



®

# 2018 SUSTAINABILITY REVIEW

March 2019



## **AAM DELIVERS POWER THAT MOVES THE WORLD.**

As a leading global tier 1 automotive supplier, AAM designs, engineers and manufactures driveline, metal forming and casting technologies that are making the next generation of vehicles smarter, lighter, safer and more efficient. Headquartered in Detroit, AAM has over 25,000 associates operating at nearly 90 facilities in 17 countries to support our customers on global and regional platforms with a focus on quality, operational excellence and technology leadership.

To learn more, visit [aam.com](http://aam.com).



# TABLE OF CONTENTS

<b>A Message from David C. Dauch, AAM Chairman and CEO</b>	1
<b>AAM's Guiding Principles</b>	2
Board Oversight	2
Executive Team Process	2
Code of Business Conduct	3
Human Rights	3
Expectations of Our Suppliers	4
Whistleblower Hotline	5
<b>Commitment to Conservation</b>	6
Products	6
Global Environmental Policy	9
Environmental Management System	10
<b>People-First Culture</b>	12
Safety Management System S <sup>4</sup>	12
Operating System (OS)	13
Quality (Q <sup>4</sup> )	13
Development	14
Diversity, Inclusion, and Outreach and Charitable Activities	15

*In this Sustainability Review, we make statements concerning our expectations, beliefs, plans, objectives, goals, strategies, and future events or performance. Such statements are "forward-looking" statements within the meaning of the Private Securities Litigation Reform Act of 1995 and relate to trends and events that may affect our future financial position and operating results. The terms such as "will," "may," "could," "would," "plan," "believe," "expect," "anticipate," "intend," "project," "target," and similar words or expressions, as well as statements in future tense, are intended to identify forward-looking statements. Forward-looking statements should not be read as a guarantee of future performance or results, and will not necessarily be accurate indications of the times at, or by, which such performance or results will be achieved. Forward-looking statements are based on information available at the time those statements are made and/or management's good faith belief as of that time with respect to future events and are subject to risks and uncertainties and may differ materially from those expressed in or suggested by the forward-looking statements. These risks and uncertainties include factors detailed in the reports we file with the Securities and Exchange Commission, including those described under "Risk Factors" in our Annual Report on Form 10-K and our Quarterly Reports on Form 10-Q.*

Since our inception, AAM has believed being focused on sustainability is beneficial for our associates, communities, suppliers, customers and integral to our overall business strategy. With our cultural values and strategic principles as a foundation, AAM associates are empowered to act according to the highest standards of ethics and integrity, and with respect for the cultures in which we do business, while serving local communities and having a positive impact on the environment. AAM's Environmental, Social and Governance (ESG) program is a core part of how we do business globally and aligned with our strategic objectives, and we look to continue to strengthen this program moving forward.

Over the last five years, we have invested more than \$650 million in research and development – and the vast majority of that investment was made to develop and advance products that promote sustainability by reducing mass, increasing efficiency, lowering emission and driving electrification. These technologies will help automakers meet global environmental emissions regulations while also increasing fuel efficiency with lightweight axle systems, disconnecting all-wheel drive and transmission components and subassemblies that support the next generation of downsized engines and multi-speed transmissions.

Products representing approximately 90 percent of our sales are manufactured by facilities that are certified to the ISO 14001 Environmental Management Standard. During the last three years, we have more than tripled the number of manufacturing facilities that have earned the ISO 50001 Energy Management certification.

But we aren't stopping there. We feel ESG is such an integral part of our future business strategy that we included it on our top 10 corporate goals for 2019. AAM has created a cross-functional team aimed at enhanced ESG performance, monitoring and reporting throughout our organization and to relevant stakeholders. In addition, we strengthened the governance of our sustainability program by assigning oversight responsibility to the Nominating/Corporate Governance Committee of the Board, reflecting the importance of our program to AAM's overall business strategy and objectives. AAM is committed to growing our business in a sustainable and socially responsible manner.

