UMC

2010
Corporate Social Responsibility Report

About the UMC 2010 Corporate Social Responsibility Report

The 2010 Corporate Social Responsibility Report" is the sixth corporate social responsibility report that UMC has issued, and also the eleventh non-financial sustainability report. Through this report, UMC presents its achievements in corporate social responsibility and its determination to continue implementing efforts in sustainable development.

Category

The information revealed in this report covers UMC's performance and data surrounding environmental protection, corporate governance and social participation during the period from January 1, 2010 to December 31, and major events through March 31, 2011. The scope of this report covers manufacturing sites in Taiwan and Singapore, the Taipei office, and UMC's subsidiary in Japan. Offices in Europe and the United States are excluded. (Related information about the plan to merge UMC Japan is available in the paragraph GRI index 2.9 in chapter 9.)

Reporting Guidelines and Principles

The report for 2010, which follows the structure of UMC's 2009 CSR Report published in June 2010, is aligned with the Global Reporting Initiative (GRI) G3 Sustainability Reporting Guidelines released in October 2006.

Verification

DNV has verified that the report conforms to GRI G3 application level A+ and fulfills requirements of the AA1000AS framework. A verification statement is attached in the appendix of this report. (Financial data in the financial report is certified by the CPA. For the information verifying
GHG emissions and reduction data, please refer to Chapter 5.3.)

Report Publication

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This paperless report is published on UMC's website to demonstrate our company's support of the environment.
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If you have any suggestions or comments regarding our CSR report, we welcome you to please send comments along with your contact information to:

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Explanation of logo design:

1. The circular arc overhanging "UMC" represents UMC's wafers.
2. The green grass symbolizes all life on earth.
3. The root of the grass strands is blue to symbolize a clean earth from which all life blossoms. Blue is also UMC's corporate color.
4. The two green arcs also symbolize mountaintops, and together with a blue foundation, conjure an image of the beauty of nature and inspire us to continue working toward the preservation of nature as our aim.

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To advance the global eco-friendly movement through people orientation, environmental co-existence and social responsibility

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1.1 Letter from CEO

Dear Friends of UMC:

I'd like to share with you UMC's 2010 Corporate Social Responsibility (CSR) Report – UMC's 11th non-financial publication.

2010 marked UMC's 30th anniversary and proved to be a deeply meaningful year for us. In business, UMC employees' diligence helped UMC realize record-high shipment and revenue levels and achieved an ROE exceeding our 10% target. In sustainability, UMC was selected as a global component of the Dow Jones Sustainability Indexes (DJSI) for the third consecutive year while its excellent performance won the company numerous honors, including the Outstanding Enterprise Innovation Award, Enterprises Environmental Award of the Republic of China, Taiwan Environmental Heroes Award, and Taiwan Corporate Sustainability Report Award. Worthy of special mention is the recognition from Global Views Monthly's (GVM) Second Annual Taiwan Environmental Heroes Award, for UMC shared this honor with esteemed leaders such as Tzu Chi's Dharma Master Cheng Yen and Taiwan's first Minister of the Executive Yuan's Environmental Protection Administration (EPA) Dr. Eugene Chien. These honors demonstrate that UMC's commitment to climate change initiatives and environmental protection has received worldwide recognition.

At UMC's 30th anniversary party, I announced to employees that UMC's future would focus mainly on five main areas – customers, shareholders, employees, the environment, and community – as the core catalysts for sustainability over the next 30 years. In terms of customers and shareholders, we will continue to promote "customer-driven" as our core value. We also established a Remuneration Committee in charge of auditing key managers' compensation, succeeding the Audit Committee in this aspect in fulfilling SOX internal control regulations to further reduce managers' ethical risks and protect shareholder rights.

In the care of employees, we think that salary conditions are only a foundation; we focus on training & development of talent and creating a high-quality work environment. In 2010 we established a training & development center in the Tainan Science Park in anticipation that the investment of funds, talent, and intellectual property would boost employees' professional competitiveness and enable the company to be sustainably innovative and robust. In the creation of a healthy work environment, UMC's approach spans three dimensions of health: physical & emotional health, environmental health, and organizational health. Based on a strong foundation and comprehensive planning, UMC aims to provide an optimized work environment that enables all employees to work with sound body and mind within a healthy environment and organization and grow with the company. In 2011, UMC won GVM's CSR Healthy Workplace Award – a great encouragement for UMC in our continued efforts.

On Earth Day 2010, UMC announced its "UMC Climate Change Policy" and "Low Carbon 333" goals as promises to ourselves and the planet. Through practical reduction plans and actions, we demonstrated UMC's commitment to confront global carbon risks and take on the responsibility of carbon reduction. After completing the world's first carbon footprint verification for silicon wafer products in 2009, UMC led the industry in 2010 in completing water footprint verification for its products.

Water footprint verification is only a first step for UMC in managing its water resources, and while this step may seem insignificant, the drought in Taiwan during the first half of 2011 demonstrated its importance. This spirit of leadership exemplifies the way UMC handles environmental risks – by being first to take a step, reduce a risk, and gain an opportunity. Prioritizing green technology research, UMC participated in the European Union's 7th Framework Programme (EU FP7) alongside EU representatives in conducting green technology research and development with the goal of promoting the popularization of carbon footprint calculation and green design. This participation reinforces our focus on green technology research and demonstrates our dedication, in practice, to a green society.

Celebrating 30 years, UMC thanks the friends who have toiled with us along the way; and at the dawn of a new generation, we will face future challenges as a new green and healthy UMC and continue to devote our energies to social and environmental sustainability and growth. In the pursuit of sustainability, UMC is prepared to meet the future and create another extraordinary thirty years.

Stan Hung
Chairman

CEO

1.2 UMC's CSR Commitment

Vision

To advance the global eco-friendly movement by enhancing the value chain through people orientation, environmental co-existence and social responsibility.

Mission

To achieve sustainable growth while supporting our customers through green innovation and corporate responsibility.

UMC maintains a business philosophy of pursuing sustainable operations while building long-term partnerships with customers and the society. Fulfilling its responsibilities as a corporate citizen and maintaining advanced health, safety and environmental standards have been important policies and commitments for UMC. UMC has been promoting social responsibility for a long time, based on the concept of "caring for employees, environment first and working for the best interest of the public" with the attitude of "giving back to the community". In addition to improving corporate and social sustainable competitiveness, UMC also hopes to influence society towards the direction of goodwill.

UMC's CSR roadmap covers three aspects, including corporate governance, environmental protection and social interests. UMC is committed to continually improving corporate governance, becoming a green manufacturing foundry and fulfilling its responsibility as a corporate citizen.

Improving corporate governance

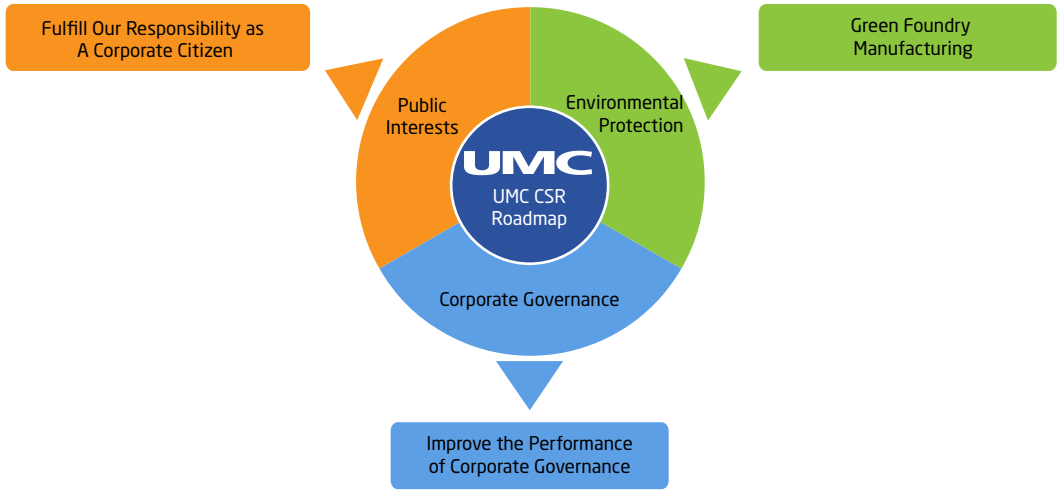
The purpose of commerce is to realize profitability. An enterprise's basic responsibility to society is to be profitable, but in a responsible way. Enterprises should take care of its employees and be accountable to its shareholders, while viewing itself as a corporate citizen that gives back to society. UMC will conduct its operations according to this belief.

Green foundry manufacturing

UMC follows all government environmental protection laws with the aim of exceeding the requirements stipulated by these laws. Related international standards on environmental protection are also considered. Furthermore, UMC expects to remain as a green enterprise by exerting greater efforts into cleaner production, industrial waste reduction, pollutant prevention and risk management.

Fulfilling its responsibility as a corporate citizen

When UMC was founded, its long-term policy stated that the company should make contributions to society as well as focusing on its business.Therefore, launching a series of public services revolving around today's social issues has become part of UMC's goals. The breadth covered by UMC's public service scope includes the Company itself, its employees, employees' families, the community, and various other social entities. UMC's public service covers education, environmental protection, cultural activities and childcare.



UMC's public services can be categorized into two parts: the UMC Candlelight Charity Club, whose purpose is to assist disadvantaged minorities; and the UMC Science and Culture Foundation, whose purpose is to support affairs regarding education, culture, sports, public interest, and environmental protection.

1.3 UMC's CSR Organization

Corporate Social Responsibility (CSR) committee

The CSR committee was established in April 2008 to coordinate all affairs relevant to CSR, corporate citizenship and sustainable development, and to regularly review the progress of CSR projects. There are five sub-committees under the CSR committee: ESH (Environment, Safety & Health), Energy Saving, Corporate Governance, Green Production, and Social Participation Committees.

The organization of UMC's CSR committee is as follows, and will be revised as required.

The Corporate Governance sub-committee:

Responsible for completing corporate governance-related tasks such as internal control systems and SOX 404 regulations and to coordinate related regulations and systems regarding corporate governance. This sub-committee's purpose is to practice UMC's core values, uphold shareholders' rights and implement information transparency and internal control.

The ESH sub-committee:

To coordinate company-wide tasks relating to environmental protection, safety and health management. The committee also establishes environmental performance indexes and manages projects related to waste reduction, resource recycling and greenhouse gas reduction. This sub-committee also undergoes several activities in green manufacturing and supply chain management by working with the Green Production sub-committee.

The Energy Saving sub-committee:

Externally, to cooperate with government agency teams in Hsinchu Science Park for water, electricity and gas efforts; internally, to promote, supervise and implement activities in water conservation and energy saving.

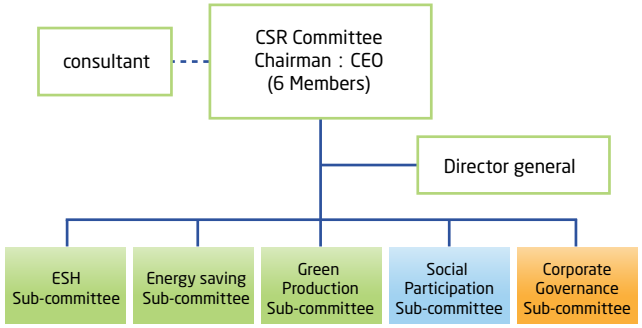
The Green Production sub-committee:

To manage all related tasks in green manufacturing and green products, including maintaining and managing the QC080000 IECQ HSPM hazardous substance management system, conserving materials, and implementing hazardous substance substitution programs.

The Social Participation sub-committee:

In conjunction with the UMC Science and Culture Foundation, to sponsor and participate in numerous community activities related to technology development, education, academic research, childcare, environmental protection, culture, art, public interest, and sports.

UMC's CSR organization is as below:



To effectively realize UMC's commitments in corporate social responsibility and sustainable growth, and to achieve the goal of remaining a Green Foundry, UMC's CSR committee will continue to adjust its structure as needed.

Ch2_Business Operations

Revenue hit record NT$120.42 billion, with capacity utilization at 95%, gross margin at 29.9%, and ROE at 11%

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2.1 About UMC
2.1.1 UMC in Brief

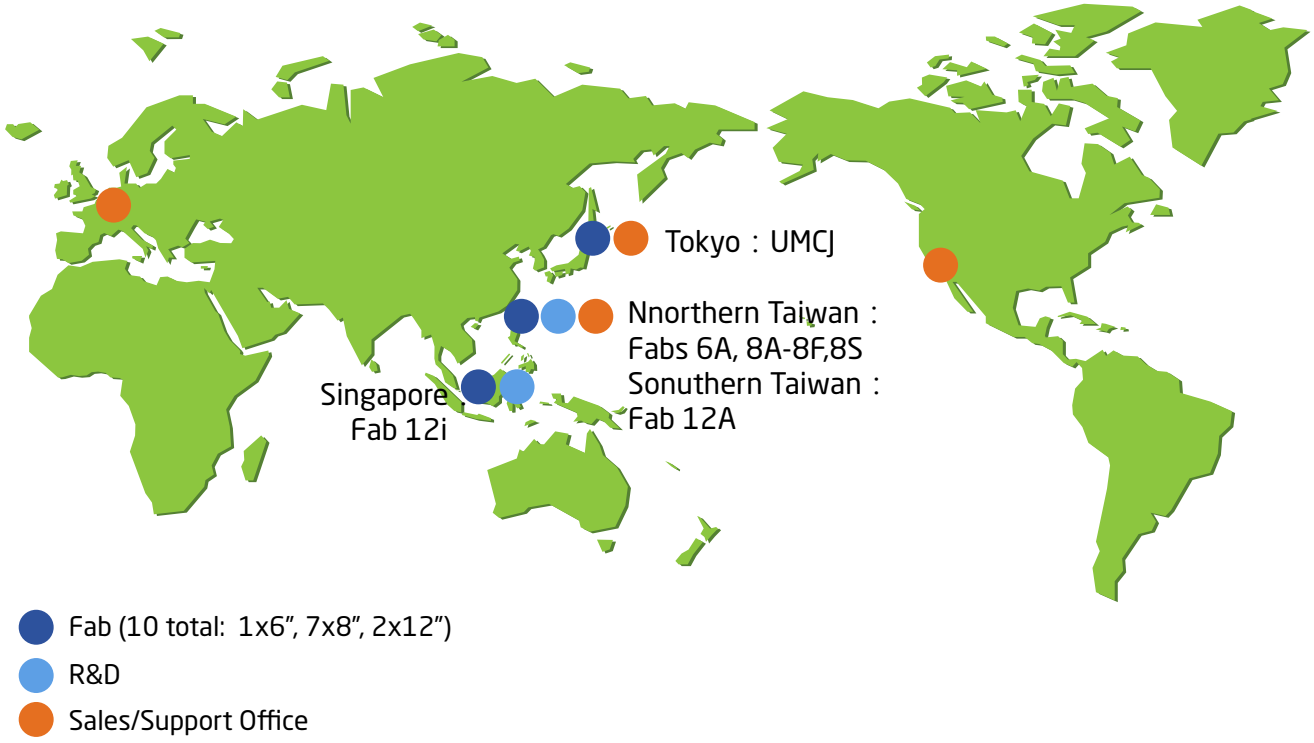
Name: United Microelectronics Corporation (UMC)
Founded: May 1980
Headquarters: No.3, Li-Hsin 2nd Road, Hsinchu Science Park,Hsinchu, Taiwan, R.O.C.
Total Capital: NTD 260 billion
Paid-in Capital: NTD 129,879,120,000
Number of Employees: more than 13,000 people
Major Business: Full-service semiconductor wafer foundry
Current Products and Services:
UMC provides a variety of services to fit individual customers' needs, including silicon intellectual property (IP), IC design support, design verification, mask tooling, wafer fabrication and testing.

UMC was established in May 1980 and is a world-leading semiconductor foundry that manufactures advanced process ICs for applications spanning every major sector of the semiconductor industry. It was the first semiconductor company to list on the Taiwan Stock Exchange (1985) and plays a vital role in the history in Taiwan's semiconductor industry. UMC is the manufacturing leader with one 6-inch fab, seven 8-inch fabs and two 12-inch fabs in operation. Its leading-edge foundry technologies enable the creation of faster and more powerful System-on-Chip ICs for today's demanding applications and its technology includes a wide range of advanced processes.

UMC invested 3 billion U.S. dollars in the Tainan Science Park in 1999 to build the first domestic 12-inch fab, while also moving the R&D team to Tainan to accelerate the production of advanced technologies through more efficient product transfer and manufacturing. Officially opened in 2007, UMC's R&D building is the only semiconductor nanometer process research and development center in southern Taiwan, providing customers with advanced processes and a full-service R & D program, and is expected to become the center for semiconductor personnel training in southern Taiwan.

2.1.2 Corporate Governance

UMC became a pure-play foundry in 1995, merged the Nippon Steel Semiconductor Corp. via tender offer in 1998, built its 12-inch fab in Singapore in 2001, and set up its global operations and comprehensive supply chain gradually over the years. Global operations for UMC, from the arrangement of overseas production bases, business marketing, customer service, technical research and development, talent introduction, capital operation, to the intellectual property of patent applications, is a cumulative process—a systematic, sustained, multifaceted long-term effort.



2.1.3 Industrial Overview

Current status and development of the semiconductor industry

Consumer electronics products are developing enhanced functions and are becoming more lightweight; this coupled with the recent tendency toward energy saving and carbon reduction has made low-power consumption a key consideration in chip design. Thus, considering such factors as functional integration, efficiency improvement and low power consumption, the complexity of chip design has significantly increased. In addition, with the rapid development of market competition and technology, semiconductor technology has also advanced toward micronization, while wafer area is continually developing toward a larger diameter size in order to improve production efficiency. The threshold of semiconductor technology is being raised continually, with related investment costs also growing in multiples.

As the related entry barriers of design, manufacturing, packaging and testing of semiconductor products continue to rise, it becomes extremely difficult for most semiconductor operators to fully handle each link from beginning to end. Considering division of labor and production efficiency, the tendency of the semiconductor industry to develop into a vertical division system is becoming increasingly apparent. Furthermore, with technological development of advanced manufacturing processes and the fact that capital expenditure for machinery has greatly increased, an industrial structure featuring specialty divisions has already formed. Hit by the financial crisis, many former IDMs (Integrated Device Manufacturers) seeking cost-effective strategies have successively announced an end to further investment in developing advanced processes or increased production capacity. Instead, they turned toward increasing the proportion of outsourced wafer production, which was helpful to the development of the foundry industry. With the gradual recovery of the global economy, major foundries have increased capital expenditures and expanded capacity to meet potential market demands. While other companies are in a rapid expansion of production capacity, UMC is cautiously and effectively augmenting the 40/45 nano and 28 nano processing capacity, actively developing advanced manufacturing processes and specialty technology, continuously improving the advantage of manufacturing technologies, increasing the proportion of high-end manufacturing processes and their product portfolio, and strengthening the company niche to enhance their competitive advantage.

The Relationship Between Up-, Mid-, and Down-stream Supply Chain Services

The semiconductor industry chain is divided into: IC design, mask making, wafer fabrication, and testing and packaging. IC design focuses mainly on the specifications required by the end product to determine the design direction. As different IC chips attach importance to different features, they also have different manufacturing requirements. Therefore, foundry services will provide a new generation of manufacturing technical services as early as possible, which will assist IC design clients with chip development. To ensure that the IC meets the required design specifications, the testing and packaging plants carry out testing and packaging of the IC prior to delivery.

The development trend of consumer electronics products

Electronic products can be divided into computer, communication, consumer electronics and car electronics. Electronic products are becoming more slim, lightweight, energy-efficient and interconnected. For example, laptop computers have longer operating time; mobile phones can link to laptop computers via a wireless network, etc. In addition, the considerable improvement of bandwidth within the broadband network has promoted the feasibility of network television. In the future, new technologies will constantly be adopted and commercialized. Corresponding manufacturing processes facilitating foundry services must be implemented as soon as possible to meet varying customer requirements for 4C products.

Competitive Advantages

A main operating income of UMC comes from the Asia-Pacific market, accounting for 39% of UMC's total income, and second only to North American income (48%). According to data provided by the American Semiconductor Industry Association (SIA), in 2010, growth in the global semiconductor industry came mainly from Asia. In recent years, China's IC design companies have grown rapidly. Due to geographical convenience and cultural similarity, UMC has considerable competitive advantage in mainland China.

The overall structure of the semiconductor industry in Taiwan is very complete, with competitive strengths in terms of both operational efficiency and cost. The competitive advantages of Taiwan's semiconductor industry cpmbined with UMC's technological advantages produce unparalleled advantage.

Positive Factors Relating to Future Development

With the IC industry's rapid and sustained growth, foundry niche development niche, and the Company's technological advantage, the following are positive factors relating to future development:

- With the trend toward vertical division of labor in IC design and manufacturing, the foundry market is booming. The global demand for wafers will continue to grow rapidly. IDMs are increasing its outsourcing of wafer production, which is good for the continuous growth of the foundry market.

- Strategic alliances with international companies to acquire long-term and stable orders rely on strong management teams, R&D of advanced manufacturing processes, and business development capabilities to achieve outstanding business performance.

- UMC continues to actively develop 12-inch wafer manufacturing technology and has set up 12-inch wafer plants in both Tainan Science Park and in Singapore. Meanwhile, UMC is also actively increasing the capacity of the 12-inch wafer, to aid in securing orders from IC design companies and IDMs.

• UMC has completed mass production using 65-nanometer and 40/45-nanometer advanced manufacturing processes. As one of the few foundries that can provide such technologies, UMC helps clients to increase profits and reduce production costs. In addition, breakthrough progress has been achieved with the 28-nanometer manufacturing process technology, further strengthening the long-term competitiveness of UMC.

• UMC, in response to the development trend of electronic products, has developed an embedded memory process, a mixed-signal process, the RF component process, a high-pressure process and other system-on-a-chip (SoC) manufacturing process technologies, thereby meeting clients' requirements and establishing a lead position in technological development.

Negative Factors Relating to Future Development

Optimistic about the growth in demand for semiconductor products, the world's major wafer factories have increased capital input to expand production capacity; this could have a negative impact on the balance between market supply and demand.

Response strategies

- Continuously control expenditure and improve production efficiency to effectively reduce operating costs, cautiously expand advanced process capacity of the 40/45-nm and 28-nm process technologies, and strengthen the Company's competitive advantage by enhancing the proportion of advanced manufacturing processes and the product portfolio.

- Recognizing the constant entry of new competitors, UMC should continue to strengthen the development of advanced manufacturing processes, and maintain its existing advantages of a stable high yield rate and comprehensive services. UMC should expect to expand the gap between itself and new competitors, but also create differentiation which will enable UMC to remain a client's best choice.

- According to the features of IC products in each application field, provide the most advanced, optimized manufacturing process services to assist customers in achieving the goals of lowest cost, high performance and low power consumption.

- Strengthen marketing efficiency and client service mechanisms, continuously enhance client satisfaction, strengthen partnership with clients, help clients to seize market share, and grow together with them.

- Facing the global recession, take corresponding measures in response to market changes, and reduce operating costs through rigorous cost control and management.

In the future, UMC will continue to invest in the R&D of advanced manufacturing processes. We will adhere to our R&D strategy, establish the capacity and energy for independent R&D, and develop the industry's mainstream full-node/half-node advanced manufacturing processes jointly with our key partners, IDMs and fabless companies. We will fulfill our promise to provide clients with R&D of advanced manufacturing processes by cooperating with mask, packaging, equipment, materials, and EDA companies for quick market introduction.

2.1.4 Product Technology and Innovation & Creation

UMC manufactures advanced process ICs for applications spanning every major sector of the semiconductor industry. The Company's leading-edge foundry technologies enable the creation of faster and more powerful System-on-Chip ICs for today's demanding applications. UMC's technology includes a wide range of advanced processes, such as 65-nanometer, 45/40-nanometer, embedded memories, and mixed-signal/RFCMOS. As an industry pioneer, UMC was the first foundry to manufacture wafers using copper materials, produce chips on 300mm wafers, deliver functional 65-nanometer ICs to its customers, and produce chips using 28-nanometer process technology.

UMC manufactured the foundry industry's first fully functional 28nm SRAM chips that were produced using advanced double-patterning immersion lithography and strained silicon.

UMC's 28nm process provides almost twice the density of the 40nm technology, which is currently being produced at its 300mm fabs. UMC will also provide foundry services for customized 32nm technologies based on its 28nm process platform. As semiconductor technologies and processes become ever more advanced, UMC continues to develop its own foundry technology and collaborates with semiconductor manufacturing industry alliance SEMATECH and the world's advanced equipment suppliers and university research institutions to develop 18-inch wafer process technology and 12-inch advanced process technologies, with a special focus on its next-generation 20-nanometer technology.

Milestones in Product and Technology Development since 2006

Year	R&D Achievements
2006	•Produced the most advanced 65nm FPGA chip for custom ers •Successfully produced the 45nm test chip
2007	•Started producing on 65nm process •65 nm RFCMOS process ready for customer design-in
2008	•Manufactured the foundry industry's first fully functional 28nm SRAM chips •Validated the high-k/metal-gate (HK/MG) process through successful 45nm SRAM product yield
2009	•Applied 40nm logic technology for production •Presented the unique 'hybrid' high-k/metal-gate (HK/MG) technology approach for 28nm
2010	•Produced the FPGA chip for customers on UMC's high-performance 40nm process and achieved full production ualification

Major Upcoming R&D Projects

Project	Content	Duration
28nm Logic Process	R&D of high-efficiency and low-power 28nm logic process and its application	2011-2012
20nm Logic Process	R&D of high-efficiency and low-power 20nm logic process and its application	2013-2014
14nm Logic Process	R&D of high-efficiency and low-power 14nm Logic process and its application	2015-2016
Silicon wafer drilling system and package technology	R&D of advanced drilling of silicon wafer 3D IC system package technology and its application	2011-2013
Second-generation Lithography Technology	R&D of double circular technology, computing lithography technology, and deep UV technology	2013-2014
Special Technology R&D	R&D of high-embossing process, MEMS image test process and trench memory process	2011-2013

Note: The above project's research and development expenses are estimated to represent 65-75% of total R&D expenses over the next three years

Operating revenues and R&D Expenditures

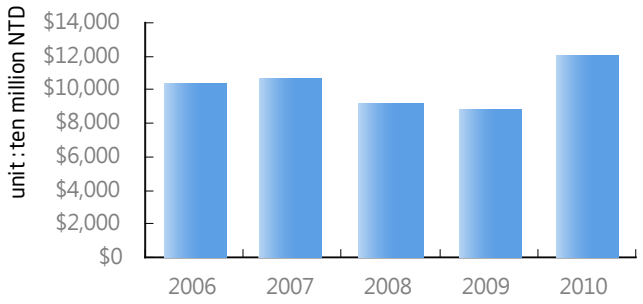
	2010	2009	2008	2007	2006
Operating revenues	120,430,736	88,617,572	92,530,050	106,771,051	104,098,611
R&D Expenditures	8,578,977	8,036,567	8,199,247	9,487,543	9,237,616
R&D Expenditures (% over Operating revenues)	7.12%	9.07%	8.86%	8.89%	8.88%

In the future, UMC will actively develop advanced manufacturing processes, continuously improve its own foundry technology and collaborate with IDM and fabless partners to develop
full node/half node advanced manufacturing processes. UMC partners with mask, assembly, equipment, materials and EDA vendors to jointly enter the market to enhance our customers' competitive advantages.

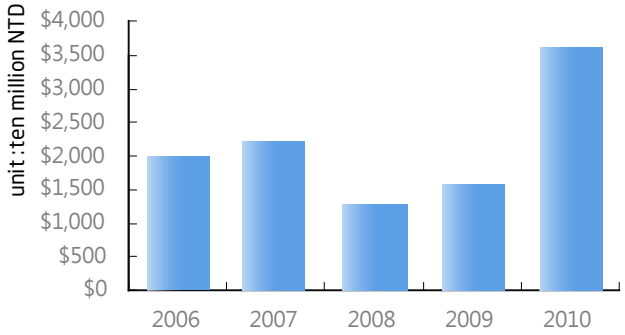
2.1.5 Operation Performance

UMC is dedicated to customer-driven development of advanced technologies and foundry manufacturing solutions. This commitment has led to considerable success in our efforts to broaden our customer base, optimize product mix, and boost profit capability. 2010 wafer shipments reached a record high of approximately 4.52 million 8-inch equivalent wafers, with revenue hitting another record high of NT$120.43 billion. In 2010, UMC's capacity utilization was 95%, with gross margin at 29.9%, and operating margin at 18.8%. Net income for the full year was NT$23.90 billion, with NT$1.91 earnings per share, and an ROE of 11% that reached its highest levels in recent years.

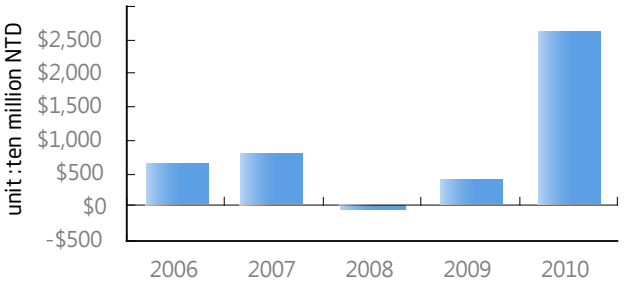
Operationg revenues



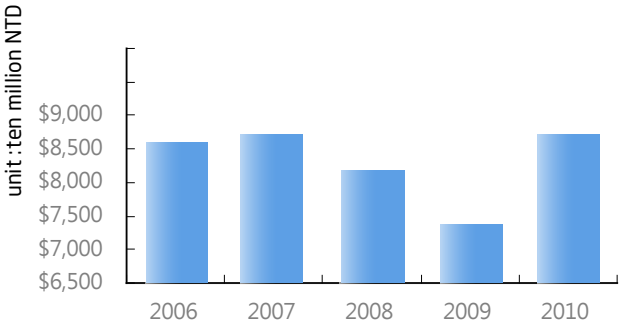
Gross Profit



Operationg Income

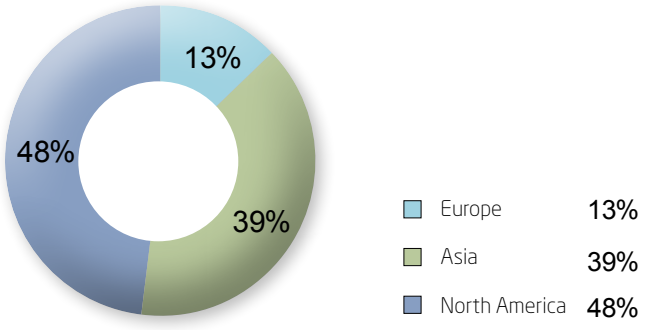


Operating Cost



Note: Certain financial statements from 2005 to 2008 have been reclassified in order to facilitate comparison of financial statements.

