

Ecolab Fact Book

A LOOK INSIDE

TABLE OF CONTENTS

Business Overview	2
History	8
Global Industrial	
Global Food & Beverage	12
Global Water	21
Global Paper	30
Global Textile Care	35
Global Institutional	
Global Institutional	40
Global Specialty	53
Global Healthcare	62
Global Energy	71
Other	
Global Pest Elimination	80
Equipment Care	86
Research, Development & Engineering	91
Global Supply Chain	95
Investor Information	99



Ecolab Business Overview

A trusted partner at more than one million customer locations, Ecolab is the global leader in water, hygiene and energy technologies and services that protect people and vital resources.

Our sales-and-service team delivers comprehensive solutions and on-site service to ensure safe food, maintain clean environments, optimize water and energy use and improve operational efficiencies for customers in the food, healthcare, energy, hospitality and industrial markets in more than 170 countries around the world.

With our strong services, solutions and expertise, we see tremendous opportunity to further strengthen our relationships with the largest players in global business and help our customers meet their operational challenges anywhere in the world.



We achieve superior results because we customize our programs and services around the specific needs of our customers.



CIRCLE THE CUSTOMER – CIRCLE THE GLOBE

Ecolab's powerful, proven strategy for growth is straightforward: Circle the Customer – Circle the Globe. This strategy drives us to provide customers with the most comprehensive and sustainable solutions they need to run a clean, safe and healthy business – no matter where they are located around the world. Every day, we seek ways to expand our ability to serve our customers with a broader range of effective product and service solutions. This translates to a win-win situation for all – as our customers grow and succeed in their businesses, so does Ecolab.

Our global strategy is designed to meet our customers' desires to drive global results. To accomplish this, we have global businesses that are reported within four segments: Global Institutional, Global Industrial, Global Energy and Other.

SUPERIOR CUSTOMER SERVICE

Ecolab's ultimate competitive advantage is found in our industry leading sales-and-service force. Backed by expert training, innovative technology and superior knowledge of industry best practices, our sales-and-service associates provide direct, personalized service to customers worldwide. Their primary objectives are always the same – to help save customers time, labor and money through the use of our comprehensive solutions to meet all of their cleaning, sanitation and service, and operational efficiency needs.

By partnering with Ecolab, global customers know their location in New York will receive the same superior products and services – with the same exceptional results – as their facility in Shanghai. In other words, customers know they can rely on Ecolab to help them provide a consistent brand experience across their business worldwide.

At Ecolab, we achieve superior results because we customize our programs and services around the specific needs of our customers. In addition to our superior knowledge and product line, our offerings also include:

- Problem-solving and consulting with customers
- Regular visits to ensure that customers' needs are being met, and that our solutions and systems are delivering superior results
- Training for customer associates on the importance and fundamentals of cleaning, sanitation and water conservation, and the proper use of products
- Keeping customers updated on the latest local regulations and practices

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Ecolab has 120 Customer Service Centers located around the globe, fielding more than 11.5 million calls annually.



SUPERIOR CUSTOMER SERVICE *(continued)*

Our sales-and-service associates act as business consultants, helping customers identify potential risks, as well as devising action plans to correct issues and proactively prevent future problems. They also identify opportunities where additional Ecolab products and programs can provide the best results for their operations at the lowest total cost. Our recommendations are included in a web-based service report that captures and stores technical data and account information to provide customers instant access to their unique and complete service history.

Recruitment of highly qualified associates and continuous training are essential to providing superior customer service. In addition to attracting experienced talent from multiple industries, Ecolab partners with major universities across the globe. Providing continuous training is equally important, and our state-of-the-art training centers allow associates to stay current on the latest solutions and industry trends.

INNOVATION & SUPPORT

At Ecolab, we invest in advanced equipment to manufacture and deliver products as efficiently as possible. Manufacturing and distribution facilities are strategically located across the globe, enabling us to provide high-quality products and excellent customer service at the lowest total cost.

Our extensive network of research scientists and technical support experts is a critical resource for our sales-and-service force, as they help them address concerns requiring specialized analysis or technical assistance. Our Information Technology associates provide a wide range of computer and web-based tools to our sales force to help them assist customers more effectively.

Ecolab's service structure is further bolstered by our Customer Service Centers. With 120 Customer Service Centers around the world, fielding more than 11.5 million calls annually, we provide on-call assistance to most customers seven days a week and emergency support for our field service teams.

Our customer service associates undergo an extensive training program and are rigorously screened to effectively address customer needs quickly and professionally. Continuous job performance testing through call monitoring along with specialized training ensures industry-leading first call resolution and high customer satisfaction ratings. Other services that our Customer Service teams provide include:

- Product orders (field sales, distributors and direct customers)
- Service orders communication
- Supply chain interface (product availability, delivery and tracking)
- Customer Satisfaction Programs (surveys)
- 1st Level Customer Technical Equipment Support
- Customer Care sales programs



MARKETS & NEEDS SERVED

Ecolab and Nalco have consistently led the industry in the design of products and services that help customers operate their businesses more efficiently. We invest hundreds of millions of dollars each year in research and development to introduce products and programs that not only meet government and regulatory standards, but also increase safety, minimize customers' water and energy use, and reduce waste. Our attention to the total impact our products have on our world – from manufacture, to use, to disposal – sets us apart from competitors and continually spurs the development of an array of solutions that address our customers' ever-evolving needs.

Some of the optimum product solutions we've developed over the years include:

- ▲ Antimicrobials
- ▲ Clean-in-place (CIP) technology for food processing lines
- ▲ Corrosion inhibitors
- ▲ Fly-trap technology
- ▲ Hard surface cleaners
- ▲ Low-temperature commercial laundry technology
- ▲ Mobile janitorial/housekeeping dispensing application systems
- ▲ Novel food safety interventions
- ▲ Pulp and paper process applications
- ▲ Solid warewashing and sanitation product lines – expanded to include applications in laundry, food processing, dairy and healthcare
- ▲ Water and process treatment programs

We have been developing sustainable solutions for our customers for more than eight decades.

SUSTAINABLE SOLUTIONS

Ecolab actively develops products and services designed to conserve resources and help protect the environment. Making the world cleaner, safer and healthier is our business, and sustainability is inherent in our products and services.

From concentrated formulations to advanced monitoring to innovative packaging and dispensing methods, our solutions are designed to help increase safety, lower the use of water and energy and reduce the chemicals and waste released into the environment. Strengthened by the expertise of our associates and a dedication to social responsibility, these offerings provide value to customers and the global economy and help foster a more sustainable world.





FUTURE = GROWTH

With modest shares of large and growing markets in vital industries, Ecolab is well-positioned for future growth. We will continue to partner with our customers as we address fundamental, global concerns including food safety, healthcare-associated infection (HAI) prevention, and increasing water and energy demands.

A passion to provide consistent, global solutions for customers around the world has driven our steady growth in the past. Moving forward, we will continue to pursue sustainable, long-term growth objectives that support our position as the global leader in water, hygiene and energy technologies and services.

CULTURE OF INCLUSION

Ecolab strives to ensure a work environment that welcomes each person as part of the team, gaining valuable contributions from everyone and inspiring them to achieve their best. This journey embraces the talents of each person in a way that helps achieve both the goals of the individual and the company.

We are committed globally to a culture that encourages all associates to fully engage and empowers them to pursue their personal development as part of our commitment to better serve our customers and achieve our company's full potential.

Our culture encourages each associate to strive toward excellence for themselves and our customers.





OUR PURPOSE & VALUES STATEMENT

Our Purpose & Values Statement – which defines what we do and how we do it – draws upon our past and anticipates the future. It also captures principles for working successfully in a global, fast-changing marketplace.

In short, this statement reflects a culture that celebrates its history yet evolves to meet the future.

OUR PURPOSE AND VALUES: WHAT WE DO, WHY IT MATTERS

Every day, we make the world cleaner, safer and healthier – protecting people and vital resources.

THE WORK WE DO MATTERS

We make the world cleaner, safer and healthier.

We protect vital resources.

Our products and services prevent disease and infection. Keep food supplies safe. Protect the places where people eat, sleep, work, play and heal.

We touch what is fundamental to quality of life: we keep people healthy. We enhance well-being. We provide assurance, so life can be lived fully.

We help our customers succeed.
Reduce risk and worry.
Free them to grow.

HOW WE WORK MATTERS TOO:

We work with purpose. When there's a goal, we reach it. When there's a problem, we solve it.

We work safely. Take care in all we do.

We strive to do what's right, what's fair, what's honest.

We take action together. In teams. Teams made stronger by diverse perspectives.

We find inspiration and energy in what we do and how we do it. In growing, learning and celebrating together. In making a difference and serving the greater good.



From the beginning, our company has focused on saving customers time, labor and money.



MILESTONES IN ECOLAB HISTORY

1923 | Economics Laboratory Founded

Merritt J. Osborn develops a new product, Absorbit[®], which cleans carpets on the spot and eliminates the need for hotels to shut down to be cleaned. He calls his company Economics Laboratory (EL), reflecting its mission to save customers time, labor and money with “economic” solutions developed through “laboratory” research.

1924 | A Warewashing Pioneer

M.J. Osborn incorporates the company and acquires a non-sudsing cleaning compound from a chemistry student. He soon discovers that it works much better than ordinary soap in the mechanical dishwashers that restaurants are starting to use. Called Soilax[®], this product sets the stage for EL’s warewashing expertise.

1928 | Total Systems Approach

EL introduces its first product dispenser, setting the stage for a “total systems” approach to cleaning and sanitation, which includes technologically advanced equipment, as well as superior products.

1935 | Service Tradition Begins

M.J. Osborn’s son, E.B., serving the company as sales manager, turns its sales people into dishwashing consultants who not only sell EL products, but also repair and maintain customers’ dishwashers, train kitchen employees, analyze dish-handling procedures and recommend ways to minimize breakage. They are on call 24 hours a day.

1955 | International Expansion

By 1955, there is enough business in Canada to form a sales territory and to contract with a Canadian manufacturer to handle production. In 1956, the first European subsidiary, Soilax[®] A.B. Sweden, forms, opening the door for expansion in Europe. The formation of Soilax[®] de Mexico follows in 1958, triggering a rapid expansion in the Western Hemisphere.

1957 | EL Goes Public

M.J. and E.B. Osborn decide to turn their family-owned business into a publicly held company. At the time, associates control at least 25 percent of the company’s common stock.

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MILESTONES IN ECOLAB HISTORY *(continued)*

1961 | Revolutionary CIP Technology

EL acquires Klenzade and its pioneering Clean-in-Place (CIP) technology for the dairy industry. CIP eliminates the need to break down and hand wash dairy pipes and valves. When paired with EL's rinses and cleaning solutions, the CIP system allows dairy plant operators to clean miles of pipes with the push of a button.

1970 | International Growth

International sales exceed \$30 million in 40 world markets. EL establishes a European satellite headquarters in Brussels, Belgium, to guide efforts in 15 countries. In 1977, area headquarters are set up in Latin America and Hawaii. By the end of the decade, EL conducts business in more than 50 countries.

1981 | Solid Power® Introduced

EL introduces Solid Power®, a patented state-of-the-art warewashing detergent capsule that delivers unprecedented control, safety and cost-savings to customers. Sales soar and within two years of its introduction, Solid Power is the top-selling institutional warewashing detergent in the U.S.

1984 | Building the Portfolio

EL acquires the first of a series of regional pest service firms that create a national Pest Elimination business, pioneering the concept of pest elimination for the \$2 billion U.S. commercial pest market.

1986 | Ecolab Inc. on the NYSE

In December, Economics Laboratory Inc. changes its name to Ecolab Inc., providing a simple and unifying worldwide identification. That month, Ecolab is listed on the New York Stock Exchange, enhancing the company's standing in the investment community and heightening investor interest.

1987 | Consumer Sale

Ecolab sells its consumer products business, which markets household products including dishwasher detergents *Electrosol* and *Finish*, *Jet Dry* and *Lime Away*. Ecolab then acquires ChemLawn, a provider of residential lawn care services. The business is sold in 1992 to enable Ecolab to focus completely on its commercial product and service businesses.

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In 1986,
Economics
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changed its
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Ecolab Inc.,
providing a
unifying world
identification.





In 1992, Ecolab defines its fundamental business strategy, Circle the Customer – Circle the Globe.



MILESTONES IN ECOLAB HISTORY *(continued)*

1991 | Joint Venture in Europe

Ecolab forms a strategic alliance with Henkel KGaA, a major chemical company based in Germany, to better position both companies for a united European market. The Henkel-Ecolab joint venture sets up headquarters in Düsseldorf, Germany. Combined European sales exceed \$750 million.

1992 | New Growth Strategy Unveiled

Ecolab defines its fundamental business strategy, Circle the Customer – Circle the Globe. The strategy's intent: to more broadly serve customers by offering an increasing range of cleaning and sanitizing products to serve the foodservice, hospitality, healthcare and food and beverage markets. Circle the Customer – Circle the Globe provides the map for future growth, business investment and success.

1994 | New Business Units Launched

Ecolab acquires Kay Chemical Company, a leading cleaning product supplier to the quick service (fast food) market. Based in Greensboro, N.C., Kay gives Ecolab a long-sought position in the quick service cleaning and sanitizing market and creates a sixth business for Ecolab. A seventh business unit, Water Care Services, is added through multiple acquisitions.

2001 | Worldwide Operations

A new era in Ecolab history begins when Ecolab purchases the remaining 50 percent share of Henkel-Ecolab. This move officially creates one Ecolab in Europe and throughout the world.

2002 | Focus on Food Safety Expands

Strategic acquisitions continue to expand, diversify and strengthen Ecolab's portfolio of customer offerings. Ecolab launches EcoSure® Food Safety Management, a business that evaluates food safety procedures in foodservice and hospitality facilities across the U.S.

2004 | Healthcare Established

Ecolab establishes its Healthcare business unit, separating it out from other operations, in order to provide better focus on and resources for this important core growth area.

2005 | Ecolab Innovation Gains a New Home

Ecolab opens a new Global Research, Development & Engineering Center in Eagan, Minn. The 400,000-square-foot facility provides cutting-edge technology to develop innovative solutions for customers around the world.

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Ecolab is the global leader in water, hygiene and energy technologies and services.



MILESTONES IN ECOLAB HISTORY *(continued)*

2006 | Honored as Food Safety Leader

Ecolab wins the 2006 Black Pearl Award for Corporate Excellence in Food Safety and Quality. Presented by the International Association of Food Protection (IAFP), the award recognizes efforts in advancing food safety and quality through consumer programs, employee relations, educational activities, adherence to standards and support of the goals and objectives of IAFP.

2007 | Healthcare Growth Accelerates

Ecolab expands its infection prevention expertise with the purchase of Microtek Medical Holdings Inc. The Alpharetta, Ga.-based manufacturer and marketer of infection prevention products for healthcare and acute care facilities specializes in infection barrier equipment drapes, patient drapes, fluid control products and operating room cleanup systems.

2008 | Apex™ Launched

Ecolab's U.S. Institutional business launches Apex, a new warewashing platform consisting of advanced product and dispensing technology along with dishmachine performance metrics that provide a major advance in delivering the best results at the lowest total cost and environmental impact.

2010 | DryExx® GS Launched

Ecolab's Food & Beverage North America business launches DryExx®, a dry conveyor lubricant formulated for glass packaging on stainless steel or mixed conveyors used in the beverage, brewery and food processing industries. The product can reduce water use in conveyor lines by as much as 97 percent and also helps enhance workplace safety.

2011 | Ecolab Merges with Nalco

Ecolab merges with Nalco to become the global leader in water, hygiene and energy technologies and services. With this addition of expertise, Ecolab is able to serve customers more comprehensively.

2013 | Ecolab Acquires Champion Technologies

Ecolab acquires privately held Champion Technologies, strengthening Ecolab's position in the fast-growing upstream energy services market.



Global Industrial Global Food & Beverage

MARKETS SERVED:

Dairy, Food, Meat, Poultry,
Beverage and Brewery Processors

Fresh Produce Processors

Dairy Farms

Pharmaceutical and Personal Care
Product Manufacturers



We provide a total plant assurance approach, offering solutions to help deliver food safety and quality, increased sustainability and operational efficiency.

Ecolab's Food & Beverage business provides a total plant assurance approach, providing a unique combination of world-class service, total impact solutions and unsurpassed industry expertise to customers around the world. From influent, to cleaning and sanitizing and wastewater treatment, our total plant assurance delivers enhanced food safety and quality, increased sustainability and operational efficiency. Core offerings include:

- Cleaning and sanitizing programs
- Conveyor lubrication programs
- Food tissue treatment and process water antimicrobial programs
- Commercial sterilants for aseptic packaging
- Processing additives
- Custom-designed dispensing and control systems
- Animal care products for dairy livestock

PRODUCTS & SERVICES PROVIDED

Ecolab provides a holistic approach to food and beverage processors that delivers total plant assurance. We offer a breadth of solutions, including products that clean, lubricate and sanitize equipment and environmental surfaces. Our four-step, customer-centered approach includes a thorough assessment of customer needs, comprehensive program recommendations, best-in-class execution and ongoing information management to help track performance.

STRENGTHS

Integrated solutions – from the right chemistry and dispensing systems to engineering design and application – are key to our offering. Our highly trained technical support specialists provide an extra circle of support for our customers. Exceptional personal service and support at the plant level is combined with performance tracking and reporting to help customers feel secure that their business and customers are not at risk.





Our water, energy, waste products and solutions help improve efficiency and performance across a customer's operations.

WATER, ENERGY & WASTE SOLUTIONS

Ecolab solutions help Food & Beverage customers in all market segments improve water, energy and wastewater management. We work with our Global Water team to provide cost- and energy-efficient solutions that help streamline operations. Customers benefit from our integrated approach, advanced product control and delivery systems and custom chemical programs, which help reduce energy and water consumption, protect capital equipment and help improve overall plant sustainability.

Through our Global Water business, we provide Global F&B customers with a full range of integrated solutions including chemical treatment, innovative equipment solutions and monitoring and reporting, delivered with service excellence by a fully committed partner.

These offerings include:

- Pre-treatment/filtration
- Boiler water treatment
- Cooling water treatment
- Process water treatment
- Wastewater treatment (e.g., BOD/COD reduction)
- Energy recovery
- Water re-use

DAIRY PLANTS

Dairy plants – where milk is processed into products such as fluid milk, cheese, yogurt and ice cream – are an important market segment for our Global Food & Beverage Business. During processing, milk products are transported through an extensive pipeline network, from the dairy trucks that deliver raw milk, to pasteurizing, mixing, blending and final packaging. Our Clean-in-Place (CIP) technology enables customers to effectively and efficiently clean and sanitize these vast pipeline networks. Our fully automated, computerized programs and systems are custom-designed to help customers clean and sanitize their production facilities to help improve product quality and operational efficiencies.

To speed up the cleaning process, dairy and food processing customers use our Exelerate® complete cleaning program. Exelerate products clean faster and better, improving plant performance.

