Celestica™

Protecting the planet

2010 Environmental Sustainability Report

Our Commitment

A key part of Celestica's Corporate Social Responsibility program focuses on minimizing the impact we have on the environment. As a partner to many of the world's leading brands, Celestica is committed to being an environmentally responsible partner in the communities in which we operate by ensuring safe, efficient and environmentally conscious operating and manufacturing processes. Our commitment is demonstrated through our day-to-day operations which support environmentally sound practices.

While, historically, many of our environmental initiatives have been managed at the site level, we are now moving toward an increasingly collaborative, global model with common goals and focus areas.

We have aligned our sustainability goals around the following six major elements – areas in which we can drive the most significant improvements to our environmental footprint.

Supporting our customers in meeting their environmental goals was also a major consideration as we planned activities within each of the focus areas of our environmental sustainability program. These elements are controlled through an environmental management system which is a structured approach to identifying priorities, improving performance and monitoring results.

Celestica is also a founding member of the Electronics Industry Citizenship Coalition (EICC). In addition to upholding the EICC's Code of Conduct, we are also currently participating in the organization's Environmental Sustainability working group to help guide environmental initiatives throughout the electronics supply chain.

The Six Major Elements of Environmental Sustainability at Celestica

Reducing greenhouse gas emissions

Conserving water

Reducing and recycling waste

Responsibly managing end-of-life materials

Minimizing and controlling the use of hazardous waste

Complying with product-level environmental legislation

Our Green Heritage

In recent years, we have taken our commitment to environmental protection to the next level. Key highlights of the journey include:

2010

- Celestica launched the company's first global Environmental Sustainability Report.

2009

- Celestica became a member of the EICC's Environmental Sustainability work group, further enhancing our commitment to reducing our carbon footprint on a global scale.
- We completed the Carbon Disclosure Project (CDP) and EICC questionnaires relative to our current carbon footprint.
- We began educating our customers on our approach to environmental sustainability – in many cases, proactively discussing our green heritage and future plans.
- We continued to place a major focus on reducing energy, waste and water consumption.
- We authored our 40th technical paper aimed at helping the electronics industry to mitigate and overcome the technology and supply chain challenges driven by the European Union's Restriction of Hazardous Substances (RoHS) legislation – a law that banned six key substances, including the lead commonly used in solder for the production of electronics assemblies.
- We formed two internal committees focused on the environment:
  - An Environment Forum to ensure the global alignment and collaboration of the key functions and teams driving our various green activities.
  - A Grassroots Committee made up of employees who are passionate about reducing Celestica's impact on the environment by driving best practices across our sites.

2008

- Celestica established a Green Technology Business Unit to provide end-to-end product lifecycle solutions to companies in the industrial and energy management sectors that support energy management infrastructure and devices including solar hardware, wind technologies and advanced lighting.
- We established our Green-Chain Solutions offering, a suite of services focused on helping our customers to reduce their environmental footprint throughout the entire product lifecycle, from eco-design though to responsible end-of-life materials management.
- We formed an Environmental Compliance Forum to ensure we stay abreast of current and pending legislation.

2007

- Celestica began extensive development work on alternative Lead-free alloys that reduce defects during manufacturing.

Our Global Environmental Policy

- Be an environmentally responsible neighbour in the communities in which we operate. We will act responsibly with respect to conditions that impact health, safety or the environment.
- Commit to a "prevention of pollution" program and achieve continual improvement in our environmental objectives.
- Commit to environmental objectives and targets each year, based on legislative and regulatory requirements and the previous year's results and trends.
- Practice conservation in all areas of our business.
- Develop safe, energy-efficient and environmentally-conscious products and manufacturing processes.
- Assist in the development of technological solutions to environmental problems.
- Conduct rigorous self-assessments and audits to ensure our compliance with this policy and legislative and regulatory requirements on an ongoing basis.

2006

- We completed site readiness qualification prior to the July 1 RoHS deadline to ensure a seamless transition to Lead-free manufacturing for our customers.

2005

- Our headquarters in Toronto, Canada took environmental protection leadership to the next level by launching an end-of-life materials management (EOLMM) operation dedicated to the responsible disassembly, tracking and management of end-of-life electronics manufactured by Celestica – helping to support the integrity of our customers' brands and their commitment to the environment.

2004

- We became the first company in the electronics manufacturing services industry to launch a Green Services™ offering to help companies achieve compliance with product-level environmental legislation such as RoHS. In 2006 Merrill Lynch ranked Celestica the #1 supplier of RoHS conversion services in our industry.

