# Corporate

# Global Marketing and Communications

### Corporate Social Responsibility & Sustainability Report 2016





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The Arrow SAM car advances technology and mobility innovations for people with physical disabilities.

Read more on page 3



Arrow sponsored and deployed DigiTruck, a mobile solar-powered classroom to bridge the digital divide in Africa.

Read more on page 5



Arrow's Sustainability
Program guides innovators
to a better tomorrow.

See page 15

Arrow CSR and community partners engage more than 3 million people each year.

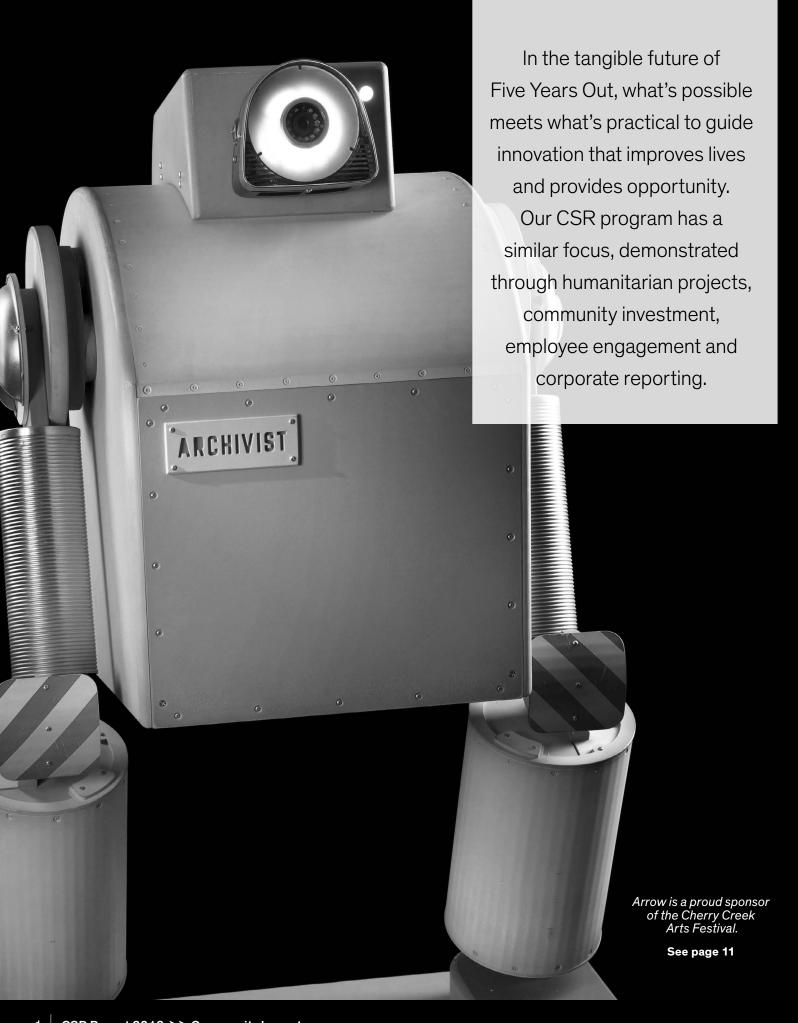
# Mission Statement

Arrow Electronics' Corporate Social Responsibility (CSR) program guides today's innovators to a better tomorrow. With our help, our partners will transform their ideas into real and influential achievements that will help people and the communities in which Arrow works.

And just as technology touches all facets of our lives, we intend to foster new, cross-cutting collaborations between Arrow, our CSR partners, customers and suppliers, so their efforts yield astonishing and unforeseen results. Working together, we can make the world a better place — now and Five Years Out.

Our view of CSR goes beyond traditional corporate philanthropy and community relations. It is a business strategy that creates competitive advantages by establishing partnerships around shared values and pursuing innovations that strengthen Arrow's reputation as an industry market leader. We purposely seek and select transformational projects that leverage the company's expertise and scope, in addition to making a limited number of financial contributions to organizations that share our values and vision.





# Arrow's 10 **Categories of Engagement**

# **CSR** Metrics & Scoring Our **Progress**

Arrow has developed an engagement rating system by which we evaluate CSR partners and projects. The Arrow Balanced Scorecard includes elements from similar evaluation tools used by the Boston College Center for Corporate Citizenship, a leading CSR think tank, and the National Conference on Citizenship, a nonprofit chartered by Congress in 1953 to enhance civic participation.

01	INNOVATION	
02	CSR CATEGORY ALIGNMENT	•
03	BRAND ELEVATION	1
04	SOCIAL IMPACT	<b>©</b>
05	BUSINESS DEVELOPMENT POTENTIAL	<b>(i)</b>
06	EXECUTIVE SUPPORT	-
07	ARROW LOCATION	
08	STATURE	*
09	ARROW V ALIGNMENT	V
10	EMPLOYEE ENGAGEMENT	<b>\</b>

### **Application and Guidelines**

### How to Apply

PARTNERSHIPS: Arrow reviews invitationconsidered, we are looking for those few

Send requests to: **Alex West CSR Manager** AWest@arrow.com

### **CSR Giving Guidelines**

- will be reviewed in the fall for support the
- sponsorships or donations.
- well as, a summative evaluation at year's end.

> An Arrow executive should serve on the

#### Arrow does not support:

- > Fraternal or labor organizations





It only gets better. The semiautonomous motorcar (SAM), first developed in 2014 by Arrow for Sam Schmidt, former Indy Racing League driver paralyzed from the neck down in a racing accident in 2000, made history this year. Now driving a modified 2016 Corvette Z06, Schmidt has circled the Indianapolis Motor Speedway at a blistering

152 mph and raced to the summit of Pikes Peak, elevation 14,114 feet.