In addition to detergents and sanitizers, Global Food & Beverage also provides all-purpose cleaners, lubricants for dairy process conveyors, a complete personnel hygiene program and other products.





The beverage industry benefits from our expertise in clean-in-place technology, sanitation and efficiency.



DAIRY AGRIBUSINESS

Global Food & Beverage is also a leader in dairy agribusiness and supplies products that enhance animal health, as well as milking systems. Our environmental sanitation products also help ensure delivery of safe, uncontaminated food products.

On a dairy farm, sanitation begins with the cow. We offer animal care products such as:

- ▲ Teat dips to help prevent mastitis infection
- ▲ Detergents and sanitizers to clean milking machines, pipes, vats, coolers and holding tanks that transport raw milk
- ▲ Products to clean milking parlor surfaces

Ecolab agri-specialists provide our products through farm cooperatives and distributors on the national, regional and local levels. These businesses then sell them to end-users. Our specialists follow up with customer visits to answer technical questions, train end-users, trouble-shoot problems and help improve results.

FOOD, MEAT & POULTRY PROCESSING

The food, meat and poultry processing industries are diverse, complex and encompass manufacturers of nearly every kind of food product – from canned soups and ketchups to cereals and hot dogs. Like dairy plant and agribusiness operators, food processors have tanks where food is mixed and pipelines where it is transported. Some operations also use specialized equipment, such as fryers and ovens that must be cleaned.

Like dairy and agribusiness customers, each food processor must meet stringent standards to prevent food contamination, which can result in reduced shelf life or foodborne illness. We provide an integrated approach to food safety including:

- ▲ Automated dispensing systems
- ▲ Sanitizers and advanced detergents
- ▲ Patented protein food tissue treatments
- ▲ Antimicrobial water additives for produce
- ▲ Complete personnel hygiene programs

Our patented, best-in-class technologies like SANOVA® Antimicrobial Food Additive, Inspexx® 100 and 200 and Octa-Gone® antimicrobials help reduce *Salmonella*, *E. Coli* and *Listeria* on meat and poultry surfaces. Food processors also benefit from EPA-registered (U.S. Environmental Protection Agency) sanitizers that provide continuous treatment of conveyor belts during production – like our Vortexx™ belt treatment. In addition, our Quadexx® System provides food, meat, poultry and beverage customers with on-site formulation and automatic dispensing.



FRUIT & VEGETABLE PROCESSORS

To meet the unique needs of fruit and vegetable processors, we provide products that help produce clean and ready-to-eat food. These products, like Tsunami® 100, provide microbial and quality control in the flume water systems that transport fruits and vegetables to other processing operations within a plant. Tsunami helps reduce spoilage and decay organism counts on the product surface, thus helping to assure quality. In fact, it is the only EPA-registered antimicrobial water additive product on the market that reduces pathogens such as *Listeria* and *Salmonella* in process water.

We apply standards of excellence across all meat, fruit, vegetable and beverage processing operations.

BEVERAGE & BREWERY

Like food processors, beverage and brewery operators are concerned with bacteria contamination. Facilities that produce soft drinks, fruit juices and beer rely on our products, services, equipment and expertise to keep their mixing vats and pipelines running optimally. Conveyor lubricants help keep conveyors clean and bottles and cans moving efficiently along production lines.

In addition, we offer EPA-registered products that inhibit growth of bacteria in can and bottle warmers, where beverage containers are sprayed to prevent condensation and problems in packaging. In all instances, we design products to meet the specific needs of each of our customers to achieve their desired results.





Our knowledge and understanding of the Global F&B industry results in solutions that save time, water and energy for our customers.



SUSTAINABLE SOLUTIONS

Our extensive knowledge of food and beverage plant processes, as well as our innovative cleaning solutions, help customers not only clean better and faster, but with less water and energy – which is better for the environment and more cost-effective. Our unique ability to leverage cleaning and sanitation expertise with our wastewater management expertise, allows us to manage the plant processes efficiently and effectively.

Products such as our DryExx® series of "dry" lubricants, deliver outstanding performance while providing up to a 97 percent reduction in water for lubrication purposes compared to non-dry lubricants. This alone saves beverage customers millions of gallons of water each year.

For decades, our Clean-in-Place (CIP) engineering technology has helped optimize customers' operations and make them more sustainable with controlled product dispensing and water usage and systems that reuse water and chemical solutions.

Ecolab's total operations approach helps ensure plants meet local regulations, optimize total costs and minimize surcharges. Experts also provide operational services to efficiently manage water and wastewater systems. Innovative control systems and remote adjustment capabilities enable constant contact between wastewater engineers and facility operations. For example, our Value Track™ online water management program optimizes boiler and cooling treatment to allow remote monitoring to improve operation savings.

Our water and wastewater treatment programs are engineered with sustainability in mind. They help minimize environmental footprints and improve water, energy and waste management. Products are formulated to protect boiler and cooling systems from scale, corrosion and deposits – costly problems that can lead to unscheduled downtime, equipment failure, spread of disease and increased water and energy consumption. We have also designed and built many complete wastewater treatment facilities and converted some of these waste streams into renewable energy.



We provide our customers on-site and classroom training on sanitation topics and best practices.

SUPERIOR SERVICE

Ecolab's customers benefit from the industry's largest global team of experts to help sustain and improve their in-plant operations. Annually, Global Food & Beverage provides customers with thousands of hours of on-site and classroom training on a wide range of sanitation topics and best practices. This ongoing education improves staff performance, often resulting in increased efficiency.

Account managers are responsible for the overall relationship with our customers. An important tool for this job is our innovative ServiceChexx™ program, a global information management and reporting tool that provides a consistent, standardized process for generating service documentation and data to help customers meet compliance requirements, prepare for audits and manage their business more profitably.

The account manager is supported by an elite group of specialists who provide technical support, including assistance with plant start-ups, operational savings assessments, troubleshooting sanitation quality problems and in-plant training.

On the water and wastewater treatment side, a nationwide network of experienced Ecolab Global Water specialists provide consistent technology, service and support for customers. They analyze and optimize the total efficiency of an operation by looking at all cost factors, including energy, products, water and wastewater, maintenance, labor and equipment depreciation. They typically hold degrees in chemistry, engineering or biology and Ecolab provides them with ongoing certification and training.

Our Global Water specialists are also supported by a technical support team – engineers, chemists, technicians and research and development staff – with the experience, expertise and analytical laboratory capabilities to provide detailed water analysis and solve complex problems quickly.





We have the most powerful tool of all: the exceptional personal service that our associates skillfully provide.



A FOOD & BEVERAGE CUSTOMER CALL

Not only does Ecolab have unparalleled solutions and expertise, we have the most powerful tool of all: the exceptional personal service that our account managers provide. Ecolab's Global Food & Beverage World Class Service Standards help ensure consistent delivery at every location around the globe. We proactively take care of our customers to help improve food safety, protect their brand reputation and provide improved operational efficiency at the lowest total cost and environmental impact.

First, our account managers ensure they understand the equipment, processes and chemistries used by our customers. They know our customers' organizational structure and communicate with key personnel on a regular basis.

Next, our account managers regularly visit their accounts, with the frequency varying based on the specific account's needs. To make the most of a sales-and-service call, account managers complete a comprehensive pre-planning checklist. They review past site reports, product use data, customer project initiatives and current action plans. They also gather the necessary supplies to perform any maintenance service that may be needed, such as test kits, parts and tools.

At the beginning of the customer visit, the account manager meets with key plant personnel to discuss current concerns. The account manager checks all dispensing equipment, making sure the correct concentration of product is being dispensed and that cleaning procedures are being followed before making recommendations. The account manager also recommends solutions that will help the customer lower operating costs to enable time, labor, water and energy savings.

A key role of an account manager is to help customers reduce their food safety risk. We use a holistic, total plant approach to help customers minimize microbial contamination across their operations. The account manager identifies and prescribes a comprehensive suite of food safety solutions – including cleaning and sanitizing products, food tissue treatments, aseptic sterilants, testing, personnel hygiene and environmental (e.g., drains and floors) products – uniquely designed for the specific customer environment and challenges. Additionally, we provide food safety training for our customers.

At the end of the customer visit, the account manager checks in with the same key plant staff to note findings and recommendations, providing a prioritized list based on the customer business drivers, as well as possible new product or program solutions. All observations and solutions are outlined in a ServiceChexx report. Annual business reviews are conducted to ensure customer goals are being met.

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A FOOD & BEVERAGE CUSTOMER CALL *(continued)*

Throughout the customer visit, all Ecolab associates work with the facility's sanitation crew to answer questions or provide hands-on training. Periodically, the account manager will conduct more formal training on sanitation practices and product safety.

During Global F&B customer visits, water and process wastewater solution specialists visit with plant engineers and site managers to discuss concerns and perform equipment inspections and preventive maintenance. In addition, service representatives perform product inventory checks, water tests, corrosion studies and operator log reviews. They also alert staff to inefficiencies or potential safety hazards. In accounts where there is no engineer on-site, the specialist provides full service including, setting up systems, as well as maintaining them. When needed, Global Water specialists attend annual on-site boiler, chiller and cooling tower inspections for insurance purposes.

Our specialists also keep customers abreast of government regulations and conduct safety training.





Global Industrial Global Water

MARKETS SERVED:

- Biofuels
- Buildings & Institutions
- Chemicals
- Food & Beverage
- Manufacturing
- Mining & Mineral Processing
- Natural Gas Processing
- Pharmaceutical
- Power Generation
- Primary Metals



Our customers benefit from our innovative treatment of boiler water, cooling water, influent and wastewater.



GLOBAL WATER

Ecolab's Global Water business delivers water and process technologies and services that provide and protect clean water, abundant energy and healthy environments for customers around the world and across virtually all industrial and institutional markets. We lead the industry in creating value through differentiated services and unparalleled technologies that save water and energy, enhance production and protect the environment while reducing total cost of operation.

Our customers benefit from our innovative water treatment for pretreatment, boiler, cooling water and wastewater operations as well as our process water solutions. Our Global Water business serves the aerospace, automotive, building products, chemical, food and beverage, microelectronics, mining, pharmaceutical, power, and primary metals industries as well as institutional customers such as hospitals, universities, commercial buildings and hotels.

TOTAL WATER MANAGEMENT

CORE APPLICATIONS

- ▲ Influent pretreatment
- ▲ Boiler water treatment
- ▲ Cooling water treatment
- ▲ Wastewater treatment
- ▲ Water reuse & recycle

MULTI-APPLICATION SERVICES

- ▲ Analytical services
- ▲ Automation & remote monitoring
- ▲ Delivery & inventory services
- ▲ Environmental hygiene services
- ▲ Equipment solutions
- ▲ Industry consulting services

PROCESS

- ▲ Colloidal silica technologies
- ▲ Food & beverage
- ▲ Mining & mineral

PROCESS TECHNOLOGIES & SERVICES

- ▲ Chemicals
- ▲ Colloidal technologies
- ▲ Food & beverage
- ▲ Manufacturing
- ▲ Mining & mineral processing
- ▲ Power generation
- ▲ Primary metals



Our Global Water segment was built on Nalco's more than 80 year history of boiler water treatment solutions.



STRENGTHS

More than 3,000 Nalco engineers and technicians provide on-site expertise to customers in more than 170 countries around the world. Our holistic approach to water management is focused on partnering with our customers to solve the technical challenges encountered in dynamic industrial and institutional systems. We create value through innovative technology, engineering excellence and industry-leading experience.

INFLUENT PRETREATMENT

Water supply limits and feed water quality issues are realities our customers face. The right pretreatment ensures water when and where it's needed. Our integrated pretreatment solutions offer an optimized and balanced approach to implement the proper mechanical, operational and chemistry solutions. The result is reduced operating costs, water and chemical savings and a smaller environmental footprint.

BOILER WATER TREATMENT

Our Global Water business is built on Nalco's more than 80-year history of delivering boiler water treatment and solutions. Boiler systems are critical to production schedules and profitability. Most manufacturing facilities use direct heat in the manufacture of finished products. Many facilities, such as office buildings and hotels, use steam in heating, ventilation and air conditioning systems. Maintaining reliable treatment performance for boiler and steam systems is critical for minimizing impact on plant operations, the environment and operating cost.

We perform detailed system audits and diagnostics to prescribe the appropriate chemical, equipment and service programs to maximize boiler system performance and efficiency. Our innovative treatment programs help customers achieve water and energy savings, protect their assets and increase plant reliability and safety.



3D TRASAR®
currently
reduces fresh
water use by
nearly 100 billion
gallons per year
worldwide.

COOLING WATER TREATMENT

Treatment of cooling water is an integral part of process operations in many industries where productivity and product quality can be adversely affected by scale, corrosion, fouling and microbiological contamination.

WASTEWATER TREATMENT

Wastewater treatment requires the ability to manage input variability while delivering consistent, high-quality output. Our technologies analyze, evaluate and treat entire wastewater operations from primary clarification to discharge.

Primary wastewater treatment is critical to plant operation, whether discharging directly to a municipal wastewater treatment system or to a biological treatment system. Optimizing and integrating the performance of treatment chemistry and equipment can help customers meet stringent water quality and regulatory requirements while dramatically minimizing overall costs.

WATER REUSE & RECYCLING

As the world's water resources become increasingly constrained, the pressure for industry to implement appropriate methods to conserve water and reuse existing water flows within a facility increases. This requires advanced knowledge of water quality requirements in various operations and targeted technologies to effectively implement the appropriate solutions. We utilize a combination of practical engineering and hands-on knowledge of system operation to design, build, operate and/or maintain the optimal reuse solution for each application.





Our experts understand the unique needs of food and beverage operations.

FOOD & BEVERAGE PROCESS APPLICATIONS

We partner with our customers to:

- ▲ Clean plant drain systems
- ▲ Control foaming in process streams
- ▲ “De-bottleneck” plant process water systems
- ▲ Improve process refrigeration coil energy efficiency and cleanliness
- ▲ Increase efficiency and protection of potable water systems
- ▲ Increase efficiency of air cooled and plant inlet air handling systems
- ▲ Increase purity of steam used in process heating applications
- ▲ Optimize process water and systems pretreatment efficiency
- ▲ Reduce environmental conformance costs and surcharges associated with process water discharge
- ▲ Reduce rejects, rework and wastage caused by staining or spotting in thermal processing systems
- ▲ Reduce water consumption





MINING & MINERAL PROCESSING APPLICATIONS

We provide essential expertise to the mining and mineral processing industry through sustainable solutions from mine-to-mill. Markets served include alumina, coal, base metals, precious metals, phosphate, potash, kaolin, sand/gravel and other minerals.

Our highly trained engineers work on-site at customer locations to implement innovative technologies that maximize process effectiveness, improve finished product quality, facilitate environmental compliance and sustainability, and provide the lowest overall total cost of operation.

We partner with our customers to:

- ▲ Dewater process concentrates and tailings
- ▲ Improve crystal properties of finished product (morphology, strength, color)
- ▲ Improve handling properties of raw and finished materials
- ▲ Increase flotation recovery and grade
- ▲ Recover and reuse process water
- ▲ Reduce dusting from haulage roads, crushers and stockpiles
- ▲ Reduce or eliminate scale and foam in the process
- ▲ Treat raw water, process water and mine effluent to remove undesirable metals and other solutes

We provide essential expertise to the mining and mineral processing industry.





We continually seek opportunities to extend our sustainable solutions to more industries, geographies and systems.



AUTOMATION & REMOTE MONITORING

In response to the constant need to achieve strong financial and environmental performance, we help customers maximize gains in operational efficiency, risk reduction, sustainability performance and capital expenditure avoidance through innovative solutions and real-time monitoring.

Scale, corrosion, fouling and biological growth can impact water usage and cost. Our patented 3D TRASAR® technology utilizes unique real-time monitoring, patented actives-based control technology, proprietary stress-resistant chemistry and 24/7 information management capabilities to detect, determine and deliver improved scale, corrosion and microbiological performance. The end result is improved system performance, increased water and energy savings, and greater efficiency, reliability and productivity.

SUSTAINABLE SOLUTIONS

A broad range of industries use our water and process treatment programs to extend the useful life of assets, minimize downtime of facilities, conserve water and energy, cut waste and reduce total cost of operations. We deliver both environmental and financial benefits to our customers and document these benefits through our eROI™ value program. Built upon a system of people, processes and tools, our eROI program provides a uniform approach to ensure the value we deliver is aligned with the needs and available natural resources of each customer we serve.

The ability of 3D TRASAR technology to measure key system parameters, detect upsets and take appropriate action has expanded from cooling water to include boilers, membranes, wastewater treatment and various process treatments. In cooling water applications alone, this technology has reduced fresh water use by more than 500 billion gallons (1.9 trillion liters) worldwide.

Our APEX® paint detackification program uses advanced, patent-pending chemistry, equipment and service to enhance process efficiency and product quality, reduce water and energy consumption, and deliver an average reduction of 20 percent in total cost of operation.

The COIL-FLO® Coil Cleaning Program removes microbial contaminants, dust, soil and debris from HVAC air handling unit coils (AHUs), ensuring peak operational performance. These programs are designed to minimize the use of water in the cleaning process and improve indoor air quality.



We work with customers to understand changes to plant operations, solve problems and make recommendations that can help improve the sustainable operation of the facility.

SUPERIOR SERVICE

By understanding the needs and capabilities of our customers, we develop and implement solutions that strengthen the industries we serve. We create value for our customers and our company through innovative technologies and services provided as integrated solutions to solve the complex issues facing our customers. Our involvement in the implementation ensures that the solutions we develop with our customers deliver maximum value.

In addition to offering superior solutions, we work to ensure that our customers are properly trained to fully utilize the technologies we provide. The Nalco Customer Learning Center acts as the vehicle for scheduling and delivering training to customers in addition to serving as the storehouse for training records and report development. Additionally, online and on-site training classes help optimize associate performance.

A WATER SERVICES CUSTOMER CALL

Our sales engineers visit customer accounts monthly, weekly or even office at customer sites, depending on account size and customer needs. Sales call activities can include solving existing process issues, enhancing new process applications and conducting new technology trials. A typical day could include reviewing 3D TRASAR automation reports with the facility manager using the Nalco enVision™ web platform, responding to a Nalco 360™ Service-generated alarm, attending a plant manager's operations meeting, auditing unit operations for optimal efficiency and reliability, determining sufficient inventory levels, troubleshooting a problem area of a plant or coordinating the startup of a new piece of equipment.

Using modeling from our 3D TRASAR Optimizer Software, a sales engineer can detect and correct system imbalances. Our engineers practice a disciplined approach to Create and Maintain Value (CMV) with the customer. They begin by identifying key business drivers and then developing system assurance, innovation plans, and continuous improvement programs. Monthly or quarterly executive summaries and annual business reviews are used to communicate with the customer.





