



SINGAPORE
QUALITY
AWARD
for business excellence

2011 WINNER

EXECUTIVE SUMMARY REPORT



SQA



STUNNING CONCEPTS

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Foreword

Yokogawa is truly honoured and humbled to be conferred the prestigious Singapore Quality Award (SQA) 2011.

As the Managing Director, I am very proud of our employees. The SQA Award is a testament of their relentless efforts to continually strive for improvements and excellence, throughout the 38 years of our manufacturing operations in Singapore.

At the heart of Yokogawa's pursuit of excellence are a learning work culture and a set of core values, which addresses the needs of every stakeholder; namely: customers, supply chain partners, shareholders, including our employees and the community at large. It's a journey encompassing all aspects of our operations, from our operating systems and processes to the peoples' mindsets and desired behaviour, as well as our management practices.

In light of the ongoing economic uncertainty and increasing complexity of the operating environment, the pursuit of excellence must always be at the forefront of our everyday business activities. Organisations, especially those in the manufacturing

industry like ours, will need to continually revamp and transform, in order to survive in a business climate of intense competition.

To this end, our focus is on sustainability and the key pillars of our operations, such as; quality & safety first, delivery reliability, cost innovation and competitiveness, plus the flexibility to adapt and adjust speedily to customers' evolving requirements and the mounting challenges confronting the industry in which we operate.

Through the application of the SQA's framework and criteria for business excellence, our people were able to identify gaps which lead to numerous improvement opportunities in our internal systems and processes. Thus it provides an ideal platform to step up and further enhance our manufacturing operations as a world class organisation to the next higher level.

Indeed, winning the SQA Award 2011 is a defining milestone for Yokogawa. By sharing our SQA experiences, we hope to inspire other companies to embark on this fulfilling journey of business excellence. It begins with just a single step.



Lai Ah Keow

Managing Director
Yokogawa Electric Asia Pte Ltd

YOKOGAWA



Yokogawa's facility is the first site outside of Japan to develop and carry out scale-up manufacturing in Avionic products for the Aerospace industry.



KOGAWA

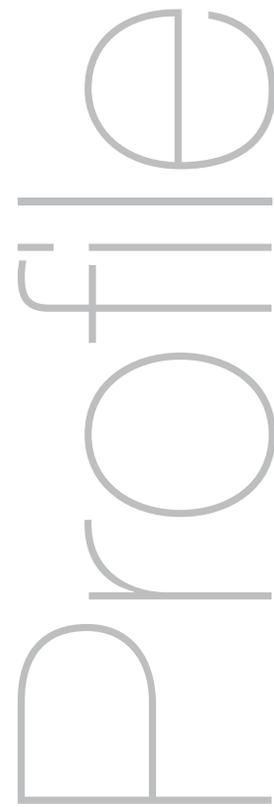


Yokogawa Electric Asia Pte Ltd (Yokogawa) was incorporated in Singapore in the year 1974. It was picked to be the first manufacturing plant outside of Japan for the transfer of Yokogawa's proprietary technology and production know-how, for the assembly of Meter instrumentation products.

Over the years, we have grown and expanded to become the global engineering based production centre for the 'Yokogawa' brand of distributed control systems, test and measurement instrumentations for a wide array of industries; from oil, chemical and natural gas to hospitals, pharmaceuticals and numerous other industries.

The Singapore plant accounts for 75% of the group's global supply of distributed control systems and measurement instrumentations. Leveraging Singapore as a vantage point to integrate the best of production management methodology from Japan with automation knowledge from Europe and the United States, the Singapore facility has increased its output five-fold from S\$200 million to S\$1 billion over the past three decades.

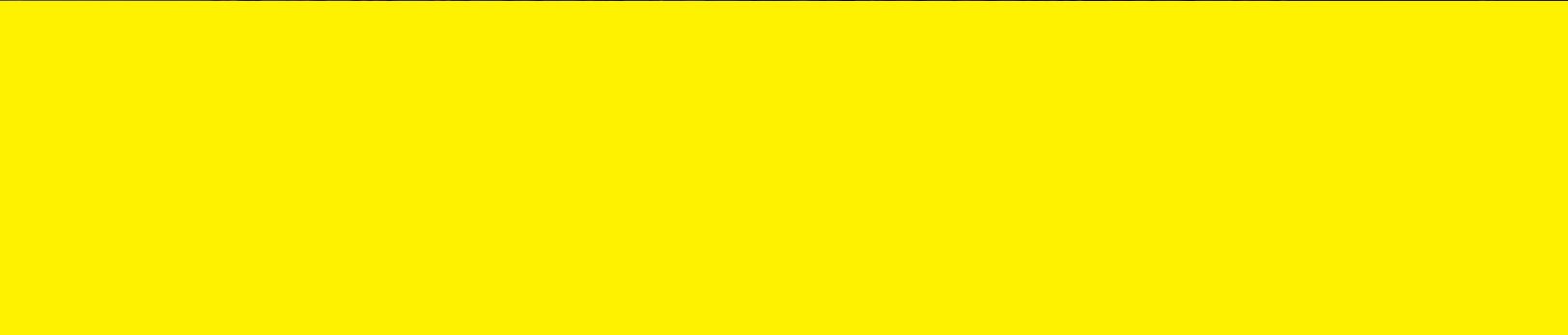
Yokogawa's facility is the first site outside of Japan to develop and carry out scale-up manufacturing in Avionic products for the Aerospace industry. The Singapore plant is also designated as the Global Training Centre for the Yokogawa group worldwide, to share and impart best manufacturing practices for employees in all overseas plants and offices.



Organisation



OSAVIA





Organisational Environment

Mission

A branded factory in manufacturing innovation excellence, with world class competencies to:

- Serve our customers;
- Contribute to the advancement of society and mankind;
- Operational emphasis and commitment to environmental friendliness through
- Broad ranging socially responsible business activities, and the
- Innovative spirit of our people

Philosophy

The Yokogawa philosophy is an extension of its past legacies. It is built on the founders' work and business ethos of:

- Quality & safety first driven brand recognition
- Commitment to our customers
- Pioneering spirit - the discovery, development and commercialization of breakthrough processes & products
- Integrity - in everything we do
- Responsibility - socially responsible corporate citizen
- Value - creating sustainable value for all our stakeholder partners.



Core Values

We set targets to be the best - continually monitoring, measuring, challenging and improving the way we do things as a Company, as team members and as individuals.

We managed our business based on 4 key core values which define the partnering relationships between the Company and all its stakeholders:

Customer Satisfaction

We believe in exceeding our customers' expectations by providing products and services that are world class in Quality, Delivery and Cost (QDC).

Motivating People

Our People are an important capital asset. They are managed with professional care, encouraging and facilitating a work environment of learning to bring out the best in them.

Contribution to Society

Our contribution begins with providing employment to people with special needs, as well as equal opportunity regardless of gender and race, and the manufacture of environmentally friendly products.

Business Growth and Value Creation

We believe in enhancing the value of our organisation by providing long term competitive returns to our stakeholders and business partners.



Employee Profile

Job Position	Staff Strength
Managing Director	1
Director	1
General Manager	3
Managers	23
Engineers and Technician	48
Administration and Finance	34
Supervisor	25
Production Operators	166
Total	301

Major Equipment, Facilities and Technologies

18

Yokogawa employs a one stop fully integrated manufacturing operation with upstream production of parts being carried out at the subsidiary plant, PT Yokogawa Manufacturing Batam, for downstream final assembly at the Singapore plant.

Our own proprietary 'New Yokogawa Production System (NYPS)' is used to integrate machinery, inspection equipment, facilities and technologies into one operation for both mass assembly and piece-by-piece flow productions for high mix low volume products.

Based on the global Vigilant-Plant concept, manufacturing facilities include own in-house design and fabrication of customized cabinets for distributed control systems, as well as being the designated

mother factory for the global supply of metal/plastic molding parts and die casting component parts to the entire Yokogawa group.

Plant facilities for the fabrication of metal parts employ the latest technology and machinery such as Numerical Control Turret Punch Machines, Amada & Nagara Benders and Computer Numerical Control Machines. Automation of lines for Nickel, Zinc and Chrome Plating processes were set up including the installation of Robotic Arms for Spray Painting Process. Surface Mount Technologies (SMT) machinery and equipment are also used for auto insertion of Printed Board Assembly. Other facilities also include a cyanogenic free plant for the treatment of waste water and trade effluence disposal, in line with our corporate environmental policy.

Regulatory Environment

(Including Occupational Health & Safety, Environment, Financial and Products)

In our pursuit of excellence, we ensure there is proper governance coupled with good business practices and ethics in the management of the Company's affairs, including total compliance with all existing legal and regulatory framework. This is managed based on:

ISO 9001:2008, ISO 14001:2004, OHSAS 18001:2007, AS 9100 and People Developer Standards.



Organisational

Environment





Organisational

Relationships

Relationship with Parent Organisation

Yokogawa is a wholly owned subsidiary of the parent company, Yokogawa Electric Corporation (YHQ). Founded in 1915, YHQ is one of the world's leading suppliers of solutions to industries and enterprises.

Over the years, the parent subsidiary collaboration continues to strengthen in growing the business and technology for Industrial Automation products. The technology transfer to Yokogawa included product research & design development, engineering and technical know how, for the production of new and enhanced version of distributed control systems and test & measurement instrumentations. These products are supplied to a huge network of customers worldwide in the global Industrial Automation industry.

Relationship with Customers

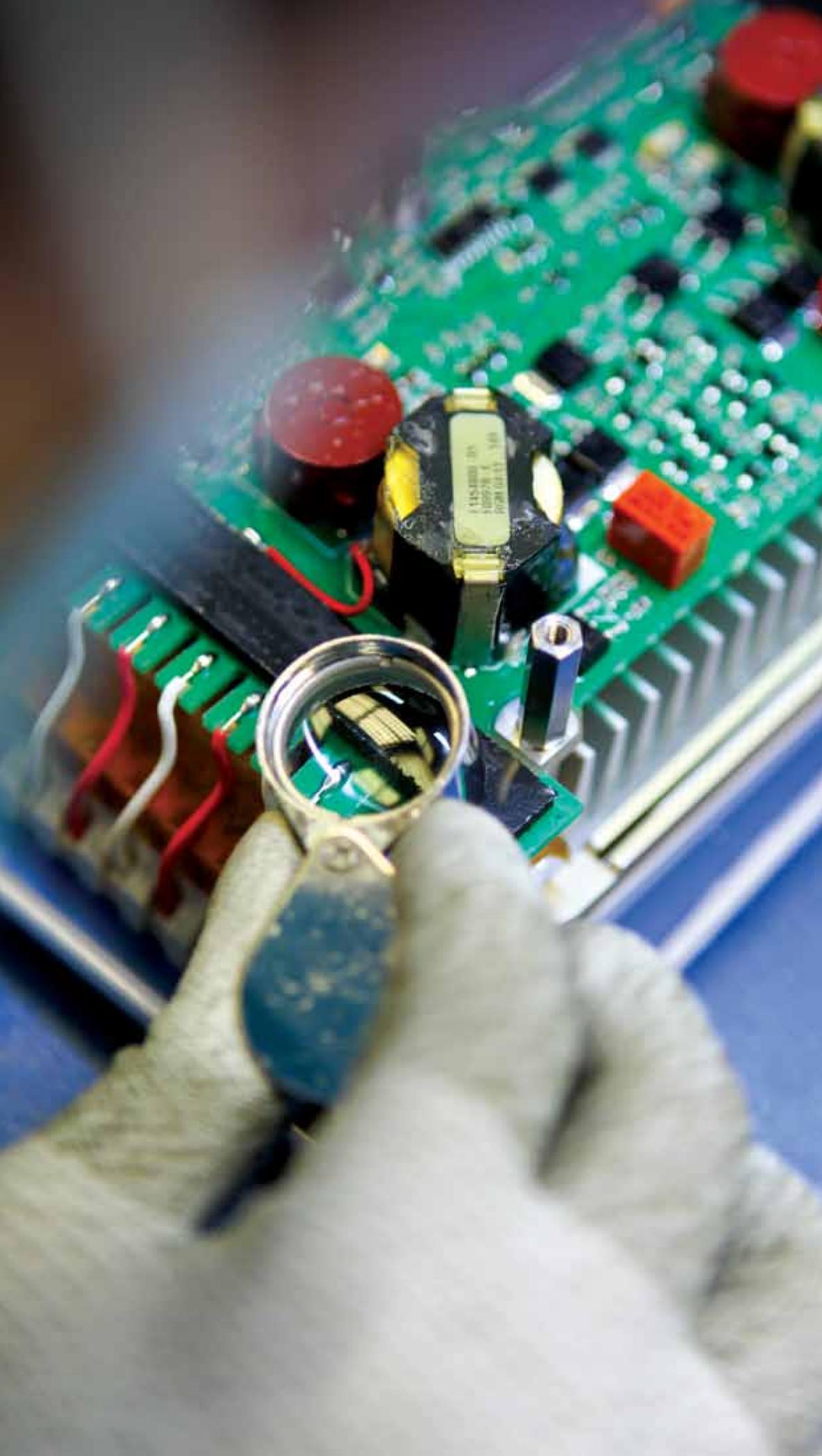
Customers' relationship centers on Overseas Sales Affiliates (OSAs) who channel all sales orders directly to Yokogawa via Electronic Data Interface (EDI). The delivery of products and services are to OSAs for their own distribution network or directly to end user customers around the globe.

Our key Customers are those who contribute significantly to our organisation's growth, market development and investment expansion.

Our Market is segmented geographically into regions and countries, as well as industries such as: Oil & Gas, Petrochemical, Pulp & Paper, Power/Utilities, Nuclear Power Plant, Waste Water Treatment and Desalination, Pharmaceutical/Hospital/Life Sciences, Electronics/Semiconductor and Food & Beverages.

Relationship with Suppliers and/or Partners

The cultivation of strategic partnership with Suppliers based on Yokogawa's negotiation precept of 'Win Win' is now incorporated in the whole supply chain management process. The Supplier and partnering process entails harnessing resources to strengthen value engineering, the selection and approval of vendors, materials and equipment, including the standardization of Quality, Delivery, Cost and Flexibility (QDCF) evaluation.



Organisational Challenges

Competitive Environment

The speed at which information and technology evolves, underlie the increasing complexity of competition in the industry market place. Yokogawa is thrust to compete in a fast paced increasingly borderless, knowledge and information-based environment that require it to establish distinctive competencies in order to gain an advantage over the new emerging economies.

As a manufacturer for the Yokogawa group of companies, we have limited influence over the price and the quantum of trade discounts given to Industry end users, which impacts our operating margin and bottom line.

Therefore to succeed in the competitive environment, we will need to enhance our engineering design capability and innovation of products, services and processes, which are not easily imitable and are superior to our competitors.

Our products and solutions must not only meet customers' requirements but ensure that it surpasses their expectations, to turn them into repeat, loyal and profitable customers. At the same time, our manufacturing operations and processes must continually improve for maximum effectiveness and productivity so as to be cost efficient in factors of production.

