



## **Communication on Progress**

## 2009

Lonza's Communication on Progress 2009 document focuses on the areas environment and anti-corruption and consists of articles about these topics as well as of a few overview articles. All these articles have also been published in the Lonza Activity Report.

#### 1. Forward from the Chairman of the Board of Directors

Dear Customers, Employees, Shareholders and Friends of Lonza,

It is our pleasure to present you with our Activity Report 2009. This report provides a summary of Lonza's financials, strategy and global business activities. It also gives insight into our culture, vision and objectives.

#### 4. Sustainability

Strengthening the present in order to secure the future, to the benefit and –advantage of our customers – that sums up our approach: careful usage of natural resources, backed by comprehensive, far-sighted risk management in the area of safety, health and environmental protection (SHE).

#### 5. From industrial wasteland to business park

#### 2. Company profile

Lonza is a global company serving the needs of the life-science industry. Over a century ago, Lonza began as a small Swiss electricity company, making a few chemicals on the banks of the river Lonza in the Valais region of the Swiss Alps.

#### 3. A dual system to guard against corruption

In today's fast-paced, multi-faceted work environment, employees' familiarity with certain legal concepts is critical. To raise employees' awareness of anti-corruption laws, a complex legal minefield, Lonza has implemented a dual education system: an e-learning platform and in-person training.

A business park is currently taking shape on a site where inorganic products such as calcium carbide, silicon carbide and corundum were once produced. Here too, Lonza is making an active contribution to climate protection, with two innovative projects in the field of renewable energy.

### 6. Safely built plants that consider the environment

Safety and environmental standards are given top priority in Lonza engineering projects. Lonza's know-how in this area has been successfully implemented in a number of construction projects in China.

#### 7. Lonza global map

Dear Customers, Employees, Shareholders and Friends of Lonza,

It is our pleasure to present you with our Activity Report 2009. This report provides a summary of Lonza's financials, strategy and global business activities. It also gives insight into our culture, vision and objectives.

The 2009 business year was a difficult one, in which we missed our targets. The year was characterized by lower demand across all businesses. This was reflected in order reductions driven by clinical results, affecting large-scale biopharmaceutical projects in Custom Manufacturing, and recession-related lower demand in Life Science Ingredients.

Lonza reacted to the volatile business environment by implementing a re-engineering project. The main countermeasures adopted are the streamlining of Lonza's structures, reduction of fixed costs, and improvement of our product and project pipelines. Announced at the end of October 2009, the measures aim to reduce fixed costs by CHF 60-80 million over a period of 18-24 months. The re-engineering project also entails a reduction in staff of approximately 450 employees, which corresponds to the normal attrition rate.

The cornerstones of the re-engineering project are:

- Increasing flexibility in biopharmaceutical manufacturing to meet our customers' needs for more small and mid-size capacities and multiple-site sourcing.
- Structural changes in chemical manufacturing: strengthening of our platform in Asia and closure of the sites in Conshohocken (Riverside), PA (USA) and Shawinigan (CA). This step opens up an opportunity to enter the market for mature regulated products, a new market activity for Lonza.
- Merging chemical R&D organizations into one platform, with a stronger emphasis on Asia.
- Further increasing resources in sales and business development and aligning the entire organization to customer projects.

Despite the difficult environment, we continued in 2009 to lay the basis for future growth, as many significant milestones have been achieved:

- Further build-out of the large scale mammalian biopharmaceutical facility in Singapore, with targeted utilization rate of 60% at start-up in 2011
- Start-up of the new custom manufacturing facilities in Nansha (CN) (chemical APIs) and the 2 000-liter microbial manufacturing facility (biological APIs) in Hopkinton, MA (USA)
- Development of activities in India with an acquisition (Symbiosis)
- Groundbreaking for a new Cell Therapy facility in Singapore
- Opening of the new Microbial Control formulations plant in Nanjing (CN)
- Strengthening of our technology platform through the acquisition of Algonomics, a contract research organization supporting the Development Services business unit of Lonza Custom Manufacturing
- All businesses have an increasing pipeline of promising product developments
- Strategic partnership with Teva to become a leading global provider of biosimilars
- Introduction of the Lonza Promoter Score across all businesses, enabling customer satisfaction to be measured as reliably as financial performance

