



2018 Sustainability Report

ACCELERATING MEANINGFUL CHANGE



The world is at a crossroads. **We** see a growing global sense of urgency about challenges such as climate change, water scarcity, food security and public health. But we also have unprecedented means at our disposal to **meet** these **challenges**.

Digital technology is delivering insights that were previously unavailable **and** driving demand for smart, sustainable solutions. As the will to do better grows, so does Ecolab's ability to accelerate positive change for our customers. We help companies in a wide range of industries **deliver** clean water, safe food, abundant energy and healthy environments, sustainably.

Now is the time to make a difference. Together, we drive the **progress** the world needs.



VALUE. DELIVERED.

Value creation is the primary aim of any business. At Ecolab, we deliver results, whether it's operational efficiency, quality, safety, or sustainability benefits such as reduced water and energy usage or greenhouse gas emissions. **eROI is how we prove it.**

eROI means exponential return on investment. It allows our customers to track their progress and demonstrate value beyond the bottom line—from increasing productivity and performance to reducing operational costs and driving efficiency while achieving sustainability goals and making a positive impact in the world.

The real-life case studies in this report showcase how Ecolab delivers these outcomes through technology, insights, service and training. **With value delivered today, we can push for an even better tomorrow.**



Ecolab is committed to partnerships and programs that fulfill the United Nations Sustainable Development Goals—in particular, Goal 6, to ensure the availability and sustainable management of water and sanitation for all. (See page 22 for more on this effort.)

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At right: Serene Taylor, Marketing Communications specialist, Global Paper, Nalco Water

WITH A COMPELLING BUSINESS CASE FOR SUSTAINABILITY, GOOD THINGS HAPPEN.

In our business, we see the signs of progress all around us. Whether it's saving water and energy or reducing waste and greenhouse gas emissions, there's a growing realization that these priorities go hand in hand with business growth and profitability.

We all must work together to make the most of this opportunity. If we seize it now, we can build an economy that offers sustainable growth for all without creating additional harm to our planet.

At Ecolab, we are privileged to help drive these positive developments forward.

Our expertise puts us at the crossroads of global macro trends. Around the world, we help our customers

deal with the demands of population growth, economic growth, urbanization, changing consumer habits, climate change and water scarcity.

We do this in ways big and small, from providing a more water- and energy-efficient dishmachine program to your favorite restaurant to reducing water for steel mills, car manufacturers and power plants. In each case, we help our customers work more efficiently and reduce costs, while lowering their impact on the environment and saving energy and natural resources.

In 2018, we helped our customers around the world save 188 billion gallons of water, equivalent to the annual drinking water needs of 650 million people. We are on our way to achieving our 2030 goal of saving 300 billion gallons, enough for one billion people. We also helped customers save 19 trillion British thermal units (BTUs)

of energy, avoid 2.4 billion pounds of greenhouse gas emissions and eliminate 54 million pounds of waste.

We can do that because of our mix of service, expertise, insights and innovation. Using connected digital technology and data science, we can do things that were simply impossible just a few years ago. Today, for instance, we have 40,000 of our connected 3D TRASAR™ smart water sensors deployed worldwide, across a host of industries. Thanks to that network, we can spot trends that were previously invisible and address problems before they happen. That helps our customers

adjust to changing circumstances in real-time, boost efficiency and minimize their environmental impacts.

By the nature of our work, we help companies achieve their sustainability goals. In the aggregate, this moves the world closer to the ambition of

UN Sustainable Development Goal 6: Ensuring access to clean water and sanitation for all.

Meanwhile, we are steadily improving sustainability within our own operations. We are making systematic investments in reducing, reusing and recycling water at our plants around the world. Building on steady efficiency gains, we are closing in on our greenhouse gas emissions reduction goal of 10 percent by 2020, and thanks to a renewable power deal that we closed in 2018, we are set to surpass it significantly.

At the same time, we kept more than 71 million pounds of plastic out of landfills in the last five years. We did that by using



recycled plastic instead of virgin resin and by thinking constantly about how we can design our products more efficiently. One example: using concentrated solid chemistries in shrink wrap instead of bulky liquids in large containers, which reduces plastic needed for packaging by 99 percent.

Given what I see at Ecolab and beyond, I am optimistic that we can collectively forge a sustainable path forward. Much of the technology we need to continue to innovate is here today. Now is the time to step up our efforts and expand our positive impact.

We as business leaders have a special role to play. We can't turn the world around all by ourselves, but together, we are key to getting things moving. That's why we must set big, ambitious goals. Change is always hard. It's best to make sure the returns are worth the work. So we say, "Go big." And that is really what Ecolab is equipped to drive: change that matters.

SINCERELY,

Douglas M. Baker, Jr.
CHAIRMAN AND CHIEF EXECUTIVE OFFICER

footprint

NEARLY
3 MILLION
CUSTOMER
LOCATIONS
IN MORE THAN
170 COUNTRIES

history

96 YEARS
OF GROWTH
AND INNOVATION

people

49,000
ASSOCIATES
INCLUDING
27,000 SALES-
AND-SERVICE
PROFESSIONALS

research

19
GLOBAL
TECHNOLOGY
AND
INNOVATION
CENTERS

innovation

MORE THAN
9,400
PATENTS
AND
1,600
RESEARCH,
DEVELOPMENT
& ENGINEERING
EXPERTS

stewardship

\$17 MILLION
DONATED
IN 2018 THROUGH
THE ECOLAB
FOUNDATION,
CORPORATE
GIVING AND
VOLUNTEERISM

IN 2018, WE HELPED OUR CUSTOMERS:

clean water

CONSERVE MORE THAN 188 BILLION GALLONS OF WATER

MANAGE 1.1 TRILLION GALLONS OF WATER

CONSERVE DRINKING WATER FOR 650 MILLION PEOPLE

AND...

We work to help our customers **save 300 billion gallons of water by 2030**

safe food

SAFELY PRODUCE MORE THAN 25% OF THE WORLD'S PROCESSED FOOD

SAFELY PRODUCE 44% OF THE GLOBAL MILK SUPPLY

SUPPORT CLEAN KITCHENS, SERVING 45 BILLION RESTAURANT MEALS

AND...

We work to help customers prevent more than **1 million foodborne illnesses each year**

abundant energy

CONSERVE MORE THAN 19 TRILLION BTUS

REDUCE THE WATER AND ENERGY FOOTPRINT OF 40% OF THE WORLD'S PETROLEUM PRODUCTION

GENERATE MORE THAN 20% OF THE WORLD'S POWER

AVOID 2.4 BILLION POUNDS OF GREENHOUSE GAS EMISSIONS

AND...

We aim to reduce CO₂e by **10% in our own operations by 2020 and are well on our way to exceeding that goal**

healthy environments

CLEAN MORE THAN 40 BILLION HANDS

DELIGHT GUESTS WITH MORE THAN 800 MILLION CLEAN HOTEL ROOMS

CLEAN 6 MILLION PATIENT ROOMS

HELP HOTELS CLEAN MORE THAN 110 MILLION LOADS OF LINENS

AND...

We work to help healthcare facilities reduce the risk of healthcare-associated infections for as many as **10,000 people annually**

DRIVING CUSTOMER IMPACT



sustainability goals advance business gains

Our impact is greatest in the work we do for our customers. By helping businesses enhance their performance while reducing reliance on finite natural resources, we reduce their costs and support their growth. Through digital technology, connected chemistry and other innovative solutions, we deliver economic and environmental benefits that make businesses more efficient, productive and sustainable.

We work with our commercial partners at three million locations in more than 170 countries.
Pictured here: Paula Gallup, ADM wastewater treatment plant technician (left), conferring with Ecolab's Vice President of Corporate Accounts Tony Bleull at ADM's plant in Decatur, Illinois.



TECHNOLOGY HELPS GLOBAL TOOTHPASTE MANUFACTURER SAVE WATER AND DRIVE PRODUCTIVITY



For Colgate-Palmolive, upgraded cleaning and sanitizing processes led to efficiency and sustainability gains.

With a strong culture of sustainability, Colgate-Palmolive is committed to conserving water and energy and enhancing the efficiency of its global operations. Its Mission Hills plant in water-scarce Mexico is a prime example of the company putting its principles into action.