Strategic Challenges

As the global economic landscape continues to evolve from the severity of the recent global financial and economic crisis of 2008/2009, we choose to address those aspects of operations, which are critical to our long term business viability and operational sustainability:

Maintaining our Competitive Edge

- Global competition, maturing markets, increasing environmental pressure, and escalating raw material prices continue to challenge our profitability.
- Yokogawa Singapore has to be as good as the global player/competitor in product and engineering design and quality, and as competitive in its pricing policy.
- At the same time, the business has to be as cost effective in factors of production, as the emerging low wage economies, in particular, the rise of China as the "factory of the world".

Retention and Management of Human Capital Resource

The training & development of pioneer staff who have stay loyal with us these 38 years and the recruitment of right people with the right skill set, attitude and who shares the Company's vision and goals.

Rising Business Risks and Market Uncertainty

Given the unpredictability of the external operating environment, we have to map out a business contingency and continuity plan to mitigate the risks of disruptions in supply chain for the manufacture and distribution of Yokogawa's products to our global network of Customers.

Organisational Directions

In light of the challenges and the powerful competitive market forces, only greater competitiveness and innovation will enable Yokogawa to compete in a globalize world.

This led us to set up a roadmap to reform ourselves and to formulate a strategy for deployment, to cross over from where we are to the next lap, to reach our target destination.

1. Sustainable Competitive Advantage through Company-wide Cost Reduction Activities to enhance:
 - Our supply chain efficiencies;
 - Business process improvements, and the
 - Delivery of value to enhance customer's satisfactions

2. To find new and innovative ways of driving cost management through partnering and strategic alliance with Stakeholders.
3. Diversification of Products, Market and Customer for business sustainability – New foray into the Aviation Industry.
4. Leverage on Knowledge Sharing with the set up of the Global NYPS Training Centre at Yokogawa, to share best practices in conjunction with the New Yokogawa Production System for greater productivity and efficiency.
5. Customer Centric Research and Development - geared towards Profitable Redesign and Product Innovation based on Customers' specifications, needs and requirements.



Performance Improvement System

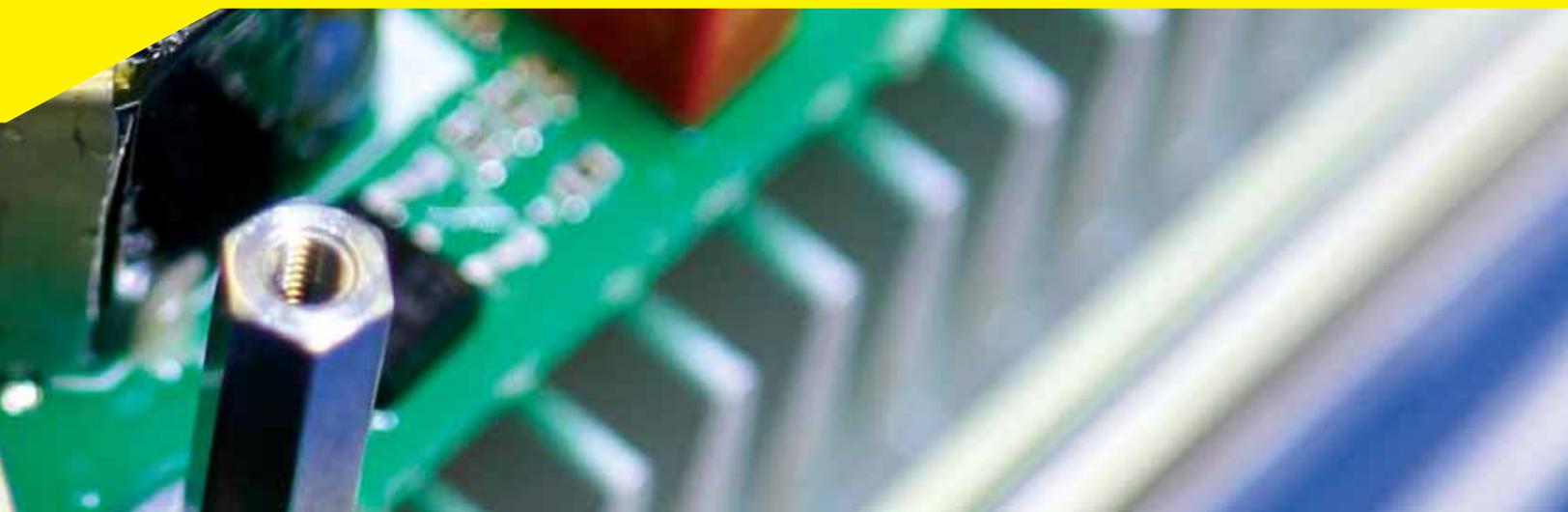
Every half year, the entire Yokogawa Group under the direction of the parent company would gather for brainstorming to formulate strategy for deployment, set up roadmap and review the operational performance and results of each Company in the group.

New targets are set for global Sales Revenue to be generated for each half year, Operating Profits, Product factory costs percent, Cost Improvement and targets for Cost down & Innovation Projects are set, as well as the capital investments needed for growth and expansion.

All these are translated into the Company's QDCF (Quality, Delivery, Cost and Flexibility) objectives, measurements and key performance indicators (KPI), based on the Managing Director's business hoshin (goals) for the year.

At Yokogawa, the actual results are reported monthly through multiple review mechanisms involving each divisional centre head. Normally they would flag out performance gaps and improvement initiatives for monitoring and corrective actions are taken to address the deviations from plan.

Senior management uses the simple concept of Economic Value Added (EVA) to measure corporate performance and the determination of incentive compensation. This is based on the optimal utilization of management resources to create value and contribute to the overall operational results. The MD uses EVA to explain and encourage employees to undertake bottom up activities for continual improvements, and to increase productivity through cost savings and reduction in processing time.





Our Journey of
Business Excellence



Leadership



Senior Leadership



Yokogawa has put in place a corporate strategy to spearhead the drive to be Global No. 1 in Industrial Automation Business.

Senior Leadership



Structure and Organisation

Our organisation is designed to enable us to deliver the overall operational and financial performance targets based on five key divisional centers of corporate and functional responsibilities to achieve the results of QDCF.

At the start of the year, and also on a half yearly basis, the Managing Director (MD) would attend the annual global strategic meeting at YHQ. The MD would meet up with YHQ's divisional centre heads to review the Company's performance in contributing to the group's objectives and targets and to chart the directions for the new financial year. They strategize on developing plans, systems and approaches to strengthen the Company's operational capabilities,

culminating in the dissemination of the MD's business hoshin.

The business hoshin, which includes the company's key performance indices, provides the framework for all functional department heads to set their department's hoshin, (objectives and goals) and also to guide activities for undertaking improvement projects, as well as for knowledge management through the development of the department's training and development plan. Senior management makes it a point to explain and articulate on the business hoshin during monthly general meetings to ensure that all employees, particularly the production operatives, are aware of the company's vision, plans and targets for the new financial year.

Communication of Organisation's Purpose, Vision and Values

Various channels and approaches are used by senior management to reinforce the Company's purpose, vision and values to Stakeholders. The primary objective is to ensure that such information sharing

would provide a more in-depth perspective and insight into the organisation's business and to align the Company's value systems and management philosophy with the organisation goals.

Stakeholders	Communication Platform and Approaches
Senior Management	Annual Global Budget Meeting
	Semi Annual Global Strategic Planning
	Annual General Meetings
	Annual Board Meeting
	Monthly Teleconferencing and Periodic Visitations by Corporate HQ management board
Employees	Semi-Annual Business Hoshin Meeting for Budget & Targets (KPI) Dissemination
	Monthly Company-Wide General Meeting
	Periodic Company-Wide Extraordinary General Meeting (for Special Announcements)
	Group Managers Meetings
	Weekly and Fortnightly Production Meeting
	Daily Morning Department Meetings
	Tea Session Dialogue with Senior Management
	Intranet, Share point, Emails & Group Newsletter (The Groupway & Compass)
	Notice Board (at every floor)
	Orientation & Induction for New Employees and New Job Assignments
	MD's Walk about & Shop floor Dialogue
	Semi-Annual Performance Management Appraisal and Feedback Review
	Annual Quality Assurance and Occupational Health & Safety Campaigns
	Annual In-house LETS-IQC Convention (Lead, Learn, Live + Enterprise Technology Solution-Innovation Quality Control Circle)
Staff Suggestion Schemes	
Employees Handbook/Whistle Blowing Helpline & Online Hygiene Survey	
Customers	Customers' Satisfaction Survey
	Visitation & Plant Tours
	Product Quality Info Sharing via Video Teleconferencing
	Electronic Data Interchange (EDI)
	Periodic Management Meeting Review & Video Conferencing
Suppliers	Visitation and Factory Audit
	Suppliers Appraisal Review
	Senior Management Dialogue/Meeting/Video Conferencing
Public/Community	Collaboration with both Governmental & Non-Governmental Organisations (Hosting of Plant Tours for Potential FDI Investors)
	Knowledge Sharing (Hosting of Plant Tours for Educational Institutions and Industries)
	Collaboration with Institutions of Higher Learning for Job/Industrial Attachments

Senior Leadership



Senior Management Commitment and Involvement

Yokogawa has put in place a corporate strategy to spearhead the drive to be Global No. 1 in Industrial Automation Business.

With the localisation of senior executive leadership, the senior management took the lead to embark on a path of business excellence to drive the Yokogawa's vision. Thus begin our journey of manufacturing and operational excellence.

At Yokogawa, there are various platforms in which senior management are being evaluated with the aim to improve their effectiveness and personal leadership.

Performance Appraisals

The Company conducts half yearly management performance appraisal and senior management

members are required to undertake their own self appraisal. The self appraisals are subject to review and discussion with top management for a more objective assessment of the performance of senior management.

Involvement in Innovation and Improvement Enhancement Projects/Activities

Senior management members are also evaluated based on their proactive involvement and commitment in undertaking innovations and improvement projects, as well as team activities, such as Innovation & Quality Control Circles, Kaizen and Junken, to spur productivity and to improve quality, delivery and cost (QDC).

Employees' Opinion Survey (EOS)

The Yokogawa group conducts a global EOS every year to provide feedback on various aspects of the Company's compliance and activities, one of which is

the employees' perceptions of the senior management team.

Dialogue Session with Senior Management

Senior management team and employees come together each month for an informal non threatening tea session whereby employees are encouraged to voice their concerns, if any, and to provide constructive feedback. Employees attend such meetings based on the month of their birth date.

There are also various systems by which senior management are being evaluated based on the group's global competencies indices namely:

- Product & Cost Innovation Management
- Continuous Improvements via Cost down Project Initiatives
- Realization of Targets
- Customer's Satisfaction
- Stakeholder's Partnering Relationship
- Business Development & Accreditation
- Quality and Industrial Safety





Organisation Culture



Organisation Culture



At the heart of Yokogawa's operations is a caring and learning culture which addresses the needs of our important stakeholders; namely: Employees, Customers and Supply Chain Partners.

People—Our Important Capital Assets

Our management philosophy builds on People being an important and valuable capital resource. Most of the pioneer staff has stayed loyal with the Company throughout these 38 years, therefore we need to:

- Manage with care and professionalism, so that they can fulfill their highest potential;

- Encourage and facilitate a work environment of learning and continuous improvements;
- Provide employees' training and development, so that they can stay relevant, given the rapid pace of change in technology.

Organisation Learning

Establishing and embedding a total performance culture through organisation learning and to continuously improve the way we do things is the norm here in Yokogawa. We believe that through our

bottom up activities, we can achieve greater value not just for the people but also for our internal and external Customers and Supply Chain Partners.

Employees' Participation & Involvements

Our major focus is on the processes as these provide ample opportunities for employees' participations and learning to sharpen personal skills and gain deeper knowledge. Our pioneering company-wide in-house LETS (Lead, Learn & Live + ETS) activities as well as

Innovation Quality Control Circles, Staff Suggestion Schemes, 6S and NYPS Junken & Kaizen activities help drive innovation and continuous improvements. From these activities, quality and delivery are continually enhanced, while costs are continually reduced.

Core Values and Work Practices

Yokogawa's core values form the foundation of the Company's culture which is translated in the way it interacts and communicates with internal and external stakeholders. These values are reflected in

the organisation's policies and work practices, in order that we can cultivate the desired behavior to achieve the right results.

Elaboration on the evolution of the Company's Culture

Values	Policies	Desired Practices	Desired Behaviors	Programs
Customer Satisfaction	<ul style="list-style-type: none"> Quality & Safety First Regulatory Compliance Certification on Products & Processes 	<ul style="list-style-type: none"> ISO Quality Management Systems Follow NYPS (New Yokogawa Production System) principles Internal process audit Vendor Factory Audit 	<ul style="list-style-type: none"> Get it right the first time Be Vigilant at all times Must always meet the Customers' requirements 	<ul style="list-style-type: none"> Quality Awareness Month Customers Satisfaction Survey Group's Global Quality Competition Group's Quality Publication
Motivating People	<ul style="list-style-type: none"> HR Training & Development Performance & Reward Management Regulatory Compliance 	<ul style="list-style-type: none"> Develop learning needs analysis Formulation of Total Company Training Plan. Conducive work environment Opportunities for growth and advancements 	<ul style="list-style-type: none"> A can do attitude Quality and Safety Consciousness 	<ul style="list-style-type: none"> Staff Suggestion Schemes Overseas Training Job Rotation Flexible Cross Functional Deployment
Contribution to Society	<ul style="list-style-type: none"> Environmental Friendliness Reduction on Wastes through 3Rs Promote awareness on green production systems Equal employment opportunities 	<ul style="list-style-type: none"> Accreditation to ISO 14001 and OHSAS Elimination through Recycling of wastes 	<ul style="list-style-type: none"> Work Safety Consciousness Giving back to the community through volunteerism 	<ul style="list-style-type: none"> Safety Awareness Month Safety Management Committee First-aiders certification
Business Growth and Value Creation	<ul style="list-style-type: none"> Customer Centric Solutions NYPS Production Methodology Stakeholders partnering relationship Strong Financial System 	<ul style="list-style-type: none"> Business Hoshin 6S Employees' Involvement and Engagement Customers' Feedback Stakeholders' Meetings Continuous Improvement 	<ul style="list-style-type: none"> Proactive to change Seek consensus through teamwork Adopt best practices through business excellence Active participation 	<ul style="list-style-type: none"> NYPS Kaizen Presentation Junken Activities & Projects Innovation Quality Control Circles In-house Competition Cost Innovation Management Projects

Organisation Culture



Senior management adopts a rational and holistic approach to facilitate the evolution of a culture of excellence in the company for long term sustainability.

Current Culture	Desired Culture	To be achieved through
People is an important capital resource	<ul style="list-style-type: none"> • Sound business ethics-Being people of integrity by acting responsibly towards coworkers and stakeholders. • Commitment by going the extra mile to make things happen. 	<ul style="list-style-type: none"> • Cultivate People Excellence through Yokogawa's business excellence framework
Organisation Learning	<ul style="list-style-type: none"> • Never stop learning and growing. • Take own responsibility for personal development and improvements through continuous enrichment programs and life long learning. 	<ul style="list-style-type: none"> • Further internal management development and education to enhance employees' competencies to the next level.
Employees' Participation & Involvements	<ul style="list-style-type: none"> • Innovation in R&D by undertaking more profitable redesign (PRD) projects to support Customers' requirements and the group overseas' affiliates. • Be responsible and accountable for your own work/job scope 	<ul style="list-style-type: none"> • Leadership involvement by opening up opportunities for taking on leadership role through projects undertaking.
Core Values and Work Practices	<ul style="list-style-type: none"> • Work excellence and commitment – a "Can-Do Spirit" • Contribution to improve the Company's operations • Adopting best practices by learning from the best • Always be on the look out to make positive impact to the Company's operations 	<ul style="list-style-type: none"> • Rewards and Recognition • Opportunities for Overseas Assignments and Attachments • Opportunities to lead in project managements





An abstract 3D graphic featuring several interconnected spheres and rods. The spheres are rendered in shades of blue and silver, with some showing internal, swirling patterns. The rods are metallic and connect the spheres in a network-like structure. The background is a light blue gradient. The text 'Corporate Social Responsibility' is overlaid on a semi-transparent white banner across the middle of the image.