SAM technology is now speeding beyond the racetrack to create a new facet of 21st-century transportation. In September, the state of Nevada declared the SAM car street-legal and presented Schmidt with a restricted driver's license. This marked the first time a quadriplegic has been legally licensed in the U.S. to pilot a hands-free, semi-autonomous vehicle on public roads. In doing so, it demonstrates the power of SAM technology — not only for people with disabilities, but also for a variety of commercial applications.

For the SAM Project, Arrow modified the Corvette with advanced electronics, a human-to-machine interface and an Internet of Things

In 2017, goals for the SAM project include: driving 200 mph on a controlled course, extending Schmidt's street driving experience and demonstrating SAM technologies with even more people with physical disabilities.

(IoT) platform for data display and analysis. Infrared cameras and sensors are integrated into a system that follows Schmidt's subtle head movements to within one-hundredth of a second to steer the car at racetrack speeds and around hairpin turns. Schmidt accelerates and brakes using a breathing tube attached to a pressure sensor.

The SAM Project rapidly integrates electronics in new ways — not only to demonstrate the power of driving technology, but to demonstrate how such technology can bring freedom and opportunity to everyone. Arrow's SAM Car was awarded the 2016 "Best Car Innovation" by *Business Insider*, demonstrating that technological innovation can span a broad range of industries, and continues to differentiate Arrow from competitors. "Because it has a direct influence on someone's life and shows the vast potential of driverless tech, the Arrow car ranks number one on our list," the news outlet wrote.

"Paralysis is the first thing I haven't been able to figure out how to fix. When you get an opportunity like this with a company like Arrow, there is a lot of pride, a lot of emotion and it reminds you that anything is possible."

**Sam Schmidt**, after driving to the summit of Pikes Peak, elevation 14,114 feet. The hill climb course covers 12 miles and 156 turns. Sam's elapsed time: 15 minutes. Top speed: 80 mph.

#### Arrow SmartBike

Mark Pollock, former champion rower for the U.K. and a well-known adventure athlete, became the first blind person to race to the South Pole in 2009. Mark lost his sight in his 20s due to retina deterioration. In 2010, an accident left him battling paralysis in addition to his blindness. Arrow helped Pollock return to adventure sports in 2016 on an innovative "SmartBike," a customized tandem tricycle built for Pollock and a co-rider.

The Arrow SmartBike is modified with electronics so Pollock can communicate with his co-rider. It also tells him where he is on the race course and provides him with information about his biking environment and where he is heading. The technology platform also measures athletic performance and stores the data in the cloud for analysis.

Until Arrow built the SmartBike, Mark thought his days as a competitive athlete were finished. Mark made his debut ride in September 2016 in a race along scenic coastlines in Northern Ireland. He rode 35 miles in three hours and four minutes, reaching downhill speeds of 30 mph. He was joined in the race by 26 amateur cyclists, including Arrow employees. In November, his courageous story was televised across the U.S. by CBS.

"I can't see or move my legs anymore. But the SmartBike is allowing me to feel again...the sun, the wind, the pain, the joy... all of it. Arrow's work on the bike enables this. They are a true partner."

Mark Pollock

In 2017, we will look to develop more human-to-machine interface projects that extend the lessons learned from the SmartBike to benefit others with disabilities.



### Wheels for Humanity

About 1 billion people — or 15 percent of the world's population — live with a physical disability. With a wheelchair costing more than a year's salary in most developing nations, basic mobility restrictions keep many people with physical disabilities isolated and ignored. Arrow is partnering with the MIT D-Lab and

Sensen, a small social enterprise, to develop and deploy a rugged "smart" wheelchair modified with data-logging electronics to measure use in settings ranging from urban shantytowns to rural villages. In 2017, the project will deploy 500 smart wheelchairs in Indonesia. Data collected via GSM (Global

System for Mobile communication) technology on the quality, usage and longevity of different types of wheelchairs will help agencies such as the World Health Organization to more effectively fund assistive technology programs in the developing world.



# Innovating Our World

DigiTruck and Close the Gap

Africa is on the rise, with four of the world's 10 fastest growing economies in 2016. A young consumer class is emerging, with as many as 300 million people rapidly embracing technology and pursuing investment. Even in Africa's relatively prosperous countries like Tanzania, many social and environmental problems are growing equally fast.

With these challenges in mind, Arrow and its Brussels-based nonprofit partner Close the Gap run a program to convert used cargo containers into DigiTrucks - fully equipped, insulated, secure classrooms and health clinics. Our mutual mission: Close the digital divide by delivering access to today's leading technology — and providing power in more ways than one. Solar panels power the DigiTruck for days at a time so it can reach remote rural villages that have no electricity.

For its work around DigiTruck this year, Arrow received the Corporate Social Responsibility prize at the PR Week 360 Global Awards held in London.

Throughout 2016, Arrow and Close the Gap partnered with Neema International to operate a DigiTruck at the Tuleeni Orphanage, a home for about 100 orphaned or vulnerable children in the remote village of Rau, in the Kilimanjaro region of Tanzania. Arrow also has provided Tuleeni with internet access, a playground, laptops, tablets and other devices — all of it refurbished by Arrow's value recovery business, averting further e-waste. Arrow employees also fund scholarships for Tuleeni students.