INSIGHT

Colgate-Palmolive has a strong and longstanding commitment to sustainability. By 2020, the global oral care, home care, personal care products and pet nutrition company aims to reduce water intensity in its manufacturing operations by half, energy intensity by one-third and absolute greenhouse gas emissions by 25 percent, all over a 2002 baseline.

Its Mission Hills plant in Guanajuato, Mexico, is one of the world's largest toothpaste production facilities. It also produces deodorant, and dish and bar soaps. With a strong culture of sustainability, the Mission Hills plant does all it can to conserve water. It is a zero liquid discharge site that recycles its treated wastewater for use in the plant's utilities and landscaping. Prior to working with Ecolab, cleaning and sanitizing the plant was a manual, hot water-only process that consumed significant time, water and energy.

INNOVATION

The plant enlisted Ecolab's help to improve the efficiency and sustainability of its cleaning and sanitizing process. Ecolab brought new solutions to Mission Hills' eight manufacturing lines. One of these, an Ecolab detergent, removes a wide array of stubborn processing residues from production equipment. The other, an Ecolab sanitizer, provides one-step sanitizing with the potential to eliminate a final water rinse.

Together, these solutions led to:

- Substantial reductions in cleaning times
- Elimination of manual washes
- Improved cleaning reliability and product quality assurance
- Significant savings in time, water and energy use
- Reductions in CO₂ emissions



solutions

Risil Mat™ detergent

Oxonia Active™ sanitizer



ANNUAL SAVINGS

WATER

1.8 MILLION
gallons [6,800 cubic meters]
of water saved per year,
equivalent to the annual drinking
water needs of 6,200 people

ENERGY

315,000
kWh of energy saved per year

AIR

472,500
pounds [200 metric tons]
of CO₂ emissions
avoided per year¹

PRODUCTIVITY

87,900
minutes [1,465 hours =
8.7 full weeks] of cleaning and
sanitizing time saved per year



HELPING ADM SAVE 2.3 BILLION GALLONS OF WATER ANNUALLY



The partnership between ADM and Ecolab has helped save billions of gallons of water and millions of dollars at locations around the world.

The Archer Daniels Midland (ADM) Company has a key role to play in feeding the world, and it counts environmental responsibility among its core values. Through its partnership with Ecolab, ADM has reduced operational costs while conserving natural resources such as water and energy.

INSIGHT

As one of the world's largest food and agriculture companies, ADM finds itself at the crossroads of a number of critical global challenges. The world's population is increasing and people are becoming wealthier. Higher incomes lead to changing diets and more and more people moving from rural to urban areas. As a result of these trends, demand for food, water and energy is growing and evolving.

ADM has a key role to play in feeding the world, and it counts environmental responsibility among its core values. **In alignment with the UN Sustainable Development Goals, the company aims to:**

- Reduce water usage intensity by 15 percent by 2018²
- Reduce energy intensity by 15 percent by 2020³
- Reduce greenhouse gas emissions intensity by 15 percent by 2020³

INNOVATION

ADM worked with Ecolab to develop a sustainable process to drive water management improvements across its global operations. Leveraging the strengths of both organizations, ADM has implemented 212 Ecolab projects globally since 2012 that have lowered energy and water usage while boosting operational performance.

Best practices that Ecolab delivered through technology and automation were critical to these successes. One example is the deployment of 160 3D TRASAR™ Cooling Water Technology units around the world. 3D TRASAR provides real-time monitoring and control of cooling systems to optimize water usage. The technology helps ADM reduce, reuse and recycle water within its plants and use graywater (recycled water) for its processes, increasing water resiliency at the local level.

As a result of its partnership with Ecolab, ADM has been able to operate more efficiently while conserving natural resources. This has significantly reduced operational costs and helped the company achieve its sustainability goals.

solutions

- 3D TRASAR™ Cooling Water Technology
- On-site expertise and continuous System Assurance Center monitoring



ANNUAL SAVINGS

WATER

2.3 BILLION
gallons [8.7 million cubic meters],
equivalent to the annual drinking
water needs of more than
7.95 million people

ENERGY

159,000
MMBTUs saved

AIR

70 MILLION
pounds [31,500 metric tons]
of CO₂ avoided per year

ASSETS

Improved asset life of
utility and process equipment

value delivered

\$28.3
MILLION
ANNUALLY

GETTING THE PESTS OUT ORGANICALLY IN BRAZIL



INSIGHT

A global food manufacturing customer in Brazil was seeking organic certification for a new line of snack foods. Ecolab Pest Elimination had worked with the company for many years, administering pesticides three times a week. To produce organic snacks, the company needed to adjust its processes and find a solution that met organic certification requirements.

The existing pest treatment process required a 12-hour halt in production after each application for evaporation of the water used in the solution and a thorough cleaning. The plant saw opportunities to improve not only its offerings, but also its operational efficiency and profitability. The new solution accomplished all three and contributed to a 30 percent increase in profitability.

INNOVATION

An on-site service specialist from Ecolab Pest Elimination inspected the plant and recommended structural improvements and hygiene solutions.

Inside the facility, Ecolab:

- Increased inspections and the number of pheromone and floor glue board traps. This led to faster identification and capture of insects that had gotten into the plant.

- Switched to organic products. These included neem oil, a naturally occurring pesticide found in neem tree seeds, and diatomaceous earth, a fine powder made from tiny fossilized algae-like plants.

Ecolab also introduced the Global Large Fly Program. It uses an innovative outside-in approach, focused on finding the root cause of large fly activity and solving issues before flies reach the interior, reducing the food safety risks associated with large flies. The key element is the Stealth™ Fly Station, a reflective device that attracts flies before they can enter a facility.

The customer received organic certification for the new product line. Plus, without the required downtime after pesticide applications, the facility gained one day of production per month (24 hours), a productivity increase of 3.3 percent.

solutions

Global Large Fly Program and devices (without pesticides)

Pheromone traps and the Stored Product Pest Program

On-site expertise and personalized customer training



ANNUAL SAVINGS

WATER

5% REDUCTION
in water use per cleaning

ENERGY

5% REDUCTION
in energy use per cleaning

SAFETY

Worker safety increased due to new pesticide practices

Potential pesticide residue **eliminated**

PRODUCTIVITY

3.3%

productivity increase through a gain of one day of production per month (24 hours) due to the **elimination of required downtime** after pesticide applications

value delivered

30%
boost in market value
VIA ORGANIC CERTIFICATION

INDIAN STEEL PRODUCER FORGES AHEAD WITH WATER SAVINGS



INSIGHT

India is home to 16 percent of the world's population but has only 4 percent of the world's water at its disposal. India also is one of the largest producers of steel, a highly water-dependent industry. While much of that water is recycled, in 2017 the steel industry in India used approximately 118 billion gallons of water.

One of India's largest steel makers is working to change this. As a result of a six-year effort, the business lowered its water consumption by 2.3 billion gallons—equal to one year of drinking water for more than 7.9 million people, more than the combined populations of the cities of Kolkata and Pune.

INNOVATION

The water savings were the result of a leadership commitment on the part of the company and a partnership with Ecolab.

Through smart water management, digital technologies, such as 3D TRASAR™ Technology, and operational management services provided by Ecolab, the steel maker optimized its cooling water use in a water-stressed area. Scaling and fouling in the cooling water made it difficult to achieve higher recirculation rates in the

cooling system without using a lot of water. The issues were addressed, thanks to 3D TRASAR's real-time monitoring and control, which is used to detect and correct variations in source water quality, reducing the demand for freshwater. These efforts also led to cost savings and reductions in energy consumption.

