



Social Responsibility Efforts

Introduction

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. Former UMC chairman John Hsuan once noted, “We must attribute UMC’s strong growth to the efforts of its employees and the support of the community. In addition to rewarding employees’ efforts, as a public company, UMC must also fulfill its social responsibility by giving back to the society.”

UMC’s Candle Light Society, voluntarily formed by UMC employees in 1992, has acted as a bridge between UMC employees and charity groups to provide financial support and volunteer work.

In 1996, UMC established the UMC Science and Culture Foundation to systematically sponsor and participate in numerous activities in education, art and culture, sports, public interest, and environmental protection.

In 2005, UMC noticed that the expanding gap between the poor and the rich in Taiwan was creating an economic disadvantage that inhibited the educational performance of children from mid to low-income families. UMC Science and Culture Foundation then decided to provide education and care for these children. A proposal was passed during the board meeting to fund NTD 50 million annually to the Spreading Hope Program. This program provides schoolwork tutoring services for children from mid to low-income families with the hope of increasing these children’s future competitiveness through education.

The Candle Light Society provides a list of charity groups to UMC and establishes a convenient donation channel, while UMC Science and Culture Foundation provides assistance whenever needed. These two groups within UMC complement each other. UMC’s external activities in public interest areas are also promoted by Candle Light Society members within UMC so that more UMC employees can participate and give back to the underprivileged.

Five Focuses of UMC Social Responsibility Operation

The First Focus: Spreading Hope Program-Supporting Education for Children from Mid to Low-Income Families
According to Children’s Bureau, Ministry of the Interior and Taiwan Fund for Children and Families, the number of children from mid to low-income families reached 330 thousand in 2005. In addition, statistics show that low-income families are likely to have more children. Economic disadvantage

inhibits the educational performance of these children due to the inability to afford the necessary resources. Some work to support themselves, leaving less time for schoolwork.

UMC Science and Culture Foundation decided to provide education and care for these children by offering mid to long-term sponsorships and calling for support from others in the hi-tech industry. By working together, UMC hopes to provide better education for these children to increase their future competitiveness and help them rise above the poverty line.

Ideas and Practices

Based on the concept of “Give someone a fish, he’ll eat for a day, teach someone how to fish, he’ll eat for a lifetime”, UMC Science and Culture Foundation hires college students to provide schoolwork tutoring through collaboration with colleges, universities and public interest groups. Three stages are laid out for this program, from maintaining fundamental education, to inspiring children’s minds and guiding and helping them rise above poverty, so that those children can become more competitive in the future.

(First stage) This stage focuses on the assistance of fundamental education. UMC hopes to compensate for the insufficiency of their education resources, establish good learning habits and encourage positive thinking by conducting schoolwork tutoring services.

(Second stage) Through a filtering process, UMC provides scholarships to those children who are talented and willing to advance to higher education, and acts as a motivator for children’s self-progress.

(Third stage) Through evaluation, UMC provides further higher education aid such as subsidiaries for advanced education, or arrangements to study abroad for those who continue to grow with higher self-expectation.

Tutoring Partners

Since the program began on UMC’s 25th anniversary, May 21st, 2005, 65 tutoring classes have been established in Hsin-chu and Tainan to provide long-term tutoring services for children from mid to low-income families. More than three thousand children have benefited from this service in the past two years.

To further integrate the strength of UMC employees and their family members to participate in helping children from mid to low-income families, UMC’s voluntary tutoring service team was established in 2005. Since its establishment,

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there have been more than a thousand people participating in UMC’s voluntary tutoring service team. UMC also holds summer camps and donation-raising activities during Christmas and other holidays. Many UMC employees not only participate in activities themselves but also recruit their friends and family members to join.

Currently, the Spreading Hope program mainly focuses on elementary schools and junior high schools in Hsinchu and Tainan, but hopes to attract more passionate educators and enterprises to participate together to spread hope in additional areas.

Practical Achievements

UMC opened tutoring centers in September 2005. Today, there are 65 classes in four tutoring centers in Hsinchu and Tainan, with more than 400 children enrolled in UMC’s schoolwork tutoring services. Since 2005, there have been more than a thousand children that have utilized this service. Combined with other tutoring services provided by local public interest groups (such as Taiwan Fund for Children and Families) prior to this program, more than three thousand children have benefited from these kinds of tutoring services. There are qualitative achievements as well as quantitative results. With considerable effort and resources involved, the progress and growth that the children have shown is substantial.

Through data analysis for the past two years, on average, children were behind two years than normal (such as a fourth grade student being only capable of second grade schoolwork) before tutored. However, after being tutored, 50% of the children were able to advance on average 1.2 semesters for each semester, and 1 full semester during summer vacation.

