

# Making/Delivering Automobiles to Customers

Our Philosophy and Technologies to Provide “Enjoyment and Peace of Mind”



## Dialogue

### Manufacturing Automobiles That Realizes “Fun to Drive”

Automobiles are now equipped with a range of technologies to ensure the safety of drivers and passengers, but these technologies are sometimes incompatible with other technologies that improve the performance of the vehicles. Concerning this problem, what have the members of SUBARU Automotive Business been thinking about and doing for their automobiles, which are renowned for outstanding performance? To find an answer to this question, Haruhito Funaki, an economics journalist, interviewed Akihide Takeuchi, who was in charge of developing the new IMPREZA released in December 2011.

Drivability, environmental performance and safety performance are not separate

**Funaki:** I am impressed by your manufacturing approach and your commitment to improving the comprehensive performance of SUBARU automobiles by refining safety performance, environmental performance, and driving performance in an integrated manner.

**Takeuchi:** In the automobile business, we have long been using the phrase “Fun to Drive,” not only for the new IMPREZA but also concerning the development of all SUBARU automobiles. We are committed to making their environmental performance compatible with “Fun to Drive” as part of our job as a development team. To this end we have been pursuing the development of unique technologies, such as the hori-

zontally-opposed engine and the Symmetrical All-Wheel-Drive (AWD) System,\*<sup>1</sup> always in conjunction with safety and environmental technologies, thereby improving the comprehensive performance of our automobiles.

**Funaki:** I associate “comfort” and “freedom” with your basic approach to safety. SUBARU-branded automobiles are indeed characterized by the compatibility of their running performance and comfortable driving and with an interior space clearly optimized for driving.

**Takeuchi:** That’s right. Indeed we are strongly committed to delivering automobiles that can be driven without stress and in comfort. Safety is not simply related to the level of possible injuries in the event of an accident but also to “comfort” that allows drivers to concentrate themselves on driving, such as stability in running on expressways and



**Mr. Haruhito Funaki**

Economics journalist  
After working for a newspaper, became an independent economics journalist in 1989. Serves as the representative of the editing team named “PRESS F.” Has been making reports and writing on manufacturing and the IT field and is also an expert in safety issues. Has written a book on the electronic map business (published by Toyo Keizai Inc.) and on new types of business entrepreneurs (published by SHINCHOSHA Publishing Co., Ltd.).

a braking performance that enables drivers to come to a complete stop within the expected distance.

**Funaki:** You design SUBARU automobiles paying special attention to the visibility of objects located within one meter around the driving seat, including four or five-year-old children who might move rather actively around an automobile. This clearly shows your approach to safety.

**Takeuchi:** We call the ergonomic design research conducted at the beginning of the development stage, “packaging examination,” and even from this stage we start combining safety with “Fun to Drive.” In developing the new IMPREZA, we undertook detailed testing in this regard.

**Funaki:** I took a test drive in the IMPREZA, and indeed the interior space was so bright that I felt my vision was much improved.

**Takeuchi:** The interior space feels bright because it provides very good visibility, which in turn improves safety. The driver does not need to look this way and that. Also, the brightness makes you feel both uplifted and comfortable.

**Funaki:** It is indeed very important to ensure the comfort of driving in response to the aging of drivers in Japan. It is also important for drivers to “cooperate” with their automobiles, instead of just relying on the functions provided by the vehicle.

#### Man-Machine Communication Will Open a New Era of Safety

**Takeuchi:** For example, the “EyeSight”<sup>\*2</sup> advanced driving support system is a

#### Akihide Takeuchi

PGM, SUBARU Product Planning Division. Joined Fuji Heavy Industries in 1982 and was engaged on the design of the first Alcyone and other chassis development and design. Moved to the Product Planning Division in 2001 and became the third IMPREZA PGM in 2006. Has been developing the fourth IMPREZA since 2008. Aged 53.



technology to help drivers avoid incidents that could occur even to very careful drivers. In particular, elderly drivers may tend to approach too closely to the car ahead compared with younger drivers, and in such a case, the system helps ensure safety. Thus, the driver and the system “cooperate” together for safe driving.