And this is just the start. Ecolab's digital technologies are expected to lead to even greater freshwater savings by monitoring and controlling the water quality in the mill's other critical circuits. In addition, water use was added to an online dashboard. This was a key step toward helping the company make more informed decisions and achieving its goal of zero liquid discharge.

solutions

3D TRASAR™ Technology

On-site services and continuous System Assurance Center monitoring



ANNUAL SAVINGS

WATER

380 MILLION
gallons [1.45 million cubic meters] of water equivalent to the annual drinking water needs of **1.32 million people**

ENERGY

6,525
megawatt hours

AIR

6.6 MILLION
pounds [3,000 metric tons] of CO₂ emissions

PRODUCTIVITY

Improved operational efficiency, further reducing costs

value delivered

\$7.7
MILLION
ANNUALLY



OPTIMIZING SAFE WATER AT SAP DATA CENTERS



SAP is not only a leader in the software industry, it is a leader in water safety management practices. Working with Ecolab, SAP has adopted a holistic approach to treating water to minimize the risk of Legionella bacteria.

INSIGHT

Every second people use the internet, they rely on data centers to store, manage and distribute their information. As digital traffic grows, data centers are experiencing a global growth spurt.

Data centers are buildings of servers that produce heat, so they require cooling, which takes large amounts of water and energy. Preventing microbiological growth is always an important part of the process. If not properly treated and maintained, the water used in data centers can be at risk for the presence of Legionella bacteria, which can cause Legionnaire's disease, a serious and sometimes deadly form of pneumonia. An outbreak can cause significant financial and reputational damage.

SAP, a multinational software corporation based in Germany, operates many data centers around the world. The company is dedicated to improving people's lives through technology and committed to sustainability. **As an industry leader in water safety for employees and the communities in which it operates, SAP places a high priority on preventing bacterial threats.**

INNOVATION

In 2018, SAP built two data centers in Colorado Springs, Colorado. While designing these sites, the company's engineers worked with Ecolab to ensure proper water safety practices were in place. This included implementing Ecolab's 3D TRASAR™ Technology and a comprehensive water management plan. With these solutions, Ecolab has helped SAP take a holistic approach to water safety by properly treating water and continuously testing to minimize the threat of Legionella bacteria and help ensure safe water.

By partnering with Ecolab, SAP is proactively managing the risks associated with the water used at its data centers globally. SAP is staying ahead of the game and demonstrating that it is a leader in the industry when it comes to water safety management practices and commitment to water safety. Ecolab helps SAP minimize risks and avoid unexpected costs that challenge the data center industry.

solutions

3D TRASAR™ Cooling Water Technology

Comprehensive water safety management plan



PRODUCTIVITY

\$8 MILLION
in potential revenue loss avoided from interruption of operations and distraction from business priorities⁴

ASSETS

\$5,000
per additional year of useful life for a cooling tower as a result of more targeted water safety practices

SAFETY

Increased protection of employees and local communities and validated Legionella testing compliance to further drive safety

value delivered

\$2.6 MILLION
ESTIMATED ANNUAL COST AVOIDANCE OF A LEGIONELLA OUTBREAK⁵

HELPING HILTON MINIMIZE ITS ENVIRONMENTAL FOOTPRINT



INSIGHT

With more than 5,700 properties in 113 countries, Hilton is a global leader in hospitality and sustainability. In 2018, Hilton launched its new Travel with Purpose 2030 targets aimed at driving positive social and environmental change on a global scale.

The program seeks to advance sustainable travel globally, and contribute in a meaningful way to the UN Sustainable Development Goals. **By 2030, Hilton plans to cut its environmental footprint in half by:**

- Reducing water use intensity by 50 percent
- Reducing waste by 50 percent
- Reducing carbon emissions by 61 percent

INNOVATION

Ecolab has collaborated with Hilton properties around the world in many different capacities to jointly drive sustainable savings while improving performance and ensuring guest satisfaction.

Hilton also has realized significant sustainability savings through global deployment of Ecolab technologies, including:

- SMARTPOWER™, a warewashing program that combines innovative chemistry with actionable insights and personalized service to deliver clean wares while reducing water, energy and costs.
- Aquanomic™ Low-Temp Laundry Program, which delivers premium results at a lower wash temperature, leaving textiles white and bright while extending linen life and saving water and energy.

These programs, combined with other solutions, help Hilton drive progress toward achieving its ambitious Travel with Purpose 2030 sustainability goals.



ANNUAL SAVINGS⁶



WATER

417 MILLION
gallons [1.6 million cubic meters] of water, equivalent to the annual drinking water needs of more than 1.4 million people



ENERGY

70.3 MILLION
kWh of energy saved



AIR

28.3 MILLION
pounds [12,800 metric tons] of CO₂ emissions avoided



WASTE

903,000
pounds [409,593 kilograms] of waste reduced

solutions

3D TRASAR™ for Cooling Water

Aquanomic™ Low-Temp Laundry Program

Oasis Pro™ Housekeeping

SMARTPOWER™

Solid Power XL

Wash 'n Walk Floor Cleaner

THIS PARTNERSHIP IS THE WHOLE PACKAGE



INSIGHT

The rise in online shopping and delivery services, combined with consumer preferences for packaging materials that are produced in an ethical and responsible way, has had a major impact on the packaging industry. It's more important than ever to create quality packaging, but manufacturers must do so while minimizing environmental impact.

INNOVATION

To accomplish both goals, one of the world's largest paper and packaging manufacturers turned to its longtime partner Nalco Water, an Ecolab company.

Through expert service and a focus on process and quality improvements, Nalco Water has been instrumental in helping the company achieve process optimizations and sustainability savings for everything from bleaching and wash water processes to improving asset life, reliability and quality.

In 2018, Nalco Water identified an opportunity to help the company improve water use efficiency for a turbine condenser at a mill in the United States. This turbine generates nearly all of the plant's electricity and is a key part of the overall papermaking process. Nalco Water implemented 3D TRASAR™ Water Management Technology to help the turbine condenser operate more efficiently. The impact was two-fold: It optimized production and led to significant water savings. As a result, Nalco Water was able to save the company 132 million gallons of water a year.

solutions

3D TRASAR™ Water Management Technology

On-site service and personalized customer training



ANNUAL SAVINGS



WATER

132 MILLION
gallons [500,000 cubic meters] of water saved in one location, equivalent to the annual drinking water needs of 450,000 people



PRODUCTIVITY

Enhanced productivity as a turbine condenser was able to operate more efficiently

value delivered

\$600,000
ANNUALLY
FROM REDUCED WATER USE, ALONG WITH MORE EFFICIENT CHEMISTRY USE



BRAZILIAN POWER PLANT TURNS TIDE ON DROUGHT



INSIGHT

What do you do when your facility has an abundance of water from heavy rains for half the year and is faced with drought the other six months? You look for a way to make the most of the water you have and ensure that it is clean, so you can achieve optimum system performance and bring down the costs associated with periods of water scarcity.

Energias do Brasil (EDP) faced this situation at a power plant in northeast Brazil. The solution: Purate™ onsite chlorine dioxide generation.

INNOVATION

The EDP plant relies on lake water for its cooling system. During droughts, when there is less water in the lake and the price of water goes up, the plant reuses water so it can draw less from the lake. The power plant was looking to increase recirculating cycles from an average of six to seven cycles up to 10. To do this, it had to control high levels of minerals and microbiological growth in the water, both of which affected the cooling system's performance.

The plant also faced corrosion and foaming issues and it was using different treatment options to address these concerns. But the treatments failed to keep the cooling system clean.

To gain control of water quality in the plant's cooling system, Ecolab introduced Purate Technology. Because Purate is more effective at treating corrosion and foam issues than the previous solution and is also a more effective disinfectant, it improved microbiological control and reduced chemistry consumption. Using Purate and its remote data monitoring capabilities, the power plant was able to increase cooling tower recirculating cycles up to 10, meet outgoing water quality standards and operate efficiently during the dry months of the year. Purate also led to significant reductions in energy usage and greenhouse gas emissions.

As a result of this partnership, Ecolab won EDP's supplier of the year award in both 2017 and 2018.

solution

Purate™ Technology

ANNUAL SAVINGS

WATER

316 MILLION
gallons [1.2 million cubic meters]
of water

ENERGY

Fuel savings equal to
283,000
MMBTUs [298 trillion joules]

AIR

18.9 MILLION
pounds [8,600 metric tons]
reduction in CO₂ emissions, equivalent
to the annual greenhouse gas emissions
from 1,800 passenger vehicles

SAFETY

Reduction of chemistry handling:

428,000
pounds [194,137 kilograms]
of sulfuric acid

60%
anti-foam reduction

value delivered

\$2.5
MILLION
ANNUALLY



LOCAL EATERY BECOMES ECOLAB TEST KITCHEN



INSIGHT

The restaurant sector is changing because of consumers' evolving preferences – especially on the part of millennials. Independent restaurants and regional chains are gaining in popularity, with almost 250,000 independent restaurants in the U.S. alone. While the large chains have dedicated supply chain, sustainability and food safety teams, the independent restaurateurs often have to work things out for themselves. Ecolab can help.

