

An aerial photograph of a city and a winding river, overlaid with a complex geometric pattern of blue and white triangles and lines. Several small colored squares (yellow, orange, green, blue) are scattered on the left side.

TOGETHER WE WILL

2019 COMPANY OVERVIEW

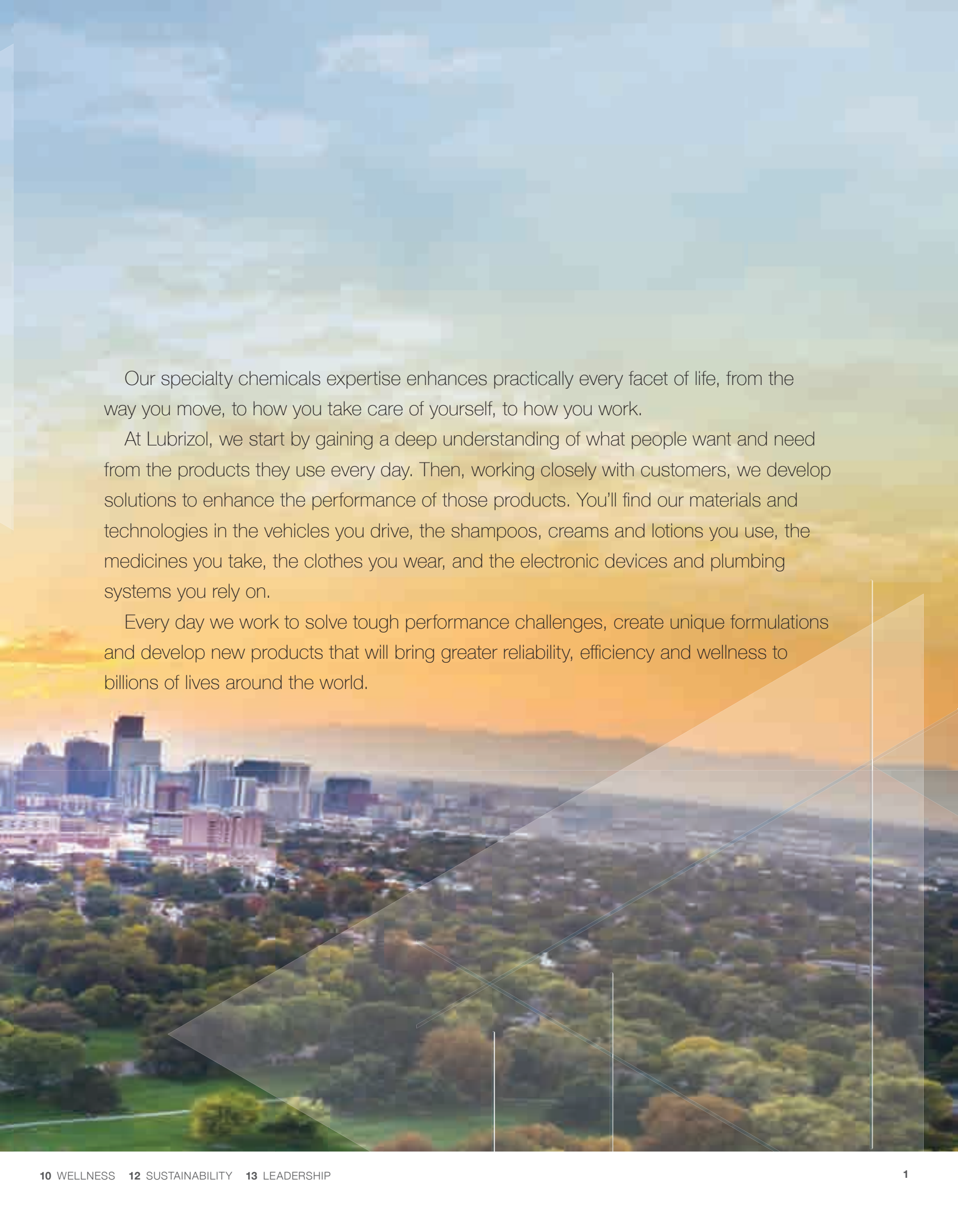
**Lubrizol**



# TOGETHER WE WILL...

improve lives around the world.



