





# OPPORTUNITY

SAFETY ▪ SECURITY ▪ SUSTAINABILITY ▪ QUALITY ▪ TRUST

2017 ANNUAL REPORT

# Contents

 President's Letter	05
 Safety	09
 Security	19
 Sustainability	27
 Quality	35
 Trust	43
 Growth + Expansion	53
 Events	59





Empowering Trust™





PRESIDENT'S LETTER

# A letter from Keith Williams



The world we live in is changing. The future holds exciting new opportunities for our stakeholders and to bring our safety mission to life.

Our job at UL is to uncover those opportunities, even if that means we must think differently about UL and what we do.

We need only look at digital data to peer into a different – and brighter – future. According to analyst firm IDC, the global datasphere will contain 163 zettabytes – or 1 billion terabytes – of data by 2025.

What opportunities can we unearth in those 163 zettabytes? By mining that data, we believe we can find better ways to test and certify products and services, faster ways to achieve global market access and more cost-effective ways to build both trust in the marketplace and protect company brand reputations.

The difficulty of gaining and preserving trust is of increasing concern to those navigating the deeply complex, connected world. Questions about supply chain integrity, lack of transparency and high-profile – often dangerous – product failures can all erode trust in a brand.

As companies seek to solve these and other complex problems, having access to the perspectives of many people and organizations can yield the greatest insights. Incorporating those insights into the decision-making process engenders trust. But how can so many different perspectives be analyzed meaningfully?

The use of machine learning technologies by trained data scientists can turn zettabytes of data into better, more trustworthy insights for decision making. Seemingly random bits of data become useful when those bits are connected and insights teased out of the noise.

In a world that is increasingly less physical, we foresee a future in which software simulations may replace physical testing. In that future, we will glean insights from data about a manufacturer’s history and market position, its products and their performance, and its workers and supply chains. From these insights, we may determine whether that manufacturer is providing safer, more reliable products and services, and delivering to the market what was promised. Moreover, we are nearing the day when algorithms will predict pre-product compliance based on publicly available information.

**ACCORDING TO ANALYST FIRM IDC, THE GLOBAL DATASPHERE WILL CONTAIN:**

**163**  
ZETTABYTES

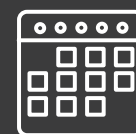


OR

**1** BILLION  
TERABYTES



OF DATA BY  
**2025**





We will **ADAPT** and **EVOLVE** at the ***SPEED OF THE DATA*** created by **THIS NEW WORLD**

In this digitally transformed landscape of new opportunities, our mission remains the same. We will be an impartial, independent expert delivering deep, actionable insights for navigating market complexity and building trust. By applying the lessons learned from our consensus-based approaches to scientific research and Standards development, we will continue to offer a comprehensive, holistic view on risk and market access.

We will adapt and evolve at the speed of the data created by this new world. We will bring new technologies, processes, platforms, expertise and partnerships to solve the world's challenges. We will tap the democratic power of data – data from governments on regulations and product recalls, from industry on product performance and returns, and from consumers on complaints and reviews. Ultimately, we will stand at the nexus of the conversations, perspectives and expert views to help our stakeholders achieve their unique possibilities.

I hope that you will enjoy reading more in our annual report about how we are helping our stakeholders realize their vision for success in today's marketplace.

**KEITH WILLIAMS**

President, Chief Executive Officer and Trustee









SAFETY

UL helps inspire new  
opportunities for safety

Every day, organizations imagine new solutions for solving problems, improving the quality of our lives, and making goods and services more affordable.

As an idea comes to life, companies must consider possible risks before products and services find acceptance in the marketplace. Core to our mission, our focus on safety helps our stakeholders achieve their vision, safely.

In 2017, we continued to build our safety expertise by introducing new services to help protect product users. In addition, we shared our knowledge broadly to improve public understanding of safety.





**In 2017, we expanded  
UL 588's REQUIREMENTS  
and certification services to  
include decorative lights  
ALL YEAR ROUND**

**The following are a few areas  
of UL's safety work** ▼

In light of concerns for the safety of the electrical systems used in battery-operated electronic cigarettes, we published *UL 8139, Outline of Investigation for Electrical Systems for Electronic Cigarettes*. We also launched a related certification program in which we evaluate the device, its rechargeable battery and its charging system for retailers and manufacturers of electronic cigarettes.

*UL 588, the Standard for Safety of Seasonal and Holiday Decorative Products*, previously covered lights used for no more than 90 days. In 2017, we expanded the Standard's requirements and certification services to include decorative light strings used all year round.

We also launched a new safety certification for information and communication technology (ICT) power cables used to power or charge IT and communication devices. Based on the newly published *UL 9990, Outline of Investigation for Information and Communication Technology (ICT) Power Cables*, the new certification program addresses potential risks of overheating and fire in ICT power cables designed to meet the demand for faster charging and higher wattage devices.

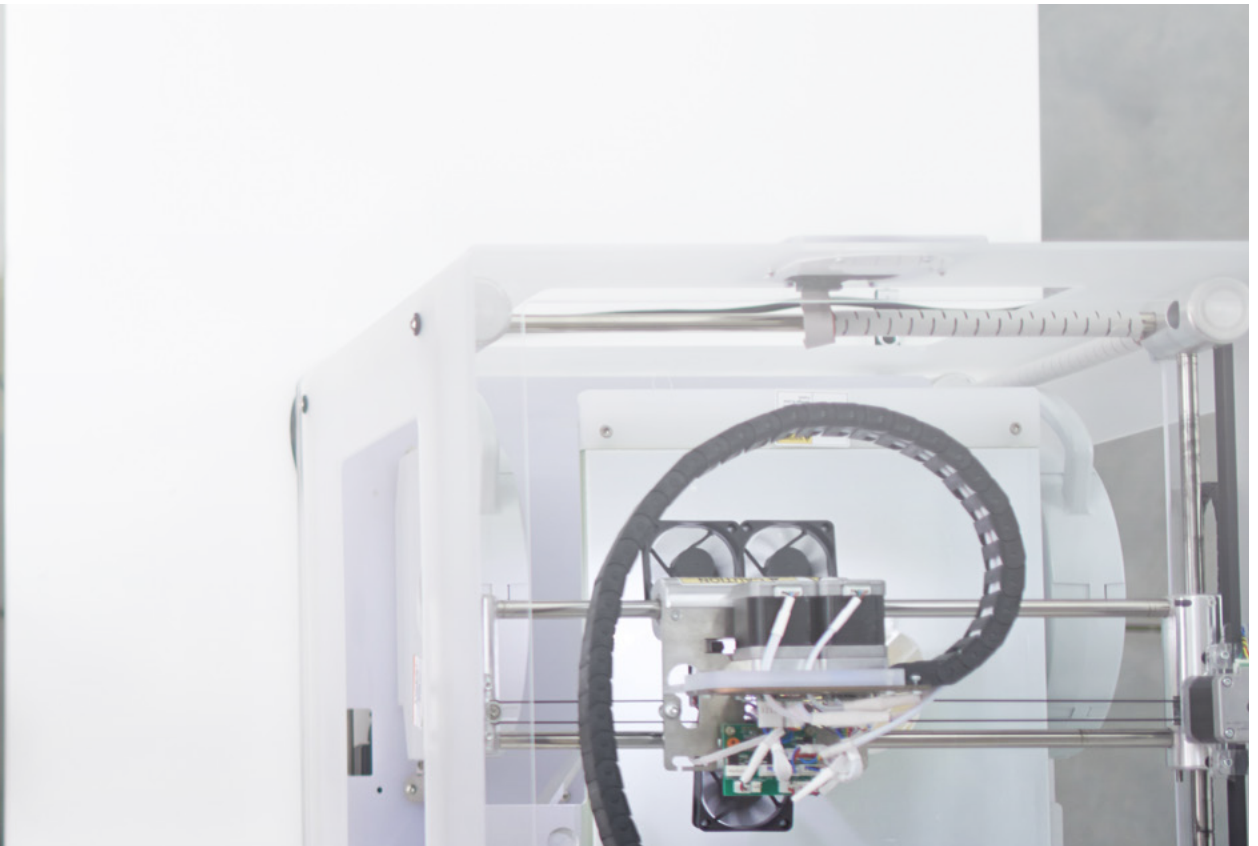




## A new UL iQ™ database

To help manufacturers find the UL Recognized surge protective devices that meet their specific needs, we launched a new UL iQ™ database. Using this tool, users can search for products using a combination of ratings and features to find the surge protective device that meets the requirements for their unique applications.