**Funaki:** It's a great benefit for an automobile to have an “eye” like the EyeSight system. The reliability of the technology is provided by semiconductors and MEMS,<sup>\*3</sup> and in the future, I imagine we will see continuing improvements to precision and to driver-machine communications.

**Takeuchi:** Indeed. We will increase precision so that the driver can identify obstacles more clearly, increase the cognitive ability of the system to the level required to discern traffic signals and road signs, and make the system give alarms according to the situation. Moreover, we have incorporated a system to notify a driver who has been driving for two hours of this fact in the multifunction display of the IMPREZA. We may even further advance this system to urge drivers to take specific actions, for example by advising them to take a rest.

**Funaki:** So you have incorporated a lot of ideas and technologies in the new IMPREZA. What was the biggest challenge you faced in developing this new model?

**Takeuchi:** Well, it was difficult for us to make the model impressive enough to satisfy customers. We wanted to develop a model that would surprise consumers and make them say, “Wow. this cool automobile in this class is available at this price with such wonderful performance!” I think all the elements of an automobile, not just the engine and power unit, contribute to increasing “Fun to Drive,” and we are committed to delivering new value and a higher class of quality through the IMPREZA. As our catch copy for the model states, “New value class.”

**Funaki:** What would you like to develop if you were an independent engineer?

**Takeuchi:** I want to develop a beautiful orthodox car, not particularly a sports car. I want to develop a car that can be one of the tools that make your daily life attractive, just like a pair of shoes from a special brand that make your life more stylish. It would be great if the owners of SUBARU automobiles could have that kind of feeling.



Before the interview, Mr. Funaki took a test drive in the IMPREZA to experience the EyeSight (ver.2) pre-collision braking and other advanced functions.



<sup>\*1</sup> The SUBARU Symmetrical AWD System is a unique system composed of a horizontally-opposed engine and a symmetrically designed 4WD power train. The engine can be positioned lower in the vehicle, keeping the center of gravity as low as possible. This also provides superior weight balance, both from back to front and from side to side, leading to excellent driving performance, such as stability on expressways and controllability even under poor road conditions.

<sup>\*2</sup> EyeSight is a unique SUBARU technology to monitor the road ahead using a stereo camera. It also provides Pre-Collision Braking Control to avoid accidents when the automobile comes too close to the vehicle ahead, and incorporates Adaptive Cruise Control with all-speed range tracking function to follow the vehicle ahead at an appropriate inter-vehicular distance, and so on.

<sup>\*3</sup> MEMS: Micro Electro Mechanical Systems  
Integrated devices that combine electronic circuits and mechanical components, assembled on boards, such as silicon substrates

## Making Safe and Enjoyable Driving Compatible with Excellent Environmental Performance

SUBARU automobile technologies have been developed based on the concept that the driving performance of automobiles should be continuously improved—not just for more enjoyable driving but also for higher safety standards. All automobiles, however, pose the risk of accidents and emit CO<sub>2</sub> and other hazardous substances. Based on this recognition, we are committed to developing automobiles that provide safe and enjoyable driving while also offering excellent environmental performance. To this end, we are taking the necessary approaches without being bound by traditional thinking.



### Pursuing Higher Running Performance Will Also Help Improve Safety and Environmental Performance

A horizontally-opposed engine, in which the pistons are laid out horizontally in a symmetrical manner, offers good rotational balance and provides excellent running performance due to low vibration and low center of gravity. Moreover, in the event of a frontal collision, the engine will slide downwards, helping increase collision safety. The new-generation BOXER horizontally-opposed engine mounted in the new IMPREZA achieves top-level fuel economy for its class, and also provides highly practical torque characteristics focusing on the medium to low-speed range for high environmental performance and sporty running.

The SUBARU Symmetrical AWD system provides the highest functionality that can be attained with an all wheel drive system, and excels in

both running stability and durability. Due to the synergies created between the good weight balance provided by the symmetrical power train—based on the horizontally-opposed engine—and the AWD System, drivers can keep safe and comfortable under any driving conditions.