An aerial photograph of a city skyline at sunset. The sky is a mix of blue, orange, and yellow. The city features a dense cluster of skyscrapers on the left, with a large green park area in the foreground. A large, semi-transparent geometric shape, resembling a stylized 'X' or a series of overlapping triangles, is overlaid on the right side of the image, extending from the top right towards the bottom right.

Our specialty chemicals expertise enhances practically every facet of life, from the way you move, to how you take care of yourself, to how you work.

At Lubrizol, we start by gaining a deep understanding of what people want and need from the products they use every day. Then, working closely with customers, we develop solutions to enhance the performance of those products. You'll find our materials and technologies in the vehicles you drive, the shampoos, creams and lotions you use, the medicines you take, the clothes you wear, and the electronic devices and plumbing systems you rely on.

Every day we work to solve tough performance challenges, create unique formulations and develop new products that will bring greater reliability, efficiency and wellness to billions of lives around the world.

Positively impacting the world through market-driven innovation and sustainable solutions.

## ***Lubrizol***

Headquartered in Wickliffe, Ohio, The Lubrizol Corporation combines our unique chemistry expertise, formulation and applications capabilities, and market insights to positively impact the lives of our customers' end users around the globe. Founded in 1928, Lubrizol is a Berkshire Hathaway company.

Serving customers in more than 100 countries around the globe.

**34** Labs/  
Technical  
Facilities

**60** Manufacturing  
Sites

**47** Sales  
Offices

**56** Facilities  
Americas

**45** Facilities  
Europe

**7** Facilities  
Middle East & Africa

**33** Facilities  
Asia Pacific



> **half the vehicles on the planet** rely on Lubrizol technology



> **half the consumers in the world** use at least one product containing Lubrizol technology



**Lubrizol Additives** partners with customers and original equipment manufacturers (OEMs) to develop high-performance additives for engine oils, driveline applications, gasoline and diesel fuel, other transportation-related fluids and industrial lubricants.

**Driveline** solutions used in gear oils, transmission fluids and off-highway fluids for on- and off-road applications.

**Engine Oil** technologies that protect all types of engines in a variety of operating environments.

**Fuel** additive chemistries used by OEMs, fuel system manufacturers and fuel producers.

**Industrial Specialties** used in hydraulic, industrial gear, grease, metalworking, refrigerant, compressors, heat transfer and oilfield applications.

**Lubrizol Advanced Materials** delivers unique formulations that improve the performance of products used for personal care, home and workplace care, and medical needs.

**Engineered Polymers** used in industrial, sports, recreational and consumer goods, as well as piping for plumbing, fire sprinkler systems and industrial solutions.

**LifeSciences** solutions used in the pharmaceutical and medical device markets.

**Performance Coatings** that improve the durability, function and appearance of inks, coatings and adhesives.

**Personal and Home Care** solutions that enhance performance, ease of use and aesthetics of consumer- and wellness-oriented products.



# Message from the CEO



**Eric R. Schnur** Chairman, President and Chief Executive Officer

2018 marked the 90th anniversary of Lubrizol and one of our best financial performances over that long history. And we continued to strengthen our company to position us for greater success in the years ahead. I am very proud of all that our people accomplished together this year.

Our sights are set high, and we are excited by our many opportunities – opportunities to improve lives through our innovative solutions that make it easier and more efficient for people to do the important things they do every day, from driving their vehicles to improving their health. Together we are making a difference by working closely with customers and end users to understand their challenges and to develop products that address those challenges in unique and valuable ways. Together we are making the world a better place.

## **Delivering results**

Results matter. In 2018, Lubrizol had revenues of \$6.8 billion, an increase of 8 percent over 2017. Profitability also improved compared with the prior year. Our efforts to drive personal accountability and empowerment throughout our organization are paying off, as all our businesses were successful in creating value and improving results.

Our **Additives** segment had a strong year, led by our Driveline and Industrial Specialties product lines. We helped our customers succeed in end-use markets such as trucking, off-highway, mining, refrigeration and construction, and we continued to identify new applications where our lubrication and fluid expertise can solve meaningful problems.

