and fair bidding opportunities to all suppliers in Japan and overseas that would like to do business with Toyota Auto Body, regardless of their nationality, size, or lack of previous transactions.

For this purpose, we have established a Basic Purchasing Policy and engage in global purchasing activities that aim to achieve the Customer First ideal in partnership with our suppliers.

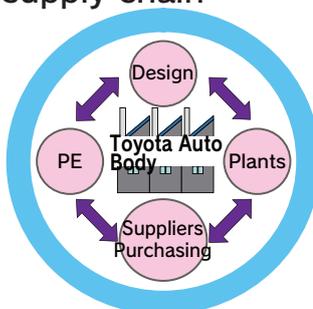


Towards creating ever-better cars

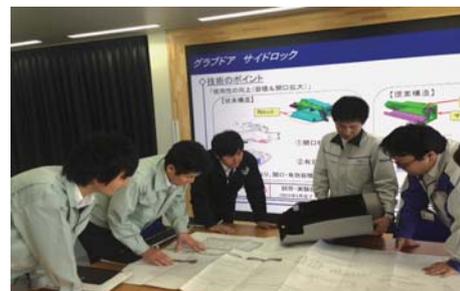
Aiming to Create Ever-Better Cars

New ideas for product development and manufacturing in conjunction with all members of the supply chain

When the time for a model change approaches, in addition to creating a wide range of bidding opportunities, we also hold part workshops so that suppliers can examine the parts and understand our work on creating cars. In cooperation between Toyota Auto Body and all members of the supply chain, we are carrying out activities to develop new ideas for creating ever-better cars.



Creating ever-better cars by centralizing the four key areas (Cross-functional development operations)



Part workshops for both 1st-tier and 2nd-tier suppliers

Sharing information with suppliers

We hold the Purchasing Policy Presentation Meeting in March of each year in order to share our company's annual purchasing activities policy with the suppliers.

To make clear what we expect from our suppliers, we have created and implemented the Supplier CSR Guidelines and Green Purchasing Guidelines.



Supplier exhibition

Programs that Support Purchasing Activities

Educational activities using study meetings with supplier participation

We are conducting education activities with a wide range of study meetings conducted through the Shatai Kyowakai, a cooperative meeting of suppliers. These include research meetings, exhibitions, and the Transport Study Meeting and Safety and Health Liaison Meeting that are intended to eliminate accidents.

Applying the results from supplier questionnaire surveys to our purchasing activities

In order to further reinforce our system of open and fair transactions and relationships of mutual trust, we ask approximately 370 suppliers to evaluate our company's purchasing activities, and obtain opinions and requests that are applied to future purchasing activities.



Mutually sharpening our skills at the Transport Study Meeting