Total student numbers, attendance rate, completion rate and average advance semester are shown in the chart below:

	1 ST HALF OF 2005	2 ND HALF OF 2005	SUMMER IN 2005	1 ST HALF OF 2006	2 ND HALF OF 2006	TOTAL (AVERAGE)
Number of Children	199	256	345	445	423	1668 (counts)
Attendance Rate	97%	96%	95%	94%	95%	95%
Drop Rate	10.2%	6%	2.1%	1.8%	1.4%	4.3%
Average Advance semesters (In Mathematics)	1.3	1.2	1.2	1.2	-	1.2

Period Calculated September 2005 to June 2007.

The Second Focus: Fostering Talent for the Hi-Tech Industry

Since its establishment, UMC has grown and developed to solidify itself as part of the foundation of Taiwan’s semiconductor industry with a global service network. UMC understands that quality talent drives sustainable growth, and therefore supplements its art and public interest activities with academic collaboration and other long-term development programs with several leading Taiwan universities.

Practical Achievements

To follow through on the theme of “Rooted in Taiwan, Expand to the World”, UMC’s R&D center in Southern Taiwan’s Science Park will continue recruiting local technical talent as part of its long-term talent-fostering program. UMC believes it can improve the quality of hi-tech talent throughout Taiwan through comprehensive steps. Programs listed below are planned for fostering Taiwan’s technical talent for the future:

- UMC Scholarship program: UMC scholarship program was established in 2004 to sponsor exceptional college students in the science and engineering fields. It is the sixth time the program has been executed, and 333 students have been awarded in total.
- Funds for outstanding technical talents: UMC provides funding for masters and Ph.D. degrees in related majors to foster talents in the R&D field. Each qualified student is entitled to NTD 120,000 per semester. This program has been implemented three times, with 36 students awarded in total. 21 among the 36 continue to be sponsored.
- Collaboration plans: Since 2005, UMC has continued to enhance its collaboration with local government and academic institutions, such as National Cheng Kung University, National Central University, National Sun Yat-Sen University, National Kaohsiung University of Applied Science and I-Shou University. By aggressively collaborating with leading universities, UMC hopes to encourage students to involve themselves in high-tech research and further improve Taiwan’s semiconductor technologies.
- Technical talent workshop and practical lectures for semiconductor processes: UMC has managed the technical talent workshop since 2006 at National Cheng Kung University, National Kaohsiung University of Applied Science, National Central University, Chung Yuan Christian University, I-Shou University and National Sun Yat-Sen University, attracting thousands of participants. UMC also held practical lectures at National Cheng

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Kung University, National Kaohsiung University of Applied Science, National Central University and Chung Yuan Christian University to help students better understand techniques for semiconductor processes.

In addition, UMC sponsors university technology forums and international academic meetings by donating equipment, sharing fab information, and holding large-scale seminars. UMC also holds national technical activities such as its “SoC design competition”, “Campus creativity competition” and “New era technical talent meetings”. These activities promote the gathering of college talents to brainstorm and discuss different technical issues.

The Third Focus: Encouragement of Healthy Pastimes

To encourage the younger generation to engage in healthy pastimes and athletic activities, in addition to sponsoring various sports competitions, UMC Science and Culture Foundation has held its UMC Cup Basketball Open Tournament beginning in 1999. The event has since grown to become a major annual competition for colleges and universities. Beginning in 2007, UMC Science and Culture Foundation collaborated with Hsinchu City government to hold a field trip to 18 Peaks Mountain, attracting more than 10,000 participants. This activity was based on UMC’s interest in public welfare, environmental protection and community care to demonstrate UMC’s determination in caring for the environment and fulfilling its role as a social citizen.

The Fourth Focus: Public Interest and Volunteer Work

Education and aid to minority groups are important considerations at UMC. In addition to long-term sponsorships, UMC announced at its 25th anniversary on May 21st 2005 that the day would serve as UMC’s public interest day each year. UMC hopes to help society in multiple ways by encouraging its employees to participate in voluntary community work.

UMC’s activities in public interest areas promoted over the years include “Building the future together for our children” (collaborating with World Vision Taiwan), sponsoring school tutoring services for children from mid to low-income families (conducted by Boyo Social Welfare Foundation) and fundraising to help Bluesky and Good Shepherd Social Welfare Services build shelters for dropouts.

The Fifth Focus: Community Development

UMC recognizes and appreciates fine art through the sponsorship of large-scale performances such as the English Chamber Orchestra, Pianist Ruei Bin Chen’s Concerts and others, and also focuses on the promotion of community art activities. Major activities in recent years:

- Since 2005 The sponsorship of Hsinchu Spring Music Festival.
- 2005 The exclusive sponsorship of Suzhou Kunju Troupe’s “Chang Sheng Dian” in Hsinchu.
- 1999 The sponsorship of English Chamber Orchestra in Taiwan.
- The sponsorship of Pianist Ruei Bin Chen’s Recital. Mr. Chen has been awarded several international music awards.
- 1999 UMC launches plans for UMC Recreation Center, which opened in 2003. It was constructed and maintained by UMC and accessible to general Hsinchu residents.