Chairman of the Board &  
Chief Executive Officer



## **AAM'S COMMITMENT TO ENVIRONMENTAL, SOCIAL AND GOVERNANCE INITIATIVES**

# AAM'S GUIDING PRINCIPLES

## BOARD OVERSIGHT

Sustainability is driven throughout the entire organization, through the Nominating/Corporate Governance Committee of the Board of Directors.

AAM's charter specifically states the committee will:

*Oversee the Company's policies, strategies and performance related to sustainability matters and corporate social responsibility. Review these matters with management, at least annually, and provide updates to the full Board.*

## EXECUTIVE TEAM PROCESS

In addition to the Governance committee, three executives are responsible for the major elements of AAM's sustainability focus – Environmental, Social and Governance (ESG). They include:

**AAM President: Michael K. Simonte**, who is responsible for the development of strategies, action plans, goals and tracking, as well as external reporting of environmental, energy, and safety goals.

**AAM Vice President – Human Resources: Terri M. Kemp**, who is responsible for social responsibility aspects of our ESG program such as promoting our people-first culture with diversity and inclusion initiatives, associate training, education and wellness programs, and support of universal human rights.

**Vice President & General Counsel: David E. Barnes**, who is responsible for ESG compliance and continually advancing the effectiveness of our corporate governance.

Additionally, each executive has established a cross-functional team of associates to drive the initiatives identified in each of the ESG areas.

Every AAM associate and our Board of Directors are responsible for acting in the highest standard of ethical business conduct.

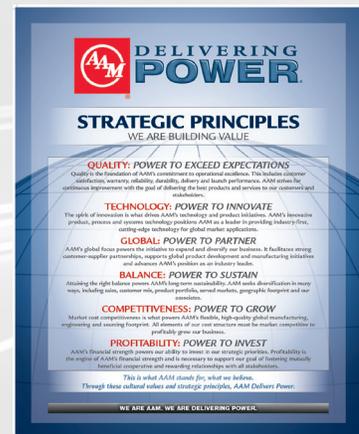
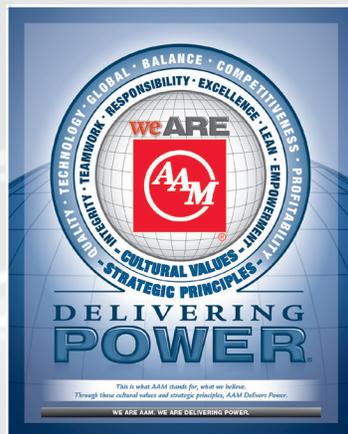
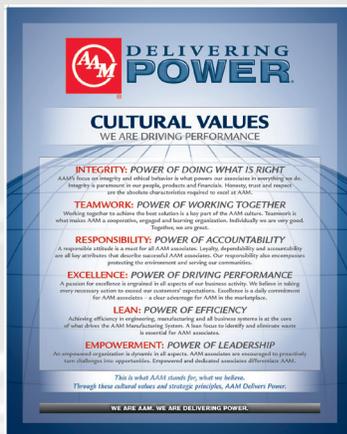
### Code of Business Conduct

Our Code of Business Conduct (AAM.com/COC) sets the common standard for assuring a consistent understanding and commitment required to be a member of the AAM team. Each associate is required to review AAM’s Code of Business Conduct annually. The Code of Business Conduct is available in nine languages including English, Chinese (Simplified), Czech, French, German, Korean, Polish, Portuguese (Brazilian) and Spanish (Latin American).

### DELIVERING POWER

At AAM, we maintain a culture of integrity, teamwork and excellence that has created a global and competitive organization committed to quality.

Known as Delivering POWER, this program is made up of AAM’s Cultural Values and Strategic Principles required for our success both individually and collectively as a team. Delivering POWER unifies our team, aligns our actions and positions AAM for success. Each and every one of our AAM associates helps transform Delivering POWER into action. Together, we drive performance and build value.



