ARCONIC

2018 SUSTAINABILITY REPORT

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On November 1, 2016, Alcoa Inc. completed the separation of its business into two independent, publicly traded companies (the "Separation")—Alcoa Corporation and Arconic Inc. (the new name for Alcoa Inc.) Following the Separation, Alcoa Corporation holds the Alumina and Primary Metals segments, the rolling mill at the Warrick, Indiana, operations and the 25.1% stake in the Ma'aden Rolling Company in Saudi Arabia previously held by Alcoa Inc. Arconic Inc. retained the Global Rolled Products (other than the rolling mill at the Warrick, Indiana, operations and the 25.1% ownership stake in the Ma'aden Rolling Company), Engineered Products and Solutions, and Transportation and Construction Solutions segments. The data presented in this report consist of Arconic-only data for all periods presented.

Forward-Looking Statements: This report contains, in addition to historical information, statements concerning Arconic's expectations, goals, targets, strategies or future performance. These "forward-looking statements" include such words as "anticipates," "estimates," "should," "will," or other words of similar meaning and are subject to a number of known and unknown risks and uncertainties. Some of the factors that may cause Arconic's actual results to differ materially from those expressed or implied in the forward-looking statements include uncertainties as to the timing of the separation announced in February 2019 and whether it will be completed, deterioration in global economic or financial market conditions generally, unfavorable changes in the markets served by Arconic, factors affecting Arconic's operations, such as equipment outages, natural disasters or other unexpected events, changes in the regulatory environment, Arconic's inability to realize expected benefits from its productivity improvement, sustainability, restructuring, technology and other initiatives and the other risk factors summarized in Arconic's Form 10-K for the year ended December 31, 2018, and other SEC reports.

CEO Statement

Arconic seeks to drive year-over-year improvements in our environment, safety and product development. These improvements are the result of our employees' hard work and focus, and also of our connection to our stakeholders—customers, suppliers, communities and others. We continually seek to understand and embed their perspectives in the sustainability goals we set and in the actions we take to have a positive impact in the communities and markets where we operate.

In each of the three levers of our sustainability performance—operational, customer and supply chain sustainability—we are focusing increasingly on transparency and metrics. For instance, the 2018 Arconic Sustainability Report is now aligned with the Global Reporting Initiative Standards.

We also will be certifying a segment of our rolling operations against the Aluminium Stewardship Initiative (ASI) performance standard in 2019. ASI developed this third-party certification program to ensure that sustainability and human rights principles are increasingly embedded in aluminum production, use and recycling. This initiative will strengthen our relationships with customers, communities and the aluminum supply chain through a strong set of responsible sourcing and production principles.

In 2018, we advanced in a number of key areas:

- Health and safety: For the third consecutive year, we had zero employee and contractor fatalities. Our days away, restricted and transfer rate was nearly 15 percent lower than in 2017.
- Environment: Our direct and indirect greenhouse gas emissions declined 2.7 percent during the year, and we reduced our landfilled waste by nearly 1 percent.
- Products: We continued to develop products and processes that enable our customers to achieve their own sustainability goals. Introduced in 2018, our ARCONIC-THOR™ titanium alloy drives cost savings and fuel efficiency for our aerospace customers by operating at service temperatures higher than any other conventional titanium alloy available on the market.
- Community: Together with Arconic employee volunteers and global partners, Arconic Foundation brought immersive STEM education experiences and high-quality workforce development opportunities to students and workforces around the world.

We look forward to continuing this sustainability journey.

John C. Plant
Chairman and Chief Executive Officer

Sustainability at Arconic

Sustainability Approach

Wherever we operate, it's our goal to have a significant positive impact on our stakeholders and surrounding communities.

We believe that truly sustainable organizations shape the future. By fulfilling the needs of society now, we can expand opportunities for generations to come.

Our sustainability approach is based on three levers that help advance our efforts:

- **Operational sustainability:** Reduce our environmental footprint, act on our social responsibility and keep our people safe, empowered and engaged.
- **Customer sustainability:** Through our products and innovations, enable our customers to achieve their sustainability goals.
- **Supply chain sustainability:** Drive sustainability into our suppliers' processes and practices and leverage their expertise to achieve our sustainability goals.

