Company Results 2013

Research: PAGE 4
Broad supplier of products, services and solutions to research laboratories

Applied: PAGE 6
Supplier of raw materials and solutions for diagnostics and testing, and for industrial applications

SAFC Commercial: PAGE 8
Supplier of custom solutions to targeted commercial markets

Emerging Markets: PAGE 10
Important growth driver in 2013

Global Citizenship: PAGE 11
Commitment to social responsibility, environmental sustainability and fiscal accountability

2013 PERFORMANCE
In 2013, Sigma-Aldrich had another year of strong performance with record sales, profits and free cash flow. The transition into customer-facing business units strengthened alignment with customers and increased solution-based product offerings, which resulted in above industry-average organic sales growth. The company also received, as a result of our continued commitment to global citizenship, several global and local honors for efforts in sustainability and citizenship.

Products
Leading the way in the life science and high technology materials markets.
- 230,000 Reagents and Chemicals
- 40,000 Laboratory Equipment Items

Customers
More than 1.4 million individual customers worldwide in more than 100,000 accounts. (Percent of 2013 total sales)
- 52% Research
- 23% Applied
- 25% SAFC Commercial

Geographies
Enhancing our global reach through service excellence. (Percent of 2013 total sales)
- 43% Americas
- 38% Europe / Middle East / Africa
- 19% Asia Pacific

2013 RESULTS

Sales $ Millions
Net Income $ Millions
Net Income Per Share – Diluted
Return on Invested Capital
Stock Price Range
Free Cash Flow

2013 Research Sales: $1,402 million
2013 Applied Sales: $629 million
2013 SAFC Commercial Sales: $673 million

*Net cash provided by operating activities less capital expenditures
It is my pleasure to report that Sigma-Aldrich delivered record sales, profits and cash flow in 2013 and its 39th consecutive year of adjusted earnings per share growth. Despite headwinds from a weaker U.S. academic funding environment and soft global industrial markets, our teams delivered above industry-average organic sales growth with contributions from all business units and geographies.

At the start of the year, we implemented a major realignment of our company into three market-facing business units focused on the unique needs of Research Laboratory customers (Research BU); Diagnostic and Industrial customers (Applied BU); and Pharma and Electronics manufacturers (SAFC Commercial BU). I am very pleased with the way our teams managed the transition into our new customer-facing business units without an interruption to the exceptional service, product selection and quality for which we are known.

To Our Shareholders,

It is my pleasure to report that Sigma-Aldrich delivered record sales, profits and cash flow in 2013 and its 39th consecutive year of adjusted earnings per share growth. Despite headwinds from a weaker U.S. academic funding environment and soft global industrial markets, our teams delivered above industry-average organic sales growth with contributions from all business units and geographies.

Year in Review

RESEARCH BUSINESS UNIT

In 2013, we elevated our customer-focused sales and marketing efforts. For our large customers, we enhanced our account management activities. For our smaller customers, who represent the majority of our more than 100,000 accounts, we continued to build value through our industry-leading eCommerce platform with targeted support from our field and inside sales forces.

We increased the pace of collaborations with world-class research institutions to develop and bring to market new innovative research tools. From just one of these collaborations, we have already launched several dozen new and exciting product offerings and have plans to bring to market many more over the next few years as we roll-out this program to leading institutions around the world.

Rakesh Sachdev
President & Chief Executive Officer
We continue to grow our unparalleled product portfolio of more than 230,000 biological and chemical reagents and consumables. We are focused on expanding our offering, adding more than 5,000 new products in 2013, across scientific workflows in the areas of drug discovery, translational research, clinical diagnostics R&D, and nutrition and food safety.

**APPLIED BUSINESS UNIT**

In 2013, we worked closely with existing and new diagnostics and testing customers to help them develop and conduct more innovative and repeatable tests for both clinical and environmental analyses. Our high quality offerings of chemicals, life-science products and analytical tools are allowing us to partner with customers to develop complete solutions in areas such as non-invasive diagnostics for cancer and other diseases.

For our industrial customers, we have brought new focus to their needs in diverse areas including consumer products, agricultural biology, chemical manufacturing and medical devices. These are high-growth markets that give us new opportunities to apply our deep scientific knowledge and extensive manufacturing capabilities to the challenges being faced across varied industries. The reception we have received so far from industrial customers has been very positive, and we are eager to engage them further in our new initiatives for 2014.

**SAFC COMMERCIAL**

In 2013, we had strong growth in Life Science Products - led by our industrial cell culture media, biological buffers and contract manufacturing of high-potent active pharmaceutical ingredients (APIs) and antibody-drug conjugates (ADCs).

We were pleased to see sequential growth each quarter in our Life Science Services business. Our biological testing, viral manufacturing and viral clearance businesses showed strong performance and are poised to deliver continued growth.