Moreover, we pursue “zero-stage safety” for SUBARU automobiles, which means to increase safety by incorporating safety measures in initial and basic automobile designs, such as body shape and interface designs. We design automobiles giving careful consideration to every detail, such as visibility, to allow drivers to concentrate on driving without fatigue and with ease of mind, and comfortable seat designs.

#### V O I C E

### Designing a special engine

In developing the next-generation BOXER engine now mounted in the new IMPREZA, we made efforts to improve its environmental performance while also increasing the torque performance in the medium to low-speed range. We are sincerely pleased that we have also made further progress in the development of this engine in our pursuit of higher environmental performance, joy of driving, and higher safety performance. Moreover, we developed a special Lineartronic Continuously Variable Transmission (CVT) for the IMPREZA. The history of SUBARU CVT technology began as part of our measures to increase the fuel economy of mini-cars,



BOXER engine

and as a result we have more expertise in control and fuel economy improvement technologies than most other automakers. In developing the new IMPREZA, I felt both the pleasure of creating a new model and the pressure of meeting very high expectations. The abundant sales of this new model provide proof that it is widely appreciated by consumers, for which I feel very glad.

### Fuel economy

#### IMPREZA G4 1.6 BOXER DOHC

JCO8 mode	10•15 mode
<b>17.6 km/ℓ</b>	<b>20.0 km/ℓ</b>

(Evaluated by the Japanese Ministry of Land, Infrastructure, Transport and Tourism)

Both figures are for the 1.6 i-L 2WD Lineartronic CVT vehicle. The stated fuel economy in the 10•15 mode is for vehicles weighing less than 1,270 kg.

\*Fuel consumption is estimated based on predefined test conditions, and actual fuel consumption will differ depending upon driving conditions, driving style, maintenance conditions, and so forth. The JCO8 mode was newly established for the estimation of fuel economy based on more practical conditions, and fuel consumption estimated in this mode is generally slightly lower than that estimated in the 10•15 mode.



**Hiroshi Kijima**  
Manager  
1st Power Unit Research &  
Experiment Dept.  
SUBARU Engineering Division

#### V O I C E

### Special design for visibility

The Interior Design Department designs and develops seats, control switches, and other items that have direct contact with drivers and passengers, being keenly aware that changes of even a few millimeters to the space between the instrument panel and the seat can alter driving comfort. For the new IMPREZA, we created exceptional visibility by repeating examinations of the interior space and window height. Although an automobile may look better with smaller windows, we attributed more importance to visibility and brightness in consideration of the fact that users of the IMPREZA include a wide range of people. We made the examinations both quantitatively and qualitatively from the viewpoint of customers so that drivers of the new IMPREZA will experience clear visibility and ease of mind.



Ensuring good visibility with an optimal layout of triangular windows and side mirrors



**Masami Handa**  
Assistant Manager Seat Design Sect. Interior & Electronic Design Dept. SUBARU Engineering Division

## Providing Technologies to Help Drivers Control Their Vehicles Efficiently

It is the ultimate goal of an automaker to eliminate car accidents and protect human lives. To ensure safety, we are implementing four types of safety measures: zero-stage safety, achieved through initial and basic designs; active safety (pursuit of extremely high running performance); pre-crash safety (prediction and prevention of crashes); and passive safety (collision safety).

Among these safety measures, the innovative "EyeSight (ver.2)" pre-crash safety technology, which is adopted for SUBARU automobiles, including the new IMPREZA, is now attracting much attention.

Two CCD cameras installed inside the front window monitor the traffic conditions ahead, and the images taken by the cameras will be processed

at super-high speed by the 3-D image processing engine (microcomputer) to estimate the distance to obstacles, as well as the position and speed of the car. Moreover, the Vehicle Dynamics Control (VDC) and other sensors send information about the running status to the vehicle control software, which makes the decisions necessary to control the engine and prevent sideslips. If the system detects a collision risk, it will send an alarm and take preventive action, or at least mitigate the damage by automatic braking (pre-crash brake).