In 2018, we enhanced our capability to collect key performance data from all of our operating facilities to gain deeper insight on our material challenges and opportunities. We also continued our long-standing energy-efficiency goal in our Global Rolled Products segment to drive efficiency improvements and reduce energy consumption.

To advance the management of our environment, health and safety (EHS) functions, we aligned our EHS management system to the refreshed ISO 14001 environmental management standard and the

new ISO 45001 occupational health and safety standard. Each of our operating locations meets these internationally recognized standards, which cover nearly all of our employees.

In December 2017, the Aluminium Stewardship Initiative launched a certification program focused on responsible production, sourcing and stewardship of aluminum. Covering approximately 90 percent of the metal-sourcing volume in the aluminum industry, the program is important to Arconic. The ASI certification and supporting performance standards have informed our sustainability approach significantly.

In 2018, we worked with our customers and other stakeholders to prepare the scope of certification and self-assess our practices against the performance standards. We have committed to certify a scope of our operations against the standards in 2019.

2018 Highlights

0
fatalities

↓ **14.6%**
days away, restricted and transfer rate

↑ **8%**
revenues

↓ **2.7%**
direct and indirect greenhouse gas emissions

↓ **4.1%**
Global Rolled Products energy intensity

↑ **4.7%**
freshwater use

↓ **0.8%**
landfilled waste

$15.2
million in Arconic Foundation giving

Reporting

The 2018 Arconic Sustainability Report was developed in accordance with the core option of the Global Reporting Initiative Standards and informed by the Aluminium Stewardship Initiative standards.

In developing the report's content and identifying our material sustainability topics, we evaluated both direct and indirect input and guidance from sources that included:

- Stakeholders and providers of capital;
- Customers;
- Industry associations;
- Sector standards, such as ASI;
- Sustainability surveys from ratings organizations;
- Our leadership;
- Our employees and their representatives; and
- Media coverage.

We currently do not seek third-party assurance of our sustainability report. The accuracy and completeness of the information is verified by our internal experts and processes, which include our environment, health and safety internal audit process.

Material Topics

Topic	Boundaries		
	Global Operations	Global Rolled Products Segment	Itapissuma, Brazil; Köfem, Hungary; and Samara, Russia, Locations
Energy	●		
Water	●	●	
Emissions	●	●	
Waste	●		●
Environmental Compliance	●		
Health and Safety	●		
Diversity and Equal Opportunity	●		

Economic

Products

Working in close partnership with our customers, we solve complex engineering challenges to transform the way we fly, drive, build and power.

The global markets in which we compete are increasingly driven by significant challenges—urbanization, climate change, resource scarcity and more. By developing the next generation of innovations, we're enabling our customers to address the challenges and capture the opportunities.

Products made from our advanced materials and technologies are light, strong, efficient, durable and recyclable. They also can use less energy and emit fewer greenhouse gases than products produced from other materials.

Through our innovations, we are advancing the sustainability of our customers and the markets that we serve.

Aerospace

Airlines and aircraft manufacturers have a clear need—more efficient engines and lighter aircraft that deliver fuel efficiency and reduce emissions. Both will be essential for the industry to meet its goal of stabilizing emissions at 2020 levels, which was set in the historic Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA).

Through our product and process innovations, we are supporting the efforts of our aerospace customers.

Materials and cooling techniques that we developed enable aero engines to run hotter, increasing fuel efficiency. In fact, our aero engine components can withstand operating temperatures that exceed the melting point of base metals.

In 2018, we introduced the ARCONIC-THOR™ advanced titanium alloy that is designed for higher temperature applications in next generation aero engines and adjacent structures. The alloy is 50 percent lighter than incumbent nickel-based superalloys, which drives cost savings and fuel efficiency for our customers, and operates at service temperatures higher than any other conventional titanium alloy available on the market.

Other Arconic solutions that can take the heat include:

- A technique for growing single crystal turbine airfoils, which is a grain structure that aligns better to centrifugal force inside the engine, prevents deformation and increases blade temperature capability and life;
- Complex ceramics that form internal passages in the turbine airfoils to increase the flow of cool air across the metal surfaces;
- Advanced coatings that protect metal engine parts from extreme temperatures; and
- The first-ever aluminum-lithium front fan blade forging developed with Pratt & Whitney that improves fuel efficiency.