A WATER SERVICES CUSTOMER CALL *(continued)*

Our sales engineers work closely with a support team of industry-specific technology experts, marketers and researchers to identify opportunities for improvement as well as develop detailed plans to validate and implement new programs. An example of this approach was used by our Mining and Mineral Process business in the development of new flotation collector programs to improve recovery of coal or molybdenum. The technology expert and sales engineer identified the key customer requirements and worked with RD&E and Marketing to develop a product formulation that would deliver the desired results.

A cross-discipline approach to development and commercialization enables us to further expand our leadership position with innovations driven by customer needs.

Our sales engineers work to identify opportunities for improvement as well as develop detailed plans to validate and implement new programs.





Global Industrial Global Paper

MARKETS SERVED:

Graphic

Board and packaging

Tissue and towel



Our innovative solutions are carefully designed to provide papermakers with significant economic and environmental returns.

GLOBAL PAPER

Pulp and paper producers are constantly striving to enhance competitiveness and sustainability by improving site profitability and reducing environmental impact. Our innovative solutions are carefully designed to provide papermakers with significant economic and environmental return.

Vigilant management of fiber and energy resources is critical to the quality and efficiency of pulp and paper making operations. We offer comprehensive paper machine cleaning and conditioning programs that help provide our customers with improved paper machine efficiency, energy savings, improved paper quality and a reduction in material costs. We also provide grade development and functional chemistries that assist in developing sheet properties and promote machine productivity. Our core water expertise addresses our customers' key business drivers of uptime and reliability. For example, steam generation at a paper mill is necessary to heat the chips in the digesters, evaporate the cooking liquors, dry sheets on paper machines and drive turbines to provide the electrical needs of the entire mill. Without steam, papermaking operations would come to a halt.

We adopt a grade-based approach to understand and address the unique needs of each paper industry segment: graphics, board and packaging, tissue and towel. Through our CMV (Create and Maintain Value) process, our local account teams work with customers on-site to deliver maximum performance. We design, develop and implement solutions specifically tailored to customer operations and key business initiatives.

APPLICATIONS

- ▲ Grade development
- ▲ Fiber savings
- ▲ Machine efficiency
- ▲ Water & energy savings





We are recognized as the preferred partner for sustainable growth in the pulp and paper industry.

STRENGTHS

We are recognized as the preferred partner for sustainable growth in the pulp and paper industry. Our suite of award-winning, patented technologies is carefully designed to deliver significant economic and environmental sustainability. Our focus on innovation consistently brings new technology to the pulp and paper industry, securing new patents each year.

FIBER SAVINGS

Our complete fiber and energy management solutions are designed to help:

- ▲ Reduce Total Cost of Operation
- ▲ Use a broader range of mechanical, chemical and recycled fibers
- ▲ Improve the quality of pulp
- ▲ Enhance the stability and efficiency of the process

MACHINE EFFICIENCY

We offer comprehensive paper machine cleaning and conditioning programs that include chemical product line technologies, analytical capabilities and automated equipment systems. When these parts are integrated by our on-site experts into our MOC (Machine, Operational and Chemical) approach, these programs can provide our customers with improved paper machine efficiency, energy savings, an increase in paper quality and a reduction in material costs. TULIP Creping Technology is our latest solution for tissue grades. This innovative new technology can help tissue makers achieve improved coating characteristics with superior adhesion and excellent uniformity. Compared to conventional PAE creping chemistries, the TULIP technology coating tends to be more efficient, allowing for up to a 50 percent reduction of add-on rates at equal or higher creping moisture. This technology also offers improved hand feel softness, crepe structure, and increased speed and machine efficiency.





WATER & ENERGY SAVINGS

We address water-related problems in all areas of pulp and paper mills. Having efficient total cost of operation management is a constant demand of the industry, and as the preferred water treatment services partner, we are in an excellent position to deliver savings far beyond the scope of chemistry alone. Using an engineering approach—evaluating the mechanical, operational and the chemical aspects of an application—our sales engineers effectively demonstrate how sustainable improvement projects can be identified.

SUSTAINABLE SOLUTIONS

The pulp and papermaking processes are both energy- and water-intensive. Our innovation and expertise help papermakers improve their processes to produce various grades and styles of paper while minimizing water, fiber and energy use, and reducing costs. Our eROI value approach describes the quantified environmental and economic impacts of our programs for our customers.

PARETO™ Mixing Technology helps paper machines run more efficiently and also allows reuse of preheated wastewater. Customers currently realize annual savings of more than 4 million cubic meters of fresh water and 130 gigawatt hours of energy. This reduction in energy use prevents 30,000 tons of carbon dioxide from being released into the air.

OxiPRO™ Technology for Deposit Control provides enhanced control of microbial growth and deposit-formation in papermaking systems. Using a combination of proactive monitoring tools, individually tailored chemistry strategies and local expertise ensure the program delivers increased machine efficiency while reducing environmental impact and total cost of operation.

The shift to sheet light-weighting and preservation of natural resources in the board and packaging industry has been a compelling trend for the last two decades. Achieving reduced basis weight targets can be a challenge for any papermaker, especially when lower-quality fibers are part of the furnish mix. Use of our patented METRIX technology program allows paperboard and packaging manufacturers the ability to increase strength, lower basis weights, enhance production and reduce energy demand.

Use of our patented technologies allows customers to enhance production and reduce energy demand.





Sales call activities can range from solving existing problems or enhancing new process applications to system installations and new technology trials.

SUPERIOR SERVICE

We are committed to helping papermakers become more profitable by optimizing essential mill processes such as reliable steam generation, cost-effective waste management and assured environmental compliance while improving our customers' end products through innovative technology and customized solutions.

Rather than concentrating only on chemicals, we work with customers on the entire operational process and focus on the variables that will improve their operations and produce a better and more efficient end product. Our Global Expertise Centers develop and deploy new technologies that apply to one or more paper grades. Supported by a comprehensive network of supply chain facilities in each country and regional research centers, our global presence enables us to offer a consistently high level of service to local, regional and multinational customers.

Leveraging smart technology such as 3D TRASAR, we provide total system monitoring and program management across our customers' operations. As a result, we track our progress against goals and KPIs from both a "total impact" (efficiency) and "positive impact" (effectiveness) perspective.

A GLOBAL PAPER CUSTOMER CALL

Our sales engineers typically work on-site at customer locations, depending on account size and their unique needs. Sales call activities can range from solving existing problems or enhancing new process applications to system installations and new technology trials. A typical day might include reviewing process reports with operation managers or attending daily production meetings to review the prior day's safety and operational issues. We utilize our CMV model to standardize our service offering. By starting with an understanding of our customers' key business drivers, we work with them to achieve desired objectives.

For example, we would use our MOC approach to support a customer in increasing their daily or annual production rates. This could involve analytical work to determine the nature of any deposits causing poor efficiency, consultant support to review the operational/mechanical setup and any potential chemical solutions that we could implement. This combined approach sets us apart from our competition.





Global Industrial Global Textile Care

MARKETS SERVED:

Commercial laundry operations that serve a number of markets:

Industrial

Healthcare

Hospitality

Food & Beverage



We specialize in the industrial, healthcare, hospitality, and food and beverage markets that make up the commercial laundry industry.

Global Textile Care serves larger, more complex commercial laundry operations, which serve the textile rental, industrial, healthcare and hospitality markets. Our customers process millions of pounds of linen annually. These large-scale operations require products and dispensing systems designed specifically for their industrial-size machines, unique cleaning needs and complex operations. (Ecolab Global Institutional serves the smaller on-premise laundries found in hotels, hospitals, restaurants and long-term care facilities.)

We are committed to delivering operational excellence through hands-on partnerships with our customers, providing the best cleaning results at the lowest overall cost through:

- ▲ Personal service & consulting
- ▲ Advanced science
- ▲ Real-time information management
- ▲ Technical expertise

SERVICES PROVIDED

- ▲ Custom-designed wash programs incorporating premium products and dispensing equipment
- ▲ Superior, personal service and technical support to obtain optimum performance and cost-effectiveness

STRENGTHS

Largest team of sales-and-service specialists with in-depth knowledge and experience in laundry chemistry, backed by expert technical support staff, a full line of laundry product solutions and dispensing equipment enabling customers to deliver quality results.





Through advanced chemistry, research and development, we create products and services that save time, money and resources.



MARKETS & NEEDS SERVED

Global Textile Care's primary customer base includes large commercial laundry operations such as textile rental laundries (which handle many types of linens from tablecloths and napkins to bedding and towels), healthcare laundries and industrial laundries (which process and deliver customers uniforms, shop towels, floor mats and other linens), as well as large institutional customers, such as universities. We offer a variety of products and programs to address the varied types of soils and linens processed by our customers including:

- ▲ Detergents
- ▲ Alkalis and sours (pH balancers)
- ▲ Oxidizers
- ▲ Starches
- ▲ Fabric softeners and conditioners
- ▲ Prespotters and stain removers

We also provide fluid repellents, fabric relaxants and odor control technologies, along with advanced laundry systems such as our water- and energy-saving technology. In addition, we offer the industry's most advanced monitoring and dispensing systems to ensure consistent and accurate delivery of product to the washer for maximum results.

SUSTAINABLE SOLUTIONS

We are proactive in offering advanced chemistry for superior cleaning with lower environmental impact, including innovative solutions such as low-temperature detergents that positively impact our customers' water, labor and energy costs. Our Fabric Relaxant allows customers to effectively "press" fabrics without using irons – saving water, energy and labor.

Our Aquamiser System reduces water usage up to 30 percent in continuous batch washers by reusing water during the rinse process. The my-Laundry™ data management suite enables plants to analyze their utility metrics and proactively take measures which optimize their operations, saving water, energy and time in real-time.



Our expert consultation and custom-design wash programs are unique to each customer.



INNOVATION & SUPPORT

Industry leading innovation, research and technology expertise also help drive superior cleaning results. Global Textile Care provides advanced reporting systems that put data at the customer's fingertips to boost efficiency and control costs.

For example, we offer an advanced information management system that summarizes data for a single plant – or an entire corporate account chain. Always available online, customers can monitor data with easy point-and-click navigation to maximize washroom efficiency and manage their operation more efficiently. The availability of real-time monitoring of the washroom also exists to further build efficiencies at the customer plant.

Our support and applications team is comprised of experts who provide unmatched technical service expertise to keep customers' operations running optimally. In addition, our Research, Development & Engineering technicians perform a wide variety of testing, including identifying stains and prevention methods, analyzing water samples, providing wash formulas and answering questions.

SUPERIOR CUSTOMER SERVICE

Sales-and-service specialists provide expert consultation and custom-designed wash programs unique to each customer. Our specialists have an in-depth understanding and aptitude for problem solving. Ongoing training opportunities keep specialists abreast of new procedures, products and equipment, environmental issues and topics such as:

- ▲ Laundry chemistry
- ▲ Product characteristics
- ▲ Wash formulas
- ▲ Washroom equipment
- ▲ Chemical safety
- ▲ Water and energy optimization
- ▲ Productivity management
- ▲ Washroom efficiency



With each regular visit our goal is to reduce the overall cost of operation for the customer while delivering the best results.

A GLOBAL TEXTILE CARE CUSTOMER VISIT

Commercial laundry specialists improve our customers' laundry operations – from large chain and corporate accounts to independent laundries. Specialists may call on a central laundry operation that serves a number of area hospitals, for example, on a monthly basis. Their goal is to continually work to reduce the overall cost of operation for the customer.

To make the most of the visit, laundry specialists go over past reports, reviewing product use data, customer project initiatives and current action plans. Typically, these projects are focused on production improvements, reduction of water and energy, or improving efficiencies to help manage labor costs, all while maintaining quality results.

At the beginning of the visit, the specialist meets with the facility manager to discuss any immediate concerns. The specialist then examines all aspects of the laundry operation. Several loads are run through the wash cycle and wash formulas are tested to make sure they are correct for the types of linen being processed. Adjustments are made to ensure proper balance of product, water, temperature and cycle times. In many cases, this check serves as an audit to help ensure proper sanitation of the linen.

In addition, laundry specialists serve as a resource for employees, providing them with hands-on training on proper laundry procedures, wash aisle efficiency, hazardous materials handling, and chemical safety and best practices. For example, our specialists may identify where an operator has been washing a linen classification improperly, which can cause unnecessary water and energy use, along with a longer wash time.

Observations and recommendations for improvement are documented throughout the visit on a report using myService, a customized software program that stores technical data and account information – providing the customer instant access to a complete washroom history.

At the end of the visit, the specialist reviews the report with the plant manager along with other key plant personnel and points out findings, improvements and potential new solution opportunities. An action plan is developed to focus on continuous plant improvements. Before leaving, the specialist ensures that all questions and concerns have been addressed.





Global Institutional

Global Institutional

MARKETS SERVED:

- Hospitality
- Foodservice
- Education
- Lodging
- Healthcare
- Military
- Government
- Long Term Care
- Cruise





We help our customers assure their guests' safety and satisfaction, as well as help them protect and enhance their brands.

Ecolab's Global Institutional business offers comprehensive products and programs that meet the needs of our customers – from restaurants, hotels and long-term care facilities to schools, commercial buildings and government facilities. Our team of sales-and-service experts deliver personalized service and offer a complete range of programs to help customers improve their operational efficiency. We help our customers guarantee their guests' safety and satisfaction, as well as help them protect and enhance their brands. Our products and programs cover all areas of an operation and represent the industry's most broad and complete set of premium customer solutions.

SERVICES PROVIDED

- ▲ Warewashing
- ▲ On-premise laundry
- ▲ Housekeeping
- ▲ Kitchen sanitation
- ▲ Foodservice front-of-house
- ▲ Health Department Intelligence Service
- ▲ Hand and skin care
- ▲ Floor care
- ▲ Pool and spa
- ▲ Water solutions
- ▲ Air purity control
- ▲ Food safety assessments
- ▲ Brand standards compliance
- ▲ Employee/guest safety evaluations
- ▲ Guest experience evaluations
- ▲ Training
- ▲ Product quality retrieval

STRENGTHS

We have an industry leading global sales-and-service force, backed by advanced technologies and a global research and development network. Our innovative products and programs address customers' needs in premium cleaning, food safety, infection prevention and guest satisfaction, all while promoting customer and environmental safety at the lowest total operating cost.





WAREWASHING

As the market leader in warewashing – the practice of cleaning dishware, glassware and utensils – we are known for our outstanding products and customer service. Our accessible customer consultation and emergency services help keep operations running efficiently, increase guest satisfaction and lower operating costs in this critical area.

Global Institutional's core warewashing product lines include:

- Machine detergents
- Rinse additives
- Flatware presoaks
- Pot-and-pan presoaks and detergents
- Dishmachine optimization, water conditioning and repair parts

We exceed our customers' expectations through high-quality solutions for all types of operations.

Customers have always counted on Ecolab products for their high-quality performance. We continue to meet this expectation through our ever-evolving line of solutions for all types of operations. For example, our Apex2™ System not only allows customers to spend less time and money washing dishes, it also collects critical information to help streamline the entire warewashing process. With this data, customers are able to ensure clean dishes with one pass through the dishmachine. In doing so, they improve efficiencies across their warewashing operations by reducing energy, labor, water, waste costs, while decreasing their environmental impact.

This complete warewashing system features a unique combination of products, equipment and consultative services, including non-caustic, low/no phosphate solid products that are safer to touch than traditional liquids and powders. The solid product line includes four detergents, two rinse additives, one silverware presoak, a manual pot and pan detergent and a new pot-and-pan presoak, all of which use dramatically less packaging. In addition, the low-temperature Apex TSC dishmachine program includes a solid sanitizer registered by the U.S. Environmental Protection Agency (EPA).

Our highly trained sales-and-service associates use a tablet PC and wireless technology to communicate with the Apex2™ monitor mounted on the dishmachine. This monitor tracks rinse temperature, wash temperature, whether or not the proper detergent and rinse additive is used, and if the wash tank was properly changed out for every rack that is washed. All of these metrics are critical to ensure dishes are cleaned in one pass through the machine. Our associates use this information to determine what is working, what is malfunctioning and what specifically needs to be addressed when issues arise. In addition, the system is able to track the number of racks washed and compare it to the volume of business through each kitchen to establish a "guest-to-rack" ratio. By monitoring this ratio and using the supporting data to help drive improvements, our representatives are able to help reduce rack counts, resulting in less water and energy consumption as well as reduced costs. Regular maintenance service and recommendations by our associates also improve efficiencies to keep utility and product usage to a minimum.



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Our products are backed by unparalleled service and innovative technology, customized to our customers' needs.



WAREWASHING *(continued)*

During each preventative maintenance call, Apex2™ customers receive a personalized, electronic service report which:

- ▲ Summarizes critical dishmachine operating metrics in an easy-to-understand red, yellow, green dashboard
- ▲ Tracks the guest-to-rack ratio and graphs this operational efficiency trend
- ▲ Provides a daily detail of the critical machine metrics being captured to help identify specific problems and pinpoint the day and shift they occur
- ▲ Itemizes new or improved product recommendations and potential impact to further lower costs

In addition, the tablet PC allows our associates to utilize templates for customer proposals and letters, access product catalog sheets and material data safety sheets (MSDS), customer billing and credit data, sales prospecting tools that make our associates more productive and effective in the field.

DISHMACHINE LEASE PROGRAM

Our Dishmachine Lease Program offers a wide range of options to give customers access to our innovative solutions and service at a lowest total cost. By leasing a dishmachine, our customers can avoid the cost of unexpected repairs or machine replacement while experiencing the best results and security of 24/7 service. The lease program also includes professional installation, repair parts, maintenance and routine inspections.

WAREWASHING EQUIPMENT

In addition to warewashing chemistry and machines, Ecolab's warewashing equipment helps ensure customers make the most out of the overall Ecolab warewashing program. Ecolab offers:

- ▲ Preventative maintenance and parts that keep dishmachines running at maximum efficiency and minimal utility costs
- ▲ Pre-rinse units that help ensure one-pass warewashing and are easy for employees to use
- ▲ Dishmachine rack systems that help Ecolab's chemistry easily reach the dishes, minimize breakage and save time by helping employees find the right clean wares through color-coding and personalization
- ▲ A variety of other products that improve overall warewashing performance, employee efficiency and regulatory compliance



WATER FILTRATION

Water is a vital part of running a successful foodservice or hospitality business. Our Total Managed Water Quality Program helps improve guest satisfaction and operational efficiency. Our program combines the best technology in filtration, water softening and reverse osmosis with ongoing service to ensure our customers achieve the results they expect.

Our exclusive line of water filtration systems are a core part of the Total Managed Water Quality Program. By removing impurities and off-tastes from water we help deliver odor-free, great tasting water for drinking and the preparation of food, branded beverages and ice. It also protects foodservice equipment against chlorine-induced corrosion and lime-scale buildup. This helps reduce energy costs and increases equipment performance, reliability and lifespan.