The full-speed range adaptive cruise control function, which enables the car to follow the vehicle ahead at an appropriate inter-vehicular distance, is also provided as part of the EyeSight sensing function.

### V O I C E

#### Specially designed "EyeSight (ver.2)"

Our "EyeSight" technology is highly appreciated by many customers and I believe that the system will become a standard automobile component in the future. "EyeSight" provides two functions: one that helps drivers prevent collisions, and one that helps them drive more comfortably and safely. The former function tends to attract more attention than the latter, but in fact the latter function provides drivers with great benefits. The two monitoring cameras are positioned with a precision of 1/1,000 millimeter, to ensure the accuracy of the analysis made using the cameras' images. The functions provided by "EyeSight" are supported by our advanced production technologies, including those to ensure high heat resistance and seismic resistance. Further, we have set up the control program, including control timing, by carefully studying the driving styles of skillful drivers and what they think and feel while driving.



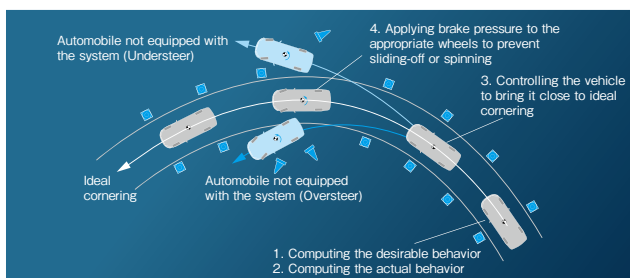
Estimating the distance to a vehicle ahead with two cameras, which function like human eyes



**Shigeo Usui**  
Manager, 2nd Electronic Product Design Sect.  
Electronic Product Design Dept.  
SUBARU Engineering Division

## Vehicle Dynamics Control (VDC)

The VDC system evaluates the driving situation based on the steering angle, engine speed, and gear and braking conditions, prevents sideslips, and returns the vehicle's positioning to a safe status. All main SUBARU models (excluding mini-cars) are equipped with the VDC system as a standard component.



How the VDC system functions (illustrative image)

## New Idle Stop Function

For greater fuel economy, the new IMPREZA is equipped with an idle stop function. If the car is brought to a halt by braking, the engine will automatically stop in about 0.5 seconds and if the driver takes off the brake, the engine will restart in about 0.35 seconds.



The engine's total stop time and fuel savings are displayed on the multifunction display

## External safety assessment

**The safety performance of SUBARU automobiles is highly evaluated by external organizations.**

- Japan** — **Japan New Care Assessment Program (JNCAP):**  
The LEGACY won five stars in the new overall evaluation for vehicle safety (FY2011).
- Overseas** — **Insurance Institute for Highway Safety (IIHS):**  
Subaru became the only manufacturer with a Top Safety Pick for all 2012 models in US.
- Euro New Car Assessment Program (NCAP):**  
The SUBARU XV won a five-star rating in 2012.
- Australian New Car Assessment Program (ANCAP):**  
The IMPREZA and the XV won five-star ratings for the model year 2012.

# Steady Measures Taken to Manufacture Highly Reliable Automobiles

In order to deliver excellent automobiles designed on excellent ideas, it is necessary to assure manufacturing quality while giving due consideration to the environment and society. In this article, we introduce some of the measures taken at our manufacturing facilities, specifically the measures implemented by the Gunma Manufacturing Division, where leading SUBARU models are manufactured.



Gunma Manufacturing Division Comprising the Gunma Main Plant, the Yajima Plant, and the Ota North Plant (manufacturing automobile parts), which are all located in Ota City, as well as the Oizumi Plant (manufacturing engines and transmissions) located in Oizumi-machi, Oura-gun. A total of 7,000 or more employees are working in the Gunma Manufacturing Division. (Photo: Yajima Plant)

## Automobiles Are Manufactured by People

An automobile comprises around 30,000 parts, and these parts are manufactured and assembled by a range of personnel. Some of the manufacturing processes, such as welding and coating, are automated, but no automobiles can be completed without the skills and expertise of our valued employees. Because a lot of people are working at our manufacturing facilities, we always give special consideration to their safety while making their workplaces as comfortable as possible.