Environmental Management

Celestica's Environmental Policy is the foundation of all of our environmental initiatives. We have adopted this Environmental Policy to protect the environment and to conduct our operations using sound management practices. Our Environmental Policy expresses our longstanding commitment to environmental management and guides our activities in this area.

Environmental compliance and general environmental performance requirements are governed by Celestica's Environmental Policy and Global Environmental Standards. All sites have an Environmental Health and Safety representative and all Celestica manufacturing sites are ISO 14001 certified.

Reducing greenhouse gas emissions

There is a growing scientific consensus that greenhouse gas (GHG) emissions are responsible for the planet's changing climate. We are committed to reducing Celestica's GHG emissions by making our global operations more energy efficient and implementing conservation initiatives.

Key Issues and Solutions

The largest source of GHG emissions from our operations is the electricity we use in our sites. The second-largest emission source is the combustion of natural gas and fuel oil for heating buildings and water. Focusing our activities on reducing consumption in these two areas is the most significant way we can reduce our GHG emissions.

In January 2009, our Corporate Facilities team launched a Global Energy Reduction Initiative. Piloted in our Toronto, Canada site, the Energy Reduction Initiative, coined by employees as the "Energy Treasure Hunt", used a Lean Kaizen approach that focused on analyzing energy use (electricity, natural gas or other fuel) and implementing initiatives to reduce consumption. A cross-functional team with representatives from Facilities, Environmental Health and Safety and our Central Utilities Plant, toured all areas of the Toronto, Canada site to observe and record energy consumption and identify opportunities for improvements. This effort yielded 150 ideas, resulting in significant opportunities to reduce energy consumption and costs.

Based on the sweeping success of our Energy Reduction Initiative, we have rolled the program out globally. Results are shared among sites to encourage the sharing of best practices. Many sites have already implemented ideas that have resulted in significant energy reduction. Examples include:

- In our Monterrey, Mexico facility, we increased the temperature set-point for air conditioning in office areas, resulting in an annual energy saving of 208,782 kWh.
- Our facility in Kladno, Czech Republic optimized its heating, ventilation and air conditioning (HVAC) system operation which resulted in an annual saving 122,640 kWh of electricity.
- In Toronto, Canada, programmable timers were installed on HVAC units to turn off ventilation during periods of inoccupancy. This resulted in an annual energy saving of 363,593 kWh.
- The Energy Reduction Initiative in our Song Shan Lake, China site identified a compressed air leak that was immediately fixed, resulting in an annual energy saving of 144,909kWh.

Carbon Reporting

In 2009, we submitted responses detailing our greenhouse gas inventory to both the Carbon Disclosure Project (CDP) Greenhouse Gas Questionnaire and the EICC Carbon Reporting System. The EICC is leading a collaborative effort within the electronics industry to collect, track and reduce greenhouse gas emissions. The CDP is an independent not-for-profit organization holding the largest database of primary corporate climate change information in the world.

Thousands of organizations across the world's major economies measure and disclose their GHG emissions and climate change strategies through the CDP. It is currently the most recognized and standardized tool for carbon footprint reporting.

Many of Celestica's customers are members of the CDP. They encouraged our participation in the reporting of our carbon inventory through the CDP tool which provides CDP members with convenient online access to our reports.

LOOKING AHEAD

We will continue to look for energy saving ideas by conducting Global Energy Reduction Initiative events at each of our sites.

Although we have already taken action to reduce our carbon footprint through the Energy Reduction Initiative, we need to fully quantify our global impact by taking into account all sources of GHG emissions. Celestica will focus on improving the completeness of our GHG inventory – looking beyond scope 1 and 2 emissions to include scope 3 analysis and reporting – and producing a complete account of our global GHG emissions

In addition, we plan to join a voluntary GHG emissions registry and create a company-wide GHG management plan with global reduction targets for both the near and long term.

Scope 1: All direct GHG emissions.

Scope 2: Indirect GHG emissions from consumption of purchased electricity, heat or steam.

Scope 3: Other indirect emissions, such as the extraction and production of purchased materials and fuels, transport-related activities in vehicles not owned or controlled by the reporting entity, electricity-related activities (e.g. Transmission and Distribution losses) not covered in Scope 2, such as outsourced activities, waste disposal, etc.

Conserving water

While Celestica's operations do not consume a great deal of water, we recognize that water is a critical resource that is becoming increasingly scarce in many parts of the world due to pollution and mismanagement. Even small quantities of impurities can make surface and underground water sources unsuitable for consumption, agricultural or recreational use.

