Providing Hospitality to the Environment

Showa Denki

Integrated Report 2014

(Intellectual Property Management Report)
We adopted “Leveraging teamwork (organizational strength) to achieve results with ease” as our Management Policy for the 2014 fiscal year and added the following two activities in order to achieve it:

(1) Sharing the wisdom of experience
(2) Revitalizing the organization

Management Philosophy:
“Leap for Innovation”

We regard “human development” as the top priority in management. By pursuing and applying “technologies for airflow” and “technologies for rotators”, we fulfill our social responsibilities and missions through various activities in the industry.

Company Creed:
“Learning, Improving and Contributing”

Learning from others, improving ourselves, and contributing to others. We believe that we must learn from various stakeholders to take in what we lack, and improve ourselves and our social abilities.

In this way, we should contribute to society, by utilizing what we have learned for the public and for others.

Company Slogans

1. Cater to customers: Sincerity
   Always think from customer’s perspective and cater to customers through hands-on activities

1. Be proactive at work: Virtue
   Improve sensitivity to promptly respond to changes in the time, and be motivated and creative at work

1. Be cheerful and friendly to others: Beauty
   Maintain favorable relationship with internal and external stakeholders through active communication

Quality policy

1. We will strive to share good relationships at all times by concentrating our efforts on initial response and service through the products and services we provide to customers.
2. We will act in good faith so as to earn customers’ trust and satisfaction by understanding customer needs, satisfying their requirements, and meeting deadlines.
3. We will treat as a top management priority the process of building, planning, and implementing a quality management system that can accommodate the speed of market change; of regularly reviewing that system to ensure it functions effectively; and of carrying out activities to improve it and maintain its freshness.

Environmental policy

Environmental philosophy
We are committed to providing hospitality to the environment through harmony with nature by reducing the environmental impact of our operations around our core competence of technologies for airflow and technologies for rotators, and through our business activities of developing, designing, manufacturing, selling, and servicing electric blowers and environmental improvement equipment (dust collectors, etc.).

Environmental action policy
We will improve our environmental management system in a sustained manner, prevent pollution, and reduce the environmental impact of our operations by adopting the following policies based on our environmental philosophy and in a manner that involves all employees in their implementation:

1. Complying with the requirements of environmental laws, agreements, and other regulations
2. Designing and manufacturing products that are environmentally friendly throughout their entire life cycle
3. Working to “greenify” the market through green proposals
4. Practicing the 3Rs of “Reduce, Reuse, Recycle”
5. Raising employees' environmental awareness, deepening their understanding of environmental issues, and broadening our environmental conservation initiatives, both inside and outside the company
To Customers
Our mission is to enhance customers’ convenience and cater to customers’ true needs, through short lead-time and on-time delivery of high-quality products based on our “technologies for airflow” and “technologies for rotators”.
We aim at establishing sustainable partnership with each customer.

To Sales Partners
We provide opportunities for sales partners to satisfy their customers, and to obtain appropriate profits, through sales of, and services for, products of Showa Denki.

To Manufacturing Partners
We pursue win-win partnership with manufacturing partners always through equal and fair transactions, and establish relationships that achieve stable management on both sides.

To Employees
Contribute to favorable working atmosphere by tidying up work areas and your clothes.
Foster a company culture that encourages innovation with a challenging spirit that embraces new undertakings.
Showa Denki respects each employee as an individual, treats all employees fairly, encourages open discussions, maintains a clean and safe working environment, and helps employees fulfill their responsibilities to their families.

To the Next Generation
Showa Denki never forgets that business activities themselves affect the environment, and take efforts to reduce environmental impact and protect resources in all its activities.
Showa Denki contributes to public environmental conservation by providing environment-improving products and services.

To Local Communities
Showa Denki ensures legal compliance as a corporate citizen, and establishes workplaces where each employee can proactively participate in local social activities, disaster assistance, and volunteering.

What is an integrated report?

Showa Denki’s basic principles of integrated reporting
An integrated report is one that clearly and concisely describes how a company creates and maintains corporate value by clarifying the key issues being strategically addressed by the company as it pursues its business activities and reflecting its business environment.

- **Strategic focus and future orientation**
  An integrated report describes the company’s strategy and how it will affect its ability to create profit and its management resources over the short, medium, and long term. In this report, that information is provided in “Business Opportunities and Risks” (page 7) and “Future Business Development” (page 8).

- **Connected information**
  The association and interdependence of key activities related to the company’s ability to create profit over the long term are addressed in “Processes for Value Creation” (page 5) and “Business Models” (page 6).

- **Accommodation of stakeholders**

- **Importance and brevity**
  An integrated report provides a concise account of information that is important when analyzing the company’s ability to create profit over the short, medium, and long term. In this report, that information is provided in “Business Models” (page 6) and “Future Business Development” (page 8).

- **Reliability and completeness**
  An integrated report provides coverage of all important information without bias or error and from both positive and negative perspectives. In this report, that information is provided in “Business Opportunities and Risks” (page 7), “Future Business Development” (page 8), and “Key Performance Indicators That Quantify Capital Value” (page 17).

- **Consistency and facilitation of comparisons**
  An integrated report uses consistent indicators (known as key performance indicators) so that important aspects of its operations—as described in “Value Creation Narrative” (page 5)—can be compared to those of other organizations. In this report, that information is provided in “Key Performance Indicators That Quantify Capital Value” (page 17) as well as “Nonfinancial Indicators in Brief” (page 17) and “Sales, Ordinary Profit, and Capital Investment” (page 17).
Business overview

Showa Denki is a privately held manufacturer characterized by a strong commitment to excellence. Advanced technologies for airflow and rotators underpin our products.