UMC's technologies and services have proven themselves by contributing to the success of its customers, many of whom are major players in the global IC industry. Currently, the majority of the Company's customers are located in North America and Asia, and sales in these two areas account for 48% and 39% of total sales, with Europe following closely behind accounting for 13%. UMC will enhance its partnerships with world-class customers around the globe by continuing to develop customers' high-end products to ensure UMC's steady growth for the mid and long term.



For more information regarding UMC's operating performance and financial status, please referto our company website at http://www.umc.com/english/investors/index.asp

2.1.6. Company Chronology

1980	May	UMC established
1985	July	Becomes the first IC company to list on the Taiwan Stock Exchange.
1995	July	Begins transformation into a pure-play foundry
	July-September	Three joint venture foundry companies established
	September	200mm fab begins production
1996	January	0.35-micron volume production.
1997	October	0.25-micron volume production.
1998	April	Acquires Holtek Semiconductor fab.
	December	Acquires Nippon Steel Semiconductor Corp. fab; renamed Fab UMCJ in 2001.
1999	March	0.18-micron volume production.
	November	Begins construction of 300mm fab in Taiwan's Tainan Science Park, Fab 12A.
2000	January	Completes consolidation of five companies: UMC, USC, UTEK, USIC and UICC.
	March	Ships first foundry chips using copper process.
	May	Produces foundry industry's first 0.13-micron integrated circuits.
	September	Makes its debut on the New York Stock Exchange.
	December	Announces plan to establish advanced 300mm foundry in Singapore (UMCi).
2003	January	Announces equipment move-in at UMCi.
	March	Delivers foundry's first customer ICs built on 90-nanometer.
2004	March	UMCi moves to full-scale 300mm production.
	May	90-nanometer full qualification and volume production.
	July	Completes acquisition of SiS Microelectronics Corp. fab.
	December	Fully acquires its subsidiary UMCi; renamed UMC Fab 12i.
2005	January	Delivered the foundry industry's first 65-nanometer customer products.
	August	Achieves record milestone of over 100,000 90-nanometer wafer shipments.
2006	June	Becomes first IC company to achieve QC080000 IECQ HSPM qualification for all fabs.
	November	Produces working 45-nanometer ICs.
2007	January	Expands advanced technology complex in Tainan Science Park.
2008	September	Named as a Global Index Component for Dow Jones Sustainability Indexes.
	October	UMC Announces Foundry Industry's First 28nm SRAMs.
2009	April	Delivers 40-nanometer customer ICs
	December	Fully acquires Japan subsidiary UMCJ
2010	May	Celebrates 30th anniversary

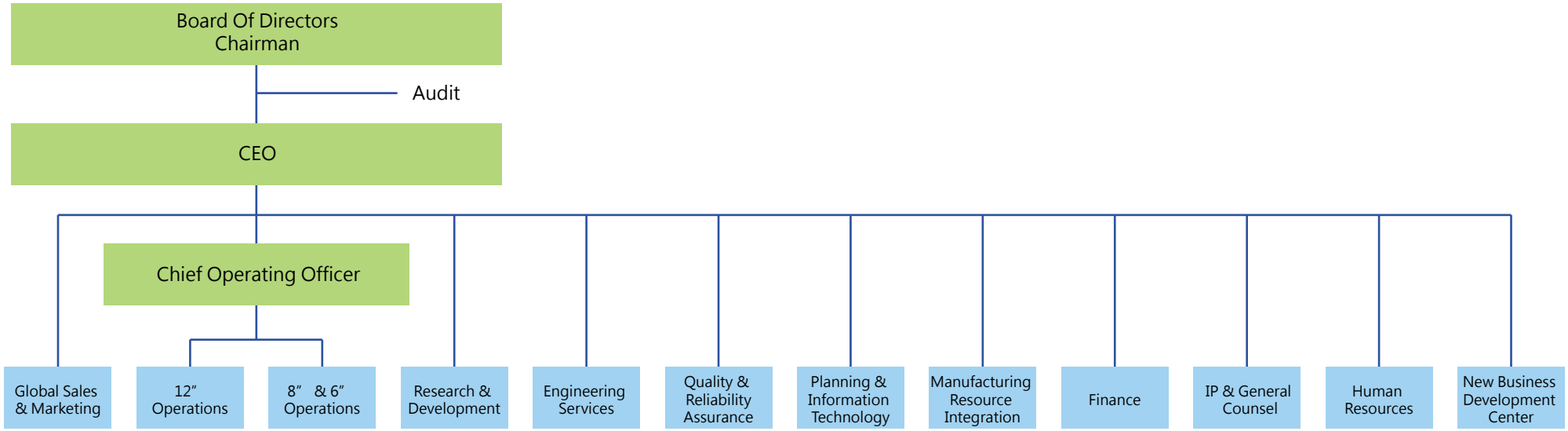
2.2 Corporate Governance

Global expectations have risen with regard to corporate governance and sustainable operations, largely due to the string of unethical business practices and bankruptcies among international corporations that led to the economic instability behind the current global financial crisis. The extent that an enterprise will go to follow corporate governance standards has gradually become one of the key factors for investors to consider when making investment decisions. UMC has continued to strengthen its corporate governance and expects to improve its performance further through comprehensive management systems.

UMC's corporate governance structure and practices are based on Taiwan's Company Act, Securities and Exchange Act, SOX404 (Section 404 of the Sarbanes-Oxley Act of 2002), NYSE listing standards and other related rules and regulations. The UMC Corporate Governance Statement, Articles of Incorporation of UMC, Audit Committee Charter, Organization and Operation of Internal Audit, Code of Ethics for Directors and Officers, Employee Code of Conduct, related-party transaction procedures and internal significant information processing procedures can be found on the company website (http://www.umc.com/english/investors/Corp_gov.asp).

UMC's corporate governance organizational model is a two-tier structure that consists of a Board of Directors and an Audit Committee. UMC has established the "Rules and Procedures of Board of Directors Meetings" and the "Audit Committee Charter" to govern the operation and process of the meetings of the Board of Directors and Audit Committee. In 2011, UMC will set up the Remuneration Committee according to Taiwan's related rules and regulations. The purpose of the Remuneration Committee is to assist the Board in reviewing the compensation of the board directors and UMC's executives.

Organization Chart



Introduction to Organizational Functions

Global Sales & Marketing
Customer service, sales and marketing, operation of subsidiaries

12" Operations
12" production, manufacturing technology transfer and development

8" & 6" Operations
8" & 6" production, specialty technology integration and development

Research & Development
Advanced technology development

Engineering Service
Design support, mask, product engineering, back-end service

Quality& Reliability Assurance
Quality & reliability management

Planning & Information Technology
Enterprise operation planning, information technology infrastructure maintenance and system integration, development

Manufacturing Resource Integration
Procurement, import and export, facility support, expansion planning, risk management, environmental protection, safety and health

Finance
Finance & accounting service
Corporate spokesperson

IP & General Counsel
Legal affairs, contracts, patents, and intellectual property management

Human Resources
Human resources management, organizational development and employee relationship

New Business Development Center
New business development assessment & management

Audit
Internal audit

2.2.1 Management Team

Chairman and Strategy Director – Stan Hung
CEO – Shih-Wei Sun
Chief Operating Officer – Wen Yang Chen
Senior Vice President – Po Wen Yen
Senior Vice President and General Counsel -- Peter Courture

2.2.2 Board of Directors

UMC's Board of Directors consists of 9 directors possessing professional backgrounds and experience in technology. They are accountable for the company's operation and supervision. The proposal to add another independent director (raising the number from 3 to 4) to improve the corporate governance structure was approved by the board in 2009. The directors are:

Title	Name	Also serves concurrently as
Chairman	Stan Hung	Director, EPISTAR Corporation Chairman, Crystalwise Technology Corp. Chairman, Fortune Venture Capital Corporation Chairman, TLC Capital Co., Ltd. Chairman, UMC's newly invested company Chairman, Nexpower Technology Corp.
Director	Shih-Wei Sun	Director, Unimicron Technology Corp. Director, EPISTAR Corporation Director, Fortune Venture Capital Corporation Director, TLC Capital Co., Ltd. Director, UMC's newly invested company Director, Nexpower Technology Corp.
Director	Wen Yang Chen	Director, Fortune Venture Capital Corporation Director, TLC Capital Co., Ltd. Director, UMC's newly invested company
Director	Po Wen Yen	Director, Fortune Venture Capital Corporation Director, TLC Capital Co., Ltd. Director, UMC's newly invested company
Director	Ting-Yu Lin	None
Independent director	Chun-Yen Chang	Independent director, Himax Technologies, Inc.
Independent director	Chung Laung Liu	Chairman, DRAMeXchang Corporation Supervisor, MediaTek Incorporation Independent director, Anpec Electronics Corporation Director, Macronix International Co., Ltd. Independent director, Powerchip Semiconductor Corp.
Independent director	Paul S.C. Hsu	Taiwan Assessment and Evaluation Association Independent director, Faraday Technology Corp. Independent director, Gintech Energy Corporation Supervisor, Far Eastern International Bank
Independent director	Cheng Li Huang	None

2.2.3 Audit Committee

The Audit Committee is responsible for assisting the Board of Directors in carrying out its oversight duties and fulfilling the duties set forth by the Taiwan Company Act, Securities and Exchange Act and any other related laws and regulations. Because UMC is a NYSE listed company, the Audit Committee should also comply with the requirements of listed foreign private issuers under NYSE listing standards.

The Committee's duties and responsibilities include the following: supervising the financial reporting of the Company, internal audit, internal control of the Company, material transactions of assets and derivatives, loans, endorsements, guarantees, engaging and removing the Company's independent auditors and assessing such auditors' compensation and independence, and appointing or removing managers of finance, accounting and internal audit divisions. The Committee is also responsible for dealing with any whistleblower cases received and periodically reviewing the Company's compliance with government law, documentation that involves government agencies, and compliance with employees' Code of Conduct.

The Audit Committee comprises all four independent directors, two of which are financial experts under listing standards. The Committee operates according to the Audit Committee Charter (http://www.umc.com/chinese/pdf/Audit_Committee_Charter_chi.pdf). The Committee shall meet periodically and shall be convened any time if necessary. The Committee meeting was held seven times in 2010. The status of attendance of all four independent directors is as follows:

Title	Name	Attendance Frequency	Delegation Frequency	Attendance Percentage(%)	Remarks
Independent director	Chun-Yen Chang	6	1	86	Convener of the Audit Committee
Independent director	Chung-Laung Liu	6	1	86	
Independent director	Paul S. C. Hsu	7	0	100	
Independent director	Cheng-Li Huang	7	0	100	

Note:
(1) The director of the internal audit division periodically reported to the Audit Committee the results of internal audit reports and the implementation status of follow-ups. In addition, the director of the internal audit division reported and discussed with the independent directors regarding the internal audit work and thoroughly communicated the implementation and effectiveness of internal audit work.
(2) The independent auditors reported and communicated the audit results of financial reports and requirements of applicable laws and regulations with the independent directors in Committee meetings.

2.2.4 Disclosure Committee

To comply with the SEC's rules regarding the Company's obligations and responsibilities for information disclosure based on the Sarbanes-Oxley Act of 2002, the primary purpose of the Disclosure Committee is to assist the Company in establishing and maintaining "disclosure controls and procedures" designed to ensure the quality of filing reports on a timely basis.

2.2.5 Internal Audit

UMC's Internal Audit Division reports directly to the Board of Directors. The purpose of an internal audit is to examine and evaluate the effectiveness of internal control systems, the efficiency of business operations, the reliability of financial reports and the adherence to government laws, while providing suggestions for improvement to ensure the consistent implementation of various internal control systems.

The Internal Audit Division executes internal audit work and audit reports based on the annual audit plan. The Internal Audit Division also monitors the follow-up of audit reports, revises the internal control systems and the implementation rules of internal audits periodically, conducts annual internal control self-assessment, communicates with independent directors, and reports to the Audit Committee and Board of Directors according to the Taiwan Government's rules and regulations.

As a NYSE listed company, UMC should also comply with the requirement of listed foreign private issuers under SEC rules and NYSE listing standards. UMC was required by the US Securities and Exchange Commission to comply with SOX404 (Section 404 of the Sarbanes-Oxley Act of 2002) regulations that required undergoing internal control audits conducted by independent auditors starting from 2006. Up to now, the independent auditors have expressed unqualified opinions on the effectiveness of internal control for financial reporting every year.

2.2.6 Anti-Corruption

Due to the issuance of ADRs (American Depositary Receipt) in the United States, UMC was required by the U.S. Securities and Exchange Commission to follow SOX404 (Section 404 of the Sarbanes-Oxley Act of 2002) regulations that required undergoing internal control audits conducted by independent auditors. In the process of promoting internal control, the company has always emphasized employees' morality and integrity. The company believes in being an integrated organization and that the action of every employee affects the entire organization and its reputation. Therefore, the Employee Code of Conduct was established to set a standard for ethics, honesty and professionalism. The company expects all employees to abide by this Code in carrying out their duties and functions so as to preserve public trust and to ensure the company's sustainable growth and development. At the same time, the company encourages its employees to abide by the Code in their duties and functions through practical training and online self-examinations.

Practical Training

New employees must complete practical training, which helps them understand the purpose, content and related information of UMC's Employee Code of Conduct. The training also allows them to understand that each employee is obligated to strive for the company's best interests within legal limits, and is responsible for preventing damage or losses to the company. In 2010, the practical training completion rate for new employees was 98.4%.

Online Self-examination

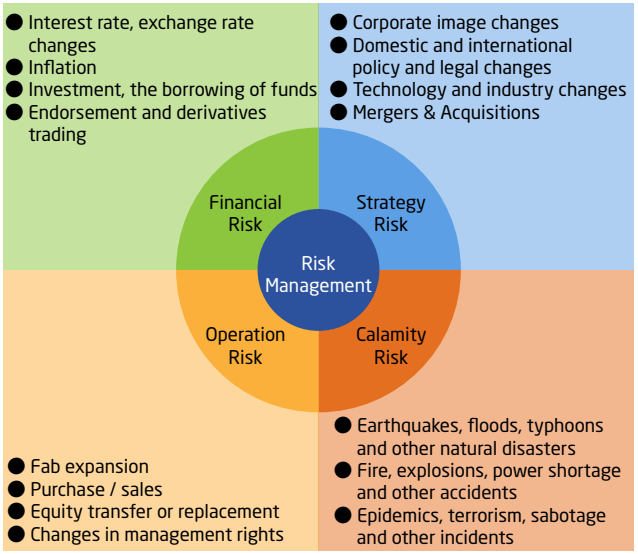
The purpose of online self-examination is to maintain employees' ethics and honesty when working toward the company's growth and development. To meet the requirements of SOX404, UMC also promotes the Employee Code of Conduct and other regulations online annually. 12,641 employees are required to take the online self-examination, and so far 99.7% of those employees have completed the exam (employee count included Taiwan and Singapore).

UMC's Employee Code of Conduct includes morality and integrity, respect for individuals and customers, avoidance of conflict of interest, gratuity and business reception, and full, fair, accurate and understandable disclosure. All fraudulent cases reported will be handled directly by the Audit Committee and the investigation team, and all whistleblowers are carefully protected. No significant fraud was reported through the whistleblower program in past years.

2.2.7 Risk and Crisis Management

UMC pursues sustainability as the ultimate guiding principle of its business operations. As such, comprehensive risk management and appropriate crisis treatment are important components ensuring sustainable operations. In order to reduce the negative impact and losses resulting from any incidents, to maintain the company's image, and to guarantee stakeholders' rights and interests, UMC works hard to perfect its crisis response and prevention through active practice and simulations.

To ensure the long-term success of the company and to further the corporate goal of building long-term partnerships with customers and the community, UMC holds shareholder meetings and investor conferences regularly to maintain a high-level of financial transparency. The company consistently meets its obligation as an exemplary corporate citizen by participating in a wide range of public activities that benefit the community and society as a whole. Moreover, the company closely monitors the changes of policies and laws and makes proper adjustments in internal systems and business activities accordingly to ensure the smooth operation of the company. In addition, the company has established a comprehensive and robust set of response procedures aimed at addressing the needs of a highly diverse range of emergency conditions, thus reducing management uncertainty to the lowest achievable level.



UMC has developed short-term and long-term business development plans to reduce the company's financial, operational and strategic risks. On the other hand, UMC's corporate Business Continuity Planning (BCP) and crisis management plan encompasses the BCP for each fab and the IT Disaster Recovery Plan (DRP) for UMC as a whole.

Each fab's BCP: UMC introduced BCP in 2000. In 2002, all fabs completed its BCP documents and undergoes an annual BCP Tabletop Test to increase familiarity and reduce risks of interruption to operations.The BCP structure contains three critical elements:
(1) Emergency Response Procedure(2) Crisis Communication
(3) Business Recovery

Corporate DRP: Maintain backup data for all production data, while all key materials will maintain a backup site in an alternative secure remote area.

Financial Risk Management and Evaluation

For further information regarding financial risk management and evaluation, please refer to the company annual report (2010 Form20-F), found online at http://www.umc.com/english/investors/h.asp.

Hazards Risk Management

As a global manufacturing leader, UMC is well aware of the numerous natural and other risks posed to its operations. UMC's approach to risk management is based on preventing loss of life or property. Thus, UMC follows strict engineering safety procedures, regularly enforces safety codes and standards, and follows detailed industry safety guidelines. UMC is very proactive in managing risk.UMC is a phrase which means not only the world leader in wafer foundry business but also unique, mature, and continuous improvement in hazards risk management.Based on design performance and cost-effectiveness, our hazards risk management slogan is as follows:
Uniqueness in risk management
Maturity in property loss control
Continuous improvement in BCP

U M C
Uniqueness *Maturity* *Continuity*

Fire Safety

In addition to adopting international standards such as FM, UL, NFPA and SEMI S2 in property protection, equipment safety, risk control and evaluation, UMC has established its own corporate safety guidelines to further enhance these safety standards.

Earthquake Safety

UMC is fully aware of the threats posed by natural disasters, particularly its exposure to seismic activity in Taiwan, and has been extremely proactive in establishing best-in-class risk management procedures. UMC has engaged the services of EQE and VEC, an engineering consulting firm specializing in structural engineering services aimed at addressing risks posed by earthquakes, to help us evaluate and reduce the seismic exposure of our buildings, facility equipment, piping and process tools.

Triple-Star Rating system

The Triple-Star Rating system, including 20 items in Human Element and Physical Protection, was introduced to UMC in 1998. Three stars is the highest grade for each item. We have adopted the Triple Star Audit Program from Chartis, a global leader in risk management and insurance since 1999. After UMC's efforts and improvement, all UMC fabs have been ranked as top-class following Triple-Star Rating system evaluation and risk improvement recommendations. UMC's achievements are illustrated in the chart below:

	Fab6A	Fab8AB	Fab8C	Fab8D	Fab8E	Fab8F	Fab8S	Fab12A P1/2	Fab12A P3/4	Fab12i
Human Element										
Risk management	★★★	★★★	★★★	★★★	★★★	★★★	★★★	★★★	★★★	★★★
Housekeeping & Fire Safety Inspections	★★★	★★★	★★★	★★★	★★★	★★★	★★★	★★★	★★★	★★★
Inspection & Maintenance of Fire	★★★	★★★	★★★	★★★	★★★	★★★	★★★	★★★	★★★	★★★
Fighting Eqmt.	★★★	★★★	★★★	★★★	★★★	★★★	★★★	★★★	★★★	★★★
Hot Works	★★★	★★★	★★★	★★★	★★★	★★★	★★★	★★★	★★★	★★★
Emergency Organization	★★★	★★★	★★★	★★★	★★★	★★★	★★★	★★★	★★★	★★★
Business Continuity Planning	★★★	★★★	★★★	★★★	★★★	★★★	★★★	★★★	★★★	★★★
Smoking Control	★★★	★★★	★★★	★★★	★★★	★★★	★★★	★★★	★★★	★★★
Impairment of Fire Fighting Equipment	★★★	★★★	★★★	★★★	★★★	★★★	★★★	★★★	★★★	★★★
Inspection of Electrical Installation	★★★	★★★	★★★	★★★	★★★	★★★	★★★	★★★	★★★	★★★
Watchman & Security	★★★	★★★	★★★	★★★	★★★	★★★	★★★	★★★	★★★	★★★
Physical Protection										
Automatic Sprinklers	★★★	★★★	★★★	★★★	★★★	★★★	★★★	★★★	★★★	★★★
Facilities & Support Equipment	★★★	★★★	★★★	★★★	★★★	★★★	★★★	★★★	★★★	★★★
Fire Detection	★★★	★★★	★★★	★★★	★★★	★★★	★★★	★★★	★★★	★★★
Outside Hydrant	★★★	★★★	★★★	★★★	★★★	★★★	★★★	★★★	★★★	★★★
First Aid Fighting Equipment	★★★	★★★	★★★	★★★	★★★	★★★	★★★	★★★	★★★	★★★
Water Supply	★★★	★★★	★★★	★★★	★★★	★★★	★★★	★★★	★★★	★★★
Flammable Liquid Hazard	★★★	★★★	★★★	★★★	★★★	★★★	★★★	★★★	★★★	★★★
Flammable Gas Hazard	★★★	★★★	★★★	★★★	★★★	★★★	★★★	★★★	★★★	★★★
Production Tools & Equipment	★★★	★★★	★★★	★★★	★★★	★★★	★★★	★★★	★★★	★★★
Clean Room	★★	★★	★★	★★★	★★	★★★	★★★	★★★	★★★	★★★

Climate change-induced storm and flood occurrences around the world and disease epidemics were concerns for external stakeholders in 2010. UMC responded prudently, first analyzing the impact from the BCP topics of customer concern, then drafting corresponding long-term countermeasures. These actions were taken to maintain a positive corporate image and external stakeholders' trust in the high quality of UMC's risk management.

Response to Taiwan's flooding risks and plans for continuous operations.

The heavy rainfall brought by Typhoon Morakot caused dikes to burst and drainage to fail, inducing serious floods in southern Taiwan. While UMC's southern Taiwan fab was not affected by the flooding, other companies' fabs were heavily impacted. Furthermore, the heavy rainfall that caused the water in the reservoir to swell above capacity raised water turbidity and induced a risk of water shortage. UMC used new simulation software to reanalyze the flood risk potential in Taiwan and review the reliability of the existing contingency plans, and expects to prepare continuous operation plans in advance.

Strategy to respond to potential impact of customer concerns of H1N1 on operations:

With the development of the H1N1 situation, UMC referred to customer survey responses and consulted past experience to analyze the customers' concerns and formulate a strategy to respond to H1N1. Some customer concerns included: massive manpower shortages causing an operational standstill; alternative solutions in the event of a disruption to the supply chain; communication methods during the epidemic period; plans to shift production away from infected fab areas; and UMC's H1N1 prevention measures as below. UMC did not experience mass infections within the company or any severe cases in 2010.

(1) Grasp the latest information and assess the risk.
   a. Collect information on every stage of the epidemic at all times, and hold group meetings depending on the situation.
   b. Adjust the company's epidemic prevention measures (detailed in section 4.3.2) depending on the domestic epidemic situation.

(2) Map a response plan and be prepared to respond properly.
   a. Prepare for alternative ways to visit customers and hold meetings during the epidemic prevention period.
   b. Prepare office quarantine areas or work at home options for employees who are infected or suspected to be infected.

(3) Implement preventive monitoring.
   a. Employees self-monitor their own body temperature and report any unusually high temperatures to the clinic; persons with fever rest at home.
   b. Guards or receptionists remind visitors to self-identify if they traveled into or out of an epidemic country in the past seven days and to accept an ear temperature measurement. (Adjust depending on the epidemic situation)

(4) Protect the staff and avoid infection and spreading.
   a. Sterilize reception areas and public meeting rooms everyday.
   b. Set up an observation area in every factory. (Depending on the seriousness of the epidemic situation, change to quarantine area.)
   c. Divide cafeteria space and wear masks depending on the seriousness of the epidemic situation.

(5) Ensure continuous operations to pass critical period.
   a. Draft a continuous production program to cope with a potential production manpower shortage (30-50%) due to an explosion of the epidemic situation.
   b. Draft alternative solutions to any disruption to logistics of incoming raw material shipments or outgoing end product shipments due to the epidemic situation.
   c. Draft a backup production capacity program to ensure on-time delivery in the event that the epidemic spreads and the fabs are shut down accordingly.

(6) Reflect, learn, recover, and progress.
   a. Investigate total damages and analyze impact on the future.
   b. Review response performance and improve any deficiencies.

Note:
Following Japan's March 11th earthquake, UMC's supply of raw materials and equipment components remained secure. We promptly allocated resources to support customers' demands, while also assisting suppliers and partners that sustained earthquake damage with needed materials and supplies to help accelerate supply chain recovery.

2.3 Honors and Awards

Sustainable Development / Corporate Social Responsibility

Global Index Component for 2010 Dow Jones Sustainability Indexes (DJSI)

UMC has been selected as a global component of the Dow Jones Sustainability Index (DJSI) for the third consecutive year, following DJSI's 2010 annual review. UMC was listed for both the DJSI-World and DJSI-Asia Pacific indexes this year and received the gold prize. DJSI is the most credible international corporate sustainability rating tool. UMC's listing underscores the company's exceptional performance in sustainable operations, which is on par with leading global companies and recognized by international investors.

Dow Jones Sustainability Indexes
Member 2010/11

sam 2011 gold class

"The Silver Prize of the Taiwan Corporate Sustainability Report Honors" by Taiwan Institute for Sustainable Energy (TISE)

UMC's 2009 CSR report was awarded for the third consecutive year and obtained the Silver Prize by TISE in its Taiwan Corporate Sustainability Report Award. UMC's CSR report was recognized for its thoroughness and transparency. The accomplishment illustrates UMC's emphasis on communication with stakeholders and availability of information.

Important Achievements

- UMC Receives Outstanding Enterprise Innovation Award from Ministry of Economic Affairs.
- UMC First to Announce Water Footprint Verification on Integrated Circuit Wafers
- Elpida, PTI, and UMC Partner on 3D IC Integration Development For Advanced Technologies Including 28nm
- Xilinx Virtex-6 FPGA Family Achieves Full Production Qualification on UMC's High-Performance 40nm Process

Environmental Protection, Safety and Health Awards

- "Enterprises Environmental Award of the Republic of China" by the Environmental Protection Administration of Executive Yuan (EPA) (Fab 12A)
- Fab 12A awarded "19th Enterprises Environmental Award of the Republic of China". UMC was chosen for the 10th time since 2001. (Fab8C/Fab8E/Fab8S/Fab8F/Fab12A)
- "Excellent Performance in Waste Management and Resource Reduction, Recycle and Reuse" by EPA (Fab 8E)
- UMC was chosen for the 7th time in the past 8 years. (Fab6A/Fab8D/Fab8E/Fab8F/Fab8S/Fab 8A)
- "2010 Science Park Carbon Reduction Award" by Hsinchu Science Park Administration (SPA). (Fab8D/Fab8F)
- "Science Park's Environmental Competition Award" by Hsinchu Science Park Administration (SPA). (Fab6A/Fab8S)
- "Excellent Industrial Safety and Health Executive Organization of Hsinchu Science Park" by Hsinchu SPA (Fab 8E)
- "Workplace Safety & Health Performance Award (Silver award)" by Ministry of Manpower, Singapore. (Fab12i)
- "Global Views Magazine's Second Annual Taiwan Environmental Heroes Award" (UMC)

UMC Wins Global Views Magazine's Second Annual Taiwan Environmental Heroes Award

Ch1_Strategy and Vision

Ch2_Business Operations

> Ch3_UMC and Stakeholders

Ch4_Healthy Work Environment

Ch5_Greenhouse Gas Management

Ch6_Water and Resource Management

Ch7_Green Product Management

Ch8_Green Projects and Sustainable Society

Ch9_GRI Content Index

Ch3_UMC and Stakeholders

Engaged with 11 types of stakeholders. Identified 4 major issues.