SPECIALTY KITCHEN

Restaurants, hotels and healthcare facilities have diverse cleaning challenges. We offer a host of specialty kitchen products to meet customers' unique needs. For example, Wash 'n Walk® is an enzyme-based, no-rinse floor cleaner that removes the grease off floor tiles and grout, creating increased friction and ultimately helping reduce the chance of slips and falls. Our Grease Express™ Program features products that quickly penetrate kitchen grease, a popular product line among restaurant and foodservice operators.

For the foodservice kitchen, we also offer a variety of general cleaning products that polish dull stainless steel surfaces, remove hard water deposits and rust stains from equipment surfaces and tiles and clean freezers, soft-serve frozen yogurt dispensers and ice cream machines.

In addition, Ecolab provides solutions that enhance food quality and diminish the risks associated with cross-contamination that can lead to foodborne illness. Our hand hygiene systems feature gentle yet effective hand soaps and sanitizers that help ensure hands are properly cleaned. The program includes an innovative training tool featuring a fluorescent lotion and a glow box that shows employees areas on their hands that were not properly cleaned.

HEALTH DEPARTMENT INTELLIGENCE

Managing health department inspections is an additional challenge for restaurant, hotel and healthcare customers. Our *ActiveView* HDISM service ensures improved operations and promotes brand protection through digitally retrieved and managed health department inspections. The service is designed to capture and standardize health department inspection data across the customer chain. This allows identification of critical corrective action via trend analysis and reporting.

From top to bottom, we protect the cleanliness of our customers' entire establishment.





HOUSEKEEPING FOR LODGING

For lodging customers, Global Institutional's housekeeping solutions target the hard surfaces found in hotel guest rooms, including bathrooms, floors and walls. Ecolab's hard surface cleaners are formulated to deliver effective and positive user experiences. They include all-purpose and glass cleaners, EPA-registered disinfectants, sanitizers, deodorizers and other products created specifically for bathrooms, floors and carpets. Products are color-coded for easy identification and dispensed using the Ecolab Oasis Pro™ dispenser. This ensures consistent concentrations of our products to help meet each customer's unique cleaning needs.

Ecolab's FreshStart Housekeeping program is a cleaning protocol designed for lodging customers to ensure that proper cleaning product is applied to the right surfaces and in the appropriate amounts. Ongoing staff training improves adherence to the right cleaning protocols, and hotel guest satisfaction scores are tracked to ensure the program is delivering results.

We are the leading supplier of on-premise laundry products in North America.

HOUSEKEEPING & LONG TERM CARE

Ecolab's Long Term Care Program includes our hard surface cleaners chemistry and dispensing system to deliver a complete program designed specifically for nursing homes and assisted living facilities.

ON-PREMISE LAUNDRY (OPL)

Global Institutional is the leading supplier of on-premise laundry (OPL) products and dispensing equipment. Typical OPL customers, those who process their own linen and uniforms on-site, include hotels, large restaurants, nursing homes and hospitals. (Ecolab Global Textile Care serves large, off-site commercial and industrial laundries.) Our OPL product systems are reliable and simple for customers to operate and include:

- ▲ Detergents
- ▲ Boosters
- ▲ Bleaches
- ▲ Fabric softeners
- ▲ Neutralizers
- ▲ Stain removers



Continued on next page



Our range of cleaning and maintenance services also encompasses floors, pools and spas.



ON-PREMISE LAUNDRY (OPL) *(continued)*

Products are dispensed through equipment designed to ensure accuracy and consistent results, while helping reduce the chance of misuse. The liquids system, Tri-Star, delivers consistent laundry results and operational efficiency enabled by proven technology and flexible component chemistry. Eco-Star liquid laundry systems are designed for high-volume OPLs. They combine the best chemistry available into a group of comprehensive solutions, utilizing built-in, pick-up probes and quick-correct, color-coded tubing connectors that minimize errors and the need for special training. The reporting feature provides customers valuable reports on their laundry operations.

The solids system, Navigator, uses our patented technology that is unique to Ecolab along with "smart" dispensing which ensures that the proper laundry chemistry is dispensed every time, delivering consistent results in safety, space conservation, simplicity and staff satisfaction.

Solid Systems I/II bring the added benefits of automated dispensing, compact solid products and the safety of a closed system to home-style laundry machines.

Customers also benefit from Stain Blaster™, an easy-to-use stain removal system comprised of pre-treatment sprays that target difficult stains and concentrated laundry powders that are pre-packaged to drop in the wash wheel and help reduce linen replacement costs by reclaiming linen.

The Aquanomic laundry program pairs unique low-temperature chemistry and wash processes to provide world-class laundry results without sacrificing operational efficiency. This program has been proven to help drive our customers' sustainability goals while delivering valuable water and energy savings.

FLOOR CARE

Maintaining the cleanliness and appearance of floors is extremely important to our customers. Ecolab recognizes that proper floor maintenance can be time consuming, labor intensive and disruptive. Also, training employees on proper floor care procedures is difficult to coordinate and complete. That's why we deliver customized, comprehensive floor care solutions and training programs designed to solve specific problems for a variety of floor types.

Ecolab offers a wide range of floor care solutions designed to improve the operational efficiency, safety and sustainability of our end users. Some examples to illustrate our approach to innovation include:

The MAXX Durable Floor Care Program, a floor finish program ideal for VCT, vinyl and terrazzo floors. The program's durability and wear resistance helps lower floor maintenance costs by up to 50 percent vs. conventional and ultra durable floor finish programs.

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FLOOR CARE *(continued)*

Our Xpressway™ Floor Cleaning System combines a microfiber flat mop, controlled cleaning solution dispenser and ergonomic handle to quickly and easily manage clean-ups in entryways, reception areas and hard-to-reach places.

The completely contained, ergonomic Phazer® Mobile Floor Care System is a floor finish application system that dramatically decreases product, packaging and labor waste and minimizes operator contact with products. In addition, the lightweight system helps reduce risk of injury from lifting heavy mops.

POOL & SPA

An inviting pool or spa is one of the most compelling features of a hotel, resort or club. Unfortunately, it's also one of the toughest areas to maintain. The Aqua Balance Pool and Spa Management program provides the lodging industry a comprehensive, convenient way to keep these areas clean, clear and trouble-free.

Our program eliminates the difficulties of chemical maintenance while offering a more sustainable program with our Pure Comfort Mineral System – cleaning safely, conserving water, improving an operation's bottom line and reducing waste.

Ecolab's program features precision dispensing with real-time controller monitoring and data logging to monitor pool operations 24 hours a day, 7 days a week. In addition, alerts are issued to help prevent occurrences that would require closures and guest dissatisfaction.

Customers receive ongoing preventative maintenance service and training from associates who are Certified Pool Operators by the National Swimming Pool Foundation. They are trained to fully understand pool and spa equipment, maintenance and injury prevention, and also provide monthly inspections, service and reporting to ensure consistent, high-quality results.

Our programs help to clean safely, conserve water, improve an operation's bottom line and reduce waste.





Food safety is an integral part of our Global Institutional division, protecting our customers' employees, customers and brand image.

FOOD SAFETY SPECIALTIES (FSS)

Ecolab's Food Safety Specialties (FSS) business offers a complete line of products and systems to help safeguard foodservice customers' guests, employees and brand image. FSS is built on a foundation of innovation and food safety education and provides product solutions in all the major food safety categories including:

- ▲ Automatic and real-time labeling for effective traceability
- ▲ Food rotation
- ▲ Cross-contamination prevention
- ▲ Temperature control
- ▲ Personal hygiene
- ▲ Cleaning and sanitation
- ▲ Employee safety
- ▲ Food safety education

ECOSURE®

EcoSure® provides customized quality assurance programs for food safety and brand protection. We are a strategic partner to our customers, providing fact-based insight into their operations via unit-level assessments, online reporting, corrective action tracking and in-depth executive reviews.

Our on-site evaluations and training help chain customers deliver on their quality standards every day, at every location. In an increasingly competitive environment, chains must ensure that individual units consistently deliver the chain's safety and experience standards. Our comprehensive programs help customers deliver the right experience to every guest and to help protect them against risks that can damage their brand.

Continued on next page





We help ensure product quality, safety and consistency for our customers.



ECOSURE[®] *(continued)*

We provide food safety assessments to address food safety risks. The assessments include:

- ▲ On-site evaluations
- ▲ Training
- ▲ Consulting
- ▲ Advanced reporting

In addition to food safety assessments, we conduct evaluations on employee behavior and guest experiences. These evaluations cover:

- ▲ Facility safety
- ▲ Employee and guest injury prevention
- ▲ Cleanliness
- ▲ Customer service and professionalism
- ▲ Atmosphere and presentation

We also perform on-site product retrievals at food-service and retail locations, distribution centers and suppliers. Our product analyses focus on:

- ▲ Product performance and consistency
- ▲ Package performance
- ▲ Competitive tracking
- ▲ Effects of distribution

Finally, we measure and monitor unique brand elements such as brand presentation, and quality and service at each location to ensure consistent brand delivery focusing on both the front and back of house.



Our concentrated products are precisely controlled and dispensed for the best possible results.

SUSTAINABLE SOLUTIONS

Our solutions and service team work to improve our customers' bottom line by helping them minimize consumption of energy, water, product, labor and packaging.

We encourage customers to take a total impact approach toward sustainability. This is achieved through:

Superior Performance

- The best results the first time

Reduced Environmental Impact

- Programs that protect employee health and safety and minimize impact on land, air and water

Operational Savings

- Minimize the consumption of water, energy, product, labor and packaging materials

For example, with our extensive warewashing knowledge and experience, we are uniquely positioned to provide clean and sanitary wares at the lowest overall cost to our foodservice customers. Our Apex warewashing system uses mainly non-caustic chemistry that is nearly 99 percent phosphate free and has up to 99 percent less packaging material than competitors' five gallon pails. The compact solid line of products also significantly reduces transportation costs compared to bulkier liquid detergents.

Our concentrated products are precisely controlled and dispensed for the best possible results at the lowest possible cost. For instance, Oasis Pro™ housekeeping products deliver packaging savings of 98 percent and do not require personal protective equipment when diluted properly.

To help ensure the most efficient, sustainable and cost-effective laundry operation possible, our sales-and-service associates work with customers to educate them on safe machine operations and product usage. In addition, our Formula 1 laundry system also significantly reduces water and energy costs through the use of a single product system that eliminates unneeded steps in the laundry wash process by combining multiple products in a single capsule.





Our sales-and-service team is the largest in the industry, and available 24/7 for regular and emergency calls.

SUPERIOR CUSTOMER SERVICE

Global Institutional's sales-and-service force is the industry's largest and regularly visits our customers through scheduled sales and preventative maintenance calls to identify issues that could hinder results and offer consultative services to recommend new and improved product solutions. Associates focus on providing 360° of Protection®, surrounding customer operations with a comprehensive array of cleaning and sanitizing product solutions. With the largest breadth of products, services and support available, we can customize programs to the specific needs of each customer.

Our associates are experts in their field. They are skilled and equipped to educate and train customers on the fundamentals of cleaning and sanitizing, warewashing optimization and proper product use. In addition, they can help keep customers current on the latest procedures, safety regulations for their local area and industry best practices. They also:

- ▲ Troubleshoot issues
- ▲ Examine cleaning results
- ▲ Inspect equipment
- ▲ Monitor product dispensing
- ▲ Ensure proper cleaning procedures
- ▲ Review product inventory
- ▲ Perform preventative maintenance

Ongoing training is essential to providing superior customer service. Each field associate receives in-depth training to learn the mechanics and intricacies of warewashing, laundry, housekeeping, water filtration and more. They have broad account responsibilities, but the overriding directive is to provide customers with appropriate solutions by taking a consultative approach with customers and partnering with them to help solve problems.

Field associates may oversee anywhere from a handful of accounts to several dozen, depending on the intensity of specific customer service needs and the size and location of the territory. Building problem-solving relationships with their customers is critical to increasing sales and ensuring that our customers' needs are being met.

We also work in partnership with distributors across the country to coordinate the sale of product lines and provide training and ongoing support to customers who prefer the convenience and advantages of "one-stop shopping" – one purchase, one bill and one vendor. In these cases, products are delivered by the distributors' logistics team while service and consulting are provided by Ecolab.





Our associates identify opportunities to help customers operate more safely and efficiently.



A GLOBAL INSTITUTIONAL CUSTOMER CALL

Our sales-and-service associates regularly visit customer accounts with the frequency depending on an account's size and unique needs. The calls allow field associates to provide checkups and maintenance services, install new systems and equipment and conduct employee training, further enhancing their relationships with customers as well as developing additional sales opportunities.

To make the most of each customer call, field associates examine past site reports before every visit, checking product use, customer project initiatives, food safety audits, public health department results and previous action plans. They also gather the necessary supplies to perform any maintenance service such as test kits, parts and tools.

At the start of a visit, the field associate checks in with the restaurant or hotel manager to discuss any concerns. The associate then examines the dishware, glassware and flatware to ensure they are clean and spotless. The associate also inspects equipment such as dishmachines, checking rinse and wash water temperatures, water consumption levels and all mechanical parts to ensure the machines are running properly, products are being dispensed in the correct concentration and there is no excess waste.

Throughout the call, the field associate notes all cleaning, sanitation or food safety observations and recommendations on a tablet PC that captures and stores technical data and account information. This provides the associate with instant access to a complete sanitation and performance history unique to each customer while at a customer location.

The field associate also interacts with restaurant or hotel employees, answering questions and conducting training. This in-house training helps ensure that employees are fully trained on the basics of sanitation and the proper use of products, as well as kept up-to-date with health regulations and practices.

Associates also identify opportunities to help customers operate more safely by alerting employees to inefficiencies and hazards. For example, if the customer wants to reduce the chances of slip-and-fall accidents in his operation, the field associate might suggest using our Wash 'n Walk® floor cleaner and installing rubber floor mats and other safety equipment from our Raburn business.

If the customer uses our housekeeping products, our associate meets with the housekeeping manager and performs inspections in guest rooms and public spaces, recommending new or improved tools, products and training programs. If the account is an on-premise laundry customer, the Ecolab associate checks the laundry area and conducts in-depth training with employees, including the safe use of products and review of proper procedures.

Before the end of the call, the field associate completes a maintenance report and places product and/or equipment orders on his/her 360° Advisor tablet PC. Observations and issues are noted on the report, as well as actions taken, recommendations and product inventory. The Ecolab associate reviews the report with the customer and answers any questions. The report is then consolidated at the chain level, nationally or globally.



Global Institutional Kay

MARKETS SERVED:

Quick Service Restaurants

Beverage, Specialty and Treat Concepts

Food Retail Establishments

Convenience Stores

Theaters



Our user-friendly cleaning and sanitation products and programs are designed for maximum effectiveness, safety and ease of use.



Kay is the leading global supplier of cleaning and sanitizing products and services to the quick service restaurant (QSR) and food retail markets. Kay has emerged as a leader in the domestic food retail services market and continues strengthening its presence in the convenience store industry.

In this fast-paced industry with high employee turnover, heavy foot traffic and increasing language barriers, high-level cleaning and sanitation standards can be difficult to maintain. In addition, ever-changing menus, enhanced facility décor and 24-hour locations require a broad employee base and effective training protocols. Kay partners with customers to help them meet these demanding and evolving challenges – offering in-depth knowledge, customized products and dispensing systems, and comprehensive training.

SERVICES PROVIDED

Kay provides brand protection and enhancement through premium, customized and industry-specific cleaning and sanitation programs that reduce labor costs while increasing sanitation levels, cleaning performance, employee and guest safety and equipment lifespan. Our programs are supported by employee training programs, ongoing research and development, dedicated field service, store-level electronic surveys, and food safety, regulatory and technical support.

STRENGTHS

Highly trained sales-and-service force with decades of cleaning and sanitation experience and a true understanding of the unique needs of the industry; customizable products and services our chain customers can use wherever they operate in the world.

QUICK SERVICE RESTAURANTS

Kay began its relationship with QSR chain customers nearly 50 years ago. Our goal is to provide cleaner, safer and healthier environments for our customers and their guests. We aim to deliver food safety principals, drive operational efficiency, execute guest and employee safety programs while ensuring guest satisfaction. To accomplish this, we employ a dedicated and highly trained field service team – the industry's largest – that is equipped with first-hand experience and a wide range of industry knowledge. Our territory representatives collaboratively work with our customers to identify problem areas and develop action plans to deliver optimal solutions, customer-specific store audits and multilingual training programs that help them operate safely, efficiently and in a sustainable way.

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Our user-friendly cleaning and sanitation products and programs are popular with customers.



QUICK SERVICE RESTAURANTS *(continued)*

Our specialized QSR field service is backed by advanced cleaning and sanitizing products and programs that are easy to use and color-coded for quick identification.

Matching the right product with the appropriate dispenser technology is a successful strategy for both Ecolab and our customers. With a variety of dispensing options to choose from, each customer's environment is carefully assessed and tested to confirm the right fit. For example, high-volume locations may receive the innovative SolidSense™ System, which uses patented, solid product technology to help customers achieve the best cleaning results for their hard surface cleaning needs at the most efficient water, energy and labor cost. The products for this system are 99 percent water-free, making them easier to refill. Single-dose concentrated packets are available for customers with smaller stores or for specific cleaning applications. Our premium core and specialty offerings include:

- ▲ Pot and pan detergents and sanitizers
- ▲ Degreasers
- ▲ Floor cleaners
- ▲ Restroom cleaners
- ▲ Multi-surface and glass cleaners
- ▲ Antimicrobial handsoaps
- ▲ Oven, grill and toaster cleaners
- ▲ Beverage equipment cleaners
- ▲ Limescale removers
- ▲ EPA-registered disinfectants
- ▲ Freezer and cooler cleaners
- ▲ Multi-use stain removers
- ▲ Water filtration
- ▲ Food rotation tools
- ▲ Cleaning and sanitation tools

For example, our floor care systems – designed for maximum effectiveness on restaurant-specific soils – are mixed to exacting standards with safety and simplicity in mind. This means cleaner floors in less time, better customer perception and a lower risk of slip-and-fall accidents.

Our automated dispensing and unique, portion-control packets help customers minimize waste and water usage. In addition, our closed-system product dispensers are cost-effective and promote employee safety.



Service and training play a key role in assuring the overall safety and efficiency of any operation.



FOOD RETAIL & SUPERMARKETS

Kay entered the food retail and supermarket industry in the mid-1990s and has experienced strong growth with its market-specific products, customized solutions, service, training and audits – all focused on elevating customers' food safety practices and operational efficiency. Electronic food safety and sanitation audits are tailored to fit customers' operational needs and data gathered on a store-by-store basis is accessible in secure online reports to help managers identify best practices and improvement areas.