- Founded in 1950, we operate a Head Office and factory in the city of Daito in Osaka Prefecture, a factory in the city of Iga in Mie Prefecture, and 16 sales offices in Japan and around the world.
- Gross sales: ¥6.07 billion (FY2013)
- Products: Electric blowers (50.5%), fans and blowers (24.5%), environmental equipment (16.2%), and others

Business development

Showa Denki manufactures electric blowers, mist collectors, and other industrial equipment at its Daito Factory. Affiliate Showa Furyoku Kikai Co., Ltd., manufactures turbo fans and other fans and blowers as well as dust collectors at its Iga Factory, while Showa Denki Sapporo Co., Ltd., conducts sales and marketing activities in and around Hokkaido.

Overseas, we have established Showa Denki (Thailand) Co., Ltd., a subsidiary headquartered in Bangkok whose primary area of responsibility is product maintenance.

We also operate 15 sales offices around Japan in order to more quickly and reliably supply blowers and environmental equipment that meet customer needs.

Countries to which products are exported

<table>
<thead>
<tr>
<th>Asia</th>
<th>China</th>
<th>Vietnam</th>
<th>Thai</th>
<th>India</th>
<th>Korea</th>
<th>Singapore</th>
<th>Indonesia</th>
<th>Taiwan</th>
<th>Hong Kong</th>
<th>Philippines</th>
</tr>
</thead>
<tbody>
<tr>
<td>North America</td>
<td>USA (mainland)</td>
<td>Mexico</td>
<td>Canada</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>South America</td>
<td>Brazil</td>
<td>Chile</td>
<td>Argentina</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Europe</td>
<td>Russian Federation</td>
<td>German</td>
<td>Hungary</td>
<td>UK</td>
<td>Spain</td>
<td>Italy</td>
<td>Turkey</td>
<td>Romania</td>
<td>France</td>
<td></td>
</tr>
<tr>
<td>Africa</td>
<td>South Africa</td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oceania</td>
<td>Australia</td>
<td></td>
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</tr>
</tbody>
</table>
Showa Denki has developed various products, ranging from electric blowers to mist collectors and to fans and blowers, based on our technologies for airflow and rotators. These products are realized by effective blend of Showa Denki’s “intellectual assets”, including proprietary development skills for motors, mutual trust with partner companies, high quality levels in laboratories that achieve safe and optimal products, and production innovations through the “Bee dash” project.

### Electric blowers

We offer about 20,000 models of electric blowers featuring molded aluminum housings and direct-drive motors and accept orders in lots as small as one. The large selection ensures customers can select the model that best meets their needs. We also offer a line of standardized stainless steel blowers with exceptional heat and corrosion resistance, and these products can be equipped with an explosion-proof motor that was developed in-house.

(Motor output: 0.025 kW to 7.5 kW)

### Denchoku Direct-connected electric blowers

We offer 142 models in our Denchoku line of welded, direct-drive electric blowers and accept orders in lots as small as one. The large selection ensures customers can select the model that best meets their needs. Compared to blowers that use a V-belt-drive, Denchoku units take up less space and deliver a superior level of safety since there are no exposed rotating parts.

(Motor output: 0.75 kW to 45 kW)

### Fans and blowers

Fans and blowers have welded construction, and are mainly used for large-sized industrial machines and plant equipment. Many of these products have high corrosion resistance and heat resistance qualities.

<Motor output: 0.4 kW to 300 kW>

### Mistrēsa environmental equipment

Our mist collectors, which are available in 23 models for different applications, improve the work environment by collecting oil mist, primarily from machine tools. Demand for these products continues to increase with each passing year as a result of heightened environmental awareness on the part of customers and the general public.

(Motor output: 0.2 kW to 2.2 kW)

### Dustresā dust collectors

By leveraging our blower technology to develop a dedicated blower specifically for use in dust collectors, we were able to deliver high-performance, low-noise operation in a compact design. In addition to a line of standardized compact models that combine a dust collector and blower with a motor ranging from 0.2 kW to 5.5 kW, we manufacture models with a separate dust collector and blower.

(Motor output: 0.2 kW to 22 kW)

### Troubleresa II malfunction detectors (for rotators, etc.)

This system provides simple, 24-hour monitoring of operating blowers, pumps, rotators, and other equipment. Continuous monitoring of rotator status makes it possible to prevent stoppages due to sudden malfunctions.

### Terasu Walker and Dream Hunter

This rehabilitation-training machine uses wind power to reduce users’ body weight by up to 50% so that they can undergo walking or running training with a reduced weight load on their feet. Terasu Walker is designed for use in walking training in rehabilitation settings, while Dream Hunter is designed to help athletes recover quickly from injury or improve their form. A low-oxygen capsule can be added to Dream Hunter to simulate high-elevation training.