### Safety Measures

We are implementing safety measures based on the concept of the Occupational Health and Safety Assessment Series (OHSAS) 18001. We have installed "health and safety activity signboards" for each of the manufacturing processes, and post safety slogans, targets, results, and examples of accidents on these boards, while encouraging employees to make written safety commitments to increase their safety awareness.



### V O I C E

#### Making employees even more aware of the importance of safety

We deem fires as the most serious risk to our automobile factories, because we use flammable paints in a site where so many people are working. At the Yajima Factory, a fire occurred in the coating facilities on April 13, 1996, resulting in an area as large as 3,675 m<sup>2</sup> being completely burned out. We called the local fire department for help and caused inconvenience and concern to local inhabitants. After this incident, the Gunma Manufacturing Division designated April 13 as the annual disaster control drill day and have been implementing measures to prevent fires. Also, as part of our risk prediction measures, we have designated the first and third Mondays of every month as "labor accident prevention day" and "traffic accident prevention day," respectively.



Masaichi Watanabe  
Manager, Environment Sect.  
General Administration Dept.  
Gunma Manufacturing Division

In the manufacture of automobiles, we use grindstones, engage in dangerous processes, such as welding, and also use forklifts and cranes. We are promoting safety education for those engaged in such operations in collaboration with the safety staff of each section.

### Creating Comfortable Workplaces

#### Measures for non-Japanese employees

In the Gunma Manufacturing Division, employees from several different countries, including Brazil, Peru, Myanmar, and Nigeria are working, and for even those who can read and write Japanese, it is sometimes difficult to understand the detailed manufacturing instructions and technical terms correctly in another language. We have therefore prepared manuals in Portuguese and also employ interpreters.



Manual written in Portuguese

#### Reducing physical burdens on workers

In the assembly of automobiles, heavy parts and tires need to be lifted up in some processes, and if workers do this without using the appropriate equipment, they may injure themselves. We have therefore introduced mechanical assist devices to help them work speedily, while reducing the physical burdens imposed on them.



Power assist for tire fitting

#### For employees with disabilities

In the Gunma Manufacturing Division, staff with disabilities are employed at a ratio exceeding the statutory level. We are bettering our workplaces so that even those with disabilities can work comfortably by measures such as fostering barrier-free design at our manufacturing facilities and offices.



Slope installed at the manufacturing facilities

# Manufacturing Stage: Key to Reducing the Life Cycle Environmental Impact of Automobiles

Among all their life cycle stages, automobiles have the largest environmental impact in the use stage, but the environmental impact from manufacturing, including the manufacture of materials, also account for about 20% of the total life cycle environmental impact of automobiles (for the new IMPREZA). It is therefore essential to reduce environmental impact at the manufacturing stage. We are also committed to releasing no harmful substances or noise both inside and outside our manufacturing facilities.

## Energy conservation measures

The Gunma Manufacturing Division has been introducing cogeneration equipment to conserve energy. At the Main Plant, a new highly efficient cogeneration system (output 7,800 kW) commenced operations in July 2012. In the past, steam generated by a boiler was used to heat the liquid agent necessary for the pre-coating process, but now steam from the new cogeneration facilities can be used, leading to a reduction in the load imposed on the boiler. We will also examine a means of using the hot water generated by the cogeneration equipment.



Cogeneration system

## Management of exhaust

Exhausts from the automobile bumper coating booth smell like paint thinner and we release them to the outside after removing the odor. Also, at the boundaries of the premises, we have installed odor meters and monitor smells based on criteria that are actually stricter than those set by the Japanese Offensive Odor Control Act.



Decontaminating exhaust from the coating process before release

## Composting food residues

Food residues from the cafeteria are composted at the treatment facilities using bacteria.