## The Blue Card program

As an extension of our existing plastics Component Recognition (Yellow Card) program, we introduced a new plastics for additive manufacturing (Blue Card) program that supports material manufacturers producing materials for use in 3D printed components; component manufacturers interested in using certified materials in their certified 3D printed components; and end-product manufacturers interested in using certified 3D printed parts and components in their final product heading to the marketplace. The program defines the requirements for the safety, integrity and usefulness of plastics intended for 3D printing.



We issued our first enhanced UL Mark for toy safety certification to Ferrero USA, makers of Kinder Joy™, a plastic egg composed of two separately sealed halves.

One half contains a delicious treat, the other one a plastic toy. The UL Mark, certifying that the Kinder Joy toy meets requirements for safety and quality assurance, helps Ferrero USA in introducing this popular product to the U.S. market. Head of Global Kinder Development Emiliano Laricchiuta noted:

*“We in Ferrero are extraordinarily thankful for our partnership with UL worldwide. UL is a trusted steward overseeing a comprehensive suite of processes throughout our toy development process including design and development, age grading, testing, and compliance. The trust that UL generates, both for Ferrero and the consumers that use our Kinder toys, is invaluable.”*



As part of our safety mission, we conducted a public safety campaign, Close Before You Doze™, to encourage people to close their bedroom doors before going to sleep.

Based upon 10 years of research by the UL Firefighter Safety Research Institute (FSRI), the campaign aims to save lives by delaying the spread of fire, reducing room temperature during a fire and preventing the buildup of carbon monoxide.



**CL**ISE  
BEFORE YOU DOZE







Additionally, we launched the second module in our UL Xplorlabs® series, an online educational resource to help middle school teachers enhance their science lessons. The newest module, *Portable Electrical Power – Fire Forensics: Claims and Evidence*, helps students learn to read a fire scene, build a claim for the fire’s origin and cause, and gain an understanding of fire, fire dynamics and fire behavior.

As our stakeholders continue to imagine their futures, we will adapt and evolve our safety expertise and offerings to keep pace. We look forward to making further advancements in 2018.

A close-up, profile view of a man with a beard and mustache wearing a white and black VR headset. The background is dark with a red glow.

**FIRE LAB**







SECURITY

UL helps protect innovations  
from cyberthreats

From medical devices to the Industrial Internet of Things (IIoT), companies are reimagining how we live and work with innovative connected devices.

By 2025, the average connected person anywhere in the world will interact with connected devices nearly 4,800 times each day. But with this promise comes a major challenge to adoption and acceptance: the significant threat of cyberattacks.

We invested heavily in 2017 to introduce new solutions and capabilities to combat this 21<sup>st</sup> century challenge. Through our security expertise, we are helping companies deliver on their visions for connected devices, payment systems and cloud services while sustaining the trust of their stakeholders.

**BY 2025,**

the average connected person  
*anywhere in the world*  
will interact with connected devices nearly

**4,800**  
**TIMES A DAY**



The following are a few  
areas of UL's security work





## Newest cybersecurity Standard addition

To help improve the security of critically connected electronic physical security systems, we introduced *UL 2900-2-3, Outline of Investigation for Software Cybersecurity for Network-Connectable Products, Part 2-3: Particular Requirements for Security and Life Safety Signaling Systems*, the latest addition to the UL 2900 series of cybersecurity Standards. This Standard provides a set of cybersecurity performance and evaluation requirements for manufacturers of emergency communications systems, fire alarm systems, alarm receiving systems, intrusion detection systems, access control systems, surveillance cameras and more.



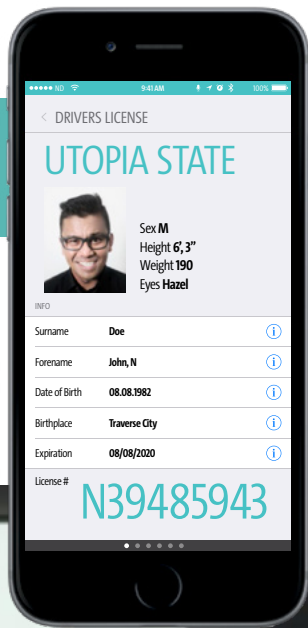
## Electric Imp earned first UL certification

Electric Imp, providers of an Internet of Things (IoT) secure connectivity and application middleware software platform, earned the first UL cybersecurity certification to *UL 2900-2-2, Outline of Investigation for Software Cybersecurity for Network-Connectable Products, Part 2-2: Particular Requirements for Industrial Control Systems*. Electric Imp can help its customers lower their costs and speed their products to market through the use of the pre-certified Electric Imp software implementation solution.



## UL Standard addressing medical device cybersecurity

To address medical device cybersecurity concerns, the U.S. Food and Drug Administration (FDA) recognized our cybersecurity Standard, *UL 2900-2-1, Standard for Software Cybersecurity for Network-Connectable Products, Part 2-1: Particular Requirements for Network Connectable Components of Healthcare Systems*, as a consensus Standard for use during pre-market review submissions. As a result, medical device manufacturers can look to the Standard to provide objective evidence demonstrating that their devices meet FDA expectations for medical device cybersecurity.



## Mobile driver's license

We provided advisory and testing services to support delivery of a proof-of-concept mobile driver's license for the American Association of Motor Vehicle Administrators (AAMVA). This achievement aligns with our broader effort to contribute to the deployment of secure and globally interoperable digital identification credentials.





NO CUSTOMER SELECTED Search Customers Q Search

+ New

Item Q Search + New Misc.

Gift Card

DESCRIPTION	PRICE	QTY	TAX	SUBTOTAL
<input type="checkbox"/> Terrarium Supplies - Single	\$2.00	1	Yes	\$2.00
<input type="checkbox"/> Succulent Terrarium - 85	\$85.00	1	Yes	\$85.00
<input type="checkbox"/> 4" Tropical Plant	\$4.00	1	Yes	\$4.00
<input type="checkbox"/> 2" Tropical Plant	\$2.00	1	Yes	\$2.00

Set Employee Delete All





We launched a new web-based testing platform that simplifies payment host testing processes and operations.

The platform was designed to help acquirers, issuers, payment networks and processors make production changes to payment host systems more easily and cost effectively.

Through a grant from the U.S. Defense Advanced Research Projects Agency (DARPA), we completed research designed to help mitigate cybersecurity risks to industrial IoT gateways for industrial control system applications. We developed a test methodology and security profile to help manufacturers increase their security awareness and help asset owners reduce unplanned downtime and harm to their assets. UL is the first non-product company awarded a grant by DARPA.

To help safeguard against the failure of cloud data centers, we rolled out a data center certification service focused on the reliability of key components such as electrical, mechanical, security, life safety, building automation and telecommunications infrastructure. We foresee adding data center certifications for additional service areas and categories in the future.

**We will continue to make significant investments and advancements in helping to secure products and systems in the years ahead.**





## SUSTAINABILITY

UL helps unlock opportunities  
for sustainable futures

# Consumers are placing increasing demands on organizations to help build sustainable societies.

The 2015 Nielsen Global Corporate Sustainability Report found that 66 percent of people would pay more for a product or service from a company if the company showed a commitment to positive social and environmental change. In light of this, businesses must have answers to questions about how they are helping to build sustainable futures.

Reducing waste. Increasing the use of renewable energy. Lowering levels of emissions. These represent just some of the ways that companies are operating more sustainably to earn consumer trust, comply with mandates and reduce costs.

