



120%

Aiming for 120% product quality

**6-3** PERFORMANCE REPORT  
Quality

## Basic Approach

# Aiming to Bring Reassurance and Satisfaction to Customers

“We have to aim for 120% product quality. If 99% of the products we make are perfect, that would seem like a pretty good record. However, the customers who become the owners of the remaining 1% will surely consider their products 100% defective. It is unacceptable that even one customer in a thousand – even one customer in ten thousand – should receive a defective product. That’s why we have to aim for 120%.” These words of founder Soichiro Honda define the company’s fundamental approach to quality, or more specifically, what it means to strive to be a company society wants to exist. Determined to meet or exceed the expectations of customers, Honda is taking new initiatives to reach high product quality standards. That is who we are.

To strengthen customer trust by offering products founded on safety and offering a new level of outstanding quality, Honda has created a quality cycle that continuously enhances quality at every stage encompassing design, development, production, sales and after-sales service.

In order to realize the basic principles of “Respect for the Individual” and the “Three Joys” (the joy of buying, the joy of selling, the joy of creating), Honda works in partnership with dealers to increase customer satisfaction to allow them to continue handling products with confidence at every stage, from purchase to after-sales service, ensuring that a high level of satisfaction is provided to customers at all times.



## Global Management

# Quality Management System and Quality Enhancement Promotion System

## Raising the Quality of Honda Brand Products Produced and Sold Worldwide

As Honda’s production and parts and materials sourcing expand globally, a shared global quality management system is essential to ensure that all Honda facilities continue to generate 120% product quality. The Global Honda Quality Standard (G-HQS) established in April 2005 serves as the foundation of this.

Based on ISO 9001<sup>\*1</sup> and ISO/TS 16949<sup>\*2</sup> criteria to which Honda production facilities in Japan and around the world have been or are to be certified, G-HQS represents the accumulation of knowledge Honda has gathered in producing quality products and preventing previous issues from recurring. It will continue to conform to ISO certification standards.

As of March 2016, 54 Honda facilities around the world have acquired ISO certification. G-HQS is designed to enhance the quality of Honda brand products manufactured and sold worldwide. By ensuring that all facilities comply with these standards, we can ensure the expansion of quality assurance system among all factories, contributing to quality assurance not only in production activities but also in distribution and service.

In order to ensure the strengthening of quality under this quality management system, Honda sets challenges based on quality targets established in company-wide policy, which are then modified to reflect the challenges found in different regions with countermeasures formulated for them. The management of this initiative and information-sharing are conducted regularly at the Global Quality Committee (held three times in FY2016), chaired by the chief quality officer and attended by persons responsible for departments involved in quality

from the headquarters and regions. Measures conducted on a continuous basis are also reflected in G-HQS.

\*1 An international quality control and quality assurance standard

\*2 An international quality management system standard for the automotive industry

## T O P I C S

### Promoting Quality Initiatives in Response to Multiple Recalls of Fit Hybrid and Vezel Hybrid in Japan

In order to restore the trust from customers and society that was lost following the recalls of the Fit Hybrid and Vezel Hybrid in Japan, Honda has actively promoted company-wide initiatives to strengthen quality, centering on a review of the product development system. Going forward, we will strengthen our rules in order to ensure that all related operations continue working together worldwide so that these initiatives are more than just transient measures.

Concrete initiatives to improve quality, centering on a review of the development system

- Enhance evaluation system
- Establish an integrated vehicle control development department
- Strengthen verification content of actual vehicle testing etc.