## ETHICAL BUSINESS PRACTICE AND HUMAN RIGHTS POLICY

Additionally, our associates understand that their commitment to ethical business practices, local legal requirements and respecting human rights ([www.AAM.com/humanrightspolicy](http://www.AAM.com/humanrightspolicy)) is not just a personal responsibility but is also required for all business activity. Associates are required to review these policies yearly.

## SUPPLIERS AND PARTNERS

AAM has a Supplier Requirements Manual available for current and prospective suppliers ([www.aam.com/suppliers](http://www.aam.com/suppliers), “Doing Business with AAM” section). The manual applies to all third-parties and individuals who do business with AAM, including but not limited to suppliers, agents, consultants, distributors, accountants, lawyers, customs brokers, etc. In addition to technical requirements to meet the quality and delivery of products and services, the manual specifically calls out ESG responsibilities that are of equal importance.

Specific requirements related to environment, bribery and corruption, gifts and entertainment, business records, conflict of interest, fair business practices, child labor, human trafficking, human rights, discrimination, resource sustainability, greenhouse gases, waste, energy, occupational health and safety, diversity, conflict minerals, and our whistleblower business ethics line are discussed and expectations for compliance are established. Commitment to comply is required to become and continue to be a supplier to AAM.

During the development and vetting process with new suppliers, sustainability and ESG issues are reviewed and expectations are set. AAM engages a third-party to monitor our supply base and business intermediaries, currently applying sanctions screening against both U.S. and international sanctions lists and watch-lists. Monitoring for changes occurs on a daily basis. The Compliance Section of the Legal Department coordinates with the Procurement Department to review, assess and respond to system alerts of potential issues, resulting in actions ranging from remediation to termination of the business relationship.

By incorporating these sustainability and ESG requirements into our procurement process and setting similar expectations with our suppliers, sustainability and ESG concepts are cascaded through the entire supply chain, thus improving these social elements for all direct and indirect parties.



*AAM provides direction for free Supply Chain Sustainability e-learning courses and assessments offered by the Automotive Industry Action Group (AIAG) at <https://www.aiag.org/corporate-responsibility/>.*

*AAM policies specifically identify that sustainability and ESG requirements extend through our supply base to other partners with whom we do business.*



## WHISTLEBLOWER HOTLINE

At AAM, quality begins with integrity. Our ethical code maintains that our integrity must never be compromised.

AAM associates, suppliers, customers and members of the public are encouraged to report any of the following concerns:

- Bribery, fraud, theft or any illegal or unethical activity
- Violations of AAM's Code of Business Conduct or other AAM Policies
- False financial reporting
- Behavior which causes a hostile work environment
- Product integrity or safety concerns

Reports can be made by calling AAM's toll-free Business Ethics Line and speaking to trained, non-AAM personnel who are available 24 hours a day, seven days a week, or via our web-based reporting system. For associates in Europe: <https://aameu.alertline.com>; for associates Outside of Europe: <https://aam.alertline.com>

Most countries allow for anonymous reporting, therefore our systems allow for anonymous reporting where permitted.

AAM will not tolerate retaliation against associates who act in good faith by reporting suspected illegal acts or unethical behavior.

Retaliation is a violation of the AAM Code of Business Conduct. Individuals who retaliate will be subject to discipline and possible termination.

# COMMITMENT TO CONSERVATION

For AAM, the heart and soul of our future is our advanced technology. Our future is focused on products that deliver and generate power in the most efficient way.

## ECOTRAC<sup>®</sup>

When it was launched, AAM's EcoTrac was the industry's first disconnecting all-wheel drive (AWD) system. Originally featured on the Jeep Cherokee, the EcoTrac system enables the performance and safety of an AWD vehicle with the fuel economy of a front-wheel drive vehicle.