Stakeholder Types and Their Concerns

The stakeholders of UMC include investors, customers, employees, government, business partners, media, local communities, NGOs, suppliers, competitors. The concerns of stakeholders were collected through various communication channels and consolidated with the cooperation of different departments. Various communication channels and feedback are summarized as follows:

Stakeholders' Concerns:

Category	Stakeholders	Concerns
Employees	Board and executive team Managers Staff New recruits Employees who have left the company Potential recruits	Salary Bonus Welfare Pension Workplace Occupational Safety and Health Training and Development Human rights
Customers	Existing customers Potential customers	Product quality Service quality Price Privacy Management of Hazardous Substances Greenhouse Gas Management Supply chain management ESH Management Risk Management Workplace Conflict mineral
Investors	General shareholders Institutional investors Rating agencies	Profit Stock value Market share Information transparency Corporate governance and risk management Corporate image Other investments (new technology)
Suppliers/ contractors	Materials suppliers OEM contractors Engineering contractors Service providers (e.g. Maintenance, cleaning) Waste cleaning contractors	Equipment Workplace Occupational Safety and Health Supply chain management Contractor management
Local communities	Neighbors Local authorities	Pollution emission status Caring for communities Charitable donations
Government and Regulations	Ministry of Finance/Ministry of Economic Affairs/ EPA NSC/Science Park Administration Industrial Development Bureau EPB Township office	Compliance Pollution emission status Energy/water saving Greenhouse gas management Political contributions

Category	Stakeholders	Concerns
Academia and Scientific Community	ITRI Other corporation consultant/ research mechanism Colleges and universities	Product technical ability Pollution prevention technology Industry-university cooperation Talent for the high-tech industry
NGOs and Pressure Groups	Environmental protection organization/ Environmental groups Human rights organizations Charities and voluntary organizations	Company image
Media	TV and radio National/local newspapers Financial newspapers	Company operations Company image
Business Partners	R&D partners	Technical ability Cooperative attitude
Competitors	Other semiconductors	New products/Technology Future development

Communication channels through which UMC engages with its stakeholders:

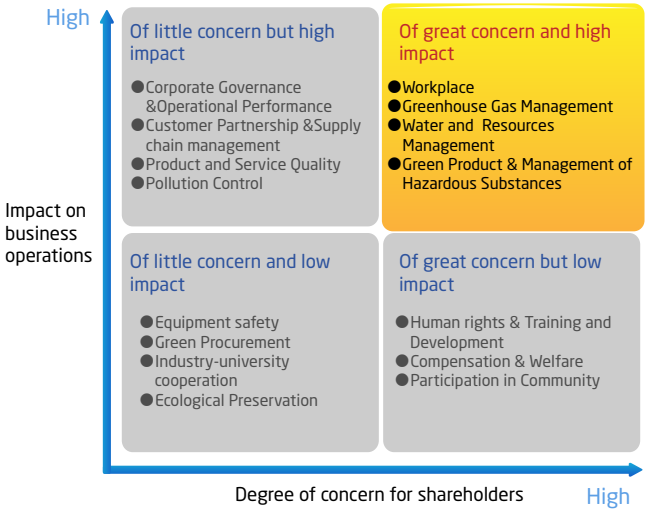
Stakeholders	Tools and Processes
Employees	1. Face-to-face communication: (1) Board to directors/managers (quarterly); (2) Board to all employees (semi-annually); (3) Secretary meetings,DL meetings, employee welfare committee meetings, etc.(periodically) 2. E-communication: eUMC, BBS message board, sexual harassment direct line, whistleblower line, etc. 3. UMC Magazine and UMC CSR Newsletter 4. Other surveys sent to employees
Customers	1. Online service platform: MyUMC 2. Customer audit 3. Online complaint platform: Voice of Customer (VOC) 4. Customer satisfaction survey
Shareholders	General shareholders: 1. Annual General Meeting 2. Quarterly conference calls 3. Announce annual financial statements Institutional shareholders: 1. Quarterly earnings release & investor conference (live webcast of teleconference available) 2. Presentations at financial institution conferences globally
Suppliers	1. Through face-to-face reports or meetings, to convey company strategy and objectives, review quality performance and progress of cooperative projects, share market information, etc. 2. Meetings to communicate when needed- e.g. UMC's HSPM management policies announcement 3. Cooperate with suppliers on specific topics
Contractors	1. All contractors have to sign an "Environmental, safety and hygiene notice for contractors" document 2. Monthly council meeting 3. Random inspections
Local Communities	1. Dedicated department and personnel responsible for communication with community residents 2. Participation in community assembly to hear suggestions 3. Invite nearby residents to join company's annual Family Day
Government	1. Maintain good relations with government authorities 2. Participation in laws and regulations meetings, seminars and conferences held by government authorities 3. Participate actively in Association of Industries in Science Parks (ASIP)

Stakeholders	Tools and Processes
Academia and Scientific Community	1. Cooperate with Industrial Technology Research Institute (ITRI), colleges, universities, and research institutes on many research projects 2. Exchange of opinions with scholars and experts
Community Groups (Environmental NGOs)	1. UMC holds ecological and environmental protection summercamps for disadvantaged children with environmental NGOs every year 2. Environmental NGOs are invited to deliver company-wide speeches regarding ecology and environmental protection during UMC's ESH month 3. Participate in meetings, seminars and conferences held by environmental NGOs
Community Groups(Others)	Associations that UMC has participated in: • The Business Council for Sustainable Development (BCSD) Taiwan • The Environmental Protection Society • Taiwan Semiconductor Industry Association (TSIA) • Association of Industries in the Hsinchu Science Park (ASIP) As a member of ASIP, UMC is actively involved in the operations of the committees in ASIP, including those of planning and public affairs, human resources, employee welfare, information and communication, bonding, environmental protection and public utilities supply
Media	According to company operations and activities as necessary: 1. Hold press conferences periodically 2. Publish press releases periodically
Business Partners	1. E-mail 2. Materialization meeting 3. Telephone conference
Competitors	1. Press conferences 2. Press releases

Identification and response to major issues

The relevant divisions of UMC's Corporate Social Responsibility Committee according to the issues our stakeholders are concerned with and the impacts on the business operations to identify the major issues. UMC will consider feedback and suggestions and respond to these issues through short-term and long-term projects.

The results of materiality analysis in 2010:



The high concern and high potential impact issues will be report includes strategic and targets for complete details in this report. The other issues that are identified as less material are summarized in this report and in the appendix.

Ch4_Healthy Work Environment

18,316 people participated in the health enhancement program.

Ch1_Strategy and Vision

Ch2_Business Operations

Ch3_UMC and Stakeholders

> Ch4_Healthy Work Environment
- 4.1 The "New UMC Healthy Work Environment" Philosophy
- 4.2 Dedicated to Building the "New UMC Healthy Workplace"
- 4.3 UMC's Six Elements Of A Healthy Work Environment
- 4.4 Stay Healthy and Work Happily

Ch5_Greenhouse Gas Management

Ch6_Water and Resource Management

Ch7_Green Product Management

Ch8_Green Projects and Sustainable Society

Ch9_GRI Content Index

While a corporation's objective is to make profits, a healthy workforce is the key to profit-making. Since its establishment, UMC has been able to withstand several economic downturns and achieve numerous miracles in the industry. Behind all of these achievements is the quiet diligence and support of our employees and their families.

Thanks to all of our employees' hard work, UMC recovered brilliantly from the devastating 2009 economic downturn. In 2010, the 30th year of UMC's establishment, we wish to progress even further in fulfilling our corporate social responsibility and in creating a healthy work environment.

Over the years, UMC has continuously strived to fulfill its societal commitments through various methods and channels. Years of hard work in the field have enabled us to become increasingly more adept at fulfilling our corporate social responsibilities. Nevertheless, the global financial crisis, industry competition, and dramatic changes in the talent market have spurred us to focus on optimizing our work environment and workforce management.

To create a healthy and harmonious organization with which our employees, management team and investors feel comfortable – a "new UMC healthy work environment", UMC began in 2010 to garner all healthy work environment-related resources and practices utilized in the past and compile and categorize them into a promotion plan called "UMC's Six Elements Of A Healthy Work Environment".

This plan integrates both successful key projects previously executed as well as more recent emphases on overall health promotion and employees' physical and mental health development. Executed mainly in Taiwan, the plan gives back in concrete action to those who have grown alongside UMC and, together with UMC colleagues, boldly paints a bright future ahead.

Because we truly believe that UMC exists only thanks to our people's dedication; only with happy employees can UMC achieve true sustainability.

2010 Report on Implementation of UMC's Healthy Work Environment

Objective	Implementation	2010 Results	Reference
To build a healthy work environment with happy employees, healthy teams and a vigorous organization	Implemented the promotion plan "UMC's Six Elements Of A Healthy Work Environment" (Implementation period: 2010 - 2013)	Completed the first phase of the plan in 2010.	Chapter 4.3 "Six Elements Of A Healthy Work Environment"

Note: An upgrade of the internal communication platform will follow. Participating in an official workplace appraisal process will also help consistently improve the plan.

4.1 The "New UMC Healthy Work Environment" Philosophy

The concept of a healthy work environment has long taken root at UMC. We are dedicated to building a quality work environment for our employees because we have always considered them our most valuable assets and the key to our company's growth and progress. Besides providing a competitive compensation package, a comprehensive training system, diverse benefits and a safe working environment, UMC also provides for food, clothing, housing, transportation, education, entertainment and other elements that comprise employees' daily lives so that each employee can work happily without worries.

Continuing the philosophies of "optimizing our work environment and management" and "creating a healthy and harmonious organization with which our employees, management team and investors feel comfortable", UMC's strategy is to reinforce the concept of a healthy work environment and build one that incorporates the following three elements – happy employees, healthy teams and a vigorous organization.

4.2 Dedicated to Building the "New UMC Healthy Workplace"

In 2010, building a healthy workplace became one of UMC's mid- to long-term plans, with Taiwan as the main site of execution. This plan is to be carried out jointly by the CSR Committee, Human Resources, GRM&ESH, UMC Science and Culture Foundation and management across the company. The results, which will be regularly reviewed and followed up on, are now listed as one of the 2011 performance indicators evaluating HR management as well as the company as a whole.

The following approaches have always been UMC's missions and are essential to successfully creating a healthy work environment:

-consider employees as invaluable assets
-emphasize humanistic management
-encourage work-life balance
-build a safe and friendly work environment
-look after employees' long-term physical and mental health
-generate a positive atmosphere within the organization
-develop a vigorous workforce and organization
-provide employees with a comprehensive learning roadmap
-form a culture unique to UMC
-participate in and offer assistance to the broader community

To gain our employees' support and participation, "healthy work environment" promotional activities are carried out across divisions in a collaborative manner. Resources are integrated, and open communication and systematic teamwork are made possible through the help of committees (e.g. ESH, CSR and Training Committees), cross-division meetings and other informal groups. UMC's sophisticated e-systems help promote activities efficiently, and the participation of UMC's management team also lends top-down support to drive projects to success.

4.3 UMC's Six Elements Of A Healthy Work Environment

The "new UMC Healthy Work Environment" project is broken down into six elements, each to be carried out by a responsible division. The project aims to deepen the concept of a healthy work environment and thus achieve employee satisfaction, external recognition, strengthen recruiting and retention of top talent, and in turn, attain the goal of enhancing individual and corporate performance.

4.3.1 Element 1 – A Safe UMC

The objective is to create a safe and worry-free work environment by establishing regulations, building safe facilities, eliminating all hazards in the workplace to become an all-around "Safe UMC."

• Voluntary Leave Program

To improve employees' health and work-life balance, UMC began in January 2010 to implement the Voluntary Leave Program. Managers are asked to accommodate and encourage subordinates' vacation plans. In addition, the company also organizes related activities and promotions to remind employees to take time away from work as part of efforts to build a healthy workplace.

With the same goal in mind, UMC's two recreation centers in Hsinchu and Tainan also offer customized benefit plans that encourage employees to rest and reset.

Through this program and its supportive measures, UMC seeks to construct a workplace in which both superiors and subordinates can openly accept and respect the taking of reasonable leave.

• Zero Smoking Pollution Program

Long before the government enacted its non-smoking policy, UMC had worked to create a smoke-free office environment. For many years UMC has maintained a smoking prevention philosophy and continued its fight against smoking, including: an absolute ban on indoor smoking, designating outdoor smoking areas, educating new employees on their very first day about UMC's non-smoking policy, stating it explicitly in UMC's rules and regulations, and promoting it regularly through various channels within the company. All of these measures are implemented to ensure our employees are free from exposure to secondhand smoke.

• A Safe Workplace

Offering a place where employees can work feeling safe and at ease is one of UMC's top priorities. To achieve this, UMC has designed and built a safe and friendly workplace as well as a secure and sanitary work environment with the following emphases:

Safe and Friendly Workplace

In 2010, UMC took the following approaches toward fostering a friendly workplace:

a. Gender Equality in UMC

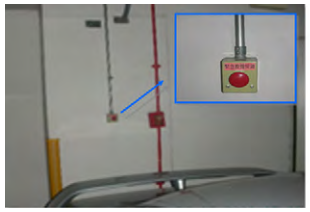
From recruiting and staffing to training and retention, UMC upholds gender equality and ensures all of our practices are either compliant with or even more favorable than the law. At UMC, an employee does not have to worry about sexual discrimination. In addition, UMC takes the initiative to adopt measures promoting gender equality. From policy to execution, UMC is devoted to creating a culture and environment of true gender equality.

b. Night-Shift Safety for Women

To ensure the safety of our female employees working on night shifts, UMC offers safe and quality accommodations, shuttle services and comprehensive site security.

Night Safety Assistance

1. Cab service: A female employee can call security for cab service to commute home after her shift. Drivers all belong to cab service providers contracted with the company.
2. Night escort: A female employee getting off work can call security for an escort to the place her car is parked.
3. Car trouble: Portable jumpstarters and air compressors are available at all security offices for employees with car troubles.
4. Emergency Assistance: When an emergency button is pushed, the security office is instantly alerted and can provide immediate assistance and make necessary announcements.
5. Shuttle Service: UMC provides an expansive shuttle service with more than 40 routes day and night to ensure employees' safety in commuting.
6. 24-hour Service Line: Security rooms at each fab and the central control center at our main building are serviceable 24 hrs/day to ensure employees' safety around the clock.
7. Night emergency response measure: Combining the safety dept, security guards, and the health center enables immediate medical assistance at night.



Parking lot emergency buttons

Day and night shuttles

c. Assistance for Pregnant or Special Needs Employees

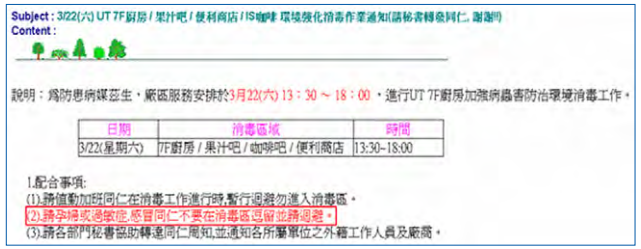
UMC takes care to provide special assistance to employees who are pregnant or have special needs and adopts a variety of measures to create a safe and friendly workplace for all our mother-to-bes.

Assistance for Pregnant or Special Needs Employees

1. Pregnant ladies first: Each employee cafeteria is labeled with a sign reminding employees of the courtesy of letting pregnant ladies cut in lines for meals.
2. Favorable parking: A number of parking spaces are designated for pregnant employees to eliminate any risk or anxiety that might arise from trying to park in a hurry.
3. Hazard prevention: Before any office area is sterilized, a notification is sent out in advance so pregnant employees can stay clear of the area.
4. An option to transfer away from night shift: UMC's employee contract asks that pregnant employees notify their supervisors immediately so they can transfer away from night shifts. Applications for shift change are simple and can be done online.
5. Childbirth subsidy: The Employee Welfare Committee offers subsidies for employees who are giving birth. Both female and male employees with newborn babies can apply.

"Pregnant ladies first!"

Parking space for pregnant women



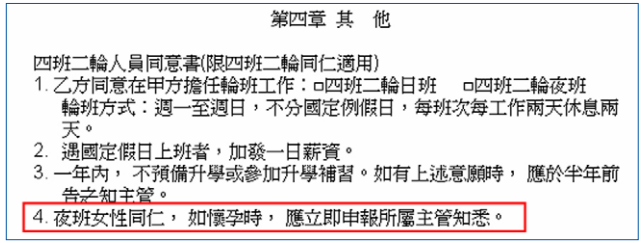
Subject : 3/22(六) UT 7F廚房 / 果汁吧 / 便利商店 / IS咖啡 環境強化消毒作業通知(請秘書轉告同仁, 謝謝)
Content :

說明：為防患病媒蚊生，廠區服務安排於3月22(六) 13：30 ～ 18：00，進行UT 7F廚房加強病蟲害防治環境消毒工作。

日期	消毒區域	時間
3/22(星期六)	7F廚房 / 果汁吧 / 咖啡吧 / 便利商店	13:30~18:00

1.配合事項:
(1).請值勤加班同仁在消毒工作進行時,暫行迴避勿進入消毒區。
(2).請孕婦或過敏症感冒同仁不要在消毒區逗留並請迴避。
(3).請各部門秘書協助轉達同仁周知,並通知各所屬單位之外籍工作人員及廠商。

Office sterilization notice



第四章 其 他

四班二輪人員同意書(限四班二輪同仁適用)

1. 乙方同意在甲方擔任輪班工作：□四班二輪日班 □四班二輪夜班
   輪班方式：週一至週日，不分國定例假日，每班次每工作兩天休息兩天。
2. 遇國定假日上班者，加發一日薪資。
3. 一年內， 不預備升學或參加升學補習。如有上述意願時， 應於半年前告知主管。
4. 夜班女性同仁， 如懷孕時， 應立即申報所屬主管知悉。

Female employees should notify supervisor upon pregnancy.

d. Flexible Work Hours and Leave

Believing in the importance of work-life balance, UMC offers flexible work hours which our employees can apply for based on their needs. Employees working at the company for less than one year are also given special or flexible leave. In addition, UMC's open management style allows our employees, men or women, to apply for unpaid leave worry-free to take care of their families.

e. Sexual Harrassment Preventive Mechanism

To prevent sexual harrassment and protect victims' rights, UMC has structured a sophisticated preventive mechanism that includes case investigation procedures and confidential reporting channels to regulate and publicize workplace sexual harassment prevention measures. These measures are reinforced from an employee's first day at new employee orientation. Company security guards also provide a first-response support network that further provides protection of a robust sexual harassment preventive mechanism for all of UMC's employees, regardless of gender.

Creating a Safe Work Environment

a. Building A "Safety is My Responsibility" Business Culture

UMC believes that taking care of employees and building a safe workplace is a company's duty. Any health or safety hazards could cause serious losses for the company financially or socially and weaken the company's competitiveness. As such, UMC sets safe equipment design as a foundation for the company's safety and health management, and we ensure that the concept of "Safety Is My Responsibility" is part of our company culture. We hope that our achievements in safety and health management will translate into positive business operating results.

Besides managing the "hardware" of safety, UMC also works hard to build the "software" of a safety-conscious culture. In 2005 UMC began programs to promote individual awareness and responsibility in safety management, with a 2010 mid-term goal of expanding this "Safety Is My Responsibility" culture through fab director inspections, promoting public safety month, and other major safety awareness programs.

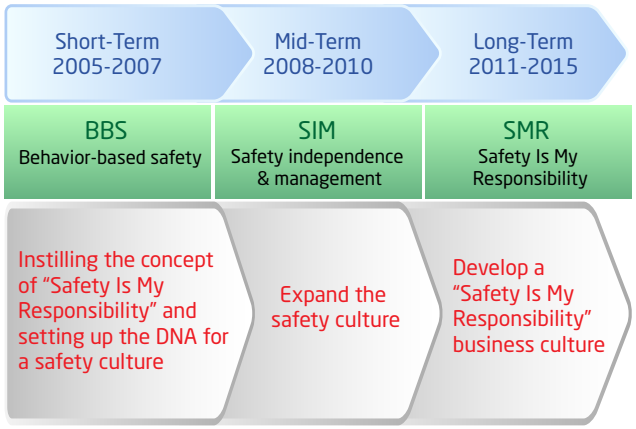


Diagram: Progress on UMC's "Safety is My Responsibility" Business Culture

b. Environmental Safety and Health (ESH) Management Cycle

Based on the requirements of ISO14001 and OHSAS18001, UMC has established continually improving environmental safety and health (ESH) management systems. From the start of ISO 14001, UMC has actively pursued the construction and execution of an ESH management system. In 2001, UMC became the first company in the industry to receive EMS and OHSAS integrated certifications as an entire company, including all fabs. UMC also passed ISO14001:2004 and OHSAS18001:2007 upgrade certifications in 2005 and 2007, respectively. To maintain the effectiveness of our ESH systems, UMC internally audits its ESH management systems twice a year and also implements third-party audits annually. Audit results become focal points for continuous improvement.

c. Environmental Safety and Health Training

Environmental safety and health training courses at UMC are implemented at the company level, fab level, and department level. Continuous training and promotion strengthens employees' emergency response abilities and safety consciousness which reduces the number of accidents resulting from unsafe actions. An annual training program includes emergency response, government regulations and certifications, the maintenance of safety and health management systems, safety for special operations, and supervision training. In addition to annual training programs, periodic training programs are planned for special cases. In 2010, 1,102 classes were held with a total of 38,198 attendees. In addition, 128 e-learning classes were made available to UMC employees so that they can absorb safety and health knowledge at anytime without being limited to classroom training schedules.

d. Employee Training and Emergency Response

To further reduce the time it takes to resolve accidents, all UMC employees must undergo our fire brigade's 2-hour training program every three years, including basic fire prevention and safety as well as fire extinguisher operation, to ensure that each and every employee possess fire safety and disaster response knowledge. Each fab also forms ERT's (Emergency Response Team) that undergo regular training and simulations to strengthen ERT disaster response skills and achieve the goal of first-response disaster prevention and control.

4.3.2. Element II: A Healthy UMC

The 2010 "Healthy UMC" health enhancement plan includes the following four focuses: (1) a total health enhancement program called "Invest In Health, Protect Yourself," (2) diversified, multi-channel employee counseling and assistance services, (3) immediate medical care and health watch, and (4) a healthy diet program called "Rest Assured". To offer employees and their families further assistance in health investment and protection services, the company provides a sophisticated insurance policy including life insurance, accident insurance, medical insurance, and cancer insurance. Two of our programs include:

• "Invest In Health, Protect Yourself" Total Health Enhancement Program

For the 2010 "Invest In Health, Protect Yourself" health enhancement program, the health center arranged various themed health promotion activities each quarter that aimed to maintain and improve employees' health condition and help employees build healthy habits, adopt health lifestyles, and in turn enhance the organization's health and competitiveness as a whole.

2010 Total health enhancement program

• "Rest Assured" – Healthy Food Promotion Program
When the oil used in the fast food industry became a public concern in 2010, UMC immediately requested that all oil-related food products and all food supplies be regularly checked and certified. At the same time, UMC began implementing a plan promoting a series of control mechanisms on the sources of our food. Through regular and irregular audits, external examination, and a policy of transparency and disclosure, employees' food safety was ensured.

To prevent excessive consumption of fat and calories, the health center and fab area service staff jointly promoted healthy diet habits that promote less salt, oil, corn starch, fried foods and more fruits and vegetables. Certain sites at UMC also provide special menus with "health", "vegetable", or "stew" themes To offer a healthier and more nutritiously balanced meal service based on employees' needs and requests.

For A Greener Planet: Vegan Day and Plan for Reducing Food Waste
UMC's Vegan Day orginates from a voluntary vegan diet campaign advocated by our employees. Due to UMC's continuous concern over our environment and thanks to employees' support and participation, the healthy vegan meals have helped UMC reach its carbon reduction goals.

Taking the initiative to reduce food waste during this time of global food shortage, UMC once again demonstrates its active efforts to fulfill its responsibilities as a model corporate citizen.

4.3.3 Element III: A Warm UMC

In 2010, UMC integrated the seven employee assistance services in order to establish a caring atmosphere and supportive system for management issues. "A Warm UMC" is a joint effort between the company's internal employee assistance team and external counseling services. Targeting various groups, the aim is to understand employees' and the organization's needs so as to offer timely, appropriate, and effective solutions and care.

4.3.4 Element IV: A Cohesive UMC

To produce a positive and cohesive workplace atmosphere, UMC uses systematic means as well as teambuilding activities to strengthen bonds, decrease opposition, and minimize labor disputes.

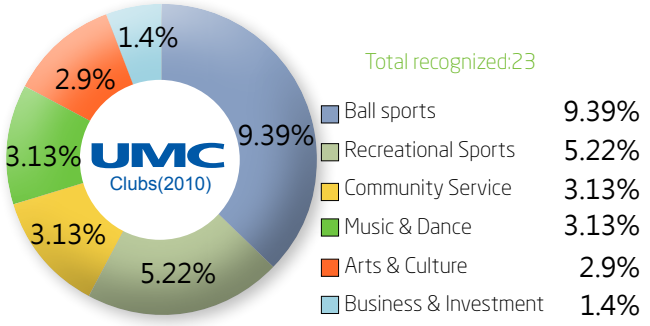
UMC places great emphasis on work-life balance for both employees and their families. Featured programs were designed specficially for spouse and family participation, including "Bring Your Child To Work Day", "Sculpting A New UMC Culture" 30th anniversary celebration series, 2010 library volunteer opportunities and "Extended Health Examinations for Families". These efforts focused on bonding with employees and their families in hopes of gaining their recognition and approval. We hope that, by looking after both our employees and their families at the same time, we are also creating more opportunities for our employees to enjoy family life with less stress and better health. Through joining our events and better understanding the company, we also hope that employees' families can continue to give the same wholehearted support to our hard-working and dedicated staff..

4.3.5 Element V: A Vigorous UMC

Happy employees are the source of a company's vitality. A Vigorous UMC incorporates employee welfare, fun and community service in our diverse range of activities. Participation stimulates employees' energy and creativity which in turn makes the workplace more active and lively.

• Clubs & Activities Offer Employees A Fun-Filled LifeStyle
Employees are encouraged to utilize their spare time by taking advantage of the more than 20 clubs at UMC featuring a variety of activities. As of 2010, twenty-three clubs were officially registered at UMC Taiwan.

Emplyee Organizations in UMC Taiwan 2010



• First in the industry to provide a quality facility for employees and their families to relax and exercise, UMC invested several hundred million NT in building our two five-star recreation centers in Hsinchu and Tainan. Fitness equipment is also made available to employees in peripheral fab areas for their convenience. UMC has also designed an array of activities and competitions for employees and their families to make full use of these facilities.

Since its grand opening more than seven years ago, UMC's Hsinchu Recreation Center has served over 100,000 employees and their families every year. On average, nearly 350 UMC employees and families visited the center each day in 2010. The two recreation centers not only help employees develop exercise habits and foster a fitness-oriented culture at UMC, but by opening the facilities to the public, UMC is also benefiting local residents and helping create a heathier society.


(Left) International Standard 50M Swimming Pool (Hsinchu)
(Right) Multi-Purpose Ball Court


(Left) UMC Dormitory & Recreation Center (Tainan)
(Right) Tainan SIP Sport Park

• Intermurals and Sports Season

UMC values the physical and social benefits from friendly recreational sports competitions between divisions and thus encourages every employee to participate. UMC plans various themes for these annual intermurals and recreational competitions based on the different needs of each region.

Photos taken at the 2010 "Three Minds Three Bodies Challenge"

• Flora Expo Express

To promote work-life balance and create a healthy work environment, UMC created the "UMC Flora Express" to transport employees to and from the 2010 Taipei International Floral Exposition during work days to give employees an opportunity to take a vacation day to enjoy and relax.

4.3.6 Element VI: A Cultured UMC

We hoped that the promotion of "A Cultured UMC" from inside and outside the company would create a new culture unique to UMC, incorporating the arts, experiential learning and community services. With employee participation, image building and adequate public relations, we expect UMC's new culture to reach external stakeholders. "A Cultured UMC" involves UMC's 30th anniversary culture-building celebratory activity series and cultural lectures and events.

Let's Learn Arts" Lectures

4.4 Stay Healthy and Work Happily

Building a healthy work environment is one of UMC's mid-to-long-term plans and has been listed as one of UMC's mid-term human resources management performance indices beginning 2011. It is a three-year project from 2010 to 2013 divided into four phases: reconstruction, implementation, expansion and depth.

The project began in April 2011 and will receive a final overall review at the end of 2013. In the meantime, we will continually improve completed items to build a comprehensively supportive and healthy work environment.

Implementation results of the 2010 UMC Healthy Work Environment plan:

Category	Implementation Results
A Safe UMC	1. 82% of vacation hours from the previous year were used. 2. Smoking in office areas was eliminated and related risks prevented. 3. Structuring a safe work environment effectively reduced the incidence of labor disputes, sexual harassment and occupational accidents. 4. Fab 8E received the 2010 Excellent Industrial Safety and Health Performance Executive Organization awarded by Hsinchu SPA. 5. UMC's Disabling Injury Frequency Rate (DIFR of 0.184) and Disabling Injury Severity Rate (DISR of 1.915) of the past three years were far lower than the industry standard (DIFR of 0.57 and DISR of 19). 6. A total of 1,102 training sessions on industrial safety were conducted in Taiwan in 2010, with a total of 38,198 attendees. 7. Overall facility security, a night escort service for women, a night shuttle service and Hsinchu-Tainan shuttle buses are in place to ensure a safe work environment as well as to support energy conservation and carbon reduction policies.
A Healthy UMC	1. Programs were implemented to help employees with overall health management and enhancement and in turn help raise morale, elevate work quality and increase corporate competitiveness. 2. The employee counseling and assistance service helped employees solve problems found in their personal lives or workplace and reached the goal of identifying problems and providing solutions at an early stage and preventing problems from worsening. 3. In 2010, 18,316 people participated in the health enhancement program, 5,135 of which came participated in the activities category and 13,181 of which participated in the health examination category. The health center also launched a successful campaign against corporate occupational hazards such as computer overuse. 4. The implementation of a vegan day and the introduction of food waste reduction together reduced food waste in a single fab area by 53% per month, which equals about 1,760 kg. 5. The "Rest Assured" Healthy Food Promotion Program ensured the safety of food and water consumed by employees through enforcement of food safety standards and management
A Warm UMC	1. A caring environment and organizational mechanism have been established to help prevent management issues, help employees resolve work-related or personal issues, and to enhance the harmony between labor and management. 2. Disaster relief provided by the company, including interest-free loans, natural diaster relief funds and medical assistance, is made immediately available for employees in need. 3. Modification and improvement of the application system and policies raised the percentage of internal job transfer applications to 77%. 4. The southern settlement plan and a series of activities helped employees to blend into Tainan communities, encouraged work-life balance, and effectively reduced staff turnover.