Earning Consumer Trust By:

**REDUCING** 


WASTE

**INCREASING** 

THE USE OF RENEWABLE ENERGY

**LOWERING** 

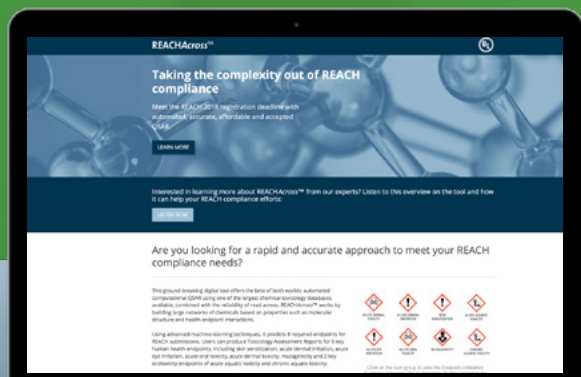
LEVELS OF EMISSION

**The following are a few examples of how our work in 2017 helped our stakeholders strengthen their sustainability initiatives while successfully navigating risk and complexity in the market** 



## REACHAcross®

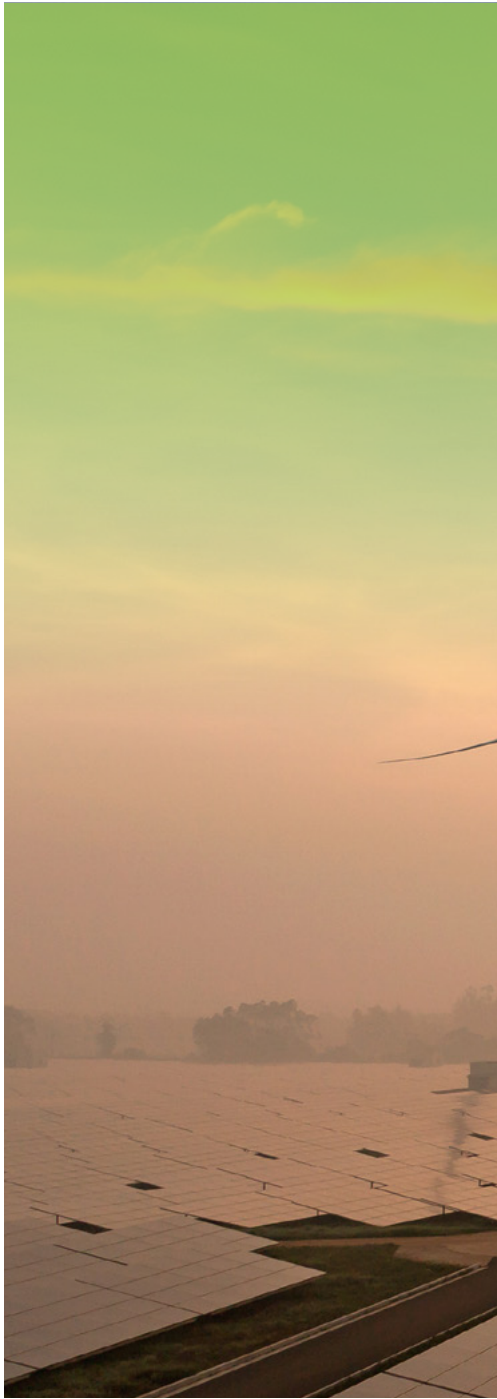
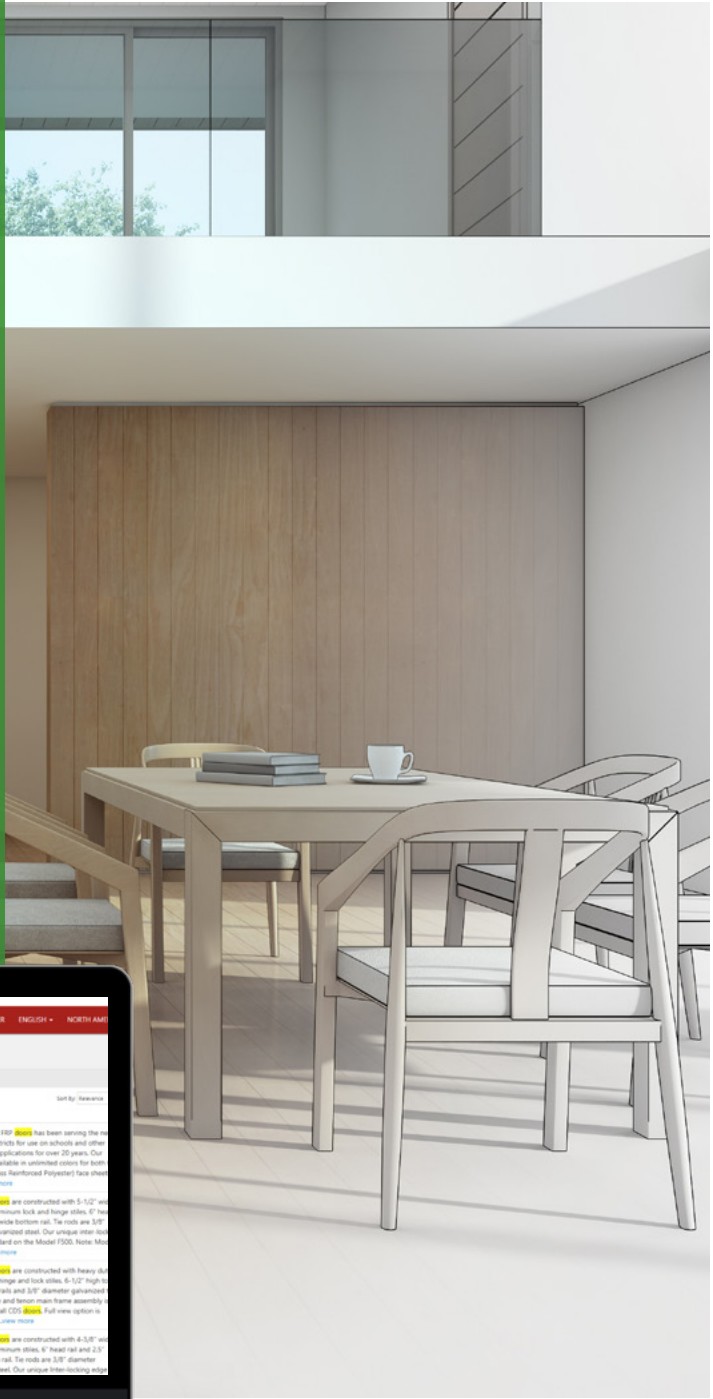
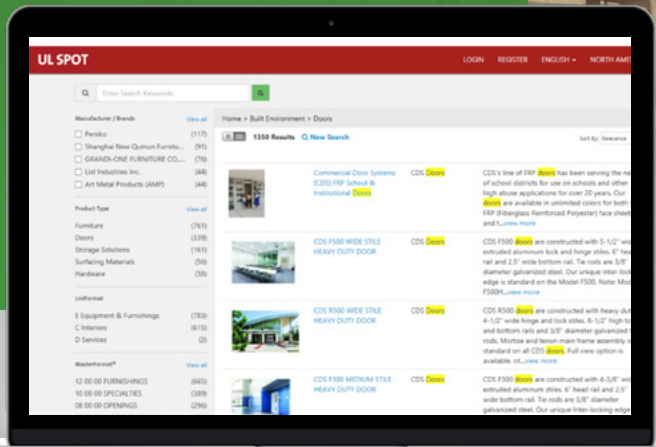
We launched a chemical assessment tool that helps companies satisfy European Union (EU) REACH chemical regulations. REACH – or Registration, Evaluation, Authorisation and Restriction of Chemicals – requires companies to identify and manage risks linked to use of chemical substances. Traditionally, companies have conducted time-intensive, costly and ethically problematic animal testing to identify chemical hazards to determine risk. However, our new REACHAcross® software tool uses machine learning to assess a chemical's behavior, thus reducing the need to conduct animal testing for hazards.