The Buttered Tin is a popular eatery in St. Paul, Minnesota. The owner is Alicia Hinze, a graduate of the famous Le Cordon Bleu cooking school and former winner of the Food Network's "Cupcake Wars" baking competition. With expansion plans in the works, she is looking to Ecolab for support.

"I'm an Ecolab fan because we've become such great partners," she said.

INNOVATION

When Hinze opened The Buttered Tin in 2013, one of the first things she needed was an under-the-counter dishmachine that fit in her limited space. She turned to Ecolab, the world's largest supplier of leased commercial dishmachines.

In 2015, Hinze joined Ecolab's dishmachine testing program. The lessons learned at The Buttered Tin help restaurants elsewhere work more efficiently and sustainably. "The main reason for the testing is learning how to conserve water,

energy and products," she said. "How much do you use, what's the optimal temperature? We're learning all the time."

For a small restaurant, optimizing chemistries and equipment also is a cost-saver. At The Buttered Tin, cleaning products, detergents and sanitizers are a significant weekly expense, so Ecolab's highly efficient products not only save water and energy, but also money.

At the future locations Hinze is prospecting, she strives to be even more sustainable, and Ecolab will be there from day one. "It starts with the floor plan," she said. "Where do we put the Ecolab dishwasher and the products? Or even just the floor itself: Ecolab tells us which products to use and how to clean it. It's really important to get that right, because you can save products, time, energy and water."

solutions

U-UHT High temperature undercounter dishmachine

Ultra Klene and Ultra Dry dishmachine product

Wash 'n Walk no-rinse floor cleaner

Oasis 146 Sanitizer

PanTastic non-phosphate pot and pan detergent

ANNUAL SAVINGS

WATER

960
gallons [3,600 liters] of water
saved through a more efficient
dishmachine and a floor
cleaning product that requires
50 percent less water

ENERGY

290
kWh saved through a more
efficient dishmachine and
reduced heat for floor cleaning

WASTE

Up to
37%
less waste using concentrated product,
which requires less packaging

SAFETY

Enhanced food safety
through products that kill
99.9%
of bacteria and reduce
cross-contamination risk

Enhanced employee and
guest safety with products
that reduce slips and falls



IMPACT THROUGH STEWARDSHIP

partnerships for positive change

Environmental stewardship entails managing and protecting resources that need to be cared for and preserved, including shared assets such as water. Our investments in people and nature address global challenges that threaten vital natural resources, so we can help ensure a healthy and sustainable future for all.

CLEAN, ABUNDANT WATER FOR ALL



Water scarcity is the new normal. As the effects of population growth, economic growth and climate change put pressure on this essential resource, Ecolab is helping companies take steps to reduce their water usage and protect the needs of communities and the natural environment.

With Sustainable Development Goal 6, the UN calls for ensuring “availability and sustainable management of water and sanitation for all” by 2030. Because we help our customers manage more than



a trillion gallons of water every year, there is no company that can do more to help business contribute to that goal than Ecolab.

If we want to help the one in nine people on Earth whose basic water needs are unmet, support the more than two billion who live in water-stressed areas today and preserve the global growth that has lifted hundreds of millions out of poverty in recent decades, industry will have to do more with less water. That goal is attainable, but the reality is that corporate water usage hasn't fallen nearly enough.

At Ecolab, we help companies of all sizes reduce, reuse and recycle water, so they can work more efficiently and grow sustainably. As an industrial water user ourselves, we also know the value of stewardship – collaborating with other stakeholders in the places where we operate to care for shared water resources. We are working with our customers, public institutions and non-governmental organizations to expand smart water management practices around the world.

Water stewardship is a crucial aspect of protecting the planet, but it also allows us to build successful, resilient businesses and a forward-looking economy in which people and communities can thrive.

PROMOTING RESPONSIBLE WATER USE AROUND THE WORLD

Ecolab is a founding member of the Alliance for Water Stewardship (AWS), a global coalition to promote sustainable water use. We were actively involved in the launch and implementation of the AWS certification framework, the International Water Stewardship Standard. In 2015, our plant in Taicang, China, was the first in the world to be independently certified under this standard. Ecolab's facilities in Carson and City of Industry, California, were certified in 2017. Our plant in Garyville, Louisiana, is on track to be certified in 2019.



GLOBAL WATER CHALLENGES

71% of the world's surface is covered in water

0.3% is accessible for human consumption

THE WORLD'S POPULATION

Today: **7.5 BILLION**

By 2050: **9.8 BILLION**⁷



1 IN 9 PEOPLE lack access to basic drinking water⁸



BY 2030

Global water demand will outpace supply by 40% – if nothing changes⁹



In high-income countries, industry uses more than **40%** of all water and up to **59%** in some places¹⁰



80% of the world's wastewater is discharged untreated¹¹

ONLY 3% is recycled¹²

We have the knowledge and technology to do much better. Now is the time to get water-smart.

TOOLS FOR CHANGE



ASSESSING THE FULL VALUE OF WATER

The real value of water for a company is not the same as what appears on its monthly water bill. To business, the cost of water scarcity is

often significantly higher than its nominal price. Ecolab's Water Risk Monetizer, a publicly available tool launched in 2014 in collaboration with Microsoft and TruCost and updated in 2017, places a dollar value on water risk for each of a user's facilities. It provides actionable insights that help companies develop sound business strategies and positions them for growth in an increasingly water-scarce world. www.waterriskmonetizer.com



BRIDGING THE GAP BETWEEN CORPORATE WATER GOALS AND REAL RESULTS

Most companies have water reduction goals, but too many don't know how to achieve them.

To close the gap, we launched the Ecolab Smart Water Navigator in partnership with industry-leading advisors. Drawing from an online assessment, the tool generates a step-by-step guide for each facility, tailored to its industry, location and current water performance. Using the guide, facilities can improve their practices until they master truly circular water management and become “Water-smart.”

The tool is free and publicly available for companies in any industry, anywhere in the world, whether they manage one facility or hundreds. www.smartwaternavigator.com

PARTNERSHIPS FOR PEOPLE AND NATURE

We strive to make a positive impact in the places where we live, work and play. The Ecolab Foundation works to build essential life skills, spur action to support ecosystems, and increase access to critical resources and valuable experiences

Since 1986, the Ecolab Foundation has contributed \$114 million to nonprofit organizations around the world. In 2018, our impact through corporate giving, non-governmental organization (NGO) grants, product donations and employee volunteerism totaled \$17 million.

The Foundation assists communities with grants to support youth and adult education, artistic communities and the environment, with a focus on water.

awareness

At the root of change lies awareness. Through donations and volunteerism, we support education, building the foundations for healthy lives in harmony with the natural environment.

SUPPORT FOR EDUCATION

- We contributed \$7 million to support early childhood education and college access, including a \$5 million grant to the University of Minnesota for sustainability research and education. (See sidebar.)
- \$435,000 supported organizations that educate youth about nature and conservation.

SOLUTIONS FOR LIFE

- We continued our support for Solutions for Life. In partnership with the Project WET Foundation and The Nature Conservancy (TNC), the program supports Ecolab's mission to conserve water and improve hygiene around the world. It aligns with UN Sustainable Development Goal 6, ensuring clean water and sanitation for all.

PROJECT WET FOUNDATION

- Project WET has reached more than 7 million people in 88 countries through the Clean and Conserve Education Program, a free curriculum to educate

youth about water conservation and hygiene, available in multiple languages. Free teaching tools can be found at www.projectwet.org/cleanandconserve.

- In 2018, Ecolab committed to a three-year sponsorship of Project WET's DiscoverWater.org website for students.