Category	Implementation Results
A Cohesive UMC	1. We produced a positive and cohesive workplace atmosphere and minimized labor disputes. 2. Team-building and social activities were implemented to build trust and collaboration. UMC's recreation centers in Hsinchu and Tainan also provide a readily available and free-of-charge facility for teambuilding activities as well as a great place to relax and socialize with colleagues. 3. UMC is compliant with EICC standards and no violation has been made thus far. 4. Executive-level forums were conducted on a regular basis to communicate company prospects, business status, and issues that concerned employees, so as to improve talent retention. 5. Employees' families were invited to join company events. On UMC's "Take Your Children to Work Day", for instance, over 500 children came to work with their parents. Additionally, more than 4,000 family members participated in company events. These efforts effectively increased approval and recognition from employees' families.
A Vigorous UMC	1. In 2010, 23 employee organizations were officially recognized at UMC Taiwan. These organizations enable employees to be healthy and happy in both work and leisure. 2. UMC's Hsinchu Recreation Center served over 100,000 employees and family members in 2010, which amounted to an average of nearly 350 people per day. 3. A total of 136 teams in Hsinchu and Tainan participated in UMC's intermural and recreational competitions, demonstrating their energy, creativity and teamwork. 4. Leveraging the occasion of the 2010 Taipei International Floral Exposition, UMC conducted eight "Flora Expo Express" field trips for employees to take a break from work and enjoy a balanced lifestyle. 5. Employee welfare, fun and community service were integrated and incorporated into the design of activities, making them more fun, vigorous and creative.
A Cultured UMC	1. UMC's culture was successfully promoted in UMC's 30th Anniversary Celebration Events, including "UMC Hands in Hands" on May 21st and "On to the Next 30 Brilliant Years" activity series. 2. To celebrate UMC's 30th Anniversary and promote the company image, a "time travel" website was built to tell stories of UMC's 30 years of history, and the UMC 30th Anniversary Celebration Album was published and given to UMC employees, retirees, affliates, customers and external stakeholders. 3. The celebration events presented an opportunity to gather UMC employees all around the globe. An estimated 14,600 employees and 4,000 family members participated. 4. UMC's arts and cultural events enabled employees to appreciate the beauty of life and practice better work-life balance.

Ch1_Strategy and Vision

Ch2_Business Operations

Ch3_UMC and Stakeholders

Ch4_Healthy Work Environment

> Ch5_Greenhouse Gas Management
5.1 Climate Change
5.2 Challenges and Opportunities
5.3 Communication and Disclosure of Carbon Emissions
5.4 Greenhouse Gas Reduction
5.5 Other Greenhouse Gas Reduction and Future Plans

Ch6_Water and Resource Management

Ch7_Green Product Management

Ch8_Green Projects and Sustainable Society

Ch9_GRI Content Index

Ch5_Greenhouse Gas Management

Normalized PFC emissions down 11.7%. Normalized power consumption down 19%.

As a member of the global community and a semiconductor industry leader, UMC has embraced measures to reverse global climate change. UMC established its Climate Change Policy, Low-Carbon Commitment and GHG emission reduction goals from 2010 to 2012 as the company's guiding principles.

UMC Climate Change Policy

- Expected to reach carbon neutral
- To be the low carbon solutions provider
- To promote the development of a low carbon economy

UMC Low-Carbon Commitmen

1. low-carbon design process
2. Energy efficiency optimization
3. installing high efficiency PFC abatement systems in new tools
4. adopting green building standard for new buildings
5. Established the carbon partnership with clients and supply chain
6. Complete the carbon footprint inventory of all Fab
7. Invest in green technology industry

Dr. Shih-Wei Sun, CEO and chairman of UMC's CSR Committee, announced UMC's climate change policy and carbon emission reduction plans on April 22nd,2010.

The summary of UMC's carbon emission reduction plans. (333 reduction plans)

Objectives	Description	Achievements	Chapter Reference
Reduction targets of 33% for normalized perfluorinated compounds (PFC) emission by 2012*.	Promotes the replacement of C_3F_8 with C_4F_8 in all of its fabs from 2010 to 2012.	Completing 43 CVD tools conversion in 2010. The normalized PFC emission is down 11.7% compared to 2009. Progress to achieve the overall goal of 35%.	5.4.1.PFC Gas Reduction
Reduction targets of 3% for electricity usage by 2012*.	Introduction of various energy saving technologies, promotes short and medium term energy saving programs from 2010 to 2012.	Electricity consumption savings in 2010 was 14,502 MWH, (0.91%, compared to 2009). Progress to achieve the overall goal of 30%.	5.4.2. Energy Management

Note: The base year is 2009.

5.1 Climate Change

Since the industrial revolution, the corresponding population increase and technology advancement have accelerated and expanded humanity's pollution of the environment. A large quantity of greenhouse gases resulting from industrial activities is discharged into the atmosphere, contributing to global warming. The temperature rise has resulted in icebergs melting in polar areas and rising sea levels. Moreover, ocean currents and rainfall patterns have been altered, increasing the frequency and intensity of floods, droughts and storms. Climate changes resulting from global warming have had a direct or indirect impact on the ecosystem, such as faster reduction or the extinction of many species, reduced crop production, and rise in diseases and natural disasters. For the welfare of mankind, actions against global warming caused by human factors must take place immediately. UMC has been responding aggressively towards the potential impact on business operations caused by climate-related natural disasters, while also preparing for increasingly stringent carbon emission controls and regulations.

5.2 Challenges and Opportunities

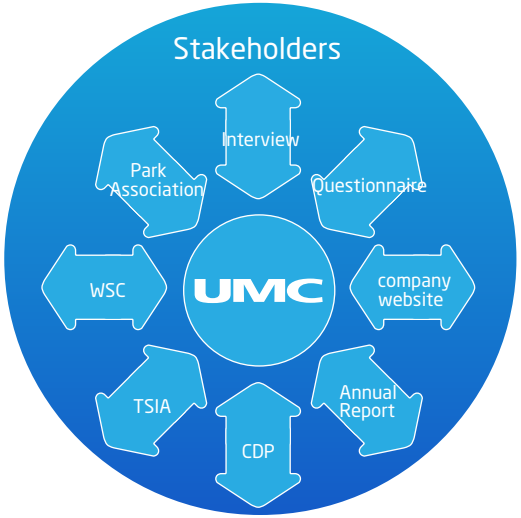
Facing the potential impact on business operations caused by climate-related natural disasters, UMC will continue to consider all possible risks and plan countermeasures while conducting company-wide Business Continuity Management (BCM). UMC realizes that any impacts resulting from climate changes may lead to price increases or even supply interruption of resources and raw materials. Therefore, UMC performs periodic analysis of various operating costs, evaluates results, and drafts related management plans. Currently UMC has diversified its production base and supply chain around the world to lower the risk of concentrating in one single area. UMC also considers opportunities to expand its business through financial investment.

5.3 Communication and Disclosure of Carbon Emissions

Communication of Carbon Emissions

Global climate change has been a major consideration for investors and corporations; therefore, disclosure of carbon emissions is garnering more and more attention. In addition to joining inventory and verification projects for greenhouse gas emission, UMC also discloses the information publicly through its CSR report, the company website, questionnaires from customers and investors, participation in the Carbon Disclosure Project (CDP) and direct communication with the third parties, such as TSIA, WSC, Park Association, etc.

Carbon Communication Channels



CDP: Carbon Disclosure Project
TSIA: Taiwan Semiconductor Industry Association
WSC: World Semiconductor Council

Participation in Carbon Disclosure Project (CDP)

Since 2006, UMC has participated in the Carbon Disclosure Project (CDP) initiated by major global institutional investors to disclose information such as greenhouse gas emissions, along with investment risks and opportunities in dealing with climate change. This participation demonstrates UMC's efforts and determination to respond to climate change.

Inventory and Verification of Greenhouse Gas Emissions

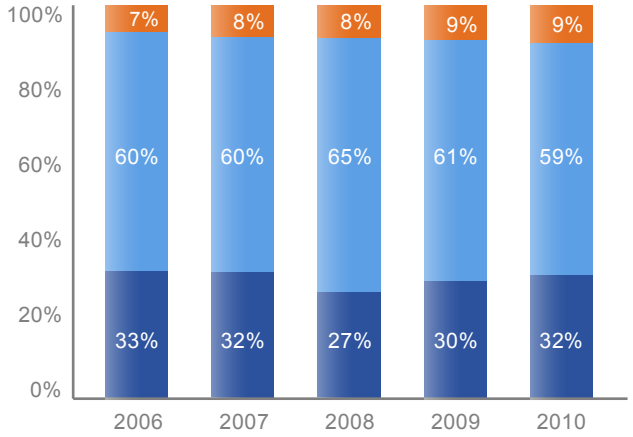
UMC has established a greenhouse gas emission inventory system following the requirements of ISO 14064-1 and the Greenhouse Gas Protocol. The UMC GHG inventory includes qualitative and quantitative analysis for Scope 1 (Direct GHG Emissions) and Scope 2 (Indirect GHG Emissions), and qualitative analysis for Scope 3 (Other Indirect GHG Emissions).

Scope and method of the greenhouse gas inventory

Category	Scope	Implement manners
Scope 1 (Direct GHG emissions)	Direct GHG emissions occurring from sources that are owned or controlled by the company (ie, sources within the organizational boundary). For example, emissions from combustion of fuel in owned or controlled vehicles.	quantitative and qualitative assessment
Scope 2 (Energy indirect GHG emissions)	Indirect GHG emissions occurring from the generation of purchased electricity (heat/ cool, steam and fossil fuel derived energy products) consumed by the company.	quantitative and qualitative assessment
Scope 3 (Other indirect GHG emissions)	Other indirect GHG emissions occurring as a consequence of the activities of the company, but generated from sources not owned or controlled by the company (eg, emissions from air travel).	qualitative assessment

According to the data in past years, the major sources of UMC's greenhouse gas emissions are CO_2 from power generating processes and PFCs from semiconductor manufacturing processes such as CF_4, C_2F_6, SF_6, NF_3, CHF_3, C_3F_8 and C_4F_8. These two resources account for 90% of UMC's overall emission of greenhouse gases.

UMC GHG emission sources



Note: The calculation of PFC emissions from production adopts the Tier2b semiconductor calculation formula and parameters of IPCC 2006 and the GWP of the fourth assessment report.

UMC joined the GHG emissions and reductions inventory plan conducted by TSIA (Taiwan Semiconductor Industrial Association) in 2006. Following the ISO 14064-1 principle, a greenhouse gas emission inventory system has been established and the GHG emission amount of all UMC fabs since 2000 has been inventoried. Currently, UMC has already passed third party verification for 2000 to 2010 GHG emission amounts in Taiwan. UMC will continue to require annual greenhouse gas emission inventory checks conducted by a third party to ensure that UMC completely adheres to the current status of greenhouse gas usage. We also completed the 2009 GHG emissions data verification of Singapore's Fab12i in 2010. All UMC fabs has been verified.

Note
1: The verification for 2010 GHGEV is currently being performed by BSI.
2: The 2010 GHG emissions data of UMC Fab12i in Singapore has based on the same basis as 2009 but not been verified.

Taiwan

Singapore Fab12i

Certificate for Passing GHGEV (Greenhouse Gas Emissions Verification) for All UMC Fabs in 2009

Carbon footprint

In order to establish the basis for UMC to further promote green products, green manufacturing processes and green design, UMC implemented the Total Carbon Management Project actively. Besides Carbon Footprint verification and CDP (Carbon Disclosure Project), UMC has completed the foundry industry's first reported carbon footprint and EPD(Environmental Production Declaration) verification for integrated circuit wafers produced at its facilities in 2009.Follow-up to the whole company also launched simultaneously execute the works, and UMC conducted carbon footprint inventory on its 300mm wafers at the company's Fab 12A according to international carbon footprint standard PAS2050/ISO14067(CD) in 2010, with the results receiving third party verification by Det Norske Veritas (DNV). Hoped that this demonstration actions to help the industry promote the development of products as carbon label.

In the carbon footprint inventory process, UMC used product Life Cycle Assessment (LCA) to assess the greenhouse gas emissions of the primary material silicon, from refining, manufacturing through production. In addition to Scopes 1 and 2 of the inventory process, Scope 3 -- Other Indirect GHG Emissions, measure emissions from the supply chain, employee business travel, product use and disposal, and external waste distribution/logistics, etc. Since UMC is not an end product manufacturer, the major contributors of Scope 3 GHG emissions come from the supply chain.

UMC has always valued environmentally sustainable growth as an important part of our business. As such, we provide Total Green Solutions to help customers produce high quality, environmentally friendly products. UMC's completion of Carbon Footprint and EPD underscores our commitment to social responsibility by following a rigid international verification system that tracks and monitors various aspects during IC wafer manufacturing that may impact the environment, and help customers to structure the green product and supply chain completely. Furthermore, it provides customers with comprehensive environmental information to help them document the green supply chain of their product manufacturing. UMC will build upon this achievement to help enhance the entire supply chain by aggressively implementing green supply chain programs and helping customers to produce green products that have lower impact on the environment that is based on Carbon footprint and EPD(Environmental Production Declaration).

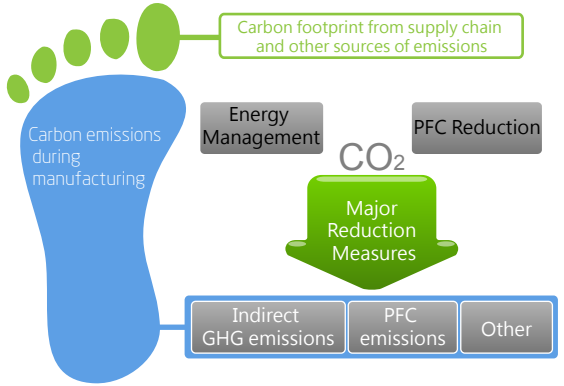
200mm IC wafer PCF & EPD Certificate (Fab8A)

300mm IC wafer PCF & EPD Certificate (Fab12A)

5.4 Greenhouse Gas Reduction

According to the product carbon footprint and greenhouse gas emissions inventory results, the major contributors of UMC's product carbon footprint is manufacturing through production and the major sources are electricity and PFC gas. So the reduction of electricity and PFC gas can be effective to reduce greenhouse gas emissions and product carbon footprint.

Product Carbon Footprint Source and Reduction Measures



5.4.1 PFC Reduction Target and Plan

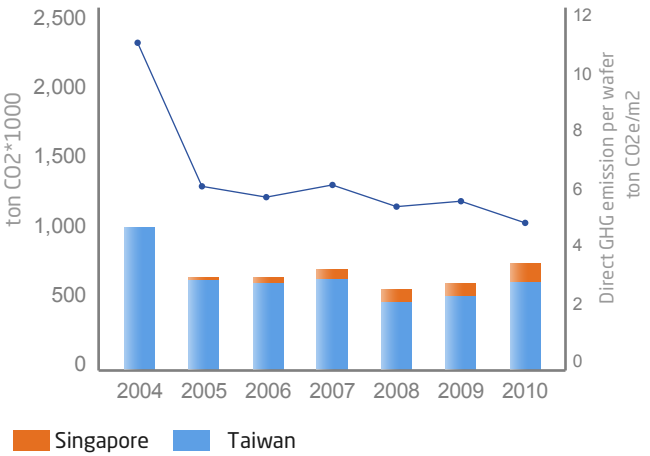
UMC established its "PFC Emissions Reduction Team" in 1999 to implement its PFC reduction plan. UMC also set PFC reduction targets to meet the reduction target of the Taiwan Semiconductor Industry Association (TSIA) in 2010.

Note: TSIA has targeted PFC emission reduction by "10% in 2010 compared to 1998 (the emission of 1998 is the MMTCE average of 1997 and 1999) levels".

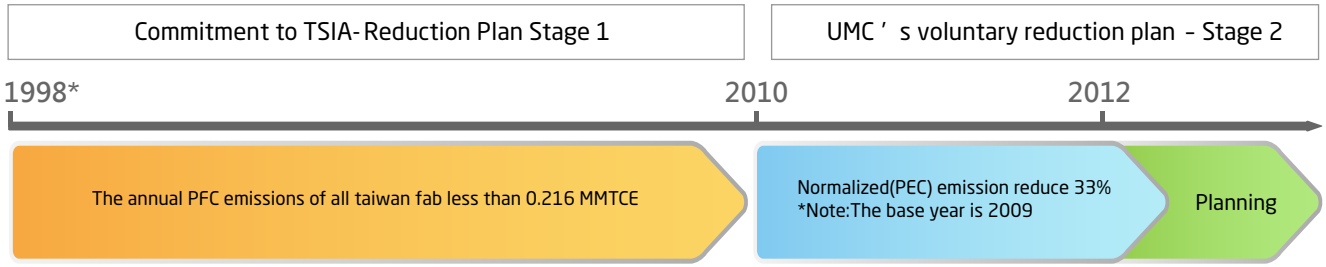
UMC led the industry in replacing the high GWP (Global Warming Potential) gas C_2F_6 with low GWP gas C_3F_8 in CVD chamber cleaning in 2003. UMC finally completed the gas replacement from C_2F_6 to C_3F_8 in all fabs in 2007. UMC has made significant progress in reaching voluntary reduction goals earlier than the 2010 targets set by the Taiwan Semiconductor Industry Association (TSIA). At this stage, UMC has developed the second-phase PFC reduction plan from 2010 to 2012. The new plans include reduction targets of 33% for normalized PFC emission by 2012*.

Note: Base year is 2009.

Direct GHG Emission at UMC



PFC reduction plan

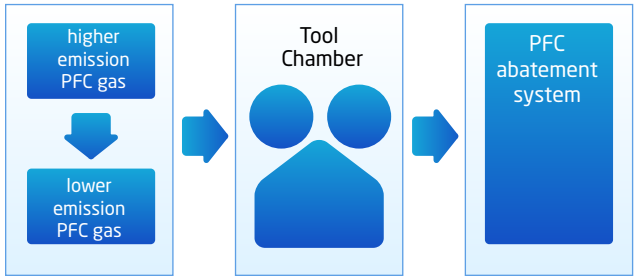


Note: Millions of metric tons of carbon equivalents (MMTCE)

Major elements of the PFC emission reduction plan include:

- Continue researching and testing substitute gases in semiconductor thin film process to lower the emission volume of greenhouse gases.
- Measure the utilization rate of machines that use PFCs and the reduction rate of the treatment equipment to master the efficiency of machines and hence conduct improvement measures toward inefficient machines.
- Conduct individual usage evaluation for each machine that uses PFCs to better understand greenhouse gas emissions for each machine.
- Meanwhile, in order to lower the PFC emissions year by year, UMC plans to install high efficiency PFC abatement systems after fully evaluating all new models.

Schematic diagram of PFC emission reduction measures

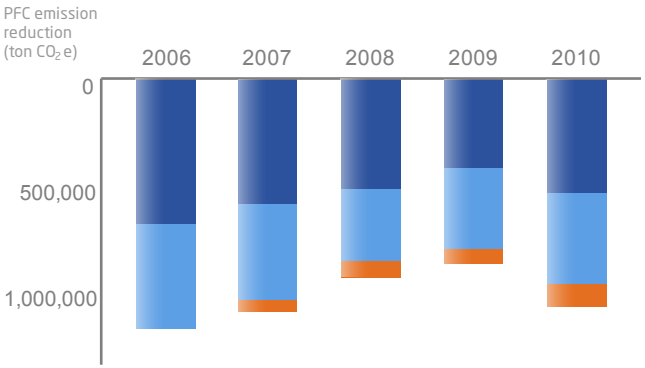


Gas replacement plan | Process optimization | Evaluation and install

Results :

- The normalized PFC emission is down 11.7% compared to 2009.
- Estimated results of PFC reduction by treatment equipment in 2010 were about 30%.
- The result of PFC reduction by gas substitution is estimated to be 34% in 2010.
- It is estimated the total relative CO2 emission reduction achieved through UMC's carbon reduction measures amounts to 64%, or approximately 1.05 million tons per year.

PFC reduction results



Note: The calculation of PFC emissions from production adopts the Tier2b semiconductor calculation formula and parameters of IPCC 2006 and the GWP of the fourth assessment report.

5.4.2 Energy Management

Energy utilization consumes the earth's resources and results in the greenhouse effect. UMC's energy consumption mainly relies on purchased electricity, followed by a small amount of natural gas; indirect energy is not used. The largest source of UMC's greenhouse gas emissions is from purchased electricity. Therefore, reducing energy consumption is the effective key to alleviate the environmental impact caused by the greenhouse effect. To effectively drive energy saving activities, UMC formed an energy saving committee chaired by the CEO. The committee will formulate plans, set targets, and coordinate with all departments to drive cost saving strategies and implement action plans. The committee will hold regular meetings to track schedule, verify performance, explore new energy saving technology, develop improvement plans to achieve remarkable energy saving. Furthermore, UMC promotes energy saving programs in the office and public areas accompanied with promotion activities and training to enhance employees' ideas and habits in energy saving and greenhouse gas reduction.

UMC's Completed and Ongoing Energy-saving Projects

Electricity Saving Measures	Implementation Fabs
Save on fab and office areas lighting	6A,8A, 8CD, 8E,8F,8S,12A,12i
Factory street lights to be replaced by LED lamps	6A,8A, 8CD, 8E,8F,8S,12A
On-line UPS replaced to Off-line UPS	8A,12A
Gas Box Exhaust consumption reduce	6A,8A, 8E,8F,8S,12A,12i
Externally Heated Dryer Energy Project	8CD,12A
To reduce energy consumption for FAB's production tools.	8A, 8CD, 8E,8F,8S

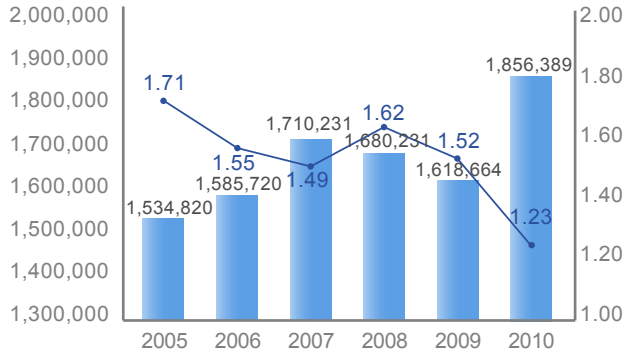
(Left) Factory street lights to be replaced by LED lamps
(Right) On-line UPS replaced to Off-line UPS

UMC's Completed and Ongoing Energy-saving Projects

Natural Gas Saving Measures	Implementation Fabs
Hot DI supply temperature spec down	12A,8E
Local Scrubber burner retrofit	12A,12i
Boiler waste exhaust heat recycle energy saving project	12A,8A,8C,8D,8F
VOC waste exhaust heat recycle energy saving project	8E,8F
Boiler burner modify	8E
70 ton Hot DI flow rate optimized	12A

(Left) Boiler waste exhaust heat recycle energy saving project
(Right) VOC waste exhaust heat recycle energy saving project

Power consumption history chart



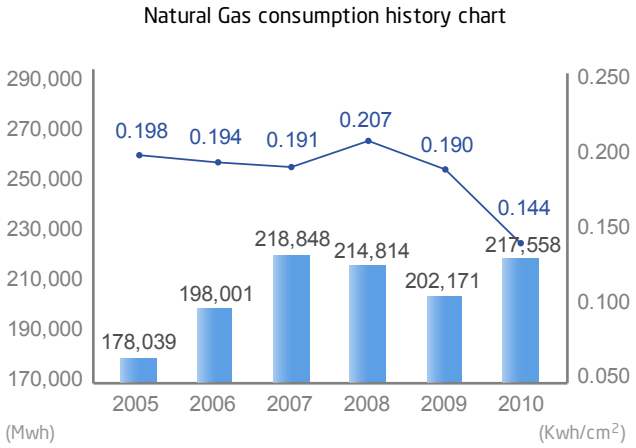
Remark:
The data coverage of all UMC fabs but not include off-site offices and dormitories.

Results :

- The normalized power consumption is down 19% compared to 2009.
- It is estimated the total power consumption savings in 2010 was 14,502 MWH. This is equivalent to a reduction of 8,875 tons of CO_2 emissions.

Remark:
1. Energy-saving measures to save power consumption value based the theory to calculate.
2. CO_2 emission value based on the CO_2 emission code of Taiwan Power Company = 0.612kgCO_2e/Kwh.

UMC Natural Gas Consumption History Chart



Remark
1. 6A, 8ACD, 8E, 8F, 8S heat transfer factor=0.0103535 Mwh/M^3
   12A heat transfer factor =0.0115168Mwh/M^3
   12i LPG heat transfer factor =0.01269546Mwh/kg
   12i Town Gas heat transfer factor =0.001 Mwh/Kwh
2. The data coverage of all UMC fabs but not include Fab12_P3P4, off-site offices and dormitories.

Results :

- The normalized natural gas consumption is down 24.2% compared to 2009.
- It is estimated the total natural gas consumption savings in 2010 was 6,137 MWH. This is equivalent to a reduction of 1,240 tons of CO_2 emissions.

Remark:
1. Energy-saving measures to save natural gas consumption value based the theory to calculate. = (saving ratio%)* (the consumption before improvement) * (running time)
2. The CO_2 emission value based on the IPCC 2006 emission factor.

Electricity Saving Measures
Replace existing T8 lamps with T5 or LED lamps for non-FAB areas.
Replace online with offline UPS
Use cooling tower improve heat exchange performance
Conduct zero purge dryer energy saving project
Conduct wet bench (V/D) IPA scrubber energy saving project
Collaborate with experts on FE chiller energy saving project

To conserve energy over the next two years, UMC plans to introduce low-energy consuming lighting, reduce line losses in the electrical distribution system, and decrease the lighting used in production and maintenance areas inside cleanrooms. UMC targets annual saving on electricity consumption to be 16,474 Mwh (1%) by end of year 2011 and estimates a reduction in annual CO_2 emissions of 11,327 tons.

Natural Gas Saving Measures
Boiler waste exhaust heat recycle energy saving project
VOC waste exhaust heat recycle energy saving project
Local Scrubber burner retrofit
HDI heat pump energy saving project

UMC will continuously drive Local Scrubber burner retrofit, heat recycle and heat pump energy saving project in future 2 years, and set planning target for saving natural gas 11,771Mwh (compare with 2009Y's total consumption ↓ 5.8%) at end of 2012Y. (CO_2 exhaust reduction 2,379,000 Kg)

Remark 2: 6A, 8ACD, 8E, 8F, 8S Natural Gas eCO_2=2.0925 CO_2e/M^3
12A Natural Gas eCO_2=2.3276 CO_2e/M^3
12i LPG eCO_2=2.5658 CO_2e/kg
12i Town Gas eCO_2=0.2021 CO_2e/Kwh
Natural Gas & Town Gas eCO_2=202.106 CO_2e/Mwh
LPG eCO_2=227.3 CO_2e/Mwh

5.5 Other Greenhouse Gas Reduction and Future Plans

5.5.1. Green Building

As global warming and pollution worsen, environmental protection, energy saving, carbon reduction and green building have become key issues and responsibilities facing corporations. Currently UMC make efforts in not only ecology conservation but also introduced green building concept into new FAB design.

Road Map Of Green Building driven

UMC introduced green building concept into new FAB design since 2007 to strengthen current strategy on environment management and energy saving in facility operation and then followed with the establishment of the CSR Committee in 2008. The CSR Committee sets operating goals and guidelines for UMC regarding issues such as industrial safety, environmental protection, energy saving, carbon reduction, green products, community care. This report will share UMC's past and current experience in execution and improvement for promoting green building.

UMC Fab12A

2007_EEWH (Taiwan) gold level indicators self assessment.
2009_Authorizing LEED-NC for UMC FAB12A P3.
2011_Scheduled obtain 12A P3 LEED-NC and local EEWH certification.

Status Of LEED And EEWH Certification - FAB12A P3 At Tainan Science Park

Authorizing LEED-NC for UMC FAB12A P3 At Tainan Science Park has registered in 2009 June, design planning to finish with the set time course of assessing case successively in advance. Scheduled obtain 12A P3 LEED-NC and local EEWH certification in 2011.

Green Building Design Features-FAB12A P3 At Tainan Science Park

1. Applied ring type afforested landscape arrangement to decrease impact on habitat migration. Excavated ecological ponds for the purpose of both flood detention and rain water reclaim. Inter-lock brick type pavement was applied to replace conventional AC pavement design for all internal access to improve rain water retention capability.

2. Applied free cooling control mode during the winter season to all office VAV air conditioning systems. A comprehensive heat pump design has been introduced across the board as a boiler auxiliary to retrieve cooling loads back to the central chilled plant for water-return. These have contributed greatly to annual natural gas conservation.

3. FAB12A P3 introduced energy-saving fluorescent lamps with low-loss electronic ballast and metal halide lamps to improve lighting controllability. LED lighting fixtures and technology have been designed in. These have made huge contributions to annual energy conservation with the same designed illumination.

4. For renewable energy design, we installed a solar photovoltaic system 99.75kWp in FAB12A Phase 1. This system was assembled by solar cells (1050 pcs) and required 1654 m2 area for setup. It was completed in September 2009. In 2010, the total electricity generation from this solar photovoltaic system was 146,632kWH.

solar photovoltaic system in UMC

UMC has converted the concepts of carbon reduction, green building, and other such challenges into operational policies and targets to implement. The company also participated in the "Green Factory" Association to assist the Taiwanese government to establish green building and clean production evaluation systems. UMC will continuously promote the concepts of carbon reduction and introduce green building concepts into new fab design.

5.5.2 Invest in Green Energy

UMC's green efforts include establishing a New Business Development Center to promote the growth of a low carbon economy by investing across the entire supply chain of the green technology industry, including renewable energy, solar energy, and new generation light-emitting diode (LED).UMC established the center to capitalize in high growth and high profit potential industries through timely strategic investment. This will bring new momentum for UMC to further grow and enhance UMC's future asset turnover and profitability. Technologies for renewable energy and energy saving will become the focus for future technology development; the growth of related industries is predictable. The utilization of solar energy has high development potential in the renewable energy sector, while LED is a focus area for energy saving. UMC's knowledge and technologies are highly applicable to the fundamentals of these two industries; hence UMC New Business Development Center will focus on these two areas by utilizing UMC's existing expertise and technologies. In the short-to-mid term, UMC plans to complete the development of related technologies and establish a preliminary scale of operations. For the long term, as key proficiencies mature and resource integration is complete, the new energy business is expected to become another UMC core business with high competitive advantages.