Some Tuleeni students participated virtually in the 2016 "Cardboard Challenge" (see page 10), building a model safari vehicle large enough to hold several children, and shared photographs with the Cherry Creek School District in metro Denver.

Arrow and Close the Gap have been partners for more than a decade. Together we have facilitated the donation of more than 500,000 refurbished computers to schools, clinics and microbusinesses in Africa, benefiting over 1.5 million people. This milestone was celebrated in a Brussels ceremony in February by Belgium's King Philippe and other public officials.

"The kids are in heaven! We are having too much fun teaching them how to keyboard and touch-screen, and watching them learn how to read and write with the incredible apps that we have installed."

Mandy Stein, Director of Neema International









182 million adults and 48 million youth in sub-Saharan Africa cannot read or write.





E-waste is the world's fastest growing waste stream.





Some 42 million toxic tons of e-waste is generated each year, growing 5% annually.



E-waste winds up illegally in Africa, where scrap dealers burn it to obtain precious metals.



Arrow is committed to serving the communities in which employees live and work. In 2016, employees led events to benefit local nonprofits around the world, furthering the collaborative and innovative culture within Arrow and the broader community.

#### REFUGEE SUPPORT - FRANKFURT, GERMANY

Arrow's European headquarters near Frankfurt responded directly to the refugee migration in Europe this past year. Arrow employees donated funds and established an IT center with refurbished laptops at the Neu-Isenburg refugee center. The center enables families to connect with distant relatives, access benefits and complete online language and training courses. In September, through the town's Mayor, Arrow met and hired a refugee from Ethiopia as a facilities trainee.

#### RELAY AGAINST SLAVERY - BEIJING, CHINA

In June 2016, 28 volunteers from Arrow's Beijing office participated in the 24-Hour City Relay Race, running a total 490 kilometers. The race is a youth movement where thousands of young people across the globe unite with one voice and action to end modern slavery.



#### MARIA AUXILIATRIX RUN - VENLO, THE NETHERLANDS

Twenty-eight employees from Arrow's Venlo office volunteered in September to support the Maria Auxiliatrix Run, an annual two-day event centered on giving back to individuals with disabilities. Motorcycle riders partner with individuals with mental and physical disabilities to tour the Venlo streets. Teams are meant to remain the same each year, with many teams unchanged since the inception of the event in 1987.



#### PASS CARD HOLDER WORKSHOP - HONG KONG

In July, 26 volunteers participated in a half-day workshop making leather pass card holders for people with disabilities to protect and organize their personal identification cards. With guidance from tutors with A-SOULROOM, a local nonprofit,

Arrow employees worked in the Tsui Lam Sheltered Workshop to make the holders, offering a valuable opportunity to care and communicate with vulnerable social groups in Hong Kong.



#### CHARITABLE CAUSES — PENANG, MALAYSIA

Arrow employees in Malaysia supported a variety of local charitable organizations in 2016. In April, a team participated in a charity drive for Mount Mariam Hospital in aid of cancer patients. Earlier in the year, a group held an activity to support 4PAWS, the Penang Animal Welfare Society.

#### COMMUNITY ENGAGEMENT - U.S.

Employee teams from all over the U.S. led local events. In July, the Phoenix integration center donated 1,500 articles of clothing, 2,500 toiletries and items such as bedding and towels to Central Arizona Shelter

Services, a nonprofit established to respond to local homelessness. In Colorado, a team of 38 employees participated in the Denver Dumb Friends League Furry Scurry to raise funds for



homeless pets. Additional teams volunteered, held donation drives and participated in charity walks and races around the country.

# **Innovating Tomorrow**

### Very Young Composers Program — Colorado Symphony

"These works are inventive and a testament to Arrow's vision of innovation."

**Christopher Dragon** Symphony Associate Conductor

At Arrow, we believe the world should not wait for the next DaVinci to appear. Innovation is a skill set that can be taught, and innovators have common traits that can be developed. Increasingly, our education programming reflects this commitment to develop a new generation of innovators.

Just because you can't play an instrument or read music doesn't mean you can't be a composer. That's the premise of the Very Young Composers program.

Rather than diving straight into technology, we start with music as a step towards transforming inner city elementary school students into confident young innovators. Beginning in

January, 30 students from Cole Arts & Sciences Academy, a Title 1 school in Denver's Five Points neighborhood, collaborated with orchestra musicians to compose original scores expressing storylines the students created. They worked together for four months, and five musicians played the compositions in a concert for the entire school and the composers' families.

In May, the full Colorado Symphony Orchestra played compositions by a pair of Cole 5th

graders as part of a regular concert of new American music for an audience of 1,500 at Boettcher Concert Hall. One of the student composers, Maria Garcia, compelled the orchestra to play their instruments in unconventional ways — and even turn their own bodies into musical instruments — as they performed her composition, "Snowboarding."

This nationally recognized program will be expanded in 2017 to train new innovators at Valverde Elementary School on Denver's West Side. In 2016, 300 Arrow employees devoted a day of service at Valverde, including repairs, landscaping, painting and IT installation.



# **Innovating Tomorrow**

#### Mouse

Mouse is a national youth development nonprofit that believes in technology as a force for good. It empowers all youth to create with technology to solve real problems and make meaningful change in our world.

Thanks to a unique partnership with Arrow and CBS EcoMedia, Mouse is exploring how best to use smart fabrics/etextiles ("wearables") as part of its STEM programming for middle and high school students. Mouse believes these new technologies can help improve STEM learning outcomes by engaging young learners in projects more immediately and concretely relevant to their own

experiences and needs than most traditional STEM curricula.