# SPOT®

In 2017, we unveiled the SPOT® add-in that gives AutoDesk® Revit® users the ability to access product data from SPOT, our online product sustainability database. Architects and designers using Revit for their building projects can now easily find UL certified products with reduced human health and environmental impacts.



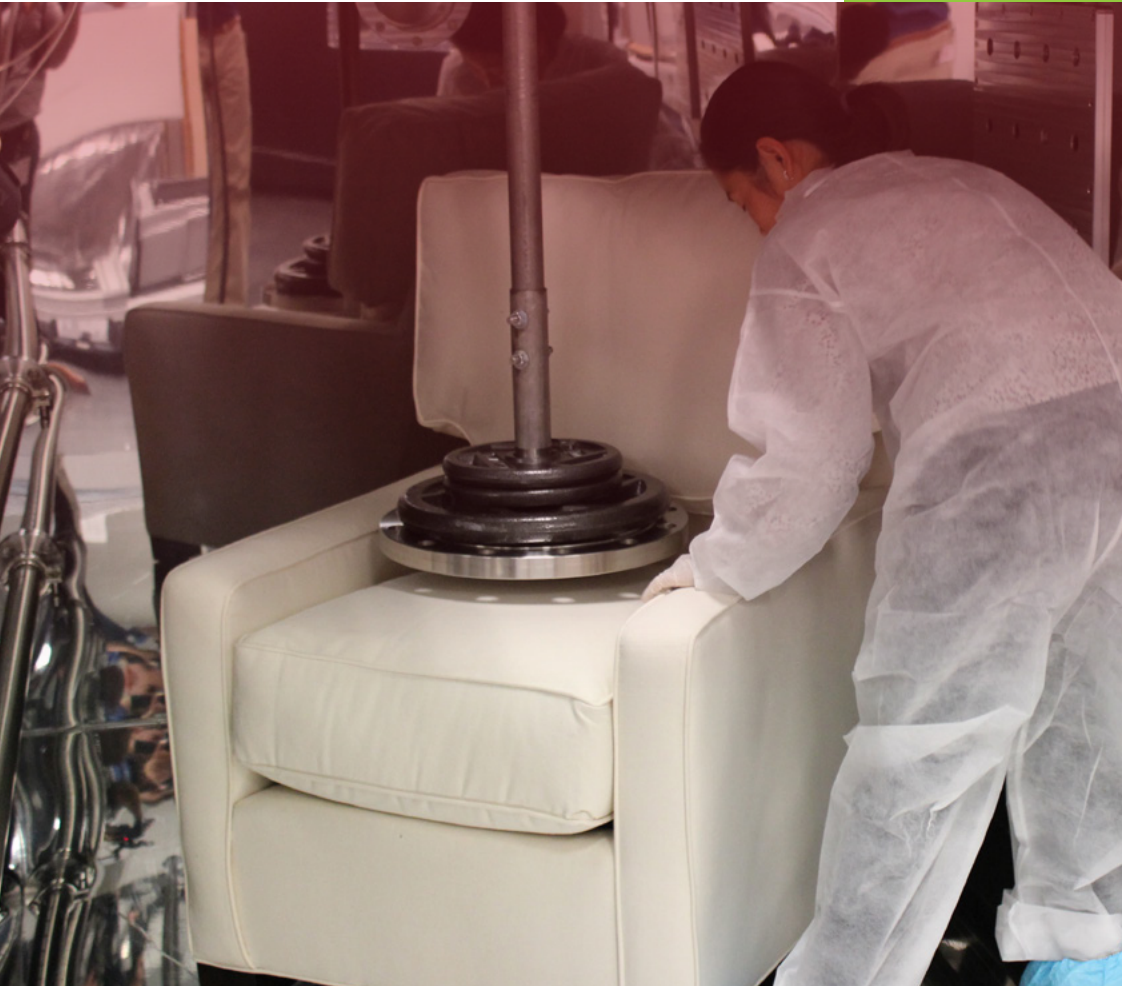


## Renewable energy

In 2017, we entered into a joint venture with Saudi Arabia-based GCC Laboratories to strengthen the renewable energy infrastructure in the Middle East. The partnership, which combines resources, knowledge and expertise to expand services for the region's renewable energy market, operates as a joint company based in Dammam, Saudi Arabia.

Through our online platform Windnavigator™, we introduced the option for users to order modeled high-resolution "Sitewind" data necessary to aid location-specific wind farm design. While clients could previously order high-resolution modeled data as a consulting service, they can now save both time and money by using the automated version through Windnavigator.









This past year, we partnered with Emory University's Rollins School of Public Health and industry leaders to conduct chemical exposure and flammability research on upholstered furniture.

Our research helped infuse scientific practices and professional expertise into ongoing efforts to build awareness and improve the fire and chemical safety of everyday products.

We also launched our building envelope thermal performance testing service, which uses computer simulations to evaluate buildings for heat loss, heat gain and condensation resistance. To support this offering, we built two new thermal chambers spanning approximately 6,700 cubic feet in our building envelope performance test laboratory based in Northbrook, Ill.

To advance the health and well-being of building occupants, we developed and launched the first certification program to help demonstrate a product's contribution to standards aimed at advancing health and well-being in buildings. With global increases in the rates of obesity, disease, inactivity, asthma and depression, implementing features into the indoor environment that promote occupant health has taken on increasing importance. UL's Wellness certification Mark can be applied to products used in a building such as furniture, interior paints and coatings, adhesives and sealants, insulation and lighting.

Finally, we also launched a regulatory advisory practice to help companies comply with material control regulations for chemicals in different regional markets. Many core services now available through this practice are offered in concert with our software and automation solutions, providing integrated services that satisfy compliance requirements and save our clients both time and money.

**In 2018, we remain committed to discovering new ways to unlock even greater potential for future sustainability initiatives.**







## QUALITY


UL helps boost product  
and process quality

According to the eighth edition of the Deloitte Consumer Review, 60 percent of buyers trust the opinions of family and friends, and customer reviews more than any other information sources, including marketing.

The higher the product quality, the more likely buyers will create positive online and offline word-of-mouth.

Our quality assessment expertise helps identify and address quality issues before products and services go to market, boosting brand reputation.

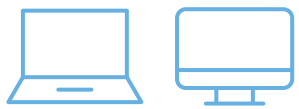
**60%**   
*of buyers trust the opinions*  
OF FAMILY, FRIENDS AND CUSTOMER REVIEWS  
**MORE THAN ANY OTHER  
INFORMATION SOURCES,  
INCLUDING MARKETING**