When we initially launched EcoTrac in 2013, it eliminated about 80 percent of system drag compared to a traditional AWD system. Since then, our engineers have made enhancements to continue to make this groundbreaking system even more efficient. Our second-generation system, which we launched in 2018, eliminates approximately 90 percent of the parasitic losses.

## POWERTRAIN

AAM is also taking advantage of the current powertrain trends towards multi-speed transmissions and downsized engines in order to improve fuel efficiency. OEM customers have been shifting to 8-, 9- and 10-speed transmissions over recent years. This shift has increased the demand for AAM's transmission components and subassemblies.

In addition, the trend towards downsizing engines is driving additional demand for our vibration control systems which are specifically designed for smaller displacement engines, stop/start applications and mild and plug-in hybrid vehicles.

## QUANTUM™

We also expanded development of our QUANTUM™ driveline technology.

QUANTUM provides substantial advantages through reduced mass, increased power density, improved noise vibration and harshness (NVH) and efficiency gains.

Scalable across vehicle segments, QUANTUM can be adapted for use on virtually any size vehicle. Our QUANTUM products are up to 35 percent lighter and offer up to 20 percent more efficiency compared to today's traditional axle.

During 2018, AAM was recognized with two significant awards for QUANTUM: the inaugural Future of Lightweighting Altair Enlighten Award and the Society of Automotive Analysts' Lightweighting Award. Both of these awards honor innovative technologies that have the potential to support significant lightweighting initiatives and applications.

## E-AAM™

In 2018, we launched into production our first e-AAM™ system for the battery-electric (BEV) Jaguar I-PACE crossover vehicle. AAM supplies both front and rear electric drive units delivering a total of 400 hp. and 516 lb. ft. of torque through a high-performance electric all-wheel-drive system.

AAM's second e-AAM new business award will enter production in 2020 with a customer on a rear-wheel-drive, high-performance vehicle in Europe.



AAM was recognized with the inaugural Future of Lightweighting Altair Enlighten Award in 2018.



e-AAM Electric Rear Drive Unit



Even as we are just completing our first launch of our e-AAM products, our advanced engineering team is not sitting still. We are also developing and testing an e-AAM solution for light truck applications. We are working on our next-generation technology that looks to further integrate power electronics, lightweighting and power density improvement initiatives into our e-Drive units.

## GLOBAL ENVIRONMENTAL POLICY

AAM is dedicated to the protection and conservation of the environment. We are helping to ensure a green future through social responsibility, global compliance, and the reduction of energy use, waste, and pollution. The key points of this commitment include:

- Strive toward continuous improvement of our environmental performance through the establishment of environmental objectives and other key metrics.
- Ensure compliance with applicable environmental rules, regulations and laws in all countries where we do business through monitoring and auditing programs.
- Incorporate pollution prevention practices to properly control, minimize or eliminate regulated substances from our water discharges, air emissions and solid waste disposal.
- Reduce waste through source reduction, re-use, and cost-effective recycling programs.
- Utilize technology, behaviors and engineering practices to reduce environmental risks and impacts to our operations.
- Foster open communication with our associates, communities where we do business, and other interested parties regarding our environmental performance.

# ENVIRONMENTAL MANAGEMENT SYSTEM

To date, 57 of our manufacturing locations have been certified to ISO 14001-2015, the international standard for environmental effectiveness. About 90 percent of all of our products are manufactured in facilities that are ISO 14001-2015 certified. Eight additional locations are planned for certification in the coming calendar year.

Additionally, AAM’s world headquarters, located in Detroit, is an Energy Star location and as a company, we are a partner of the Energy Star program of the United States Environmental Protection Agency. Over the last 3 years, we have tripled the number of manufacturing facilities that have earned ISO 50001 Energy Management certification so that at the end of 2018, 21 facilities were certified.