5.5.3.Low carbon Partner scheme

2010 UMC launched Low Carbon Partners scheme, aimed at strengthening supply chain carbon management mechanisms and expand the scope of greenhouse gas emissions information to expose and seek reduction opportunity, combine the ideas of suppliers to carbon management, into low-carbon supply chain management system, established product carbon emissions data year by year, reductions in setting and reaching goals.

First phase of the 2010 target has been reached, filter out UMC low carbon supply chain partners to handle carbon-related topics of education and training and communication, suppliers are expected to commence in 2011 carbon inventory, carbon footprint and carbon reduction plan.

Ch1_Strategy and Vision

Ch2_Business Operations

Ch3_UMC and Stakeholders

Ch4_Healthy Work Environment

Ch5_Greenhouse Gas Management

> Ch6_Water and Resource Management
6.1 Water Resource Management
6.2 Material Resources Management
6.3 Waste Recycling Management

Ch7_Green Product Management

Ch8_Green Projects and Sustainable Society

Ch9_GRI Content Index

Ch6_Water and Resource Management

Normalized water consumption down 18.9%. Normalized waste generation down 9%

With the extreme weather events such as floods and droughts plaguing communities worldwide, the scarcity of water and resources is becoming more severe. UMC recognized that water and resource management are not only environmental issues, but also involve operational risks in business as well as the welfare of mankind. Therefore, in 2010, UMC continued to implement various measures for water conservation, raw materials and waste reduction, as well as recycling.

Summary of UMC's water and resource management

Description	Achievements	Chapter Reference
Introduction of various water conservation technologies, promotes short and medium-term water conservation programs from 2010 to 2012.	1. Normalized water consumption is down 18.9% compared to 2009. 2. UMC conducted a water footprint inventory on its 200mm and 300mm wafers.	6.1 Water Resource Management
Promotes cleaner production for the purpose of sustainable operation and development.	Completion of four key raw materials reduction measures.	6.2 Material Resources Management
Continues to evaluate and introduce various recycling technologies.	1. UMC recycled 81.4% of total waste. 2. Completed the project for recycling waste solvent from photo process.	6.3 Waste Recycling Management

6.1 Water Resource Management

The Hsinchu Science Park's source of water mainly comes from Baoshan Reservoirs, Baoshan Second Reservoir, and Lonan Weir of the Toucian River basin. The Tainan Science Park's source of water mainly comes from Nanhua Reservoir of Hojei River and Zengwun Dam of Zengwun River. Due to global climate change, during 2009 the rainy and dry seasons were more severe in every region, which correspondingly made water damages and shortages more serious. Therefore, the development and management of water resources is becoming ever more critical. UMC's rules for water usage: First, design water conservation processes. Next, implement recycling best practices. Then, execute highly effective water management. Combining these measures can reduce the consumption of water resources more efficiently. Besides our own water-saving measures, UMC actively participates in the set of water usage standards for manufacturers, including water conservation guidance and skills sharing, stipulated by the Science Park Administration to save water and ensure the water supply is safe. Moreover, UMC has set contingency measures to improve water eutrophication and stabilize water quantity and quality.

UMC's water conservation team, whose scope spans all fabs and departments, is responsible for planning strategies and implementing its projects:

1. Establish working principles to achieve water conservation results.
2. Expand water recycling methods and reduce water consumption.
3. Implement PDCA integrating environmental protection goals.
4. Achieve end-pipe management through a day-to-day management approach.
5. Establish a wastewater treatment system and develop multiple recycling processes to maximize efficiency.
6. Establish UMC's water resources management system and check water balance in all fabs to confirm rationality of water usage.
7. Establish integrated technology committee under the facilities department, responsible for experience integration and sharing.
8. Establish water conservation measures and directly introduce new fab construction standards.

The following table shows the new measures added to UMC's water conservation program in 2010.

Water Conservation Measures	Implementation Fabs
2B3T regenerated rinse water reuse	8A,8CD,8F,12A
MMF and AC Backwash water reuse	8A,8F,8S,12A,12i
Resin tower backwash water reuse	8A,8CD,8F,8S,12A
CMP waste water reuse	8A
Reclaim system regenerated backwash water reuse	12i
Extend 50% AC tower service time	12i
LDI Product water reuse	12A

CMP waste water reuse

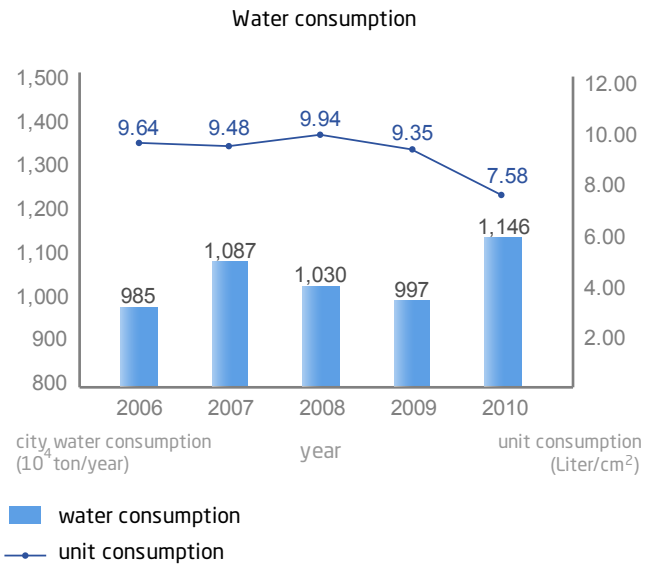
MMF and AC Backwash water reuse

Achievements :

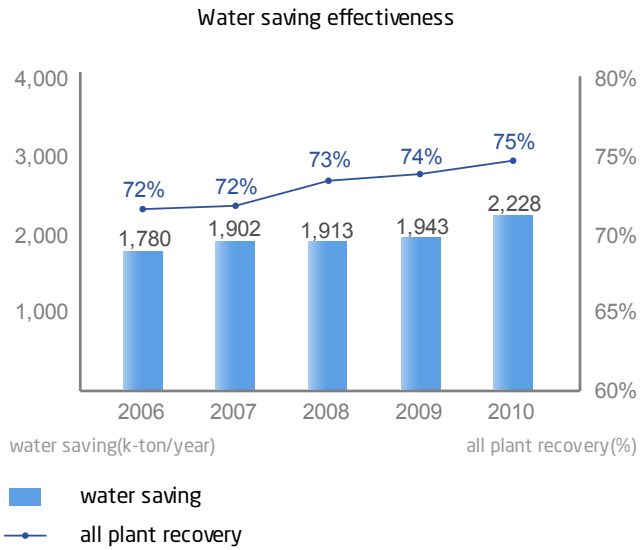
- Normalized water consumption is down 18.9% compared to 2009.
- The total amount of water conserved in 2010 increased to 168,529 tons, which is 1.69% of total water consumed in 2009 and reaches the water conservation target of 1%
- UMC's water consumption in 2010 was 11.46 million tons, recycling up to 75%. Total water recycled over past years was 22.28 million tons, equivalent to conserving 0.71 of Pao-Shan Second Reservoir's water storage capacity.

Note:
1. The fab recycling rate formula was based on the Science-Based Industrial Park Administration's water balance plans.
2. The average fab recycling rate is calculated based on total water recycled divided by total water used.
3. Pao-Shan Second Reservoir is the main water supply to the Science Park. The total water storage capacity is 31.34 million tons.
4. Capacity increased by 42% and added new fab 12A phase 3.

UMC's Water Consumption (2006-2010)



UMC's Water Conservation Effectiveness



UMC's Future Water Conservation Project

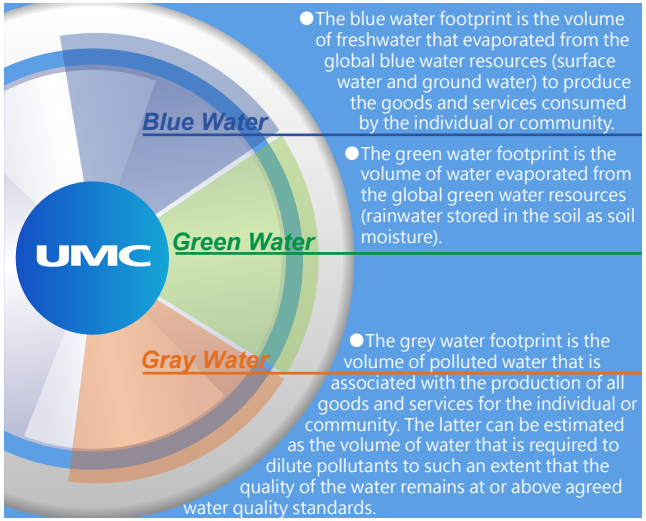
Water Conservation Measures
EPI Local scrubber reclaim system
CMP waste water reuse at facility system
DI System AC backwash water reuse
Increased the DIR 30% capacity by adding the new center scrubber supply system
WCVD tool TPU PCW discharge to change circulation module
LDI ROR circulation to concentrate discharge
Wet bench IPA scrubber water saving project

Water conservation will face increasing challenges in the next two years. UMC will continue to benchmark others in the industry, introduce new technology which will help UMC achieve cost effectiveness targets. UMC has set a goal to save 2% more water (about 200,000 tons).

Water footprint verification

In 2010, UMC completed an 8 "and 12" integrated circuit wafers inventory and verification of its product water footprint. The main inventory target this time was silicon, from silica sand, wafer fabrication, to semiconductor manufacturing. For the entire process, we verified data related to water usage, water recycling, and waste water generated during manufacturing. The inventory scope includes water-related data for processes, raw materials suppliers, and manufacturing.

UMC's water footprint results will act as a future basis for optimization of water resource utilization and developing water conservation strategies. Through gathering data on the water usage impact of suppliers throughout the supply chain, we plan to collaborate on achieving on increasing the efficient use of our water resources as our aim and join forces in water conservation and protecting the earth we live in. Water usage directly in the company's manufacturing processes at the current stage is greater than in the indirect supply chain, and the proportion of grey water is high. Therefore, UMC will consider the location of any new fabs we build to reduce the overall impact on water resources.



(Left) 200mm IC wafer WFV Certificate (Fab8A/8C/8D)
(Right) 300mm IC wafer WFV Certificate (Fab12A)

6.2 Material Resources Management

Numerous types of materials are used in semiconductor manufacturing processes. The required purity of the materials results in significant operating costs for raw materials. UMC aggressively promotes cleaner production for the purpose of sustainable operation and development.

With a raw material management e-system and regular analysis of optimum consumption by dedicated units and personnel, UMC ensures the rational procurement and utilization of material resources. For key raw materials, UMC analyzes the correlation of production capacity and waste output with material consumption, and also implements various Material Resources reduction projects. Through optimizing production processes, workflow improvement and target management, UMC can reduce the consumption from source.

Furthermore, management and reduction of material resources for 2008 is officially controlled by the Green Production sub-committee within UMC's CSR committee. In implementing materials reduction, UMC first selects its target from raw materials that produce major waste by referring to international trends and government-controlled chemicals. Related departments will then conduct small-scale experiments to evaluate technology feasibility while reducing this target in conformity to the company's cost-down policy and internal benchmark method. If it proves to be feasible, the reduction method will be applied in each fab.

UMC's Completed and Ongoing Raw Materials Usage Reduction

Raw Materials Usage Reduction Measures	Implementation Fabs
EKC Lifetime Extension	8A, 8CD, 8E,8F,8S,12A,12i
NMP Lifetime Extension	8A, 8CD, 8E,8F,8S,12A,12i
H_2SO_4 Lifetime Extension	12A,12i
H_3PO_4 Lifetime Extension	8A, 8C, 8F,12A,12i

Achievements :

- Normalized EKC usage is down 18% compared to 2009.
- Normalized NMP usage is down 23% compared to 2009.
- Normalized H_2SO_4 usage is down 7% compared to 2009.
- Normalized H_3PO_4 usage is down 24% compared to 2009.

Future plans

In the future, UMC will continue to follow the current plan to seek new raw materials usage reduction measures and optimize processes to minimize raw materials. In particular, the plan will focus on raw materials that produce major waste and greenhouse gases.

6.3 Waste Recycling Management

Zero waste is the ultimate goal for UMC waste management. Strategies include waste reduction and resource recycling. UMC promotes waste and resource recycling based on the concept of green production. UMC hopes to achieve the goal of waste reduction through source management measures such as process improvement and materials reduction. Moreover, UMC aggressively promotes waste recycling and reuse to replace current end pipe treatment measures to transform garbage into useful resources. This not only reduces the resources and costs of handling waste but also helps to achieve resource recycling. In addition, UMC regularly verifies waste treatment vendors, strictly controls the flow of waste, and implements optimized measures to handle waste.

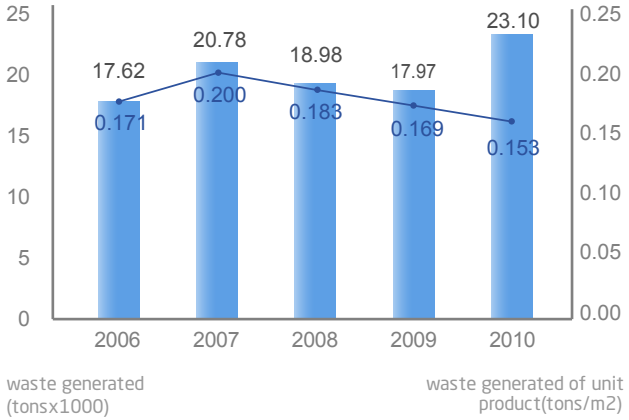
6.3.1 Packaging Recycling and Reduction

UMC uses materials for shipping that fully comply with the heavy metal requirements within the EU's PPW (Packaging and Packaging Waste) Directive. UMC ensures that its packaging materials, are all verified at third-party laboratories by raw materials suppliers and minimize environmental impact, such as using recyclable materials, cartons, and non-chlorine bleaches. In addition, as UMC is not an end product supplier and hence typically reuses raw material packaging and used product packaging, after obtaining clients' agreement, to reduce packaging consumption and waste generation.

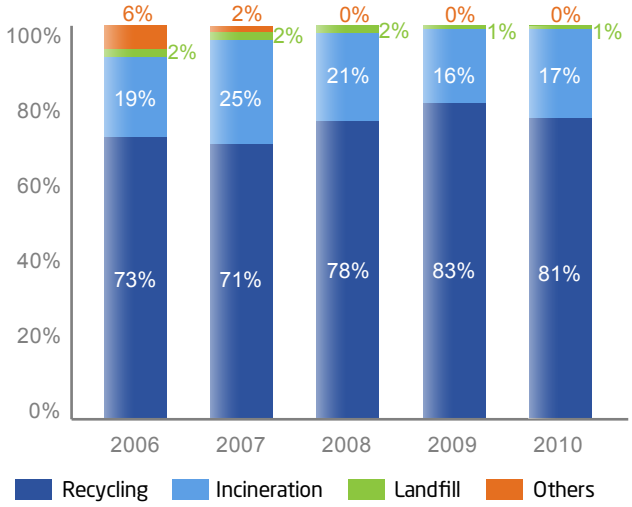
6.3.2 Waste Recycling and Reuse

In 2010, UMC produced a total of 23,100 metric tons of waste, or 0.153 tons per square meter, down 9% from 2009. UMC recycled 81.4% of the total waste.

Waste Generation: UMC



Waste Recycling Rates: UMC



Note: Others waste recycling methods include solidification, overseas treatment, physical treatment and thermal treatment.

Achievements

UMC completed waste recycling programs in Taiwan Fabs as below:

Recycling Items	Description	Fabs	Achievement in 2010 (tons/year)
Waste sulfuric acid	Recycled as industrial diluted sulfuric acid or remanufactured as copper sulphate.	8A/8C/8D/8E/8F/8S/12A	4065.78
Waste solvent	Outsourced to factories to be alternative fuel for incinerator.	All fabs in Taiwan	1967.34
Activated carbon	Outsourced to a supplier to recycle waste activated carbon	All fabs in Taiwan	97.33
Waste chemical drums	Outsourced to vendors to clean the waste drums for reuse or recycle as plastic material.	All fabs in Taiwan	966.84
EBR	Outsourced to factories to be manufactured as industrial material.	All fabs in Taiwan	1293.11
Waste phosphoric acid	Outsourced to factories to be manufactured as industrial material.	8A/8C/8D/8E/8F/8S/12A	612.60
IPA	Outsourced to factories to be manufactured as industrial material.	6A/ 8A/ 8C/ 8D/ 8E/ 12A	667.10
NMP	Outsourced to factories to be manufactured as the industrial material.	8A/ 8C/ 8D/ 8E/ 8F/ 12A	411.22
Waste ion-exchange resin	Recycled as inferior ion-exchange resin after being cleaned and sorted.	All fabs in Taiwan	52.35
Residue slurry	Recycled as silica sol material.	8A/ 8C/ 8D/ 8E/ 8F/ 8S	28.534
Waste solvent from photo process	Outsourced to factories to be manufactured as paint thinner or banana oil .(During testing plan)	8A/ 8C/ 8D/ 8E/ 8F/	92.68
CuSO4	Outsourced to factories to be electrolized as copper.	8D/12A	640.66
Waste mask	Outsourced to factories to be manufactured as reprocessed masks.	8A/ 8C/ 8D/ 8E/ 8F/ 8S	2.80
Waste lead-acid battery	Outsourced to factories to be manufactured as lead.	All fabs in Taiwan	210.65
Mixed Hardware Waste	Outsourced to factories to be manufactured as metals.	All fabs in Taiwan	80.45
Waste glass bottles	Outsourced to vendors to clean, crush, and recycle waste bottles as glass.	All fabs in Taiwan	61.11
Fluorescent lamp	Outsourced to factories to be manufactured as metal, nonmetal and glass.	All fabs in Taiwan	5.33
Waste mercury lamp	Outsourced to factories to be manufactured as mercury.	All fabs in Taiwan	2.21

Environmental benefits statistics

UMC continue to implement the waste resource recycling. All Fabs in Taiwan got the benefit of about NT $ 26 million.

Environmental benefits tables in 2010

Unit: NT $ thousand

Items	Description	Benefits
Drums	Outsourced to vendors to clean the waste drums for reuse.	8,975
Solvents	Outsourced to factories to be manufactured as industrial material.	8,746
Phosphoric acid	Outsourced to factories to be manufactured as industrial material.	2,359
Mixed Hardware Waste	Outsourced to factories to be manufactured as metals and other metal.	1,860
Mask	Outsourced to factories to be manufactured as reprocessed masks.	1,312
Waste lead-acid battery	Outsourced to factories to be manufactured as lead and plastic material.	1,158
Recycling waste	Waste paper, glass, iron, aluminum, styrofoam, aluminum foil containers, PET and plastic were recycled by resource recycling factories	1,085
Resin	Recycled as inferior ion-exchange resin after being cleaned and sorted.	413
Fluorescent lamp	Outsourced to factories to be manufactured as metal, nonmetal and glass.	54
Wood	Outsourced to wood factories to manufacture pallets and cable reels.	15
Total		25,976

Future plans

UMC will continue to develop new recycling technology with waste contractor/chemical suppliers. Currently in progress is slurry recycling and reuse in UMC's processes–UMC is ready with regard to manufacturing, equipment and technical capabilities, and will official implement the process once the administrative process is completed.

In addition, UMC is also cooperation with the chemical plant to apply waste hydrofluoric acid recycling as sodium fluorosilicate. Applications currently in review by the competent authorities, we expect implementation in 2011.

Ch1_Strategy and Vision

Ch2_Business Operations

Ch3_UMC and Stakeholders

Ch4_Healthy Work Environment

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> Ch7_Green Product Management
- 7.1 Green Product Responsibility
- 7.2 Hazardous Substances Restriction and Management
- 7.3 Green Supply Chain and Supplier Management
- 7.4 Green Design
- 7.5 Participation in the EU FP7 Research Framework Program

Ch8_Green Projects and Sustainable Society

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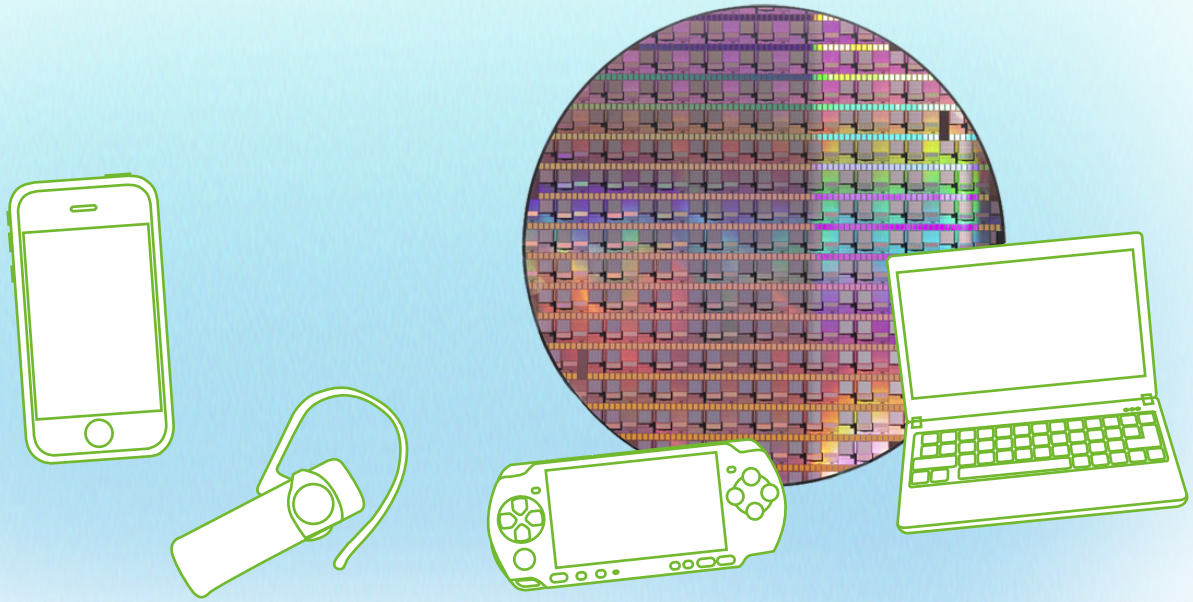
Ch7_Green Product Management

13 PFOS-containing raw materials were replaced.



In response to international environmental trends and customers' increasing demand for green products, UMC strives to raise its green competitiveness to maximize global opportunities. UMC continues to develop and employ low-toxicity, low-power green product design to provide customers with the most comprehensive service and together to usher in a green era.

The summary of UMC's green product management

Description	Achievements	Chapter Reference
Promote HSPM management system and ensure the products provided to customers meet international standards and customer requirements.	Full compliance with international green product standards and no customer complaints regarding HSF product incidents.	7.2 Hazardous Substances restriction and management
UMC has already set its target date for PFOS replacement for 2011 to achieve PFOS-free operation.	13 PFOS-containing raw materials were replaced during 2010, achieving 86.6% completion.	7.2 Hazardous Substances restriction and management

7.1 Green Product Responsibility

Regarding product safety, UMC poses no direct potential threats to its customers or the general public since UMC does not have its own end products. However, to ensure the products provided to customers meet international standards and customer requirements, UMC established a cross-divisional HSPM committee to improve the efficacy of green product management and complete third-party certification QC080000 IECQ on management of hazardous substances to ensure that UMC provides products that conform with RoHS directives and customers' requirements.

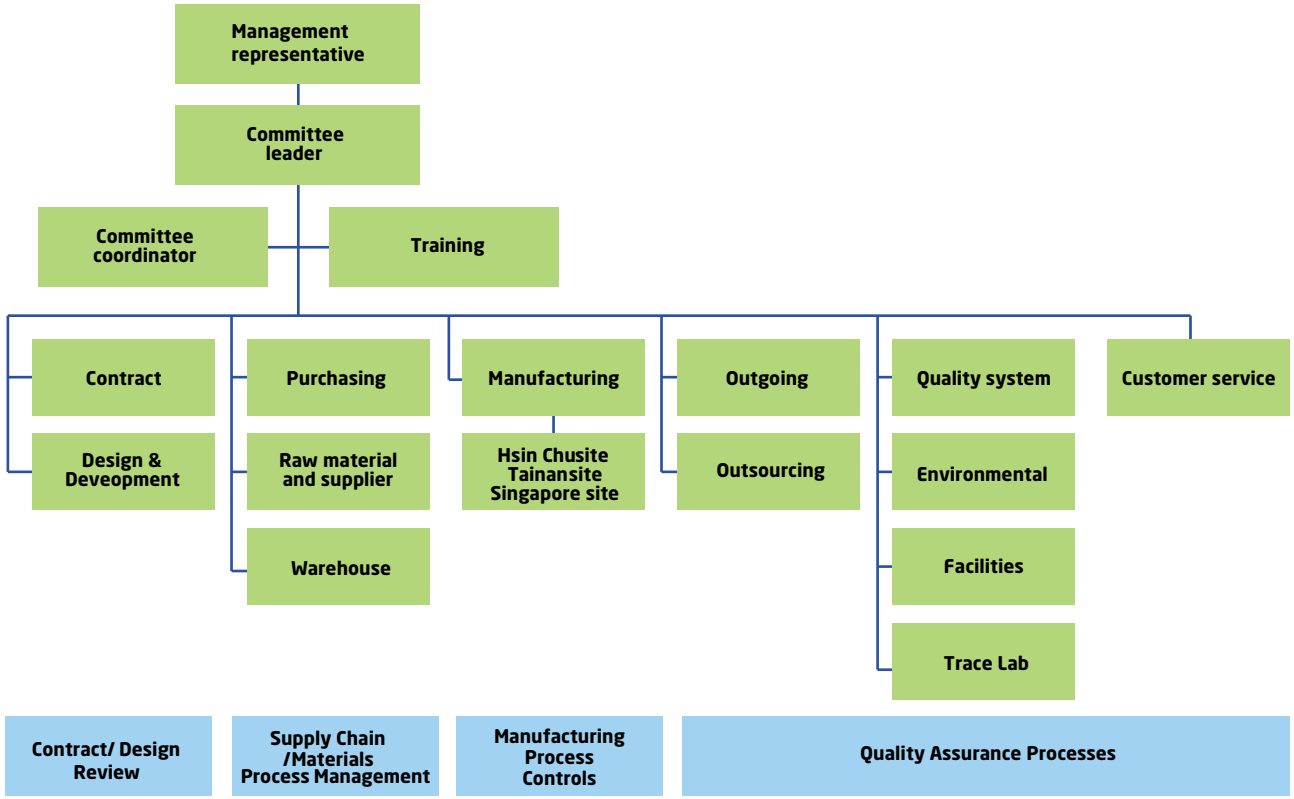
7.2 Hazardous Substances Restriction and Management

The RoHS (Restriction of the use of certain Hazardous Substances in electrical and electronic equipment) Directive, in effect since July 2006, will ban electronic products that contain certain levels of six listed hazardous substances from entering European markets, effectively creating a green trade requirement. Therefore, how to react to this international trend for environmental protection and improve UMC's green competitiveness have become new challenges for business operation.

UMC has been aware of the green production trend from the international community and its customers since 2003. Since then, UMC has promoted green supply chain management and established an SOP for green procurement through supplier, processes and materials evaluations. UMC also regularly requires a third-party organization to examine the customer products manufactured at UMC to ensure they meet environmental laws and regulations. UMC became a Sony Green Partner in 2003, and passed and maintained qualification since then. These actions demonstrate that UMC's progress in hazardous substance management has gained recognition from our customers.

To improve the efficiency of green product management, UMC established a cross-division HSPM (Hazardous Substances Process Management) committee to manage all implementation and promotion of related work. HSPM committee meets regularly to enforce execution through communication of project targets. UMC completed the final system audit for QC080000 IECQ HSPM qualification on June 9th, 2006 to become the first semiconductor manufacturer worldwide to achieve HSPM certification for all of its fabs. The completion of the QC080000 IECQ HSPM qualification audit demonstrates UMC's capabilities in managing hazardous substances and meeting RoHS Directives. This qualification can ensure that UMC provides cutting-edge and environmentally friendly IC manufacturing services to help bolster the competitiveness of its customers. (Note: " Hazardous Substances" refer to chemical substances that impact environmental safety or human health.)

HSPM Committee Organization Chart



UMC QC080000 IECQ HSPM Certificates

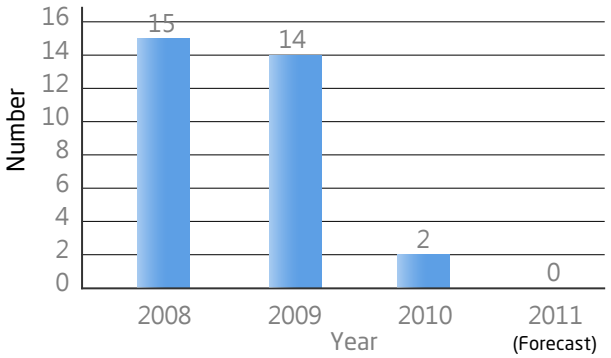
Hazardous Materials Replacement Program

Besides management of hazardous substances, UMC also has plans to phase out hazardous raw materials through replacement. The target substances are chosen based on international environmental protection trends, government laws and regulations, and customer requirements. Taking PFOS (Perfluorooctane sulfonate) as an example, PFOS has high thermal stability, is resilient to destruction in the environment, easily accumulates in in vivo fat organs (bioaccumulation) and is harmful to humans and animals. Studies show PFOS may cause birth defects, adverse impact on the immune system and thyroid functions, and physical development delays for a fetus during pregnancy. Most importantly, the U.S. Environmental Protection Agency believes that PFOS causes cancer, increasing the risk of bladder cancer from PFOS contact. In May 2009 PFOS was added to Annex B of the Stockholm Convention on Persistent Organic Pollutants to be strictly controlled.
In the semiconductor industry, PFOS is used as an ingredient in photoresists and in anti-reflective coatings for photolithography processes, but UMC has already planned and is implementing a PFOS replacement program to achieve the goal of PFOS phase-out by 2011.