The following are a few areas  
of UL's product quality work 



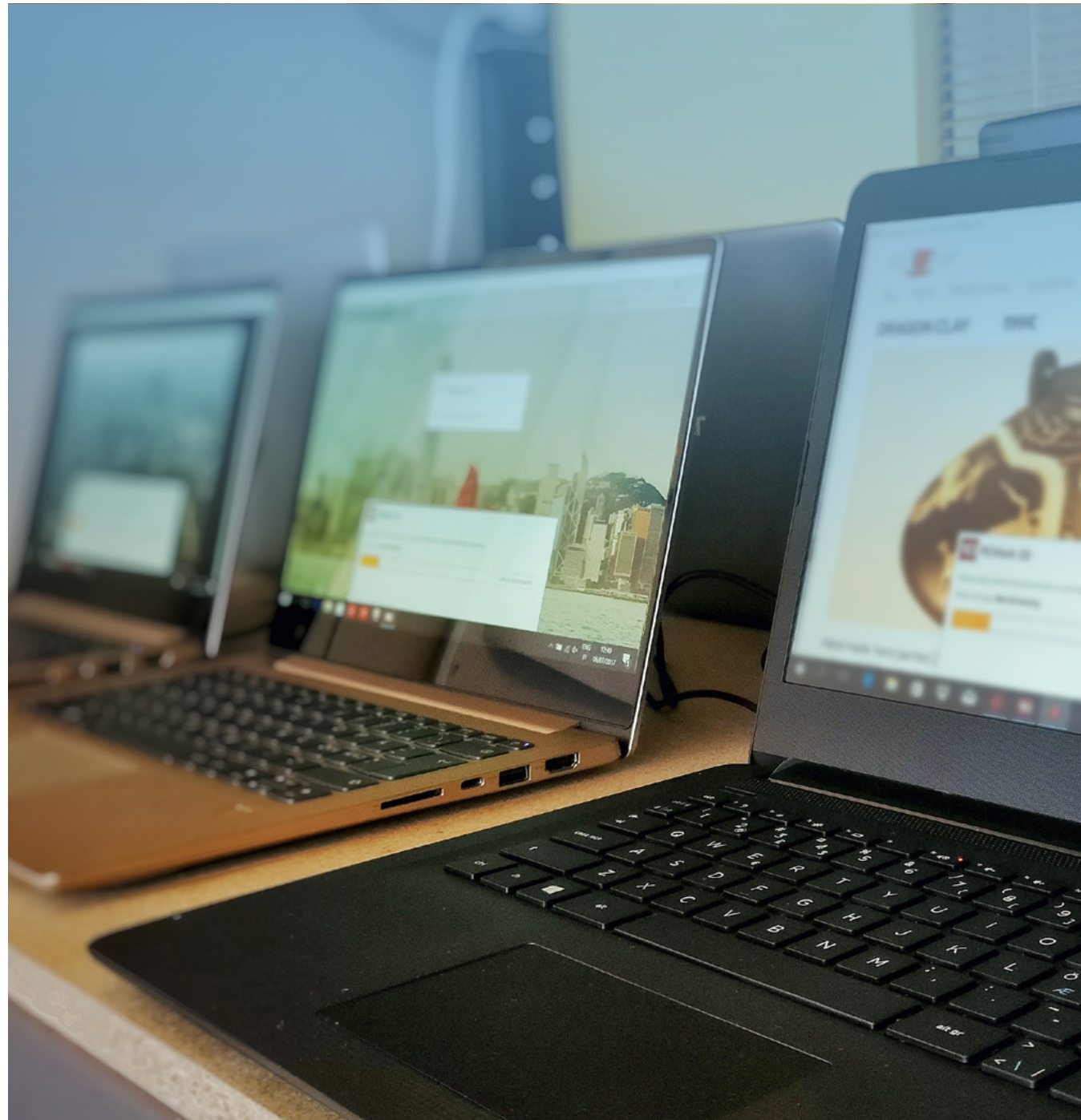
## Independent wearer trial service

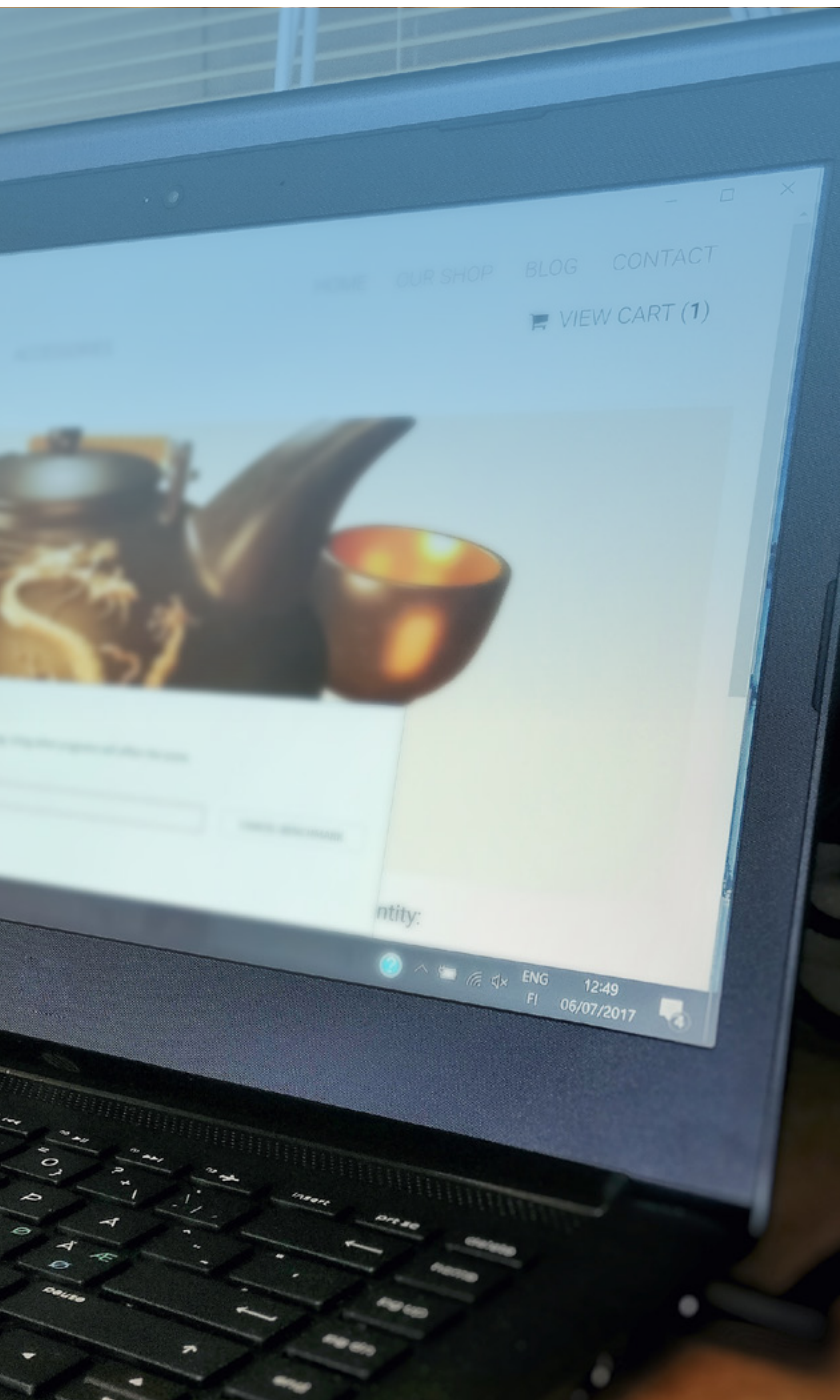
This past year, we launched an independent wearer trial service, offering garment manufacturers an independent evaluation of product quality factors such as wearability, fit and comfort. These evaluations take place before products hit store shelves and are designed to help increase consumer satisfaction with their purchases.



## Elkjøp Nordic AS partnership

In addition, we partnered with Elkjøp Nordic AS, one of the largest consumer electronics retailers in the Nordic region with 400 stores. Every PC, notebook and laptop sold by Elkjøp has been thoroughly tested in our dedicated laboratory using our Futuremark benchmarks. Based on the products' performances, we created a set of categories that help buyers understand the capabilities of each product.





## Power cable compliance

In a new area for us, we introduced services to assess the performance and compliance of power cable products and production facilities in support of electric power utilities. Drawing upon our knowledge in wire and cable manufacturing, we are helping to ensure that the unique needs and specifications of electric utilities are addressed by their suppliers.

## Quality management solutions

To support life science companies faced with complex business and regulatory challenges, we began offering a new quality management solution that delivers both the process and expertise companies need to build a sustainable audit program for their internal operations. Our solution can help our clients improve quality and compliance consistency as they expand to new markets, open new facilities, and complete mergers and acquisitions.

## Clinical site qualification

We launched a clinical site qualification solution to help assess and approve high-quality global investigators and staff supporting clinical trials for life science companies. With our solution, these companies can reduce the time spent on site initiation and certification, accelerating study start times and reducing costs.







## Lab certified by Volkswagen and Daimler automotive groups

Finally, two automotive manufacturers – Volkswagen AG and Daimler AG – recognized our laboratory in Krefeld, Germany, as a certified lab for testing materials for performance. Our Krefeld facility supports automobile manufacturers and their suppliers, from product concept and early product development to final part production.