#### Ongoing process

Reflect in G-HQS to ensure continuous initiatives



Verification of actual vehicles at a test course simulating an intersection

**Quality Initiatives**

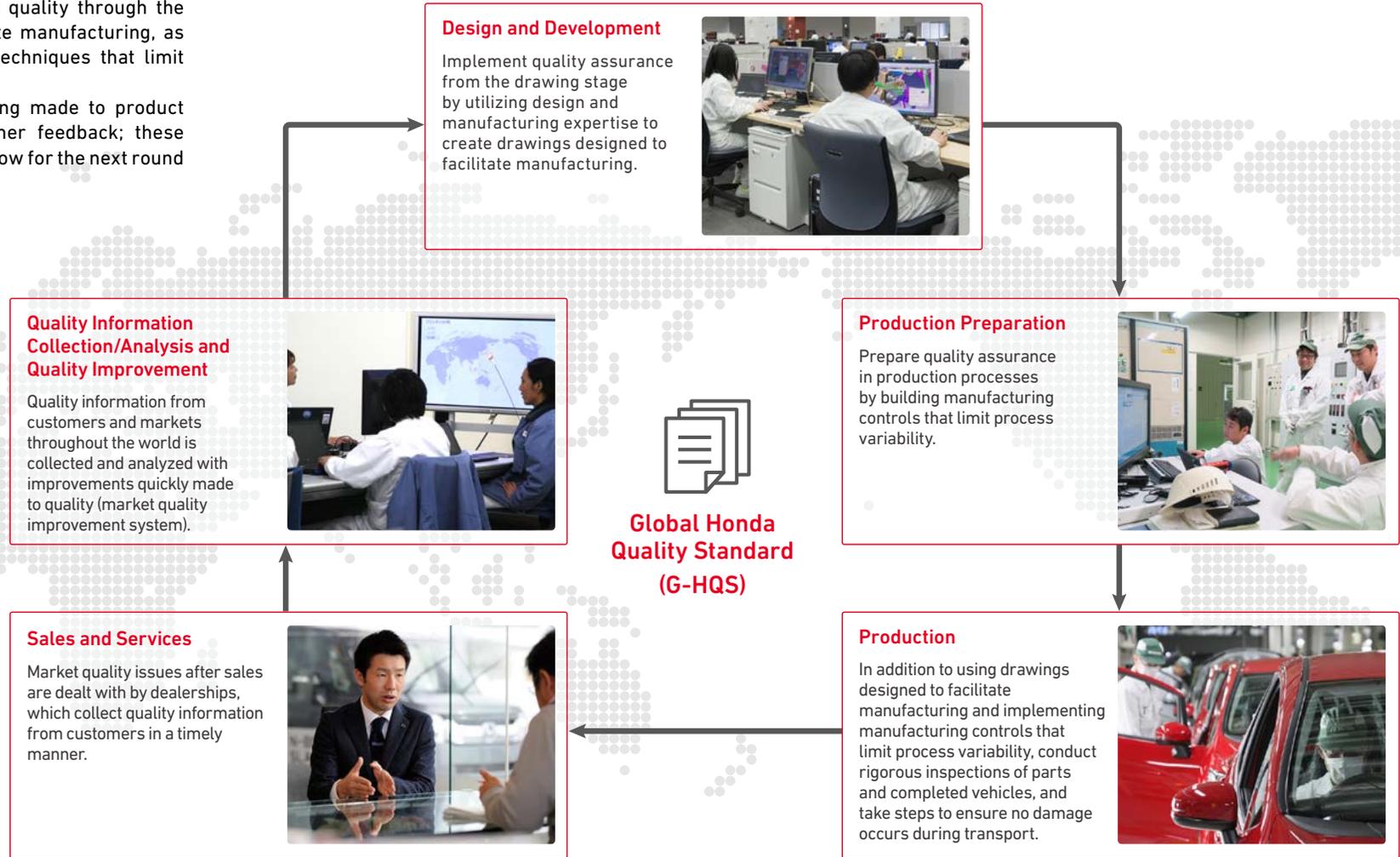


# Honda's Quality Cycle

By applying and reflecting design and development expertise at the production preparation and production (massproduction) stages, we are able to deliver enhanced quality through the creation of drawings designed to facilitate manufacturing, as well as develop manufacturing control techniques that limit process variability.

Post-sale, swift improvements are being made to product quality based on an analysis of customer feedback; these improvements are reflected in our know-how for the next round of design and development.

Honda's Quality Cycle



**Quality Initiatives**

# Initiatives in Design / Development and Production

To ensure high quality, Honda conducts comprehensive quality assurance activities from the dual perspectives of design and manufacturing. For example, drawings for objects that will be machine processed include finished dimensions. Even when the same worker uses the same materials, equipment and procedures to produce an item to the dimensions specified on the relevant drawings as part of a given production process, there are inevitably small variations in the item's finished dimensions. To address this fact, R&D departments consider not only function and performance but also the ease of manufacture and minimization of variations when designing drawing. For their part, production departments implement manufacturing controls to keep variability within applicable standards based on drawings and develop production processes so that all workers can continue to achieve a consistent level of quality.