In 2009, we also intensified our efforts in Corporate Social Responsibility by participating in the United Nations Global Compact. Lonza wholeheartedly supports the ten principles of the Global Compact, with respect to human rights, labor, environment and anti-corruption, and is committed to the ongoing integration of the Global Compact principles into its strategy, culture, day-to-day operations and reporting. In this Activity Report, you will find articles focusing on the environment and anti-corruption. "From industrial wasteland to business park" describes the transformation of our former production site in Waldshut (Germany) into a modern business



park, with two innovative projects in the field of renewable energy. "Safely built plants that consider the environment" describes our engineering activities in China and the top priority given to safety and environmental standards. The anti-corruption topic is addressed in "A dual system to guard against corruption", which focuses on Lonza's training measures to raise employees' awareness about anti-corruption laws.

For Lonza, corporate social responsibility is not just a technical term, but an active commitment that is essential to all our employees. It is our commitment to act in accordance with all legal environmental and social requirements, while pursuing our economic goals.

Although the business environment remains unstable, we continue to be optimistic about our ability to deal with the situation. Lonza's life sciences growth strategy will continue to deliver long-term growth. The effect of the re-engineering project will result in significant generation of free operational cash flow in 2010. Capital expenditure will be reduced from the original target of CHF 500 million for 2010, to below CHF 400 million, with a similar target for 2011. This will further strengthen cash flow generation and the balance sheet structure. The increased financial flexibility will open up specific expansion possibilities in our life-science-focused value chain.

We remain fully committed to our vision and long-term strategy. We continue to invest significantly in science and technology to create new business opportunities. We work with passion to transform life science into new possibilities for our customers, whom we thank for their continued trust. We would especially like to thank our employees for all their commitment and dedication in the past year, and our shareholders for their continued support.

Rolf Soiron Chairman of the Board of Directors

Stefan Borgas Chief Executive Officer



## **Company profile**

Lonza is a global company serving the needs of the life-science industry. Over a century ago, Lonza began as a small Swiss electricity company, making a few chemicals on the banks of the river Lonza in the Valais region of the Swiss Alps. Now, more than 110 years later, Lonza is a leading supplier to the pharmaceutical, healthcare, and life-science industries. We offer over 4 000 products and services to more than 15 000 customers worldwide. From 1897 to the present day, the company has had an enterprising character, adapting its offerings and services to the needs of customers and to changing technologies. Throughout our history, we have maintained a strong culture of performance, results, and dependability that is valued by all of our diverse customers.

#### Our vision and mission

We believe that science and technology should be used to improve the quality of life.

We work with passion, using advanced technologies, to transform life science into new possibilities for our customers.

#### **Organized around customers**

To provide optimal support to our customers, we are organized in businesses that focus on specific sets of customers and their exact needs. We operate as three divisions: Life Science Ingredients, Custom Manufacturing, and Bioscience.

Our customers are located across the globe. To ensure the close connection necessary to serve their needs to best effect, we have production and R&D activities at 26 sites around the world. In addition, we have a global network of sales offices, with representatives who are close to our customers, speak their language and understand their needs.



Capital expenditures including

#### Products and services for our customers

Sales third-party by geographical location

Our strategy is to target the life-science industry with two fundamental technologies: chemistry and biotechnology. Using these two technologies, we offer both products and custom manufacturing services to the pharmaceutical, biotech, and life-science industries.

In our Life Science Ingredients division, we offer products used in nutrition, microbial control, as well as in selected industrial markets. In these businesses, we produce the ingredients that make our customers' products effective. Our customers are manufacturers of consumer and health products, distributors, formulators, and service companies. Our ingredients range from the active biocides that make hospital disinfectants effective, to the nutritional ingredients that support improved health, and include complex chemical intermediates for the agricultural industry.