**Companies must deliver quality to win in the marketplace, and our quality experts will work harder than ever this year to help our stakeholders achieve their goals.**





TRUST

UL drives new possibilities  
that empower trust

Trust is a necessary ingredient for businesses to succeed in today's marketplace.

And, businesses know the challenges they face when it comes to the levels of distrust in this increasingly complex world.

In 2017, we delivered new marketing claim verifications and performance certifications, took steps to protect the UL Mark, and shared our insights on navigating global markets to help build trust in the marketplace.



A SAMPLE OF OUR MARKS

The following are a few areas of where UL builds trust





## Verified furniture marketing claims

We verified key marketing claims that helped increase consumer trust in global products. For example, in response to consumer concerns over furniture tip-over incidents, we developed a marketing claim verification program that highlights furniture products exceeding industry stability standards. Our tests demonstrate how a variety of factors, such as floor surface material or increased weight on drawers, can affect the stability of furniture. In turn, consumers can now identify and purchase furniture designed with stability in mind, and featuring a UL Verified Mark.



130-Degrees  
Field of View



## UL Verified Mark for a hand-held ocular device

We issued the first UL Verified Mark for a hand-held ocular device that diagnoses retinal conditions in newborns. We confirmed that the imaging system delivers a 130-degree view of the eye, enabling ophthalmologists a field of view wide enough to check for signs of debilitating retinal diseases.





## SmartInsights™

To help companies navigate the requirements for entering and achieving compliance in different global markets, we launched our SmartInsights™ Global Market Access Platform. The online subscription service provides users with a platform to quickly and easily access current regulatory requirements for global market access and compliance.

# Appliance and HVAC/R certification

A new single-batch certification program enables appliance and HVAC/R manufacturers with limited production runs to achieve UL certification. Together with our traditional UL safety certifications and UL field evaluations, the single-batch certification program now completes our service portfolio, providing companies with the flexibility to choose the best option for gaining North American market access.

MARKS EQUAL TO LISTING



TESTING AT UL LAB OR FACTORY



## BENEFITS

- PERFECT FIT FOR CUSTOMIZED EQUIPMENT
- NO INSPECTIONS OR ANNUAL FEES
- SATISFIES THE REQUIREMENTS OF THE LOCAL AUTHORITIES
- NO NEED TO SPECIFY THE FINAL INSTALLATION SITE



PRODUCT TYPE  
No X 0000000

ALL COMMERCIAL EQUIPMENT CURRENTLY ELIGIBLE, EASY TO EXPAND

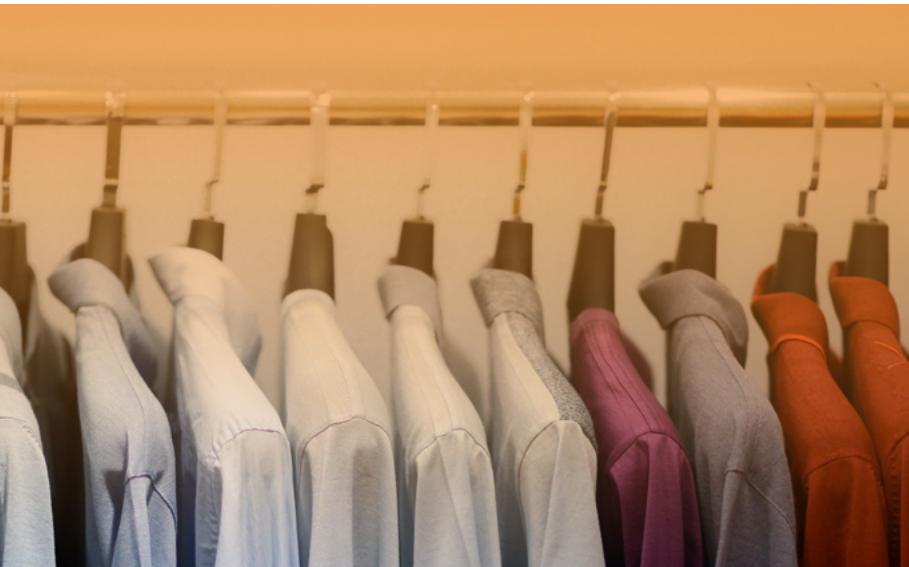


LIMITED QUANTITY OF CERTIFIED PRODUCTS WITHOUT A FULL CERTIFICATION PROCESS OF FUS/AF





## China market access



The size of the Chinese consumer goods market offers immense business possibilities for brands and retailers. To help new players navigate this vast market, our China market access (Guo Baio GB) services deliver a deeper understanding of China's market and its consumption policy, quality requirements and standards, regulatory requirements, and recall system for the textile and apparel industries.

## Evaluated wire and cable concerns



In 2017, we also addressed wire and cable industry concerns about the degrading performance of patch cords, which are crucial to a computer network's speed and performance. We developed *UL 3992, Outline of Investigation for Patch Cords Terminating in Eight-Position Modular Plug Connectors – Performance*, to evaluate the physical, electrical and transmission performance of data communication cables.

We helped increase trust among consumers by protecting our UL Mark and retaining its value for those companies that have earned the right to use it.

From life jackets to power adapters to hoverboards, we assisted in seizures of more than 2.2 million products bearing a counterfeit UL Mark.

Moreover, we demonstrated our commitment to cracking down on counterfeiters with our legal victory over a hoverboard company that used a counterfeit UL Mark online to falsely advertise their products. During the ruling, a California judge underscored the importance of our public safety mission by calling the wrongful use *“significant because the counterfeit use of the UL Mark influences consumers’ understanding of their safety.”*

**In the coming year, we will look to deliver exciting new opportunities for our stakeholders while maintaining our focus on helping them build even greater trust in the global market.**





From lifejackets to hoverboards,  
we assisted in seizures of more than

**2.2 MILLION**  
**PRODUCTS**

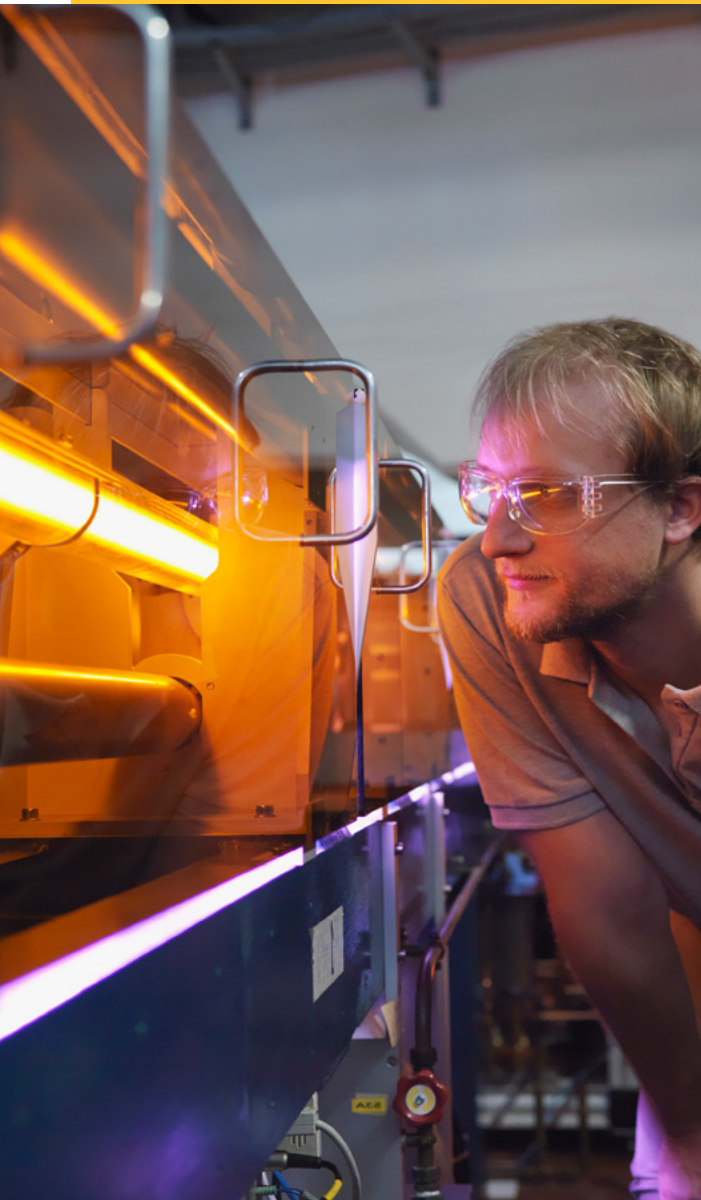
*bearing a counterfeit UL Mark*





GROWTH + EXPANSION

UL expands to deliver  
today and in the future



## The digital era is transforming the world around us at an accelerating rate and reshaping how we do business.

In 2017, we acquired companies, invested strategically and opened new laboratories to enable us to serve the world's changing needs more effectively in today's dynamic business environment.