TRAINING THE NEXT GENERATION OF EXPERTS

With sustainability concerns growing in importance for business and society, it is vital that we build a steady pipeline of experts offering fresh ideas and solutions. With that goal in mind, the Ecolab Foundation awarded a \$5 million grant to the University of Minnesota in 2018, to support environmental sustainability research, student scholarships and education.

The program's cornerstone is \$2 million in funding for a new endowed chair at the University's Institute on the Environment. A conference series will bring together top minds in the field to drive progress on major environmental challenges.

The Foundation also will invest more than \$1.8 million in undergraduate scholarships. Additional Ecolab Foundation investments will support immersive student experiences with global and local partners, focused on water quality and supply, energy, sustainable development and public health.

action

Change doesn't happen without action. Every year, our employees spend tens of thousands of hours helping those in need and restoring natural habitats.



VOLUNTEERISM

- In 2018, more than 6,700 Ecolab volunteers participated in 280 projects in 15 countries. They volunteered more than 66,000 hours, valued at \$2 million.
- Ecolab's Global Team Volunteer Grant program provided \$420,000 to support 60 events around the world, including eight projects with 1,000 volunteers

to help provide housing with Habitat for Humanity; 19 projects that delivered food to those in need; two large conservation projects in Mexico, in partnership with The Nature Conservancy, where volunteers planted 2,000 trees; and numerous smaller, local initiatives.

THE NATURE CONSERVANCY

- Our partnership with The Nature Conservancy resulted in continued work in Minnesota to help protect the headwaters of the Mississippi River. It also maintained support for funds to protect the Dongjiang River Basin and Qiandao Lake in China.
- The partnership also helped provide 60,000 pine tree saplings annually for reforestation in Mexico's Cumbres de Monterrey National Park.

access

In all our work, we strive to make sure that no one is left behind. We foster strong, caring communities, expanding access to basic needs, education and culture.

STRENGTHENING COMMUNITIES

In 2018, we provided:

- \$4 million in funding for organizations that provide vulnerable citizens with access to food, housing and job training.
- \$735,000 for performing arts and arts education.
- In addition, 26 United Way chapters in the U.S. received more than \$1 million in grants, through Ecolab's employee donation matching program.

CLEANING UP AFTER DISASTERS

When disaster strikes, disease and infections are never far behind. As the world's leading supplier of cleaning and sanitizing solutions, Ecolab offers assistance to those in need.

In 2018, we provided 617,400 pounds of Ecolab product donations, totaling \$1.5 million, to relief efforts through partnerships with World Emergency Relief and Good360.

Ecolab products were distributed to people affected by hurricanes and earthquakes. We also supported disaster relief and other initiatives in multiple U.S. states and in Belize, El Salvador, Guatemala, Guyana, Haiti, Honduras, Indonesia, Jamaica, Mexico, Moldova and Puerto Rico.



building on our progress everywhere, every day

Our sustainability efforts go beyond what we do for our customers and what we achieve in our own operations. To truly make a difference, we need to accomplish even more. We work every day to set an example for responsible leadership by developing new technology, partnering with government and nonprofit organizations, and delivering results. It's all part of our purpose—to make the world cleaner, safer and healthier.



HOW WE LEAD

LEADING BY EXAMPLE

At Ecolab, we are working with our customers and in our own operations to conserve natural resources and reduce greenhouse gas emissions.

Our impact through customers is exponentially larger than the savings we achieve at our own facilities. In 2018, we helped our global partners save 188 billion gallons of water, equivalent to the annual drinking water needs of 650 million people. We are on track to meet our goal of saving 300 billion gallons annually – equal to the needs of one billion people – by 2030.

We also helped our customers conserve more than 19 trillion BTUs of energy and avoid 2.4 billion pounds of greenhouse gas emissions.

In our own operations, we reduced water withdrawals on an intensity basis by 1.4 percent from a 2015 baseline toward our goal of a 25 percent intensity-based reduction by 2020. We plan to bring further water-saving projects to completion by the end of 2020 to accelerate our progress.

At our plant in Clearing, Illinois, Ecolab's largest water user, we installed a top-of-the-line water reclamation system that will reduce the plant's water use by up to 20 percent when the system is at full capacity (see page 32). Our Garyville, Louisiana, plant has reduced its water intake by 85,000 gallons a day, reusing filtered Mississippi River water (see page 32).

In 2018, we reduced our greenhouse gas emissions on an intensity basis by 8.4 percent from a 2015 baseline, close to our goal of 10 percent by 2020. We shifted our reporting from a location-based method to a market-based one, aligned with best practice standards, so we could account for our growing renewable electricity purchases and on-site generation.

The drivers for our emissions reductions are renewable electricity purchases in Europe and increased overall water and energy efficiency. Thanks to a North American renewable electricity deal we signed in 2018 (see page 32), we are set to surpass our global greenhouse gas emissions goal significantly.

PRODUCT SUSTAINABILITY

We take a holistic approach to product sustainability, focusing on the total outcomes of our solutions. Our products and programs are designed to protect customers, natural resources and employees. We use rigorous, globally accepted scientific metrics to assess human health and environmental impacts. Ecolab never compromises on safety.

As shifts in consumer values and legislative oversight change the marketplace, everyone at Ecolab shares the responsibility of keeping our product portfolio and our customers ahead of the curve, making the right choices for people and the planet.

Our approach is based on systems engineering and the belief that products, packaging, digital technology, training and service should come together to deliver the best solutions in a safe, reliable and economical manner. This includes preparing our customers for changing legislation and product disclosure requirements.

We closely track every chemistry in our portfolio. Through our Enterprise Resource Planning system, we store and manage raw material and product information in a central database, down to the parts-per-million level.

The system houses global and regional restricted substance lists, enabling Ecolab to manage existing products and assess new innovations. The database also allows review by the Chemical Footprint Project, a nonprofit that benchmarks companies as they reduce chemicals of high concern and select safer alternatives.

We combine best-in-class programs with industry-leading service and go above and beyond regulatory requirements to ensure the long-term sustainable outcomes of our solutions.

Ecolab's 2020 sustainability goals

REDUCE WATER WITHDRAWAL BY **25%***

REDUCE GREENHOUSE GAS EMISSIONS BY **10%***

customer impact goal

IN 2018, WE HELPED OUR CUSTOMERS SAVE MORE THAN **188 BILLION GALLONS OF WATER**

Equivalent to the drinking water needs of **650 million people.**

By 2030, we aim to conserve **300 billion gallons of water per year by reducing water consumption in our own and our customers' operations.**

This equals the annual drinking water needs of more than **1 billion people.**

*Measured by intensity per million U.S. dollars in sales.

OUR COMMITMENT TO DIVERSITY AND INCLUSION

Ecolab believes the best teams are diverse and inclusive. Our goal is gender and ethnicity representation that reflects our communities and we align our employee programs, recruitment and talent development efforts with this approach.

In 2018, we enhanced our recruiting strategy to increase the diversity of our talent pool. We insist on diverse candidate slates and have begun to embed diversity and inclusion into all aspects of the employee experience.

Our Board of Directors reviews our global representation metrics twice a year. Senior leaders are accountable for driving improvement in hiring and promotions. On a quarterly basis, Talent Councils create development plans for diverse talent, review scorecards for each business, function and region, discuss areas of progress and opportunity, and advise on further advancement.

Our 10 Employee Resource Groups (ERGs) represent Ecolab's diverse culture. They provide opportunities for associates to develop, share business insights, drive engagement and experience a sense of belonging. With nearly 6,000 members and 72 global chapters, membership grew by 25 percent in 2018.

2018 MILESTONES

- Signed the **Business Statement for Transgender Equality**
- Marked the **first anniversary of our Executive Diversity and Inclusion Council**
- Marked the **first anniversary of signing the CEO Action Pledge for Diversity and Inclusion**
- **Participated for the first time in the Twin Cities, Minnesota, Pride Parade.** Chairman and CEO Doug Baker and Chief Human Resources Officer Laurie Marsh led Ecolab's contingent.
- Held **50 unconscious bias training sessions** for employees
- Awarded **100 percent of community grants** to organizations serving ethnically diverse populations
- **Increased leadership diversity** – 36 percent of our Board of Directors are women, 14 percent are people of color
- **Increased the number of executive women** by 17 percent since 2016
- **Increased the number of executives of color** by 36 percent since 2016

CUSTOMER-FOCUSED SMART SOLUTIONS

Faster, smarter, better. That's what we strive for and innovation is crucial to these efforts. With 9,400 patents, we have a rich history of inventing new programs and technologies that help our customers save time and resources, and 2018 was no different.