Achievements :

- Full compliance with international green product standards and no customer complaints on HSF product incidents.
- 13 of 15 PFOS-containing raw materials were replaced by 2010, and the PFOS-free goal will be achieved in 2011.

The numbers of PFOS-containing raw materials



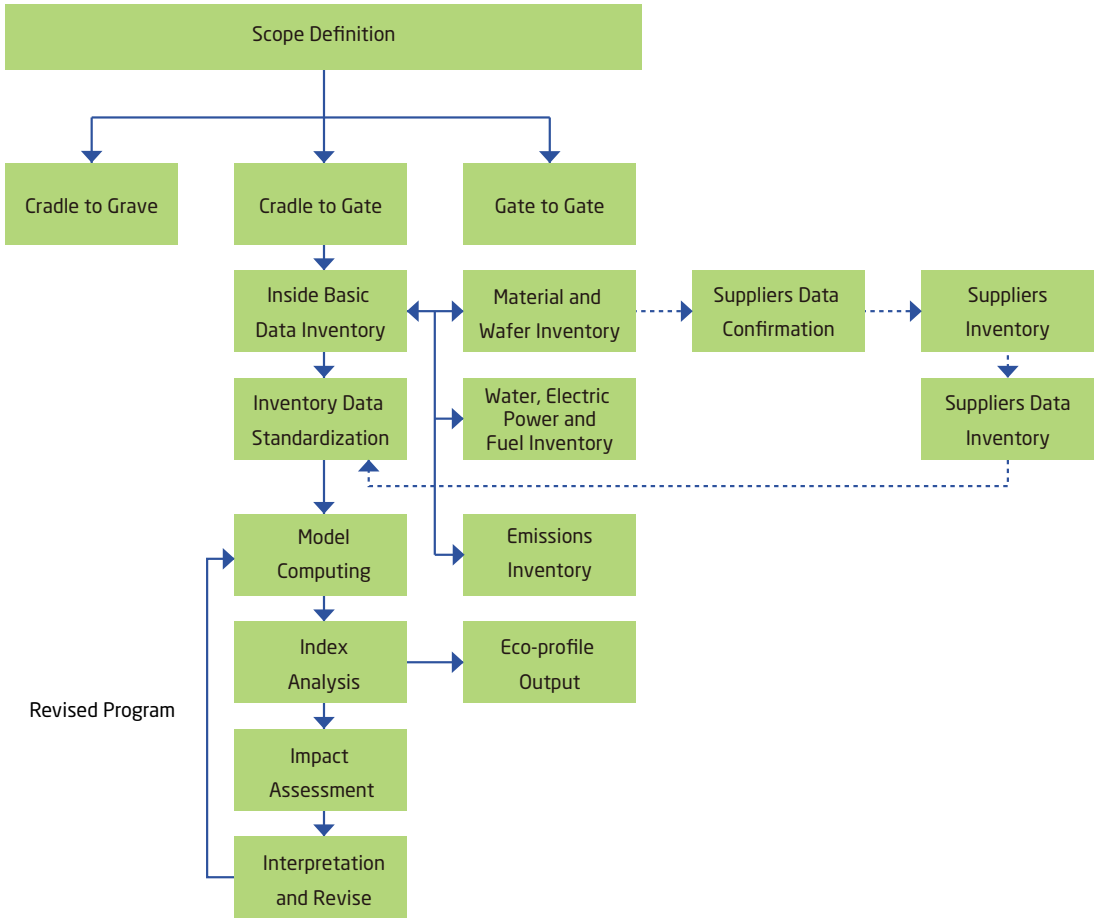
New Materials Evaluation

Besides substances management, UMC has established a comprehensive process to evaluate new materials, which meets the requirements from environmental, safety and health, as well as price and quality. This process is to effectively manage the introduction of new materials in new process development and to ensure the quality of raw materials from suppliers can meet future volume production requirements. UMC must confirm if the raw materials are listed on the hazardous substance control list and understand its impact to the environment. Moreover, UMC must have effective countermeasures for storage, supply and disposal and ensure all these measures conform to government regulations and the company's safety and health policies.

Product Life Cycle Assessment

In 2005, UMC authorized the Industrial Technology Research Institute (ITRI) to implement a Life Cycle Assessment in each fab. The results of such an assessment would help UMC to meet the Ecological Design Directive (ErP Directive) vis-à-vis its products, understand the impact on the environment caused by customer products manufactured at UMC, and develop improvement plans. From raw silicon to chips, investigations were conducted targeting energy consumption, materials, and pollutants of each customer product. Through the evaluation of environmental impact on the entire supply chain and manufacturing processes, the impact on the environment resulting from products is clarified and the result of evaluations is used as a reference for the environmental management system. The assessment results are open to the public and can be provided for reference upon customer request.

Life-Cycle Assessment Flow at UMC



According to inventory results, environmental impact is greater from manufacturing rather than from suppliers. As a result, UMC continues to improve its processes, reduce resource consumption and bulk materials, with the goal of minimizing environmental impact over time.

Future plans

Our hazardous raw materials phase-out program is continually improved. After completing PFOS phase-out, other hazardous substances such as PFOA/PFAS will also be evaluated for phase-out

7.3 Green Supply Chain and Supplier Management

UMC conducts investigations and evaluations on its suppliers' green product management status through management, monitoring and execution programs as part of its participation in the RoHS supplier guidance project initiated by the Industrial Development Bureau, Ministry of Economic Affairs. In addition, UMC conducts on-site assistance and investigations of major suppliers. For those who fail to meet the standards, UMC offers suggestions and implements follow-up examinations to ensure the completion of the whole green supply chain.

2008 Supplier Symposiums

By helping suppliers establish a hazardous substance control mechanism to conform to international regulations, this project enhances the competitiveness of the entire green supply chain. Key points for green management policies applied to suppliers are illustrated as below:

Hazardous Substances Control and Management

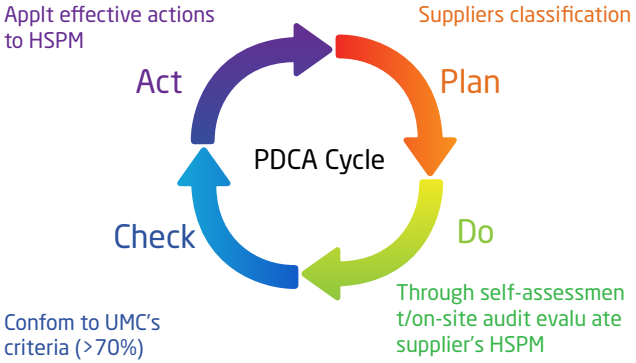
UMC established a hazardous substance control list based on international environmental protection laws (such as the EU RoHS Directive) and customers' requirements. Suppliers have to sign a guarantee and provide third-party examination reports if necessary to ensure their products meet the rules of this control list. Hazardous substances control is also applied to merchandising. All materials that violate the control will be deemed as disqualified products and returned to the suppliers. Suppliers are then required to provide correction and prevention measures.

Supplier Classification

Suppliers are classified based on their features and risk level. Suppliers at each level should complete related assessment and administration according to their risk level, such as provide product verification reports and sign UMC's supplier substances guarantee.

If suppliers listed as requiring more guidance at the new material assessment stage cannot conform to UMC's requirements, they are unable to become UMC-qualified suppliers. The purpose is to persuade suppliers to set up internal hazardous substances management systems in hopes of effectively managing process and product-related environmental design and hazardous substances right from the source. Besides the first time cooperating with new suppliers, UMC conducts annual audits of suppliers to reconfirm that their management of hazardous substances conforms to UMC's requirements; in the event that they do not, UMC will request through a standard process that the suppliers make adjustments.

HSPM PDCA



Supplier HSPM Management PDCA cycle

7.4 Green Design

As a semiconductor foundry technology leader, UMC strives to produce zero-pollution chips and develop highly efficient, low-power production processes that minimize impact on the environment. UMC offers an extensive portfolio of IP and design resources that provides customers with cutting-edge technology spanning a broad range of green options, including LED, power management chips, and energy-efficient lighting.

"The spirit of innovation is always a key factor when developing advanced technologies" -- this is the spirit that UMC upholds in continuous R & D. UMC published a unique 'hybrid' high-k/metal-gate (HK/MG) technology approach for 28nm at the 2009 International Electron Device Meeting (IEDM). The method combines the benefits of 'gate-first' process strength for nMOS with 'gate-last' features for pMOS to realize up to 30% enhanced transistor performance compared to a gate-first only process.

Innovation has always been one of UMC's key strengths. As semiconductor technologies evolve quickly, in addition to independently developing our foundry processes, UMC will also develop future technologies by cooperating with other leaders such as SEMATECH, advanced equipment suppliers, universities and research institutes around the globe, especially for 22nm and below. Going forward, UMC will continue to innovate and evolve by investing funds, manpower and intellectual property in Taiwan. This corresponds with our strategy of 'Investing in Taiwan as a base in establishing a global presence."

(Left) UMC Receives Outstanding Enterprise Innovation Award from Ministry of Economic Affairs
(Right) Senior Vice President of UMC Po-Wen Yen receives an audience with Vice President of Taiwan Vincent Siew

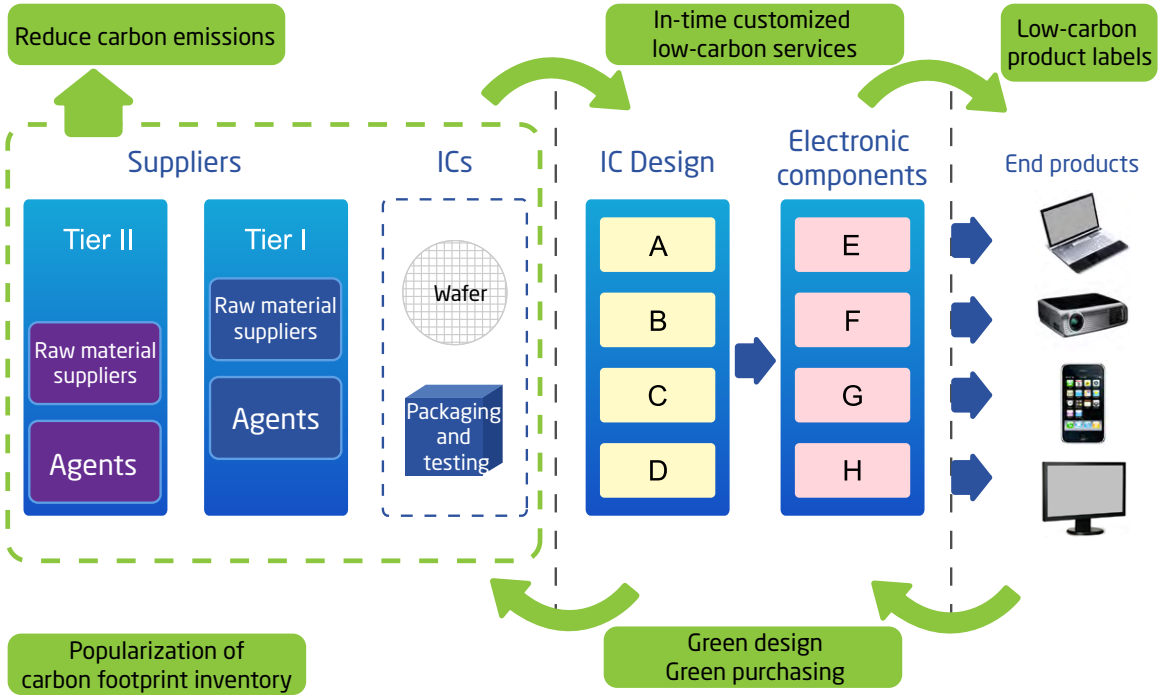
7.5 Participation in the EU FP7 Research Framework Program

The EU research framework programme (Framework Programme, FP) for innovation, part of Europe's major research and development scheme, began in 1984 and is now in its seventh phase (FP7). The seventh phase focuses on innovative scientific research driving European economic and social development as a whole, increasing industrial competitiveness, and enhancing quality of life.

UMC and 9 other members from industry, academia, and research, including the Industrial Technology Research Institute (ITRI), co-sponsored "Boosting Life Cycle Assessment use in SMEs: development of sectoral methods and tools", abbreviated as the LCA to go plan. The EU Executive Committee approved the plan in October 2010. During the application process, we also received subsidies of NT$1 million from the Ministry of Economic Affairs.

UMC recognizes the increasingly swift pace of new electronic applications and the growing demand for green design and low-carbon products. With UMC's carbon footprint experience and the support of supply chain partners, our collaboration with the EU in green technology provides customers with comprehensive, tailored low-carbon services and helps customers acquire information on their products' carbon footprint with minimal time and resources to reduce negative impact from green trade barriers. At the same time, the results of 'LCA to go' will promote carbon reduction and raise low-carbon competitiveness for the industry. These efforts are also part of the fulfillment of our duties as global and corporate citizens.

Schematic diagram of low-carbon benefits of UMC services



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Ch9_GRI Content Index

Ch8_Green Projects and Sustainable Society

Assisted over 5,000 pupils in their educational pursuits. Green procurements totaled NT$ 43.09 million.

To become a Sustainable Green Foundry, UMC continued to implement management plans and other related activities.

Summary of related plans and activities.

Description	Achievements	Chapter Reference
Environmental, Safety and Health Management	• The entire company (including all fabs) received EMS and OHSAS integrated certifications in 2001, and ISO14001:2004 and OHSAS18001:2007 upgrade certifications in 2004, 2007 and 2010. • UMC implemented its environmental accounting system in 2001 and became the first high-tech corporation to use such a comprehensive accounting method.	8.1
Green Procurement	• UMC was awarded the green procurement prize in 2007 and continues to promote green procurement each year. • Green procurements in 2010 accounted for NTD$43,092,841 of total procurements.	8.2
Green Education	• Expand public awareness and provide tips to employees regarding conservation of paper / water / electricity as well as rubbish classification. • UMC adopted the theme "Green UMC" to implement a series of energy-saving activities and measures in 2010. • Assists schools to cultivate environmental and technical talent in green energy fields.	8.3
Establish Sustainable Partnerships with Suppliers	• Carries out CSR requirements for suppliers. • Periodically holds supplier training meetings and classes. • Implements contractor management.	8.4
Active Role in Community Participation	• Carries out "Springing Hope: Charging Up the New Generation" program. • Encourages UMC's employees and families to take part in environmental protection in local communities.	8.5

8.1 Environmental, Safety and Health Management

As environmental, safety and health issues become diverse and significant, the GRM&ESH Division was established to be responsible for planning the company's policies and strategies for risk management, as well as monitoring global information regarding environmental, safety and health topics. The GRM&ESH Division introduces effective systems and provides safety and health expertise to build a safe, healthy and nature-friendly environment.

In addition to GRM&ESH, UMC's ESH Committee was

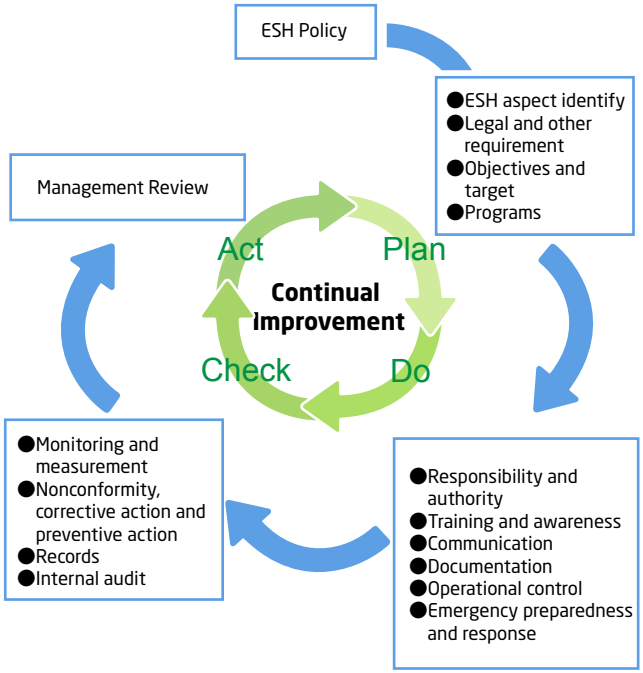
established to plan and decide company-wide strategies regarding environmental, safety and health issues. Furthermore, a company-wide industrial safety meeting is held quarterly by the ESH Committee and attended by high-level executives. This quarterly meeting is held to discuss issues that include environmental safety and health operations, international environmental, safety and health trends, and execution suggestions. This meeting also is held to periodically review the results and performance of the company's environmental safety and health operations. With the participation and support of high-level executives, UMC builds a top-down environmental, safety and health system that emphasizes effective communication.

Environmental, Safety and Health Management System

UMC built its environmental management system based on ISO14001. In 2001, UMC led the industry in environmental certification, receiving ISO14001 and OHSAS18001 certifications.

To achieve the objective of sustainable management, UMC sets clean production and zero disasters as the direction of our efforts to promote environmental protection, health, and safety. By setting ESH goals each year, UMC continues to improve its performance in promoting environmental protection, health, and safety.

Environmental Management System Overview



ISO & OHSAS Certifications

Environmental Accounting

UMC implemented its environmental accounting system in 2001 and became the first high-tech corporation to use such a comprehensive accounting method. UMC's environmental accounting system is based on the classifications of Japan's Ministry of the Environment. In addition to an environmental finance system, UMC established a financial information system for safety and health. The UMC environmental accounting system combines current accounting systems and uses pattern comparison and an internal coding method to calculate UMC's invested costs and expenditures on environmental protection. This helps UMC conduct overall environmental benefit evaluations and conduct decision-making analyses. UMC also established an e-database for information collection, sorting out related expenditure and expenses and conducting calculations and analyses every month for management. Based on the information, management draws up cost-efficient environmental management measures to cover both business operations and environmental protection.

8.2 Green Procurement Management

UMC's requirements regarding green procurement are sent to its suppliers accompanied with orders through an e-procurement system. In addition, suppliers must upload their examination results for materials and goods through this platform. UMC can then recognize items that violate the rules in advance and take countermeasures immediately.

In addition, UMC implements a policy encouraging the purchase of green-labelled products for office use, to promote green industries and reduce negative impact to the environment. UMC was awarded the green procurement prize in 2007 and continues to promote green procurement each year. Green procurements in 2010 accounted for NTD$43,092,841 of total procurements.

8.3 Green Education

Environmental education within the company

UMC adopted the theme "Green UMC" to implement a series of energy-saving activities and measures in 2010, including environmental protection month, energy-saving activities in the office, an environmental protection declaration for UMC employees and their family members, and others. UMC expects its employees to build environmental protection practices such as water conservation, energy-saving and resource recycling into their daily lives to reduce carbon emissions and global warming.

Activities During Environmental Protection Month

Environmental education outside the company

Due to the growing problem of global warming, environmental issues have become everyone's responsibility. As such, UMC committed to building a low-carbon supply chain and investing in green energy industries, as well as supporting various environmental activities and promoting environmental education.

• Jointly Held Low Carbon Summer Camp In Collaboration with Hsinchu County Government

In 2010, UMC and the Hsinchu County Government jointly held low carbon summer camp for children. The introduction of new energy sources and implementation of environmental protection activities such as classification of garbage helped children understand the importance of environmental protection. The hope was that these children would promote this concept to more students, their friends and family members, so that environmental protection will become everyone's responsibility and lifestyle. Around 300 students joined the low carbon summer camp.


Activities During Low Carbon Summer Camp

• School environmental education

UMC donated power electronics laboratory equipment to the Department of Electrical Engineering at National Taiwan University (NTU). The company has also established a UMC-funded green energy technology seminar at NTU to research power electronics, power systems, and green electric energy. UMC provides students with resources to integrate theory and practice in their R&D experiments, as part of fostering Taiwan's future green energy technical talent. The hope is that these actions would help cultivate Taiwan's technical talent in green energy fields, including renewable energy sources, solar energy and energy-saving lighting such as next-generation light emitting diodes (LED).

Student Site Visits

Certificate of Appreciation

Other school environmental education:

1. Collaborate with universities to create a "High-tech Industry and Environmental Protection" course.
2. Provide factory visits and practical courses for college students.
3. Provide scholarships.
4. Collaborate with colleges and universities on cooperative work experience education.
5. Hold environmental and technology conferences.

8.4 Establish Sustainable Partnerships with Suppliers

UMC considers suppliers as important and valuable partners for future growth and development. To enhance sustainable competitiveness, the efforts and support of suppliers is indispensable.

CSR Requirement for Suppliers

Taiwan's enterprises play a crucial role in the territory of globalization and supply chain structure. As CSR has become the key to business sustainability, Taiwan's enterprises bear higher expectations from the international community. The global wave of social responsibility and environmental protection has already swept across the entire supply chain. Every aspect of the supply chain has to face the pressure of CSR. UMC sees this as a challenge as well as an opportunity. UMC is aware that CSR activities cannot be limited to the enterprise itself, but also needs to extend to the participation of the whole supply chain. In addition to quality and delivery, UMC's requirements for suppliers have been extended from the original environmental and safety requirements to CSR.

In 2008, the annual supply chain management summit was held on February 22. More than 300 global suppliers from the equipment, raw materials, facilities, components, and test and packaging sectors participated in the event. The event focused on breaking through cost barriers, sustaining long-term partnerships and putting corporate social responsibility into practice, while stressing environmental protection and being active in public interest activities. In the meeting, UMC and representatives of suppliers signed a CSR declaration. The declaration was based on the idea of "caring for employees, emphasizing environmental protection and implementing projects for the public interest". Several key statements in the declaration included "valuing labor rights and building a quality working environment", "developing green manufacturing processes, providing green products, and establishing a green supply chain", "caring for the minority and the environment and fulfilling our responsibilities as corporate citizens" and "helping up-stream and down-stream vendors to improve their green competitiveness and to create green business opportunities".

The declaration was distributed to all UMC suppliers through the procurement system—150 suppliers received the declaration; 105 of them have already signed it and the response rate was 70%. The 2008 supply chain summit and signing ceremony demonstrates UMC's continued commitment to improving the sustainable value of the overall supply chain by working closely with its partners.

Excellent Supplier Award

At UMC's thirtieth anniversary celebration on May 20, 2010, the company took the occasion to hold an opening ceremony for the third and fourth phases of Fab12A in the Tainan Science Park as well as a quality supplier award ceremony that brought together nearly 200 participants from the global semiconductor industry. Among the equipment, raw materials, facility, spare parts, packaging and testing and other suppliers who participated, UMC awarded 13 suppliers for their outstanding performance in quality, cost, delivery, service, and technology. UMC also awarded 4 partners a special R&D award for their long-term commitments to research and development of advanced process technology.

UMC maintains long-term partnerships with global suppliers through massive investment in capital, talent, and intellectual property. The continuous expansion of its facilities in the Tainan Science Park also demonstrates UMC's dedication to advanced manufacturing production capacity and technology development as well as UMC's achievements over the past decade in southern Taiwan. UMC will continue to promote southern Taiwan's economic development and create employment opportunities as part of implementing UMC's "Investing from Taiwan to the world" strategy to strengthen sustainable development and fulfill its corporate social responsibility.

2010 Excellent Supplier Award Ceremony

Supplier Training

UMC believes that suppliers play a crucial role in green supply chain management. Therefore, UMC periodically holds supplier training meetings to promote and communicate UMC's policies and methods in implementing its green supply chain management system as well as items that suppliers shall cooperate with. UMC hopes to create a win-win situation for both UMC and suppliers based on green product consensus.

Contractor Management

There have been various industrial safety incidents due to contractor operations over the years and high-tech factories suffered significant losses. Therefore, UMC takes a proactive attitude toward contractor management and expects to prevent any contractor incidents through effective management. In addition to qualified contractor evaluations, UMC has an "environmental, safety, and hygiene notice for contractors" document that is distributed to all contractors to inform them of related company regulations regarding safety and health management. Moreover, UMC requires all contract workers to take UMC's contractor ESH training program. Furthermore, UMC established a comprehensive e-system when issuing work permits to effectively control and monitor construction applications as well as the pre, during and post construction management phases. UMC also requires construction safety meetings to be held between UMC supervisory employees and contractors before construction begins. At these monthly meetings, contractors discuss construction safety requirements and share their experience in construction safety practices. This two-way communication improves both competitiveness and safety management. During construction, in addition to responsible supervision, UMC's GRM&ESH Division conducts random inspections to ensure all construction follows safety regulations.

8.5 Active Role in Community Participation

UMC carries out its social responsibility according to the LOHAS (Lifestyle of Health and Sustainbility) concept. UMC realizes that corporate success is attributed not only to its own diligence but also requires the support of a peaceful society. Involvement in society has thus been a significant part of UMC's corporate guidelines since its establishment; in addition to promoting company growth, UMC is devoted to fulfilling its social responsibility and making its greatest contributition for a better society.

Observing an "M-shape" phenomenon forming in Taiwan's already unequally distributed educational resources, UMC decided to launch the "Spreading Seeds of Hope: Educational Assistance Program for Minority Children" program in its 25th year of establishment. Through this program, UMC has been able to combine all available resources and manpower to help elevate these minority children's education level. So far 120 million NT dollars of UMC's assistance has been invested to help over 5,000 pupils in their educational pursuits – an indication of the program's success in achieving its goals in the first phase.

2010 marks UMC's 30th year of establishment. As a pioneer in Taiwan's semiconductor industry, UMC sees the need in seeking a new momentum for corporate growth and sustainability, and just as importantly, in helping strengthen Taiwan's human capital by further extending its involvement in education. The "Spreading Seeds of Hope" program hereby marches into the second phase. Named as "Springing Hope: Charging Up the New Generation", this new phase adds subjects such as life, reading for learning, green energy, and technology for children. Through building self-learning, environmental awareness and fundamental knowledge in technology, this program introduces a new educational experience for our next generation.

Of course, a corporation's social responsibility cannot be considered fulfilled without the involvement of its employees. Only through every hand in the work and every foot on the ground can UMC's collective force for change be charged to its fullest. As Taiwan celebrates its 100th year, UMC is ready to help empower a new generation of growth.

"Springing Hope: Charging Up the New Generation"

"Seeds of Hope" - Educational Assistance for Minority Children

Approach	The UMC Science and Culture Foundation continues to sponsor tutoring and also offers reading and character-building activities through the help of UMC volunteers.
Partners	UMC Science and Culture Foundation, National Hsinchu University of Education, National Uniersity of Tainan, UMC Candle Light Society
2010 Achievements	1. Helped minority pupils grow and regain confidence in their studies through close communication and collaboration among tutors, schools and families. 2. Volunteers have been able to give guidance and connect with the children, who otherwise might have gone astray without feeling looked after and understood. Volunteers also helped these children to begin leveraging the power of education to escape poverty. 3. Total hours of tutoring conducted in 2010: 400 Total number of children receiving tutoring: 1704. Sponsored the Nantou Karate Team, where many minority children were able to find their self-confidence and start believing in their own strength.

Since the start of this program, tutoring centers have been established in the Hsinchu and Tainan areas to offer long-term tutoring for minority pupils. The first-phase work priorities in "Spreading Seeds of Hope: Educational Assistance for Minority Children" continues in 2010, with the addition of continual care, reading, and character-building activities to teach them the right values and learning attitudes.

To get more UMC employees and their families involved in volunteer work with minority children, in 2005 the UMC tutoring volunteers, together with the UMC Science and Culture Foundation and the UMC Candle Light Society, put together more activities such as Christmas gift drives, camps and visits. In addition, more tutoring sessions were created and carried out by these volunteers.

The program hopes to attract more similarly-minded and passionate educators and enterprises to join the volunteer team. Through the company's continuous support, through love and care, and through the professional tutoring system, the program hopes that these children coming from minority families will be able to grow and learn as happily and as confidently as any child, and that the seeds of hope will spread, sprout and grow in more places in need.

Seeds of"Me2We Reading"- Promoting A Universal Reading Culture

Approach	1. With the objective of promoting a universal reading culture, the "Me 2 We Reading Club", formed by a group of passionate UMC employees, have been sharing the fun of reading while training fellow employees to become storyteller volunteers. 2. Through storytelling techniques, participants were not only able to enjoy reading and sharing together but also benefited from more fun and rewarding reading time with their children. 3. Participants have gone beyond reading time with their own children to take part in reading for children in the "Spreading Hope" program, Ximen Elementary School, and Huayuan Elementary School. 4. UMC Science and Culture Foundation led 129 UMC volunteers to Da Shan Elementary School (Madou Township, Tainan County) and Huayuan Elementary School (Hsinchu County) for a library rebuilding and decorating mission. 5. The IT experts among UMC's volunteers utilized a system of sorting and numbering to help speed up the library rebuilding process.
Partners	UMC Science and Culture Foundation, UMC Me2We Reading Club, UMC Story-Telling Volunteer Group, CommonWealth Educational Foundation
2010 Achievements	1. Promoted a universal reading culture inside the company by holding reading volunteer training workshops, which totaled 23 hours and counted 150 participants. A total of 27 sessions of "reading and sharing" were held. 2. Conducted 30 books & news reading workshops at Ximen, Huayuan, and Nanhe Elementary Schools. Over one thousand students learned the fun of reading and techniques for reading the news. 3. Helped Da Shan Elementary School and Huayuan Elementary School rebuild and decorate their libraries. 4. Sponsored CommonWealth Educational Foundation for their Hope Reading Program. 5. Subsidzied schools that were affected by Typhoon Marakot to enable their participation in the news-reading education program provided by Mandarin Daily News.