In our **Custom Manufacturing** division, we are a partner to our pharmaceutical and biopharmaceutical customers for their manufacturing needs. Using a variety of technologies, we make the ingredients that are ultimately used in many critical drugs, treating patients in areas such as cardiovascular diseases, cancer, neurological and infectious diseases. Our product capabilities include both small and large molecules, resulting from technology processes such as advanced chemical synthesis, peptide synthesis, microbial fermentation and mammalian cell culture.

In our **Bioscience** division, we make the tools that life-science customers use to discover, develop, make and test therapeutics. Our customers are worldwide, in pharmaceutical and biotechnology companies, as well as in academic and government research organizations. Our products range from cell culture and molecular biology tools for life-science research to media used in the production of therapeutics and tests for microbial detection. We also offer custom manufacturing services to cell therapy companies.

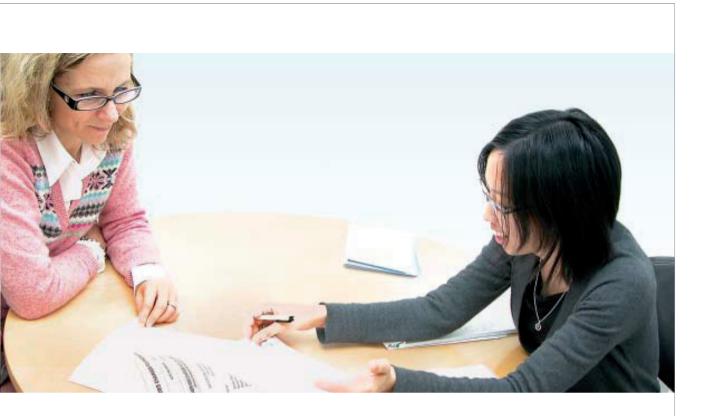


# A dual system to guard against corruption

In today's fast-paced, multi-faceted work environment, employees' familiarity with certain legal concepts is critical. To raise employees' awareness of anticorruption laws, a complex legal minefield, Lonza has implemented a dual education system: an e-learning platform and in-person training.

In this ever-shrinking global community, businesses must be flexible and able to adapt quickly to meet the needs of a changing, competitive marketplace. This flexibility, however, must be counterbalanced by the rigidity and unforgiving nature of certain anti-corruption statutes such as the US Foreign Corrupt Practices Act (FCPA). The FCPA is a complex law that applies to the conduct of certain companies like Lonza and its employees, not only within the United States, but throughout the rest of the world. Violations of the FCPA have very serious consequences – fines that can exceed USD 2 000 000 and prison terms of up to five years. Given these concerns, our challenge became clear: In a work environment where people are multitasking more than ever and have fully committed schedules, how could we equip Lonza's workforce with the necessary tools to simultaneously maintain our competitive advantage, while operating within the boundaries of complex laws such as the FCPA? Our solution was to provide clear, effective and efficient training to our employees, so that they could have the basic tools to identify and address a potential issue where it occurred.

When it became time to implement our solution, we turned to one of Lonza's values – enterprising. With this in mind, we focused on ways



that we could improve, innovate and add increasing value to our existing anti-corruption training programs. Although we previously provided training to employees on selected legal topics, we challenged ourselves to find a more enjoyable, effective, and efficient way to deliver this content. We decided that interactive training – both computer-based and live, in person – was the best way forward.

Following this, in 2006, Lonza launched an e-learning platform to provide its employees worldwide with training on various subjects, including, among others, the FCPA. To make the platform efficient and convenient for our employees, the courses are accessible online at any time during the program semester. After proceeding through a course module, the employee then tests his / her knowledge by taking a brief examination. Each course assigned must be passed. To pass the course, the employee must achieve a minimum score in the examination.

When we introduced this e-learning platform, we were mindful of the potential limitations that the program may have – namely, that online courses may not provide the desired impact, interest and retention of knowledge, and may not necessarily provide real-time feedback. We therefore decided to supplement this e-learning platform with enhanced, live, in-person training. As part of this program, legal department members travel to various locations to deliver substantive information and to engage in highly interactive, situational learning and role-playing. These methods allow us to actively engage our workforce and create memorable lessons and examples which can be easily recalled and applied if necessary. It also allows us to gather vital, real-time feedback.