## 1. Assuring quality through drawings

Honda's R&D departments create drawing that take ease of manufacture into consideration in order to limit process variability and prevent human error during the manufacturing process. These drawings serve as the basis of our quality assurance efforts.

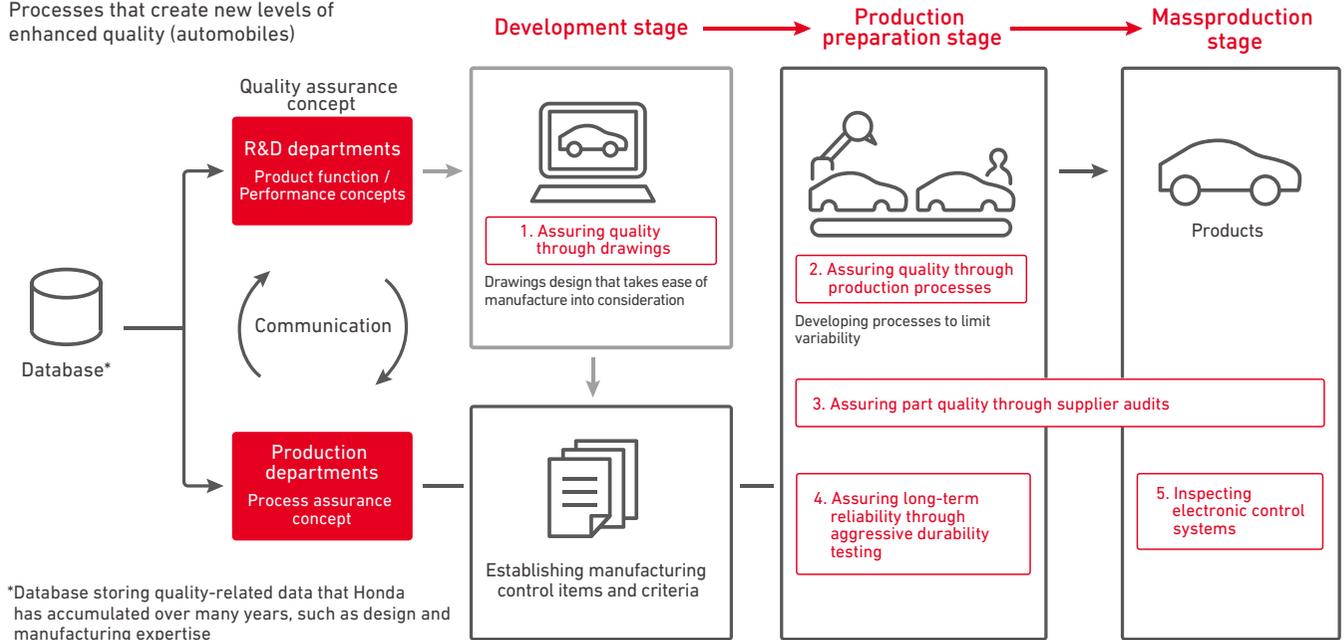
Specifically, engineers utilize a database of measures and techniques previously used to prevent market quality issues and other information as they communicate closely with manufacturing departments during the initial development stage. Product function, performance and quality assurance initiatives are committed to writing and are shared to ensure efforts are coordinated with production departments' process assurance activities and to coordinate quality assurance initiatives.

## 2. Assuring quality through production processes

As well as design drawings, Honda's production departments establish manufacturing control items and criteria for each part, process, and operation to prevent product quality issues. Engineers use these manufacturing control items and criteria to verify manufacturing variability as they work to prevent quality issues. Furthermore, Honda develops processes that limit variability by soliciting suggestions for enhancement from the sites where work is actually performed and determining manufacturing control methods for each process.



Processes that create new levels of enhanced quality (automobiles)



**Quality Initiatives**

**3. Assuring part quality through supplier audits**

Assuring the quality of procured parts is an important element in delivering high-quality products.

Honda visits its suppliers' manufacturing facilities to conduct quality audits based on the "Three Reality Principle," which emphasizes "going to the actual place," "knowing the actual situation" and "being realistic."

These audit activities are conducted for both the production preparation and massproduction stages of supplier operations. Experts in the development and production of individual parts visit manufacturing facilities and conduct audits of suppliers' quality systems and their implementation.