Seeds of Life Education – Promoting Life Education

Approach	To help minority adolescents turn toward a bright future and discover their own potential, a series of life education courses were put in place seeking interested volunteers from all UMC employees, as well as their families and friends. Trained and certified volunteers began regular visits to native tribes in the Hsinchu and Nantou area and through interacting with these children and teenagers, helped them to appreciate the life's essence and potential. In addition, the UMC Stories of Love Troupe was formed. Through teamwork, the troupe designed each move, made each costume, practiced and rehearsed on their own. The troupe performed in schools affected by Typhoon Marakot and were also invited to perform for ChengJheng High School (a juvenile correction school administered by the Ministry of Justice). This play about life, hope and love was brought to enrich the lives of these disadvantaged students and juveniles as well as to remind all volunteers to constantly reflect and cherish what we have.
Partners	UMC Science and Culture Foundation, IC Broadcasting Company, Rainbow Family Life Education Association
2010 Achievements	1. Conducted two life education volunteer training workshops with a total of 51 volunteers. 2. Conveyed passion for and the right attitude about life through the play "The Best Gift". 3. Conducted seven movie road trips to Miracle Home and helped foster children learn lessons from the movies and establish good values of their own. 4. Collaborated with Rainbow Family Life Education Association in a life education program in the Typhoon Marakot affected areas. 5. Sponsored one of IC Broadcasting's radio programs "Be Sensible" in which the host, Prof. Hong Lan, promoted the importance of education and the right ways to approach it. In 2010, a toal of 51 episodes were broadcasted. 6. Two visits to ChengJheng High School

"Seeds of Green Environment" -Education In Environmental Protection and Cultivating Green Technology Talent

Approach	As global warming worsens and environmental issues become everyone's responsibilities, UMC is devoted to contributing to a greener planet by establishing a low-carbon supply chain and venturing into the green industry. In addition, UMC is also making every effort to support and promote environmental protection activities. • Participated in the 2010 Earth Day activities as a corporate volunteer • Participated in Earth Hour@Taiwan, where lights were turned off for earth hour to show our concern for the environment. • Carried out a series of environmental protection activities called "Green UMC, Happy Planet". • Conducted Tzu Chi Environmental Camp • Collaborated with HsinChu County Environmental Protection Bureau to conduct a Low-Carbon Summer Camp for children • Sponsored NTU (National Taiwan University) green energy technology seminars • Donated a green energy lab to NTU • Donated a solar power system to NTU Through activities introducing new energy sources and experiential learning about environmental protection, UMC's employees and students were able to understand the importance of protecting our environment. Each one of them has become a seed and will be able to pass on these concepts to more classmates, friends or families, and in turn, make environmental protection not only each individual's responsibility but also a way of life.
Partners	UMC Science and Culture Foundation, HsinChu County Environmental Protection Bureau, UMC Lohas Education Foundation, UMC Volunteers, The Society of Wilderness, Tzu Chi Foundation, NTUEE (Department of Electrical Engineering, National Taiwan University)
2010 Achievements	1. Conducted low-carbon summer camps for children who had the opportunity to experiment with new energy and to participate in recycling. Four camps in a row admitted a total of 300 students and successfully turned each one of them into seeds for environmental protection. 2. Collaborated with Tzu Chi Foundation on three green activity sessions totaling 60 man-hours. Participants were able to understand the importance of trash reduction and recycling through hands-on experience. 3. Helped National Taiwan University build its green energy lab and solar power system, both of which are extremely valuable experiment resources for students to combine theory and practice and cultivate green energy technology professionals of the future.

"Semiconductor Seeds"- Cultivating Taiwan's High-Tech Talent

Approach	With the goal of cultivating Taiwan's high-tech talent, UMC goes beyond training and developing its internal talent and sets out to reach young talent at an earlier stage. In the hope that an early introduction would one day lead them to contribute to Taiwan's semiconductor industry, UMC put in place a semiconductor process program in National Cheng Kung University, National Kaohsiung University of Applied Science, National Central University, National Chung Yuan Christian University and Hsinchu Kuang-Fu Senior High School. Students at these institutions are given opportunties to learn about semiconductors in great depth while in school and are also provided with early interview and employment opportunities. Also as part of a National Science Council R&D plan, UMC has teamed up with National Chung Cheng University, National Sun Yat-sen University, and National Chiao Tung University in advanced technology research and development projects. With collaboration between schools and industries, theory and practice can be bridged and mutual benefits anticipated.
Partners	National Chung Cheng University, National Chung Yuan Christian University, National Chiao Tung University, National Cheng Kung University, National Kaohsiung University of Applied Science, National Central University, National Chung Yuan Christian University, Hsinchu Kuang-Fu Senior High School, Hsuan Chuang University
2010 Achievements	11. Conducted five semiconductor process programs with National Cheng Kung University, National Kaohsiung University of Applied Science, National Central University, National Chung Yuan Christian University and Hsinchu Kuang-Fu Senior High School. Classes are taught directly by UMC's engineers, each specializing in a different subject. Through this program, UMC is able to reach students as early as in their high school years. Early employment matching and appropriate on-the-job training will enable UMC to find more interested young talents for Taiwan's future semiconductor industry. 2. Worked with National Chung Cheng University, National Sun Yat-Sen University, and National Chiao Tung University in advanced technology research and development projects. Areas of research cover energy conservation in semiconductor fabs and low-voltage process design. Related patents have been obtained.

Environmental Community Volunteer

Besides holding environment-related activities and events within the company, UMC also encourages its employees and families to take part in environmental protection in local communities. In 2010, UMC conducted Tzu Chi Environmental Camp in honor of Earth Day. During the program, employees and their families were taken to Puding Environmental Education Center to help with recycling work. With each pair of hands getting dirty in the work and the kids eagerly helping crush, count and trim plastic bottles, UMC's goal in environmental education has truly been realized.

UMC's Fire Brigade and the Community

UMC's Fire Brigade is a truly world-class team. Its personnel have previously been dispatched to the United States, Singapore, and Australia to receive specialized fire and chemical crisis prevention training. The Brigade also owns highly technical equipment, such as chemical fire engines, equipment cars, thermal imaging helmets, and mobile sprinklers.
Most importantly, however, UMC's Fire Brigade is a model corporate citizen. Beyond devoting itself to UMC's five pillars of socially responsible operations and securing UMC's fab safety, UMC's Fire Brigade also generously shares its training results and rescue experience with firefighting departments and other companies, and takes an active role in providing rescue assistance when required by the community.

UMC Fire Brigade's Community Participation and Achievements in 2010

Rescue assistance	Rescue assistance for the fire at Savior Lifetec
Disaster drill	Participate in Toxic/Chemical Disaster Drill
Training assistance	1. Helps local fire bureaus and other organizations train for the eventualities of fire and chemical disasters.
	2. Arranges disaster prevention and home security related courses for children.

Fire Alarm Systems training course
Toxic/Chemical Disaster Drill
"Best Partner Award" by Hsinchu Science Park Administration (SPA).

Ch9_GRI Content Index

Ch1_Strategy and Vision

Ch2_Business Operations

Ch3_UMC and Stakeholders

Ch4_Healthy Work Environment

Ch5_Greenhouse Gas Management

Ch6_Water and Resource Management

Ch7_Green Product Management

Ch8_Green Projects and Sustainable Society

Ch9_GRI Content Index
9.1 GRI Index
9.2 GRI/G3 Application Levels

Below is a reference between indicators recommended by the Global Reporting Initiative (GRI) Sustainability Reporting Guidelines version 3.0 and corresponding sections in this report.

9.1 GRI Index

Strategy and Profile Disclosure Items

GRI Index	Description
1. Strategy and Analysis	
1.1 CEO Statement	Please refer to section 1.1 "Letter from the CEO".
1.2 Key impacts, risks and opportunities	Please refer to section 2.1.3 "Industrial Overview" / 2.2.7 "Risk and Crisis Management".
2. Organizational Profile	
2.1 Name of the reporting organization	Please refer to section 2.1.1 "UMC in Brief".
2.2 Products and/or services	Please refer to section 2.1.1 "UMC in Brief".
2.3 Operational structure	Please refer to section 2.2 "Corporate Governance".
2.4 Headquarters location	Please refer to section 2.1.1 "UMC in Brief".
2.5 Countries in operation	Please refer to section 2.1.1 "UMC in Brief".
2.6 Nature of ownership	Please refer to section 2.1.1 "UMC in Brief".
2.7 Markets served	Please refer to section 2.1.2 "Corporate Governance".
2.8 Scale of the organization	Please refer to section 2.1.1 "UMC in Brief".
2.9 Significant organizational changes	No significant organizational changes were made in 2010. Note:UMC officially approved the tender offer for UMC Japan and follow-up of the integration plan in October 2009. At the end of 2010, UMC held 55.56% of UMCJ shares, and Alpha Wisdom Limited (UMC-owned 100% subsidiary) held 44.44% of UMCJ shares, totaling comprehensive shareholding of 100.00%. At present, the integration plan targeting 100% direct shareholding of UMCJ and any foreign subsidiaries is ongoing.
2.10 Awards received	Please refer to section 2.3 "Honors and Awards".
3. Report Parameters	
3.1 Reporting period	Please refer to the paragraph "About This Report" (page following cover page)
3.2 Previous report	Please refer to the paragraph "About This Report" (page following cover page)
3.3 Reporting cycle	Please refer to the paragraph "About This Report" (page following cover page)
3.4 Contact point for questions	Please refer to the paragraph "About This Report" (page following cover page)
3.5 Content definition	Please refer to the paragraph "About This Report" (age following cover page)
3.6 Boundary of the report	Please refer to the paragraph "About This Report" (page following cover page)
3.7 Limitations on the report's scope	Please refer to the paragraph "About This Report" (page following cover page) / Additional information provided in each chapter.
3.8 Joint Ventures, subsidiaries, and outsourced operations	Not included in the report content. Related information is available on the company website: http://www.umc.com/
3.9 Data measurement techniques	Please refer to the paragraph "About This Report" (page following cover page) / Additional information provided in each chapter.
3.10 Effects of restated information provided in earlier reports	Please refer to paragraph "About This Report" (page following cover page)
3.11 Changes from previous reports	No significant changes from the previous report in scope, limits, or measurement methods.
3.12 GRI Content Index	Please refer to chapter 9 "GRI Content Index".
3.13 External assurance	Please refer to the paragraph "About This Report" (page following cover page)/ Appendix This report has been third-party verified. DNV has verified that this report conforms to GRI G3 application level A+ and fulfills requirements of the AA1000AS framework.

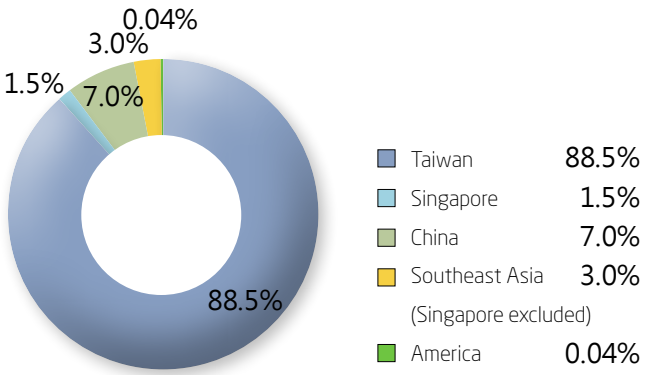
GRI Index	Description
4. Governance, Commitments, and Engagement	
4.1 Governance structure	Please refer to section 2.2 "Corporate Governance".
4.2 Indication whether chairperson is also chief executive officer	Please refer to section 2.2 "Corporate Governance".
4.3 Independent members on the board	Please refer to section 2.2 "Corporate Governance".
4.4 Shareholder / employee participation	Please refer to chapter 3 "UMC and Stakeholders".
4.5 Link between executive compensation and organization's performance	The compensation of Directors and Managers is based on the company's Article and formulations, and is distributed in proper ratios. -Policy for Directors' compensation: The Company's Article has stated that Directors' compensation is the allocation of 0.1% of the residual amount from net profit after tax payments are deducted, making up loss for preceding years and setting aside 10% for legal reserve. -Policy for Managers' compensation: The company annually evaluates its salary level with similar companies in the industry to ensure the company's salary is competitive. Compensation is reported to the audit committee and subject to board review. The company's salary structure can be divided into fixed and variable. Compensation is set to fully reflect the achievements of individuals and teams.
4.6 Processes to avoid conflict of interest on the board	The implementation of UMC's Code of Ethics for Directors, Supervisors and Officers.
4.7 Expertise of Board members on sustainability	All board members possess more than five years of experience in business, law, finance, accounting or corporate business related fields.
4.8 Statements of mission, code of conduct, and principles	Please refer to section 2.2 "Corporate Governance".
4.9 Procedures for board governance on management of sustainability performance	Please refer to section 2.2 "Corporate Governance".
4.10 Processes for evaluation of the board's sustainability performance	The compensation of board directors is based on the company's Article and formulations and is distributed in proper ratios. The annual shareholders' meeting reviewed the ratios based on the board's performance.
4.11 Precautionary approach principle	Please refer to section 2.2 "Corporate Governance".
4.12 External charters / principles	Please refer to chapter 3 "UMC and Stakeholders".
4.13 Association memberships	Please refer to chapter 3 "UMC and Stakeholders".
4.14 List of stakeholders	Please refer to chapter 3 "UMC and Stakeholders".
4.15 Stakeholder identification	Please refer to chapter 3 "UMC and Stakeholders".
4.16 Approaches to stakeholder engagement	Please refer to chapter 3 "UMC and Stakeholders".
4.17 Topics raised by stakeholders	Please refer to chapter 3 "UMC and Stakeholders".

• Disclosure on Management Approach (DMAs)

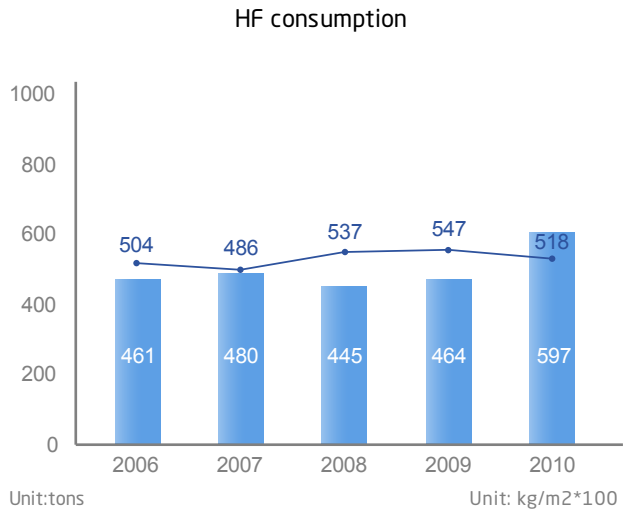
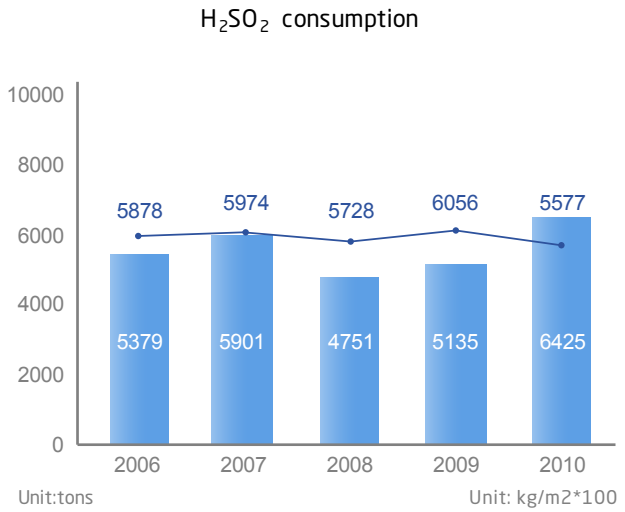
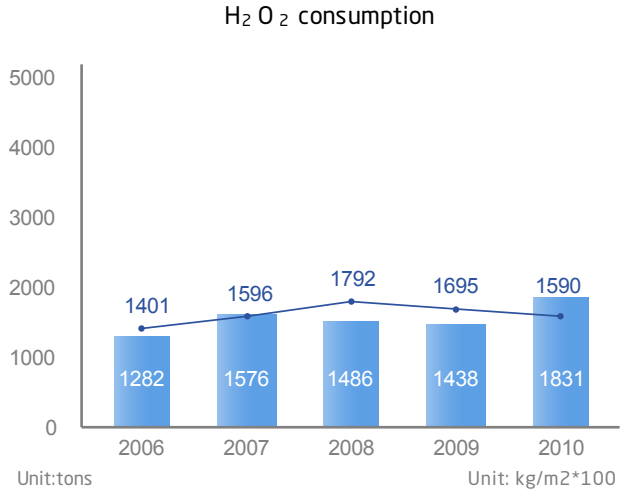
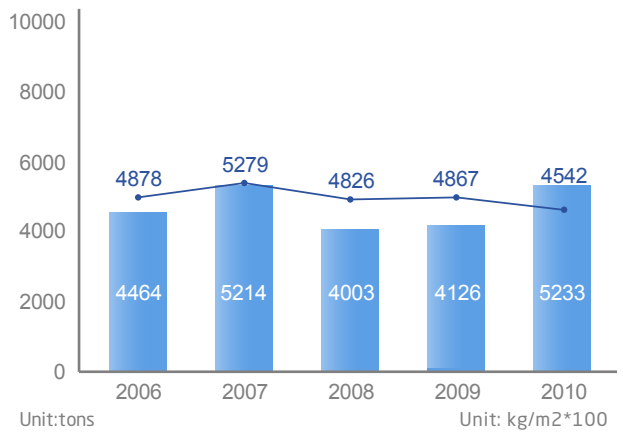
GRI Index	Description
DMA EC Disclosure on Management Approach EC	UMC is dedicated to customer-driven development of advanced technologies and foundry manufacturing solutions. UMC has continued to strengthen its corporate governance and expects to improve its performance further through comprehensive management systems.
DMA EN Disclosure on Management Approach EN	UMC is committed to becoming a sustainable green foundry.
DMA LA Disclosure on Management Approach LA	UMC believes that employees are the most important assets of a corporation. The continued development and growth of a company is based on the efforts of its employees. Therefore, UMC is committed to building a favorable workplace while continuing to improve on the working environment.
DMA HR Disclosure on Management Approach HR	Emphasis on labor rights protection contributes to talent retention and improved productivity. At UMC, all regulations concerning human rights conform to local labor laws and regulations, and are consistent with the "Electronic Industry Code of Conduct" (EICC).
DMA SO Disclosure on Management Approach SO	Since its establishment, UMC has specified in its long-term operation guidelines that the company will make every effort to contribute back to society in addition to focusing on its business growth.
DMA PR Disclosure on Management Approach PR	UMC considers customer satisfaction as fundamental to its mission. An ultimate goal, "customer-driven has become a top priority of the company. Such a philosophy has even expanded to become the company's core value. UMC takes a customer point of view to offer total solutions for fulfilling customer requests. UMC's respect for customers is also reflected in its protection of customers' privacy and intellectual property.

• Economic Performance Indicators

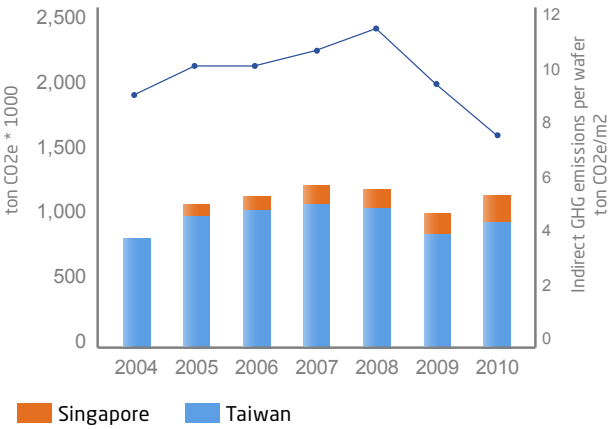
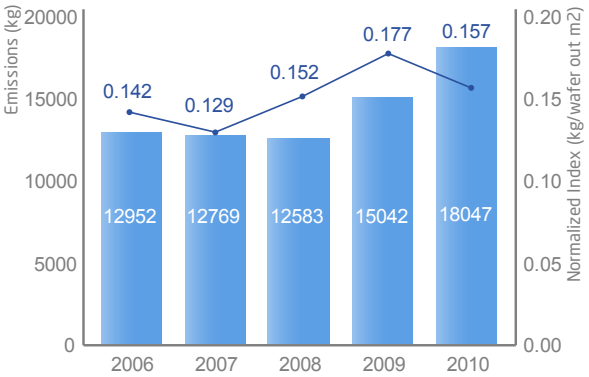
GRI Index	Description
EC1 Direct economic value generated and distributed	Please refer to section 2.1.5 "Operation Performance".
EC2 Financial implications due to climate change	Please refer to section 5.2 "Challenges and Opportunities"/ 5.5.2 "Invest in Green Energy".
EC3 Coverage of the organization's defined benefit plan	UMC believes that employees are the most important assets of a corporation. The continued development and growth of a company is based on the efforts of its employees. Therefore, UMC is committed to building a favorable workplace while continuing to improve on the working environment. UMC provides a competitive compensation and bonus, a full range of education and training programs, a variety of employee benefits and a safe and healthy working environment. By looking after employees' needs in every aspect of life and creating a quality environment, UMC hopes every employee can enjoy their life at work. UMC provides various compensation and benefit items, including salary adjustments, bonuses, stock dividends and stock-related programs (stock options and treasury stocks). Furthermore, the company also provides various insurance and pension programs to enhance employees' work life.
EC4 Financial government assistance	For the purchase of automated machinery, research and development, and other capital expenditure, UMC is entitled to tax incentives, such as tax exemption and investment tax credits. For more information, please refer to the section on "income tax" in the Annual Report on pages 158-160 of the instructions
EC5 Entry level wage compared to local minimum wage	UMC offers market competitive compensation, which is higher than the legislative minimum pay according to the Labor Standards Act, especially in the Taiwan area. Wages of employees are decided based on their education, work experience, performance and market value, irrelevant of gender, race, religion, political position, and martial status.
EC6 Local suppliers	The choice of suppliers is based on the supplier evaluation regulations and is consistent in all areas.

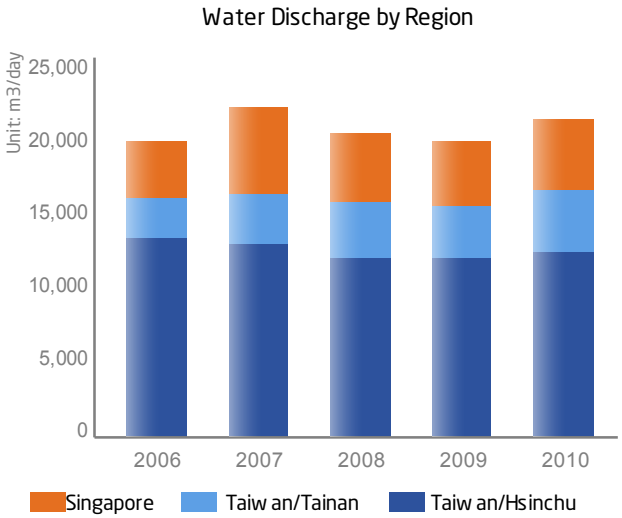
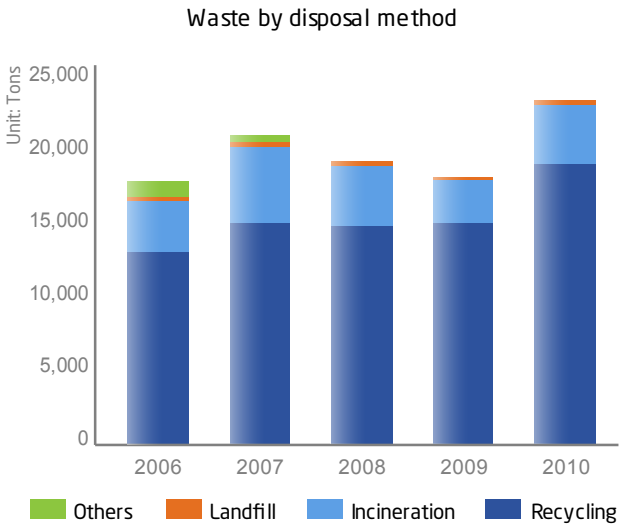
GRI Index	Description
EC7 Local hiring	In terms of creating employment opportunities for local residents, the percentage of local residents is 99.7% at UMC Taiwan headquarters and 11.7% at UMC's Singapore branch. The composition of all UMC employees' nationalities is as below: Employees - by Nationality 
EC8 Infrastructure investment and services for public benefit	UMC did not have such investments and services in 2010.
EC9 Indirect economic impacts	UMC did not make assessments in 2010.

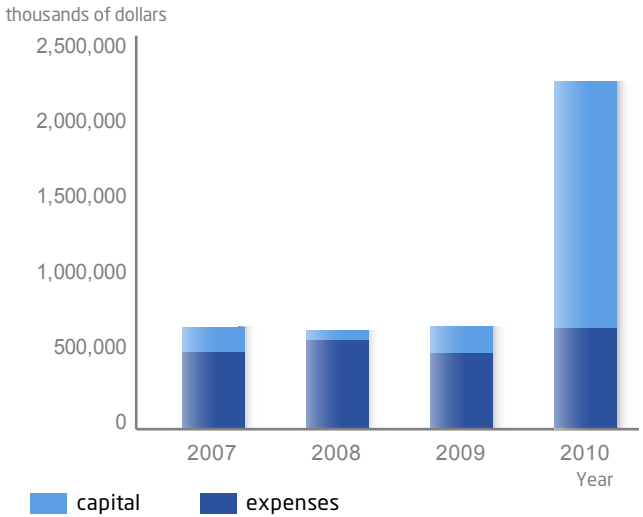
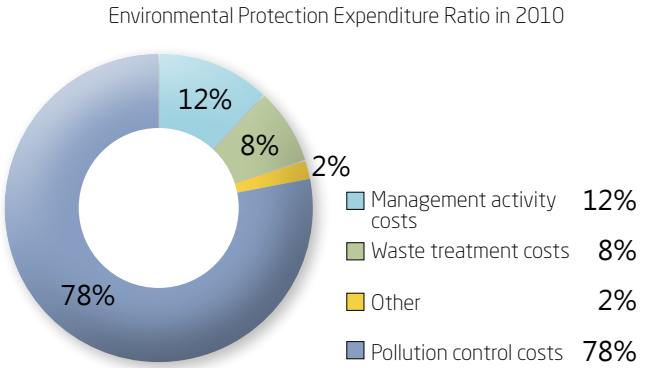
• Environmental Performance Indicators

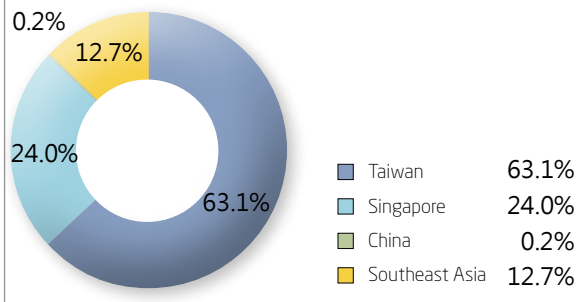
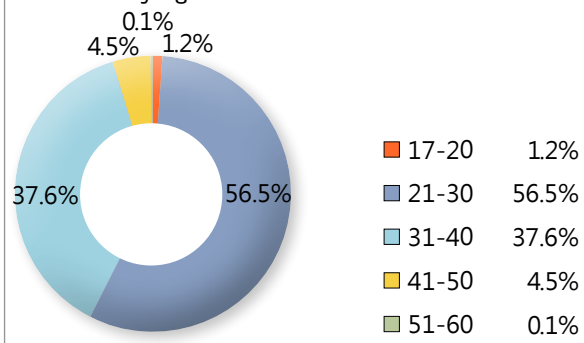
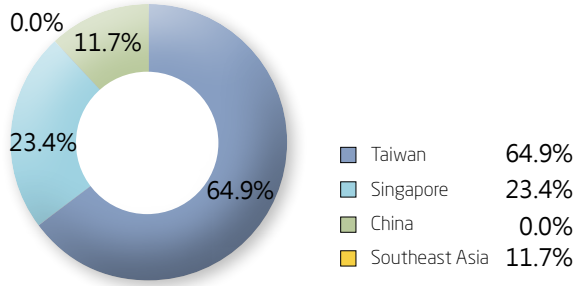
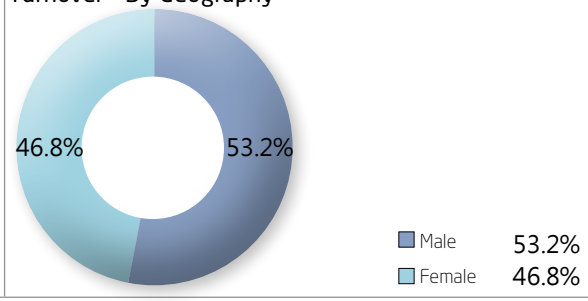
GRI Index	Description
EN1 Volume of materials used	Key raw materials consumption     Note: 1. The concentration has been converted to 100%. 2. All consumption volume mentioned above only includes fabs in Taiwan.
EN2 Recycled materials	Please refer to sections 6.1 "Water Resource Management" / 6.3.1 "Packaging Recycling and Reduction" / 6.3.2 "Waste Recycling and Reuse"
EN3 Direct primary energy consumption	Please refer to section 5.4.2 "Energy Management".