In summary, the results obtained with these dual methods have been very positive. Regarding our e-learning platform, we are pleased to report that, to date, our pass rates have been extraordinarily high. With respect to in-person training, many of our employees have commented that not only was their training effective in communicating the intended message, but also rather enjoyable. Overall, employees that we have casually canvassed believe that, today, they have many more tools with which to effectively identify and address these serious potential anti-corruption issues in the event that they are encountered.



## Sustainability

Strengthening the present in order to secure the future, to the benefit and advantage of our customers – that sums up our approach: careful usage of natural resources, backed by comprehensive, far-sighted risk management in the area of safety, health and environmental protection (SHE).

Global implementation of the principles defined in Lonza's SHE policy is regulated and facilitated by binding standards and guidelines at all our sites across the world. Regular auditing of the results achieved helps to plan appropriate measures, correct anomalies, identify threats, and evaluate and minimize risks. This enables us to increase safety at work, protect employees' health, and largely eliminate unnecessary environmental impact, thereby contributing to continuous improvement.

Lonza commits substantial financial and human resources to these activities. In the reporting year, a total of 221 people, 2.6% of our 8424 employees, worked directly in the SHE field. Capital expenditure on SHE was CHF 20 million, equivalent to 0.7 % of sales and 4 % of the Group's total investment in fixed assets. The operating expenses for SHE amounted to CHF 63 million, slightly higher than the previous year.

Global warming, water economy and climate change: In the discussion about sustainability, climate change plays a key role. It is closely linked to manmade emissions of carbon dioxide (CO<sub>2</sub>), caused by burning fossil fuels, which are a contributory factor in global warming. The supply and consumption of energy are essential to industrial production, so Lonza, like other manufacturers, assigns a high priority to economical handling and efficient usage of energy resources. Overall energy consumption in 2009 amounted to 7 800 terajoules (corresponds to a medium-sized town of about 80 000 inhabitants), down 11.2 % on the previous year. Energy intensity measured against production volume increased by 3.3 %, a consequence of the increasing concentration on life-science products.

The plant in Visp (CH) signed a target agreement with the responsible national authorities about voluntary measures to reduce  $CO_2$  emissions by 18% (baseline: 2000) by 2012. Lonza AG in Visp has since invested over CHF 3 million, so far realizing a total of 11 measures, achieving energy savings of 150 000 megawatt hours to date. The energy efficiency pro-



gram, Community of Practice in Energy (CoPE), was launched worldwide, with the objective of achieving a 10% reduction in Group-wide energy costs by 2015. The CoPE coordinators have been designated and started their work in the reporting year.

At the Braine (BE) and Verviers (BE) locations, older cooling aggregates were replaced by new, more energy-efficient ones. At the Verviers plant, this also involves replacing the ozone-depleting R22 chlorofluorocarbon refrigerant.

In Slough (GB), an energy-management team has been deployed, with the target of reducing the carbon footprint by 20%, compared with 2007, during the period from 2008 to 2010. Several measures have been introduced and partly realized.

In Nansha (CN), the use of heat exchangers in the waste incineration plant enables energy to be recovered in the form of steam, replacing 450 metric tons of heating oil, which represents 13% of the overall heating-oil requirements of the site.

The Lonza biotechnology site in Tuas (SG) has built a 2000 m<sup>2</sup> photovoltaics array at a cost of SGD 1.8 million; this will replace 104 metric tons of  $CO_2$  emissions. This project has earned the site the "Solar Pioneer Award" of the Economic Development Board and the

"Greenmark Gold Award" of the Building Control Authority in Singapore, honors which recognize the Group's commitment to sustainable energy supply.