Honda then works to improve part quality through activities that emphasize communication with suppliers, for example, by sharing audit results and cooperating to identify opportunities for quality improvement.

**4. Assuring long-term reliability through meticulous durability testing**

Honda subjects new and redesigned models to a rigorous regimen of long-distance durability testing before beginning mass production to verify that there are no quality issues.

We also disassemble vehicles used in the test drives into every single part and verify that there are no quality issues through a process consisting of several thousand checks. By accumulating data on the issues discovered through these test drives and detailed inspections as well as associated countermeasures, we are able to ensure a high level of quality and reliability.

01 Verification of parts following durability testing  
 02 Inspection using LET (Line End Tester) system

**5. Using Line End Testers (LETs) to inspect electronic control systems**

Use of electronic control systems in vehicles has grown dramatically in recent years as part of an effort to achieve more environmentally friendly designs and improve driver and passenger convenience and comfort. This has created a need for efficient inspection methods to assure the quality of these components.

To this end, Honda has installed Line End Tester (LET), an inspection and diagnostic system developed in-house, at production plants in Japan and overseas.

Although the LET system was initially deployed to perform diagnostics of emissions cleaning systems and parts in order to comply with U.S. emissions regulations, Honda extended the capabilities of the device to accommodate the recent evolution of electronic control systems, allowing its use in shipping quality inspections of all electronic control systems, from switches and instruments to air conditioner, audio, engine and transmission operations. Thanks to these innovations, inspections that have traditionally depended on the human senses of smell, sight and hearing can now be performed quantitatively through communications with electronic control components, dramatically increasing the precision and efficiency with which inspections can be conducted.

Honda is continuing to quantify shipping quality assurance for electronic control systems by working to implement further enhancements in the precision and efficiency of sensory inspections.



## Quality Initiatives

# Initiatives in Sales and Service

Honda has established Customer First Operations to realize optimal service operations in markets worldwide. The division aims to “create and expand customer joy worldwide through service,” and the priority goal of its activities is to be “No. 1 in customer satisfaction by an overwhelming margin.”

“No. 1 in customer satisfaction by an overwhelming margin” refers to the creation of customer joy and excitement by not only providing services that meet expectations while they own a Honda product but also by providing value that exceeds those expectations. By creating an exciting experience through these services, Honda aims to become a mobility manufacturer that customers continue to choose.

To attain this goal, Customer First Operations has adopted three policies, which are offering service in a friendly, timely, reliable, affordable and convenient manner; developing an advanced service environment; and maximizing business efficiency and expanding business operations. They are also working on the creation of an environment allowing regional dealers – Honda’s point of contact with customers – to address customer satisfaction enhancement more effectively and efficiently.

### Customer Relations Center

The Customer Relations Center in Japan has a very straightforward slogan: “For the customer.” Its mission is to handle inquiries from Honda customers politely, clearly and quickly, delivering the same high quality in Honda communications as is found in Honda products. The Center also responds to survey requests from the Japanese government and inquiries from consumer advocacy organizations.

The Center receives feedback in the form of customer questions, suggestions, requests and complaints 365 days a year, and during FY2016 it processed 275,491 inquiries. To ensure that this valuable information is put to good use in

Honda’s operations, the facility shares it in a timely manner with the company’s R&D, manufacturing, service and sales departments in compliance with laws and regulations as well as Honda’s own policies concerning the handling of personal information.



Information exchange at Kumamoto Factory among associates in charge of quality

### Customer Satisfaction Survey

In FY2016, Honda conducted a customer satisfaction survey in 21 countries for customers who had received after-sales service from a dealer in order to ascertain levels of customer satisfaction in the service domain. The survey method involved a design enabling minute measurements of satisfaction for each part of the service process at a dealer, with the survey findings used to provide guidelines for each dealer. While comparing these guidelines with actual practices at dealers, efforts are being made to make improvements toward better service quality by implementing a plan-do-check-act (PDCA) cycle.

In addition, once a year we conduct a survey comparing Honda with other manufacturers and brands that are the benchmarks in other countries, with the results used as a reference as we work to maintain and improve customer satisfaction at a world-class level.



**Quality Initiatives**

# Improving Quality Based on Customer Feedback

Honda has established a Quality Center to bring together the various components of our organization concerned with product market quality information to enhance the functions of “preventing quality issues” and “quickly detecting and resolving quality issues when they occur” on a global scale. The facility gathers quality-related data from dealers in Japan and overseas through service departments and customer consultation centers. Measures and policies for preventing quality issues are then developed based on the issues identified from this data, and are provided as feedback to design, production and the design/production sections for suppliers (parts procurement), etc.