### Terasu Erugo II

Ergometers are currently used in a variety of dialysis and rehabilitation settings. Terasu Erugo is the only domestically produced ergometer that eliminates assistive functionality and instead allows users to operate the mechanism under their own power alone under a load that is selected based on their physical strength. Since users can operate the device from a reclined position or while sitting upright, it can be used in a broad array of settings, from motor training for weak individuals to exercise during dialysis.
The value that Showa Denki provides to customers takes the form of customer convenience with products that make a task easier, play a useful role, or increase expedience. The specific mechanisms by which we implement that value include product groups with a high level of safety and optimal design; fast delivery and small-lot, multiple-model production capability; the ability to respond quickly to inquiries; and a willingness to enter into ongoing partnerships with customers. We have created a value creation narrative that puts these mechanisms into practice. We also believe that it is important to be knowledgeable about customers in order to more effectively pursue our goal of convenience.
Showa Denki uses the following business models to create customer value. Showa Denki creates customer value through enhancement of productivity and customer satisfaction, utilizing our basic intellectual assets (i.e., technologies, R&D abilities, leadership of management, collaboration with partner companies, and sound finance), and leveraging specialized activities in each department. The sales department responds speedily and appropriately to questions from customers; the design and development department identifies customers’ needs and designs special-order products to meet them; and the production department undertakes ongoing process improvements through innovation.

### Business Models

Showa Denki uses the following business models to create customer value.

#### Customer value

- Sustainable growth

#### Branding

- Enhance customer satisfaction
- Enhance productivity (Cost reduction)

#### Systems

- Each employee takes ownership for the entire production process of an assigned product
- EDI

#### Activities

- Production innovation
- Bee dash +
- Basic research into airflow and rotators

#### Needs

- Small-lot, multiple-model production
- On-time delivery
- Special-order capability

#### Feedback

- Customer service skills
- is Kobo
- Technical information database

#### Six types of capital upon which Showa Denki relies

<table>
<thead>
<tr>
<th>Human capital</th>
<th>Intellectual capital</th>
<th>Manufacturing capital</th>
<th>Social capital</th>
<th>Natural capital</th>
<th>Financial capital</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employees responsible for design</td>
<td>Human resource development</td>
<td>Daito Factory</td>
<td>Partner companies</td>
<td>3Rs for materials that can be reused</td>
<td>Sales</td>
</tr>
<tr>
<td>Employees responsible for manufacturing</td>
<td>Bee dash+</td>
<td>Iga Factory</td>
<td>Agencies</td>
<td>High-efficiency motors</td>
<td>Cash flows and other assets listed in financial statements</td>
</tr>
<tr>
<td>Employees responsible for development</td>
<td>7-step approach to sales</td>
<td>Verification Lab</td>
<td>Universities</td>
<td>Rooftop garden</td>
<td></td>
</tr>
<tr>
<td>Employees responsible for sales</td>
<td>Sales support system</td>
<td>Equipment</td>
<td>Public entities</td>
<td>Solar power system</td>
<td></td>
</tr>
<tr>
<td>Employees responsible for general affairs and human resources</td>
<td>Design system</td>
<td>Sales facilities</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Process management system</td>
<td>IT infrastructure</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
All management resources of Showa Denki are aimed at supporting value creation for customers. We work to address the strategic issues listed in the table below based on business opportunities and risks in order to achieve sustained growth. Key priorities include increasing our competitive position in the industry, developing businesses based on new products, building sales networks by developing new groups of customers, developing our businesses overseas, recruiting and retaining human resources, and enriching our human resource development program. We work to achieve these goals by exhibiting technological and functional superiority as well as leadership in customer-oriented management and by building an even more robust management foundation. Consequently, we are laying the groundwork for future success by maintaining close partnerships with customers and partner companies and showing consideration for the environment while establishing strategic objectives and deepening our understanding of individual customer needs.

<table>
<thead>
<tr>
<th>Business opportunity or risk</th>
<th>Description</th>
<th>Response to opportunity or risk</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Aging society with a declining birthrate</strong></td>
<td>Domestic production is slowing due to a shrinking market.</td>
<td>Develop overseas businesses.</td>
</tr>
<tr>
<td><strong>Social environment</strong></td>
<td>Domestic production is being moved overseas due to the shrinking domestic market.</td>
<td></td>
</tr>
<tr>
<td><strong>Legal changes</strong></td>
<td>Laws concerning the environment, production, and other areas are undergoing change.</td>
<td></td>
</tr>
<tr>
<td><strong>Increasing demand for custom designs and short lead-times</strong></td>
<td>Diversification of end-user needs is driving production toward custom designs, short lead-times, and small lots.</td>
<td></td>
</tr>
<tr>
<td><strong>Markets</strong></td>
<td>Demand for products with reduced environmental impact and lower space requirements is increasing.</td>
<td>Develop businesses based on new products.</td>
</tr>
<tr>
<td><strong>Ill-balanced sales channels</strong></td>
<td>Difficult to adapt to environmental changes due to ill-balanced sales channels</td>
<td>Develop new sales channels</td>
</tr>
<tr>
<td><strong>Competition</strong></td>
<td>Reduction in competitive status (ability) due to initiatives by other companies (products, pricing, etc.)</td>
<td>Build sales networks by developing new groups of customers.</td>
</tr>
<tr>
<td><strong>Showa Denki</strong></td>
<td>Increasing workload on management executives due to lack of middle managers Implementation of strategies lags due to a lack of middle managers.</td>
<td>Recruit and retain human resources and enrich our human resource development program.</td>
</tr>
</tbody>
</table>
Future management policies and strategies

2017: Sales of at least ¥10.0 billion and an operating margin of at least 10%

Management issues and strategies

It will be essential to take the following actions in order to continue the company’s sustained growth and achieve sales of ¥10.0 billion by striving to become the industry’s leading customer-oriented company with technological and functional superiority and to build an even more robust management foundation:

- Achieving an industry market share of greater than 51%
- Developing businesses based on new products
- Building sales networks by developing new groups of customers
- Developing our businesses overseas
- Recruiting and retaining human resources and enriching our human resource development program

Consequently, we are laying the groundwork for future success by maintaining close partnerships with customers and partner companies and showing consideration for the environment while establishing strategic objectives and deepening our understanding of individual customer needs.