In addition, UMC continually sponsors campus art and culture activities and lectures at National Tsing Hua University, National Chiao Tung University and National Cheng Kung University. UMC hopes to improve the development in art and culture for the community through various kinds of support activities.

Environmental, Safety and Management Activities

Many companies have stressed sustainable growth or social responsibilities in recent years. UMC sees corporate social responsibility (CSR) as an integral factor of its corporate culture, and expects its employees to put the belief into practice. Therefore, UMC is now promoting a corporate culture based on the core values of customer-orientation, integrity, innovation, accountability and efficiency. UMC hopes employees at all levels will embrace this new corporate culture, which is being promoted at the executive level, and adopt it in their working attitude. This corporate culture embodies UMC's goal of pursuing sustainable growth and involving itself in social development.

In February 2008, UMC's corporate social responsibility (CSR) report received a Level A grade from Global Reporting Initiative (GRI), signifying that UMC's CSR report is aligned with G3 Sustainability Reporting Guidelines. UMC is the first company in Taiwan to achieve this standard. In addition, UMC received the 2008 "Corporate Social Responsibility Award" from Commonwealth magazine. UMC has put forth significant efforts in every aspect of CSR over the years, with successful results that have recently gained worldwide recognition. These accomplishments illustrate UMC's emphasis on communication with stakeholders and information transparency, which enables UMC to maintain its position as a world-leading corporation.

For environmental protection, safety and health management, UMC aims to be a sustainable development enterprise with zero-pollution and a zero-incident rate. In addition to complying with and exceeding environmental protection and industrial safety laws, UMC also adopts advanced techniques in environmental protection, safety and health, risk management and rescue procedures to improve the overall environment and safety. Furthermore, UMC continues to encourage all employees to participate actively in environmental, safety and health training, and promotional activities.

Environmental protection

- Greenhouse Gas Reduction and Management

UMC's countermeasures are already in place. UMC established its "PFCs Emission Reduction Team" in 1999 to implement the greenhouse gas reduction plan. PFCs are Perfluorinated Compounds that are used in semiconductor processes. Currently, UMC has targeted PFC emissions reduction by "10% in 2010 compared to 1998 (the emission of 1998 is the MMTCE average of 1997 and 1999) levels". Major elements of the PFC emissions reduction plan include:

- 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.
 - Continue researching and testing substitute gases, and lowering the use of gases with a high potential of contributing to the greenhouse effect by reducing the source emission.
 - Meanwhile, in order to lower the PFC emissions year by year, UMC plans to install high efficiency PFC emissions abatement systems after fully evaluating all new models.
- UMC finally completed the gas replacement from C_3F_8 to C_2F_6 in all fabs in 2007. This can effectively reduce the emission of greenhouse gases and lower the impact on global warming. Furthermore, UMC completed the inventory and verification for greenhouse gas emissions with TSIA (Taiwan Semiconductor Industrial Association), conducted by a third party based on ISO 14064 standards. UMC has passed PFC emissions requirements for all its Taiwan fabs. UMC will continue to require annual third party greenhouse gas emission inventory to ensure that UMC completely adheres to the current status of greenhouse gas usage.

*Environmental, Safety and Management Activities (cont.)***- Energy Saving and Management**

Energy utilization consumes the earth's resources and results in the greenhouse effect. To lower the impact of the greenhouse effect on the environment, UMC sets annual goals and plans to lower the emissions of greenhouse gases. In addition to continual assessment and introduction of various energy saving technologies, UMC also implements energy saving plans to directly slow the company's energy consumption. Furthermore, UMC promotes energy saving programs in the office and public areas accompanied by promotional activities and training to enhance employees' ideas and habits in energy saving and greenhouse gas reduction.

- Water Conservation and Management

UMC monitors its water utilization status due to occasional water shortages in Taiwan. Furthermore, UMC expects to lower the demand pressure for water by further expanding water recycling and reuse programs. This is to make the best use of limited water resources. Currently, the water recycling rate is higher than 85% in all new fabs, which conforms to or surpasses the standard drawn up by HSPA, and also outperforms other international fabs. UMC also adopts water saving measures such as using water saving taps, recycling rainwater for gardening, water saving in air conditioning systems and kitchen...etc.