Corporate Social Responsibility



Yokogawa's Code of Conduct sets out the principles and standards of business ethics and personal conduct expected of all employees wherever they operate.

Corporate Social Responsibility



Yokogawa's Corporate Social Responsibility (CSR) is translated into management action plan, including group activities to facilitate employees' participation, with the aim of directing their efforts for improvements in four key aspects, as summarized in the Table below:

Aspects	Policy	Program	Goals
Environmental Protection	Comply with Legislations and Regulations	Environmental Management System	Maintain ISO 14001 EMS Environmental Compliance Water & Electricity Energy Conservation
Community Involvement	Employees' Participation and Engagement	Human Resource Management Programs	Share Programs, Contribution to Natural Disaster Relief Funds, etc
Business Ethics	Code of Business Conduct	Education & Awareness	Transparency Customers/Suppliers Trusts
Corporate Governance	Corporate Risks Management	Education on J-SOXs Guidelines	Compliance with Legislations and Accounting Standards

Environmental Protection

We contribute to the protection of the environment by taking concrete measures in 2 areas of the Company's operations namely: collaborating with the parent company to produce environmentally friendly certified products and operating in an environmentally-friendly environment.

In 2007, the Company invested in a new waste water treatment plant to ensure it is carcinogenic free, in line with the company's environmental management policy.

The environmental and community indicators were addressed by the Environmental Management System (EMS). Assessment was conducted by:

- Analyzing the number of environmental complaints
- Assessing and monitoring any new developments or changes to the environment
- Conducting regular environmental aspect/impact assessments

A project team was formed to partner with suppliers in designing environmentally friendly recyclable tri-wall containers to replace wooden boxes in order to conserve the earth's resources. Environmental conservation team activities directed at wastes reduction are carried out on an ongoing basis and the principles of wastes elimination are also addressed in the New Yokogawa Production Systems (NYPS).

Community Involvement

Yokogawa's employees participate in charity drives for disaster relief and also opens up the Company's cafeteria for the sale of foodstuff, the proceeds of which goes to help victims affected by natural disasters, such as during the Myanmar cyclones, China Sichuan earthquake and the March 2011 Japan's earthquake and Tsunami.

Business Ethics

Yokogawa's Code of Conduct sets out the principles and standards of business ethics and personal conduct expected of all employees wherever they operate. It also provides employees with practical guidance on how to deal with important ethical issues, such as government regulations on export restrictions and products.

Additionally, we strive to meet and exceed the expectations of our Stakeholders in aspects of governance pertaining to areas such as:

- Intellectual Property

Corporate Governance

Yokogawa's senior management is committed to good governance through vigilance, accountability, integrity and transparency, both in management decision making and the dissemination of accurate and reliable information. The Yokogawa group has established a global governance framework to ensure processes and internal controls in each company are in place to meet regulatory requirements.

Senior management also recognizes that effective management of business risks is essential to business

Senior management has also collaborated with educational institutions and business schools, both local and overseas, to conduct factory tours for students to gain business insight by our sharing of Yokogawa's best practices.

- Financial Reporting Standards
- Customer Satisfaction
- Occupational Safety and Health
- Quality and Product Standards

Yokogawa's business ethics policy and programs are periodically reviewed, both by senior management and by internal control auditors from the parent company. The Company has in place a whistle blowing helpline for employees to report on matters pertaining to infringements on code of business conducts.

continuity and Yokogawa's brand reputation. Management approaches to risk management is aimed at the early identification of key risks and the removing or reducing the likelihood and effect of risks before they occur.

Therefore we have put in place a 'disaster preparedness and crisis management plan' to mitigate possible operational risks. This is being reviewed for relevance and improvements on a periodical basis, taking into consideration the developments and changes in the external operating environment.



Planning



Strategy Development &



Deployment

Strategy Development & Deployment



Yokogawa formulates its long term strategy based on the parent company's global vision under VISION 21 and ACTION 21 (V/A-21).

V-21 Corporate Vision

Yokogawa will collaborate with Customers in the industrial, public sector, and individual consumer domains to create systems that add value, and contribute towards the realization of Yokogawa's leadership in market share of Distributed Control System products for Industrial Automation.

A-21 Corporate Strategy

In order to achieve the objective, Yokogawa will strive to improve its management practices and focus on providing Customers' solutions that help them (the Customers) run their businesses more efficiently.

The corporate strategy under Vision 21 Action 21 (V/A-21) encompasses 3 key strategic thrusts:

- One Global Yokogawa
- Customer Centric Solutions

- Leading Edge Technology

Under these strategic thrusts, 'One Global Yokogawa' comprising all Yokogawa companies and affiliates worldwide shall operate in strategic alignment to provide Customer Centric Solutions through the exploitation of leading edge technology that opens up new and future possibilities.

Key strategic objectives and goals

Key Strategic Objectives	
Diversification	New Product introduction and Markets
Sustainability	Long term Business Viability through our Branding and Product Offerings
Expand Innovation	Undertake Profitable Redesign (PRD) Research & Development
Operational Excellence	Enhance Yokogawa's Business Excellence Journey
People Excellence	A People Developer Organisation
Enhance Business Capabilities	Provide both Hardware and Software Solutions

How the Organisation Engages Employees in Strategy Development?

Senior management unite employees around a shared set of core values and move forward with the goals of creating the framework for a healthy and profitable operation through a business reform strategy by:

- Capitalizing - on our strengths and building strong Customer/Supplier partnership
- Transforming - into a Company that provides not just products but solutions
- Enhancing - existing business profitability and developing growth-phase businesses
- Promoting - new-era businesses through diversification into new market/industry
- Focusing - on innovation and customer centric product design and development

The strategic planning process began with environmental scanning, carried out on a quarterly basis and an evaluation of the external global economic outlook and present domestic business situation, which may impact the industry in which Yokogawa operates. Information gathered from various sources (both internal and external) is analyzed by senior management in light of the business challenges, before goals and objectives are proposed.

The Company's overall strategy development and deployment encompasses 5 simple basic steps as illustrated in the table above.

Strategic Planning Model ABCDE				
Where are we		Where we want to be	How we will do it	How are we doing
Assessment	We believe that	Components	Down to Specifics	Evaluate
Environmental Scan	Situation-Past, Present & Future	Mission & Vision	Performance Measurement	Performance Management
Background Information	Significant Issues	Core Values/ Principles	Targets/Standards of Performance	Review Progress
Situational Analysis	Alignment with Capabilities	Goals/Targets	Initiatives/ Projects for Continual Improvements	Take Corrective Actions
SWOT Analysis	Gaps	Specific Objectives	Action Plans	Feedback & Review of Plans

While the mission and vision of Yokogawa drives the strategy development and communication process, the strategy deployment is based on the annual and half-yearly business Hoshin issued by the Managing Director.

Stretch goals/targets are set for departments within each divisional centre, and these are reviewed monthly and shared with all employees during the monthly company-wide general meeting. Senior management staff would report on the operational performance for the month and year-to-date achievements, including the financial results.

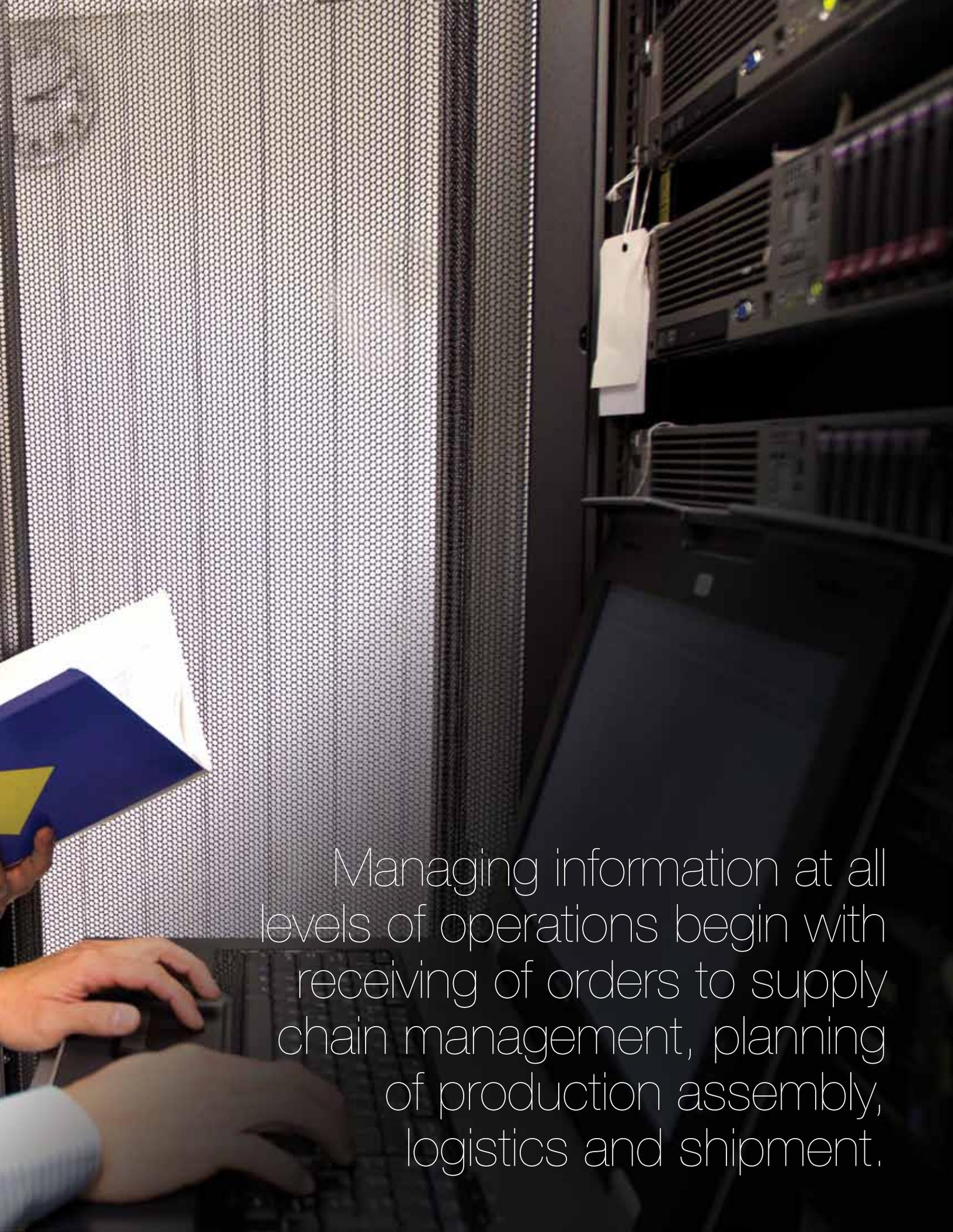


Information

The goal of Yokogawa's information system is the processing, organizing, classifying and dissemination of information throughout the organisation that is useful and purposeful for both internal and external Users. The information must be timely, accurate and relevant to support not only the overall business strategy but more importantly, for quick response to changing Customer/Stakeholder needs and any sudden rapid developments in both the internal operation as well as the external environment.



Management of Information



Managing information at all levels of operations begin with receiving of orders to supply chain management, planning of production assembly, logistics and shipment.

Management of Information



At Yokogawa, we use a standard customized global open system for information and knowledge sharing within the whole Yokogawa group, making extensive use of web-based network throughout the organisation.

We managed the information to offer accessibility to all employees by instituting a comprehensive process in selecting and processing information for planning, day-to-day management and performance

improvements through visual display, electronic worksheet, dashboard information on sales/ completion and production loading.

Managing information at all levels of operations begin with receiving of orders to supply chain management, planning of production assembly, logistics and shipment. These operations are supported by all functional departments, including Engineering, Quality Assurance and Finance.

Accessibility and Dissemination

Accessing and disseminating of information are important to maintain the organisation's reputation in Delivery, Quality, Cost, Flexibility (QDCF) and providing customer centric solution. Information is shared daily with all relevant department employees company-wide, suppliers, partners and customers.

Yokogawa's system is designed and developed for a dedicated network of information sharing and has the capability to interface with the production and logistic planning system for visibility and traceability, to serve customers globally in the wide array of industries.

HR Management & Development

A discrete Human Resource Information System (HRIS) is used for all human resource related information, due to the sensitivity, strict security and the nature and type of information. This system is linked to the parent company in Japan under the Yokogawa Group Global System Project (YGSP) initiative, for the global management of human capital resource. The YGSP

facilitates the profiling of all employees' skill sets and specialist knowledge within the entire Yokogawa group for the deployment of human resource to any of the group affiliates worldwide. It also supports the group's global education and mentoring program for knowledge sharing as well as training and professional development.

Security & Reliability

With Terabytes of data flowing through the organisation systems daily, Yokogawa has set up a local Data Recovery (DR) system, modeling that of the parent company's recovery system for emergency preparedness in the event that a massive loss of data occurred.

While the main server is at Yokogawa's premises, a secondary Disaster Recovery Centre (DRC) is built off site at Jurong, Singapore, to host the backup of all data transactions.

Analysis and Evaluation of Information for Business Planning & Review

The organisation plans for both long and short term goals by conducting regular reviews in 5 pertinent categories of our business operations, namely;

- Customer
- Human Capital Resource
- Financial Accounting
- Internal Operations
- Supply Chain

The management of information is an ever evolving process. In Yokogawa, we periodically seek better and more efficient ways to process information speedily as well as accurately in light of the challenging business environment. Our IT department conducts periodic meetings with relevant department staff to gather

feedback for further enhancement to the system.

Over the years, we have made improvements to the systems so that information is captured and generated to provide accurate information to the users.

Some examples of improving managements of information are as follows:

- Introduction of E-Worksheets at each production line;
- Installation of Electronics Screen on operational results & performance;
 - ▶ Introduction of real-time information on production completion and
 - ▶ Shipping status, etc,

Comparison and Benchmarking

The IT systems in use at Yokogawa are proprietary and customized. As such, senior management conducts regular reviews on the efficacy of the system by

benchmarking with related affiliates within the Yokogawa group.

A comparison is done using a 6-steps formula:

- Plan key indices
- Analyze information gathered
- Set goals for improvement
- Seek senior management approval
- Implement using an action plan
- Review and evaluate effectiveness

Comparative information relating to the performance of Yokogawa products and processes is obtained from the parent company to benchmark our manufacturing operations annually. We used the information to identify the leading performance levels and to set challenging 'stretch goals'. Periodic reviews are also conducted by senior management to assess and review our goals and objectives.



people

Human Resource Management (HRM) formulates strategies and plan based on Yokogawa's philosophy that people are the organisation's most important capital assets. This means managing the human resource with professional care and wisdom.