To reinforce proper cleaning and sanitizing procedures, Kay representatives conduct ongoing food safety training, as well as provide hygiene plans, wall charts, product application guides and language-free or multilingual instructional materials. We help customers minimize food safety risks through training regarding:

- ▲ Time and temperature control
- ▲ Chemical handling procedures
- ▲ Proper cleaning methods
- ▲ Personal hygiene
- ▲ Food safety certification

To help protect customers' brands and bottom lines, we developed a comprehensive Food Retail Services (FRS) program – designed to meet all their food safety, cleaning and pest elimination needs. The program offers innovative systems for:

- ▲ Improved safety and performance
- ▲ In-depth employee training on food safety
- ▲ Personal service
- ▲ Customized Automatic Service Reporting to identify risks and opportunities
- ▲ Specialized food safety audits
- ▲ Operational sustainability to help customers conserve water and energy resources, improve safety and reduce waste

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We offer innovative products and systems that simplify the cleaning and sanitizing process.



FOOD RETAIL & SUPERMARKETS *(continued)*

In addition to helping protect customers from foodborne illness, we offer innovative products and systems that simplify the cleaning and sanitizing process in these key areas:

- ▲ Hard surfaces
- ▲ Food contact/preparation areas
- ▲ Grease management
- ▲ Restrooms
- ▲ Hand care
- ▲ Warewashing
- ▲ Specialty needs
- ▲ Floor care
- ▲ Pest elimination
- ▲ Equipment care
- ▲ Food safety
- ▲ Food rotation tools

SUSTAINABLE SOLUTIONS

We are dedicated to helping customers operate safely, efficiently and in a sustainable way. That's why we design products that feature automated dispensing and portion-control packets – translating into safer usability, as well as cost savings for our customers and reduced environmental impact.

Our closed-system product dispensers also maximize employee safety, optimize cleaning performance, increase productivity and control costs. Products are mixed into a solution and dispensed at the correct dilution ratio without the expense of complicated plumbing and systems are designed to minimize waste, water usage and cost.

The KAY® Insta-Use™ System is designed to have a big impact on a customer's operation and a smaller impact on the environment through high-performance cleaning in a small, easy-to-use cartridge. The system delivers all the advantages of traditional ready-to-use products, and requires less packaging and storage space. Add water, load the cartridge, shake to mix and its ready for use.



INNOVATION & SUPPORT

Kay's 2-in-1 Concentrated Floor Cleaner and Degreaser addresses an emerging customer need and represents a new generation of cleaning solutions designed specifically to attack heavy grease and protein buildup associated with non-trans fat (NTF) shortening.

Another technology breakthrough is our Automated Service Reporting system, which monitors and captures store-level data. This valuable tool helps our customers identify risks, trends and opportunities at the divisional, regional and chain level for better operational efficiency and improved environmental impact throughout all levels of their organizations.

Our Scrub N Go® Floor Scrubber Vacuum System was designed to clean floors up to 63 percent faster* and more thoroughly than a traditional mop-and-bucket – resulting in labor savings for restaurant operators. Floors cleaned using Scrub N Go also dry faster, greatly reducing the risk of slip-and-fall accidents.

According to the National Restaurant Association (NRA), nearly three million employees and one million customers are injured in slip-and-fall accidents in restaurants each year, costing businesses thousands of dollars per incident. In 2009, Scrub N Go was awarded a Kitchen Innovations™ Award from the National Restaurant Association Hotel-Motel Show, selected by a panel of industry experts as one of the most groundbreaking inventions for the global foodservice market.

Following a long tradition of designing QSR-specific cleaning tools, a patent-pending Grill Tool was launched. This tool is ergonomically designed to reach all areas of a grill surface – greatly reducing cleaning time and effort, and improving equipment operation.

We have a long tradition of designing QSR-specific cleaning tools to help our customers.



**2005 Official ISSA 447 Cleaning Times, based on 15 inch scrubber vs. 16 oz. damp mop*



Our associates are specialists in their particular industries, combining training with technical expertise to help customers achieve optimal results.

SUPERIOR SERVICE

Kay field associates are acutely aware of the role cleaning and sanitation play in helping to protect a customer's brand. Boasting the largest network of QSR and food retail specialists, we bring an in-depth knowledge of cleaning and sanitation expertise and a dedication to improving our customers' operational efficiency. We help managers see the restaurant through the eyes of the customer and offer a comprehensive approach to cleaning, sanitation and food safety – 360° of Protection® – for our customers, their employees, their stores and brands.

Kay supports its QSR customers through a two-part sales organization. First, its Corporate Accounts team develops tailored programs in partnership with customers' parent companies or chain headquarters. Once programs are approved, territory representatives conduct testing in certain stores, then expand Ecolab's program to all restaurants across the customer's business. They offer continued support and training at the store level, managing store-level sales and service, as well as equipment maintenance and food safety standards.

On the food retail side of the business, field associates work with supermarket food safety management to develop specific food safety programs that address the unique issues freshly prepared foods present – where maintaining proper cooking time and temperature is imperative.

Kay's field associates are often hired as specialists from within the industries they serve. Building on the knowledge and experience they bring to Ecolab, they spend a quarter of their first year in focused market training. This level of specialization sets them apart, they are cleaning and efficiency experts, problem solvers and trainers. They are also ServSafe®-certified and take part in National Environmental Health Association training to achieve Certified Professional-Food Safety status.





We provide the industry's only QSR-dedicated RD&E, Regulatory and Technical experts who understand the challenges of food safety in a QSR environment.

A KAY CUSTOMER CALL

QUICK SERVICE RESTAURANT

Our ServeSafe-certified field associates conduct Value Visits at QSR stores to complete in-depth training on food safety, cleaning and sanitation, customer-specific standard operating procedures and OSHA compliance. Using their judgment, discretion and expertise, they consult with store managers and employees to review and improve operational efficiencies, as well as identify opportunities to improve a restaurant's overall cleanliness.

Associates are available 24 hours a day, 7 days a week to respond to customer needs whenever they may arise. The frequency of customer visits and level of service are determined by the type of customers and their operational needs, which can include group instruction for management and employees on a regional level, as well as one-on-one, in-store training focused on cleaning and sanitation tasks.

During a customer visit, the field associates may also lead hands-on demonstrations on proper procedures to clean floors, ovens, fryers, food prep surfaces, dining areas, restrooms and exteriors – all key areas to ensure that restaurants are clean and safe for both guests and employees. Field associates also perform dispenser equipment calibration and check cleaning and product inventory. At the end of the visit, a summary report is provided to the restaurant manager, and if required, a detailed corrective action plan is also made available. In addition, new Ecolab product solutions are recommended and discussed as needed.

Other services our field associates perform include:

- ▲ Dispenser equipment calibration
- ▲ Product inventory control

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We customize
our service calls
to the specific
needs of the food
retail service, with
distinct procedures
and standards.

A KAY CUSTOMER CALL *(continued)*

FOOD RETAIL SERVICE

Typically, field associates visit grocery stores and supermarkets on a monthly basis, delivering a comprehensive cleaning and food safety program designed to cover every part of a customer's operation. They conduct comprehensive food safety audits, where they evaluate a store's cleaning and sanitation practices including food temperatures, staff hygiene practices and overall cleaning standards, and perform inventory checks.

During this process, they grade food handling and storage procedures, maintain dispensing equipment and lead hands-on product demonstrations, such as how to properly use KAY® Chlorinated Cleaner, an all-purpose degreaser that can be used without personal protective equipment. They also partner with customers to develop in-depth processes for breaking down, cleaning and sanitizing equipment such as meat slicers, rotisserie ovens and display cases.

For all customer calls, our Ecolab associates immediately show employees how to correct the problem if improvements are necessary. We also help implement procedural changes and use mobile tablet technology to capture and store customized information, such as Material Safety Data Sheets (MSDS) and training materials for each customer. This web-based tool has the ability to track issues, corrective actions, as well as overall trends within a region, on a corporate level and across the industry.

Our field associates document all services performed, findings and recommendations for new solutions on a summary report, which they review with store management at the end of the call.





Global Institutional Global Healthcare

MARKETS SERVED:

Acute Care Hospitals

Ambulatory Surgery Centers

Alternate Care
(Emergency Medical Services,
Dental and Veterinary Services)

Procedural Based Clinics

Life Science Cleanrooms
(Pharmaceutical, Biotechnology,
Healthcare and Medical Devices)



We offer a comprehensive array of infection prevention solutions for healthcare facilities.

Ecolab Global Healthcare offers a comprehensive array of sustainable infection prevention solutions targeted at healthcare facilities with the goal of delivering a cleaner, safer and healthier environment. Our comprehensive menu of total impact solutions is designed to meet the unique needs of our healthcare customers and includes:

- ▶ Products and programs designed to improve cleaning, disinfection, efficiency, risk reduction and protection to help reduce the risk of Healthcare-Associated Infections (HAIs)
- ▶ Customized training and education programs to improve compliance and safety for patients, visitors and healthcare personnel
- ▶ Consultative programs customized for individual facilities that help improve processes to deliver improved outcomes, as well as improved staff safety and satisfaction
- ▶ Actionable, data-driven results reporting that drives continuous improvement

SERVICES PROVIDED

- ▶ Hand hygiene
- ▶ Environmental hygiene
- ▶ Instrument reprocessing
- ▶ Surgical equipment and patient drapes
- ▶ Surgical room turnover
- ▶ Patient temperature management
- ▶ Surgical staff protection
- ▶ Compounding pharmacy cleanroom contamination control
- ▶ Contamination control solutions for cleanrooms

STRENGTHS

Ecolab delivers superior, personal service and support through a team of highly trained sales-and-service experts who work with customers to solve business challenges; bolstered by a broad portfolio of integrated infection prevention solutions that help increase efficiency, improve outcomes and reduce the risk of HAIs.





ACUTE CARE HOSPITALS & INFECTIONS

Acute care hospitals have long been dealing with the issues related to healthcare-associated infections (HAIs). In recent years, there has been a greater emphasis on reducing these types of infections due to advances in medicine and improved tracking technologies. HAIs are caused by a wide variety of bacteria, fungi and viruses contracted during the course of receiving medical care, HAIs can be deadly.

HEALTHCARE-ASSOCIATED INFECTIONS (HAIs) STATISTICS

- Approximately 1.7 million American patients are infected annually, with approximately 100,000 deaths¹
- More people die from HAIs than from auto accidents and homicides combined²
- An estimated 70 percent of HAIs involve microbes that are resistant to one or more drugs – the majority are preventable with proper sanitation³
- It is estimated that HAIs cost more than \$33 billion per year⁴
- Hospital-onset, healthcare-facility-associated *Clostridium difficile* infections have increased in incidence and have surpassed MRSA infections, according to a new study of a large cohort of patients from community hospitals⁵

1) www.cdc.gov/ncidod/dhqp/pdf/hicpac/infections_deaths.pdf

2) www.cdc.gov/ncidod/dhqp/pdf/hicpac/infections_deaths.pdf (7) Joint Commission Center for Transforming Healthcare

3) www.textbookofbacteriology.net <<http://www.textbookofbacteriology.net>>

4) <http://www.hhs.gov/ash/initiatives/hai/index.html>

5) Fifth Decennial Conference on Healthcare-Associated Infections (ICHA) 2010: Abstract 386, presented March 20, 2010; Abstract 142, presented March 19, 2010

We work with customers to help reduce the risk of healthcare-associated infections (HAIs).

HAND HYGIENE

HAIs are serious and life-threatening challenges and hand hygiene is the best way to prevent the spread of infections. We know that improving hand hygiene compliance requires a multi-modal approach and engagement from a variety of stakeholders. That's why Ecolab takes an integrated approach to hand hygiene that includes working with hospital staff and management on planning, installation, training, awareness and monitoring to promote hand hygiene compliance.

Ecolab's products and dispensers are designed specifically for the needs of our healthcare customers and are critical to the success of their hand hygiene compliance. We offer a full line of hand hygiene products including hand sanitizers, hand soaps and lotions that are designed to be extremely mild with frequent use – allowing a strong adherence to compliance requirements.

Our sales and service teams, which are trained according to the WHO procedures, support our customers in achieving their compliance objectives in line with the latest guidelines.





We are dedicated to helping customers improve cleaning and sanitation while conserving resources, improving safety and reducing waste.

ENVIRONMENTAL HYGIENE

A comprehensive infection prevention program also focuses on reducing the impact of environmental hygiene factors that contribute to the transmission of pathogens that cause infections and their associated costs. We take a holistic approach to environmental hygiene and work with facilities to evaluate current processes while collecting baseline data to help develop and implement a comprehensive program to optimize cleaning outcomes.

EnCompass™ is designed to help customers improve patient room hygiene and reduce the risk of pathogen transmission. The program includes cleaning tools, products, dispensing equipment and cleanliness monitoring tools to help hospitals clean patient rooms more quickly, consistently and effectively – thereby helping to decrease the risk of HAIs due to environmental surface contamination. It has been developed in response to the well documented need to improve cleaning standards in these settings and, thereby, reduce transmission of pathogens leading to reduced infection rates from healthcare associated infections.

INSTRUMENT REPROCESSING

The Central Sterile Department (CSD) plays an integral part in the successful outcomes of surgical procedures performed by a hospital. Increasing the efficiency of the CSD assures a smooth running surgery department by ensuring that all necessary instruments are in order and in good working condition to support surgery.

Our instrument reprocessing products feature our patented solids technology and proprietary active ingredients to improve safety and ensure critical benefits like high material compatibility, fast-acting cleaning and reduced environmental impact.

Additionally, we work with leading suppliers of endoscopes to develop unique solutions for endoscopic procedures.

SURGICAL DRAPES

The operating room is the nerve center of a hospital. Our procedure- and device-specific drapes help protect the sterile field while simultaneously protecting expensive equipment.

Our wide range of unique draping solutions are designed in collaboration with equipment manufacturers and O.R. staff to ensure we have the operating room covered and are able to identify future needs that improve efficiency and reduce the risk of infections.



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SURGICAL DRAPES *(continued)*

This portfolio ranges from Microscope drapes to C-Arm drapes developed in line with the new trends around hybrid operating rooms; unique ultrasound covers that improve image quality while reducing the risk of cross contamination; and drapes for robotic surgery which reduce draping complexity and support the positive benefits of this minimally invasive surgical technique.

SURGICAL ROOM TURNOVER

The EnCompass™ O.R. Environmental Hygiene program provides healthcare facilities with a proven approach to improve the cleanliness of an operating room (O.R.) and reduces the risk of infections. The EnCompass O.R. program builds upon Ecolab's comprehensive EnCompass Environment Hygiene program for patient rooms, bringing its standardized processes, training, objective monitoring, automated reporting and effective cleaning tools and products to the O.R. It includes DAZO® fluorescent marking gel for monitoring surface cleanliness and a mobile app for easy tracking and real-time reporting of environmental hygiene results.

In addition, to optimize operating room turnover efficiency, Ecolab offers the CleanOp® Room Turnover System, a line of single-use products that support infection prevention. A CleanOp system contains operating room table linens, bags, mops and wipes, and is configured to the hospital's specific needs. Single-use microfiber mops and wipes and Mojave® O.R. table sheets – which feature a three-layer material comprised of an impervious bottom layer, a super-absorbent middle layer and a top patient comfort layer – help reduce the risk of cross-contamination between surgical procedures. The CleanOp system facilitates easy access to necessary supplies to both clean an O.R. suite and quickly set it up for the next procedure.

We design unique, customized surgical turnover kits to meet the specifications of each customer.





TEMPERATURE MANAGEMENT

Research shows that even mild hypothermia of 1°C can negatively affect patient outcomes. Adverse effects include increased blood loss, delayed wound healing, increased risk of surgical site infection, potential for adverse cardiac outcomes and lengthened hospital stays and recovery time.¹⁻⁵ Using a fluid warming system from Ecolab allows the O.R. staff to properly control and document fluid temperatures and helps reduce the risk of patient injury due to accidental exposure to hot or cold fluids.

Our Fluid Warming Systems provide immediate access to warm irrigation fluid at a visible and controlled temperature to increase patient safety and reduce the risk of hypothermia. These systems include a portable heating basin and specially designed fluid warming drapes. They are easy to operate and improve efficiency and compliance to guidelines, minimizing the need for the nursing staff to leave the operating room to retrieve warm fluid bottles, and eliminating the requirement to label and rotate saline bottle inventory in warming cabinets.

Some cardiac, transplant, and kidney procedures benefit from therapeutic cooling of tissue and organs. Systems from Ecolab deliver velvet-soft surgical slush which improves patient safety and saves valuable nursing time. The proprietary Auto-Stir® technology in our Hush Slush® Systems automatically stirs the solution while cooling and eliminates concerns with conventional slush that may have sharp edges which can cause trauma to delicate tissues.

- 1) K. Arnt, "Inadvertent Hypothermia in the OR," *AORN Journal*, 70 2(1999): 204-214
- 2) A. Kurz, D.I. Sessler, R. Lenhardt, "Perioperative Normothermia to Reduce the Incidence of Surgical Wound Infection and Shorten Hospitalization," *N Eng J Med*, 334(1996): 1209-1215
- 3) H. Schmied, A. Kurz, et al, "Mild Hypothermia Increases Blood Loss and Transfusion Requirements during Total Hip Arthroplasty," *The Lancet*, 347 (1996): 289-292
- 4) K. Leslie, D.I. Sessler, "The Implications of Hypothermia for Early Tracheal Extubation Following Cardiac Surgery," *J Cardiothorac Vasc Anesth*, 12(1998): 30-34; discussion 41-34
- 5) S.M. Frank, C. Beattle, R. Christopherson, et al: "Unintentional Hypothermia is Associated with Postoperative Myocardial Ischemia," *Anesthesia*, 78(1993): 468-476

Sustainability
is a priority in
every aspect
of our service
and solutions to
the healthcare
industry.





Ecolab Global Healthcare provides a comprehensive approach to contamination control implementation and monitoring, including products, tools, training and support.



SURGICAL PATIENT SAFETY & STAFF PROTECTION

Conditions that require prolonged bed rest put more than 600,000 patients each year at increased risk for deep vein thrombosis (DVT), which can cause serious damage to major organs and even result in death. Ecolab's Venodyne® DVT Compression System enhances outcomes before and after surgery with a clinically proven treatment.

Ecolab also helps protect clinical staff from exposure to life-threatening hazards such as blood, fluids and smoke, as well as other contaminants in the air during surgical procedures. Isolyser® fluid waste solidification is designed to effectively modify fluids in suction canisters into a solid to allow for proper disposal and reduces the workers' risk of exposure to biohazardous fluid spills during transportation.

Our Stackhouse® VitalVac® Smoke Evacuator provides a convenient and effective solution for control of surgical smoke. The system provides exceptional value by utilizing exclusive microchip technology to sense filter capacity, eliminating unnecessary filter changes and reducing overall procedural costs.

The patented Stackhouse® Disposable Helmet System (DHS) is designed to provide comfortable barrier protection without the maintenance of reusable systems. The DHS helps protect the surgical team with a breathable viral barrier tri-laminate garment material while eliminating helmet cleaning and maintenance and avoiding cross contamination associated with helmet reuse.