Our **Advanced Materials** segment also performed very well, with all businesses delivering growth in sales and profitability. Our skin care business led the way, addressing growing interest in healthier and younger-looking skin. We also saw success in life sciences, sports and recreation, surface protection, electronics and construction.

## **Building for the future**

We are building critical organizational capabilities and efficiencies that position us for even better results in the future. At the core of these efforts is creating a culture that is accountable, engaged and empowered. We are committed to be a place where talented people can be the best they can be as they work together to grow – grow themselves and grow our company.

We are also improving our business processes to enable us to offer better service and be a more reliable business partner. And we continue to invest in capabilities that help us gain deeper insights into the needs of our customers, consumers and end users, so that we can deliver higher-value innovation and solutions.

We published our first-ever Sustainability Report in 2018. This is just one part of our commitment to have an even greater impact on the world by how we manage our company, how we impact society and how we think about sustainability in our product design. Together we are becoming a more aware and sustainable organization.

While a great deal of our focus is on improvements within Lubrizol that will drive organic growth, we are always evaluating opportunities to add new capabilities, technology and talent through acquisitions. Together we are building an even more capable and impactful company.

### Looking ahead

Lubrizol has a very bright future. We have a solid foundation, great growth opportunities and a team of exceptionally talented people. And we are privileged to be part of the Berkshire Hathaway family and to have their tremendous support.

Across our businesses, the transportation market provides us with significant growth potential, as our solutions increase efficiency, reduce emissions and support electrification, all forces reshaping the industry. Lubrizol's technology is used in more than half the vehicles on the planet, and we are focused on delivering increased end-user benefits while reducing the environmental impact of transportation. Together we will move the world, more efficiently than ever before.

And rapidly changing consumer needs and preferences in areas from personal care to fitness to housing provide us great opportunities to apply our formulation and applications expertise to help our customers develop products that improve the lives of billions of consumers.

My sincere thanks to our team for their great talent and energy and for their dedication to delivering the necessary results to ensure a bright future for Lubrizol and all who rely on us.

I would also like to thank our customers – many of the world's largest and most well-respected companies – for their trust and the honor of being their partner in the meaningful and rewarding work of creating value for people by solving everyday challenges.

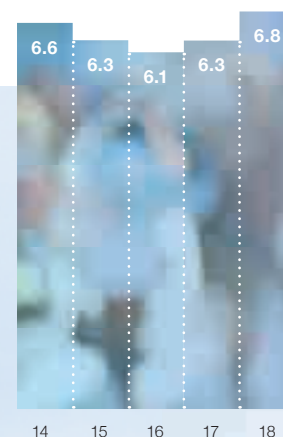
Finally, thank you for your interest in Lubrizol. I hope you enjoy exploring this document and learning more about how together we will make the world an even better place.



Eric R. Schnur  
Chairman, President and Chief Executive Officer

### Revenues\*

Dollars in Billions

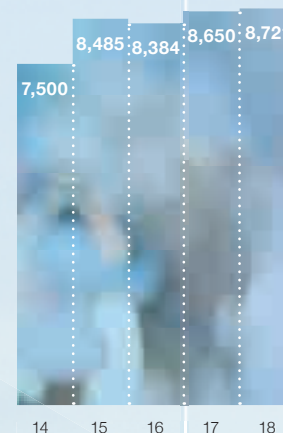


### Capital Expenditures

Dollars in Millions



### Employees\*



\*Excludes discontinued operations

# TOGETHER WE WILL...increase reliability.

In the buildings where we live and work, in the clothes we wear, in the vehicles we drive and in the electronics we use, Lubrizol's products are at work, ensuring effective and consistent performance. Our innovative technologies are developed to meet specific market needs, and ultimately, contribute to better everyday experiences and peace of mind for customers and end users.

Our engineered polymers deliver greater durability and quality in consumer and industrial applications ranging from athletic apparel to 3D printing. Our piping systems and materials support the safety and security of homes and workplaces – in fire protection systems, in piping systems that protect against bacteria and biofilms, and in plumbing systems that deliver clean, safe water. Our performance coatings enhance the function and appearance of vehicles, electronics, packaging, industrial equipment and more.

Reliable performance is key in all types of production and engineering systems. Our driveline additives ensure optimum transmission performance, while our industrial additives and fluids keep equipment running at peak performance with less downtime. Additional advantages of our materials and additives include easier processing and fewer maintenance requirements.