Yokogawa's HRM strategy



Yokogawa is a People Developer (PD) certified organisation and is committed to train and develop its people resource.



Yokogawa's HRM strategy

Yokogawa's HRM strategy in alignment with its strategic thrusts, business goals and objectives are:

- A people developer and an employer of choice
- To cultivate a highly skilled and motivated

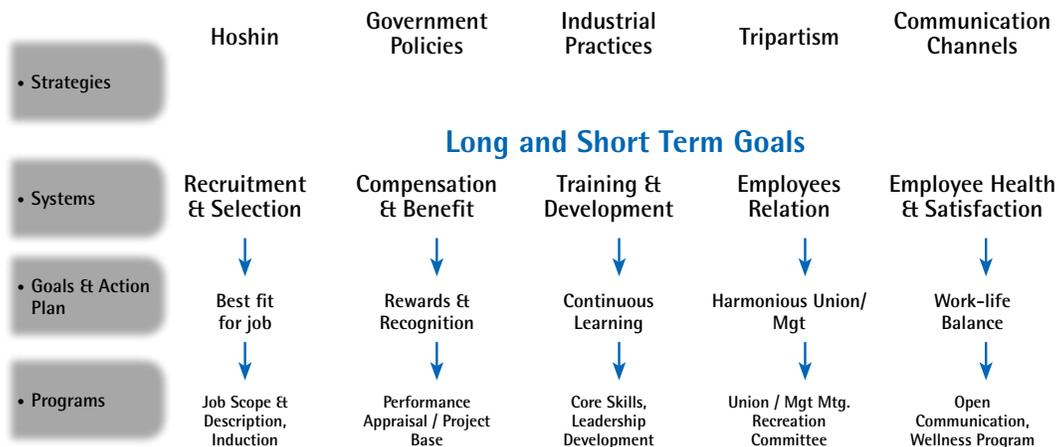
workforce that creates business value and enhances organisational performance.

- Facilitate a conducive environment for learning and development, tracking the skills and career path of employees so as to realize their full potential for engagement.

Human Resource Planning

Yokogawa's human resource framework is drawn up based on 5 key HR platforms to support the organisation's overall business goals, as shown below. The various platforms are deployed by HR personnel to engage with the Centre Heads, functional department heads and production line managers.

The HR Plan is implemented and reviewed half yearly by Senior Management and Center Heads with HRM acting as advisors. It addresses the organisation's immediate short term manpower needs as well as long term requirements for both Yokogawa and its overseas subsidiary.



Employee Engagement (Involvement and Commitment)

At Yokogawa, there are multiple platforms and mechanisms for senior management together with HRM, to encourage employees' participation and involvements on a company-wide basis. The strategy

in engaging employees at all level is to foster greater team dynamics and commitment, through group activities for continual improvements and innovation.

Employee Education, Learning and Development

Yokogawa is a People Developer (PD) certified organisation and is committed to train and develop its people resource. Given the challenging and competitive business environment, human resource development for skills upgrading and knowledge enhancement, to enable employees to perform their jobs more effectively have become essential for business survival and growth.

Making use of the PD framework, the training department adopts a systematic approach in mapping each department's learning needs based on the Learning Needs Analysis (LNA) carried out by functional heads and line managers.

A Total Company Training Plan (TCTP) is compiled for implementation and facilitation. The learning outcome and its impact on the business is monitored and reviewed for effectiveness to ensure that the learning needs are aligned with the organisation's business objectives and value system.

For new employees, a briefing session is conducted by HRM on policies, rules & regulation followed by

on the job training. Core training programs are also conducted where there is a new production line set up for new product introduction. A buddy system is in place during on the job training for internal transfers. Supervisors will brief the staff on the new roles and assignments to develop their potentials.

The training and development processes have been evaluated and several improvements have been implemented.

- Introduction of new certified skills training programs to meet the quality objectives
- Introduction of assessments to ensure knowledge is acquired for programs such as manufacturing skills

To ensure the effectiveness of the training and the education provided to the employees, evaluation is essential. We have implemented:

- Learning Needs Analysis (LNA) tools for easy completion and consolidation
- Introduction of New Information System (customized in-house) for effective tracking of employees training history
- Capability charts for direct and indirect staff

Yokogawa's HRM strategy



Employee Health and Satisfaction

Senior management takes the lead to promote a harmonious and conducive working environment by having an open door policy, management by walking about throughout the production shop floor, and being involved in the various recreational activities.

The company provides a comprehensive annual health check for all employees with separate follow-up session for health intervention for those identified as being in the high risk categories. Health talks and seminars are organized on a periodic basis to create

awareness on life threatening diseases and health risks. The aim is to encourage employees to take the necessary precautions by adopting a healthy and active lifestyle.

Yokogawa's Health and Satisfaction framework incorporates key factors for a holistic approach to enhance employees' health and satisfaction. It provides for the assessment and systematic review of the overall satisfaction levels and avenues for improvements.

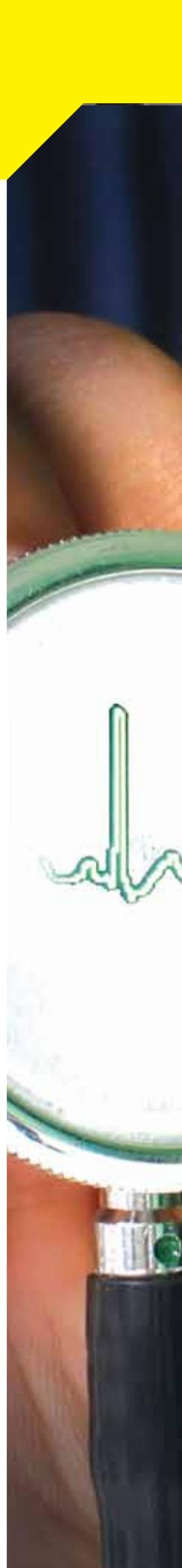
Employee Performance and Recognition

Yokogawa believes in creating a motivational environment for each of its employees. The motivational factor for the employee is identified and used to recognize and reward higher efforts. In line with the company's strategic objectives and thrusts, short and long term business targets are identified and cascaded as Performance Management Indicators. Senior management places strong emphasis on individual as well as group performance in the rewards and recognition system.

There is a variety of monetary rewards in the organisation, which is in place to encourage high performance and a culture of innovation and creativity. Benefits and compensation are also reviewed regularly to ensure that Yokogawa is in

line with market rates and are competitive. Through participation in Benefits and Compensation surveys for the overall economy and industry specific to Yokogawa, HRM is able to keep abreast of developments in the external operating environment

Comparative analysis is done to ensure that the organisation's benefits and compensation are competitive to both attract and retain talents. Monetary awards are in the form of bonuses, incentives payments and token of appreciation, outstanding employees' awards, team awards for staff suggestions and problem solving LETS (Learn, Lead, Live + Enterprise Technology Solutions) group, as well as IQCC (Innovation Quality Control Circle) awards.







PROCESSES

At Yokogawa, technical and process innovation is an ongoing perennial pursuit. It is only through greater innovation in areas pertaining to products and processes that the company can achieve distinctive competitive advantage, and thus differentiate itself in the products offering and solutions to Customers.



Innovation Processes



Yokogawa categorizes its key business into management processes, key processes and support processes.



Creative ideas, feedbacks and suggestions garnered from stakeholders, namely: the people on the job, customers and supply chain partners are evaluated and validated for feasibility. The study and analysis forms the basis for the formation of innovation project teams or taskforce that involves the collective efforts of cross functional staff, as well as external stakeholders, such as supply chain partners and the parent company (YHQ)'s Research Design and Development (RDD) centre.

As a manufacturer of products, solutions and services, including the provision of engineering and technical support in new product development and innovation, Yokogawa undertakes design and product

evaluation, testing and enhancement in collaboration with YHQ's RDD centre, including the production of prototypes leading to mass production and market commercialization.

To overcome the fierce price competition and competitive market environment, process and cost down innovation activities are being spearheaded by the entire Yokogawa group. Senior management at Yokogawa took the cue for cost management innovation by setting up a discrete 'New Production Engineering (NPE) department to oversee and be responsible for innovation and new product introduction.

Process Management and Improvement

Yokogawa categorizes its key business into management processes, key processes and support processes. These are put in place and integrated purposefully to support the quality and on-time delivery of products and services across all business sectors.

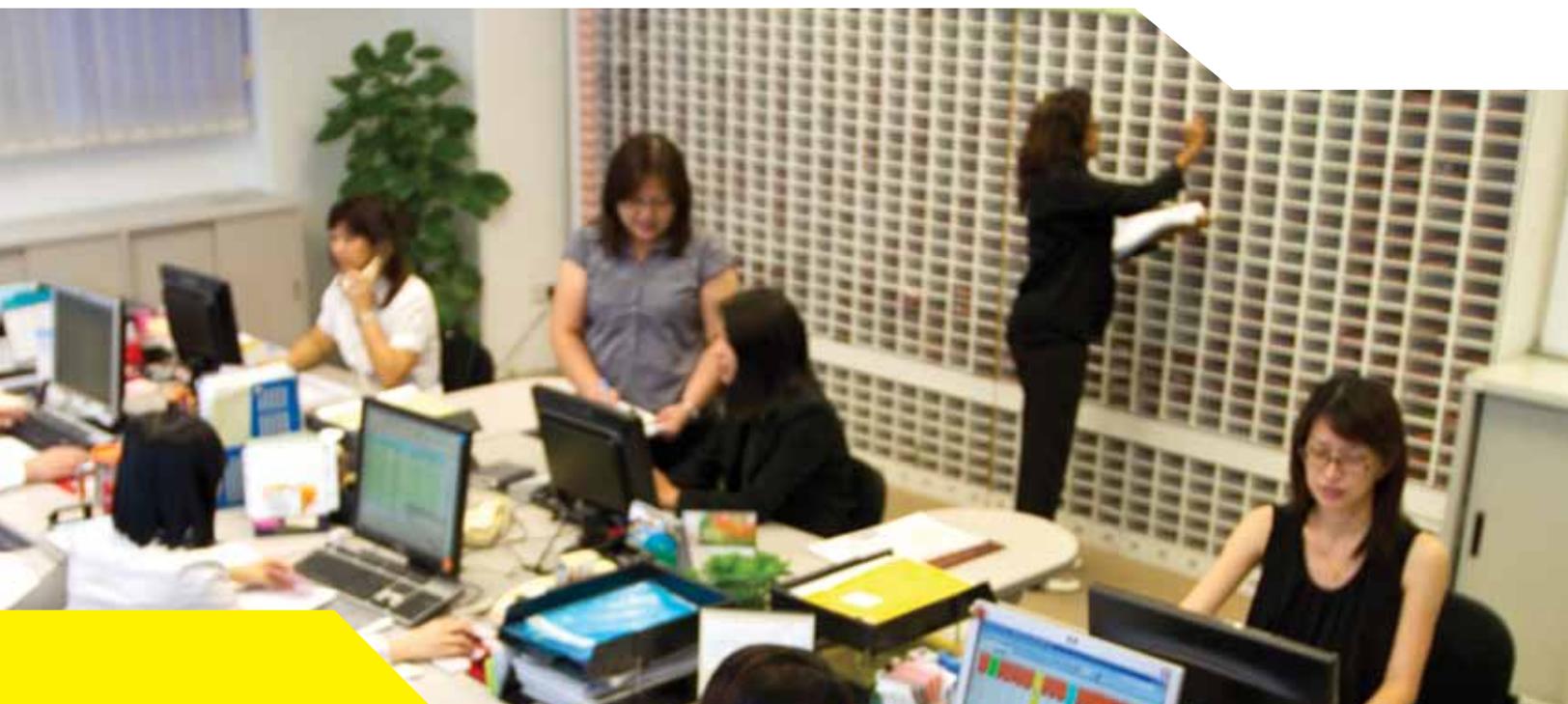
Through the application of NYPS principles, Yokogawa is able to synchronize its manufacturing operations using "Piece by Piece Flow System" to shorten production lead time, promote company-wide design to cost innovation management, undertake profitable redesign with built-in quality, and process re-engineering to identify and eliminate

wastes. This integrated business process framework, is aligned with Key Performance Indicator (KPIs). This is to ensure that the respective business units remain focused on investing their time and resources to continually meet the KPIs to achieve excellence in operation performance. The Management processes in Yokogawa are:

- Cost Innovation
- Management Review
- Strategic Planning
- Corporate Service Legislation
- Corporate Governance
- New Yokogawa production System (NYPS)

These are measured by Cost Down Activities, Management Reviews, Strategic Planning, Corporate Statutory Legislation and Compliance Transparency.

No.	Management Processes	Requirements	Performance Measures
1	Cost Innovation	Cost Down Activities	<ul style="list-style-type: none"> • Material (Direct Labor, RH) • Variable Expenses • General Expenses • Quality Performance (CAR, DOA) • Delivery Shipping Completion Ratio
2	Management Reviews	KPIs	<ul style="list-style-type: none"> • Performance Result • Quality • Delivery • Cost
3	Strategic Planning	Hoshin	<ul style="list-style-type: none"> • Yearly review of short and long term plans • Semi-Annual Review • Cost-RH
4	Corporate Service Legislation	Compliance	<ul style="list-style-type: none"> • No. of Non-conformance (SFI NC)
5	Corporate Governance	Compliance and Transparency	<ul style="list-style-type: none"> • No. of non-conformance (high and medium) in internal audits
6	NYPS	Production Innovation	<ul style="list-style-type: none"> • Reduction of leadtime • Elimination of waste • Improvement of processing time (productivity)





The key Processes Performance Measurement in Yokogawa includes:

- Order Processing and Shipping (OPS)
- Planning and Leveling
- Safety Management
- Quality Assurance
- Engineering
- Manufacturing
- Supply Chain Management (SCM)

These are measured by Order Input, Shift Planning, Leveling, Scheduling, Compliance, Transparency, System Effectiveness, Customer Requirements, and Quality & Delivery.

No.	Key Processes	Requirements	Performance Measures
1	OPS	<ul style="list-style-type: none"> • Order Input 	<ul style="list-style-type: none"> • Orders received • Order Loading • Customer Satisfaction • Completion & Shipping Ratio
2	Planning & Leveling	<ul style="list-style-type: none"> • Shift Planning • Leveling • Scheduling 	<ul style="list-style-type: none"> • Daily completion ratio • Monthly Loading target
3	Safety Management	<ul style="list-style-type: none"> • Compliance • Transparency 	<ul style="list-style-type: none"> • AOM • No. of man-day lost
4	Quality Assurance	<ul style="list-style-type: none"> • System Effectiveness • Customer Requirements 	<ul style="list-style-type: none"> • CAR • DOA • PTR
5	Engineering	<ul style="list-style-type: none"> • Customer Requirements • Quality 	<ul style="list-style-type: none"> • Machine Downtime • DOA • CAR
6	Manufacturing	<ul style="list-style-type: none"> • Customer Requirements • Quality • Delivery • NYPS 	Refer to QDC
7	SCM	<ul style="list-style-type: none"> • Quality • Delivery • Cost • Cash Management 	<ul style="list-style-type: none"> • Incoming Rejection Rate (%) • Supplier On-time Delivery • Approved Vendor List • Retention Rate (%)

The Support Processes & Performance Measurements in Yokogawa includes:

- Security
- Information Technology
- Facilities
- Finance
- Human Resources

These are measured by strict compliance, Responsiveness, Reliability and Security, Delivery, Cost & Cash Management.