Within Hitech, we had strong growth of chemical precursors for advanced semiconductor chips that partially offset sales declines of precursors sold to the LED industry.

We are making further capital investments in a number of our SAFC Commercial areas including dry powder media, high-potent APIs and antibody-drug conjugates. We have also expanded capacity in several service areas such as viral clearance and high-complexity protein characterization in response to strong market demand.

**GEOGRAPHIES**

We experienced balanced growth last year across each of our major geographies. In Europe, the Middle East and Africa, we saw a stable academic environment and growth in Research Pharma driven in part by new service offerings. Through our “Dealers as Partners” program, we saw continued growth in several emerging countries in Asia. Japan and South Korea showed signs of improvement. China had strong growth in 2013 and helped offset softer markets in India and the Pacific Rim.

**FINANCIAL PERFORMANCE**

We achieved record sales and delivered our 39th consecutive year of adjusted earnings per share growth in 2013. We delivered a 7% increase in net income and a 19% increase in free cash flow with 4% organic sales growth. The 2013 return on invested capital of 21% reflects our long-term commitment to shareholder value. We finished the year with a strong net cash position of $357M after returning cash to shareholders through $146M of share repurchases and $103M of dividend payouts. In 2013, our stock gained 28%, closing the year at $94.01.

**Looking Forward**

Looking to 2014, we are confident in our ability to deliver solid earnings growth. We are cautiously optimistic about the end market trends, helped partly by a more stable funding environment for U.S. academic and government institutions as the year progresses. Our three business units are executing on their initiatives to deliver growth, and our newly-formed Global Supply Chain team has a number of programs in place designed to improve our operational efficiency.
Our industry continues to consolidate and this trend is likely to continue for the foreseeable future. Strong companies in our space will benefit from this changing landscape, and we believe that we are well positioned to benefit from these opportunities. More and more, we are finding that our scientific breadth and depth, combined with our great products and longstanding relationships with more than a million customers, are producing opportunities to create and deliver new solutions to tomorrow’s problems.

Finally, I am proud of the character and involvement of our global workforce of talented and dedicated employees. In early 2014, we were recognized by Corporate Knights at the World Economic Forum in Davos as one of the “Global 100 Most Sustainable Corporations in the World.” To be ranked 20th in our debut year and to be the highest ranked life science tools company are testaments to our commitment to improve the quality of life.

On behalf of Sigma-Aldrich’s 9,000 employees, I wish to thank our shareholders, customers and all other stakeholders for their continued support.

Rakesh Sachdev
President & Chief Executive Officer
Improving customer productivity through highly differentiated solutions

The Pharmaceutical industry today differs considerably from that of only 10 years ago. Rising R&D costs and generic competition have put increased pressure on companies to increase productivity and returns on investment. In addition to our industry-leading portfolio of chemicals, reagents and consumables, we offer Chemical-in-Stock programs and supply chain management solutions to address the challenges of our pharmaceutical customers in effectively managing compound inventories, supply chain, as well as compliance, regulatory and safety issues. Pharmaceutical customers rely on our scientific knowledge and are achieving gains in productivity through our broad product offerings and capabilities.

Research Business Unit supports scientific research performed by customers in academic institutions, government and hospital laboratories, as well as the pharmaceutical and biotech industry. We provide a broad portfolio of products, services, and solutions that enable our customers to conduct their research in every phase of the scientific workflows they use. The Research Business Unit is composed of three market segments: Academic and Government, Pharma, and Dealers.

In 2013, we continued to expand our unparalleled product portfolio. Our new line of CRISPR products, along with a simple web-based design platform, provide researchers a fast gene-editing technology for various organisms. Our Redi-Dri™ product line, equipped with a proprietary packaging system, prevents solids from absorbing moisture regardless of the number of times you open the bottle or how humid the environment may be. This unique packaging solution provides many benefits including reduced costs and risks, longer shelf life, less waste and enhanced customer productivity.

The Academic and Government Segment enables scientists that are conducting R&D in basic discovery and drug development in university, government and hospital settings. In 2013, we expanded our collaboration with leading research institutions to accelerate the time to market of new research tools. We are also broadening our product offerings to address workflow needs of academic customers conducting research in drug discovery, clinical diagnostics, food and nutrition and materials science.

The Pharma Segment assists customers in accelerating drug development through an unparalleled range of unique products and customized solutions. A number of collaborations with large pharmaceutical companies are underway using our CompoZr™ ZFN engineered knockout transporter assay cells for preclinical testing in ADME/Tox assays. In 2013, we saw success in our strategic pharma accounts through the provision of service-based solutions such as Aldrich Market Select™, chemistry procurement and management, and supply chain management. As these initiatives gain traction with our customers it is helping to elevate our reputation of quality, scientific and regulatory knowledge, as well as expertise on compliance and safety.