With Arrow's support, using wearables, Mouse learners can create and deploy solutions to challenges they themselves identify, providing meaningful opportunities to acquire computational, geometric and analytical skills and to demonstrate mastery of spatial reasoning, design thinking and pattern recognition.

Mouse will add this new wearables and programming soft circuits course on its online learning platform in 2017. The Arrowfunded program will impact more than 250 sites nationwide across dozens of states.

#### **FIRST** Robotics

Arrow sponsored the Denver Regional *FIRST* Robotics competition at the University of Denver. Forty-eight high school teams from 11 western states and Mexico participated in the regional competition, which featured robots these students designed, built and programmed. Winners compete in the international finals. With a new robot design and game every year, *FIRST* competitions teach students how to be innovators as well as collaborators.



### **Collegiate Inventors**

Arrow sponsored the 2016 Collegiate Inventors Competition, which showcases emerging student ideas and technologies that will shape society and may be patented. The competition is run by Invent Now and the National Inventors Hall of Fame.

The University of Colorado team earned a spot in the Finals for its "Farming on Mars" entry. Their SmartPOT powered by AgQ is a self-monitored, automated

growth chamber backed by an artificial intelligence system to facilitate human survival on other planets. The winning graduate-level invention enables at-home rapid administration of medications directly into tissue using low-frequency ultrasound. The winning undergraduate invention involved engineered biological particles that degrade residual pesticides on the surface of plants, allowing crops to be safely harvested after just a few hours.



### Junior Achievement Business Week Camp

Arrow is the presenting sponsor for this unique program, allowing 275 business-minded high school innovators to create products and business strategies for local enterprises. In addition to attending interactive workshops on marketing, business ethics and budgeting, the week culminates in a competition inspired by "Shark Tank." Thirty employees volunteered throughout the week mentoring students and 200 employees participated in a local charity bowl-athon raising over \$25,000 to provide 70 camp scholarships.

# STEM Programs

(Science, Technology, Engineering and Math)

### **STEM Champions & STEMworks**

STEM Champions are companies, foundations and individuals committed to implementing the Colorado STEM Education Roadmap.

In July 2016, Arrow hosted fellow Colorado STEM Champions working to advance STEM education in the state. Attendees met with leaders from current and new programs accepted into the Colorado STEMworks Database. Now in its second year,

Arrow supported the database that helps identify effective, expertly vetted STEM programs.

Colorado is one of only three states, along with Arizona and Iowa, to have developed such a database of highquality, proven programs. A joint effort of the Colorado Technology Association and Colorado Education Initiative, it currently includes 21 youth STEM programs in Colorado.



Arrow partnered with the Denver Broncos for the second year to help students Tackle STEM. From the Coach of the Month program honoring STEM educators to the Innovators in Training Challenge, the program reaches thousands of students.

Innovators in Training challenges high school students statewide to develop an innovative product or service that will improve health and wellness. This may include new wearable devices, a data app or a new technology that motivates others to exercise. Participants make a 30-second video reviewed by a panel of judges. The challenge is part of the

annual Ten80 Tackle STEM Initiative that encourages 30,000 Colorado students to pursue STEM studies and technology careers.

A kickoff event held at Sports Authority Field for 700 students included science-based games and a behindthe-scenes engineering tour of the football stadium, including its massive high-definition LED video scoreboard that Arrow helped to develop with customer Daktronics. This day is a kickoff to long-term learning through the Innovators in Training curriculum and competition through the National STEM League.





### **Cardboard Challenge**

Arrow is the presenting sponsor of the Cherry Creek School District's "Cardboard Engineering Challenge," an Imagination Foundation event which asks students to use the free materials all around to turn their ideas into something practical. More than 500 students participated in the event and dreamed up things such as a full-sized bobsled with blinking LED lights, a 10-foot blue dragon, skyscrapers, bulldozers and even a version of Van Gogh's Starry Night painting. These kids also collaborated via the internet with children from the Tuleeni Orphanage in Tanzania.

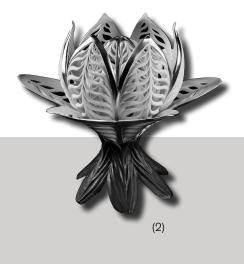
### **National Society** of Black Engineers

In August 2016, Arrow sponsored a local National Society of Black Engineers (NSBE) Summer Engineering Experience for Kids (SEEK) program, for students in grades 3-5 at Maxwell Elementary school in Denver. Teams worked with Arrow engineering mentors to design and build working wind turbines out of a simple electronics kit and everyday products. Participants were encouraged to embrace Arrow's forward-looking view of technology by thinking Five Years Out in their designs.

# **Innovating Culture**

Arrow believes the creative process in the arts and innovation in technology are intrinsically connected and must be nurtured. Every year, we engage in a variety of cultural initiatives in the belief that technology can address persistent social concerns in new ways, while helping people be more productive in their own lives.









**Arrow Five Years Out Art Challenge** 

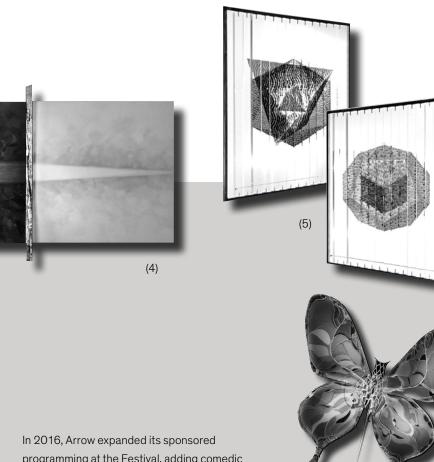
For the fourth year, Arrow Electronics and the Cherry Creek Arts Festival joined forces in Denver to present the Arrow Five Years Out Art Challenge. This juried art competition inspires artists from around the world to express Arrow's Five Years Out brand promise through their chosen medium.