No.	Support Processes	Requirements	Performance Measures
1	Security	<ul style="list-style-type: none"> • Strict Compliance 	<ul style="list-style-type: none"> • Percent of staff attended security brief as part of induction programme
2	Information Technology	<ul style="list-style-type: none"> • Responsiveness • Alignment with business objectives and processes • Reliability and security • Integrity 	<ul style="list-style-type: none"> • Successful application of IT to enhance business performance/ operations • System maintenance backup • Readiness of disaster recovery plan
3	Facilities Management	<ul style="list-style-type: none"> • Availability of resource for operation 	<ul style="list-style-type: none"> • Plant System Availability (%) • Machine downtime
4	Finance	<ul style="list-style-type: none"> • Data Integrity • Useful and timeliness of information • Meet statutory reporting deadlines 	<ul style="list-style-type: none"> • Findings from External Audits (Finance)
5	Human Resources/Training	<ul style="list-style-type: none"> • Conduct Learning Needs Analysis • Training programs executed according to Training Plan • Training hours per employees • Follow-up upon completion of training • Assess training results and align to business objectives 	<ul style="list-style-type: none"> • Course evaluation forms to assess training programs • Learning principles, techniques and skills learnt during the program • Assess the change in behavior of participant after the learning • Project assignment and monitor the outcome

Innovation Processes



Yokogawa constantly reviews its processes to achieve better performance and improvement to its products and services. Reviews are conducted by means of four main approaches as follows:

- Employees' Involvements
- Customer Engagement
- Internal Processes
- External sources

Continual engagement and communication are essential traits of its dealings with partners. Yokogawa listens to its partners to understand their requirements through a variety of platforms and learning channels. Such listening helps deepen understanding and provide better insights into the partners' needs.

Process	Review & Improvement System
OPS	<ul style="list-style-type: none"> • Management Review • Daily review of order intake/closing
Planning & Leveling	<ul style="list-style-type: none"> • Daily synchronize & leveling • Weekly Meeting
Safety Management	<ul style="list-style-type: none"> • Internal & External Audit • Safety Meeting (Internal and External)
QMD	<ul style="list-style-type: none"> • Internal and External Audit • Monthly QA Meeting
Engineering	<ul style="list-style-type: none"> • ANDON System • Regular Review of Manufacturing Documentation
Manufacturing	<ul style="list-style-type: none"> • Review daily Passing Thru Rate • Weeekly production Meeting
SCM	<ul style="list-style-type: none"> • Review of Inventory Turn • Daily KANBAN Management Control

Supplier Partnering and Process

Yokogawa supplier partnering process is built through years of trusted business relationship and collaboration to build the Yokogawa brand reputation, and to achieve the company's strategic objectives of Quality, Delivery and cost plus Flexibility (QDC+F) for competitive advantage.

Over the years, the company progressively moves towards new procurement best practices that promote a long term win-win alliance with trusted and performing supply chain partners to ensure manufacturing and operational excellence.

Supply chain partners for components parts used in the manufacture of Yokogawa's products and services are required to pass Yokogawa's selection process before being included in the "Approved Vendor List".

Thus, improvement in QDC+F for selected partners are constantly monitored with reference to the company's Supplier Structure and Priority List, which is ranked according to the quantum of monetary transaction, based on a 3-tier system consisting of Approved Suppliers, Key Suppliers and Partner Suppliers.

Supplier Management Process

The Supplier Management Process is used in Yokogawa for turning purchase objectives into results, which is followed by periodic review.

This process begins with the setting up of purchase objectives with the support of Supplier and Partnering Processes and Evaluation Criteria for the Suppliers' pool. These objectives are deployed in Purchasing and Communication Processes, which becomes action plan for execution.

The results of the action plan are reviewed using Yokogawa's QDC Measurement standards. Finally, KPIs are collected for use in the supplier evaluation exercise. Yokogawa organizes both annual and/or biennial meetings with selected key suppliers and

partner suppliers to exchange information on business plans, mutual expectations and identify opportunity for continuous improvements.

Another platform for interaction with selected suppliers is to conduct the annual joint audit on suppliers' operational efficiency and effectiveness.

Yokogawa has also instituted a formal Engineering change Notice (ECN) to facilitate changes in products and processes specifications, thus ensuring that both the company and its customers' requirements are met at all times. Where possible, business reviews for key suppliers are conducted on a regular basis to discuss and share improvement plans.



Customers

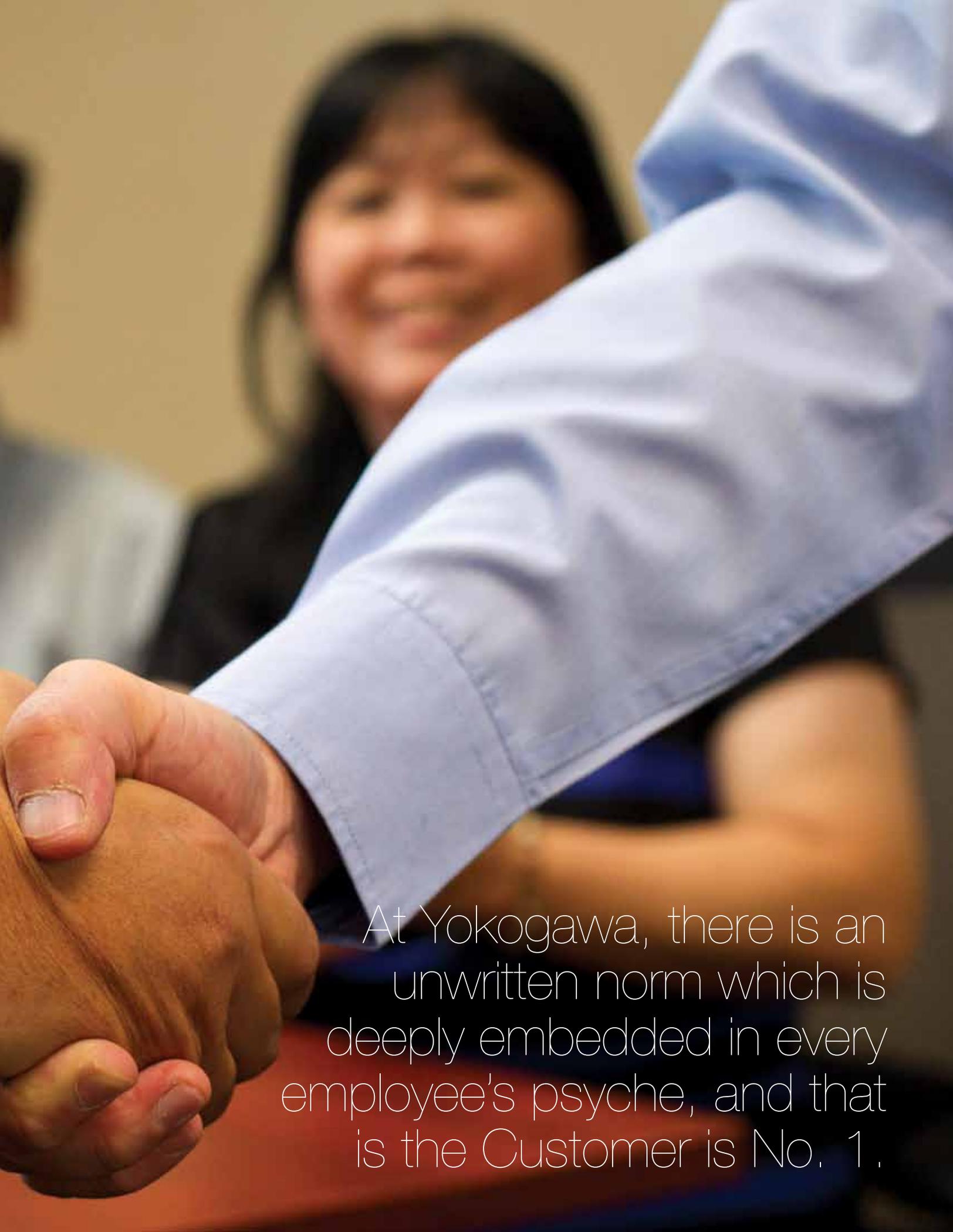
Expanding 'Yokogawa' brand global presence and strengthening customer partnering process are two of the drivers that have been identified as decisive for our business sustainability.

Our focus is on innovation and customer centric solutions. Therefore our customer centric strategy is fully integrated with our strategic planning, supply chain management, quality management system, information and human resource management system, which fully support the vision for market leadership.

To achieve this aim, we believe in getting closer to our customers and creating value for them all around the world. Yokogawa's highly reliable CENTUM VP distributed control system features 99.99% availability, and it enables stable operation at industrial plants all over the world, leading to operations reliability, excellence and customer satisfaction.

A close-up photograph of a hand in a white shirt sleeve shaking hands with another person. The background is blurred, showing two other people, a woman and a man, both smiling. The text "Customer Requirements" is overlaid on the image in a white banner.

Customer Requirements



At Yokogawa, there is an unwritten norm which is deeply embedded in every employee's psyche, and that is the Customer is No. 1.

Customer Requirements



Industry and Market Segments

Yokogawa products manufactured in Singapore are sold all over the world, in more than 100 countries to a huge array of industries. Our products and services are distributed through intermediate channels, such as the group overseas and local sales affiliates and their appointed agents. These intermediate channels form an important link in the business value chain, each with its own set of requirements.

Getting closer to our customers means gaining a detailed understanding of the customer processes, as well as providing solutions tailored to their requirements.

Senior Management, Quality Assurance Department (QMD) and Order & Sales Processing Department (OPD) are responsible to ensure that Customer and Market requirements are being met by:

1. Building relationships with all our valued Customers
2. Meeting their needs and exceeding their expectations.

To determine current and future Customer and Market requirements, we have a structured system to communicate regularly with the group's global marketing organisation to obtain data and information for each industry and market segment.

Given the volatility of the operating environment, Customers' requirements are constantly changing. As such, senior management, QMD and OPD make it a point to communicate directly with Customers to ensure speedy response to their needs.





Customer Relationship

At Yokogawa, there is an unwritten norm which is deeply embedded in every employee's psyche, and that is the Customer is No. 1.

The organisation understands that Customers are the primary reason for its business operations. This begins with understanding and anticipating their needs and expectations, with the mission of delighting them.

Establishing the trust of Customers through proper business conduct is paramount in our customer relationship management (CRM) and is a written code of ethics. OPD provides the vital one stop link to track customers' orders and shipments and act as a conduit for effective communication and information exchange. Staff in direct contact with Customers

is contactable 24/7 in case of urgent Customer requirements.

Yokogawa Quality Assurance Management Department (QMD) is responsible to effectively handle and resolve complaints from Customers. All Customers' complaints are resolved within 2 days as against the target set of 5 days by Corporate HQ. Customer Complaint Report is published monthly and displayed in QMD Visual Management Board.

The activities undertaken to foster relationship with customers, including an action plan on how to enhance delivery and service level, are included as part of the Company's annual and half yearly business Hoshin.



Customer Satisfaction

At Yokogawa, we believe that creating satisfied customers is the key to the organisation's ongoing viability and future business success. Measuring Customers satisfaction is also one of the important deliverable of all processes in our manufacturing operations.

There is an established mechanism to review, analyze and implement key processes to improve Customer satisfaction level. The feedback received from Customers also forms part of the Stakeholders input for strategic goals and improvement plans.

12] 物量計画 (定価C)

物量 (定価C)
FY12計画 vs FY11実績



物量 (定価C)
期間別推移



Results



Milestone Achievements



Milestone Achievements



- Recognized by EDB as a Model Factory
- Pioneer Organisation to Showcase Quality Control Circles (QCC)
- Singapore Plant Awarded JIS Mark
- Started Meter Production in Bedok Factory

- Received Research Incentive Scheme Award for Companies by NSTB
- Established 1st & 2nd Overseas Subsidiary Manufacturing Plant in Batam
- Awarded EDB's 2nd Pioneer Status for New Centum Control Systems
- Received Pioneer Award for People Developer Standards
- Received Singapore Quality Blass (SOC) Certification Award
- Launch of New Products by own In-House designed Field Network I/C Modules

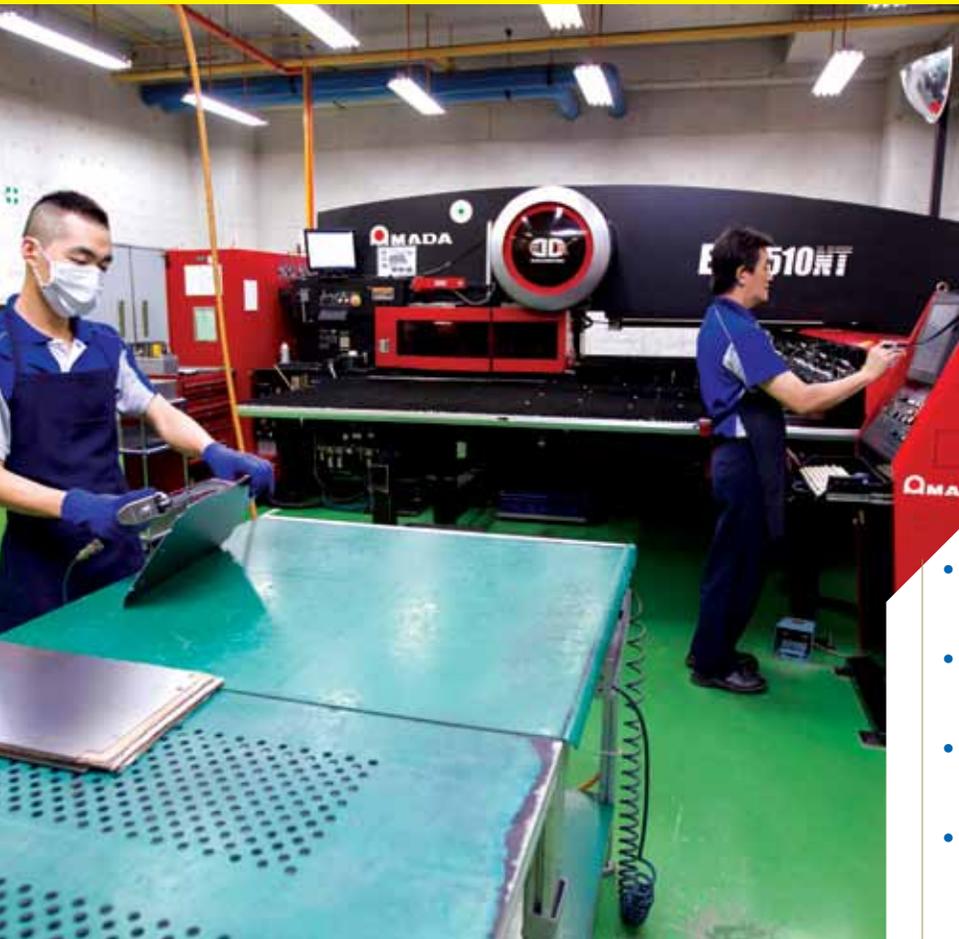
1974 - 1980

1981 - 1990

1991 - 2000



- Appointed Regional HQ for the ASEAN Region
- Awarded EDB Pioneer Status for Control Systems
- Certified ISO 14001 Environmental Management System
- Certified ISO 9001/2000
- Produced the first Distributed Control System (DCS) Products