On April 25, 2017, we acquired **Emergo**, a privately held firm based in Austin, Texas, that provides medical device manufacturers with worldwide regulatory and market access services. As regulatory requirements evolve, the demand for these services continues to grow. Now, with the combined expertise of UL and Emergo, we can serve medical device manufacturers with a broader portfolio as they introduce devices into global markets.

We also acquired **CLEB**, a Canadian building science and building envelope service provider, on May 9, 2017. The acquisition expands our global footprint in the construction market. It also enhances our building science services expertise and offers manufacturers greater access to global markets.

**AE Performance Testing Lab**, the testing services business of AE s.r.l – Appliances Engineering, joined the UL family on Aug. 24, 2017. AE Performance Testing Lab is a testing operation based in Varese, Italy, that provides energy efficiency, benchmark and market surveillance testing based on global requirements for appliances such as refrigerators, washers and dryers, dishwashers, and cooking products.

Finally, Nov. 20, 2017, saw the successful acquisition of Pittsburgh-based **ChemADVISOR**, specialists in chemical regulatory compliance and data solutions. The addition of ChemADVISOR's chemical regulatory and substance database expands our suite of compliance solutions. More importantly, it gives us the ability to deliver added confidence and peace of mind – an indispensable measure of value in increasingly complex regulatory environments.

BY PROVIDING  
capital and  
**EXPERTISE,**



we are working with  
**ENTREPRENEURS  
AND INNOVATORS**



TO DEVELOP SOLUTIONS THAT  
address the future possibilities  
of **safety, security and  
INTEROPERABILITY**



In addition to strategic acquisitions, we continued investing in new fields and technologies. By providing capital and expertise, we are working with entrepreneurs and innovators to develop solutions that address the future possibilities of safety, security and interoperability. Our recent investments include:



**Metamoto**, a Redwood City, Calif.-based startup, focused on scalable simulation for autonomous systems. Identifying the growing need to innovate virtual and physical test methods for autonomous systems, we are partnering with Metamoto to address the next generation of safety challenges.



**SafeTraces**, a Livermore, Calif.-based company providing the only food-safe source assurance solution for bulk products to protect producers, processors and consumers. Comprised of an expert team of entrepreneurs, scientists and engineers, SafeTraces is committed to advancing safety and transparency in the food supply chain, a goal that aligns perfectly with UL's mission of enabling safe living and working environments.



**SkySpecs**, the leading automated infrastructure inspection company, enables wind farm owners, independent service providers and original equipment manufacturers to easily monitor and track the health of their wind turbines with a 15-minute automated robotic inspection. We see great opportunity to advance field inspections via the automation of drones coupled with the analytical power of machine learning. SkySpecs is based in Ann Arbor, Mich.



Providing a single dynamic software platform that enables cities to ingest, store, distribute, analyze and act upon data in real-time, New York-based **STAE** helps cities realize the full potential of connected infrastructure and city services. The resulting connected infrastructure can change cities for the better, making them cleaner, more efficient and safer places to live.

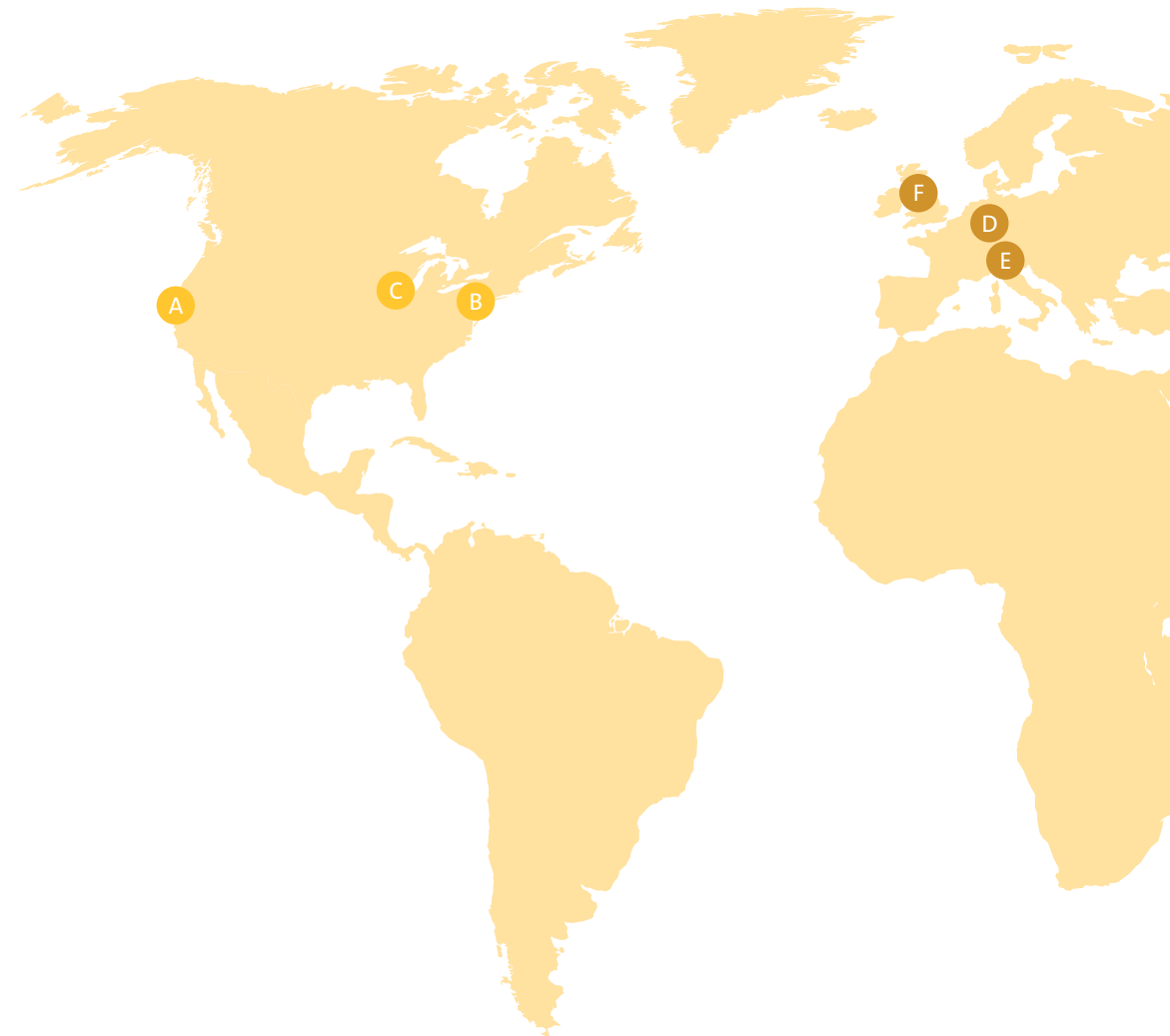
In 2017, we expanded or opened 17 laboratories throughout. By region, our new capabilities include:

### North America

- A Computing performance laboratory and an Internet of Things living laboratory in **Fremont, Calif.**
- B Expanded performance testing laboratory in **Allentown, Penn.**
- C Connected Technologies Center of Excellence in **Northbrook, Ill.**