By understanding consumer needs and working closely with customers, Lubrizol will continue to ensure the products and systems we rely on perform as promised.

**Our new award-winning stationary natural gas additive provides operators with an effective way to control the silica deposits coming from siloxanes that are building up in landfills. Cleaner engines reduce downtime, resulting in significant savings.**







### BlazeMaster® Fire Protection System makes history protecting tallest building in Brazil

**Challenge:** At 81 floors, Yachthouse is Brazil's tallest building and its first residential building to have a fire sprinkler system inside the apartments. For the construction team to consider Lubrizol's BlazeMaster® Fire Protection System, we had to surmount two major challenges: change the habits of designers, installers and builders who traditionally use metal pipes, and change local regulatory approvals to include nonmetallic firefighting products.

**Solution:** Working with designers and installers, we were able to demonstrate the advantages of our system over a steel system: easy installation, corrosion resistance, excellent flame and smoke characteristics, and affordability. In addition, our system was the only one to already have international certification, another reason the construction team chose the BlazeMaster Fire Protection System. The project earned the Masterinstal award for pioneering initiatives in installation and innovation.

**Results:** Our system was installed faster and at a lower cost than a steel system, due to the adhesive welding process and lower manpower requirements. In addition, because our system is highly durable and does not corrode, the building now has lower maintenance requirements, while enjoying the most important advantage: reliable life-saving protection for people and property.

Lubrizol's engineered polymer solutions improve the performance and aesthetics of mobile electronic devices and wearables.





# TOGETHER WE WILL...maximize efficiency.

Lubrizol partners with OEMs around the globe to keep engines and equipment powered and running efficiently. Our high-performance lubricant and fuel additives and industrial lubricants solve tough challenges in industries such as transportation, mining, metalworking, power generation, oil field and maintenance and are backed by extensive testing to confirm their effectiveness.

We bring greater efficiency to vehicles of all kinds. Long an industry leader in additives for transportation, we have focused for decades on continuously improving fuel economy and reducing emissions, with huge global economic and environmental benefits. Our partnerships with oil suppliers and OEMs are aimed at developing fuel-efficient lubricants for today's high-tech equipment. Our rapidly growing metalworking, grease additives and industrial fluids provide the means for a wide range of industries to operate efficiently.

In personal and home care products, too, the efficient delivery of benefits is a must. Our ingredients help creams, lotions and shampoos impart a multitude of advantages to skin and hair. Our ink receptive technologies optimize digital printing on a variety of substrates. And our rheology modifiers and functional polymers are used to formulate highly efficient fabric care systems.