- Waste Management and Resource Recycling

UMC's waste management is based on an economic and effective waste management system to achieve the goal of handling waste safely, hygienically, hazard-free and resourcefully. Strategies include waste reduction, resource recycling and waste treatment. 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 lowers the resources and costs to handle the waste and helps to ease environmental strain. Finally, UMC regularly checks waste treatment vendors, strictly controls the flow of the waste and implements optimized measures to handle the waste.

- Pollutant Emission and Control

End pipe treatment has been seen as the last measure in recent years. In pollution control, UMC develops technologies to meet new laws or standards in environmental protection, while continuing to introduce highly efficient technologies and equipment for self-management by taking the overall environment into consideration. All pollution control equipment is operated and maintained by professional teams. The operation of all equipment is included in the central monitoring system and is monitored 24 hours a day to ensure emission quality.

- Other Environmental Management Projects

UMC has continued to put efforts into environmental protection work over the years. Environmental management tools have been introduced within UMC, such as an environmental management system, product life cycle assessment, an environmental accounting system and others. UMC expects to continually and spontaneously make improvements by adopting environmental management measures to achieve the practical goal of improving and lowering the impacts on the environment.

Furthermore, UMC has been aware of the green production trend from the international community and its customers and has promoted green supply chain management since 2003. In the same year, UMC became a Sony Green Partner, and passed qualification again in 2005. These actions demonstrate that UMC's progress in hazardous substance management has gained recognition from our customers. In 2006, UMC began to follow the RoHS supplier guidance project initiated by Industrial Development Bureau, Ministry of Economic affairs to ensure the completion of the whole green supply chain. UMC completed the final system audit for QC 080000 IECQ HSPM (Hazardous Substance Process Management) qualification in 2006 to become the first semiconductor manufacturer worldwide to achieve HSPM certification for all fabs at the same time. The completion of QC 080000 IECQ HSPM qualification audit demonstrates UMC's capabilities in managing hazardous substances and meeting RoHS Directives.

Safety and Hygiene

- Safe and Healthy Management

UMC establishes a simple yet effective environmental safety and health management system by continually improving the environmental safety and health risk management cycle, which includes: safety design for facilities, education and training for employees, systematic safety management measures and internal and external inspection. Based on the requirement of ISO14001 & OHSAS18001, UMC analyzed and classified different risk levels based on the frequency and severity degrees resulting from all operations. For those high-risk operations, UMC will establish rules as countermeasures. In addition, to keeping the information updated, UMC conducts a follow up evaluation every three years after any environmental safety and health exam is held prior to any process alteration or new task implementation. All data is recorded and tracked by the computer system.

- Safety is My Responsibility

UMC concluded that 90% of accidents resulted from human error. In order to achieve the goal of “zero-accident”, the company will promote the mentality of “Safety is my responsibility”. UMC declared the concepts of “Be aware of your own safety as well as the safety of others” and “Safety is everyone’s responsibility, and my personal accountability” as its foundations. Furthermore, UMC implements the FMEA method to foster employees’ capabilities in risk analysis. Therefore, the company has established a complete channel for communication and proposing new ideas to ensure that employees’ opinions are fully expressed and are followed with professional response and assistance. By doing so, UMC hopes to establish a working attitude of “Safety and health first” and carry out safety and hygiene management to further improve the quality of the working environment, and finally, to become a model for global safety and hygiene management.

- Health Encouragement and Management

UMC believes that employees are the most important asset for a corporation. Corporations require physically and mentally healthy employees to achieve efficient, high-quality performance. As such, UMC strives to create a working environment that facilitates employees’ physical, mental and spiritual health. UMC also assists the well being of employees’ family members. The working environment UMC creates results in increased morale and quality of life improvement for company employees.

- Contractor 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 relative 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 during pre, during and post-construction management. UMC also requires construction safety meetings to be held between UMC supervisory employees and contractors before construction begins. During construction, in addition to responsible supervision, UMC’s GRM&ESH Division will conduct random inspections to ensure all construction follows safety regulations.

Honors and Awards

UMC does its utmost to excel in environmental protection and safety and health. UMC’s achievements in risk management, environmental protection and safety and health management meet international standards and are highly praised by the government and the industry. Following are awards received in 2007:

- “Clean & Green Watch 2007” Report ranks UMC as the runner-up company in Taiwan
- Enterprises Environmental Award of the Republic of China
- National Industry Safety & Health Award
- Excellent Performance in Waste Management and Resource Reduction, Recycle and Reuse
- Excellent Performance in Energy Saving and Greenhouse Gases Emission Reduction
- Excellent Industrial Safety and Health Executive Organization of Hsinchu Science Park
- Excellent Industrial Safety and Health Executive Organization
- Top Honors in Hsinchu Science Park’s ‘Protection of the Environment’ Competition
- Innovation for Workplace Safety and Health Award