- Awarded Singapore Quality Class Award 2011 by Spring Singapore
- Awarded commendable performance in Innovation Excellence by Spring Singapore
- Awarded WSH Performance Awards (Silver) by WSH Council
- Received AS91000 Certification Accreditation for the manufacture of Avionics Products

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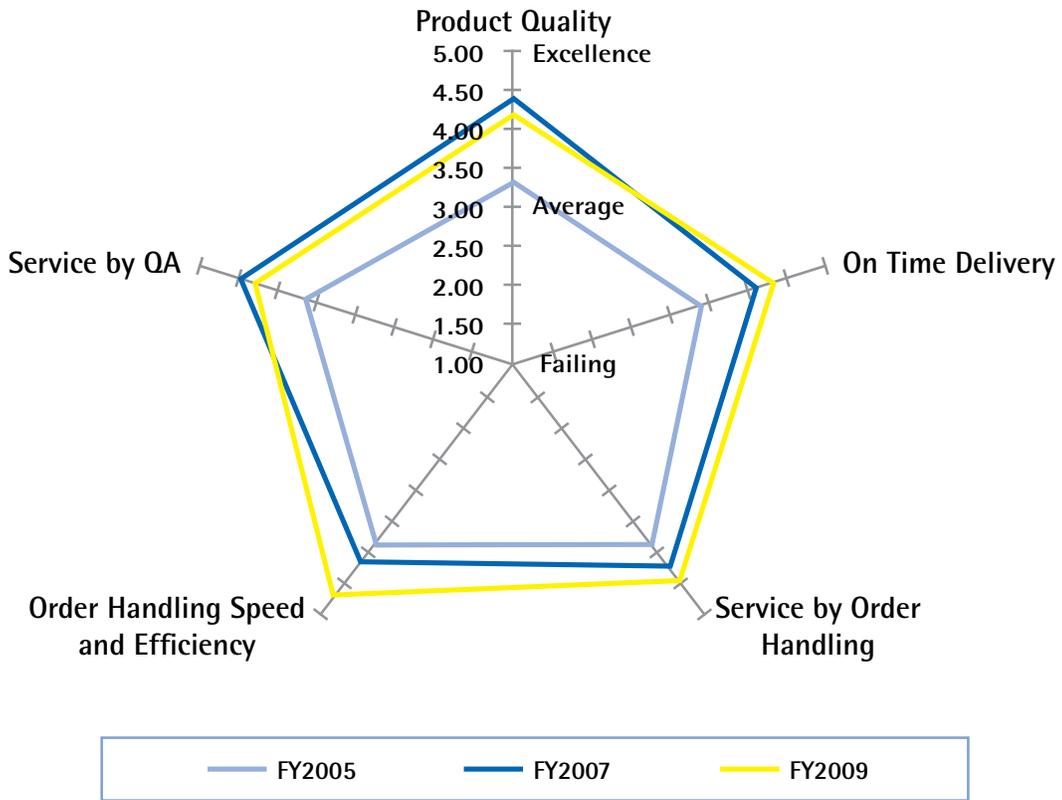
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85

- Designated as the Global Training Centre by our Headquarter in Japan.
- Awarded Overall Winner of MAXA 2010 by EDB
- Conferred Singapore Quality Class (Star) by Spring Singapore
- Certified OHSAS 18001:2001 for Occupational Health and Safety Management System
- Singapore Plant became the Centralized Production Base for Distributed Control Systems Products
- CEO of YHQ, Mr. Isao Uchida conferred "Friends of Singapore" by the President of Singapore
- Received Manufacturing Headquarter Award conferred by EDB
- Implementation of Global Yokogawa "Genki" (Design to Cost) Innovation Management
- Launch of One Global Yokogawa Vision to be Global No. 1 in Industrial Automation Business
- Awarded Gold for Workplace Health Promotion by Singapore Health Association (SHA)
- Launched 3 New Products for EMS Customers -ODU, TM & RC
- Received Commendation for "Towards A Green Mark Company" Award

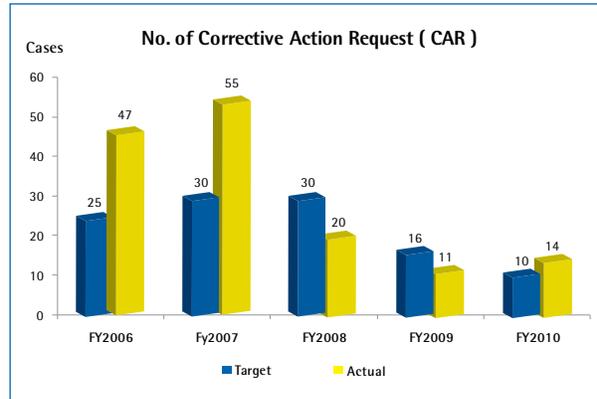


Overall Quality Performance Customer Satisfaction Survey FY2005~FY2011

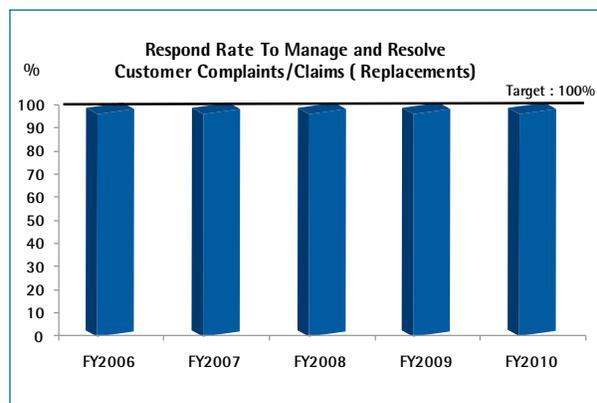


Feedbacks from Customers are used to improve our Customer partnering process. From our last Customer Satisfaction Survey, based on 5 judging criteria, the overall rating of 4.39 is consistent in comparison to 2007. Over a 5 year period; there has been an improvement of 20%, from 4.39 in 2009 as against 3.65 in 2005. Over the years, Yokogawa had shown good results in areas pertaining to 'On-time Delivery', 'Service by Order Handling' and 'Order Handling Speed and Efficiency'.

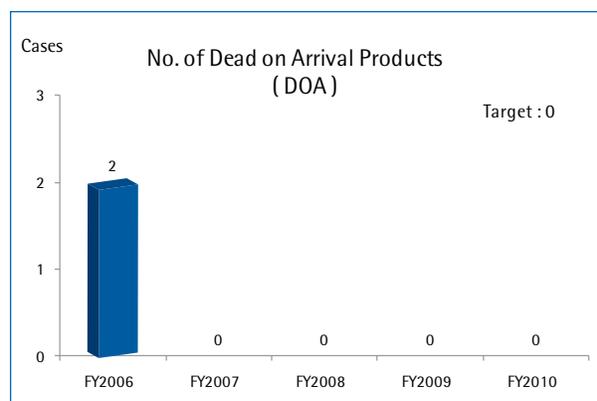
Over a five year period, the absolute no. of CAR has dropped from a high of 55 to 14 in 2010, an improvement of almost 75%. This huge improvement is a result of the Company's Quality First campaign, in line with the drive for manufacturing excellence and market leadership. Although the no. of CAR has increased by 3 in 2010, the percentage of CAR as against production volume (quantity) has remained stable at 0.002% for the last 2 consecutive years.

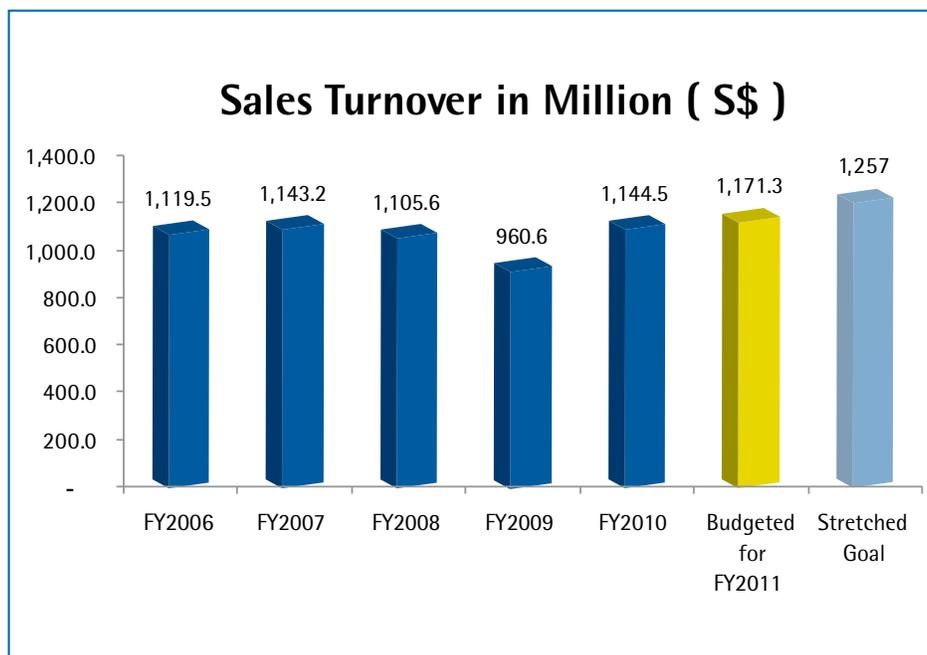


The speedy resolution of all Customers claims and complaints is crucial if we want to foster more satisfied and happy Customers. We set a target of 5 days for Customer's requests, claims and complaints to be fully met and resolved. Over a 5 year review period, we have consistently exceeded the performance target by reducing the average cycle time to within 2 days. Our next target is to challenge ourselves to resolve all Customers request to within 1 day.

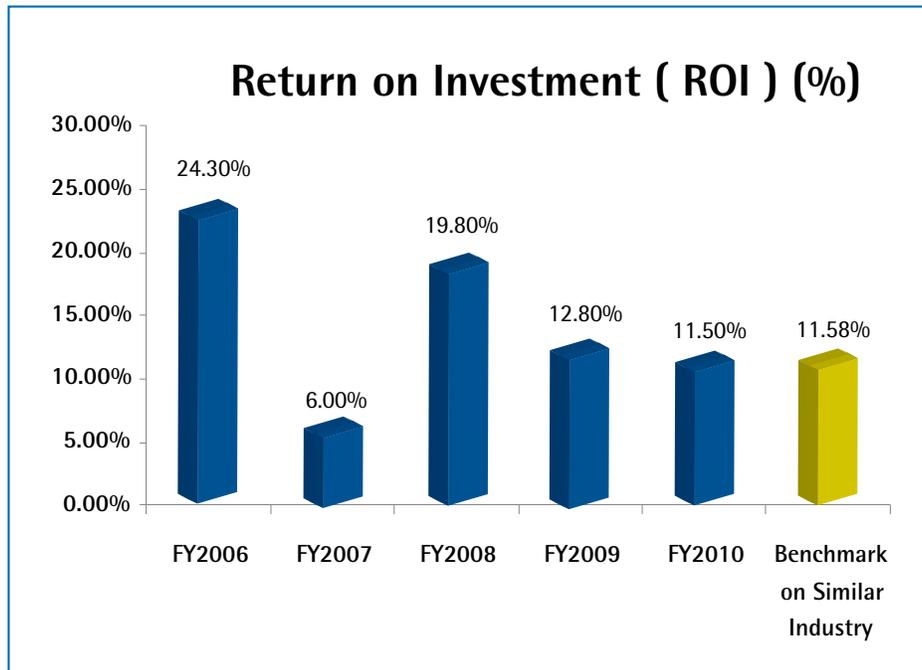


To drive Yokogawa's global brand reputation and reliability, we set a policy of Quality First as the cornerstone of our operations. Exceeding Customers' expectations by providing products that are world class in Quality also means zero defects (Zero DOA) upon scrutiny of Yokogawa products by Customers. We set our sights on a target of Zero DOA and have consistently achieved this outstanding record for the past 4 years from 2007 to 2010.

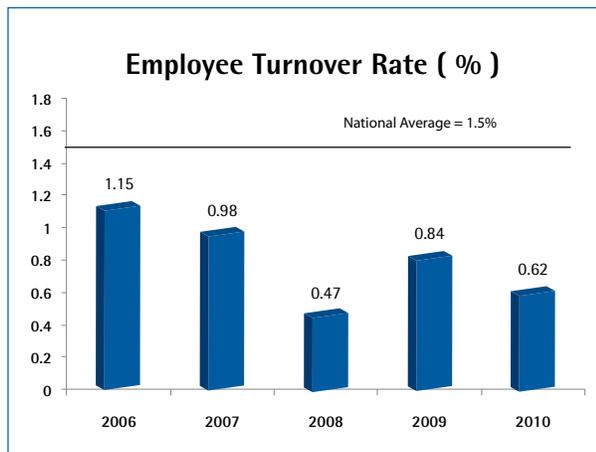




From the 5 year trend, 2006 to 2010, we achieved a marginal sales turnover growth of 2.2%, (based on Yokogawa's standard gross selling price). Sales in 2010 shot up by 19.1% as against previous year 2009, where our business suffered a severe downturn due to the global economic crisis. Despite the uncertainty of the operating environment, we expect our sales revenue to grow by another 2.3% to 1,171.3 MS\$ in 2011, while challenging ourselves to achieve an additional 7.3% of management stretched goal to 1,257 MS\$.

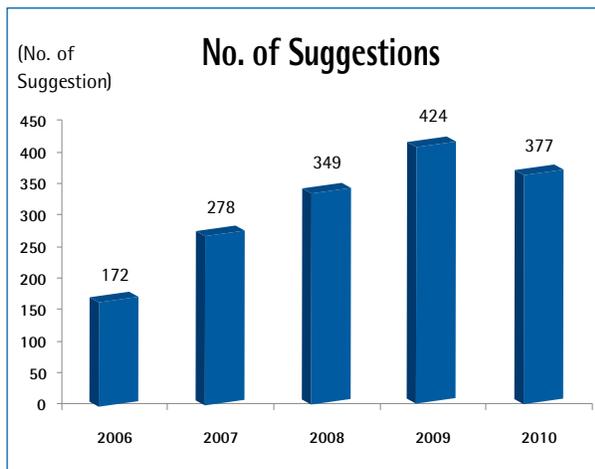


ROI achieved 11.5% in 2010, which is in line with company in similar industry as Yokogawa. The slight drop in ROI as compared to 2009 of 12.8% is expected in light of the huge investments outlay for the new Avionics Division, which was set up in the 2H of 2010. Also bigger trade discounts were offered to secure higher volume of production to ensure that we operate at optimum capacity.