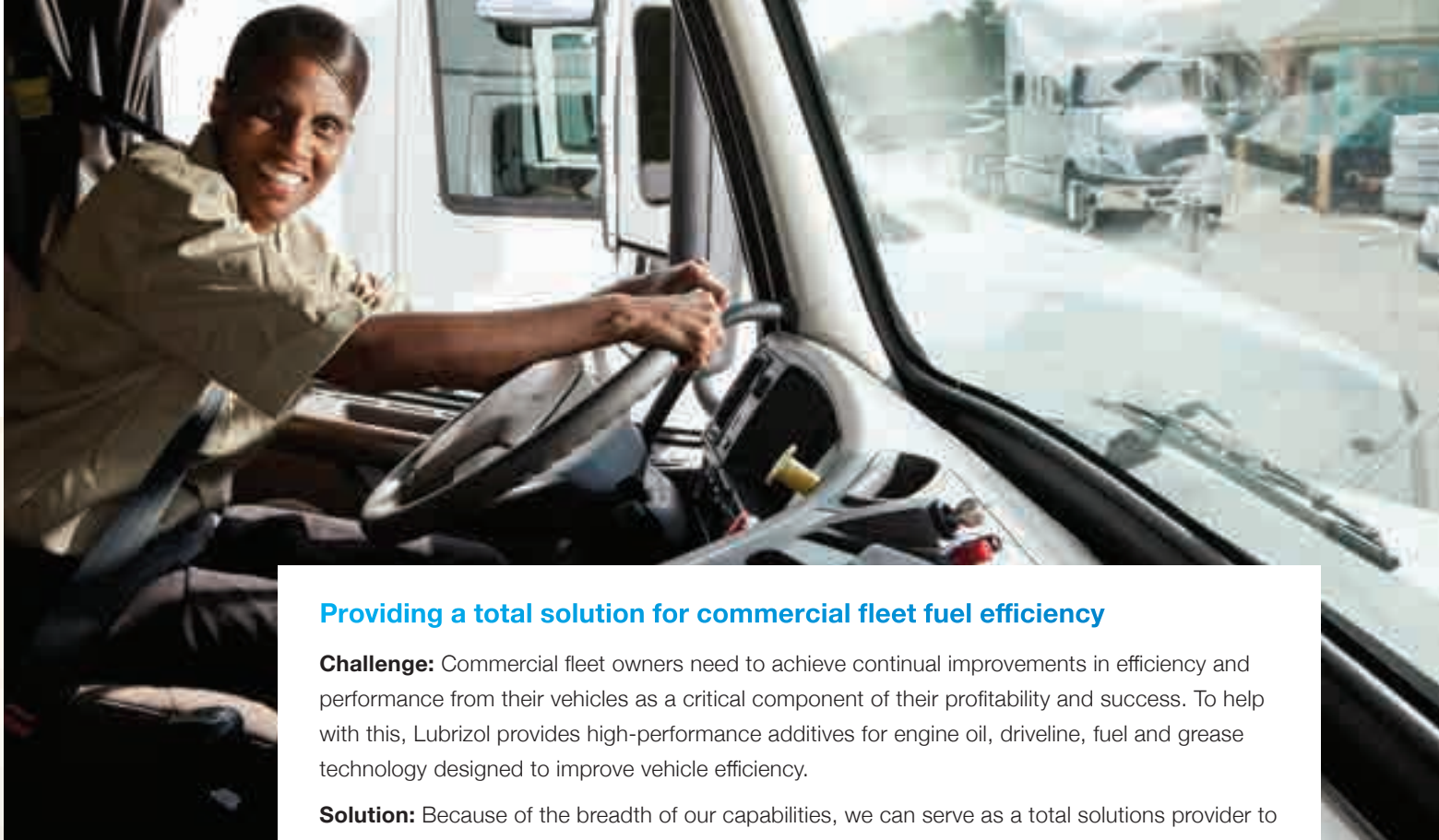
We are committed to working with OEMs, customers and suppliers to encourage greater and faster innovation and deliver the superior performance demanded by end users.



With our pigment dispersion and polymer technology, digital printer manufacturers can develop new print systems for textile printing that are cost effective, require less energy and produce less waste than commonly used dye-based systems.







### Providing a total solution for commercial fleet fuel efficiency

**Challenge:** Commercial fleet owners need to achieve continual improvements in efficiency and performance from their vehicles as a critical component of their profitability and success. To help with this, Lubrizol provides high-performance additives for engine oil, driveline, fuel and grease technology designed to improve vehicle efficiency.

**Solution:** Because of the breadth of our capabilities, we can serve as a total solutions provider to commercial fleets, bringing them greater value and efficiencies through a combined offering. In fact, Lubrizol is the leading supplier of high-performance additives for heavy-duty vehicles and driveline fluids for commercial vehicles. We are able to deliver more value to our customers by leveraging our innovative technologies across the vehicle.

**Results:** Using multiple Lubrizol products means gains in efficiency that a customer would not otherwise achieve. In over-the-road field testing at major fleets, Lubrizol has demonstrated significant fuel economy benefits from our latest heavy-duty engine oil and driveline technologies. When compared to standard offerings, this translates into significant fuel and cost savings if applied across the fleet.



High-efficiency fabric care systems get their cleaning and stain removal power from our rheology modifiers and functional polymers, used in products from laundry liquids, powders and unit dose detergents to non-aerosol pump spray liquids.





# TOGETHER WE WILL...improve wellness.


Health and wellness are essential to quality of life. Most of us use dozens of products in our self and home care routines, and chances are, Lubrizol ingredients are in the majority of them, ensuring they perform well and deliver satisfying experiences. We partner with manufacturers to create next-generation products in personal and home care, skin care, drug delivery systems and even apparel.