The finalists' works are displayed at the Festival each year before becoming a part of Arrow's permanent art collection. This year seven finalists were chosen from 180 submitted concepts.

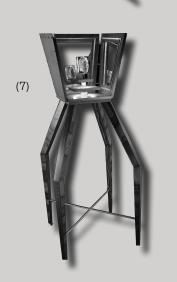
- > Steven Gutierrez, Chardon, OH, sculpture, Aesthetica Sculptura (1)
- > Jennifer McCurdy, Vineyard Haven, MA, ceramics, Philosopher's Stone (2)
- > Toby Fraley, Bridgeville, PA, sculpture, *The Archivist* (3)
- > Bryan David Griffith, Flagstaff, AZ, painting/mixed media, Seamless (4)
- > Mark Aspinwall, Crotone, Italy, metalwork/mixed media, Platonic Challenge (5)
- > Jen Lewin, Boulder, CO, new media/electronic sculpture, The Moths (6)
- > Anne Bossert, Fort Collins, CO, wood/mixed media, Reliquary for the Future (7)

Toby Fraley was selected as the 2016 winner for *The Archivist*. Fraley received \$10,000 and a jury-exempt invitation to exhibit at the 2017 Cherry Creek Arts Festival.

In the artist's words: "The idea behind *The Archivist* (see (3) above and page 1) is that five years from now we will have technology to affordably build these reliable robots. Hundreds of these units would be assigned a human counterpart. For a year, they shadow their subjects as unobtrusively as possible and record their daily activities. A complete audio and visual record would be taken. Aspects would include work life, religious and political views, interactions with friends, families and colleagues, sleep schedules, meals eaten, movies cried through, sunsets watched, everything. The Archivist essentially forms a short documentary or time capsule of that person and the time they lived in. These detailed records are then compiled into a searchable database. Once that person has passed away, their story is uploaded to a cloud server for the world to have access to for eons. No one will fade away."



programming at the Festival, adding comedic and theatric demonstrations by the group Handsome Little Devils. In addition to performing, the troupe runs an educational outreach program featuring instruction in juggling, dancing, physical comedy and circus arts, plus teaching job skills for at-risk youth. For these innovations, Arrow and the Festival shared the 2016 Best Sponsorship Award by the International Festivals & Events Association.





### Colorado Symphony

Arrow was again the Presenting Sponsor for the Colorado Symphony, one of the leading orchestras in the U.S., performing more than 150 concerts annually across Colorado. With 80 full-time musicians, the Symphony serves more than 250,000 people, performing a range of musical styles, from traditional to contemporary. In 2016, the Symphony premiered the complete version of the Arrow "Five Years Out Overture." In 2017, the Symphony and the Colorado Ballet will collaborate to premier a dance choreographed to the Arrow overture.



### **Denver Zoo**

The Denver Zoo is the most popular cultural institution in Denver with two million visitors annually. Arrow sponsors more than 100 recycling locations on the Zoo's 80-acre grounds.



# Innovating Communities

Arrow shares resources and expertise with a wide variety of organizations and nonprofits to create opportunities in the communities it supports. Arrow and its employees believe deeply in supporting the communities in which they live and work, and the company's programs engage and involve well over 3 million people annually.

#### Rose Andom Center

Denver-based Rose Andom Center provides domestic violence victims with the safety, support and services they need, all under one roof. Arrow has contributed technical and architectural support, furniture, refurbished computers and branding assistance over the past two years to help the



nonprofit grow. Employees raised \$25,000 for the Center in the fall of 2016. It is the first and only family justice center in Colorado providing a uniquely effective resource for domestic violence victims and their children.

### **Habitat for Humanity**

Arrow is a presenting sponsor of Habitat's annual "Night of Miracles" event. In July, employees from Arrow's headquarters partnered with the Denver Broncos staff to build a new house with the future homeowners, a couple that was recently displaced from Afghanistan. In 2017, Arrow is



collaborating with Habitat to explore a smart home design emphasizing affordable home technology systems for its clients.

#### Women in Technology

Arrow was title sponsor of the Colorado Technology Association (CTA) Women in Technology conference, held in June in Denver. The annual conference is an integral part of CTA's Women's Network, which convenes women IT leaders to be a model to influence girls in STEM. In addition to supporting the conference,



Arrow's financial contribution supports CTA's Foundation program, STEMworks, a source for high-quality, independently vetted STEM education programs in Colorado.

#### Women in STEM

The Women's Foundation of Colorado's mission is to build resources and lead change so that every woman and girl in Colorado achieves her full potential. Arrow co-founded the organization's STEM Coalition in 2015, and since that time, many leading Colorado firms have added their support. In 2016, the Coalition developed a report, "Gender Equity in Colorado's STEM Industries: The Case for Focused Workforce Investment." The report is a roadmap to help companies recruit, retain and advance women in STEM. Like the Women's Foundation, Arrow is committed to helping women achieve economic success in STEM fields.