When the 1,600 scientists, engineers and technical specialists working at our 19 technology and innovation centers develop new and better solutions, delivering value is always top-of-mind. Most often, our products deliver a range of benefits, including efficiencies, cost savings and sustainable impact.

From packaging and ingredient chemistries to advanced analytics and digital technology, we never stop thinking of ways to support our customers around the world as they work to make their own operations more profitable, efficient and sustainable. That's why we incorporate eROI (exponential Return On Investment, see page 1) from the very first step in the development process.



2018 innovations

MARKETGUARD™ 365 collects and consolidates food safety data for food retail operators through an online portal and mobile app. The tool provides real-time compliance insights and digitizes food safety tasks and temperature monitoring.

enVision™ is a smart laundry management system for commercial operations. It provides laundry managers with real-time information and actionable insights, delivering consistent quality, improved efficiency, and reduced operating costs.

The **Washer Process Monitoring System** proactively monitors surgical instrument cleaning and sterilization. It provides actionable insights and digital documentation to help deliver safer, more efficient and sustainable patient care. The system combines an advanced washer indicator to ensure that the highest cleaning standards are met along with app-based data collection, dashboard reporting and analytics.

Ultis™ Dry² Strength Technology is a dry-format chemical additive that helps paper companies produce stronger, lighter boxes, with less fiber and energy. With its lighter weight and compact packaging, it is safer to handle than liquid formulations and can cut transportation needs by up to 90 percent, which reduces our customers' carbon footprints.

Non-phosphorus cooling treatment helps industrial customers comply with stringent discharge regulations to prevent rapid and harmful algae formation. The treatment improves performance and extends asset life in challenging water conditions.

Food Protect Plus Fumigation helps food manufacturers deal with pests across the value chain. Capabilities include fumigation for shipboard cargo, import/export, grain storage, warehouses and manufacturing facilities. Ecolab's fumigation expertise and holistic approach ensures that our customers can deliver safe food while reducing unplanned downtime and labor costs.

The **Scrub Free** bathroom cleaning system, with advanced chemistry and an ergonomically designed foam sprayer, makes cleaning easier, faster and safer. The system increases labor efficiency by saving up to two minutes of cleaning time per bathroom, which means significant cumulative labor savings for hotel operators. It increases employee safety by reducing physical effort, time spent in taxing positions, and risk of injury.



"There are more than **660,000 restaurants** in the U.S. alone. Almost every single one of them has at least one dishwasher. With all those units in operation, there's enormous potential for water and energy savings."

JONATHAN BUTWINICK,
ECOLAB RESEARCH, DEVELOPMENT & ENGINEERING PROGRAM LEADER

CHANGING THE WORLD, ONE DISHMACHINE AT A TIME

Ecolab's capacity for innovation depends on our people. Every day, our Research, Development & Engineering team works on ways to make systems more efficient, lower their impact on the environment and save money for our customers.

One of those innovators is Research, Development & Engineering Program Leader Jonathan Butwinick, who led the development of Ecolab's **EHT dishmachine** for restaurants. Before he joined Ecolab, Butwinick worked in the aerospace industry, designing avionics sensors for large passenger planes.

He came to Ecolab because he wanted to make a more significant positive impact on the environment and public health. "You don't think about it when you're enjoying a meal at a restaurant, but dishwashers are a

big part of keeping our food safe," he said. "If they don't work correctly, food and bacteria can be left on silverware and plates, and you risk cross-contamination when dishes have to be rewashed by hand."

Through an innovative combination of temperature, mechanical action and chemistry, the EHT machine does in 60 seconds what a typical home dishmachine does in 60 minutes. It also uses 50 percent less water and energy than previous models. Each newly installed unit saves enough water to fill two backyard swimming pools every year and enough energy to drive a Toyota Prius 200 miles a day, when compared to a traditional dishmachine. Each machine is monitored remotely and Ecolab can alert restaurants to potential issues and send over service staff before anything goes wrong.

"That's just as much of an engineering challenge as designing any aerospace system, and just as satisfying," said Butwinick. "You may not think dishwashers are very exciting, but think about the huge everyday impact in the world. Currently, there are more than 660,000 restaurants in the U.S. alone. Almost every single one of them has at least one dishwasher. With all those units in operation, there's enormous potential for water and energy savings."

INVESTING WHERE IT MATTERS



A new wind farm to be constructed by Clearway is expected to cover 100 percent of Ecolab's annual energy use in the United States.

What we do for our customers, we do ourselves. Whether it is reusing and recycling water, reducing our waste, energy use and greenhouse gas emissions or collaborating with the community to make the most sustainable use of shared resources, we are always working to reduce our environmental footprint.

SAVING MILLIONS OF GALLONS OF WATER ANNUALLY | CLEARING, ILLINOIS

Our plant in Clearing, Illinois, is Ecolab's largest producer of colloidal silica, a material that touches everything from nanotechnology and LED lights to smartphone screens and metals. But colloidal silica manufacturing is water-intensive. The Clearing plant consumes a quarter of all water used in Ecolab's manufacturing facilities, more than any other.

One of the ways that we are reducing water use at Clearing is by reusing process water. As a result, we have been able to expand colloidal silica manufacturing while using less water per ton.

In addition, Clearing installed a water reclamation system that takes wastewater from the colloidal process and treats it for reuse. When at full capacity, it is expected to reduce the plant's water use by up to 20 percent.

The Clearing facility proves that older plants can be just as water-smart as new ones. Customers will be able to learn about these technologies when the Clearing Customer Experience Center opens in 2019.

WIND POWER DEAL PUSHES ECOLAB PAST ITS GREENHOUSE GAS EMISSIONS TARGET | TEXAS

In late 2018, Ecolab inked a virtual power purchasing agreement (VPPA) with renewable energy producer Clearway, which is constructing a 418-megawatt wind farm in Texas. When the facility opens in 2020, Ecolab will participate in 100 megawatts of that capacity – enough to power 27,000 single family homes for a year.

The deal is expected to cover 100 percent of Ecolab's annual electricity use in the

United States, and will enable us to reduce greenhouse gas emissions by 25 percent, more than doubling Ecolab's goal of a 10 percent reduction by 2020.

REDUCING WATER INTAKE BY 85,000 GALLONS A DAY | GARYVILLE, LOUISIANA

Ecolab's plant in Garyville, Louisiana, is our second-largest manufacturing facility by volume and second-largest water user. Located on the Mississippi River, it takes in 600,000 to 700,000 gallons of river water a day.

The plant uses sand filters and continuous backwash technology to purify river water before it can be used in the manufacturing process and discharged back into the Mississippi River. The filters deliver excellent water quality, but in the past, 100 gallons of water per day was required to clean them.

In 2018, we started reusing the backwash water at the start of the manufacturing process. This reduces the plant's intake of river water by 85,000 gallons a day. The plant also is using less chemistry and saving electricity by running pumps less often.

REACHING 100% RENEWABLE ENERGY | EUROPE

This year, we set an ambitious 2020 goal for our plants in Europe: Ensure that 100 percent of the energy we use comes from renewable sources. And we're just about there, with 99.4 percent of our electricity now generated by renewables. We did this by: investing in more energy-efficient production equipment, moving from incandescent to LED lighting across the region, purchasing renewable energy and installing solar panels.