We strive to minimize our demand for water through conservation activities and by finding alternatives for high-water-demand equipment. Where wastewater disposal is required, we take careful steps to ensure that wastewater discharge meets regulatory requirements and will not result in surface or groundwater pollution.

Key Issues and Solutions

We have an ongoing focus on water conservation.

Celestica uses water in several key steps during the printed circuit board assembly processes. It is used directly as a cleaning agent to remove flux residue after assembly and for cleaning stencils used in the solder paste printing process. Water cleaning is a key aspect of our Environmental Sustainability program and our ISO14001 certification. In fact, we have virtually eliminated the need for water cleaning in our printed circuit assembly process through the development of "No Clean" assembly processes. Since one water cleaner can use more than 10 gallons of water per minute, this has resulted in a significant water savings.

Our Global Facilities teams generate a variety of services and utilities on site, such as compressed air, nitrogen and de-ionized water. To prevent overheating, we also use water indirectly to cool some of the equipment that generates these services. Our site teams around the world continually look for ways to conserve the water used for these purposes.

One solution identified during Celestica's Energy Reduction Initiative involved the replacement of a water-cooled vacuum pump with a new air cooled vacuum pump in our Toronto site. This resulted in significant annual water savings of approximately 45,000 m^3.

Since water is also used in areas outside of manufacturing, we include these uses in our conservation plans. For example, our team in Dongguan, China recently developed a method to use recycled water to flush toilets – saving over 40,000 m^3 annually. In our Toronto, Canada facility, improvements to washroom faucets reduced the consumption of water by 75 per cent or 1,600m^3 per year. This solution is currently being evaluated by other sites for possible implementation.

LOOKING AHEAD

We will continue to focus on water conservation and the elimination of high-water-demand operations. In 2010, Celestica sites will continue to share best practices with other regions to increase our overall conservation initiatives and share no-clean options with customers still using a water-cleaning process.

Reducing and recycling waste

Celestica strives to reduce the amount of non-hazardous waste destined for landfill. We do this by reducing, reusing and recycling wherever possible. When disposal is required, we ensure that all waste is disposed of responsibly.

Our largest sources of non-hazardous waste include packaging materials such as electrostatic discharge (ESD) bags, bubble wrap, polyurethane foam, polyethylene foam and corrugated cardboard. Other sources include plastic component trays and tubes, food waste, paper and beverage containers.

Our Miyagi, Japan site has been working for several years on a mission of zero waste – focusing on eliminating plastics, oil, wood, glass, metal, paper and garbage sent to landfill. The site's waste streams are separated and either recycled, composted, or, where possible, incinerated – with the heat recovered for energy and other purposes.

Key Issues and Solutions

Our waste reduction and recycling initiatives are a key component of our Global Environmental Policy and our 1SO 14001 certification.

All of our sites have recycling programs aimed at minimizing the waste going to landfill. The program at our Miyagi, Japan site, is an example.

Our Toronto, Canada facility showcases many best practices for other sites to follow as we roll out our Global Sustainability Plan. For example, by providing separate containers in office areas for employees to dispose of paper, aluminum, plastic, organics and glass, we ensure that recyclable and compostable materials stay out of landfill. Previously, manufacturing waste such as component trays and packaging foam were disposed in landfill. In an effort to improve recycling and reuse channels, we have taken a Lean approach – capturing and sorting waste at the point of source on the manufacturing floor. Employees can sort waste and place it directly into labelled bins to prepare it for recycling.

These practices have resulted in the Toronto site consistently diverting more than 80 per cent of its waste from landfill.

LOOKING AHEAD

All Celestica sites are involved in some form of recycling. As an important next step, we are currently collecting baseline data from our sites and gathering data with respect to local recyclers. This will enable us to develop realistic, achievable targets. We will continue to focus on improving our rate of recycling by working with suppliers to ensure that the items that we purchase to support our manufacturing operations, such as component trays and packaging foam, are recyclable.

Responsibly managing end-of-life materials

The environmental impact of the growing waste stream of unwanted electronic equipment is becoming widely recognized as a global issue. End-of-life materials management (EOLMM) involves the demanufacture of materials to prepare them for recycling and re-use. Celestica's goal is to demonstrate environmental leadership in this area by protecting our customers' brands and supporting their commitment to the environment.

Key Issues and Solutions

In addition to being concerned about the environmental impact of end-of-life electronics, many of our OEM customers are aware of the negative impact that the improper disposal of electronics can have on their overall brand.