Robot dipping a ceramic shell

Lighter aircraft use less fuel, and our latest generation of aluminum-lithium alloys enables lighter, stronger, tougher and larger airframe components. We are the only company capable of producing single-piece aluminum-lithium wing skins for the largest commercial aircraft. Single-piece parts minimize the number of complex joints, making structures stronger, lighter and less expensive.

An emerging trend in the aerospace industry is increased vertical integration. In the past, a part would move from company to company for specific manufacturing steps. Today, we handle many of the manufacturing steps in-house, delivering a product that is more finished while also reducing transportation-related costs, fuel consumption and emissions.

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Automotive

Automakers continue to focus on lightweighting to improve fuel economy and meet more stringent government regulations. According to Drive Aluminum, a 5 to 7 percent fuel savings can be realized for every 10 percent in vehicle weight reduction when heavier steel is replaced with aluminum.

For electric or hybrid vehicles, lighter weight translates into either increased range per charge or lower costs due to a smaller battery required for a given range. An Aluminum Association study found that reducing vehicle weight could reduce battery size by about 10 percent for the 16 electric vehicles studied.

Our products and technologies are supporting the market's shift to multi-material, aluminum-intensive vehicles.

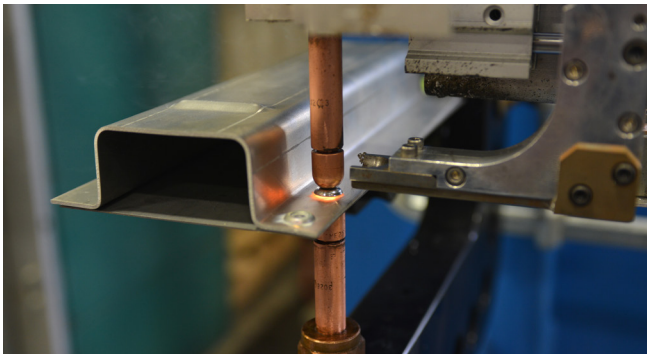
In 2018, we were named a finalist in the Enabling Technology category of the Altair Enlighten Awards for our proprietary C6A1 alloy, which allows automakers to create high-form lightweight design solutions in applications that require strength and durability. The new alloy helped shed approximately 34 kilograms (75 pounds) from the 2018 Jeep® Wrangler model.

We recently developed the first commercial aluminum exhaust gas recirculation (EGR) system, which diverts a portion of an engine's exhaust gases back to the cylinders. This product provides a 40 percent weight reduction and costs 30 percent less compared to a stainless steel EGR.

We also have partnered with the industry leader in aluminum prop shafts—which transfer power from the motor to the rear axle—to develop a single-piece aluminum shaft that weighs up to 50 percent less than a conventional two-piece steel shaft.

A major challenge associated with the mass production of multi-material vehicles has been joining dissimilar materials cost-effectively. For example, conventional spot welding required new, higher-cost joining technologies that offered lower manufacturing flexibility. In response, we developed the RSR™ joining system and Arconic 951™ bonding technology.

Resistance spot riveting (RSR) technology can join dissimilar materials using the same equipment as spot welds but offers automakers the flexibility to switch between it and conventional welds, depending on the material. Arconic 951 bonding technology, which received a prestigious R&D 100 award, creates a molecular link with both the aluminum surface and the structural adhesive for a bond that's nine times stronger than its titanium zirconium predecessor.



RSR technology allows a wide range of dissimilar materials to be joined quickly and reliably.

Numerous studies have shown the weight savings that could be gained by switching from steel to aluminum for a specific component. A recent study from the Center for Automotive Research indicated an all-aluminum door using advanced material solutions and manufacturing technologies reduced the weight of the baseline door by 46 percent.

Another key sustainability advantage of aluminum's use in automobiles is its recyclability. A 2016 study from Drive Aluminum confirmed an overall recycling rate of 91 percent for automotive aluminum.

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Commercial Transportation

As with automobiles, regulations on fuel efficiency and emissions for commercial vehicles continue to tighten around the world.