Lonza sites in the USA have made great progress with their implementation of the ChemStewards program, a comprehensive environmental, health and safety management system. This also provides for external verification of the site management systems and specifies the targets to be achieved on various indicators. The five sites – Williamsport, Portsmouth, Riverside, Mapleton and Cohasset – received their Chem-Stewards certification in 2009.



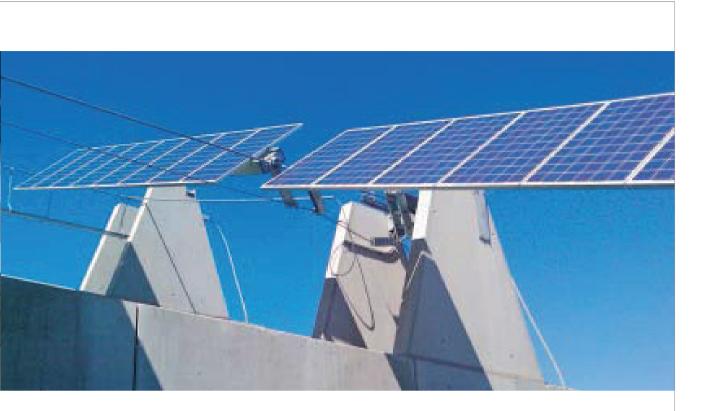
## From industrial wasteland to business park

A business park is currently taking shape on a site where inorganic products such as calcium carbide, silicon carbide and corundum were once produced. Here too, Lonza is making an active contribution to climate protection, with two innovative projects in the field of renewable energy.

Remediation work at the former Lonza production site in Waldshut-Tiengen (Germany) began in 2005, successively transforming it into a modern business park. Some 30 enterprises and institutions, including a home improvement and garden center, metalworking and healthcare companies, consultants and car dealerships, have already located there, providing around 250 jobs in all. The renovated Lonza administration building now accommodates the local police department and the Waldshut-Tiengen customs services. One of the facilities offered to companies on the business park is a "heating with cold water" project. Groundwater from wells on the site is used as an energy source for a decentralized system of heat pumps.

When Lonza-Werke Elektrochemische Fabriken GmbH was first established in 1913, the availability of hydropower was a decisive factor in the choice of the site for Lonza's first production center on foreign soil. The rise of the steel and construction industries had an important influence on the development of the Lonza facility, which was specialized in the manufacture of inorganic products and fertilizers. However, from 1990 onwards, the company faced increasingly hard times due to the tightening of environmental requirements, rising production costs and mounting competition from Eastern Europe. In 1993, the plant had to close, with drastic consequences for the region's economy. Moreover, studies showed the need for remediation of residual pollution on the site and for sealing the old landfill in accordance with the latest environmental standards.

There was a long way to go from the closure of the production facilities to the rebirth of the location as a business park.



In 1996/97, the entire site was cleaned up, dust was removed and areas with residual mercury pollution were thoroughly decontaminated in a program costing approximately EUR 14 million. In 2002, the Waldshut authorities and Lonza agreed a development plan which provided for the deconstruction and redevelopment of the 560 000 m<sup>2</sup> site. Working in close collaboration with the environmental agencies of the Waldshut district authority and the regional administration in Freiburg, Lonza dismantled all the old structures and cleaned up residual subsoil contamination in accordance with the latest environmental standards, completing the remediation work by the end of 2009 at a total cost of EUR 15 million.

On the south slope of the former works landfill, which has now been replanted, Lonza has built a solar power station that produces energy for roughly 250 households. Special measures were needed to satisfy the official requirements for protection of the seal on the landfill. A total of 2880 highly efficient solar modules were mounted on a steel cable construction in order to minimize the number of anchor points on the sealed surface and make it easier to tend the planted area. The modules automatically track the sun's position through the day, increasing the power yield by about 20% compared with a fixed, south-facing installation. The zero-carbon power produced by the photovoltaic plant will offset nearly 400 metric tons of fossil  $CO_2$  from power production annually in Germany's overall electricity mix.