Celestica has established a complete EOLMM solution to support our customers. Using specialized software, we can track material from original assemblies into constituent materials. Product de-manufacturing occurs within a secure area, managed by highly-trained operators who understand how to separate electronics into valuable constituent materials and prepare them for recycling, or sound disposal when recycling is not feasible. These operators are also trained in handling any hazardous materials that could be present in products during the disassembly process. Responsible local vendors are selected by Celestica to convert the recyclable materials into other usable products. In cases where sound disposal is required, these vendors provide certificates of destruction.

LOOKING AHEAD

In 2010, we will expand our EOLMM capability across our network. We will do this by leveraging the skill that currently exists and replicating best practices. To select future EOLMM-capable sites, we must ensure the program will have a significant environmental impact and that a local infrastructure of credible recycling partners is in place.

Minimizing and controlling the use of hazardous material

At Celestica, we understand the importance of the proper management of chemicals used to support our operations – from selection through to storage, use and disposal. Wherever possible, we strive to select environmentally friendly chemicals and have comprehensive programs in place to review and authorize any new chemicals.

For many years, Celestica has been committed to limiting the use of hazardous substances and ensuring proper disposal of hazardous waste.

We have partnered with responsible vendors in the industry to ensure the proper management of waste, both on and off our premises. Hazardous waste includes conformal coating waste, isopropyl alcohol, flux and waste oil. It also includes solder waste which can be in the form of:

- Solder dross (oxidized solder that is skimmed off wave solder pots and solder fountain operations)
- Solder paste that has exceeded its useful lifespan and cannot be reused due to product quality issues
- Contaminated solder paste articles such as wipes, gloves and empty paste jars

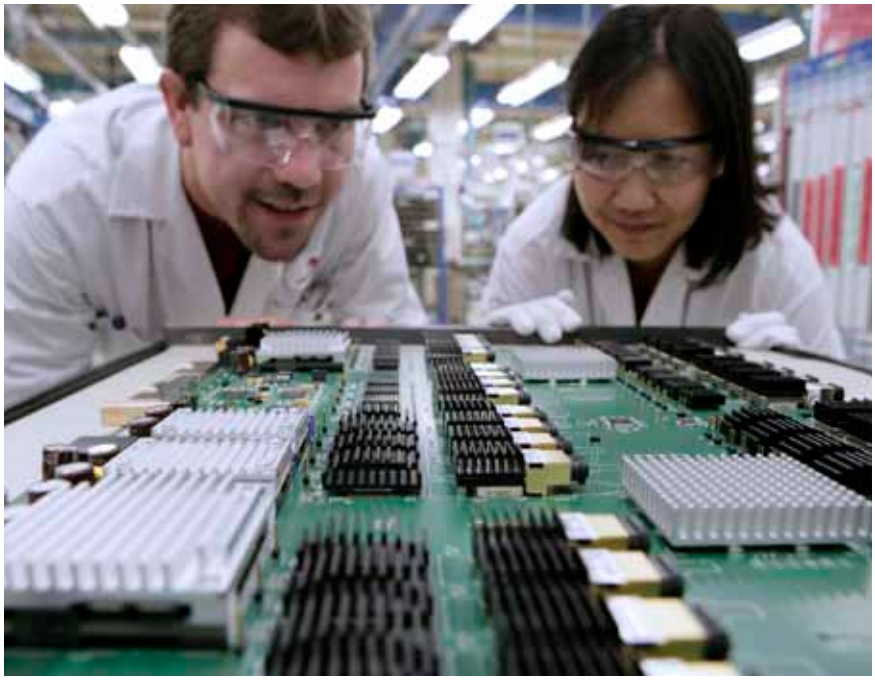
Key Issues and Solutions

All solder waste from manufacturing operations is currently recycled to extract metals. Labeled bins on the manufacturing floor allow our employees to safely sort solder dross and solder paste waste in preparation for recycling. All other hazardous waste is managed through responsible third-party vendors.

LOOKING AHEAD

We will continue to minimize the use of hazardous substances in our operations. Where the use of hazardous substances is unavoidable, we will ensure that materials are properly recycled, re-used, or disposed of in an environmentally friendly fashion.

Complying with product-level environmental legislation



In recent years, many governments have established regulations designed to address concerns regarding exposure to toxic substances as well as the growing electronic waste stream. Due to the complexity of some of this legislation, environmental compliance is becoming an increasingly challenging task for companies in the electronics industry.