CONTAMINATION CONTROL FOR CLEANROOMS

Our Contamination Control center of excellence helps ensure that our customers can retain the required particulate and microbiological limits in accordance with the latest regulatory requirements (i.e. cGMP). We provide unique solutions for life science cleanroom customers which include: pharmaceutical companies, hospital pharmacies, biotechnology laboratories, medical devices companies and diagnostics laboratories.

Ecolab provides a comprehensive range of cleanroom solutions, including filtered, sterile and non-sterile alcohol, biocides, detergents and wipes. Ecolab's contamination control offering provides everything needed to ensure that from the highest grade environment (grade A and B) where sterile products are mandated by GMP to lower grade (grade C and D) where sterile products are controlled but not classified an appropriate solution is provided.



SUSTAINABLE SOLUTIONS

Ecolab Global Healthcare is committed to providing customers with the most effective and efficient infection prevention programs available. From concentrated solid formulations to innovative packaging and dispensing methods, our products are designed to help increase safety, lower the use of water and energy, and reduce the chemicals and waste released to the environment. For example, our OptiPro™ and Asepti-Solid® product lines use our innovative packaging of clear, shrink-wrap film. A typical 200-bed hospital using 30 gallon drums will generate more than 300 cubic feet of landfill waste per year, versus less than 1 cubic foot of waste with our solid products.

SUPERIOR SERVICE

Ecolab Global Healthcare is committed to providing superior, personal service and support delivered by specialists who not only know the customer's business, but offer wide-ranging expertise in the areas of cleaning and health protection. We offer a depth and breadth of solutions that is unmatched in the industry – utilizing innovative, unique and differentiated solutions; clinical, scientific and regulatory expertise.

Our sales-and-service associates are focused on delivering personalized service to customers – their broad knowledge and expertise are a cut above the competition. They understand the key issues their customers face and partner with them to identify customized solutions – because they take the time to develop strong relationships with the customers across all levels of the healthcare systems they serve.

Each specialist is trained on our products and programs and is an expert in healthcare environmental infection prevention programs. Specialists also provide healthcare personnel with ongoing education, training and audits to ensure consistent delivery and outcomes.

Global Healthcare's Corporate Accounts team is focused on building relationships with group purchasing organizations and health systems to ensure service excellence. This group is uniquely trained to work with the heads of hospitals, health systems and GPO customers and is focused on addressing issues related to supply chain, operational efficiency, total cost management and brand protection.

We are committed to providing superior personal service and support by our well-trained specialists.





We discuss the specific needs of the hospital and partner to devise solutions to address their issues.



A GLOBAL HEALTHCARE CUSTOMER CALL

Global Healthcare Account Executives (AE) visit customer sites – from hospitals to ambulatory surgery centers – on a regular basis to address customer concerns and provide new industry and product information. They also conduct employee training and education to help increase staff knowledge and efficiency, as well as improve cleaning outcomes to help reduce the risk of infections.

The Global Healthcare AE contacts many areas within a hospital including: Infection Prevention, Central Sterile, Environmental Services, Compounding Pharmacy and Materials Management departments. A surgical AE, meanwhile, works with the operating room team, as well as cardiology, the cath lab and interventional radiology to provide a wide array of surgical products.

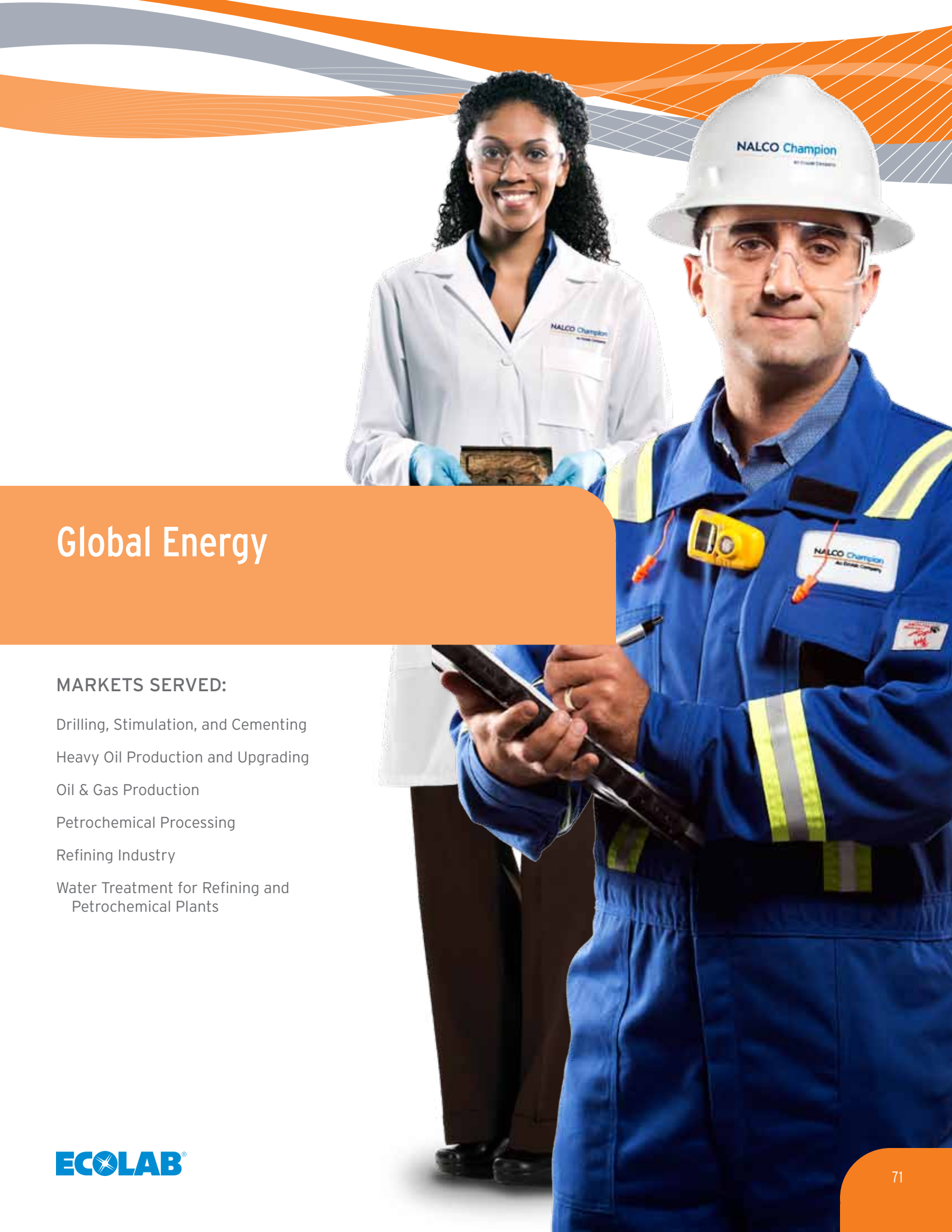
A typical call for an AE starts by meeting with the chief infection preventionist – typically a registered nurse or microbiologist who monitors facility-wide infection prevention efforts. The two discuss the specific needs of the hospital and partner to devise solutions to address the issues. In addition, the AE acts as an important resource for the hospital, always sharing the latest infection prevention practices and information.

In fact, the AE works with the staff throughout the hospital to conduct training on products and processes. He/she also works on new product evaluations for the hospital. When large dispenser installations are required for product conversions, the AE will manage the install and bring in a team of installers to work with the hospital on the conversion.

The Ecolab AE will also call upon the manager of the Central Sterile Department to verify the cleanliness of surgical instruments associated with manual and/or automated washing processes. The AE may conduct a water analysis and use this information to determine product and dilution needs, service dispensing equipment or conduct training. He/she may also visit other areas of the hospital, such as Environmental Services and the Compounding Pharmacy to assess needs, conduct training and review compliance on product usage on processes.

The Ecolab Surgical AE, meanwhile, works with the O.R. director and his/her team to understand the equipment and surgeries they focus on in order to develop unique patient draping solutions and recommend the right draping solutions. The surgical AE also serves as a resource for hospital staff, answering questions and conducting hands-on employee training.

At the end of the visit, the Ecolab AE works with his/her key contacts to review findings and provide documentation on training activities. He/she also verifies that the customer's concerns have been addressed, discussing recommendations and possible product and/or program solutions.



Global Energy

MARKETS SERVED:

- Drilling, Stimulation, and Cementing
- Heavy Oil Production and Upgrading
- Oil & Gas Production
- Petrochemical Processing
- Refining Industry
- Water Treatment for Refining and Petrochemical Plants



Global Energy provides advanced, on-site, technology-driven solutions for the global natural gas, petroleum and petrochemical industries.



GLOBAL ENERGY

Our Global Energy segment provides advanced, on-site, technology-driven solutions for the global natural gas, petroleum and petrochemical industries. In addition to recovery, production and process enhancements, we also deliver a full range of water treatment offerings to refineries and petrochemical plants.

Our Upstream process applications improve oil and gas recovery and production, extend production equipment life and decrease operating costs through services including scale, paraffin and corrosion control, oil and water separation, and gas hydrate management solutions. Our Downstream process applications increase refinery and petrochemical plant efficiency and the useful life of customer assets, while improving refined and petrochemical product quality and yields, by assisting the refiner's ability to use the more difficult to process lower cost crudes.

In 2013, Ecolab acquired privately held Champion Technologies. Champion, a Houston, Texas-based global energy specialty chemical company that delivers product and service-based offerings to the oil and gas industry, was integrated with Nalco's energy business to become Nalco Champion, an Ecolab company. This move strengthens Ecolab's position in the fast-growing upstream energy services market by improving geographic coverage and technology offerings.

OUR EXPERTISE

- ▲ CAPEX Project Management
- ▲ Enhanced Oil Recovery
- ▲ Flow Assurance
- ▲ Integrity Management
- ▲ Microbial Control
- ▲ Offshore/Deepwater
- ▲ Oil Sands
- ▲ Phase Separation
- ▲ Production Enhancement
- ▲ Scale Control
- ▲ Shale Oil & Gas
- ▲ Water Management



We provide leading products and expertise to assure flow maximization and asset integrity.

STRENGTHS

The world class expertise of our more than 6,700 Energy Services employees, including more than 450 focused on research and technical services, provide our customers with on-site service, innovative technology and engineering excellence to help solve technically challenging and dynamic problems safely.

Our team of research, Industry Technical Consultants and field engineers often work with our customers' R&D teams, leveraging this integrated approach to solve complex issues. Our globally integrated team of on-site experts and industry technical experts is directly aligned with the operations of our key petroleum customers, allowing us to cascade best practices quickly to production projects to ensure that our customer's benefit from consistently reproducible results worldwide. Our agility in deploying manufacturing and blending resources in remote geographies has positioned us to support accelerated growth in the emerging markets.

We place the highest priority on the health and safety of people and the protection of the environment, and work to exceed the standards of federal, state and local environmental laws. Safety is embedded into our company culture. We are always working to refine safety processes and programs, identify opportunities for improvement, and provide employees the information and resources they need to make changes.

ASSET INTEGRITY

As a global leader in oil field integrity management and services, our Global Energy segment has decades of world-class experience in this discipline. Our comprehensive innovations such as Clean n Cor® and AccuCount™ technologies, blended with our knowledge of traditional technologies, allow us to offer site-specific corrosion mitigation strategies, scavenging of acid gasses, biocide applications and monitoring tactics that maximize oil and gas production, and significantly decrease the total cost of operations due to failures for operators' assets.

WELL COMPLETION & STIMULATION CHEMICALS

Global Energy offers essential expertise in the development, evaluation and simulation of chemical programs for the drilling and completion industry. We have a thorough understanding of our customers' needs, with years of proven experience and results within the industry. Our diverse range of additives is specially designed to deliver predictability and perform under the most severe exploration and development environments and challenging conditions.

Our strength in water treatment has also allowed us to focus on the development of new methods to reuse and treat flow back water systems. Our new additives on the market also allow customers to reduce the amount of fresh water usage in fracturing operations. This reuse in turn helps producers reduce their water consumption and save energy.





Our project engineers and field technicians have extensive experience in improved oil recovery technologies.



PRODUCTION MAXIMIZATION

Supported by our onsite presence which provides expertise in a consultative approach, Global Energy offers a full range of solutions to maximize throughput in Oil & Gas production systems. Issues that we have a wide experience with include but are not limited to:

▲ Emulsion Management

The ultimate goal of any petroleum production facility is the isolation of dry saleable oil and gas. Produced emulsions not only decrease process efficiency, but reduce the value of upstream fluids if not dealt with effectively. Global Energy offers products and expertise to assist in the resolution of the full range of oilfield emulsions, including conventional, unconventional, EOR, and SAGD emulsions as well as Oil Sands froth. The combined approach to best in class products and onsite expertise works to not only resolve emulsions, but to optimize the separations program in order to achieve on spec oil and gas while improving fluids dynamic. Technologies used in this environment include Emulsion Breakers, Reverse Emulsion Breakers and Water Clarifiers.

▲ Foam Control

Excessive foam negatively impacts equipment operations, particularly for pumps and demisters, but also affects the efficiency of the separation process and quality of the produced oil and gas. Antifoams and defoamers solutions are available to mitigate this risk.

However, in some liquid-heavy systems, a controlled-foaming environment is a way to help improve the loading of the fluids inside the production systems and facilitate/increase production. Global Energy has developed an integrated approach to alleviate these liquid loading issues by providing expertise, equipment and products that belong to a comprehensive Foamers Product Line.

▲ Viscosity and Drag Reduction

Upstream and midstream pipeline operators seek to maximize the flow of oil through existing pipeline infrastructure to transport crude oil to processing facilities. Turbulent flow regimes in these pipelines create internal fluid drag and friction against the walls of the pipeline, restricting flow capacity. Drag reducers eliminate flow turbulence and create a more efficient laminar flow, allowing for higher fluid throughput through pipeline infrastructure. Global Energy provides the Oil and Gas Industry a completely integrated offering from modeling to chemistries and performance measurement of drag reduction solutions. Technologies available to support these solutions include Drag Reducing Agents (DRA), Biphasic Viscosity Reducers (BVR) and Emulsion Viscosity Reducers (EVR).



We have a full range of products that help enhance or maximize oil and gas production from existing assets.

ENHANCED OIL RECOVERY (EOR)

We design, develop and provide chemically enhanced oil recovery technologies that increase the effectiveness of oil and gas field waterflooding and improve recovery. Choosing the right solutions for individual reservoirs and applying them at the right time is extremely important in maximizing oil recovery. Our project engineers and field technicians have extensive experience in improved oil recovery technologies gained from working with diverse reservoirs worldwide. This experience is supported by reservoir engineering capabilities, reservoir modeling and EOR design, in-house laboratory services and knowledgeable on-site field crews.

Operating under the TIORCO brand, we are the market leader with more than 30 years experience in the field. We are differentiated by our ability to offer E&P companies globally a complete EOR solutions package. We do this through integration of critical enhanced oil recovery processes by leveraging TIORCO's EOR polymer and reservoir expertise; Nalco's water treatment and process expertise, and extensive reach in global upstream markets; Nalco FabTech's engineering, custom design and fabrication of injection and recovery equipment; and, through a joint venture, Stepan Companies global surfactant technology and manufacturing/supply capabilities.

FLOW ASSURANCE

Our industry-leading technologies ensure the flow of oil and gas in production flow lines. We provide custom solutions for all types of challenges encountered in the production of crude oils and condensates. Whether the need involves deposit control, hydrate inhibition or a plan for the cold restart of a pipeline, our research team uses their experience, expertise and proven processes to develop scientific solutions. Flow Assurance includes products for hydrate, scale, paraffin and asphaltene inhibition.

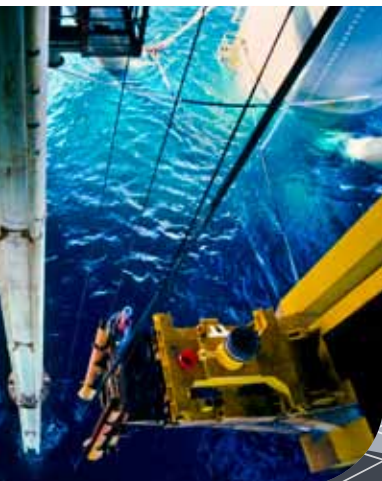
UMBILICAL CERTIFIED PRODUCTS

Deepwater and ultra-deepwater operations require a high level of expertise and commitment. Subsea applications encounter severe temperature and pressure environments creating challenges including increased hydrocarbon viscosity, formulation stability, chemical cleanliness to ensure free flowing product and chemical compatibility with the construction materials. These umbilical applied chemicals must be effective at low concentrations to inhibit corrosion, prevent scale, hydrate, asphaltene and/or paraffin deposits and to mitigate against emulsion-related viscosity problems. They must also be stable at ocean temperatures near freezing and downhole temperatures of 250 °F or greater. Our SurFlo® Plus Certified chemistries have been specifically developed to meet these demanding requirements for umbilical applications all over the world.





We have a thorough and valued understanding of our customers' needs, with years of proven experience and results within the industry.



FUEL ADDITIVES

Refiners around the world face the challenge of delivering fuels to the global marketplace, on-spec and on-time, while protecting their profit margins. Our Global Energy business has built a reputation as a world-class provider of fuel additive products and services that continuously and consistently produce on-spec fuels for a variety of feedstocks. We provide a full line of fuel additives for H₂S scavenging, corrosion inhibition, oxidation stability improvement, cold flow improvement and fuel performance improvers.

PETROCHEMICAL PLANT APPLICATIONS

Our industry-leading position gives us qualifications to successfully identify, diagnose and treat petrochemical process and water-related problems across a broad spectrum of hydrocarbons, geographies and environmental conditions. Our innovative programs are tailored to suit each plant's individual climate, logistics and unique requirements. When manufacturing key petrochemical blocks – whether it's ethylene, butadiene or styrene, isoprene or vinyl acetate – process limitations such as fouling, foaming or corrosion can impact unit reliability. The competency and recognized industry experience of our Global Energy technical team and best-in-class chemical programs like Actrene® and Comptrene® give us unique qualifications to successfully identify, diagnose and remove these limitations.

REFINERY APPLICATIONS

As refiners target improved operating margins, one of the more likely methods to accomplish this is through the processing of opportunity crudes, sometimes called challenging crudes. These are lower quality crudes than typical, easier-to-process Middle East or West Texas crudes, and may have higher sulphur content, naphthenic acids, lower viscosity, or higher solids and metals content. Opportunity crudes may command a discounted price due to known processing issues, or they may be new crudes with unknown or poorly understood properties and processing challenges.

We provide best-in-class chemical programs like Scorpion® and Pathfinder® coupled with advanced automation systems like 3D TRASAR for Crude Overhead Systems to assess and mitigate the processing issues of dynamic desalting, corrosion, fouling and water treatment operations. These systems enable our customers to buy cheaper crude sources, and still yield high-quality products with much higher net margins while ensuring asset integrity and safety.



Our products and services are critical to keeping customer operations running smoothly, consistently and profitably.