From FY2017, Honda has undertaken restructuring of its organization that includes the integration of service sections and the quality assurance section of Automobile Operations to form Customer First Operations, thereby establishing a structure that enhances the link between service and quality assurance and further strengthens the flow of customer feedback.

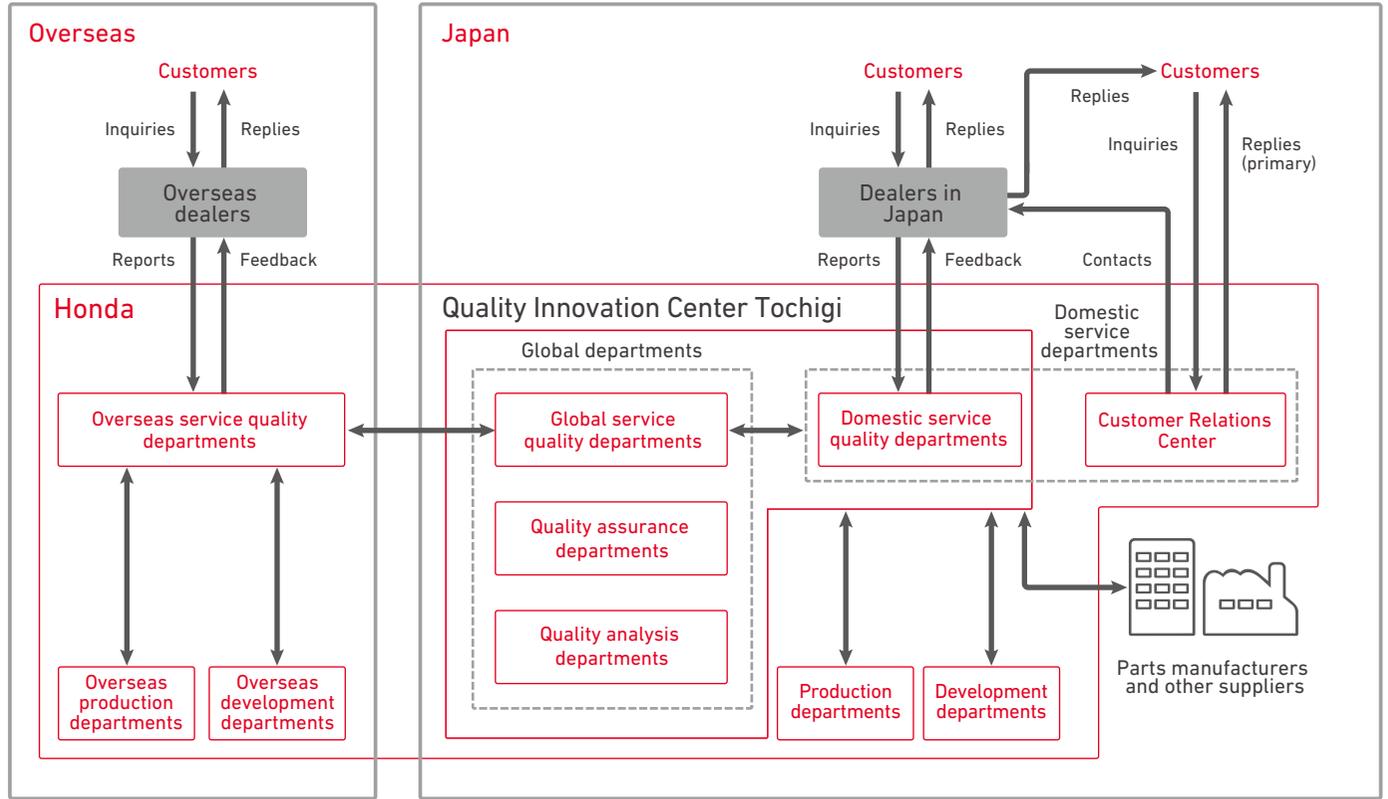
When a quality issue does occur, we move quickly to resolve it, for example, by working closely with R&D and production departments to investigate and address the cause, assisting affected customers and taking action to prevent a recurrence.