Our efforts are rooted in uncovering and understanding consumer health and wellness needs, whether that is improved hygiene or cleaner laundry, and then devising innovative ingredients to meet those needs. For example, our new formulations for hair care products address bold color trends as well as increasing interest in healthy scalp care.


We also enable new medical solutions and treatments for diseases, in partnership with major pharmaceutical and medical device manufacturers. Some of our latest technologies involve advanced drug delivery solutions for improved patient care and comfort.

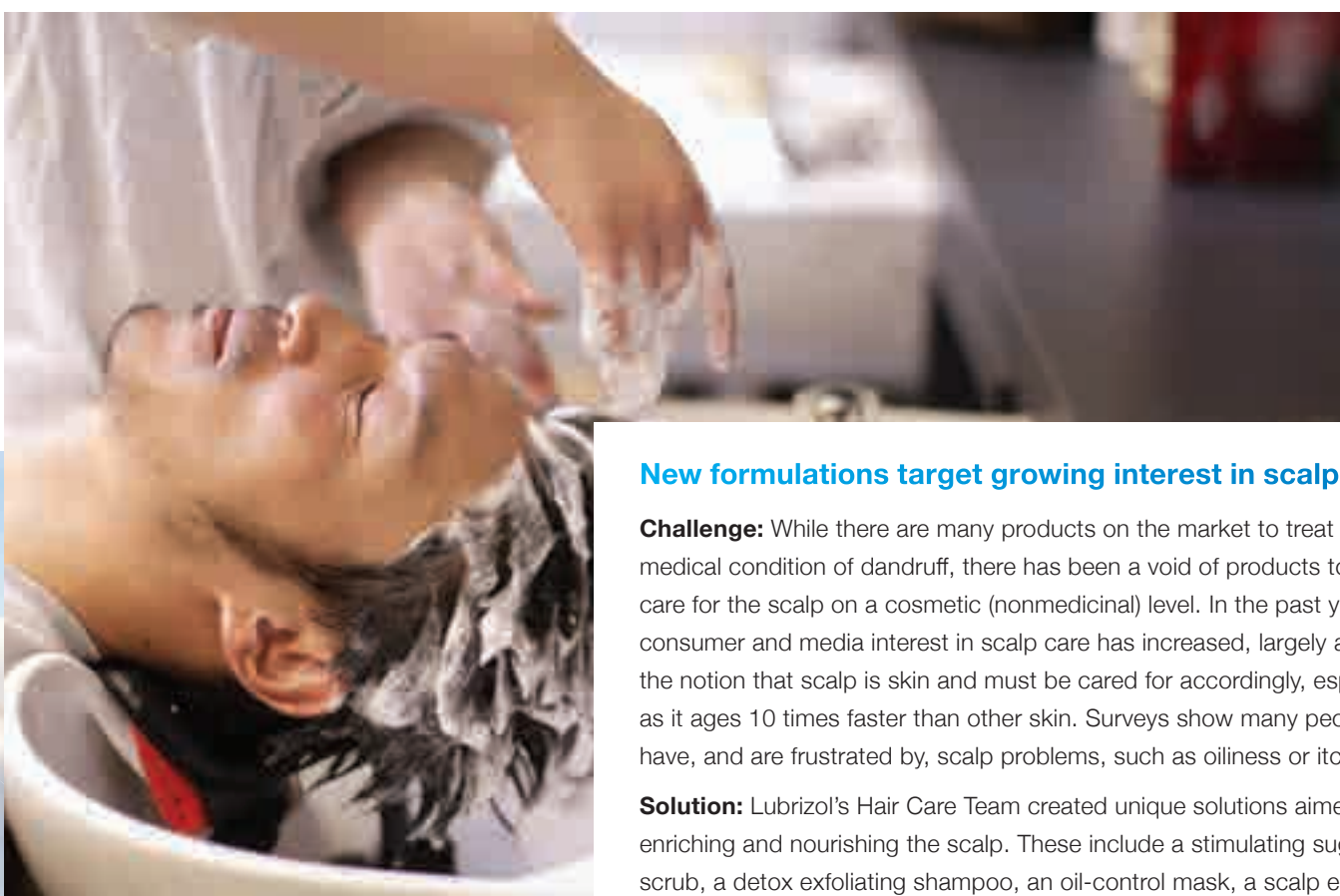
Many other Lubrizol products and applications support healthy lifestyles, ranging from adaptable fiber technology in athletic apparel to water-based coatings solutions that lower VOC emissions. In addition, our lubricant and fuel additives enable the reduction of millions of metric tons of CO<sub>2</sub> emissions per year.