SUSTAINABLE SOLUTIONS

As the energy industry strives to respond to growing global demand, it is also seeking to find more sustainable ways to do so. Built upon a system of people, processes and tools, our eROI™ program provides a uniform approach to ensure the value we deliver is aligned with the needs and available natural resources of each customer we serve. Our customers demand environmentally safe process solutions, but they must provide a tangible return on investment. We deliver this value of environmental and financial returns through reduced operating costs, maximized production, asset protection and the avoidance of regulatory non-compliance.

Hydrate formation in oil and gas operations can reduce or block flow, causing multi-million dollar impacts. Our Low Dose Hydrate Inhibitors offer dramatic advantages over traditional treatments with lower operating costs, increased safety and extended well life. They also substantially reduce chemical use and storage.

In oil production, water is an inevitable byproduct. The emulsions that tie together the oil and water produced from many wells must be broken in order to maximize oil production and clean the water produced with the oil. BREAXIT technology effectively breaks these emulsions using chemistries that meet or exceed the environmental regulations which our customers must follow.

Our eVerified process is an environmental and health risk profile system that “scores” products in development to determine how they align with customer and regulatory products. The resulting scorecard enables research and marketing teams to evaluate products early in development and better identify and minimize potential human and environmental risk.





At many of our larger customer sites, we have a team of several engineers and technicians operating on-site full-time as an extension of the customer's staff.

WATER MANAGEMENT IN OIL AND GAS EXPLORATION AND PRODUCTION SYSTEMS

Water is intrinsically incorporated in all exploration and production systems of our customers. From drilling and completion fluids to produced water treatment, recycle and disposal systems, from onshore unconventional development to deepwater offshore production, operators spend a considerable amount of time, effort and resources ensuring that water meets specifications that optimize processes and meet environmental requirements. With every barrel of oil produced, on average seven barrels of water is also produced, which must be cleaned and processed before its recycled or discharged.

Global Energy, drawing from over 80 years of water expertise, has a broad range of chemistries and equipment solutions to support its customers' efforts to economically address water challenges. As the industry advances to extract new sources of oil and gas, Global Energy continues to develop innovative programs and services to ensure operators meet and exceed their current and future water management needs. For example, Global Energy's patent pending peracetic acid treatment program, efficiently allows operators to reuse their produced water sources for hydraulic fracturing, reducing their total fresh water requirements.

SUPERIOR SERVICE

We create value for our customers and our company through differentiated services and technologies. Global Energy is focused on providing integrated solutions to solve the complex issues customers routinely face and actively work in partnership with our customers to solve problems. We participate in the implementation of these systems and programs to ensure that the solutions we develop deliver maximum value. Our global service capabilities enable our customers to meet their challenges and achieve their business objectives.

We provide essential expertise to collect and analyze an extraordinary range of data from one or more customer facilities and multiple sources within those facilities. Our Refined Knowledge platform provides pre-built mechanisms to easily leverage data from our systems and others to collect qualitative information so project teams always have high-quality, real-time data to drive margin improvement. Refined Knowledge provides integrated data visibility into water and process systems in one global view. We can catch upsets before they occur, identify improvement opportunities and optimize process systems that save water and energy, extend asset life and improve end product quality.

We have the essential expertise and commitment to innovation to help customers overcome knowledge gaps as clients expand globally with oilfield projects and optimize costs in mature markets. We have a global network of people, processes and systems unlike any of our competitors to help our customers achieve a reduction in their total cost of operation as well as higher operating margins.





Our engineers meet with customer RD&E teams to further focus their efforts on continuous improvement.

GLOBAL ENERGY CUSTOMER CALL

Unlike many of Ecolab's sales representatives who might manage multiple accounts, our Global Energy sales engineers typically office at customer sites, whether a refinery, petrochemical plant or deepwater platform. At many of our larger customer sites, we have a team of several engineers and technicians operating on-site every day as an extension of the customer's staff. We take an integrated approach to selling and service where everyone on the team fills a specific role. Safety is the first priority in these very hazardous environments and a thorough knowledge of the risks involved and steps to mitigate them are critical.

A typical day in a refinery could include a Global Energy service technician collecting samples and running chemical tests to determine if systems are within the proper operating limits while another Global Energy engineer attends a morning plant operations meeting to assess the potential impact of pending incoming crude changes. Other members of the Global Energy team may be working on profit improvement projects or networking with peers to understand how use of a new crude may have impacted systems at another refinery.

We take an engineering approach and constantly evaluate the mechanical, operational and chemical aspects of a customer's system. An overhead line may need a mechanical solution such as a booster pump due to low velocity where a chemical solution will not make a difference. A refinery may not have efficient control of their operating cycles leading to variability and scaling or fouling of units. We work to deploy the proper automation and operating strategy to attain optimal results.

We conduct business reviews that include systematic status reports of profit improvement and total cost of operation reduction projects that quantify the gain to the client. Delivering this value and merchandising our work to the customer is important to maintaining customers, and this is how we effectively compete against price-based competitors.

An Upstream Energy engineer may spend his/her day networking with a variety of customer engineers and third-party companies on a major offshore development project to ensure that we are positioning our innovative technologies to help deliver project targets on time. The engineer may attend the field/platform morning operation meeting to coordinate activities with customer operations. During these meetings, prior activities are reviewed and continuing projects are prioritized. This includes working to ensure that chemical additives provide proper flow viscosity, hydrate formation prevention, scale and corrosion prevention, and other treatments to maximize production, given the cleaning chemistry of the reservoir production. Their day could include a helicopter commute to an offshore platform or even a plane flight where they rotate into a remote geography for weeks at a time to drive system assurance, and to optimize productivity of the assets.

During the year, these engineers may meet with customer R&D and engineering teams to further focus their efforts on continuous improvement. Some Upstream Energy engineers office with the customer's project team. In addition, they are working side by side with the customer to design chemical programs for future projects. This can involve coordinating research efforts; optimization studies, and development of new products and application technologies based on specific project requirements. This engineer will work with the design team on the sizing and placement of chemical application skids and monitoring points.





Other Global Pest Elimination

MARKETS SERVED:

- Foodservice
- Hospitality
- Education
- Food Processing
- Food Retail
- Healthcare
- Government
- Commercial Facilities



We have a dedication to service excellence with a focus on quality and total customer satisfaction.

Recognizing the need for true pest elimination – not simply pest control – among hospitality/lodging, foodservice and industrial customers, Ecolab Global Pest Elimination offers an essential service: reliable, premium commercial pest elimination. We are focused on serving our customers – including restaurants, hotels, hospitals, food processing plants and more – offering science-based protocols specifically designed to protect against cockroaches, rodents, flies, bed bugs, birds, termites, ants and other pests that carry disease and pose a threat to brands and reputations.

By combining expertly trained service specialists with the latest technologies, Global Pest Elimination is the leading provider of premium commercial pest elimination services. Our service offerings include comprehensive programs that not only target the most common pests our customers face, but include regular visits and on-site education to help customers implement preventative measures or tackle persistent problems.

SERVICES PROVIDED

- ▲ Proactive, integrated programs that help prevent pest problems before they occur
- ▲ Regular inspections and protection against the most common pests
- ▲ Proprietary products, equipment and service protocols with reduced total environmental impact
- ▲ Superior, discreet service delivery
- ▲ On-site consultation
- ▲ Educational tools
- ▲ Training on implementing/maintaining best pest prevention practices

PEST DIFFERENCE

Pest elimination, differentiated from pest control, is provided through science-based proprietary service protocols, advanced technologies, the industry's best-trained sales-and-service force and a dedication to service excellence with a focus on quality and total customer satisfaction.





We are the industry leader, with high quality standards, proactive solutions and sustainable goals and products.

MARKETS & NEEDS SERVED

Global Pest Elimination is an integral service that complements our customers' diverse needs. Many pest management companies will treat facilities for pests only after they've been sighted by customers or inspectors, or have caused damage to inventory or a facility. We partner with customers to proactively eliminate pests before they have a chance to damage their brands, businesses or bottom lines.

Our experienced and highly-skilled service specialists are not only equipped with industry specific training, but understand the hospitality/lodging, foodservice, food processing and industrial businesses and corresponding regulatory requirements. Our comprehensive pest coverage is specifically designed to help protect against the most common pests our customers face.

Global Pest Elimination provides consistency of service across geographies as customers know all their locations get the same high quality service.

SUSTAINABLE SOLUTIONS

As an industry leader, we have always been committed to advancing pest elimination standards and are continually improving our products, programs and services to ensure high-quality pest elimination while minimizing environmental impact. Our in-house research and development team develops and tests product and service improvements to further reduce total environmental impact and help our customers achieve their sustainability goals.

Our patented CheckPoint® Multiple Catch and Dual Snap Trap inserts stop rodents outside before they have a chance to get inside, without the use of rodenticides.

Our patent-pending STEALTH® Fly Station leverages fly biology and behavior to reduce fly pressure with less pesticide use.

Ecolab's patent-pending Thermal Enclosure™ uses a gentle heat process to quickly and effectively eliminate bed bugs while helping to preserve furniture and restore the functionality of customer's operations.





Innovative
and effective
technologies add
even greater
value-added
solutions to
our service.

INNOVATION & SUPPORT

Innovative and effective technologies add even greater value and dimension to Global Pest Elimination's service. Our Research, Development & Engineering (RD&E) associates are professionals with advanced degrees in entomology, chemistry and microbiology. They develop, identify and evaluate new solutions focusing on continuous scientific research, voice of the customer and performance testing. These new solutions reduce risk and lower environmental impact while improving efficacy and efficiency.

The RD&E team also works closely with suppliers that provide insecticides and pesticides. RD&E's extensive testing and research, as well as vast knowledge of pest biology and behavioral habits, produce reliable protocols that are supported by science and are unique to specific pest situations.

SUPERIOR SERVICE

Our highly-trained service specialists identify and communicate with our customers about potential pest risks so structural, operational and sanitation problems can be corrected before significant pest issues occur. They also educate and train customers' staff, teaching them how to implement and maintain pest prevention practices and provide on-site consultation to show them how to identify the early signs of pest activity to prevent future infestations.

Our trusted experts regularly inspect, monitor and document pest-related issues, ensuring critical information is relayed to the right people and detailed in service reports. Through communication and reports, our customers are informed of any sanitation or structural issue that could contribute to pest activity.

Ecolab equips its service specialists with the knowledge, products and tools to provide guaranteed results. Our service team is fully hired and trained by Ecolab; other pest management providers hire seasonal, temporary employees.

Our service specialists receive comprehensive training including hands-on practical instruction in the field. Licensed in the geography in which they operate, they also receive continuing education from our technical experts who provide additional classroom training and field sales support exercises.





Our service calls not only take the steps to help eliminate an infestation, but also suggest protocols to prevent future issues.

A GLOBAL PEST ELIMINATION SERVICE CALL

The key to Ecolab's service is guaranteed pest elimination, not merely control. Our service specialists receive extensive training in pest biology and behavior as well as Ecolab's proprietary protocols. They are also equipped with industry leading equipment and products to identify, diagnose and take action on the proper approach required to achieve pest elimination. As a result, our service specialists know where the likely and unlikely pest harborages are located and work proactively to deliver a pest-free environment, as opposed to simply offering reactive solutions after problems and damage have started.

Service specialists begin every customized pest elimination program with a thorough inspection of the customer's premises. Besides seeking evidence of pest activity, they look for structural or sanitation problems that could contribute to an infestation. They identify potential risks and devise an action plan with the customer to correct problems and prevent future ones.

When Ecolab first contracts with a customer, the service specialist performs an intense initial service designed to eliminate any existing infestations. A thorough inspection is completed, and then the facility is serviced utilizing Ecolab's proprietary protocols, products and equipment. This is a very detailed process focusing on all possible harborage and breeding sites within the facility. During this initial service, the service specialist will install Ecolab equipment to maintain a pest-free environment. For example, a proactive rodent program is installed both inside and out even if there is no evidence of activity.

After the initial service, a service specialist typically visits an account on a regular basis and is fully equipped to take on any issue.

A service specialist will begin a service call by first meeting with key on-site management to discuss any concerns or issues since the last visit. Depending on the customer's needs, the service specialist will inspect and monitor for pests, document pest-related issues, make sanitation and structural recommendations, and conduct other pest elimination services such as mechanical trapping or biological and targeted product applications, all of which are standard in our proprietary protocols.

Continued on next page





Part of our unmatched service is hands-on staff education and training on how to maintain prevention practices at a facility.



A GLOBAL PEST ELIMINATION SERVICE CALL *(continued)*

Ecolab service specialists may provide hands-on staff education and training on implementation and maintenance of pest prevention practices. Additionally, we educate our customers on how to identify early signs of pest activity to help prevent future infestations.

During service visits, service specialists may also offer additional services such as:

- ▲ Repairing gaps and voids to prevent pest entry
- ▲ Fixing small holes in kitchen walls to eliminate nesting areas and points of entry
- ▲ Installing commercial grade sweeps at entry points to keep pests out

Throughout the visit, service specialists clearly outline all observations, recommendations and actions taken on a service report.

At the end of a service visit, the service specialist provides a service report to the customer, indicating all services provided – including any products used, findings, sanitation and structural recommendations, as well as other factors that could contribute to a pest infestation. Before leaving, the service specialist makes sure all staff concerns have been addressed.

PROPRIETARY COMMUNICATION & REPORTING TOOLS

Ecolab turns data and observations collected at the time of service into knowledge for customers. This allows them to have a better visibility and insight in how to ensure a pest-free environment.

- ▲ Actionable and on-site data-driven service reporting
- ▲ Dependable trend analysis data
- ▲ Audit ready documentation
- ▲ On-site consultation by highly trained service specialists



Other Equipment Care

MARKETS SERVED:

Restaurants

Hotels

Hospitals

Nursing Homes and
Long Term Care

Facilities Contract

Contract Feeders

Education

Supermarkets

Convenience Stores



We service every piece of commercial kitchen equipment, helping create an efficient and smooth operation.

Ecolab Equipment Care (GCS Service, Inc.) provides around-the-clock parts and service for commercial cooking, refrigeration and warewashing equipment. A one-stop-shop for on-demand fast fix repairs and scheduled proactive maintenance, we set ourselves apart by providing service and parts on a nationwide basis for all major brands of commercial kitchen equipment. This extensive network allows customers to consolidate the number of service providers they deal with, resulting in more consistent, reliable service.

We also proactively assist customers in preventing problems before they occur by providing regular consultation through customized maintenance plans and schedules. This not only extends equipment life, but also helps reduce energy consumption and eliminates unnecessary food waste.

SERVICES PROVIDED

Repair, parts replacement and customized maintenance for commercial food equipment, including:

- ▲ Fryer
- ▲ Ranges
- ▲ Steamers and combi-ovens
- ▲ Kettles
- ▲ Food warmers
- ▲ Refrigerators and freezers
- ▲ Broilers
- ▲ Coffee and tea brewers
- ▲ Ovens and conveyor ovens
- ▲ Dishmachines
- ▲ Grills and griddles
- ▲ Skillets
- ▲ Filter machines
- ▲ Ice machines
- ▲ Pizza ovens

STRENGTHS

With extensive parts inventories in the United States and a network of experienced service technicians with extensive training in all aspects of kitchen equipment repair, Equipment Care has the size and skills to take care of all customers, large and small.

MARKETS & NEEDS SERVED

Downtime due to equipment failure can be paralyzing and costly. Foodservice operators use a broad range of highly sophisticated commercial food preparation and storage equipment to serve their customers every day. It's vital that equipment be well maintained to ensure that food is cooked to accurate time and temperature standards.

Continued on next page



We maintain the most highly sophisticated commercial food preparation and storage equipment.



MARKETS & NEEDS SERVED *(continued)*

To keep busy kitchens running smoothly, fast access to the right parts is imperative. Equipment Care is one of the largest providers of commercial kitchen equipment parts in the United States and each service vehicle carries its own parts supply.

More than 100 kitchen equipment manufacturers representing more than 400 brands leverage our expertise. Ecolab's status is well-known with the designation of Ecolab as the factory-authorized warranty service provider for the largest brands in the industry. These partnerships allow us to build solid relationships with customers during the warranty period – which generally continue once the warranty expires. Being an authorized warranty provider in a geographic market also makes us the manufacturer's factory-authorized parts distributor in that area.

Finally, we offer customers individualized overviews of their spending, equipment and service performance with our Unit-Trax® reporting – giving part-by-part and unit-by-unit price breakdowns. Equipment Care's MyService Online web-based portal analyzes and reports on all equipment repairs and maintenance performed at a single location, as well as placing and tracking the status of live service calls for a customer. From nuts and bolts for an ice machine to refrigerator installs, Unit-Trax® captures and stores every dollar a customer spends and provides a full history of equipment performance, which can help lead to smarter business decisions and greater efficiency.

SUSTAINABLE SOLUTIONS

Equipment Care technicians proactively assist customers optimize their equipment operating efficiency, save energy and water as well as avoid costly downtime and protect their equipment investments. By providing regular consultation through a customized preventative maintenance plan and schedule, problems can be prevented before they occur. This can also extend equipment life, help reduce energy consumption and eliminate unnecessary food waste.

KITCHEN ENERGY FACTOIDS

- Restaurants use more energy in the kitchen than in the rest of the building.
- Energystar.gov estimates that more energy-efficient kitchen equipment can save as much as \$500 a year.
- U.S. Environmental Protection Agency experts estimate that if a foodservice operation cuts its energy costs by just 20 percent, profits could increase by 30 percent or more.

In addition, our Unit-Trax® monthly reporting system – which helps reduce labor costs and extend equipment life – is especially beneficial for chain customers as it continuously analyzes the condition, cost and efficiency of kitchen equipment on a corporate-wide basis by monitoring three key areas:

- ▲ Spending performance
- ▲ Equipment performance
- ▲ Service performance

Continued on next page



Proper equipment maintenance is critical to an effective and efficient operation.



SUSTAINABLE SOLUTIONS *(continued)*

The detailed reports enable customers to pinpoint trouble spots, and see a comprehensive view of service history as part of their equipment management strategy. The payoff is greater efficiency, longer-lasting equipment and increased profitability throughout an entire restaurant chain. Quite simply, equipment that operates more efficiently requires less energy.

INNOVATION & SUPPORT

We boast a nationwide parts distribution network with warehouse locations across the country. About a quarter of Equipment Care's business is generated by sales of replacement parts directly to service companies or customers that employ their own in-house maintenance staff.

Equipment Care recently developed a new service offering, Smart Care[®], which focuses on increasing equipment uptime, reducing operational costs and maximizing customers' return on assets. The program, which won a National Restaurant Association's 2013 Kitchen Innovations Award, goes beyond typical scheduled maintenance to include proprietary asset management/reporting technology, customer-facing online tracking tools, and pre-programmed critical parts on service vehicles.

Technicians are dispatched using the latest in mobile technology, resulting in first-time fix rates that beat industry standards. If technicians need access to unique parts, they can be tracked and shipped immediately through our extensive parts network. Parts experts and a Technical Assistance Group also act as resources for technicians in the field providing quality control standards.