We deploy our best practices company-wide. Some of our key 2018 energy improvement projects included:

- LED lighting upgrades
- Furnace optimizations and efficient replacements
- Compressed air control systems
- Procurement of additional variable compressors

Following our acquisition of MPG in 2017, we decided to establish new baselines for energy consumption, CO<sub>2</sub> emissions and water consumption. The table below identifies our new baseline metrics for future tracking of performance in each of these areas. AAM has reported these metrics to the CDP (previously known as the Carbon Disclosure Project) with all prior CDP ratings classified as Declaration or D.

## 2018 ENERGY, EMISSIONS AND WATER RESULTS



### ENERGY

Energy Usage	8,761,206	MMBTU
Energy Intensity	1205	MMBTU / \$ million revenue



### EMISSIONS

Scope 1	145,316	metric tons CO <sub>2</sub> e
Scope 2	1,155,877	metric tons CO <sub>2</sub> e
Total Emissions	1,301,193	metric tons CO <sub>2</sub> e
Emissions Intensity	179	metric tons CO <sub>2</sub> e / \$ million revenue



### WATER

Water Consumption	3,378	mega-liters
Water Intensity	0.47	mega-liters / \$ million revenue

# REDUCING WASTE

AAM has been engaged in waste reduction at all of our plants for several years. Each year, facilities are required to submit their best waste reduction project and the top six projects are selected for recognition, with a single winner selected for company-wide recognition.

In 2018, AAM Zell Manufacturing Facility in Germany won with their “Optimization of Shot Blasting” project. The Zell team identified their facility’s shot-blast operation as the highest energy consumer at over 900,000 KWh. They set their goals to reduce energy, reduce CO<sub>2</sub>, and achieve the same level of quality. By leveraging turbine technology across several pieces of equipment to increase the kinetic energy of the abrasives they reduced energy and reduced CO<sub>2</sub> while still improving quality.

# AAM ZELL INITIATIVES



Reduced energy by 352 MWh  
Reduced CO<sub>2</sub> by 114.05 metric tons



Reduced waste by 53.7%  
Improved overall product quality

# PEOPLE-FIRST CULTURE



## SAFETY MANAGEMENT SYSTEM

Our most valuable asset is our global team of associates and we work hard each day to keep them safe at each one of our facilities. With safety in mind, we have designed and implemented our S<sup>4</sup> (S-to-the-fourth) system and safety culture, which is focused on developing, engaging, monitoring, and continuously educating our associates on standardized procedures that are key to their workplace safety and well-being.

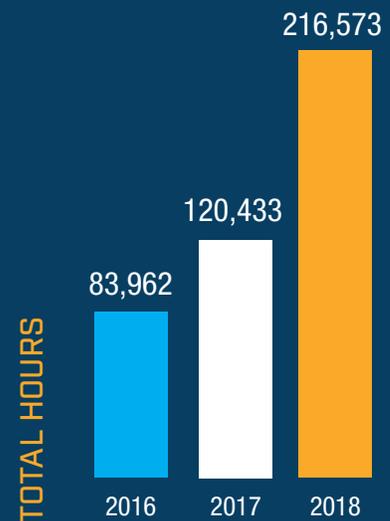
Every AAM location implements the S<sup>4</sup> system. Currently, three AAM facilities have been certified to OHSAS 18001, the International Occupational Health and Safety Management System.

The S<sup>4</sup> system is based on three key themes of being Personal, Positive and Proactive. The concept involves every associate, everyday engaging on our guiding principles and 11 elements of data driven, structured improvement. The primary goal of S<sup>4</sup> is to achieve compliance with all internal and external requirements and regulations while driving behavioral changes to create a safe and environmentally friendly workplace.

S<sup>4</sup> consists of weekly EHS messages, active and engaged EHS committees at each location, common tools for audits, observations, job analysis, training, operations reviews, weekly and monthly reporting to senior management, common policies and procedures all coordinated through a common EHS database.

Meshing technical requirements and regulations into the S<sup>4</sup> system has proven to be an effective process for improvement and the reduction of environmental and safety risk.