Medium- and long-term strategic objectives

We are striving to achieve sales of at least ¥10.0 billion and an operating margin of at least 10% by 2017.

- Achieving an industry market share of greater than 51%: Developing new groups of customers around sales persons and building sales structures designed to bring the company closer to customers
- Developing our businesses overseas: Pioneering and expanding overseas sales channels and building and commercializing service structures (including knock-down production)
- Expanding businesses based on new products: Developing products to become a leader in the medical, clothing, food, and housing markets
- Reforming manufacturing capability: Optimizing manufacturing plants for production of custom-order products (short lead-times, lower costs)
- Enriching employee programs: Creating jobs and workplaces that motivate and excite employees

In addition to the above, we will solidify our status as a good corporate citizen through daily operating activities that accord with the CRS Pocket Book by working to lower CO2 emissions and expand and enrich our contributions to society from the standpoint of corporate social responsibility (CSR).
Daito Factory

- 4,320 standard and semi-standard products (manufacturing lead-time: 4 days)
  Standard products from the catalog, different discharge directions, different supply voltages, outdoor specifications

- Implementing automatic delivery time response functionality with the IT system
  We have implemented functionality that allows us to inform customers of the delivery time when receiving orders for 23,156 models, including standard products and semi-standard products.
  This capability was made possible by adding functionality that reports the expected shipping date when sales coordinators enter orders as part of production IT system and production reform activities.
  The production IT system stores data needed to produce 34,357 product models.

Number of new designs
(Number of designs)

<table>
<thead>
<tr>
<th>Year</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1,284</td>
<td>1,464</td>
<td>1,502</td>
<td>2,333</td>
<td>3,900</td>
<td>3,299</td>
</tr>
</tbody>
</table>

Showa Denki designs more than 1,500 new models every year in order to resolve customer issues with innovative airflow (moving air).
Furthermore, our goal is to help customers create value by discovering and resolving latent issues by listening closely for the slightest whispers of feedback from customers.
The number of new designs increased dramatically in 2011, 2012, and 2013 as we launched leading motors and high-efficiency electric blowers.

Iga Factory

Most products manufactured at the Iga Factory are one-off products that must be designed on a case-by-case basis. We strive to be No. 1 in the industry in quality and customer satisfaction by orienting our operations around the keyword “speed.”

We maintain the necessary equipment and technicians so that we can perform all processes in-house, allowing us to deliver high-quality products to customers quickly. Technicians who have received certification under the JIS Z 3811 qualification procedure for aluminum welding techniques use aluminum, stainless steel, titanium alloy, and other special materials to manufacture blowers, starting in lots of one.

- Improvements at the Iga Factory
  - Enhancement of organizational structures, manufacturing equipment, and technician training
  - Improving technological capabilities in response to customer needs
  - Process management, information sharing, and improvement capability
    - Providing optimal products
    - Improving the on-time delivery rate
    - Accommodating short lead-times
  - Thorough adherence to procedures and rules
    - Dramatically lowering the incidence of defects and errors

Automatic sheet-working machine
This machine forms both ends of the sheet that makes up the back of the housing into a U-shape. Then the side sheets are inserted and pressure-bonded by rotating them as they are depressed by a hydraulic cylinder. This approach, the goal of which is to reduce the amount of time spent welding, is at least twice as fast as normal welding.

Laser cutter
This machine cuts materials into the desired shape using a CO2 laser. Parts fabricated in this way include the base sheet for housing side-sheet bearings, flange, main sheets for blades, and blades. The goal of using this machine is to speed the cutting process while improving finish quality.

Acid cleaning area
Burn marks from welding on stainless steel parts are removed using acid, forming an oxide film on the surface. The goal of this process is to improve corrosion resistance while beautifying the surface finish.
“is Kobo” (Customer Consultation System)

“is Kobo” is our proprietary business model to appropriately respond to inquiries and questions from customers.

- “is Kobo” provides relevant information from internal and/or external sources to the sales representative when inquiries are received from customers.
- “is Kobo” consists of dedicated staff, an extensive Q&A database, and outside specialists.
- Customer questions directed to sales representatives are answered promptly.

- The number of questions rose 1% to a record 3,469 inquiries.
- We answered 57% of questions within 10 minutes.
- We have set the goal of answering at least 80% of phone inquiries within one hour, and we did so in 90% of all cases.

Technical database

Technical information of more than 17,000 models of the SHOWA DENKI Group is registered in a database, enabling desired information to be delivered to a customer within 10 minutes at minimum. “Technical information” includes drawings, CAD data, performance curves, operating instructions, etc.