SUPERIOR SERVICE

Rapid response time and broad depth of expertise are key benefits of Ecolab service. This varied expertise differentiates us from local and regional providers, whose service is limited by equipment specialty. Technicians must possess a thorough base knowledge regarding electricity, gas, heating and cooling – and many have more than 10 years of field experience.

To keep customers' operations running smoothly, technicians are on call 24 hours a day, seven days a week. They are extensively trained on a full array of equipment including: fryers, dishmachines, ovens and conveyor ovens, ranges, steamers and combi-ovens, grills and griddles, kettles, skillets, food warmers, filter machines, refrigerators and freezers, ice machines, broilers, pizza ovens, and coffee and tea brewers.

Our technicians receive ongoing technical instruction from equipment manufacturers and Ecolab's own training facility in St. Paul, Minn. Technicians are also certified through the Commercial Food Equipment Service Association (CFESA).



We provide preventative care for our customers' equipment and swift on-demand repairs when necessary.



AN EQUIPMENT CARE CUSTOMER CALL

Service calls are a blend of on-demand fast fix repairs and regularly scheduled proactive maintenance service.

To ensure we deliver a high, first-time fix rate, our technicians are each given a specific geographical territory and customer base to service. Consistent customer and equipment interaction allows the technician to be more successful. Having the same customers also ensures the correct parts are on each technician's truck for breakdown and emergency calls. In addition, all service vehicles are stocked with commonly needed parts and repair tools so technicians are prepared for anything – from calibrating a thermostat on a refrigerator and rewiring a dishmachine control panel to completely rebuilding a fryer. Our goal is to respond quickly and fix it right the first time to ensure we get our customers up and running as efficiently as possible.

Service Delivery Specialists at our Customer Care Center help track every technician's call to ensure each customer is receiving expert service in a timely manner. This prompt, personal service is one of Ecolab's defining strengths. Other strengths include our consultation and equipment history reporting and extensive national parts network which supports all major equipment brands.

To make the most of the service call, our specialists go over past service reports before they visit a customer, reviewing product use data, customer project initiatives and current action plans. Before making the call, they ensure their vehicles are stocked with the necessary supplies to perform service, such as test kits, parts and tools.

At the beginning of a scheduled maintenance call, the technician first meets with the kitchen manager to discuss any immediate concerns. The technician then evaluates all equipment to ensure smooth, efficient operation. This includes inspecting electrical components, calibrating thermostats, testing safety valves and more. Steam cookers, for example, are cleaned to reduce scale buildup and corrosion that could waste energy and shorten the life of the equipment.

Throughout the customer call, the technician serves as a resource for the kitchen staff, addressing any questions they may have or training them on product and equipment usage. All completed work is documented on a report and is guaranteed to meet local codes and operate according to manufacturer specifications. The specialist also makes note of observations and recommendations for improved efficiency.

At the end of the call, the technician checks in again with the manager to review the service report, noting any areas for efficiency improvement and maintenance and/or repairs completed. Before leaving, the technician addresses any questions and concerns the manager may have.



Research, Development & Engineering

Innovation is the cornerstone of Ecolab's success and is made possible by significant and ongoing investments in our Research, Development & Engineering (RD&E) function. We are strongly committed to developing proprietary products, process knowledge, equipment and systems. This development is the basis for our reputation as a trusted total solutions provider for customers around the world.



We focus on the development of technology platforms that can be used around the world.



OVERVIEW

Ecolab's commitment to innovation fuels our long-term growth, yielding a broader array of products, systems and enhanced services that deliver a strong return on investment for Ecolab and our shareholders.

To fulfill this commitment, we have a global RD&E team comprised of more than 1,600 experts in the fields of chemistry, automation, metallurgy, microbiology, entomology and food science, as well as chemical, packaging, mechanical, software, and electrical and reservoir engineering. Major U.S. research facilities are located in Eagan, Minn.; Naperville, Ill.; Sugar Land and Fresno, Tex.; Denver, Colo; and Greensboro, N.C. Outside the U.S., we have major research facilities in Calgary, Canada; Aberdeen, Scotland; Monheim, Germany; Leiden and Delden, the Netherlands; Pune, India; Shanghai, China; Campinas and Macae, Brazil; and Sydney, Australia. In addition, Ecolab has regional technical centers throughout Africa, Asia Pacific, Europe and Latin America that provide customer support, analytical services and regulatory compliance.

INNOVATION & SUPPORT

We operate in global markets with customers that cross regional boundaries, so we focus on the development of technology platforms that can be used around the world to support our customers' growth and differentiate Ecolab from our competition in every market we serve.

Ecolab has a long history of breakthrough innovation, providing superior results for our customers. For example, Ecolab pioneered solids and dispensing technologies in warewashing and then expanded this platform to a variety of other markets and applications. Our solids technology reduces packaging, storage, handling, water and energy use while providing superior product performance.

Other examples of our industry-leading innovation are our proprietary peracid sanitizer platforms, which have become the gold standard globally in many food safety and public health applications; Nalco 3D TRASAR technology, which provides profound impact in optimizing water usage in industrial applications; Nalco SurFlo® chemistries, which enable oil production at deep and ultradeep water environments; and the Nalco CoreShell® and Metrix® family of products for papermaking. Our smart solutions provide customers with data-enabled systems to optimize overall cleaning quality, operational efficiency, water use and/or energy use. These and other innovations have led to more than 6,300 active patents and a strong pipeline of pending patent applications.



DISCIPLINED PRODUCT DEVELOPMENT PROCESS

We have a structured, phase gate approach to managing our innovation portfolio. We utilize our broad capabilities to combine chemistry, automation, microbiology, packaging, dispensing, engineering, informatics, sensors, and process monitoring and control in a holistic approach to help deliver the optimal, total solution and maximized return on investment for our customers.

Our key objective in RD&E is to first understand our customers' needs. We take an innovative systems approach to solving problems, leveraging technology and competencies on a global basis and following through with superior technical support and training. Effective new product and service development begins with a broad customer understanding, and our sales-and-service associates have expert knowledge of what is important to customers, including:

- ▲ Food safety
- ▲ Brand protection
- ▲ Operational and employee safety and efficiencies
- ▲ Employee training
- ▲ Public health
- ▲ Energy and water optimization
- ▲ Customer satisfaction
- ▲ Consistent global practices
- ▲ Asset integrity
- ▲ Increase process yield and reduction in total cost of operation

We work closely with our customers to understand first-hand the problems they encounter. We then enter into an ideation phase where we brainstorm potential solutions before any project is started. This process can involve on-site performance assessments, market research, customer service feedback, focus groups, review of warranty and service repair records, as well as listening to customers through the everyday contact made by our sales-and-service teams.

The outcome may be a technical support project pursued in collaboration with our customers or a new research initiative. Our technical solutions are then developed with our global team of experts or through open innovation partnerships with external sources including customers, strategic suppliers and academics.

Ultimately, a variety of tools are used to determine the feasibility of the various options identified. Throughout this early phase of the process, and as we move into the latter stages, we also work to ensure highest performance and efficacy while minimizing the environmental footprint throughout the product life-cycle.

Not only do all these experiences effectively serve our customers' needs, they enhance our knowledge base on a wide range of application technologies and begin the cycle of identifying new opportunities to enhance our customer operations.



We have a strong
and proven record
for developing
effective,
clean, safe and
healthy solutions.



Our products
are designed
with safety,
effectiveness
and sustainability
in mind.



EFFECTIVE SOLUTIONS TO TODAY'S CHALLENGES

Ecolab products and systems are known throughout the industry for providing effective, clean, safe and healthy solutions. We continuously monitor and manage the expanding demand for solutions that address water scarcity, oil and gas supply challenges, natural resource recovery, contamination control, infection prevention as well as monitor the latest pandemics or threats to public health.

Our technical support teams include microbiologists who follow Good Laboratory Practice regulations to develop and test products for efficacy against microorganisms including viruses, bacteria, spores and fungi which are threats to food safety and public health. The microbiology team conducts extensive antimicrobial efficacy and product stability testing.

Meanwhile, our analytical scientists provide testing services for our customers, including forensic analysis of petroleum samples, chemical product quantification, paper surface characterization, soil and deposit analysis, trace element identification and water analysis to identify the root causes of issues and to recommend product solutions. In addition, we have a technical service call center and laboratory, which diagnose problems and provide world-class support to our field sales-and-service associates and customers. In fact, RD&E experts respond to thousands of requests for assistance annually – and spend significant time in the field testing new products, as well as training customers on proper use.

Ecolab's record of producing breakthrough innovations spans more than eight decades. We are committed to carrying on this tradition and to developing future generations of innovative customer solutions.

SUSTAINABLE SOLUTIONS

Sustainability is inherent to our innovation process. We consider the total environmental landscape including chemistry, automation, equipment, dispensing technology, smart systems, packaging, transporting and servicing to provide high quality, sustainable solutions for our customers. At the same time, we focus on reducing the use of water and energy in our customers' processes and minimizing waste released into the environment.

Ecolab innovations such as no-rinse formulas and formulations that require fewer wash cycles reduce the amount of water our customers use on a regular basis, and our products dispensed to be effective at low temperatures help customers conserve energy. We also help reduce waste by using minimal packaging and recyclable or renewable packaging materials, and our concentrated products can be shipped utilizing less fuel.

Our 3D TRASAR and Pareto® technologies save our customers nearly 100 billion gallons of water annually. Our environmentally sensible innovations such as BREAXT, BrightWater and ASP friction reducers allow the production of more oil and gas. Our eVerified™ chemistries are specifically designed to minimize human and environmental risks during unconventional oil and gas production.



Global Supply Chain

Ecolab's manufacturing and distribution facilities are designed and located to support the marketing, direct sales and distribution activities of our company. We have strong global reach, with more than 120 manufacturing plants as well as an extensive network of distribution centers located in all major countries in which we operate. These facilities are located near major metropolitan areas or customer locations, and can provide overnight service into surrounding locations, which gives us a significant service advantage and reduces distribution costs.



OUR MANUFACTURING PHILOSOPHY

Our philosophy is to manufacture products wherever an economic, process or quality assurance advantage exists. Most products are liquids and manufactured in-house, although some may be outsourced in certain remote geographies. Unique offerings, such as our solid products, have proprietary manufacturing techniques which dictate internal production processes.

Manufacturing typically consists primarily of blending powders and liquids and extruding or casting solids. There is also reaction chemistry to support certain businesses. Blending operations require less capital investment than reactive chemistry. Higher volume production lines are automated and computer-controlled to guarantee consistent quality. However, inventory investment is minimized through the use of flexible, short-run equipment and computerized planning systems. Continuous improvement in this area has allowed us to maintain a 95 percent perfect order service to customers while improving inventory velocity.

We continuously work to optimize our manufacturing and logistics footprint. As productivity improvements continue to be driven by Lean and Six Sigma we have been able to rationalize facilities and production lines in mature markets. We continue to make significant investments in high growth areas and innovative technologies to support growth in all regions of the world.

Most of our locations are ISO 9002 certified, with many others having ISO 14001 certification. We monitor the environmental, health and safety compliance standards of our manufacturing facilities and participate in third-party audits to continuously improve our performance and ensure compliance with regulatory requirements in all locations.

We use global sourcing for production and purchasing of raw materials. Although we work to source locally as much as possible to reduce travel distance, our network is designed so raw materials purchasing and product manufacturing can be shifted among locations worldwide to control product costs at globally competitive levels with no reduction in quality. In addition, we offer remote monitoring of customers inventory and processes to optimize product deliveries, minimizing fuel, water and chemical consumption. Our optimization efforts result in significant savings for Ecolab and our customers.

Every day, the Global Supply Chain team moves further along our transformation journey across the globe ensuring operations are safe, clean, lean and sustainable. We align and integrate with business partners to deliver innovative solutions, commercial advantage, industry-leading service and quality.

We attract and develop world-class talent, providing career growth opportunities within the Global Supply Chain team and across the company.

Our philosophy is to manufacture products wherever an economic, process or quality assurance advantage exists.





SUSTAINABILITY

Around the world, we are continually investing in programs and processes that reduce our impact on the environment. Energy and water use, along with wastewater and solid waste disposal are tracked monthly at each facility. This remote monitoring of customers inventory and processes optimizes product deliveries, thereby reducing fuel, water and chemical usages. Our efforts are continuing to show reduction in impacts year after year.

For example, energy use has been lowered by changing lighting fixtures throughout our warehouses and improving the efficiency of our steam and compressed air systems. Wastewater discharge has been reduced by optimizing tank clean out procedures and reusing collected rainwater where appropriate. Solid waste has been reduced through process improvements that eliminate the generation of waste in the first place, along with aggressively expanding recycling to include items such as used shrink wrap. We also review the environmental attributes of raw materials and make environmental sustainability a key requirement in the selection of ingredients for new products and services.

With a fleet of thousands of vehicles around the world, reduction of greenhouse gas (GHG) emissions is also a top priority. We follow the best practices learned from our operations in Europe and other regions of the world where we drive smaller, more fuel-efficient vehicles, as well as optimizing vehicle service routes to minimize fuel consumption.

In addition, we've initiated a simplification process to reduce the number of stock keeping units (SKUs) for our products. This will help unlock capacity and increase our manufacturing runs to better leverage the plants we have and avoid adding new ones prematurely, as well as significantly decreasing our production and raw material costs.

We make environmental sustainability a key requirement in the selection of ingredients.





MANUFACTURING FACILITIES

NORTH AMERICA

- ▲ Montgomery, Ala.
- ▲ Carson, Calif.
- ▲ City of Industry, Calif.
- ▲ McDonough, Ga.
- ▲ Bedford Park, Ill.
- ▲ Elk Grove Village, Ill.
- ▲ Joliet, Ill.
- ▲ South Beloit, Ill.
- ▲ Huntington, Ind.
- ▲ Broussard, Lou.
- ▲ Garyville, Lou.
- ▲ Port Allen, Lou.
- ▲ Scott, Lou.
- ▲ Eagan, Minn.
- ▲ St. Louis, Mo.
- ▲ Columbus, Miss.
- ▲ Greensboro, N.C.
- ▲ Tulsa, Okla.
- ▲ Ellwood City, Penn.
- ▲ Green Tree, Penn.
- ▲ Carrollton, Texas
- ▲ Corsicana, Texas
- ▲ Fort Worth, Texas
- ▲ Freeport, Texas
- ▲ Fresno, Texas
- ▲ Garland, Texas
- ▲ Odessa, Texas (2)
- ▲ Sugar Land, Texas
- ▲ Texarkana, Texas
- ▲ Tyler, Texas
- ▲ Martinsburg, W. Va.
- ▲ Vancouver, WA
- ▲ Evansville, WY
- ▲ Burlington, ON
- ▲ Calgary, ON
- ▲ Mississauga, ON
- ▲ Nisku, AB

LATIN AMERICA

- ▲ Neuquen, Argentina
- ▲ Pilar, Argentina
- ▲ Sao Paulo, Brazil
- ▲ Suzano City, Brazil
- ▲ Santiago, Chile
- ▲ Bogota, Colombia (2)
- ▲ Soledad, Colombia
- ▲ La Romana, Dominican Republic
- ▲ San Jose, Costa Rica
- ▲ Quito, Ecuador
- ▲ Acuna, Mexico
- ▲ Lerma, Mexico
- ▲ Mexico City, Mexico
- ▲ Monterey, Mexico
- ▲ Anaco, Venezuela
- ▲ El Tigre, Venezuela
- ▲ Guacara, Venezuela

ASIA PACIFIC

- ▲ Botany, Australia
- ▲ Darra, Australia
- ▲ Kwinana, Australia
- ▲ Melbourne, Australia
- ▲ Perth, Australia
- ▲ Revesby, Australia
- ▲ Guangzhou, China
- ▲ Nanjing, China
- ▲ Shanghai, China
- ▲ Taicang, China
- ▲ Tianjin, China
- ▲ Konnagar, India
- ▲ Pirangut, India
- ▲ Pune, India
- ▲ Cikarang, Indonesia (2)
- ▲ Citeureup, Indonesia
- ▲ Noda, Japan
- ▲ Shika, Japan
- ▲ Kuantan, Malaysia
- ▲ Auckland, New Zealand
- ▲ Hamilton, New Zealand
- ▲ Calamba, Philippines
- ▲ Manila, Philippines
- ▲ Singapore, Singapore
- ▲ Hwaseong, South Korea
- ▲ Seoul, South Korea
- ▲ Hsin Chu Hsien, Taiwan
- ▲ Bangkok, Thailand
- ▲ Rayong, Thailand

EUROPE

- ▲ Tessenderlo, Belgium
- ▲ Tesjoki, Finland
- ▲ Chalons, France
- ▲ Biebeshiem am Rhein, Germany
- ▲ Siegsdorf, Germany
- ▲ Mandras, Greece
- ▲ Mullingar, Ireland
- ▲ Cisterna di Latina, Italy
- ▲ Nicelino, Italy
- ▲ Rovigo, Italy
- ▲ Rozzano, Italy
- ▲ Mosta, Malta
- ▲ Geertruidenberg, Netherlands
- ▲ Nieuwegein, Netherlands
- ▲ Varsseveld, Netherlands
- ▲ Zutphen, Netherlands
- ▲ Racibor, Poland
- ▲ Kogalym, Russia
- ▲ Aberdeen, Scotland
- ▲ Maribor, Slovenia
- ▲ Barcelona, Spain
- ▲ Celra, Spain
- ▲ Baglan, United Kingdom
- ▲ Cheadle (Hulme), United Kingdom
- ▲ Leeds, United Kingdom
- ▲ Northwich, United Kingdom

AFRICA / MIDDLE EAST

- ▲ Luanda, Angola
- ▲ Malongo, Angola
- ▲ Soyo, Angola
- ▲ Dammam, Saudi Arabia (2)
- ▲ Yanbu, Saudi Arabia
- ▲ Alexandria, Egypt
- ▲ Johannesburg, South Africa



Ecolab common stock is a member of the S&P 500 and traded on the New York Stock Exchange under ECL.



INVESTOR INFORMATION

COMMON STOCK

Stock trading symbol ECL. Ecolab common stock is listed and traded on the New York Stock Exchange (NYSE). Ecolab stock is also traded on an unlisted basis on certain other exchanges. Options are traded on the NYSE.

Ecolab common stock is included in the S&P 500 Materials sector of the Global Industry Classification Standard.

INVESTOR INQUIRIES

Securities analysts, portfolio managers and representatives of financial institutions seeking information regarding Ecolab may contact:

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External Relations
Telephone: 651 293 2809

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Investor Relations
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INVESTOR RESOURCES

SEC Filings: Copies of Ecolab's Form 10-K, 10-Q and 8-K reports as filed with the Securities and Exchange Commission are available free of charge. These documents may be obtained on our website at www.ecolab.com/investor promptly after such reports are filed with, or furnished to, the SEC, or by contacting:

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