Employees' Turnover trend for the last 5 years has dropped by 46.1%, from a high of 1.15 in 2006 to 0.62 in 2010. This is considered very low in comparison to the national average of 1.5%

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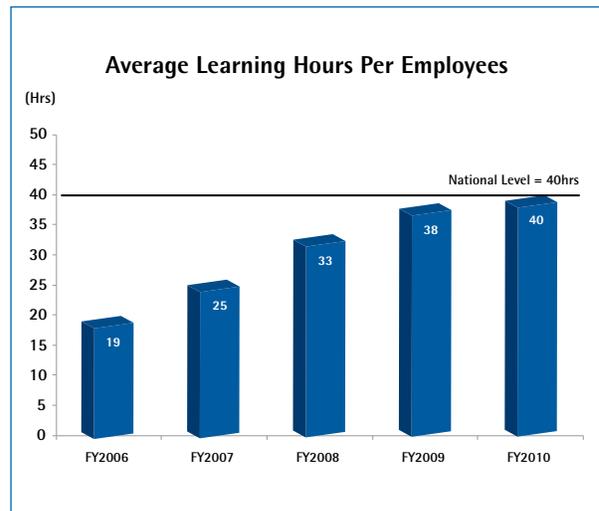


The staff suggestion schemes provide a user friendly platform for employees to share their creativity and bright ideas to implement improvements company-wide. The no. of suggestions has risen consistently to a high of 424 or 2.5 times in 2009.

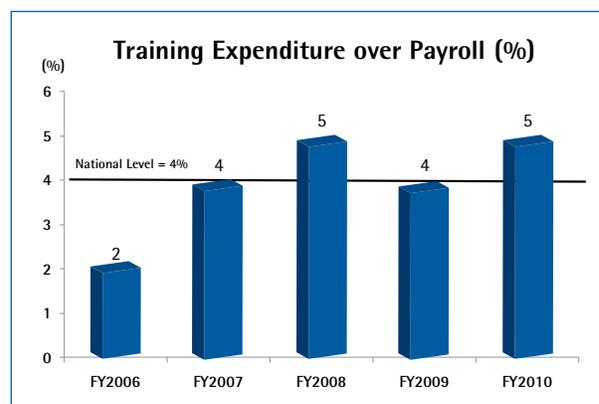
The drop in 2010 is attributable to there being multiple channels or platforms for improvement activities, and also, a more stringent and higher standards being adopted by assessors to enhance the quality of the suggestions submitted by employees.

Being a People Developer organisation with a strong culture for learning, the strategic direction is for all employees to receive relevant training for skills upgrading, as well as in areas of managerial and leadership development.

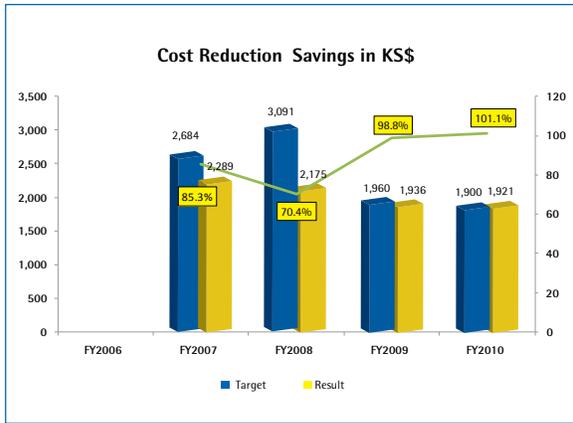
Management sees the importance of training in light of the demands of new evolving technology and processes in the Industrial Automation and Aviation industries. The trend over the 5 years is encouraging and in 2010, we have managed to fulfill the national average of 40 hours learning per employee.



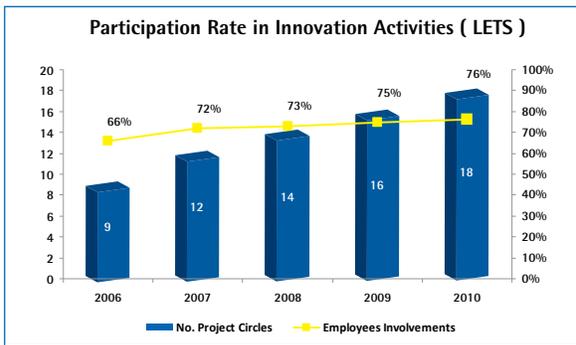
The Company provides both the financial and physical resources for training and development by setting aside an amount in the annual budget plan, based on the benchmark set by the People Developer Standards, which is 4% of the Company's total payroll. Our training expenditure for 2010 is 5% of the Company's payroll, higher than the national average by 1%.



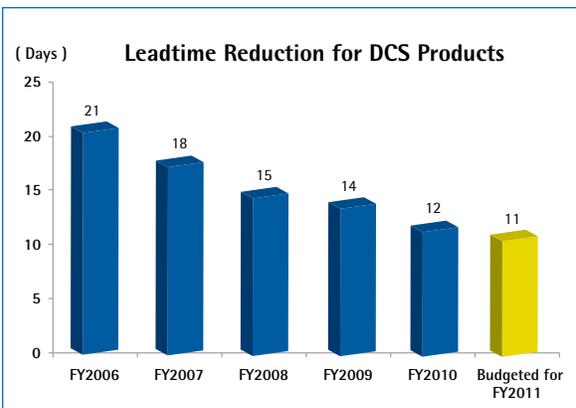
Operational Results



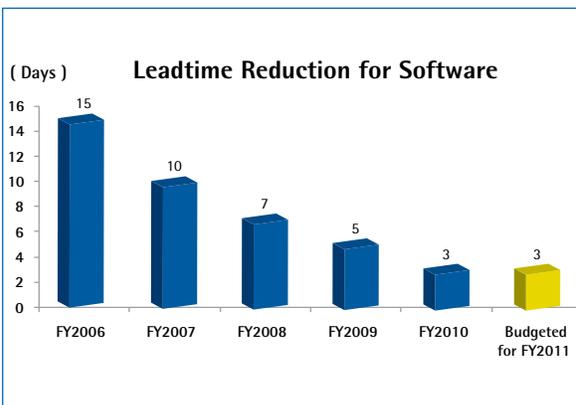
The results of Cost reduction activities under the group's Cost Reduction Officer (CRO) initiatives, hovers around 2.2 MS\$ for 2007 and 2008. It drops to an average of about 1.92 MS\$ for 2009 and 2010. The lower target set, as well as the actual cost savings in the last 2 years' achievement is due largely to the Company's already lean and mean operations, which does not permit deeper cost cutting measures. The actual result in 2010 was better than the target by 1.1% because of the Upturn the Downturn Strategic drive for productivity improvement.



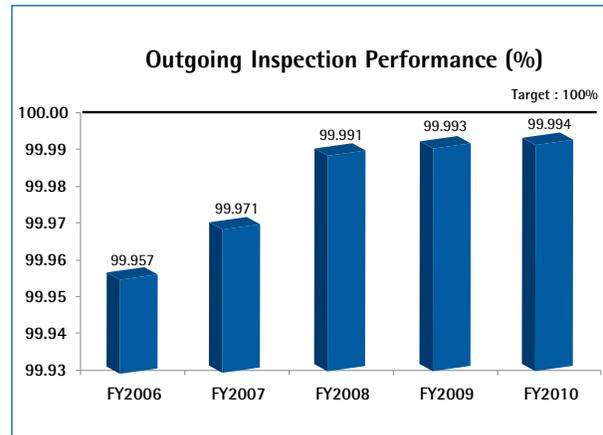
Employees' participation and involvements in Innovation activities have shot up by 76% in 2010 as compared to 66% in 2006. This is an improvement of 15% over the 5 years from 2006.



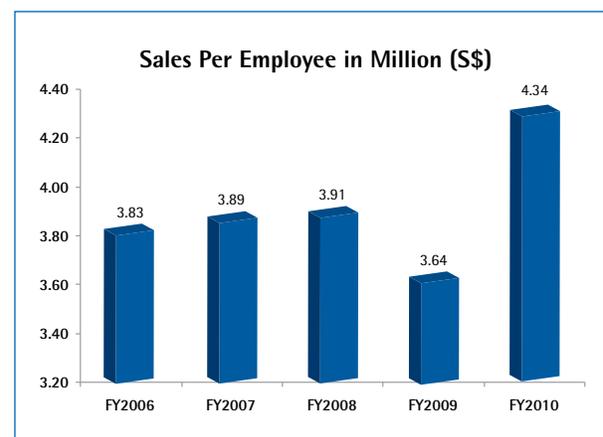
Lead time reduction from 2006 to 2010 has dropped from 21 days to 12 days for DCS and from 15 days to 3 days for Software. This is a huge improvement of 43% and 80% respectively. It is the results of the Company's productivity drive to improve Yokogawa's operational performance, to constantly innovate to better serve our Customers' requirements and to exceed their expectations in our products offering.



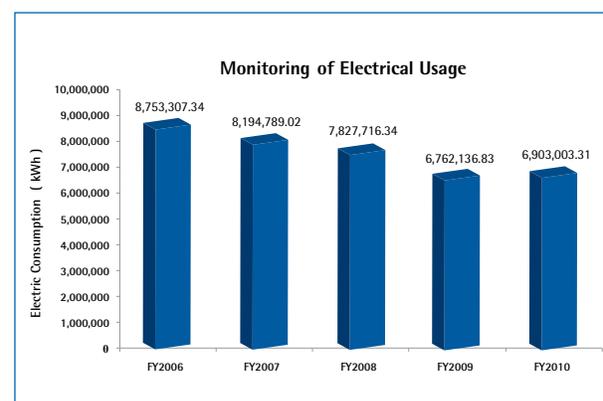
Outgoing inspection performance has shot up from 99.957% in 2006 to an all time high of 99.994% in 2010. The improvement of 0.4% is the efforts of our yearly Quality-First company wide campaign to drive our strategic vision, to be the Global No. 1 manufacturer and supplier of DCS products for Industrial Automation.



Productivity in terms of Sales per Employee has risen for 3 consecutive years until the global economic recession in 2009. In 2010, we managed to catch up with a huge productivity gain of 19.2%. Barring any headwind in the pick up of orders and the external operating environment, management target is to further improve the productivity of employees by another 1.8% to 21% in 2011.



As part of our CSR policy for the protection of the environment and the conservation of earth's resources, we ensure there is no wastage with regard to electricity usage. We raise employees' awareness and set a target for a 2% annual reduction on electricity usage. The results have been positive for the 5 years from 2006 to 2010, with a reduction registered of 4.2% on an annualized basis.



- Promoting New-era Business through Innovation & Diversification into New Market and Industry
- Upturn the Downturn May Day Award by the National Trade Union Congress
- Yokogawa's Research & Development and Innovation Management
- Designated Global Training Centre
- International MAXA Award for Manufacturing Excellence

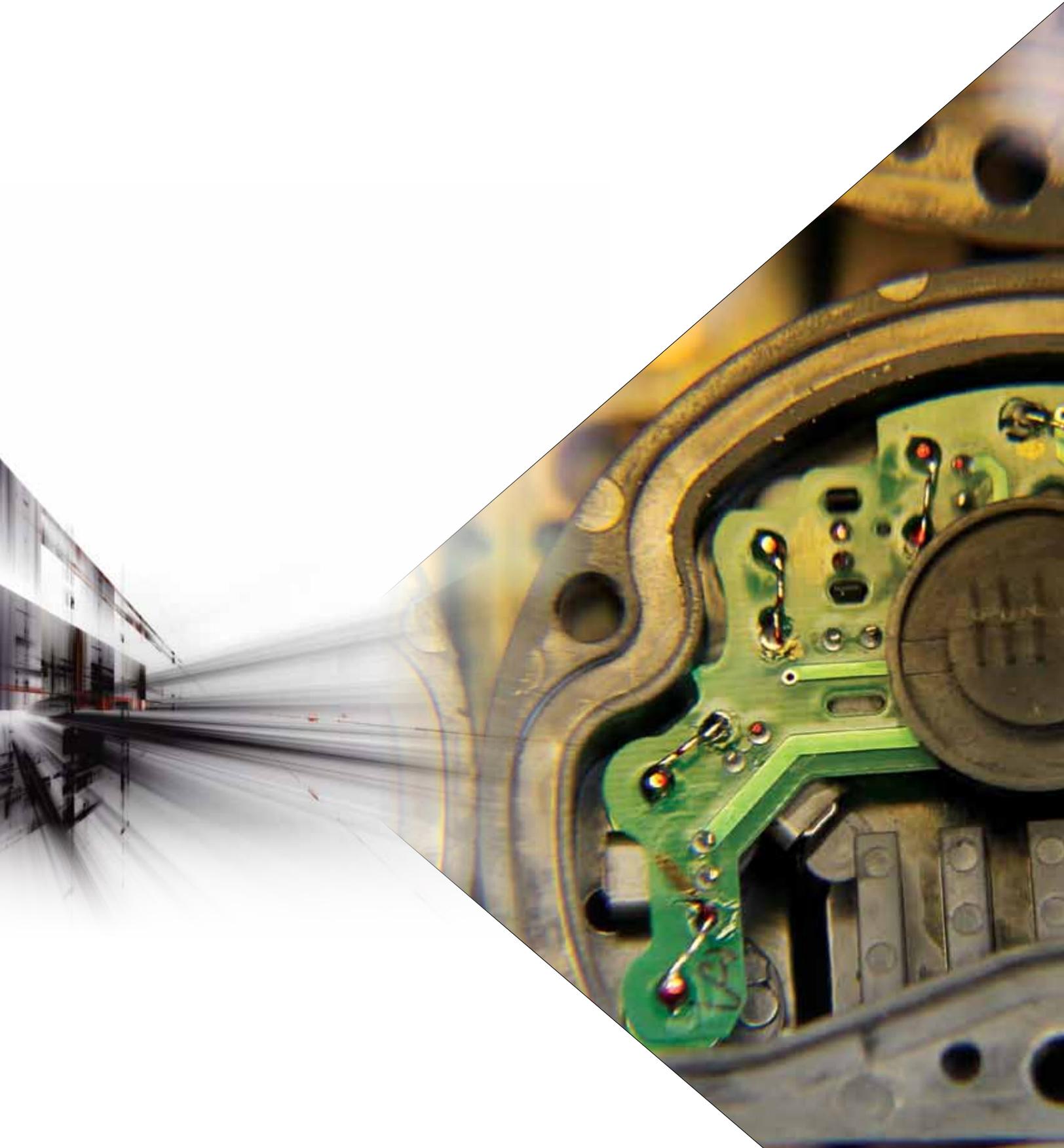
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Projects

Landmark Milestone Achievements

by Yokogawa Electric Asia Pte Ltd





"WOW" Projects 1

Landmark Milestone Achievements by Yokogawa Electric Asia Pte Ltd

Promoting New-era Business through Innovation & Diversification into New Market and Industry

In 2010, after a much sought after and intense competition amongst global affiliates, Yokogawa Electric Asia Pte Ltd successfully clinched the business in the Aviation industry, to manufacture a range of highly complex and sophisticated Avionic Products for one of Europe's biggest Aerospace Company, Thales.

A new Avionics Division was set up in Yokogawa with investment for new plant facility, machinery and precision equipment approximating S\$10million, including the training and development of human resource expertise. The new Avionic product, is a high definition ruggedize Liquid Crystal Display (LCD) Panel for installation in the cockpits of the latest Airbus.