### Lead-time for providing technical information

<table>
<thead>
<tr>
<th>Technical information</th>
<th>Lead-time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standard products</td>
<td>Within 10 min. Within 30 min. Within 60 min. Within 4 hrs. Within 1 day 1 or more days</td>
</tr>
<tr>
<td>Semi-standard products</td>
<td>Within 10 min. Within 30 min. Within 60 min. Within 4 hrs. Within 1 day 1 or more days</td>
</tr>
<tr>
<td>Special-order products</td>
<td>Within 10 min. Within 30 min. Within 4 hrs. Within 1 day 1 or more days</td>
</tr>
</tbody>
</table>

- Delivery specification diagrams: 10 min. 20 min. 30 min. 3 days
- Performance curves: 10 min. 20 min. 30 min. 3 days
- Quotations: 10 min. 20 min. 30 min. 30 min.
- CAD data: 10 min. 20 min. 30 min. 3 days
- Operating instructions: 10 min. 20 min. 30 min. 3 days

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Customers

- Agencies
- Dealers
- End-users

Requests

Sales Dept.

Information

Search

Technical information database

Register

Technical information management system

Sales Promotion Dept.

Design Group

Iga Factory

Technical documentation and information

Product and part diagrams

Part layout data
Know Customers and Establish Sustainable Partnerships

Modeling customers’ business structures from a new “3C” perspective—the Customer, the Customer’s Customers, and the Customer’s Competitors—as a way to gauge their expectations of Showa Denki and how to best meet them enables us to better understand each customer, to work together to discover problems that may go unseen by the customer, and to resolve those issues.

Sales Network Covering Japan

We make optimal suggestions to resolve customers’ problems through more than 70 sales representatives at 15 sales offices across Japan (Tokyo, Sendai, Kita Kanto, Nagano, Atsugi, Nagoya, Hamamatsu, Shizuoka, Kanazawa, Osaka, Kyoto, Okayama, Fukuoka, Kitakyushu and Sapporo). Customers can also purchase Showa Denki products from machinery trading companies with which we have done business since our founding.

In due course, we will continue to pursue convenience for customers, by making work of customers easier, becoming more useful to customers, and becoming more convenient for customers.

Disclosure of information to partner companies

On April 1, 2009, we started operation of “Itohan Net” (EDI) together with the 7 partner companies. We disclose Showa Denki’s stock levels of components and order taking statuses to partner companies on the web, thereby minimizing inventory on both sides and shortening procurement lead-times.

Since 2010, production drawings are also disclosed on the web, so that components are delivered without errors based on the latest drawings.

Benefits of EDI

A total of 18 partner companies participate in EDI (Itohan Net).

- Partner companies have also succeeded in lowering inventory value, inventory area, inventory quantity, and work time as detailed below by improving operational processes and participating in the EDI partnership (data based on a questionnaire sent to partner companies).

Benefits of improvements at Showa Denki

We have achieved the following by improving operational processes and adopting the EDI system:

- We lowered work time by 48%, (600 min. per day → 315 min. per day)
- We reduced the value of part inventory by 21%.
- We reduced drawing output time by 45 min. per day.
- We reduced the number of drawing-related inquiries by 66%.

(15 inquiries per week → 3 inquiries per week)
(The actual benefit is twice as large since time spent by both partner companies and Showa Denki is reduced.)

Disclosure of information to customers

http://www.showadenki.co.jp

Our website allows customers to search about 2,000 models from all product groups 24 hours a day by entering specifications such as airflow and static pressure. In addition to finding the product that best suits their application, customers can download technical information such as dimensional drawings and performance curves.
Because wind power is not visible to human eyes, it is difficult for customers to determine whether or not they are using optimal wind power machines. At Showa Denki, customers can see abilities and qualities of wind power through various measurement devices to measure airflow. These testing instruments are indispensable to demonstrate that our machines satisfy customers’ needs, and support customers to select optimal wind power machines that are neither too large nor too small for them.