Guided by consumer needs, we are using our formulation expertise and collaborative approach to promote wellness around the world.



**Our extensive medical-grade thermoplastic polyurethane (TPU) expertise allows us to create comprehensive, customized and application-specific materials that offer compliance for providers and comfort and healing for patients.**





## New formulations target growing interest in scalp care

**Challenge:** While there are many products on the market to treat the medical condition of dandruff, there has been a void of products to care for the scalp on a cosmetic (nonmedicinal) level. In the past year, consumer and media interest in scalp care has increased, largely around the notion that scalp is skin and must be cared for accordingly, especially as it ages 10 times faster than other skin. Surveys show many people have, and are frustrated by, scalp problems, such as oiliness or itchiness.

**Solution:** Lubrizol's Hair Care Team created unique solutions aimed at enriching and nourishing the scalp. These include a stimulating sugar scrub, a detox exfoliating shampoo, an oil-control mask, a scalp elixir and a gentle anti-dandruff shampoo, all containing a unique combination of Lubrizol ingredients. These solutions give our customers valuable options to grow their business by satisfying real consumer needs.

**Results:** Healthy hair begins with a healthy scalp. The products provide new ways to address cosmetic scalp problems, including soothing, cleansing and exfoliating.

Through our Brand Accelerator Program, we are investing in next-generation skin care start-up companies to better understand consumer needs in high-end skin care.





# TOGETHER WE WILL...inspire sustainability.

We are committed to maximizing our positive impact on the world – acting in ways that protect our people and the environment and that contribute to the communities where we operate. Lubrizol's sustainability journey began with our founders and their belief that good chemistry can lead to a better life, and that philosophy continues to be the foundation for our journey today.

In 2018, we identified 17 material sustainability topics of greatest importance to Lubrizol, and reported on our progress in those areas in our first Sustainability Report. Our Chief Sustainability Officer and a cross-functional, senior management-level steering council continue to guide and oversee our comprehensive efforts toward sustainability.

Looking forward, our sustainability agenda is focused on driving additional engagement with stakeholders, helping customers meet their sustainability goals, updating and setting new goals and metrics, and aligning Lubrizol's focus with global sustainability trends.

## Our approach

We define sustainability as the balance among environmental, social, governance and ethics, and economic factors as we pursue objectives that add value to our business, employees and society, and protect the planet's ecosystem.



**inspiring sustainability,  
improving lives**



## Our Leadership

Rising to the challenge of improving lives requires us to be innovative, action-oriented and forward-thinking. By working together as one team, we can positively affect all those around us, whether that is solving a customer challenge, meeting a new consumer need or bringing out the best in a fellow employee. Our leadership team exemplifies these qualities and sets the tone for us to achieve our goals.



Beginning at left:

**JULIE EDGAR**

Corporate Vice President, Innovation and Chief Sustainability Officer

**TOM CURTIS**

Corporate Senior Vice President and President of Lubrizol Additives

**TESHAM GOR**

Corporate Vice President, Corporate Strategy and Consumer Insights

**SUZANNE F. DAY**

Corporate Senior Vice President, Chief Legal and Ethics Officer

**J. BRIAN PITTS**

Corporate Vice President, Chief Financial Officer and Treasurer

**ERIC R. SCHNUR**

Chairman, President and Chief Executive Officer

**RICK TOLIN**

Corporate Senior Vice President and President of Lubrizol Advanced Materials

**ANA G. RODRIGUEZ**

Corporate Vice President and Chief Human Resources Officer

**MIKE VAUGHN**

Corporate Vice President, Operations, Supply Chain and HSES

**JOHN J. KING**

Corporate Vice President, Information Solutions and Business Processes

## Want to learn more about us?

### Corporate and Business Information

[lubrizol.com](http://lubrizol.com)