# Community Participation

Organizations supported by Arrow CSR in 2016:

Alliance for Choice in Education

All for One, One for All Foundation

American Red Cross

Anschutz Center for Women's Health

Research\*

Boy Scouts of America

City Year\*

Center of Hope — Haiti\*

Cherry Creek Arts Festival\*

Cherry Creek Schools Foundation\*

Close the Gap

Colorado Ballet

Colorado Business Committee for the Arts

Colorado Education Initiative

Colorado State University Foundation

Colorado State University Global

Leadership Council\*

Colorado Symphony\*

Colorado Technology Association\*

Colorado Uplift\*

Colorado Women's Chamber of Commerce

Conquer Paralysis Now

Craig Hospital Foundation

Denver Metro Chamber of Commerce\*

Denver Scholarship Foundation\*

Denver South Economic Development

Partnership

Denver Zoo\*

Engineers Without Borders\*

Excelsior \*

FIRST Robotics

Girl Scouts of America\*

Global Livingston Institute

Habitat for Humanity

Inspire Foundation

**Innovation Works** 

Invent Now

Jewish Family Services\*

Junior Achievement\*

Littleton School District Foundation\*

MassChallenge

Metro Denver Economic Development

Corporation

National Sports Center for the Disabled\*

Neema International

Paralyzed Veterans of America

Project Pave\*

Rose Andom Center\*

South Metro Denver Chamber of Commerce

St John's University

University of Colorado Hospital Foundation

— Men for the Cure

University of Colorado Foundation

Women Corporate Directors Foundation

Women's Foundation of Colorado

\* Indicates Executive Board service





### **Mission**

Arrow Electronics guides innovators to a better tomorrow. Our Sustainability Program upholds principles of environmental stewardship and responsible economic growth to ensure a desirable planet. We are accountable to employees, customers, shareholders and to the communities in which we operate, from the sourcing of the materials in our products to the end of life of the products we help create. Our success is built on the sustained application of our core values in our daily operations and within our sphere of influence.

#### **Vision**

Arrow's global approach to sustainability focuses on the operation of our business. We strive for efficiency and maximizing waste utilization in offices, facilities and distribution centers. We distinguish ourselves by providing specialized services and expertise across the product life cycle. We seek to provide our suppliers and customers with solutions designed to help them produce products that are inherently more sustainable.



# **Operational Measures**

Arrow continues to focus on the environment in both established policy and practice. For example, we have installed 13 electric-vehicle (EV) charging stations at various business locations, offer refurbished electronics to employees at discounted pricing and maintain ongoing efforts to operate as an ecofriendly business.



## SNAPSHOT: Environmental Impact of Electric Charging Stations at Arrow Electronics 2016

January 1 — December 31: 366 days

2,060.29 gallons of gas Total fuel displaced:

39,969.66 lbs. Total CO, offset:

### **Doing Our Part**

- > When remodeling offices, Arrow incorporates ecofriendly products. In 2016, we installed 12,128 square yards of recyclable carpet which, when recycled, will divert 66,200 lbs. of waste from going to the landfill and save 14,200 lbs. of CO<sub>2</sub> emissions.
- > We have installed LED lighting in three of our North America warehouses. This is reducing our annual energy usage by an estimated 2,129,966 kWh, and helps avoid emittance of an estimated 2,559,528 lbs. of CO<sub>2</sub> emissions. Arrow plans to continue installing LED lights in new construction and will analyze LED retrofits in additional warehouses.
- > Arrow's "Green Fleet" program, started in 2014, is successfully identifying ways to improve our environmental impact through vehicle modification and driver behavior.
- > We continue our efforts to consolidate and improve waste streams.
- > Arrow worldwide is increasing efforts to track utilities usage.
- > We are submitting annually to Carbon Disclosure and EcoVadis.



The Colorado Department of Public Health and Environment named Arrow a "Gold Leader" in its Environmental Leadership Program. Arrow was recognized for environmental achievements that help keep Colorado a desirable place to live and work. This is Arrow's second consecutive "Gold Leader" award.



As a global provider of products, services and solutions to industrial and commercial users of electronic components and enterprise computing solutions, we seek to ensure that our products comply with all applicable laws, regulations and approval standards to protect the environment and human life or health. We strive to handle products in our distribution network and provide value-added services in an environmentally aware way. This means the use of environmentally friendly technologies, avoidance of emissions and waste and the use of energy-saving solutions.

### **Environmental Responsibility**

Our framework for defining our environmental objectives and targets and measuring performance encompasses four priorities:

- Deliver environmentally responsible products and services through our value-add programs and global components organizations on behalf of our supplier partners.
- Demonstrate environmental responsibility by adopting an environmental position that ensures compliance with future regulations and policies.
- > Continually improve and evaluate our environmental performance and foster a culture of environmental responsibility and employee engagement.
- Reduce waste and prevent pollution by operating Arrow global facilities in compliance with relevant environmental requirements, and work to conserve resources and minimize harmful environmental impacts.

# Environmental Highlights and Accomplishments

### Milestone: 500,000th Donated Computer



A half-million donated computers is a milestone — momentous enough to warrant a King's attention.

His Majesty King Philippe of Belgium visited Arrow's facility near Brussels in February to celebrate the refurbishment of the 500,000th computer donated for humanitarian purposes. Arrow has facilitated the donations over the past decade with Close the Gap, an international nonprofit organization that provides high-quality, pre-owned

computers donated by European companies to projects in sub-Sahara Africa. Arrow's value recovery business refurbishes the computers prior to donation, including rigorous dataerasure protection and the replacement of outdated parts, including keyboards, screens and processors. In the past year alone, Arrow has kept more than 50,000 tons of used electronics out of landfills and more than 100 million pounds of materials out of the manufacturing stream.