Composting facilities

## Decontamination of wastewater

In the manufacture of automobiles, we use a large volume of water to clean the automobile bodies in the coating process. The used water is repeatedly processed by the wastewater treatment system so that only clean water is released outside the premises.



Wastewater treatment system



Monitoring release to outside the premises with a camera

## V O I C E

### Noise-proof testing course

The Main Plant has been manufacturing the BRZ sports car since 2012. We need to test the sports car by driving it on a road on which rubber ridges are placed, and we have the necessary equipment on our test course. Because testing with this equipment is rather noisy, we have newly installed a noise-proof wall so as not to create a nuisance to neighboring houses and schools. The wall contains glass wool and provides high noise resistance because it absorbs and reflects the sound.



Shuichi Tsuji  
Environment Sect.  
General Administration Dept.  
Gunma Manufacturing Division

## Recyclability is also important for automobiles

We attribute importance to the recycling of our automobiles for the effective use of limited resources. To this end, we are proactively developing easily recyclable vehicles.

### Measures to promote the recycling of automobiles

#### Reduce

- Extend the lives of vehicles and liquids (oil, etc.)
- Reduce vehicle weight to improve fuel economy
- Reduce use of coolant for interior air conditioners
- Reduce the use of materials in the transportation of automobiles by adopting returnable pallets and other reusable materials

#### Reuse

- Expand sales of second-hand parts (recycled parts)
- Reuse materials in the transportation of automobiles

#### Recycle

- Make automobiles more easily recyclable by making them easier to disassemble
- Foster the use of easily recyclable resins
- Manufacture exterior and interior parts using recycled materials

# Communicating Our Commitment to “Enjoyment and Peace of Mind” through Dealers Who Directly Contact Customers

Our automobiles, which were manufactured based on excellent design concepts, are shipped from the factories and delivered to customers via our dealers. Members of our dealer teams build up close relations with customers through SUBARU automobiles by helping them choose their optimal car and providing them with after-sale services, such as inspections and maintenance services. Our dealers are conducting activities to provide customers with the maximum satisfaction by helping them continue driving their SUBARU cars safely and pleasantly.



## Making the SUBARU Declaration

SUBARU JAPAN SALES & MARKETING DIV. made the SUBARU Declaration to demonstrate its aspirations and action guidelines with a view to making SUBARU a brand to be chosen by more and more consumers.

Each SUBARU dealer has also made their own SUBARU declaration and is conducting activities to highlight “Enjoyment and Peace of Mind” as a feature of the brand to increase its popularity among consumers.



At the SUBARU Declaration kickoff meeting attended by more than 800 managers and leaders from SUBARU dealers across Japan, President Yasuyuki Yoshinaga communicated his ideas about the SUBARU Declaration.

### SUBARU Declaration

- We will strive to make SUBARU the No.1 brand by highlighting “Enjoyment and Peace of Mind” as a feature of the brand.
- SUBARU members will propose “Enjoyment and Peace of Mind” to customers and give full support to them.

### Major initiatives

- Provide the “new SUBARU automobile insurance plan,” “inspection package,” and “insurance extension plan” as the three safety products that support customers’ car-related lives.
- Implement the SUBARU test drive campaign under the slogan, “Norudake OK!” (meaning “You don’t need to buy it!”) Provide a range of test drive options and hold an easy-to-join test drive event about once a month.
- Introduce human resources development measures and the STARS\*1 sales qualification program to increase staff’s ability to propose “Enjoyment and Peace of Mind”
- We will also implement a range of initiatives to propose “Enjoyment and Peace of Mind” to customers.

\*1 STARS: A qualification system to help salespersons develop themselves by repeating the process of learning, practicing, and sitting for tests to obtain qualifications

## Our SUBARU Declaration

After SUBARU Japan made the SUBARU Declaration, each dealer also made their own SUBARU declaration, which is implemented every day.

### NIIGATA SUBARU Head Office in Kurosaki

“We will welcome visitors to our store heartily to make them feel like visiting us again.”