### Europe

- D Radio and EMC testing laboratory in **Stuttgart, Germany**
- E Security and signaling laboratory in **Frankfurt, Germany**
- F Jewelry Center of Excellence in **Reading, U.K.**







## Asia

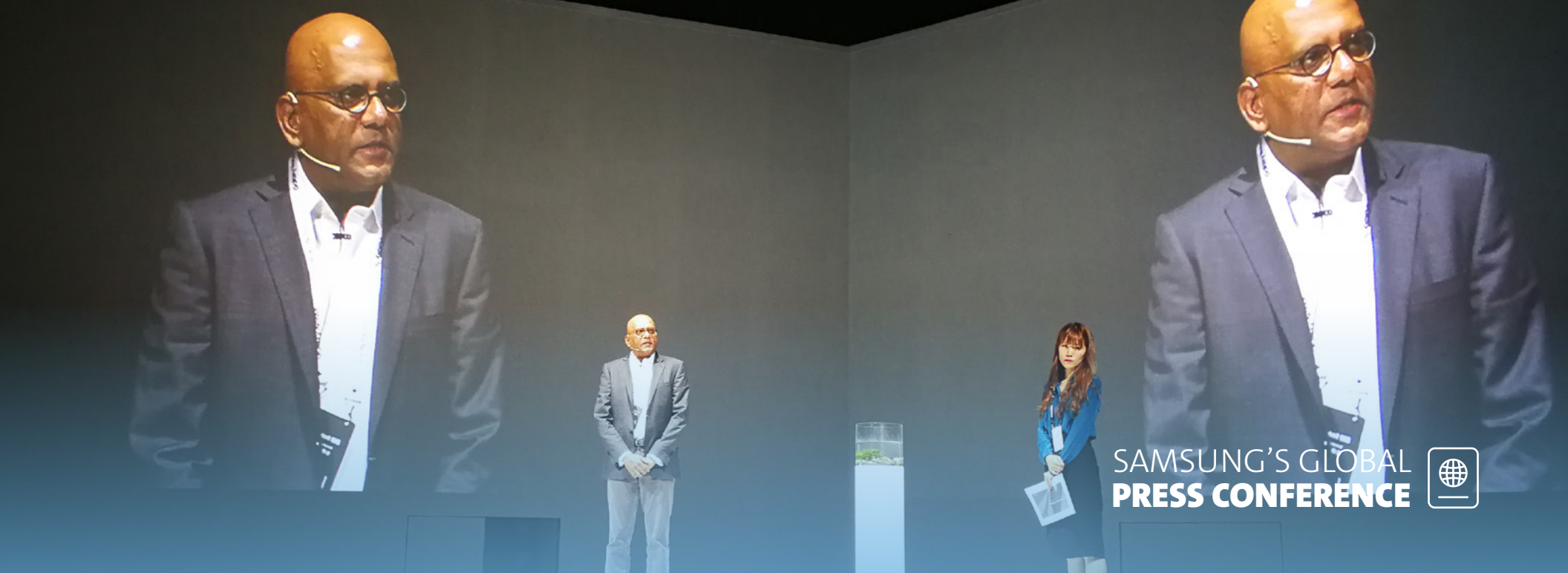
- G** Eyewear testing laboratory in **Shenzhen, China**
- H** Expanded performance materials laboratory in **Suzhou, China**
- I** Small appliances safety laboratory in **Guangzhou, China**
- J** Internet of things laboratory, and lighting energy efficiency and retailer testing laboratory in **Taipei, Taiwan**
- K** Automotive technology center in **Nagoya, Japan**
- L** Consumer and retail services laboratory in **Hong Kong**
- M** Smart meter testing laboratory in **Singapore**
- N** Wire and cable testing laboratory in **Jakarta, Indonesia**
- O** Composite materials testing laboratory in **Bengaluru, India**





## EVENTS

UL demonstrates the  
power of collaboration at  
events worldwide



Sharing our knowledge reflects our global mission of working for a safer world. While participating in key 2017 events, we emphasized both our hands-on experience and scientific research addressing lithium-ion battery risks, counterfeiting challenges and other key topics.

On Jan. 23, 2017, Samsung invited Sajeev Jesudas, president of UL International, to present the findings from our Samsung Galaxy Note 7 battery safety investigation at Samsung's global press conference, reinforcing UL's thought leadership in the science of safety.

On March 18-20, 2017, we participated in the 18<sup>th</sup> annual China Development Forum, China's key platform for facilitating dialogue between the country's senior leadership and representatives from global businesses, academic institutions and other international organizations. The Beijing event aimed to promote international exchanges and cooperation on development policies. UL CEO Keith Williams hosted a session on global shifts in manufacturing.

Business executives converged at the Chicago Forum on Global Cities on June 1-3, 2017, to examine the rise of global cities and their role in addressing global issues. Keith Williams joined four other experts for a moderated panel on "Disruptive Technologies and the Sharing Economy," highlighting the safety and security considerations needed to support rapidly evolving global smart cities. In his remarks, Keith underscored the connection between the application of big data and the future development of smart cities.

Aug. 28-29, 2017, marked the 11th Annual IP Crime Conference, the largest conference dedicated to intellectual property crime in the world with more than 600 participants from more than 60 countries.

Held at the United Nations in New York, UL co-hosted this event along with INTERPOL, U.S. Immigration and Customs Enforcement, the U.S. National Intellectual Property Rights Coordination Center, and the International AntiCounterfeiting Coalition. The conference theme, “Uniting Nations for the Next Decade,” was reinforced by discussions on how the broader law enforcement community can collaborate to strengthen operational partnerships.



**ANNUAL IP  
CRIME CONFERENCE** 



**KOREA BATTERY  
SAFETY SUMMIT** 

UL hosted the Korea Battery Safety Summit on June 14, 2017, as a forum for thought leaders in the battery and safety disciplines to collaboratively identify and understand potential gaps in technology and regulations.

Attendees shared a common goal of facilitating future safety solutions that keep pace with the progress of lithium-ion battery technology innovations to increase consumer confidence in products using the technology. Hosted in collaboration with the Korea Testing Laboratory, Korea Testing Certification, and Korea Testing & Research Institute, the event supported our efforts to enhance scientific and engineering safety practices across lithium-ion battery supply chains.



UL also joined the 21-member nations of the Asia-Pacific Economic Cooperation (APEC) in Da Nang, Vietnam, for the 2017 APEC CEO Summit on Nov. 8-10, 2017.

The challenges and opportunities of the Fourth Industrial Revolution were front and center, and Keith Williams joined a panel titled “The Digital Age” to discuss the overall impact of this new technological wave and the role of government. This annual event serves as an incubator for new ideas and ways to achieve prosperous growth in the region.

And finally, on Dec. 12-14, 2017, UL and Emory University hosted the Furniture Flammability and Human Health Summit focusing on the flammability and chemical safety of upholstered furniture. Held in Atlanta, the summit brought together stakeholders to review policy updates and the latest scientific research, including the results of our chemical exposure and flammability research on upholstered furniture conducted in collaboration with Emory University’s Rollins School of Public Health and the furniture industry.

**Each of these events provided a global stage for us to share our deep experience in fostering trust and enthusiasm for future innovations, and we look forward to building upon this at similar forums in 2018.**

# External Sources

**Data Age 2025: The Evolution of Data to Life-Critical**

**Don't Focus on Big Data; Focus on the Data That's Big**, IDC, March 2017

<https://www.seagate.com/files/www-content/our-story/trends/files/Seagate-WP-DataAge2025-March-2017.pdf>

**The Deloitte Consumer Review: The growing power of consumers**, Deloitte, May 2014

<https://www2.deloitte.com/content/dam/Deloitte/uk/Documents/consumer-business/consumer-review-8-the-growing-power-of-consumers.pdf>

UL LLC v. The Space Chariot Inc., Case 2:16-cv-08172-CAS-AFM, Docket #81, Civil Minutes dated April 20, 2017 (C.D. Cal.)



**UL.com**

UL and the UL logo are trademarks of UL LLC © 2018