Celestica has taken a proactive, leadership approach to developing solutions that help our customers' products meet global compliance requirements in advance of legislative deadlines.

Industry Leadership: Celestica Affiliations and Consortia Participation

High-density packaging users group (HDPUG)

As a member of the Board of Directors, Celestica has participated in a number of projects including:

- Lead-free Board Materials Phase 2
- Lead-free Guidelines Version 3
- Lead-free Copper Erosion
- Mild Acceleration Factors
- Via-In-Pad

International Electronics Manufacturing Initiative (iNEMI)

Celestica is a member of the technical committee. Projects of note include:

- Lead-free Alloy Characterization
- Eco-Impact Evaluator for ICT Equipment

EICC

As a founding member of the EICC, Celestica participates in several work groups including the Environmental Sustainability Work Group.

Department of Defense

Celestica is an invited participant in the Manhattan Project – a Lead-free Electronics Research Project for Aerospace and Defense.

IPC (Association Connecting Electronics Industries)

Celestica participates in the IPC 1601 Work Group.

Surface Mount Technology Association (SMTA)

Celestica is a member of the Board of Directors and a member of the Technical Committee of this association.

Key Issues and Solutions

On January 21, 2003, the European Council adopted the Restriction of Hazardous Substances (RoHS) and Waste Electrical and Electronic Equipment (WEEE) Directives. The objective of these Directives is the protection of human health and the environmentally sound recovery and disposal of WEEE. Additional goals are ensuring proper risk assessment in design cycles, and improving the environmental performance and lifecycle management of the industry as a whole. This legislation has had a profound impact on the entire electronics industry – forcing significant changes in the materials and processes used throughout the entire supply chain.

The rate of introduction of new environmental legislation has continued to increase exponentially to deal with emerging issues such as carbon accounting and substances of very high concern (SVHC). This new legislation includes complex directives such as Restriction, Evaluation, Authorization and Restriction of Chemicals (REACH) legislation and Pollution Control and Management of Electronic Information Products (known as "China RoHS"), as well as smaller legislative initiatives impacting localized areas. As the nature and content of legislation continues to evolve, we are committed to proactively monitoring environmental compliance trends and developing solutions and capabilities to help our customers comply with legislative requirements.

Helping The Industry Go Green

Award-Winning Technical Research

Since we began our extensive research on RoHS in 1999, we have published more than 40 research papers on the technical challenges of Lead-free processes. Many of these papers have won industry accolades and awards. Our most recent papers of note include:

"The New Lead-Free Assembly Rework Solution Using Low Melt Alloy," Polina Snugovsky, Simin Bagheri, Zohreh Bagheri, Marianne Romanksy, IPC/APEX, February 2007 **(Best International Paper)**

"Design for Manufacturability in Lead Free Wave Solder Process," Ramon Mendez, Mario Moreno, German Soto, Jessica Herrera, Craig Hamilton, IPC/APEX, March 2008 **(Best International Paper)**

"Reliability of Lead-Free and Tin-Lead Solders for PBGA Assemblies," IMAPs Advanced Technology Workshop on RF and Microwave Packaging, September 2008 **(Best Paper of Session)**

RoHS (Restriction of Hazardous Substances)

In anticipation of the adoption of the European Union's RoHS Directive, we began working on projects to comply with this Directive as early as 1999. In 2000, a dedicated global team was formed with team members from Europe, North America and Asia. This team began working on a number of key projects to ensure that Celestica complied with the RoHS Directive in advance of the legislation. This early involvement provided us with a broad appreciation of the challenges associated with complying with RoHS, and allowed us to gain extensive knowledge in this area.

The main challenge to the board assembly process driven by RoHS is the elimination of the Lead used in the soldering process. Prior work completed by Celestica and industry consortia indicates that, based on the available reliability data, alternatives to Tin Lead solder, primarily from the Tin Silver Copper family, have comparable or better reliability than the Tin Lead solder in standard operating conditions.

Prior to 2008, our technical focus centred on defining an assembly process and generating reliability data to increase confidence in Celestica's assembly process. Our approach was to leverage industry associations and consortia wherever possible to ensure that the solutions we develop are consistent with those developed by the rest of the industry, and to focus our internal efforts on areas that are not being addressed by consortia or which are of concern to our customers. Celestica has published numerous technical papers outlining our research in the area of Lead-free manufacturing, for which we have received a great deal of industry recognition.

Recently, our development focus has shifted to optimizing a Lead-free process for the high-reliability products that are currently exempt from the elimination of Lead in solder until 2014. This includes products such as servers, storage array systems and network infrastructure equipment. The main challenge impacting the manufacturing process for these products is ensuring that Lead-free processes and material used for low to mid complexity products are suitable for larger, thicker and more complex assemblies.