This new business is a good fit for Yokogawa's strategic thrust to promote new-era business through innovation & diversification into new market and industry, as part of our business reform strategy,

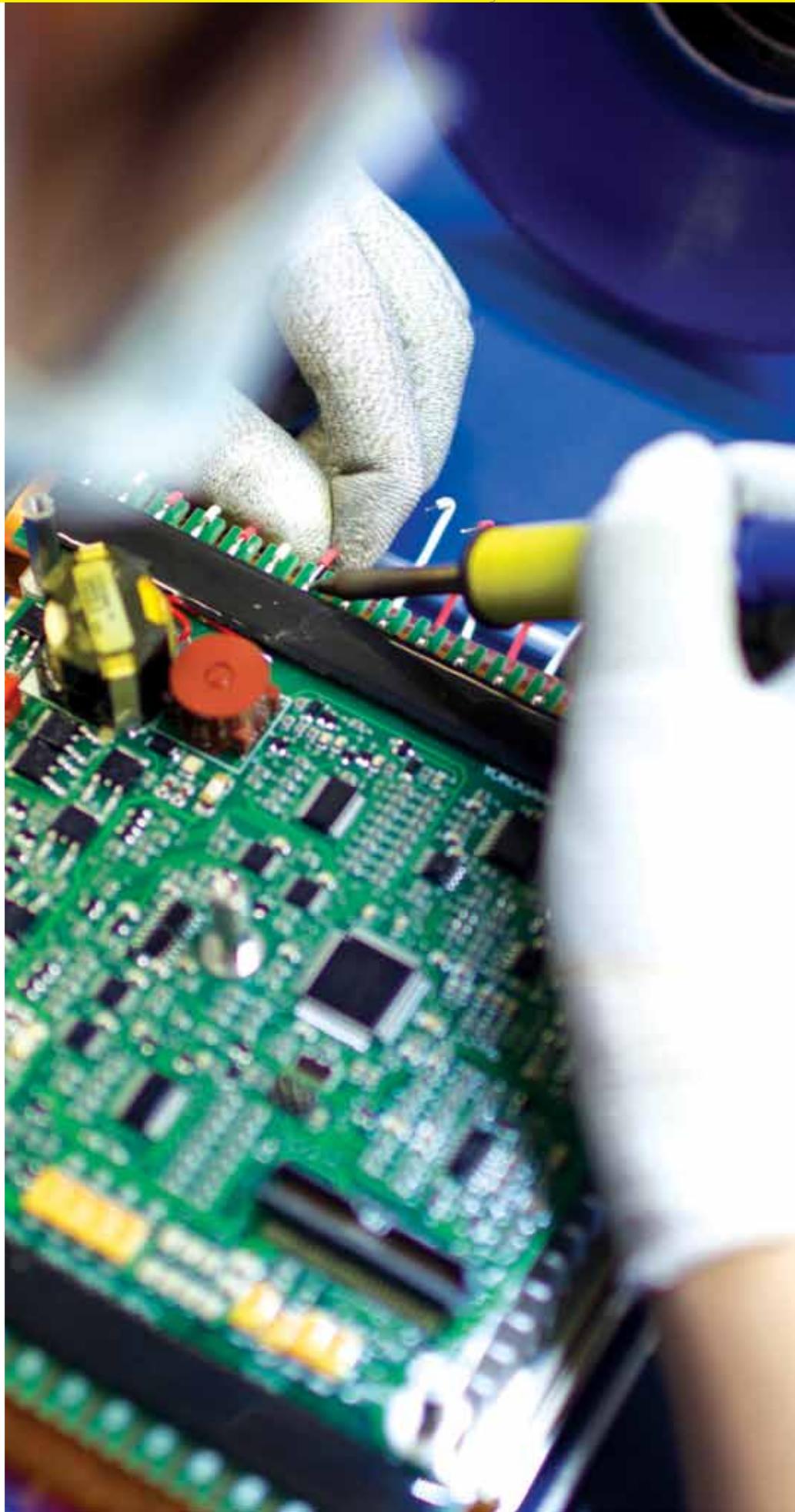
outlined in the Yokogawa Group's strategy under Vision 21 Action 21 (V/A 21).

Yokogawa's market penetration into the Avionics industry has resulted in substantial spin-off in that we can leverage on YHQ's and Aerospace's expertise in the most sophisticated and leading-edge technologies. It provides a platform for step-up knowledge transfer in new engineering processes and production methodology. It also forms a complex three parties partnership in the implementation.

The new suite of technology and processes include clean-room, dark room facilities, precision automated equipment and optical testing. The whole project would be managed for completion and full production in two major phases within an aggressive short time-span of two years. Sales revenue is expected to hit more than S\$25 million by the year 2013 and ROI forecast is for the investment outlay to be recouped within a time span of about 3 years.



" W O W " P r o j e c t s



Upturn the Downturn May Day Award by the National Trade Union Congress

At the height of the global economic downturn in 2008/2009, Yokogawa's manufacturing sales revenue declined by more than 20 percent for several quarters; due to a big drop in orders for Distributed Control Systems and Measurement Instrumentation products.

In conjunction with the Government's economic resilience package, Yokogawa's senior management formulated a strategy to 'Upturn the Downturn' in order to cushion the adverse impact of slowing demand and declining order intake.

The implementation of a slew of strategic initiatives and measures to manage costs cuts across every functional aspect of the company's operations; from production, engineering, logistic handling to material sourcing and procurement.

Some of these initiatives include:

1. Regular communications by top management to all employees on the impact of the global economic recession. This creates awareness amongst employees on the need for cost cutting measures to rein-in, control and reduce total company's overheads.
2. Company-wide NYPS' Junken and Kaizen Improvement Activities through multiple work teams to improve processing time and reduce material costs in order to generate internal revenue through costs savings.
3. Freezing all personnel recruitment and the adoption of a flexible Human Capital Resource system for the deployment of manpower for both direct and indirect staff.

4. Stepping up Cost Reduction 'CRO' activities to improve efficiency and productivity, with the aim to achieve higher profitability.
5. Increasing the number of parts for own in-house fabrication to improve margin rather than outsourcing, in order to bring down factory costs.
6. Undertaking more technical development and innovation projects to meet customers' requirements, such as the launch in 2009 of own in-house made Cabinet for System products.
7. Enhance vigilance on Production Quality to ensure zero DOA and zero AOM.

With the implementations of the seven strategic measures listed above and coupled with the government's economic resilience package of jobs credit and workforce skills upgrading programs, we managed to overcome the severity of the business downturn without resorting to the easy but painful option of retrenchment as a means to cut costs.

Despite the very severe global economic and business situations, the operations remain healthy and profitable with a strong balance sheet.

More significantly, our speedy efforts to mitigate the business risks were duly honored by the Singapore's National Trades Union Congress at the prestigious 2010 May Day Award, given in recognition of Companies who succeeded in upturning the downturn.



Lai Ah Keow
Managing Director,
Yokogawa Electric Asia Pte Ltd
Nominated by United Workers of Electronic
and Electrical Industries

During the downturn, the management of Yokogawa Electric Asia Pte Ltd's manufacturing operations worked tirelessly to mitigate business risks by implementing various counter measures to manage operational costs.

In a show of solidarity, Managing Director Lai Ah Keow and the senior management set the tone and took the lead in undergoing a pay freeze, cutting back on unnecessary expenses such as traveling, and replaced the outsourcing of jobs with in-house fabrication.

Brother Lai also assigned a Cost Reduction Officer (CRO) to review cost savings through reducing wastage in every aspect of the

company's operations, from production, engineering, logistic handling to material sourcing and procurement. As a result, the company was able to achieve total savings of \$1.9 million for the whole year, without having to implement any retrenchments.

Despite the severe business slowdown, Yokogawa was able to make a dividend distribution to its investing stakeholders, as well as reward employees with a bonus payment in the month of June 2009. On top of this, as a token of management appreciation for employees' loyalty and commitment, all deserving bargainable employees were awarded an annual salary increment in the month of July 2009.

In recognition of his outstanding contributions in upturning the downturn during the global financial crisis, the National Trades Union Congress is pleased to present Yokogawa Electric Asia Pte Ltd with the Upturn the Downturn Award.



“WOW” Projects 3

Landmark Milestone Achievements by Yokogawa Electric Asia Pte Ltd

Yokogawa's Research & Development and Innovation Management

Yokogawa Group's global network of 25 manufacturing facilities and 80 companies spans 54 countries. Since the founding of the parent company, Yokogawa Electric Corporation, in 1915, the US\$ 3 billion Company (YHQ), has been engaged in cutting-edge research and innovation, securing more than 7,200 patents and registrations, including

(A) Field Input Output (FIO) Module

In 2002, Yokogawa R&D and production engineers designed and developed a new enhanced version of FIO module for DCS 3000 series products. The

the world's first digital sensors for flow and pressure measurement.

At present, Industrial Automation (IA) and Control, Test and Measurement, Information Systems and industry support and solutions are the core business of the Yokogawa Group.

(B) New Product Introduction by Yokogawa Singapore

In 2008, Yokogawa Electric Asia Pte Ltd introduced a New Yokogawa Cabinet, (NYC), the 'NYC Universal IP55' Cabinet, designed and fabricated by Yokogawa's very own engineers.

The NYC Universal IP55 is a collaboration of engineering and marketing specialties to deliver add-on value and solution for the Yokogawa Group's

innovation breakthrough was accompanied by the mass production of the FIO module at our own production plant for final assembly in DCS products as well as for sale to Yokogawa group affiliates.

network of Customers in the huge array of IA industries worldwide.

Developed for use in varied models of Distributed Control Systems (DCS), the NYC IP55 Cabinet incorporates a combination of new features for enhanced functionality and product interoperability.³

(C) Expanded R&D Operations

Yokogawa's R&D Department has embarked on new R&D innovation activities by undertaking Profitable Redesign (PRD) of products and engineering evaluation of parts in collaboration with YHQ's design and development department.

In 2009, a new project was launched to design and develop together with YHQ's Global Business Service Centre an enhanced version of Online Diagnosis

Unit (ODU) for use in all DCS products installed at Customers' sites worldwide.

The ODU has the ability to monitor any temperature glitch that may affect the optimal performance of DCS products. The enhanced version of ODU has exceeded Customers expectation in so far as it was developed with the Customers in mind.

"WOW" Projects



“WOW” Projects 4

Landmark Milestone Achievements by Yokogawa Electric Asia Pte Ltd

Designated Global Training Centre

In 2010, Yokogawa was picked by YHQ as the Group designated Global NYPS Training Centre (GNTC) for the training and development of the New Yokogawa Production System (NYPS). The strategic objective of the GNTC includes the facilitation of Innovation Quality Control Circles to spur the 'Spirit of Innovation' amongst the Group's overseas affiliates.

Training facilities to accommodate overseas' trainees were set up while at the same time, Yokogawa staff with knowledge of NYPS were identified for further development as trainers.

Together with NYPS specialists from YHQ, a global training plan was formulated together with the development of the course curriculum and NYPS' textbooks written by Yokogawa's NYPS specialist. The global training plan and needs analysis targets group affiliate Companies not only in the new emerging economies but also in the developed first world economies. The aim is to share the NYPS' manufacturing principles and Yokogawa best practices to overseas trainees who then will bring back the new ideas and methodology for implementation at their own production plant.



EDB lauds S'pore's top manufacturers

BY REICO WONG

TOP manufacturing firms in Singapore were yesterday honoured by the Economic Development Board (EDB) for their notable contributions to the country's robust economic growth and achievements in raising standards in the sector.

Japanese electronics maker Yokogawa Electric Asia walked away the top winner of the fourth Manufacturing Excellence Awards (Maxa), Singapore's highest national award for manufacturing excellence.

The awards are organised by EDB in collaboration with partners, including management consultancy McKinsey and the Singapore Manufacturers' Federation.

Firms were assessed on operational excellence, innovation and sustainability.

For Yokogawa, human capital is particularly important, said managing director Lai Ah Keow, considering that its electronic products are non-stand-

ardised and require high precision in their manufacture.

"The Maxa award will increase confidence and recognition of end-users in our made-in-Singapore products," he said. "It will help change the mindset that the company's headquarters must be in Japan."

Yokogawa's Singapore facility has raised its output five-fold from \$200 million to \$1 billion over the past three decades. The site has also been designated as the new global training centre for its employees in Japan and other overseas offices.

Home-grown biomedical manufacturer Biosensors International Technologies was feted as the most promising firm for manufacturing excellence with the Maxa Growth Award.

Biosensors especially prides itself on its advanced technology – specifically being the first firm in the world to offer a biodegradable polymer coating, the BioMatrix, which is used on stents for cardiological treatment.

Minister of Finance Tharman Shanmugaratnam, who

was a guest of honour at the Maxa awards at Raffles City Convention Centre, reinforced the Government's commitment to manufacturing.

Manufacturing should continue to contribute to between 20 and 25 per cent of the economy, said Mr Tharman.

"Singapore is positioned for a new phase of growth in manufacturing, as a base for local and global players to meet the opportunities of a rising Asia," he said. "The key to achieving this is to sharpen our focus on upskilling and innovation, so as to grow manufacturing productivity."

"We have to enhance manufacturing excellence, by training and upgrading our people, by developing or adapting new technologies, and through operational excellence."

Other finalists were medical technological company Becton Dickinson Critical Care Systems, food-and-beverage company Nestle (Singapore), and semiconductor service provider Stats ChipPAC Singapore.

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“WOW” Projects 5

Landmark Milestone Achievements by Yokogawa Electric Asia Pte Ltd

International MAXA Award for Manufacturing Excellence

The annual MAXA Award is Singapore's highest manufacturing accolade for companies that pursue a journey of manufacturing excellence in three distinctive areas; namely: operational excellence, innovation and long term sustainability.

The journey of business excellence entails a combination of various factors, such as our operating systems and standards, peoples' mindsets and behaviors, as well as management practices to optimize internal resources. As such, Senior Management will hold regular communication session to share on best practices and work ethics, and also to update employees on the global economic outlook, company's business situation and actual operational performance.

At Yokogawa, we drive innovation, creativity and problem solving through employees' involvement and commitment in various bottom-up improvement activities; such as in-house Lead, Learn and Live + Enterprise Technology Solution (LETS), including Staff Suggestion Schemes (SSS). The organisation's vision, business objectives and targets are also articulated and explained to all employees, who in turn will undertake various company-wide NYPS' Kaizen and Junken projects to drive it to completion.

Through multiple team work projects from our 'Upturn the Downturn' Strategy to manage operational costs

at the height of the recent economic recession in 2008/2009, Yokogawa business has also managed to stay profitable and healthy. At the same time, we were able to generate a healthy flow of internal revenues via improved processing time, wastes reduction and increased cost savings.

Yokogawa's management philosophy takes a long term view of the most important resource, the people; our human capital that drives the organisation's business activities. Hence, our emphasis throughout these 38 years of manufacturing operations in Singapore has been on employees' skills upgrading and professional development; in order to stay relevant in their jobs and the industry in which Yokogawa operates.

Through our people developer framework on training and development, we provide the necessary handles and exposure for employees to take on new business challenges in high value added products, making use of leading edge technologies.

As a leading manufacturer and global production centre of DCS products, we need to continually challenge ourselves by setting new benchmark of excellence through business process reengineering and innovation. To this end, we need to also undertake more in-house technical engineering based parts manufacturing to further enhance our cost management and cost reduction activities.