## EHS TRAINING HOURS



## OPERATING SYSTEM

The key to AAM's ability to deliver results for customers is our commitment to achieving Operational Excellence. This means we are operating safely, training our associates successfully and running our business efficiently with a standardized approach. The AAM Operating System is the foundation for our success and is integral to delivering operational excellence daily and in all of our facilities. This focus, which includes consistent practices, integrated information technology systems and proactive data analysis, will continue to ensure AAM is leading with improved customer satisfaction, lean production and efficient cost management. Through our global Learning Line implementation activities, we are strengthening our understanding of Lean Principles and Kaizen basics, expanding our problem solving capabilities and our standard AAM Systems, resulting in highly engaged teams focused on driving performance improvement. AAM's Operating System encourages a culture of engaged associates at all levels. Every one is a problem solver, supporting the transformation to a lean workplace.

## QUALITY

AAM's unwavering commitment to quality remains unchanged and is the heart of our Q<sup>4</sup> (Q-to-the-fourth) quality assurance program. Q<sup>4</sup> ensures that AAM's products are reliable, durable and high-quality, thanks to our diligent attention to standardized processes and production excellence at all of our global facilities. We've made tremendous progress with the Q<sup>4</sup> system and continue to build upon our world-class quality with our customers.





## AAM360

AAM360 is a comprehensive program designed to deliver a complete associate experience. AAM360 is comprised of four components: Associate Advantage, Power Up, LEVEL UP, and Team Advantage. From benefits to training, wellness to community involvement, these programs encompass the various opportunities available to AAM associates.

## DEVELOPMENT

At AAM, we are focused on recruiting, developing and retaining the best and brightest talent globally. We provide our associates with the tools to develop technically and grow professionally, wherever they are, into the leaders that will guide AAM into the future. Empowerment of our associates is essential to continuously improving our quality performance, technology leadership and operational excellence.

Our passion for cultivating a positive culture that embodies AAM's mission and values starts with a strategy called LEVEL UP. LEVEL UP is a coordinated effort across our enterprise to realize the benefits of sustainable and adaptable systems for training, development, and performance. LEVEL UP focuses on development and learning activities for our associates. It is designed to help every associate realize their full potential by understanding expectations and their role, thus enabling them to make a contribution and grow in their career. LEVEL UP is all about making AAM a better place to work while driving business results through Talent Management.

It starts with associates thinking about where they are in their career and where they want to go. LEVEL UP then provides the tools needed to help associates realize their full potential, with the support of their managers. It can start at the basics such as filling a knowledge gap or providing access to new technologies, stretch assignments, job shadowing, on-the-job experiences, networking, volunteerism, cross-functional assignments and the necessary coaching to move forward.

We have a number of learning solutions ready to deploy as associates need. Our content libraries provide basic starting points for many competencies and are both technical and behavioral in nature. **Last year, more than a thousand associates accessed content in the e-learning system to support their careers. More than 100 associates were engaged in company supported advanced technical and business related graduate Masters programs.**

## DIVERSITY, INCLUSION AND OUTREACH

AAM believes that diversity is an essential element of its effectiveness. This includes diversity in background, skills, education, experience, gender, race, national origin and culture.

During 2018, AAM named two new board members, Herbert K. Parker and Sandra E. Pierce, and further enhanced the board's experience, leadership and diversity. These appointments were the result of active recruitment of women and minority candidates.

AAM also continues to focus on diversity within its key corporate, engineering and manufacturing functions. AAM associates created a Women's Associate Resource Group to meet regularly to provide growth, support and education for female associates looking for mentoring, networking and educational opportunities in the AAM community. Recently, this group hosted a Society of Women Engineers (SWE) Next event, which introduced local middle school girls to engineering and manufacturing and gave them an opportunity to engage with AAM's technology leaders.