In addition to manufacturing readiness, we have developed and implemented supply chain policies with respect to purchasing RoHS compliant components, chemicals and consumables, as well as ways to easily identify RoHS compliant parts on the manufacturing floor.

REACH

The European Union's REACH legislation is an overall strategy aimed at protecting human health and the environment from the risks associated with chemicals. It is based on the idea that members of industry have the most knowledge of the properties of the substances of concern and are in the best position to manage potential risks. REACH is wide in scope and places significant responsibility on the manufacturer or importer of substances to register any substances that are manufactured or imported in quantities of one ton or more per year.

As Celestica is typically not a manufacturer or importer of substances, we do not have registration responsibilities under REACH; however, many of our suppliers of chemicals and consumables do. As part of our due diligence, we have worked with suppliers of Celestica-selected chemicals and consumables to understand their pre-registration and registration activities. We have ensured that all chemicals and consumables suppliers that provide products to our European operations have pre-registered and intend to register their substances based on the specific deadlines outlined in the REACH legislation. If a supplier fails to register and is no longer able to sell its product on the market in the EU, Celestica may face the risk of an interruption in supply. To mitigate such risk, our plan is to identify any materials that may be at risk and look for alternate suppliers.

Another aspect of REACH involves a small group of substances called substances of very high concern (SVHCs). These substances are considered to be extremely hazardous and require additional control. We have also engaged with Celestica-selected suppliers of chemicals and consumables on the topic of SVHCs. We asked these suppliers if their product contained chemicals identified as SVHCs, and at what concentration. If any substance contains SVHCs above the stated threshold, additional notification and labeling is required under the REACH legislation. Celestica will look for alternatives for any materials containing SVHCs since it is likely that these substances will become restricted in the future.

LOOKING AHEAD

We're committed to fulfilling our obligations with respect to any new or existing legislation impacting the geographies in which we operate.

Protecting the planet

At Celestica, we see our commitment to proactively embrace green initiatives as an opportunity to make a real difference for our company, our customers and the communities in which we operate. Our goal is to reduce the environmental impact of our operations and to be viewed as a leader in environmental responsibility. The focus areas for 2010 will include educating and engaging all employees in our sustainability initiatives as well as developing concrete metrics for each of the sustainability elements.

Helping our customers go green!

In recent years we have built upon our environmental commitment – offering solutions and services aimed at reducing the environmental impact of our customers' products and processes, and providing services to the manufacturers of green technologies and infrastructure. More information on our green services and solutions can be found on our website at www.celestica.com

Recognized for Environmental Leadership

In 2009, the **Dongguan (China) Environmental Protection Bureau (EPB)** presented our Song Shan Lake site with the prestigious 'Dongguan Environment Friendly Company' award. It was the first year that the Dongguan EPB recognized companies located in Dongguan for excellent environmental management practices.

City of Toronto ICI Water Saver program:
As a result of its water-conservation initiatives, Celestica's Toronto, Canada operation became eligible for the City of Toronto's Industrial Water Rate, which resulted in an estimated 20 per cent reduction in 2008 water costs.

Recycling Council of Ontario
2004, 2007, 2009 winners for waste minimization and environmental sustainability.

In 2006, **Merrill Lynch** ranked Celestica the #1 supplier of RoHS conversion services in our industry.

Celestica has been the recipient of numerous industry awards and accolades for our research on overcoming the technical challenges of RoHS legislation.

Photos by Celestica Employees

We strive to engage our employees in our corporate social responsibility plans and programs – including our environmental sustainability initiatives. For our first Environmental Sustainability Report, we held a photography contest and invited our employees around the world to contribute their photographs to this important document. Below, in order of appearance, please find the photo credits for the winning submissions.

Fui Gan (FG) Ang, Singapore

Thilo Sack, Toronto, Canada

Cliff Zhang, Shanghai, China

Fui Gan (FG) Ang, Singapore

David Salas, Valencia, Spain

Cliff Zhang, Shanghai, China

David Salas, Valencia, Spain

Andrea Folkins, Toronto, Canada

Mary Monto, Toronto, Canada

Thilo Sack, Toronto, Canada

David Salas, Valencia, Spain

George Lim, Thailand

Thilo Sack, Toronto, Canada

David Salas, Valencia, Spain

Mary Monto, Toronto, Canada

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Improve

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Celestica™