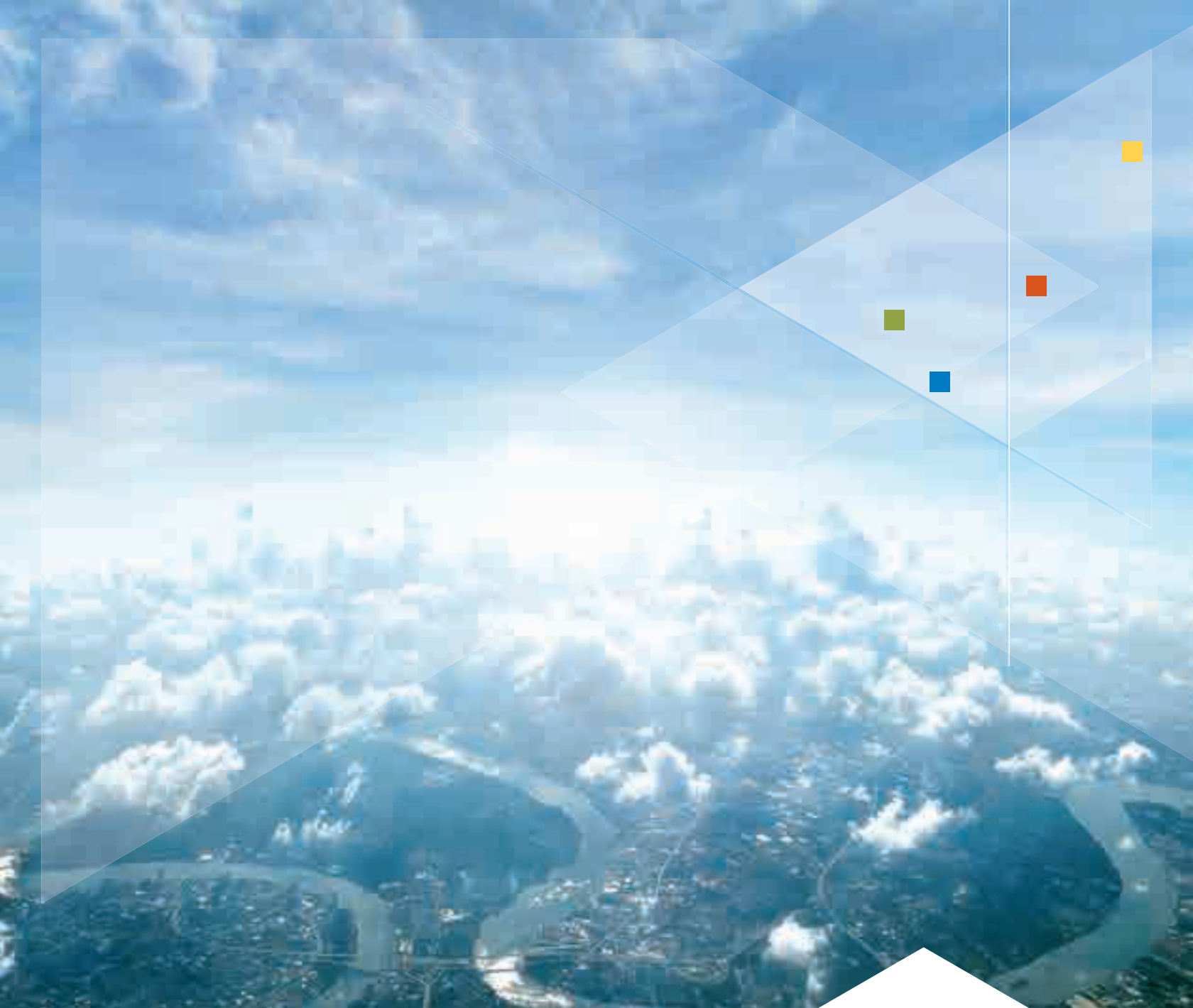
### Careers

[lubrizol.com/Careers](http://lubrizol.com/Careers)

[@LubrizolJobs](https://twitter.com/LubrizolJobs)

### Sustainability

[lubrizol.com/Sustainability](http://lubrizol.com/Sustainability)



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***Lubrizol***