Through our Dealers Segment, we work with dealer partners around the world to expand access to new customers and geographies. In 2013, we successfully rolled out our “Dealers as Partners” program across all of our geographies and saw excellent results in emerging markets such as Russia, Turkey, Africa and Eastern European countries.
Academic researchers are at the forefront of discovering new chemical and biochemical processes. Sometimes, these discoveries can take a long time to become research tools that can be used by the entire scientific community. We have increased the pace of our collaborations with world-class research institutions like The Scripps Research Institute to speed up the translation of cutting-edge chemistry into widespread applications for drug discovery. The partnership funds basic research and infrastructure at world-renown academic institutions, accelerating the commercialization of new research tools that we are rolling out to the global scientific community – truly a ‘win-win’ scenario for science!
Helping customers develop next-generation diagnostics

With technological advances in diagnostic instruments increasing sensitivity and throughput, clinical diagnostic companies are developing next-generation proteomics (protein-based) tests. At Sigma-Aldrich, we developed Seppro® IgY14 and Human SuperMix protein depletion columns that are tailored for proteomics tests used in the diagnosis of cancer. These columns can remove high abundance proteins from blood to enable trace biomarker detection by mass spectrometry. A pioneering molecular diagnostics company uses our protein depletion columns in its proprietary lung test. Using this non-invasive procedure, medical professionals can rule out an individual patient’s lung nodule as being cancerous thereby reducing potential complications and the healthcare costs that are associated with invasive procedures.
**Applied Business Unit** offers a broad and innovative portfolio of products and services, including customized solutions and critical components, to diagnostic companies, testing laboratories and industrial companies. The two segments in this unit, Diagnostics & Testing Labs and Industrial, together serve end markets that are large and growing.

By leveraging our scientific knowledge, broad portfolio of reagents and consumables and manufacturing capabilities for highly regulated products, we better enable our customers to develop new, innovative diagnostic tests. As an example, our Seppro® columns are being used by a cutting-edge diagnostic company to filter out high-abundance proteins from blood, thereby making it possible to trace a lung cancer biomarker using a simple blood test and eliminating the need for a biopsy, an expensive and time-consuming procedure. Our stable isotopes are being incorporated into established and new diagnostic applications ranging from a breath-test for stomach ulcers to a novel method for detection of prostate cancer. In order to meet the increasing requirements of our customers for more stringent quality systems with respect to critical raw materials and ingredients, we have expanded our high quality Elite™ product offerings for diagnostics kits. We are also expanding our ISO-certified manufacturing capacity to satisfy the growing demand for components in the highly regulated diagnostic markets.

Our Industrial Segment supplies critical components and solutions meeting the specific needs of a target group of customers in industrial markets. In 2013, we implemented a global account management structure for our top industrial customers, greatly improving key account relationships. In 2013, we better aligned our R&D resources, working with AgBio and medical materials customers to develop new products and workflow solutions.

Looking forward, we will continue to work with our customers to better understand their needs and align our resources in ways that best satisfy their requirements. We are building upon the strength of our portfolio of high-quality products by expanding our service offerings to include more complete solutions across the workflow, leveraging our existing channels, and entering into new adjacent markets.
SAFC Commercial Business Unit develops, manufactures and provides high quality products and service solutions that are difficult to replicate or substitute, critical to the performance of our customers’ products and processes and typically represent a small portion of our customers’ total manufacturing cost. There are three segments in the SAFC Commercial Business Unit - Life Science Products, Life Science Services and Hitech Electronics.

In 2013, our Life Science Products Segment experienced strong growth, led by biopharma materials such as cell culture media and biological buffers, as well as contract manufacturing of high-potent APIs and antibody-drug conjugates. To meet growing demand and customer expectations, we strategically added select capabilities and manufacturing capacity. We invested in additional capacity of high-potent API (HPAPI) manufacturing and storage to address our customer needs for supply chain continuity. We also invested in commercial-scale manufacturing capacities for ADCs to support our customers through all phases of ADC innovation. In 2013, through offerings such as our PharmaGrade™ line, we expanded our quality initiatives and enhanced product attributes better enabling our customers to mitigate risks associated with their manufacturing processes.

In 2013, our Life Sciences Services Segment experienced sequential quarterly sales growth with sales synergies from the BioReliance® integration. We received positive feedback from customers on the design and capabilities of our new viral clearance (downstream process validation) laboratories in the United States and saw increased customer demand for our viral testing services. We continue to develop close relationships with our top customers by involving our entire organization, including the sales force, R&D personnel, and project managers, in the account management process.