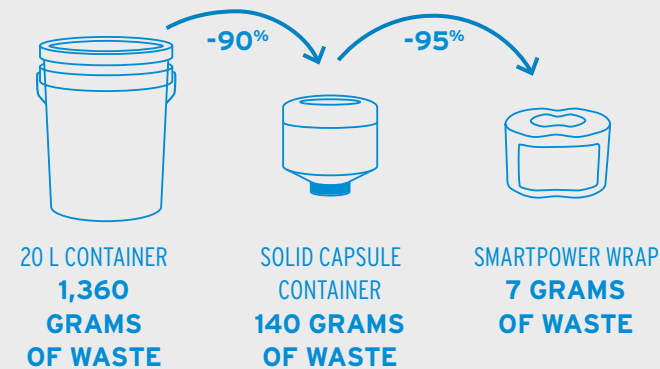
PUTTING A LID ON PLASTIC PACKAGING

Ecolab has been steadily reducing its use of plastic. In 2018, we saved more than 15 million pounds of newly produced plastic. Because of innovations in the way we formulate and package products for our customers, we have kept 71 million pounds of plastic out of circulation since 2014. We also have increased the recycled content in our plastic packaging materials by 10 percent every year since 2014.

how we did it

Dishwashing detergent

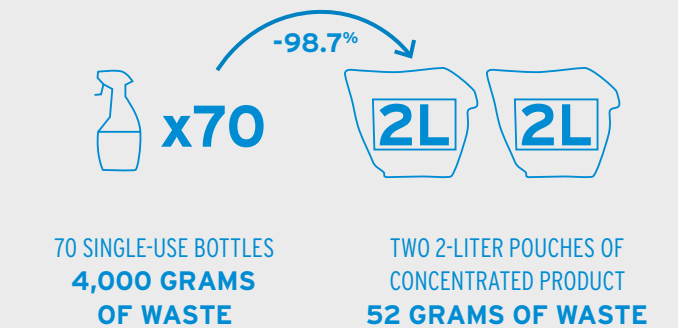
By moving from liquid chemistry in a bulky container to a shrink-wrapped solid capsule for our SMARTPOWER™ warewashing program, we reduced plastic use by more than 99 percent since 1960 while delivering the same clean end result.



PLASTIC REDUCTION: 99%

Cleaning products

Our Oasis Pro system dispenses professional cleaning products into reusable bottles from small pouches, replacing single-use spray bottles.

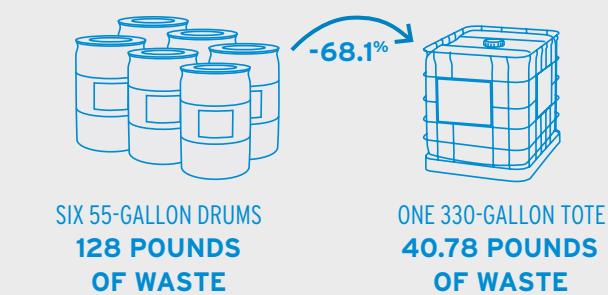


PLASTIC REDUCTION: 99%

Industrial chemistries in reusable totes

By delivering products in one 330-gallon intermediate bulk container (IBC) instead of six 55-gallon drums, we save 87.2 pounds of plastic.

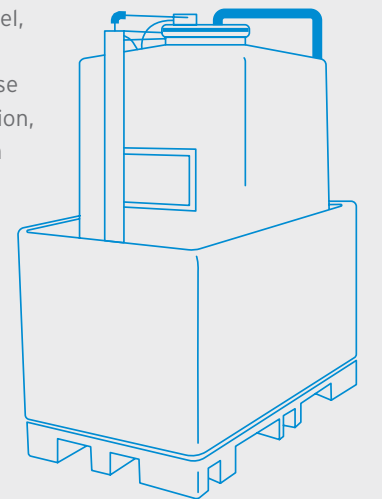
Ecolab's drums and IBCs are reusable for up to three years. This reduces the number of new 55-gallon plastic drums required by approximately 24 percent, and the number of new IBCs by just over 25 percent.



PLASTIC REDUCTION: 10 MILLION POUNDS IN 2018

PORTA-FEED™ containers

In 1985, Ecolab's Nalco Water division began shipping industrial chemicals in steel, reusable bulk containers instead of plastic single-use drums. Since its introduction, the PORTA-FEED program has eliminated disposal of more than four million chemical drums.



4 MILLION PLASTIC DRUMS SAVED SINCE 1985

WORKING OUR WAY TOWARD ZERO



Zero safety, health and environmental incidents – at any Ecolab location, and wherever we operate. That is the safety goal we set for ourselves.

As we work toward this goal, we place great value on setting high global standards and developing new ways to deliver our safety programs across a complex global workforce. We combine a data-driven approach to risk reduction with education, engagement and team member empowerment. Everyone is expected to halt work any time they see an unsafe situation. The health and safety of our employees is our highest priority.

INCREASING DRIVER SAFETY

With 27,000 field associates visiting customers at about three million locations in more than 170 countries, driving is a key risk factor and a prominent area for improvement. Since 2013, we have reduced our total vehicle accident rate by 8 percent and our severe vehicle accident rate by 29 percent.

In 2018, our U.S. Pest Elimination team successfully piloted a predictive driver safety program that reduced accidents by 30 percent. The program uses training and

coaching, and applies digital technology to measure driving behavior and indicators such as traffic tickets to identify drivers who are most likely to have an accident. The program will be deployed in the United States and Canada in 2019 and expanded to other countries starting in 2020.

The benefits of the program stretch well beyond the workplace. We know that good driving habits learned at work will transfer to employees' off-duty driving, increasing safety for their families and the community.

SAFETY EVERYWHERE WE WORK

In 2018, our personal injury rate decreased 3 percent and our lost time injury rate in North America fell by 5 percent.

To continue to reduce accidents and injuries, we make sure that all employees have easy access to safety information. In 2018, Ecolab launched 13 global policies emphasizing a high level of risk awareness and mitigation for all employees, across all divisions and countries, and within our own Supply Chain organization.

The policies establish a common set of expectations and tools for all employees. Our global safety programs are easily accessible for employees through an app that works on all mobile devices and is available in 19 languages, providing a truly global tool that matches the needs of our workforce.

As a result, we have seen a significant increase in the number of employees engaging in our safety programs along with improvements in our injury rates.

SAFETY CULTURE

Companies with the strongest safety results foster a culture that puts safety, health and environment concerns first.

In 2018, Ecolab assessed its safety culture through a global engagement survey sent to all employees. These survey questions addressed different aspects of workplace safety, including leadership support, adequacy of training, and whether employees feel they can stop work if they feel unsafe.

The safety questions had the most positive ratings on the global survey. Ecolab's 85 percent positive response rate was significantly higher than the benchmark for other Fortune 500 companies. Most important, the questions revealed remaining areas for improvement and opportunities to continue to enhance our safety culture.

We are pursuing those opportunities to further strengthen safety throughout our organization. As we get closer to zero, the safety of our people and those whose lives we touch remains our number-one priority.

GOAL ZERO

Our overarching safety goal is zero incidents. But Goal Zero is not just a number, it is a journey. On the way there, Ecolab places great value on training and education. Both at our own facilities and customer locations, we assess risk before we start work, identify and address safety issues, and remedy hazardous situations.

2018 SAFETY METRICS

TOTAL RECORDABLE INJURY RATE (NUMBER OF INJURIES AND ILLNESSES PER 100 WORKERS)

	2017	2018	% change
North America	1.77	1.54	-13%
Europe	0.68	0.90	32%
Asia Pacific	0.31	0.50	61%
Greater China	0.27	0.23	-15%
Latin America	0.67	0.99	48%
Middle East & Africa	0.63	0.35	-44%
Total Assets	1.17	1.13	-3%

TOTAL VEHICLE ACCIDENT RATE (PER MILLION MILES DRIVEN) FATALITIES: 5

	2017	2018	% change
North America	2.77	2.8	1%
Europe	4.94	5.02	2%
Asia Pacific	2.26	2.06	-9%
Greater China	1.91	1.8	-6%
Latin America	2.82	2.88	2%
Middle East & Africa	2.71	2.49	-8%
Ecolab Total	3.09	3.08	0%

- Ecolab has a corporate-wide goal of zero accidents and injuries.
- 2017 data was amended to account for acquisitions and divestitures.
- Data for all countries outside of the United States is reported on a one-month lag. December 1, 2017 - November 30, 2018.
- This information cannot be broken down by gender and does not include data for independent contractors.
- All global operations conform to OSHA injury reporting standards.