Technology to make trucks more fuel-efficient tends to add weight, which impacts the amount of payload the truck can carry. Aluminum helps the industry offset the added weight, increase fuel efficiency and reduce emissions:

- Aluminum has the potential to save up to 1,497 kilograms (3,300 pounds) in vehicle weight for a Class 8 truck, which is a popular truck in North America. Specifically, it saves 27 kilograms (60 pounds) for roof cabs, 25 kilograms (56 pounds) for cab floors, 197 kilograms (435 pounds) for frame rails, 22 kilograms (49 pounds) for cab rear walls and 17 kilograms (38 pounds) for cab cross-members. (Source: U.S. Environmental Protection Agency)
- For every 10 percent of vehicle weight reduction in a Class 8 truck, drivers can gain up to a 5.5 percent improvement in fuel economy if they do not increase payload. (Source: Ricardo Engineering)
- Lightweighting with aluminum saves up to 17.9 metric tons of carbon dioxide (CO_2) emissions annually per vehicle. This equates to approximately 10 million metric tons of CO_2 per year for the current U.S. fleet. (Source: SAE International)

Our recent innovations to capture these benefits include a lightweight, all-aluminum frame for Class 8 trucks that will reduce truck frame weight by more than 40 percent compared to steel frames. Our Ultra ONE® heavy-duty truck wheel is 43 percent lighter than a steel wheel of the same size. Wheels with our Dura-Bright® option are also easier to clean, reducing the use of hazardous chemicals.

Ultra ONE wheels can help save up to 635 kilograms (1,400 pounds) per tractor trailer.

Our Calculighter™ online tool provides a complete picture of the returns on investment a trucking fleet will gain with conversion to aluminum components. Fuel savings, increased freight efficiency due to higher payload capabilities across the entire fleet and reduced maintenance costs can provide fleets and individual owner operators with improved operating profits.

Aluminum's benefits extend beyond trucks to other forms of commercial transportation, such as railcars and buses. The use of aluminum in electric buses, for example, extends the range or reduces the size of the battery required. This enables the elimination of diesel buses, which generate significant particulate emissions in urban centers.

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Building and Construction

The building and construction industry is increasingly focused on products that enhance building performance and sustainability. The industry is also demanding increased transparency into the environmental and health impacts of products used in buildings.

Our wide range of products for the building and construction industry deliver on a number of sustainable criteria, including recyclability, light weight, thermal efficiency and durability. As we look to continually increase the sustainability of our new and existing products, we have trained our product design engineers on sustainable design methodologies and the avoidance of materials included in the International Living Future Institute's Red List. This list identifies worst-in-class materials used in the building industry.

Photo credit: Lighthouse Productions/Dirk Verwoerd

Recognized as among the most sustainable office buildings in the world, The Edge in Amsterdam features a range of systems and solutions from our Kawneer business.

Our Insulpour™ Thermal Entrance, launched in 2018, offers enhanced energy efficiency and superior structural performance. Throughout the development of the door, the design team worked with suppliers to evaluate and select components that would allow the product to qualify for a Declare label. These labels indicate where a product comes from, what it's made of, where it goes at the end of its life and if it complies with the Red List. The entrance's thermal assemblies are also covered under an existing environmental product declaration (EPD), which outlines the environmental impact of a product.

We offer EPDs for our commercial storefront system, curtain walls and windows as a way to provide increased transparency for our products. Our EPDs, which convey the environmental impact of a product for a variety of categories, have been independently validated and certified by UL Environment. We also have Declare labels for our most sustainable and popular Kawneer products.

We have created material transparency summaries (MTS) for many of our Kawneer building and construction products. Similar to EPDs, an MTS details the material ingredients in a product, helping us and our customers better understand and evaluate human health impacts.

We also continue to maintain Cradle-to-Cradle™ certification on key product categories to demonstrate our commitment to sustainability through the lifecycle of our products. Our Kawneer 1600 Wall System™ 1 Curtain Wall, Kawneer 1600 Wall System 2 Curtain Wall, Versoleil™ SunShade Outrigger Systems and Versoleil Single Blade Systems are Cradle to Cradle Certified Bronze. These same products also have earned a Silver-level Material Health Certificate from the Cradle to Cradle Products Innovation Institute. Our AA 100 Q HI + Curtain Wall is Silver certified, and the AA 100 Q Curtain Wall is Cradle to Cradle Certified Bronze.