### Quality Innovation Center Tochigi

The Center brings all the organizational components necessary to collate product quality data, analyze issues, consider countermeasures and provide quick and precise feedback to development and production departments together into a single facility.

In particular, locating quality and service departments in a single facility allows for effective analysis and development of countermeasures thanks to the ability to share information quickly.

Market quality enhancement system (automobiles)



Quality Innovation Center Tochigi, Japan



## Quality Initiatives

### Operations at Quality Innovation Center Tochigi

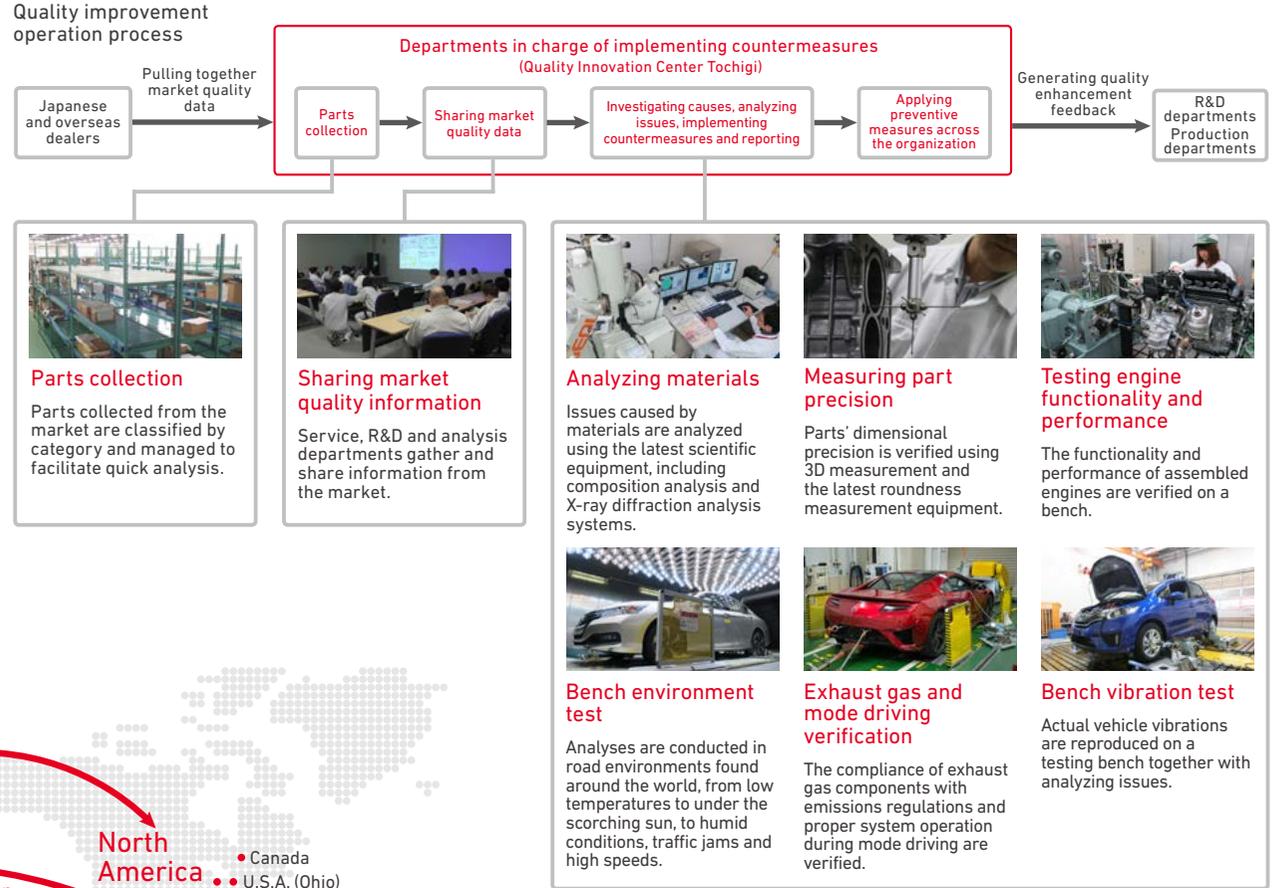
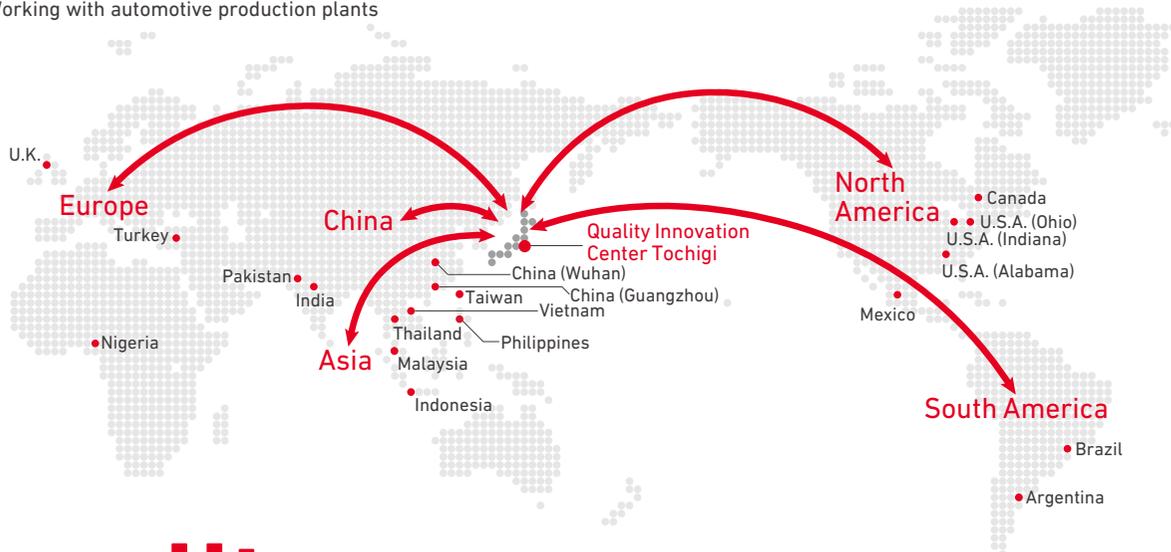
Quality enhancement operations at Quality Innovation Center Tochigi, Japan, consist of pulling together market quality data and sharing information about collected parts and market quality issues. Personnel analyze collected parts, investigate causes and develop countermeasures and improvements in a timely manner.