In the LED market, we have experienced continuing pricing pressure that has created challenging market conditions for the industry. Conversely, our Hitech Electronics Segment experienced strong growth in chemical precursors for advanced semiconductor chips. We have been working with our customers to develop the next generation of semiconductor chips, placing us well positioned to create and offer qualified precursors that will help our customers improve the performance of their products and ultimately drive the performance of consumer electronic devices.
For the fast-growing biologic drug industry, one major concern is viral contamination. To assess viral safety, biopharmaceutical companies usually perform viral clearance studies. Our BioReliance affiliate commissioned a world-class Clearance Services Facility that allows customized laboratory setups better enabling us to conduct critical downstream bioprocessing studies for our customers. Customers can take advantage of a wide range of resources including state-of-the-art equipment and full technical, compliance and regulatory support from our personnel who are acknowledged to be the world’s best experts to solve problems associated with high complexity proteins and challenging purification processes.
Emerging Markets

**MEXICO:**
Working with CINVESTAV, one of the most important federal research centers in Mexico, we offered a symposium that brought together key opinion leaders and researchers to promote specific fields of science. We were the first company to organize such a forum in the country.

**BRAZIL:**
Our Radiello® products are used to monitor the level of air pollution in the Amazon rainforest as a part of the GOAMAZON field campaign funded by the U.S. Department of Energy.

**RUSSIA:**
We implemented technological improvements and applied our global import / compliance expertise to shorten the direct shipment process, which in turn increased customer productivity.

**MIDDLE EAST AND AFRICA:**
We worked with our local partners to improve supply chain efficiency and to enhance their knowledge of our broad portfolio offerings.

**CHINA:**
We provide quality control solutions for food & beverage testing. Our products are used to conduct safety and nutrition labeling analyses.

**INDIA:**
Our innovative chromatography columns and high quality solvents are used by pharma customers in analytical applications such as sample screening and pharmacology analysis. These products have created a differentiated position in the growing clinical & bioanalytical markets.

**SOUTHEAST ASIA:**
We provide custom cell culture media that is used in Thailand to produce millions of doses of an animal disease vaccine, which improves the health of livestock on farms throughout the country.

**EMEA**
The global rollout of our “Dealers as Partners” program has led to strong growth in Russia, the Middle East and Africa.

**APAC**
We continue to grow in the emerging countries in the Asia Pacific region, particularly in China.
Global Citizenship at Sigma-Aldrich

The mission of Sigma-Aldrich is to enable science to improve the quality of life. One way we are living that mission is through Global Citizenship. As a longtime leader in life science and high technology, Sigma-Aldrich is quickly establishing itself as a leader in Corporate Social Responsibility. This success is the result of our more than 9,000 employees worldwide who are finding ways to minimize our carbon footprint, who are working to deliver new, environmentally friendly technologies for our customers and who are actively engaged in bettering the communities where we live and work.

COMMITMENT TO ENVIRONMENTAL SUSTAINABILITY

We continue to focus on operational eco-efficiency in our facilities and businesses. With a distinct focus on mitigating our impact on climate change and working to reduce the intensity of our natural resource use and carbon footprint, we actively initiated projects to decrease electricity usage. In 2013, we recorded our third straight year of absolute water-use reduction. We are also working with our supply chain partners to identify opportunities to make our business and our vendors more energy efficient. Our R&D programs have successfully developed and launched a number of green chemistry alternatives to respond to our customers’ requests for environmentally friendly products.

COMMITMENT TO SOCIAL RESPONSIBILITY

A strong community is integral to creating a successful workplace. In 2013, we increased our charitable contributions to our communities by nearly 20%. Our giving strategy is focused on three core funding areas: STEM (Science, Technology, Engineering and Mathematics) Education, Scientific Research and Economic Development through Science. Our employees also contributed more than 8,000 hours of time valued at nearly $500,000 and reaching more than 8,300 students through STEM outreach programs.

RECOGNITION

Sigma-Aldrich was again recognized by several leading Corporate Social Responsibility indices and rankings, including the Dow Jones Sustainability Index; the Civic 50, where we were named number one in the Materials sector; and the CDP as a Carbon Disclosure Leadership Index member for the second year in a row. We are pleased with this recognition and committed to develop additional opportunities towards our goal of leadership in global citizenship.
Performance Graph

The following performance graph compares the Company's cumulative shareholder return (stock price appreciation plus reinvestment of dividends) for a five year period ended December 31, 2013, with that of two separate indices assuming that $100 was invested in each on December 31, 2008, and that all dividends were reinvested. The indices utilized are the Standard & Poor's 500 Composite Stock Price Index (“S&P 500”) and an index consisting of our peers and a broader group of companies in the chemical, life science and high technology industries (the "Proxy Comparator Group"). These indices are only included for comparative purposes as required by Securities and Exchange Commission rules and do not necessarily reflect management's opinion that such indices are an appropriate measure of the relative performance of the Company's common stock, and are not intended to forecast or be indicative of possible future performance of the Company's common stock.