AAM has also begun outreach to the next generation of diverse talent. During the summer, AAM participated in the Grow Detroit's Young Talent program. The city-wide initiative pairs thousands of young adults with local companies to explore career options, receive job training and connect with industry leaders. AAM's guest students learned what it's like to work in manufacturing through hands-on workshops and tours of the Advanced Technology Development Center in Detroit, and manufacturing facilities in Metro Detroit.



AAM hosts the Society of Women Engineers for the SWENext Detroit kickoff event at AAM's Advanced Technology Development Center.



As part of Grow Detroit's Young Talent program, AAM supports young adults looking to explore career options, receive job training and connect with industry professionals.



AAM educates students in Brazil interested in getting a look at our state-of-the-art manufacturing processes.



Associates from AAM's Asia Headquarters & Engineering Center work to enhance communication and teamwork skills during a sailing competition.

# SOCIAL RESPONSIBILITY

AAM was founded on a commitment to the communities in which we live and work. During 2018, we advanced this commitment with both corporate initiatives and individual activities.

## Detroit Strategic Neighborhood Fund

In late 2018, AAM announced that we have joined other Detroit organizations in committing significant resources to revitalize key Detroit neighborhoods as part of the City of Detroit Strategic Neighborhood Fund. With \$35 million in corporate donations and another \$70 million in other private investment, the City of Detroit will utilize \$105 million to make significant improvements to seven key neighborhoods including an area just east of AAM's headquarters.

AAM's contribution will be used to bring much-needed physical improvements to neighboring communities. With community, city and AAM input, potential improvements over the next five years will include:

- **Park improvements**, including the creation of new parks and improvements to existing parks by adding amenities based on residents' needs.
- **Commercial development to fill vacant storefronts and lots**, with mixed-use and multifamily projects along commercial corridors.
- **Streetscape improvements**, including street and sidewalk repaving and redesigns to create walkable, beautiful streets that are attractive to businesses and pedestrians alike.
- **Single-family home stabilization**, to renovate and preserve existing vacant houses, build density and create affordable housing in these neighborhoods.
- **Affordable housing development**, to reduce displacement where there is growth.

AAM will also focus associate community and volunteer activities around these nearby communities. Associates will have the opportunity to help make a difference in these vibrant but underserved neighborhoods.



Associates from facilities in France raise awareness and funds for the fight against breast cancer.



AAM hosts the eighth annual holiday party at the Dauch Campus of the Boys and Girls Clubs.

## AAM Charitable Activities

Additionally, AAM continued our long-standing work with national charitable organizations committed to supporting local families, youth outreach, education, wellness and social equality, which include:

**The Boy Scouts of America**, which helps build future leaders by combining educational activities and lifelong values with fun. Scouting provides unique, life-changing experiences that can't be found anywhere else.

**The United Way**, which works with an array of agency partners to solve some of the community's most intractable issues while providing tools to help individuals and families meet their basic needs, develop economic self-sufficiency and improve educational opportunities for themselves and their children.

**The Boys and Girls Clubs of Southeastern Michigan**, which provide high-quality programs for more than 15,000 children and young adults at eight local metro-Detroit Clubs.

**St. Jude Children's Hospital**, which advances cures, and means of prevention, for pediatric catastrophic diseases through research and treatment. No child is denied treatment based on race, religion or a family's ability to pay.

During the year, AAM associates also contributed to local and national charities through monthly Jeans Day collections. These charities, selected by our associates, include Big Brothers Big Sisters, Barbara Ann Karmanos Cancer Institute, Marine Toys for Tots Foundation, Rainbow Connection, Forgotten Harvest, Make-A-Wish, Cass Community Social Services, Girls Who Code, Judson Center and the Detroit Zoo.

By the end of the year AAM associates contributed more than \$1 million to charities around the globe. Moving forward AAM will continue its tradition of social responsibility across the globe. We will remain focused on organizations and causes that further advancements in education, diversity, health, education and social equality and make a direct difference in our communities.





[www.aam.com](http://www.aam.com)

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