Specialized teams with extensive product knowledge are able to obtain detailed data using a range of analytical equipment. The operational process is configured to facilitate objective and appropriate decision-making based on gathered data.

### Analysis in partnership with overseas entities

Overseas production plants play a central role in conducting the same type of quality enhancement activities as Quality Innovation Center Tochigi. When plants encounter a particularly difficult market quality issue and request assistance, the Center investigates and analyzes the issue and reports the results back to the overseas facility.

Working with automotive production plants



**Quality Initiatives**

# Quality Management Education

Honda offers quality management training based on in-house qualifications and the level of quality control responsibilities with the aim of improving associates' quality assurance skills.

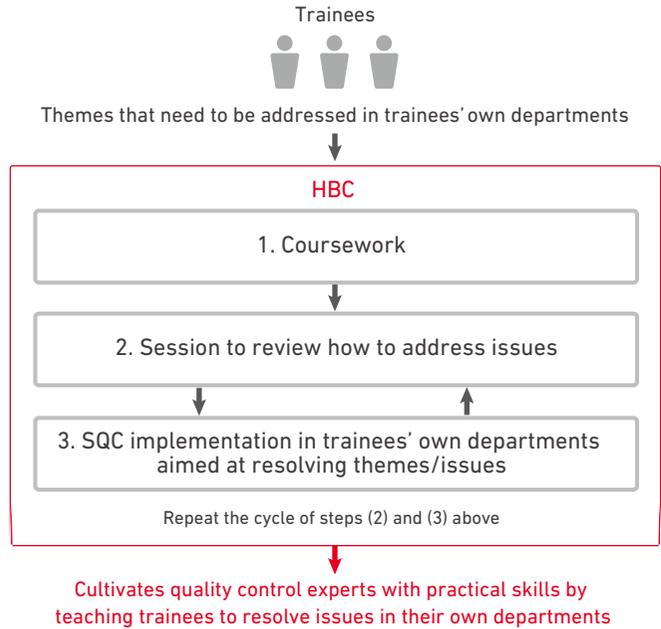
In Japan, Honda offers a training curriculum with four courses divided into basic training and specialized training.