LOST TIME INJURY RATE (LOST DAYS PER 100 WORKERS)

	2017	2018	% change
North America	0.83	0.79	-5%

As Ecolab transitioned to a web-based platform for injury and incident reporting, we identified opportunities to improve the consistency of tracking lost time injury rates outside of North America. This improvement will continue in 2019.

SEVERE VEHICLE ACCIDENT RATE (SVAR) (NUMBER OF SEVERE VEHICULAR ACCIDENTS PER MILLION MILES DRIVEN)

Our Severe Vehicle Accident definition includes:

- Fatality
- Bodily Injury
- Vehicle Rollover
- Incident involved drugs and/or alcohol
- Environmental spill to ground or waterway

	2017	2018	% change
Global	0.12	0.12	0%

WE ARE A PARTNER OUR CUSTOMERS CAN TRUST

Ecolab is often acknowledged for its leadership, innovation, corporate social responsibility and commitment to sustainability. Here is some of the recognition that we have received.

business recognition



RANKED #2 IN CHEMICALS INDUSTRY

Ecolab was named to Fortune's 2019 list of the World's Most Admired Companies, ranking second in the chemicals industry.



13TH CONSECUTIVE YEAR

For the 13th consecutive year, Ecolab was named to Ethisphere Institute's list of the World's Most Ethical Companies.



RANKED #30

Ecolab was named to Selling Power's 50 Best Companies to Sell For list. The list is based on compensation and benefits, hiring, sales training, sales enablement and customer retention.



RANKED #93

For the fifth time since the list's inception in 2011, Forbes named Ecolab to its list of the World's Most Innovative Companies, ranking 93rd on the 2018 list.

sustainability recognition



2018 GOLD MEDAL FOR SUSTAINABLE DEVELOPMENT

The World Environment Center recognized Ecolab's many initiatives to support global sustainable water management and conservation, sustainability commitments and partnerships, and integration of sustainability in the innovation process and product development.



2018 NORTH AMERICA INDEX

Ecolab was named to the 2018 Dow Jones Sustainability North America Index for the fourth consecutive year. The index is based on an analysis of corporate economic, environmental and social performance.



FIFTH CONSECUTIVE YEAR

Ecolab was named to the FTSE4Good Index for the fifth consecutive year in 2019. The index is designed to measure the performance of companies demonstrating strong environmental, social and governance practices.



RANKED #8

Ecolab was ranked in the top 10 on Corporate Responsibility Magazine's 100 Best Corporate Citizens list for the sixth consecutive year.



RANKED #32

In 2019, for the third time in five years, Ecolab was named to Corporate Knights' Index of the 100 Most Sustainable Corporations in the World.



RANKED #26

Ecolab was ranked 26th on Barron's second annual listing of the 100 Most Sustainable Companies in the U.S., up three spots from the company's 29th position in 2018.

workplace recognition



FORBES 2018 BEST EMPLOYERS FOR WOMEN

Ecolab was named to Forbes magazine's inaugural list of America's Best Employers for Women. The list ranks leading employers based on several gender-equality factors, including diversity, parental leave and pay equality.



100% CORPORATE EQUALITY INDEX

Ecolab received a perfect score of 100 percent in the 2019 Corporate Equality Index, a national report on corporate policies and practices related to LGBT workplace equality, administered by the Human Rights Campaign Foundation.



RANKED #18 IN BUSINESS SERVICES & SUPPLIES

Ecolab was named to Forbes magazine's Best Employers for Diversity list for the second consecutive year. The list ranks employers based on diversity in gender, ethnicity, sexual orientation, age and disability.



RANKED #7 IN BUSINESS SERVICES & SUPPLIES

Ecolab was named to Forbes' 2018 list of the World's Best Employers as well as Forbes's 2018 list of America's Best Employers, ranking 7th in the Business Services & Supplies industry category.

ABOUT THIS SUMMARY

SUMMARY

This summary provides highlights of Ecolab's 2018 Corporate Sustainability Report, focused on where we have the greatest impact on the world: our customers, our operations and the communities in which we live.

Ecolab's comprehensive 2018 Corporate Sustainability Report, for reporting period January 1 through December 31, 2018, is available at www.ecolab.com/sustainability.

The report has been completed in alignment with the guidelines of the Global Reporting Initiative's GRI Standards.

In keeping with our commitment to transparency and disclosures, Ecolab responds to the Dow Jones Sustainability

Index RobecoSAM Sustainability Assessment and the CDP's Carbon, Water and Supply Chain surveys. In addition, we are a signatory of the United Nations Global Compact and CEO Water Mandate and file an annual Communication on Progress as part of those commitments.

The customer impact stories included in this summary are supported by comprehensive case studies.

MATERIALITY

At Ecolab, sustainability is core to our business strategy of delivering solutions that help companies around the world achieve great results and operate more sustainably. The work we do matters, and the way we do it matters to our employees, customers, investors and communities.

The parameters of our 2018 Corporate Sustainability Report have been established based on a strategic assessment of the issues that our stakeholders care most about, are of greatest relevance to our business strategy and align with our purpose to make the world cleaner, safer and healthier. This approach to materiality aligns with our corporate sustainability strategy to address some of the world's most pressing and complex challenges through our own operations and the solutions that we provide to customers.

For more information on our approach to sustainability and materiality assessment, please refer to pages 11-16 in our 2018 GRI Index.

SOURCES

- ¹Carbon calculations are based on U.S. EPA local factor of 1.5 lb CO₂e/kwh. <https://www.epa.gov/energy/greenhouse-gas-equivalencies-calculator>
- ²ADM 2016 Sustainability Report. https://assets.adm.com/Sustainability/ADM_Sustainability_CorporateSustainabilityReport_2016.pdf. (page 29 in report, page 31 on the PDF page), based on 2008 baseline.
- ³ADM 2017 Sustainability Report: <https://assets.adm.com/Sustainability/2017-CSR-Final-5-14-18.pdf>. Goals based on 2010 baseline.
- ⁴World Health Organization: Legionella and the prevention of legionellosis, 2007, Web.
- ⁵Claims and Litigation Management Journal. Susan E. Smith and Thomas P. Bernier, 2013. Web.
- ⁶Annual savings are calculated based on Hilton's 2018 sales data and savings from the validated, tested technologies they employ, including Ecolab's sustainability methodology, data collection, and calculators, which have been validated by third-party consultant group Anthesis.
- ⁷"World population projected to reach 9.8 billion in 2050, and 11.2 billion in 2100" - U.N. Department of Economic and Social Affairs; <https://www.un.org/development/desa/en/news/population/world-population-prospects-2017.html>
- ⁸<https://water.org/our-impact/water-crisis/>
- ⁹https://www.mckinsey.com/~media/mckinsey/dotcom/client_service/sustainability/pdfs/charting%20our%20water%20future/charting_our_water_future_full_report_ashx
- ¹⁰"Managing Water under Uncertainty and Risk" - UNESCO; <https://unesdoc.unesco.org/ark:/48223/pf0000215492>
- ¹¹ <http://www.unesco.org/new/en/natural-sciences/environment/water/wwap/wwdr/2017-wastewater-the-untapped-resource/>
- ¹²Nahal, Sarbjit, and Valery Lucas Leclin. "A Blue Revolution-Global Water." ESG & Sustainability. Bank of America Merrill Lynch (2012); 40. A Blue Revolution-Global Water. Bank of America Merrill Lynch, 07 Nov. 2012. Web. 26 Apr. 2017.<http://www.merrilledge.com/Publish/Content/application/pdf/GWMOL/ABlueRevolution-globalwater.pdf>.

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More information on the savings and claims found within the case studies presented within this report can be found on page 39 of our 2018 Corporate Sustainability GRI Index.



ON THE COVER

Far left: Jamie Derosier, Ecolab senior global corporate account manager (pictured right), with our Colgate-Palmolive partner, Malaquias Jimenez, technical director, Global Home Care

Near left: Cecilia Coates, water stewardship associate, Colgate-Palmolive, with Ecolab's Jamie Derosier

Our 2018 Corporate Sustainability Report and complete GRI Index can be found at www.ecolab.com/sustainability.

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