### **Arrow Value Recovery**

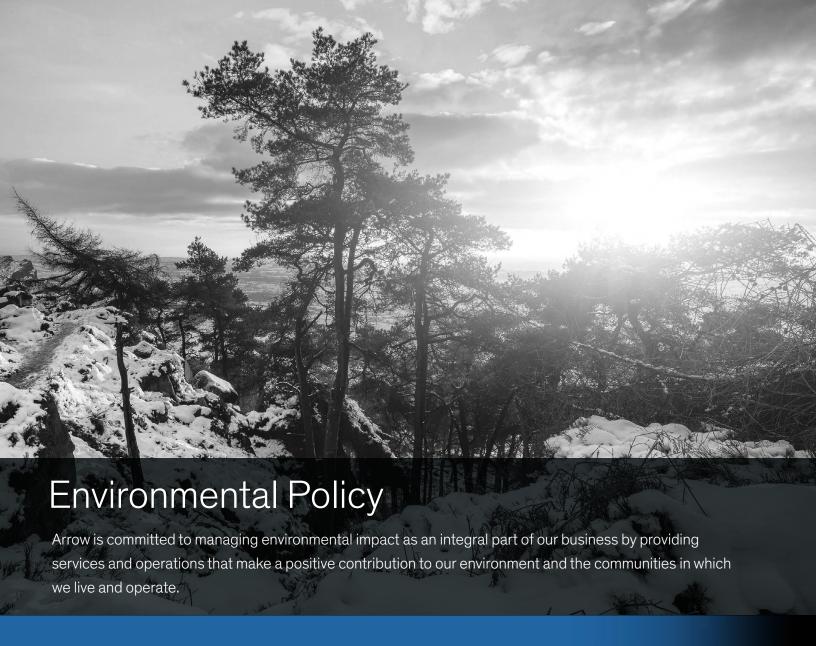
Arrow value recovery works with customers around the world to securely refurbish computers, servers, smartphones, printers and other electronic devices for additional use, or repurpose their still-valuable component parts for other uses. Whenever possible, Arrow emphasizes extending the life of these devices by selling them, redeploying them within organizations or donating them. 2016 highlights include:

> **ARM mbed**<sup>™</sup> — Arrow joined the ARM mbed partner ecosystem, which brings together leading embedded and cloud technology companies, component manufacturers, system integrators and original equipment manufacturers

(OEMs) to accelerate IoT innovation. Arrow's comprehensive IoT capabilities, ranging from hardware, sensors and product design to connectivity, data analytics and secure, sustainable endof-life asset retirement, will help the ARM mbed developer community accelerate innovation in IoT systems.

> Columbus, Ohio Plant — We upgraded our Columbus, Ohio-area value recovery facility to further increase processing efficiency and chain-of-custody security. Because of the upgrades, the 400,000 square-foot facility's processing capacity has increased 500 percent. The facility is one of the largest IT asset disposition

facilities in the world and Arrow's flagship processing facility in North America. The upgrades increase Arrow's capacity to handle the growing influx of smartphones, tablets and other mobile devices that companies and organizations want to responsibly refresh. Most mobile device trade-in services don't offer the enterprise-level data destruction needs that Arrow's value recovery business is uniquely equipped to address. The Columbus facility also houses a processing center for Arrow's reverse supply chain solutions business.



#### To enact this policy, Arrow will:

- 1. **Operate an Environmental Management System** compliant with the International Environmental Management Systems standard, ISO 14001.
- Maintain ISO 14001 certification by independent, accredited certification bodies for Arrow operations deemed to have a significant environmental impact.
- Comply with or exceed the regulations and laws pertaining to environmental performance in the countries in which we operate.
- Maintain and continuously strive to enhance managerial processes and operational procedures to minimize pollution.
- Progressively improve levels of environmental protection and reduce resource use and waste generated by the company.

- Use only appropriately licensed resource and waste management organizations for recycling and management of waste.
- Continuously monitor and improve worker health and safety practices to minimize the risks of accidents and ensure an emergency response capability to cope with accidental pollution incidents.
- Use the Environmental Management System to provide the framework for setting and reviewing environmental objectives and targets.
- The Arrow Environmental Policy is implemented and maintained by all Arrow personnel with specific responsibility allocated within the Arrow Global Real Estate Organization.

# Standards and Compliance

#### UNITED NATIONS GLOBAL COMPACT

Arrow supports the 10 principles of the United Nations Global Compact in the areas of human rights, labor, environment and anti-corruption. An active and accountable signatory since 2011, Arrow's intent is to transparently advance those principles within our sphere of influence. Each year we submit a Communication on Progress report demonstrating how our strategies and operations align with this important initiative.



#### **HUMAN RIGHTS/ CONFLICT MINERALS**

Arrow is committed to upholding the dignity of all people. We respect all international human rights standards throughout our global operations at our 460 locations and in the 85 nations in which we do business. Human rights practices are embedded within the company's various policies, including the Worldwide Code of Business



Conduct and Ethics (the "Code"). Our 18,500 employees are required to review and certify their understanding and compliance on an annual basis. The Code covers all regions and business units. It is also posted on the company's external website, **investor.arrow.com**.

Within its global electronics supply chain, Arrow is committed to investigating and reporting on the Conflict Minerals content of inventory used in the assembly and integration of products. We do this to help improve conditions and reduce the distress of people working in mines in the Democratic Republic of Congo and other nations. We have developed and posted a company policy regarding Conflict Minerals. For the past three years, Arrow has filed a Conflict Minerals Report with the U.S. Securities and Exchange Commission. To date, we have validated that at least 57 percent of the components in our supply chain are conflict free. Our long-term goal is 100 percent.