### TOKYO SUBARU Ome Store

“We will provide customers with the pleasure of driving.”  
“We will help customers throw away any doubts or concerns”



### NARA SUBARU Kashiba Store

“We will always speak from the viewpoint of customers.”



### FUKUOKA SUBARU Kamitsu Store

“We will provide customers with safe and enjoyable driving by offering reliable maintenance services and creating a welcoming atmosphere at our store.”



## Measures to Improve Customer Services

We have introduced the STARS sales professional certification program to SUBARU dealers. Under the program, SUBARU salespersons receive a range of training to improve their ability to undertake business negotiations, as well as their customer service skills, and sit for tests to get higher qualifications as sales professionals. In the test conducted in May 2012, a total of four sales members won the highest qualification (SUBARU Sales Meister).

In June 2012, we held the eighth national Subaru sales competition, in which participants who had won regional competitions competed in their sales skills in a 10-minute role-playing game. The competition is held in conjunction with the STARS program for staff engaged in selling new cars.

In addition, when a new model is released, we provide salespersons with opportunities to actually drive it on a circuit. Through these measures we are developing sales staff possessing both product knowledge and excellent customer service skills.



Training provided under the STARS program



Hiroaki Asaoka of TOKYO SUBARU Takenotsuka Store, who obtained the SUBARU Sales Meister qualification

### V O I C E

**I want to increase my customer service skills as well as my knowledge about our cars using the STARS.**

I serve customers, giving much importance to understanding their lifestyles. I myself own an IMPREZA and am really fond of SUBARU cars, and so I can give advice to customers with strong confidence.



Akari Yarita  
Chiba SUBARU Shinminato Store

## Environmental Measures Taken at SUBARU Dealers

All SUBARU dealers and bases have already obtained Eco-Action 21<sup>\*1</sup> certification. They have conducted energy conservation activities and reduced their power use year-on-year as part of their efforts to obtain certification.

In FY2012 the government announced the need of reducing power use uniformly by 15% in the areas served by Tokyo Electric Power and Tohoku Electric Power, due to power shortages caused by the Great East Japan Earthquake, and in response all SUBARU dealers began conducting measures to reduce their power usage. In particular, TOKYO SUBARU achieved the highest reduction rate (a 30% reduction from the previous fiscal year level) among all SUBARU dealers for electricity used from April to September 2011. We introduced the efforts made by this dealer to other dealers to encourage them towards even greater achievements.

<sup>\*1</sup> Eco-Action 21: Environmental management system set by the Japanese Ministry of the Environment based on ISO 14001

### V O I C E

**Steady efforts of individuals lead to the achievement of higher-than-expected results**

TOKYO SUBARU first listed up the appliances for which staff should reduce the use of electricity and made simulations of the suspended/reduced use of electricity for these appliances. Next, the members actually reduced the power use for the appliances and achieved a more than 15% reduction year-on-year. Also, at its service factory, TOKYO SUBARU reduced the operation rate of the air compressor, changed the pressure setting, and reviewed the work procedures to increase the work efficiency of a lift, thereby saving electricity.

Moreover, the Hongo Store was granted a certificate for the achievement of power saving from the Resources and Energy Agency. TOKYO SUBARU was thus able to contribute to resolving the national power shortage problem.

(Left) Hitoshi Takana, Member of the Power Saving Committee  
(Center) Kazuto Kawada, OM Promotion Section, CSR Promotion Office  
(Right) Kazuhiro Higuchi, Sales Section Manager  
TOKYO SUBARU Hongo Store



## External Evaluations: Results of the Customer Satisfaction Survey

In the first Japanese Customer Service Index (JCSI) survey conducted by Service Productivity & Innovation for Growth (SPRING) in FY2012, SUBARU won the No. 1 rating for the customer satisfaction level in the automobile industry. In the survey, six items, including the causes and outcomes of customer satisfaction (specifically, customer expectations, perceived quality, perceived value, customer satisfaction, word-of-mouth communication, and loyalty) were used as indicators and SUBARU exceeded the median values for all the items, achieving particularly good results for word-of-mouth communication and loyalty.