<table>
<thead>
<tr>
<th>No.</th>
<th>Chamber Name</th>
<th>Function</th>
<th>Specifications</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Anechoic chamber</td>
<td>Used to measure product performance in general. Acoustic materials are installed on the ceiling and walls. In this chamber with noise level of 25 dB, precise measurement of noise is possible.</td>
<td>Background noise: 25 dB; precision noise meter; pitot tube; Assman psychrometer; barometer; stroboscope</td>
</tr>
<tr>
<td>2</td>
<td>Measurement chamber</td>
<td>Used for noise analysis of a product that is being tested in the anechoic chamber.</td>
<td>Switchboard: 15 kW; power meter; FFT analyzer; wind meter; digital force gauge</td>
</tr>
<tr>
<td>3</td>
<td>Generators chamber</td>
<td>Generators of 15 kVA and 20 kVA are installed to provide stable power supplies to other chambers.</td>
<td>20 kVA generator; 15 kVA 20 – 180 Hz generator</td>
</tr>
<tr>
<td>4</td>
<td>Electromagnetic shield chamber</td>
<td>Used to measure electromagnetic waves emitted by electronic devices.</td>
<td>Switchboard: 15 kW; power meter; FFT analyzer; wind meter; digital force gauge</td>
</tr>
<tr>
<td>5</td>
<td>Heat resistance testing chamber</td>
<td>Used to identify influence of causing a blower to inhale hot-temperature gas. Up to 800°C of heat can be generated and inhaled into a blower.</td>
<td>Switchboard: 7.5 kW; heat resistance tester for up to 800°C; data logger; radiation thermometer; contact thermometer</td>
</tr>
<tr>
<td>6</td>
<td>Vibration testing chamber</td>
<td>Used to measure vibration values, direction, volume, frequency, etc. of a product.</td>
<td>Switchboard: 5.5 kW; acceleration pickup; vibration gauge</td>
</tr>
<tr>
<td>7</td>
<td>Continuous spray testing chamber</td>
<td>Used to identify lifetime of a mist collector filter.</td>
<td>Oilproof inclined ceiling, walls and floor; continuous spray device; manometer</td>
</tr>
<tr>
<td>8</td>
<td>Multi-purpose testing chamber</td>
<td>Used for testing of a large-sized device</td>
<td>Switchboard: 7.5 kW; hoist for up to 490 kg</td>
</tr>
<tr>
<td>9</td>
<td>Thermostatic testing chamber</td>
<td>Identify influence of heat on a product and its components</td>
<td>Switchboard: 5.5 kW; hot air generator</td>
</tr>
<tr>
<td>10</td>
<td>Development lab</td>
<td>Used for testing products under development.</td>
<td>Service panel: 5.5 kW</td>
</tr>
<tr>
<td>11</td>
<td>Collection efficiency testing chamber</td>
<td>Used for measurement of collection efficiency of a mist collector</td>
<td>Compressor; viscosity meter</td>
</tr>
<tr>
<td>12</td>
<td>Mist analysis chamber</td>
<td>Used to identify how collection efficiency of a mist collector changes by particle diameter.</td>
<td>Particle diameter and count meter; piezo balance, particle counter; sugar meter; pH meter</td>
</tr>
<tr>
<td>13</td>
<td>Motor testing chamber</td>
<td>Used for testing of a motor.</td>
<td>Switchboard: 7.5 kW; power meter; hysteresis dynamometer; torque controller</td>
</tr>
<tr>
<td>14</td>
<td>Cold resistance testing chamber</td>
<td>Used to identify how a product starts up in a cold temperature, and cold resistance of its parts.</td>
<td>Cooling capacity: up to -25°C</td>
</tr>
</tbody>
</table>

### Diagram

![Diagram of testing chambers](image_url)
Sales structures designed to bring the company closer to customers

Sales Network Covering Japan

We make optimal suggestions to resolve customers' problems through more than 70 sales representatives at 15 sales offices around Japan (Sapporo, Kita Kanto, Atsugi, Tokyo, Nagano, Sendai, Hamamatsu, Shizuoka, Kanazawa, Nagoya, Osaka, Okayama, Fukuoka, Kitakyushu and Kyoto). Customers can also purchase Showa Denki products from machinery trading companies with which we have done business since our founding.

In due course, we will continue to pursue convenience for customers, by making work of customers easier, becoming more useful to customers, and becoming more convenient for customers.

Overseas presence

Showa Denki has established a sales office in Bangkok, Thailand, as part of an effort to expand its sales channels in and around the ASEAN region. Showa Denki (Thailand) is working to serve customers even more effectively through product sales and fast maintenance service.
Win-Win Partnership

“Win-win partnership”
A company can never achieve any goal by itself. It must take a basic attitude to maintain favorable collaboration with all its stakeholders, just as traditional “Ohmi merchants” emphasized benefits for the company, benefits for the customer, and benefits for the public.

**“Win-win partnership” between Showa Denki and Its Stakeholders**
For our business to consistently develop, it is essential to establish a win-win partnership with employees, partner companies, agencies and dealers. The Employees Shareholding Association is aimed at strengthening win-win partnership with employees, while “Shoeikai” has been established to ensure such relationship with partner companies.

The SHOWA DENKI Group fosters win-win partnership with all its stakeholders.
Products, materials and components are supplied to us at optimal timings and for optimal quantities, thanks to strong mutual trust with partner companies. This is why we can deliver high-quality products to customers at requested dates.
We also have a network of sales partners throughout Japan with which we have worked for many years to deliver Showa Denki products to customers nationwide.

Win-Win Partnership with Partner Companies

■ **“Shoeikai”**
Seventeen partner companies participate in this association for mutual improvement and exchange.

■ **Doing business on a long-term basis**
Showa Denki does business with its partner companies on a long-term basis, so that we can prosper together. We have been doing business with Shoeikai members for more than 20 years on the average.
Providing Hospitality to the Environment

Biodiversity management
Simply put, biodiversity refers to the existence of a diverse range of living organisms. Today, failure to adequately take into account biodiversity can lead to significant business risk for companies. Failure to take into account biodiversity is equivalent to bringing difficulty to your own operations.
Nature may have seemed free for the taking when we were children, but today, those times are past.

We believe that Showa Denki should not only provide products, but also contribute to reduction in environmental impact, as our mission and under our key concept Providing Hospitality to the Environment.

Takehisa Kashiwagi
President

Photovoltaic Power Generation
In February 2007, photovoltaic power generation panels with generation capacity of 100 kW were installed on the rooftop of the Daito Factory, Showa Denki.
We believe that Showa Denki should not only provide products, but also contribute to reduction in environmental impact, as our mission and under our key concept Providing Hospitality to the Environment.

In FY2013, performance of our photovoltaic power generation system for Providing Hospitality to the Environment was as follows.