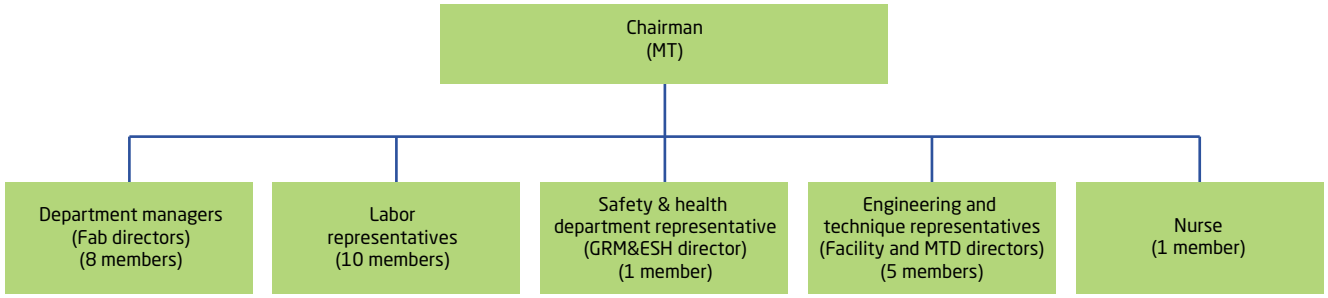
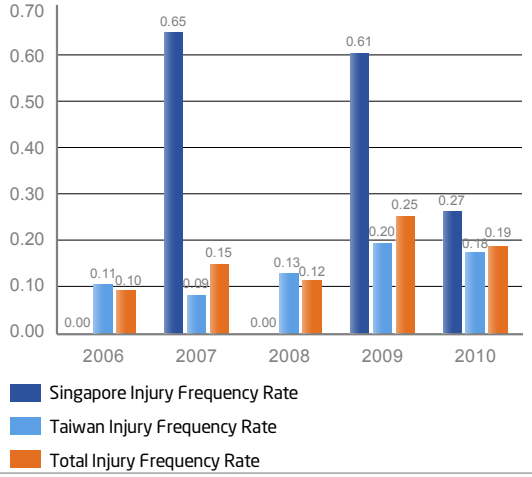
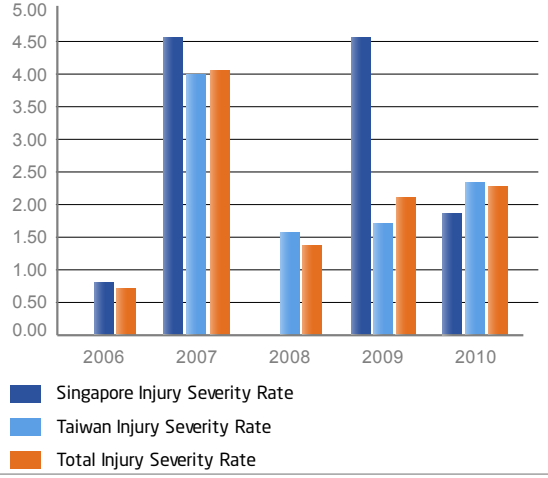
GRI Index	Description
EN4 Indirect primary energy consumption	Please refer to section 5.4.2 "Energy Management".
EN5 Energy conservation	Please refer to section 5.4.2 "Energy Management" / 5.5. "Other Greenhouse Gas Reduction and Future Plans".
EN6 Initiatives for energy-efficiency and renewable energy	Please refer to section 5.4.2 "Energy Management" / 5.5. "Other Greenhouse Gas Reduction and Future Plans".
EN7 Initiatives for reducing indirect energy consumption	Please refer to section 5.4.2 "Energy Management" / 5.5. "Other Greenhouse Gas Reduction and Future Plans".
EN8 Water withdrawal	Please refer to section 6.1 Water Resource Management
EN9 Significant effect of water withdrawal	UMC does not assess significant effects of water withdrawal, but the company has a water conservation plan.
EN10 Water recycled	Please refer to section 6.1 "Water Resource Management".
EN11 Land assets in sensitive areas	-UMC's fabs are located in a highly developed science park. The nearby areas are all occupied by buildings and roadways except small areas with trees and farmhouses (mainly bamboo trees and dry farmland). -UMC's Li-Shin site, Fab8E, and Fab8F are located on areas where water quality and quantity is protected. The developed areas measure 8.5 hectares, 3.5 hectares, and 2.418 hectares, respectively. -The Tainan science park planned for 30 hectares of conservation areas, together with Tao Ye Lake (5 hectares), Xia Ke Lake (5 hectares), Ying Xi Lake (20 hectares), and other lakes, surrounding wetlands, and forests. The Singapore fab is not included in the above indicators.
EN12 Biodiversity within lands owned	UMC's fabs are located in a highly developed science park, and most plants in the neighborhood are landscape plants and introduced plants. Biological resources are more abundant outside the science park, and conservation-listed wildlife have appeared outside the science park as well. The existence of flourishing plants and a variety of animals in the science park demonstrate that during the time of UMC's fab construction and operation, there has been no impact on the organisms in or near the science park since UMC follows all regulations for pollutant discharge. The Singapore fab is not included in the above indicators.
EN13 Habitats protected or restored	UMC's fabs are located in a highly developed science park. Its pollutants have no impact on any organism within the science park or in the neighborhood; therefore no habitats are preserved or protected. The Singapore fab is not included in the above indicators.
EN14 Strategies for biodiversity	"Greenify" and beautify UMC's fab surroundings in compliance with "Guidelines for Maintaining Landscapes in the Science Park". The Singapore fab is not included in the above indicators.
EN15 Endangered species	None. The Singapore fab is not included in the above indicators.

GRI Index	Description
EN16 Greenhouse gas emissions	For direct GHG, see section 5.3; for indirect GHG, see chart below: Indirect GHG (Energy) Emissions at UMC 
EN17 Other greenhouse gas emissions	Please refer to section 5.3 "Communication and Disclosure of Carbon Emissions".
EN18 Initiatives to reduce greenhouse gases	Please refer to section 5.4 "Greenhouse Gas Reduction".
EN19 Ozone-depleting substance emissions	No emissions since no ozone-depleting substances were adopted.
EN20 NOx, SOx and other air emissions	UMC has installed effective air pollution control equipment so that various types of process gas emissions comply with local regulations. The company uses natural gas and a small amount of diesel. In 2010, considering that NOx emissions were about 45,000 Kg; SOx emissions were less than 100KG. For volatile organic chemical (VOC) emissions statistics, see chart below: THC annual emissions (kg)  The Singapore fab is not included in the above indicators.

GRI Index	Description
EN21 Water discharge	UMC has installed effective wastewater treatment facilities. Various types of wastewater were appropriately treated and then discharged into the sewer system of government authorities. After further treatment by the Science Park Administration, the treated wastewater from UMC's fabs in Hsinchu, Taiwan, is discharged into the Keya River, the treated wastewater from UMC's fab in Tainan, Taiwan, is discharged into the Yanshuei River, and the treated wastewater from UMC's fab in Singapore is discharged into the South China Sea. **Water discharge:** 
EN22 Waste by disposal method	UMC aggressively promotes waste recycling and reuse to transform garbage into useful resources. 

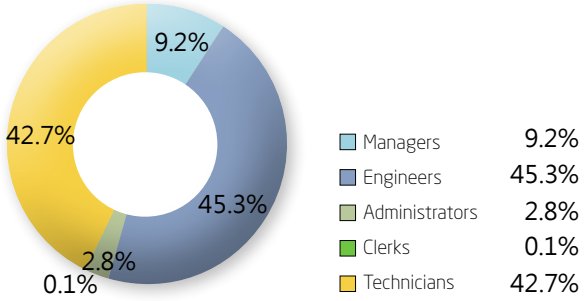
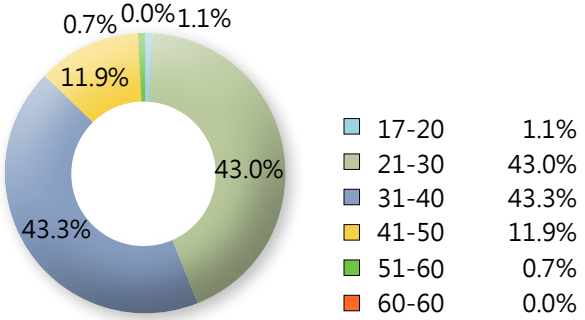
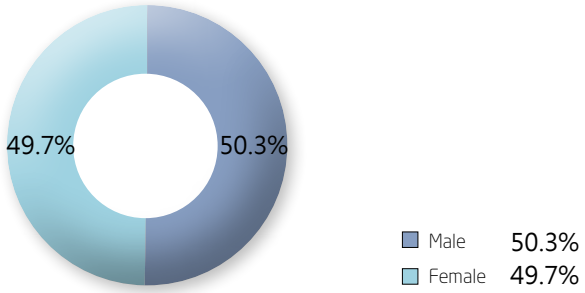
GRI Index	Description
EN23 Significant spills	None.
EN24 Waste deemed hazardous under the terms of the Basel Convention	Only 3.601 tons of nickel-cadmium batteries were transported to South Korea for recycling in April 2010. The other waste was handled domestically rather than transported overseas.
EN25 Impacts of discharges and runoff on biodiversity	All discharges except rain are treated and discharged into science park drainage; therefore no direct impacts were caused.
EN26 Initiatives to mitigate environmental impact	Please refer to section 7.2 "Hazardous Substances restriction and management".
EN27 Packaging materials	Please refer to section 6.3 "Waste Recycling Management".
EN28 Non-compliance sanctions	None.
EN29 Environmental impact of transport	Calculated in product life cycle assessments and carbon footprint, and then converted into environmental impact.
EN30 Environmental protection expenditure	Due to new plant expansion, UMC's environmental expenditure in 2010 was approximately NT$2.243 billion, accounting for 1.7% of the company's total expenditure. The environmental capital expenditure was NT$1.631 billion, accounting for 2.8% of the company's total capital expenditure. The environmental expense expenditure was NT 612 million, accounting for 0.8% of the company's total expense expenditure. The main cost was from operation and maintenance of pollution prevention equipment, accounting for 21.3% of the company's total environmental expenditure.  

GRI Index	Description
LA1 Workforce by employment type and region	The employment patterns of all workers who currently work at UMC can be divided into formal employees of UMC (98.2%) and other staff, including temporary workers and contractors who sign employment contracts with the external company (1.8%). As of the end of 2010, the number of UMC's total formal employees was 13,671, with the distribution of work locations as below: Employees - By Geography 
LA2 Employee turnover	The average turnover rate over the past three years is about 12%. The composition of age and gender, and distribution of work locations, are as below: Turnover - By Age  Turnover - By Gender  Turnover - By Geography 

GRI Index	Description
LA3 Benefits to full-time employees	UMC provides various compensation and benefit items, including salary adjustments, bonuses, stock dividends and stock-related programs (stock options and treasury stocks). Furthermore, the company also provides various insurance and pension programs to enhance employees' work life.
LA4 Employees with collective bargaining agreements	There is no trade union and collective bargaining at UMC.
LA5 Minimum notice periods regarding operational changes	Based on the applicable regulations in the Labor Standard Act in Taiwan and the Employment Act in Singapore.
LA6 Workforce represented in joint health and safety committee	10 in 25 people, about 40% **Labor Representatives for Joint Health & Safety Committee** 
LA7 Occupational diseases, lost days, and number of fatalities	The safety of the environment and of employees are of primary concern for UMC. UMC established an incident report and investigation system for information disclosure and storage. Incidents are recorded and analyzed monthly and used to develop preventive measures. UMC evaluates its occupational safety and health performance based on the Injury Frequency Rate (IFR) and Injury Severity Rate (ISR), established by the Council of Labor Affairs. UMC's IFR and ISR from 2003 to 2010 are as below: Note: Injury Frequency Rate (IFR) = Injury events/Million working hours Injury Severity Rate (ISR) = Injury days-away/Million working hours **Injury Frequency Rate (IFR)**  **Injury Severity Rate (ISR)** 

<table>
<tr><th>GRI Index</th><th>Description</th></tr>
<tr><td></td><td> 

Note: No deaths or occupational disease cases in 2010.</td></tr>
<tr><td>LA8 Training on serious diseases</td><td>Please refer to section 4.3.</td></tr>
<tr><td>LA9 Trade union agreements on health and safety</td><td>Not applicable.</td></tr>
<tr><td>LA10 Training per employee</td><td>In 2010, 8,618 training classes were held, involving total training hours of 655,802 hours, total participants of 298,308, and a total training cost of NTD$40,899,523.
<table>
<tr><th>Course Category</th><th>Total Training hours</th><th>Job Category</th><th>Training hours</th></tr>
<tr><td rowspan="4">"Management courses"</td><td rowspan="4">18946</td><td>manager</td><td>7616</td></tr>
<tr><td>engineer</td><td>8329</td></tr>
<tr><td>administer</td><td>631.5</td></tr>
<tr><td>general staff</td><td>2369</td></tr>
<tr><td rowspan="4">"Specialized courses"</td><td rowspan="4">36312</td><td>manager</td><td>141</td></tr>
<tr><td>engineer</td><td>35965</td></tr>
<tr><td>administer</td><td>10</td></tr>
<tr><td>general staff</td><td>196</td></tr>
<tr><td rowspan="4">OJT</td><td rowspan="4">398365</td><td>manager</td><td>12505</td></tr>
<tr><td>engineer</td><td>98546.5</td></tr>
<tr><td>administer</td><td>2937</td></tr>
<tr><td>general staff</td><td>284376.5</td></tr>
<tr><td rowspan="4">TQM</td><td rowspan="4">13265</td><td>manager</td><td>1439</td></tr>
<tr><td>engineer</td><td>10824</td></tr>
<tr><td>administer</td><td>180.5</td></tr>
<tr><td>general staff</td><td>821</td></tr>
</table>
<table>
<tr><th>Course Category</th><th>Total Training hours</th><th>Job Category</th><th>Training hours</th></tr>
<tr><td rowspan="4">"General courses"</td><td rowspan="4">112583</td><td>manager</td><td>3215</td></tr>
<tr><td>engineer</td><td>71131</td></tr>
<tr><td>administer</td><td>2273.5</td></tr>
<tr><td>general staff</td><td>35963</td></tr>
<tr><td rowspan="4">"External training"</td><td rowspan="4">7659</td><td>manager</td><td>805</td></tr>
<tr><td>engineer</td><td>6277</td></tr>
<tr><td>administer</td><td>411</td></tr>
<tr><td>general staff</td><td>166</td></tr>
</table></td></tr>
</table>

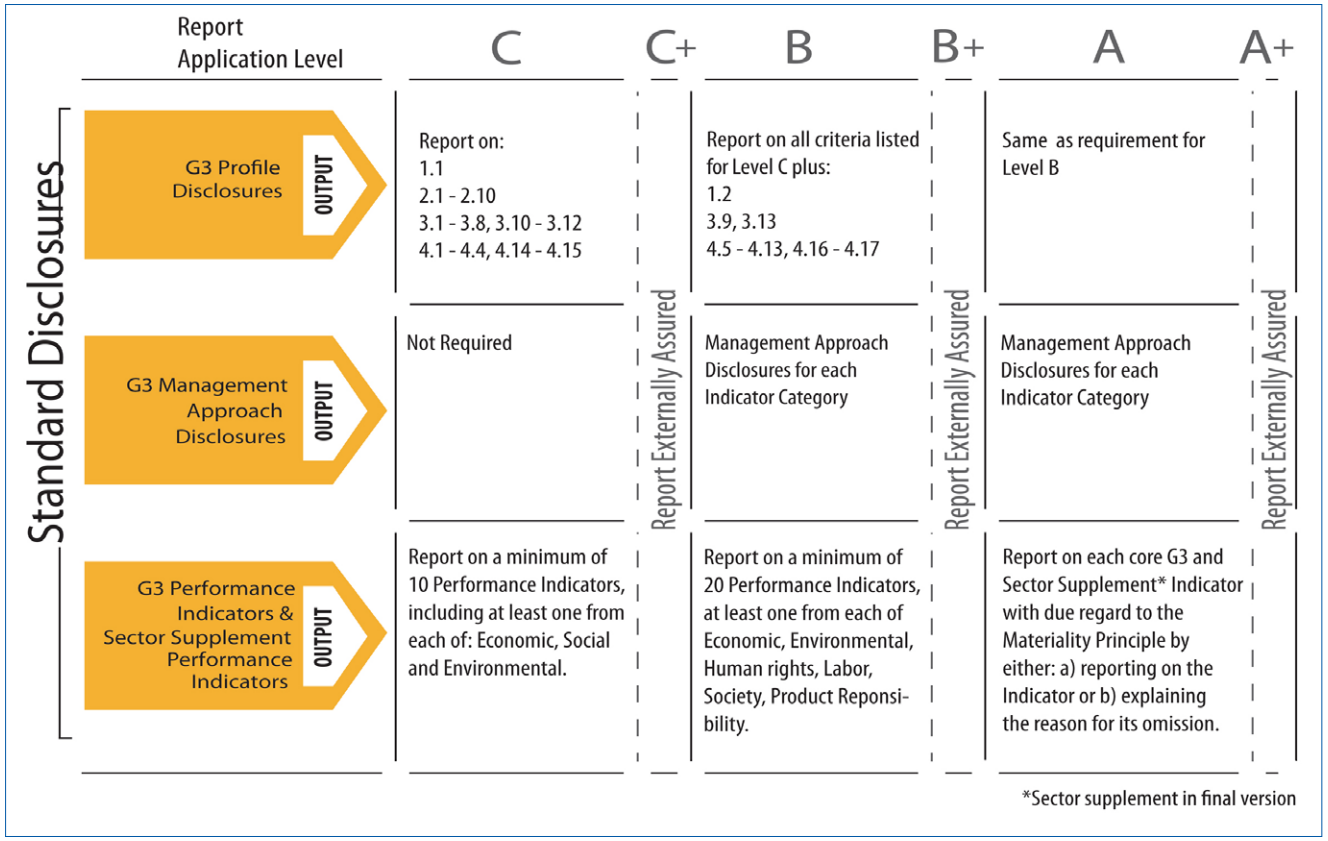
GRI Index	Description
LA11 Programs for Lifelong learning	UMC's training & development system is based on business strategy and policy set by the CEO, knowledge/skills/capability requirements, and competency models. Each employee category owns a training map of compulsory training programs in order to execute the tasks under the business strategy. The training map for each employee category is developed based on a process of skills mapping and skills gap analysis that is performed annually to define development focuses. For all managers, UMC has defined managerial competency at different management levels. Training needs surveys and competency appraisals are conducted throughout the year and trainings are delivered accordingly. UMC's Training Committee is a unique organization under the coordination of the Human Resources department. Each division has its own training committee. The members of each training committee are the division director or deputy, middle-line managers, and representatives from each department. The Training Committee plans, delivers, and enforces on-the-job trainings and policies. UMC created a web-based interface, called Learning Portal, that consolidates all training information for easy access. Learning Portal consists of the Leadership Development Web, an internal/external training bulletin, e-learning access, and a Training Committee Portal. Learning Portal integrates and generates information including training plan development, class information and training reports.
LA12 Regular performance and career development reviews	To achieve the business objectives of the company, departments, and individuals, and to examine employee performance, the company implements a performance review periodically every year. The performance review – the basis of promotion, training development and rewards -- will focus on employees' work reflections of the past year and work plans for the next year. Supervisors and employees shall work together to devise a development plan. For the poor performers, the company will initiate an improvement plan to help elevate their efficacy.
LA13 Employee diversity & governance	Up to the end of 2010, the number of UMC's total formal employees was 13,671, and the percentage of managers was 9.2% (female managers were 10.9% and male managers were 89.1%). **Employees - By Job Type**  **Employees - By Age**  **Employees - By Gender**  Considering the work environment and job characteristics, as of the end of 2010, there are 30 employees with disabilities (0.25% of total employees in Taiwan). Regarding the insufficiency under Taiwanese law, UMC will evaluate and identify specific job positions to focus on sufficient hiring.

GRI Index	Description
LA14 Gender pay disparity	UMC provides compensation that is competitive with the market to attract superior talent to create a prosperous future. We offer market-competitive compensation, which is higher than the legislative minimum pay according to Labor Standards Act, especially in the Taiwan area. Wages are decided based on level of education, work experience, performance, and market value; gender, race, religion, political position, and marital status are irrelevant.
Social Performance Indicators: Human Rights	
HR1 Human rights clauses in investment	UMC requests contractors to follow the relevant human rights provisions, but does not document these in the contracts.
HR2 Supplier screening on human rights	Please refer to section 8.4. Considering UMC's corporate social responsibility and the practice of international justice, UMC prohibits the use of raw materials and production processes related to human rights violations used in the illegal mining of metal. Therefore, we expressed to our suppliers that UMC is very concerned about the issue of conflict mineral. Upon investigations, UMC ensures that all raw materials are purchased without conflict metals.
HR3 Training on human rights	Such education has been included for all new employee training. New 30-min. training classes for each new employee. In 2010, 28 training classes were held, involving total training hours of 670 hours and total participants of 1,340. The Singapore fab is not included in the above indicators.
HR4 Incidents of discrimination	UMC protects its employees' human rights based on the standards set forth by the EICC, following the principle that every employee should be respected and treated fairly. UMC also set anti-sexual harassment regulations and provided complaint channels to protect the rights of female staff. At the same time, UMC stipulated that disabled child labor and any possible acts of child labor or forced labor were not allowed. UMC is not biased in age, gender, race or religion in new employee hiring, assessment, and promotion, atand only works with companies who espouse the above principles as well. As a result, UMC did not handle any cases of sexual or racial discrimination in 2010.
HR5 Freedom of association and collective bargaining	UMC always encourages staff to participate in club activities freely inside or outside of the company.
HR6 Child labor	Please refer to GRI index HR4.
HR7 Forced labor	Please refer to GRI index HR4.
HR8 Training for security personnel	Training rate is 100%. Training hours are not calculated. Security personnel are all contract staff from legal and professional security service firms. Security personnel have to pass relevant training required by the local government before assuming duty. Human rights protection related to security service is clearly stipulated in the company's guidelines.
HR9 Violations of rights of indigenous peoples	None.
Social Performance Indicators: Society	
SO1 Impacts on communities	Please refer to chapter 3 UMC and Stakeholders /section 8.5.
SO2 Corruption risks	Not currently under progress.
SO3 Anti-corruption training	Please refer to section 2.2.6 "Anti-Corruption".
SO4 Actions against corruption	Please refer to section 2.2.6 "Anti-Corruption".
SO5 Lobbying	Please refer to chapter 3 "UMC and Stakeholders".
SO6 Political donations	None
SO7 Anti-competitive behavior	No lawsuits related to anti-competition, anti-monopoly or monopoly-related policies.
SO8 Regulatory non-compliance sanctions	No conviction due to violations of laws or regulations. Hejian case:On September 14, 2010, the Taiwan High Court again ruled in our favor, finding our former Chairman and former Vice Chairman not guilty. The Prosecutor's Office did not file for an appeal within the time allowed, and this case is now closed in our favor. Details about the company's litigation are itemized in the 2010 U.S. Annual Report (Form 20-F) which is available on the company website at: http://www.umc.com/english/investors/h.asp

GRI Index	Description
Social Performance Indicators: Product Responsibility	
PR1 Health and safety impacts along product life cycle	Please refer to section 7.1 "Green Product Responsibility"/ 7.2 "Hazardous Substances restriction and management".
PR2 Non-compliance with health and safety standards	None.
PR3 Product information	Please refer to section 7.1 "Green Product Responsibility".
PR4 Non-compliance with product information standards	None.
PR5 Customer satisfaction	The scorecards provide UMC with an overview of issues that have been accomplished and opportunities for further improvement. The program enables a strong collaboration between UMC and its customers to drive continuous improvement and to achieve mutual success. UMC makes extensive use of customer feedback for continuous improvement. The accountable departments propose and implement corresponding actions to improve issues of customer concern. The customer scorecard program is an effective communication tool between UMC and its customers that facilitates effective solutions to enhance customer satisfaction.
PR6 Marketing communication standard	UMC respects intellectual property rights, rights of customers and fair market competition in all of our product marketing efforts. UMC observes all the competitive laws and regulations, including those governing intellectual property rights. There are no related plans currently.
PR7 Non-compliance with marketing communication standards	None.
PR8 Client privacy	In 2010, there were no incidents of customer complaints from breaches of customer privacy or loss of customer data.
PR9 Sanctions for noncompliance with product and service related regulation	None.

9.2 GRI/G3 Application Levels

We have prepared this report using the Global Reporting Initiative Guidelines. DNV has verified that this report conforms to GRI G3 application level A+. We self-declare this report to be GRI Application Level A+.



ASSURANCE STATEMENT

Introduction
Det Norske Veritas ('DNV') has been commissioned by the management of United Microelectronics Corporation ('UMC' or 'the Company') to carry out an assurance engagement on the Company's 2010 Corporate Social Responsibility Report ('the Report') against the AA1000 Assurance Standard (2008) ('AA1000AS 2008') and the Global Reporting Initiative 2006 Sustainability Reporting Guidelines Version 3.0 ('GRI G3').

The management of UMC is responsible for the collection, analysis, aggregation and presentation of information within the Report. Our responsibility in performing this work is to the management of UMC only and in accordance with terms of reference agreed with the Company. The management of UMC are the intended users of this statement. The assurance engagement is based on the assumption that the data and information provided to us is complete and true.

Scope of Assurance
The scope of work agreed upon with UMC included the following:

- The social, environmental and economic indicators presented in the Report, for the period of 12 months ending on 31 December 2010 and covering data on the company's head-office as well as the manufacturing sites in Taiwan and Singapore.
- Evaluation of the AccountAbility principles and specified performance information, described below, for a Type 2, high level of assurance, in accordance with the requirements of AA1000AS (2008):
  - Information relating to company's sustainability issues, responses, performance data and underlying systems for the management of such information and data;
  - Information relating to company's materiality assessment and stakeholder engagement processes.
- Verification and endorsement of the GRI (2006) Application Level declared by UMC.

Our verification has not covered data and information related to the financial and Green House Gases data. The data and information of financial data and Green House Gases emission/reduction data has been acquired from the verified financial report and GHG Inventory report.

No limitations on the scope of the assurance engagement were encountered during the verification process.

Verification Methodology
The verification was conducted by DNV in April 2011, by suitably qualified and experienced professionals, and in accordance with the DNV Protocol for Verification of Sustainability Reporting. The verification was conducted based only on the Chinese version Report.

The Report has been evaluated against the following criteria:

- Adherence to the principles of Inclusivity, Materiality and Responsiveness, as well as reliability of the specified sustainability performance information mentioned above, as set out in the AA1000AS 2008,
- Adherence to additional principles of Completeness and Neutrality, as set out in DNV's Protocol,
- Adherence to principles and requirements of the GRI G3 for an application level A+.

As part of the verification, DNV has challenged the statements and claims made in the Report and assessed the robustness of the underlying data management system, information flow and controls. For example, we have:

- Examined and reviewed documents, data and other information made available to DNV by UMC;
- Visited the head-office and 5 production sites located in Taiwan;
- Conducted interviews with 50 company representatives, including senior managers and employees of various functions of the company, as well as external stakeholders (Non-government organizations);
- Participated in the UMC's supplier training meeting as an observer;
- Performed sample-based reviews of the mechanisms for implementing the Company's own corporate responsibility-related policies, as described in the Report;
- Performed sample-based checks of the processes for generating, gathering and managing the quantitative and qualitative data included in the Report.

Conclusions
In our opinion, the UMC 2010 Corporate Social Responsibility Report meets the content requirements of the GRI Application Level A+, and provides an accurate and fair representation of the level of implementation of related Corporate Social Responsibility (CSR) policies. We have evaluated the Report's adherence to the following principles on a scale of 'Good', 'Acceptable' and 'Needs Improvement':

AA1000 AS 2008 principles:
Inclusivity: Acceptable. The Company has identified the expectations of stakeholders through internal mechanisms in dialogue with different groups of stakeholders. The key CSR issues identified through this process are reflected in the Report.
Materiality: Acceptable. The process developed internally has not missed out any significant, known material issues, and these issues are fairly covered in the Report. The Company has refined the materiality review process over the past year to identify more specific CSR issues.
Responsiveness: Good. The Company has adequately responded to stakeholder concerns through its policies and management systems, and this is reflected in the Report.

Additional principles:
Completeness: Good. The Report covers performance against the GRI G3 core indicators that are material within the Company's reporting boundary. The information in the Report includes the company's most significant initiatives or events that occurred in the reporting period.
Neutrality: Good. DNV considers that the information contained in the Report is balanced. The emphasis on various topics in the Report is proportionate to their relative materiality. The impacts of Japan's recent nuclear crisis on the company's supply-chain are adequately reported.

Finally, in accordance with Type 2, high level assurance requirements, we conclude that the specified CSR data and information presented in the Report is reliable. The Company has developed its own data management system for capturing and reporting its CSR performance. No systematic errors were detected.

Opportunities for Improvement
The following is an excerpt from the observations and opportunities reported back to the management of UMC. However, these do not affect our conclusions on the Report, and they are indeed generally consistent with the management objectives already in place.

- The stakeholder engagement process may be further strengthened by formally documenting the expectations on sustainability expressed by stakeholders through different engagement channels.
- It is recommended to continuously strengthen the integration of reporting process with the internal management systems, through the development of procedures, guidelines and tools to integrate the overall informative process.
- Based on the materiality assessment, performance objectives and targets specific to community involvement and human resources development should be defined.

DNV's Competence and Independence
DNV is a global provider of sustainability services, with environmental and social assurance specialists working in over 100 countries. DNV was not involved in the preparation of any statements or data included in the Report except for this Assurance Statement. DNV expressly disclaims any liability or co-responsibility for any decision a person or entity would make based on this Assurance Statement.

For Det Norske Veritas,

Signed:	Signed:
Name of Lead Verifier: Chun-Nan Lin	Name of Reviewer: Jasmin Eymery Assurance Engagement Reviewer, Sustainability services, Det Norske Veritas Certificadora, Brazil

Det Norske Veritas
Taiwan, R.O.C., 27 May 2011
Statement Number: 00002-2011-ACSR-TWN

AA1000
Licensed Assurance Provider
000-10

This Assurance Statement is based on the information made available to us and the engagement conditions detailed above. Hence, DNV can not guarantee the accuracy or correctness of the information. DNV can not be held liable by any party relying or acting upon this Assurance Statement.
立恩威國際驗證股份有限公司, 新北市 220 板橋區文化路 2 段 293 號 29 樓

Save earth, we can.

United Microelectronics Corporation, UMC
e-mail:foundry@umc.com