As part of this, the Honda QC Basic Course (HBC) is open not only to Honda associates but also to suppliers and focuses on training experts in all aspects of Honda quality management. Outside Japan, the QC Junior (QC J) Course and the QC Foreman (QC F) Course are offered as basic training.

Training curricula content

Category	Course name	Course content	Period
Basic training	QC Junior (QC J) Course	Targets associates six months to one year after joining Honda to learn the basics of quality control techniques.	Total of 1 day
	QC Foreman (QC F) Course	Targets associates engaged in production and quality duties to learn the quality control techniques and approaches required for quality assurance activities.	Total of 2 days
Specialized training	Statistical Quality Control (SQC) Course	Targets associates whose principal responsibility is quality control and quality improvement activities to learn professional quality control techniques and approaches.	Total of 2 days
	Honda QC Basic Course (HBC)	Targets associates who are responsible for the core of quality control activities to learn skills that allow them to resolve difficult problems/issues with the aim of becoming quality control experts.	Total of 22 days

Honda Basic Course (HBC) Flow



Providing education on quality control in Japan



## Quality Initiatives

# Handling of Quality Issues When They Occur

When we determine that an issue occurs with a product that requires market action, we quickly report the issue to government authorities in accordance with individual countries' regulations and contact owners by means of direct mail from dealers or by telephone to provide information about how they can receive free repairs. Associated information is also provided on Honda's website and through the news media as necessary.

A Global Quality Committee is quickly convened in accordance with Honda global rules, and decisions concerning market actions are made by its chairperson in consultation with overseas members including experts from departments involved with quality issues who are capable of making objective decisions.

### <Airbag recalls>

The repeated recalls for the airbags have caused our customers great inconvenience and concern. Honda has always placed top priority on customer safety and peace of mind and responded with this in mind.

In light of agreed upon revisions to the consent order between the National Highway Traffic Safety Administration (NHTSA) and Takata in May 2016, Honda has decided to replace serially all Takata ammonium-nitrate based driver and passenger front airbag inflators that do not contain desiccant.

Honda will continue to make its utmost efforts to ensure the sufficient supply of replacement inflators to customers and take other necessary measures as quickly as possible.

Number of recalls

Segment	Number of recalls
Automobiles	86
Motorcycles	26
Power Products	10
Total	122

\*Number of recalls worldwide in FY2016

## Third-Party Evaluation

Honda's design and development, production, and sales and service departments are working together to win the top ranking in the Initial Quality Study (IQS) for automobiles conducted by J.D. Power, an independent evaluation organization, as an indicator of customer satisfaction, which constitutes the results of the quality cycle.

Results of the 2015 Initial Quality Study (IQS) for automobiles:  
J.D. Power Asia Pacific

Country	Brand	Ranking
U.S.A.	Honda	No.14
	Acura	No.26
Japan	Honda	No.4

Country	Segment	Model	Ranking
U.S.A.	Small Premium	Acura ILX	No.2
Japan	Minivan	Freed	No.2
China	Compact SUV	Vezel	No.2
	Large MPV	Odyssey	No.2
India	Upper Compact	Brio	No.1
	Entry Midsize	Amaze	No.3
	Midsize	City	No.1
Thailand	MUV/MPV	Mobilio	No.2
	Entry Midsize	Jazz	No.2
		City	No.3
	Midsize	Civic	No.1
	Full-size SUV	CR-V	No.1

\*Includes top three vehicles in major markets from January to December 2015



Sources:

J.D. Power and Associates 2015 U.S.

Initial Quality Study SM (based on responses from more than 84,000 owners who purchased or leased a new vehicle as surveyed from February to May 2015)

J.D. Power Asia Pacific 2015 Japan

Initial Quality Study SM (based on responses from more than 18,000 owners who purchased a new vehicle as surveyed from May to June 2015)

J.D. Power Asia Pacific 2015 China

Initial Quality Study SM (based on responses from more than 21,000 owners who purchased a new vehicle as surveyed from April to August 2015)

J.D. Power Asia Pacific 2015 India

Initial Quality Study SM (based on responses from more than 8,000 owners who purchased a new vehicle as surveyed from May to September 2015)

J.D. Power Asia Pacific 2015 Thailand

Initial Quality Study SM (based on responses from more than 4,000 owners who purchased a new vehicle as surveyed from April to September 2015)