Photovoltaic Power Generation System with Generation Capacity of 100 kW

| Generated power | 108,029 kWh |
| Reduced CO₂ emissions | 55.7 tons |
| Equivalent to | 3,981 cedar trees per year* |

* Estimation assuming one 50-year-old cedar tree with a height of approx. 20 – 30 m absorbs approx. 14 kg of CO₂ per year on the average
(based on ‘Forests as CO₂ Sinks for Prevention of Global Warming’, Forestry Agency, Ministry of the Environment)

Equivalent to annual power requirements at:
31.7 households
108,029 kW / 3,403.2 kWh per household
(Coefficients based on data provided by FY2013 Kansai Electric Power)

Rooftop garden
On the rooftop of the two-story building of the Daito Factory is a garden with an area of 1,919.2 m² (equivalent to seven tennis courts). This rooftop garden has an effect to maintain temperatures in the first-floor work area (3,108.2 m²) throughout the year, thereby saving excessive utility charges.
The graph below indicates temperature changes on the rooftop and in the first-floor work area. It is clear from the graph that temperature changes in the first-floor work area are far more subtle than those on the rooftop. We believe that this is another form of concept Providing Hospitality to the Environment.
This garden also pleases us with seasonal flowers, and with strawberries, figs, blueberries and other kinds of fruit.

Measured on factory holidays, with air conditioning and machinery powered off
Human Resource Development

Although it is common that managers train their staff in a company/organization, staff members are slow to grow unless they feel growth and enthusiasm of their instructors.

In the SHOWA DENKI Group, we believe that both instructors and staff should grow, and learn from each other, through training.

In order to identify potential needs that customers are not aware of, sales representatives must have listening skills.

It is also necessary for engineers to accumulate specialized skills so that we can give shape to customers’ needs.

In this way, the growth of individual employees leads to the creation of customer value in keeping with our philosophy of giving top priority to personal growth.

In addition, the cost of human resource development continues to fall year by year as we foster the development of instructors inside the company and gain the ability to carry out the “Bee dash” project and management reforms internally instead of looking to outside assistance.

These improvements are made possible by our human resource development program.

Departments responsible for human resource development:
- General Affairs Group, Administration and Management Department
- Sales Promotion Dept.

Knowledge Is Rodin (library)

We created the “Knowledge Is Rodin” library to increase employees’ value as members of society.

The library’s holdings currently number 8,355 works and span subject areas including technology, machinery, tools, management, and history as well as fiction and art.

For 2015, we have adopted the objective of raising awareness so that all employees use the facility and increasing the library’s collection to more than 12,000 books.

![Knowledge Is Rodin (library)](image)

Human resource development plan

<table>
<thead>
<tr>
<th>Type of training</th>
<th>Program</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group training</td>
<td>New employee training</td>
</tr>
<tr>
<td></td>
<td>Management fundamentals</td>
</tr>
<tr>
<td></td>
<td>ISO training</td>
</tr>
<tr>
<td></td>
<td>Safety and health training</td>
</tr>
<tr>
<td></td>
<td>Training for employee evaluators and those undergoing evaluations</td>
</tr>
<tr>
<td></td>
<td>Function-specific training</td>
</tr>
<tr>
<td></td>
<td>Specialized occupational training</td>
</tr>
<tr>
<td>Incentives for employees to earn qualifications</td>
<td>Qualifications training</td>
</tr>
<tr>
<td>Individual development plans</td>
<td>Implementation of educational programs based on individual employee charts</td>
</tr>
</tbody>
</table>
Showa Denki works day in and day out to improve, expand, and develop intellectual property. Initiatives in this area include the Shoeikai, which has connected the company with partner companies from early in its history; “Bee dash,” an effort to develop IT infrastructure such as core systems and to innovate in production that began in 1997; “is Kobo,” an IT project; the Verification Lab, which visualizes wind power; the 7-step approach to solution sales; EDI (Itohan Net), an effort with partner companies that was launched in 2009; and the Showa Total Engineering Project (STEP), which has been addressing maintenance needs overseas since 2012.
1. Management vision
We believe that management and business structures that are capable of preventing and sometimes overcoming threats from all directions while eliminating obstructions and obstacles in order to achieve sustained growth by working to maximize management opportunities are most effective in quadruplicate.

This four-fold approach is resistant to threats from all directions, and it can reduce the risk of the company being overburdened by distributing demand on its organization. Compared to a four-business structure, a three-business structure is at least 30% less durable when exposed to the threats of change in the business environment and other changes over time. By seeking to establish independence of 78% and interconnectedness of at least 5.5%, each business is able to ensure reliable and sustained growth.

1. Pursuing intellectual property management
The Showa Denki Group’s approach to intellectual property management, which adds workplace skills to financial information and non-financial information, prioritizes the visualization of each group company’s activities, particularly manufacturing activities, and the use of that information to facilitate measures to strengthen companies’ knowledge and skills.

In addition, intellectual property management is responsible for increasing stakeholder trust by presenting a virtual image that closely approximates reality while working together to address the three core management issues and solve associated problems. Furthermore, because achieving sustained, uninterrupted growth serves to foster the development of markets and the company’s ability to compete successfully, it is essential to achieve growth through thoroughgoing knowledge realized through deep visualization. This truth is captured by Sun Tzu in The Art of War when he writes, “If you know the enemy and know yourself, you need not fear the result of a hundred battles.”

1. Environmental philosophy and strategy
The Showa Denki Group has adopted the philosophy of providing hospitality to the environment, a unique approach that incorporates initiatives that take into account the need to preserve biodiversity while recognizing expanded producer responsibility in the Group’s business domain.