#### POLICY ON SLAVERY AND HUMAN TRAFFICKING

At Arrow, we are committed to ensuring that there is no slavery or human trafficking in our supply chain or in any part of our businesses. Arrow's senior managers promote and encourage transparency, ethical conduct and a commitment to comply with anti-slavery and human trafficking laws. Our employees are provided with resources and training to help them meet Arrow's ethical and legal obligations with regards to anti-slavery and human trafficking laws, including The Modern Slavery Act 2015. Arrow's Worldwide Code of Business Conduct and Ethics is a central component of our overall compliance program. Arrow's Code is administered by our Chief Compliance Officer and requires all employees to comply with the Code and obey the law. The audit committee of Arrow's Board of Directors reviews the Code annually to ensure that it continues to meet or exceed current regulatory frameworks and Arrow's operational strategies.

#### **DIVERSITY**

Arrow understands that diversity is the key to its ongoing success, and is committed to cultivating a diverse workforce. More than 90 ethnic minority, first-generation, LGBTO, veteran and disabled undergraduate and graduate business and engineering students from four Colorado-area universities attended Arrow's third annual Diversity Day. Arrow's commitment to building a diverse workforce was recognized by *Profiles in Diversity Journal*, which awarded Arrow with an honorable mention in its 2016 International Innovation in Diversity Awards.

#### HUMAN RIGHTS CAMPAIGN

As the largest national lesbian, gay, bisexual, transgender and queer civil rights organization, HRC envisions a world where LGBTQ people are ensured of their basic equal rights, and can be open, honest and safe at home, at work and in the community. Arrow received an 85 percent score for 2017, improved from 78 percent the year prior, and is now ranked in the HRC "Green" rating zone. Our goal is a 100 percent rating.



# Certifications

We measure and track compliance with numerous quality and regulatory standards at our 46 warehouse and processing locations.

- > Thirty-four of our locations are certified as ISO 14001 compliant. The ISO 14000 environmental management standards exist to help organizations:
  - Minimize how their operations (processes, etc.) negatively affect the environment (i.e., cause adverse changes to air, water or land).
  - Comply with applicable laws, regulations and other environmentally oriented requirements.
  - Continually improve on the above.
- > Twenty-two of our locations are certified as OHSAS 18001 compliant. OHSAS 18000 is an international occupational health and safety management system specification.
- > Fifteen of our locations are certified as R2 compliant for responsible recycling. The R2 standard is a voluntary, market-based mechanism for ensuring best practices, which also provides essential information/assurance to prospective customers. The standard builds on an ISO-style, Plan-Do-Check-Act management system as a platform, and integrates environmental, health and safety management, media sanitization, export and disposal restrictions, chain-of-custody accountability and transportation controls.
- > Ten of our locations are certified as Recycling Industry
  Operating Standard (RIOS\*) compliant. RIOS provides
  a framework for a comprehensive, integrated management
  system that includes key operational and continual improvement
  elements for quality, environmental health and safety (QEH&S)
  performance for the recycling industry.

# Hazardous Substances

- > Arrow is committed to eliminating hazardous substances and recognizes the importance of such information to our customers, particularly in light of the China Restriction of Hazardous Substances (RoHS) labeling laws, EU Registration, Evaluation, Authorization and Restriction (REACH) regulation, as well as, both the current and proposed EU RoHS directive. To address these issues, Arrow has approached its suppliers to request that they provide us with a method of identifying the RoHS status of products, China RoHS labeling information, REACH and other relevant hazardous substance information.
- > All primary distribution centers have in-house recycling programs in place to minimize landfill impact. Consideration be used within these facilities. Additionally, new equipment

- > Arrow has developed a range of solutions that are intended to support compliancy efforts. In all cases, our suppliers are the original source of this information, and Arrow is making it available to customers via these methods:
  - RoHS compliance status and detailed technical information on a part-by-part basis available through manufacturer datasheets on www.arrownac.com.
  - EU and/or China RoHS status on a reasonable number of part numbers available through Arrow's local sales offices (dependent upon receipt of this information from the component supplier).



# Goals for 2017

With our help, our partners will transform their ideas into real and influential achievements. And just as technology touches all facets of our lives, we intend to foster new, cross-cutting collaborations between Arrow's CSR partners so their combined efforts will yield astonishing and unforeseen results.

Our innovations can make the world a better place for us all — now and Five Years Out.

To achieve these transformational results with our partners, Arrow will continue to develop innovative projects and programs. In support of these efforts, we will provide in-kind donations of Arrow's expertise, encourage board service for executives, increase opportunities for employee engagement and continue making financial contributions.





In 2017, goals for employee community engagement include launching Arrow Charitable for U.S. and Canadian employees, a new Arrow volunteer and giving portal, and increasing employee engagement efforts worldwide.

# Are You Five Years Out?

Most people live in the present. The world of now. But a handful of us work in a unique world that doesn't quite exist yet — the world of Five Years Out.

Five Years Out is the tangible future. And the people who live and work there know that new technologies, new materials, new ideas and new electronics will make life not only different, but better. Not just cheaper, but smarter. Not just easier, but more inspired.

Five Years Out is an exciting place to be. So exciting that, once you've been there, it's hard to get excited about the present. Because we know what's coming is going to be so much better.

Five Years Out is a community of builders, designers, engineers and imaginers who navigate the path between possibility and practicality. Creating the future of everything from cars to coffeemakers.

Are you one of them? Then you're probably working with us.



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