A further investment in low-CO<sub>2</sub> technology is the heating and cooling of buildings on the business park by means of heat pumps. Thermal energy is extracted from groundwater by decentralized heat pumps, cooling the water from about 10°C to 4°C. The extracted energy can be used to heat the buildings. After extraction of the energy, all the cooled water is fed through a dedicated pipe network into the Rhine. In summer, the same technology will make it possible to cool the buildings in a cost-effective and energy-efficient way. This will make it possible to reduce carbon emissions by 90% compared with conventional heating and cooling technology. The "heating with cold water" project was classified as a model climate-protection project by the Environment Ministry in the German federal state of Baden-Württemberg.

These two sustainable projects in the area of renewable energy and the redevelopment of the former industrial site demonstrate Lonza's commitment to environmental responsibility. At the same time, the company has transformed its industrial legacy in the region into something of economic and social value, providing a site where diverse enterprises and institutions can create numerous new workplaces with strong roots in the region.



## Safely built plants that consider the environment

Safety and environmental standards are given top priority in Lonza engineering projects. Lonza's know-how in this area has been successfully implemented in a number of construction projects in China.

The decision to set up a production facility in China is predominantly marketdriven. Competitive production costs, combined with lower investment and a fast time-to-market approach play a key role in any project site selection. However, fast realization of projects and low-cost investment are extremely challenging criteria, as they require full adherence to Lonza's corporate social responsibility and corporate safety, health and environment (SHE) standards, just the same as any other Lonza construction project. The pre-selection of contractors and a fair bidding process are very important parts of the process, while cost is definitely not the only evaluation parameter when selecting contractors. Equally important considerations are safety and quality aspects, underlined and documented in the relevant policies, with training records and visits to contractors' reference projects. In order to be in line with such requirements, very strong owner-driven construction supervision is needed. Coordinating these different trades properly is not only important from a safety point of view, it will inevitably speed up the installation process and bring down costs as well.

Involving future user team leaders as well as future maintenance people as early as the design stage, and gradually bringing in future operators as part of construction supervision, will ultimately provide all of them with a sense of ownership. Building a fully cGMP- and safety-compliant production plant requires thorough planning and carefully conducted construction work. Acceptable standards are quite often defined by model designs, making it much easier to overcome language problems and avoid misunderstandings.



Future user team leaders and maintenance people are already involved in construction projects in the design phase.
Compliance with building regulations and highest safety standards is essential for such projects.
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 Very strong owner-driven construction supervision is needed to cover areas like civil works, equipment installation, pipe-fitting, instrumentation and electrical installation.

Lonza's project for an active pharmaceutical ingredient production facility in Nansha received an award in 2008 for being the best-managed construction site in Guangdong Province.

Once the project is handed over to the operations team, the focus will be on SHE, product quality and production cost. Lonza has shown in previous projects in China that environmentally friendly processes and recovery of energy can contribute significantly to the reduction of production costs. Off-gas and waste liquid from production processes are treated in a thermal oxidizer with an integrated heat recovery system, where energy in the form of steam is generated and fed back into the production plant. For continuous operating processes, energy saving is even more efficient. In Lonza's niacinamide facility in Nansha, for instance, steam is used to heat up several distillation columns where energy from the reflux heat exchangers is recovered to feed a threestage-vacuum product concentration. From there, the 70°C vapor is used to preheat air for the product-drying process. The same process handles off-gas in a very elegant way by transforming the organic contaminants in a catalytic oxidation step into high-pressure steam, which is continuously fed back into the production process. This process innovation, which reduced the specific energy requirement, has also been recognized by the Chinese government and has led to a "high technology" label for the plant.

Lonza's innovative process know-how led to a number of successfully delivered capital projects in China. With the formation of Lonza Engineering Ltd, such services are now offered to external customers too. In the area of environmental technology especially, Lonza Engineering Ltd has entered into cooperation and licensing agreements with some leading European companies.





- 26 Lonza Biologics plc
- Slough 27 Lonza Biologics plc
- Tewkesbury 28 Lonza Biologics plc Cambridge
- Australia
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All policies can be found at:

http://www.lonza.com/group/en/company/ about/governance/policies.html

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