Even as we respond to the applications of our times with electric blowers and fan blowers equipped with technologies for airflow, which are our flagship products, we will create a workplace environment in which people can function comfortably and energetically with new applications including products for people and workplaces as well as equipment, lighting equipment, and control equipment.

We will offer functionality to support dramatic improvements in the productivity of worksite production activities by playing the social role of improving equipment as well as the role of creating attractive workspaces that prevent problems with production equipment, associated systems, control equipment, and other infrastructure. Furthermore, technologies for rotators provide the ability to achieve a premium level of efficiency (in the form of leading motors) across our entire product line thanks to research and development geared to boost efficiency and save energy.
**Awards and Corporate Profile**

**Major Awards**

<table>
<thead>
<tr>
<th>Year</th>
<th>Event Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>2013</td>
<td>February: IT Management Award Screening Committee Incentive Award, development of a high-efficiency induction motor and a high-efficiency electric blower</td>
</tr>
<tr>
<td>2010</td>
<td>February: Certification of IT Management Practice, IT Management Abilities Award</td>
</tr>
<tr>
<td>2008</td>
<td>February: Certification of IT Management Practice, IT Management Abilities Award</td>
</tr>
<tr>
<td>2007</td>
<td>January: Most Excellent Prize, 100 Best IT User Companies in Kansai</td>
</tr>
<tr>
<td>June</td>
<td>300 Vigorous Manufacturing SMEs, Minister's Prize, the Ministry of Economy, Trade and Industry</td>
</tr>
<tr>
<td>2006</td>
<td>May: IT Promotion Section, Second IPA Award</td>
</tr>
<tr>
<td>October</td>
<td>Most Excellent Prize, 100 Good IT Management Companies</td>
</tr>
<tr>
<td>October</td>
<td>IT Management Promotion Section, Minister’s Prize, the Ministry of Economy, Trade and Industry</td>
</tr>
<tr>
<td>November</td>
<td>Prize for Promoting Digitization in the Kansai Region</td>
</tr>
<tr>
<td>2005</td>
<td>January: Prize for Great Contributors to Local Communities</td>
</tr>
<tr>
<td>May</td>
<td>Most Excellent Prize, 100 Good IT Management Companies</td>
</tr>
<tr>
<td>September</td>
<td>Production Management Prize</td>
</tr>
<tr>
<td>2004</td>
<td>March: Most Excellent Prize, 100 Best IT User Companies in Kansai</td>
</tr>
</tbody>
</table>

**Social Contribution (Factory Tours)**

<table>
<thead>
<tr>
<th>Year</th>
<th>Accepted groups</th>
<th>Total members</th>
</tr>
</thead>
<tbody>
<tr>
<td>2011</td>
<td>35</td>
<td>408</td>
</tr>
<tr>
<td>2012</td>
<td>45</td>
<td>427</td>
</tr>
<tr>
<td>2013</td>
<td>73</td>
<td>928</td>
</tr>
</tbody>
</table>

**Corporate Profile**

- **Head Office and factory**
  1-25 Shinzen Kitamachi, Daito City, Osaka JAPAN 574-0052
  Tel: +81-72-871-1061
  Founded: June 29, 1950
  Capital: 88.5 million yen (as of 2014)
  Employees: 183 (as of April 1, 2014)
  (253 employees including the SHOWA DENKI Group)

- **Certifications and qualifications**
  - Acquired ISO 9001 certification (1999)
  - Japanese Industrial Standards (JIS) Indication certified for the factory
  - Manufacturer of AC electric motors and other applied appliances certified by the Ministry of International Trade and Industry
  - Approved by the explosion-proof structured electric machinery and apparatuses test
  - Licensed for construction business by the governor
  - Designated business for fabrication and products of air conditioning equipment and instruments by the Osaka Prefecture
  - Designated manufacturer for general appliances supplied to Urban Planning Bureau, City of Osaka

- **Group affiliations**
  - The Japan Electrical Manufacturers’ Association (JEMA)
  - Japan Machine Accessory Association (JMAA)
  - Japan External Trade Organization (JETRO)

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**Major Factory Tour Groups in ’13**

<table>
<thead>
<tr>
<th>Schools</th>
<th>Public associations</th>
<th>Overseas organizations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Niigata Kousei Junior High School</td>
<td>Industry and Labor Section, Resident Life Department, City of Daito</td>
<td>The Overseas Human Resources and Industry Development Association (Thailand)</td>
</tr>
<tr>
<td>Sagamihara Municipal Sagamigaoka Junior High School</td>
<td>Participants in seminars offered by the Japan Personnel Development Center</td>
<td></td>
</tr>
<tr>
<td>Gifu Municipal Akawa Junior High School</td>
<td>City of Sanda Chamber of Commerce</td>
<td></td>
</tr>
<tr>
<td>Hiroshima Municipal Misuzugaoka Junior High School</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Niigata Prefectural Nitsu High School</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Osaka Institute of Technology</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chubu University</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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I have both supported and supervised the compilation of this Integrated Report in accordance with the Integrated Report Framework in order to maintain and improve its objectivity and reviewed its contents for issues.

Tsutomu Morishita
Small and Medium Enterprise Management Consultant and IT Coordinator

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**Providing Hospitality to the Environment**

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Tel: 072-870-5708  Fax: 072-870-7243  E-mail: kuriyama@showadenki.co.jp