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Industrial Solutions

With their light weight, corrosion resistance, conductivity and formability, our industrial solutions increase sustainability in a wide range of applications.

Higher productivity and decreased lead times in the injection molding industry have created the need for molds that offer longer life times, higher corrosion resistance and faster speeds. Our QC10® aluminum mold plate machines eight to 10 times faster than steel. This cuts finishing costs and lead times by 20 to 30 percent while also reducing the energy required to manufacture the same amount of product. Our Alumec aluminum mold plate brings similar benefits to prototyping, extrusion and blow molding.

For the tooling and fixtures market, we produce our Mic6® Precision Machined cast aluminum plate with up to 100% recycled aluminum. We check this recycled aluminum chemistry throughout the manufacturing process to confirm composition requirements, yielding the most desirable and reliable properties.

Our ability to produce large aluminum 6061 plates is enabling semiconductor manufacturers to use larger production chambers to make more products in less time. In addition to increased productivity, customer benefits include reduced costs and energy usage.

Our 6013 Power Plate™ aerospace-grade aluminum is substantially stronger than standard aluminum used in mobile devices. This enables thinner and lighter devices that require less material to manufacture and energy to transport.

For appliances, our Sureform™ brushed aluminum with clearcoat is a sustainable substitute for stainless steel. Its lighter weight translates into reduced transportation-related costs, fuel consumption and emissions.

In the wind power market, our fastening systems for wind turbines provide superior joining and fatigue strength in even the most extreme environments. This reduces maintenance requirements and costs and minimizes the safety risks associated with our customer's employees accessing these structures.

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Defense and Space

Security and defense providers are experiencing broader requirements in response to continued and new threats. Defense aircraft must fly farther and carry more payloads. Land vehicles must carry multiple communication and weapon systems. These needs are challenging the industrial base to respond with material solutions that provide higher performance while using less fuel.

We've been listening and innovating. Our solution systems are lighter, stronger, faster and sustainable across the air, land, sea and space defense domains.

Our monolithic forged aluminum bulkheads on the F-35 Joint Strike Fighter reduce total material volume, saving 135 to 180 kilograms (300 to 400 pounds) per jet. This allows the jets to use less fuel to stay on station longer, carry more critical payload and offer flexibility to counter any number of threats from a single platform.

Our lightweight armor materials can replace heavier traditional systems, improving mobility and responsiveness while also extending the range of the combat vehicles. For the U.S. Navy's latest ships—Littoral Combat Ship, Ship to Shore Connector and Expeditionary Fast Transport—our corrosion-resistant materials reduce life cycle costs and the need for ozone-depleting coatings.

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Our monolithic forged aluminum bulkhead reduced the weight of the F-35 Joint Strike Fighter.

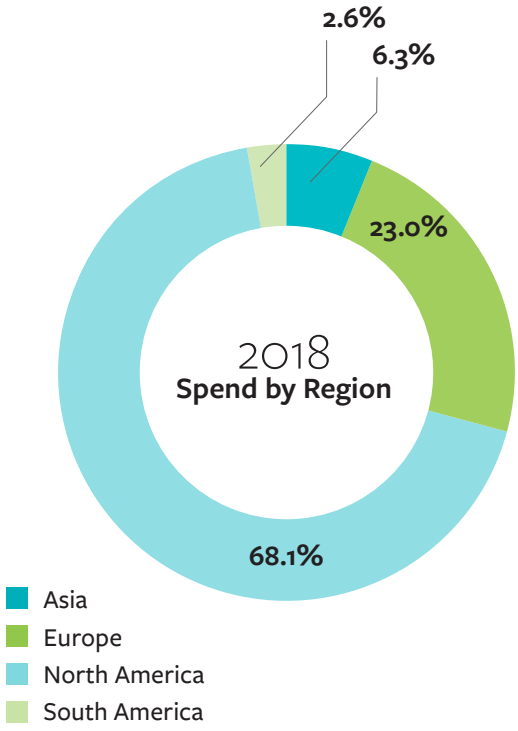
Supply Chain

Sustainability in our supply chain is a reciprocal relationship. Our suppliers help us achieve our sustainability goals, and we help them drive sustainability into their processes and practices.

As a global company, we conduct business with more than 23,000 suppliers around the world who demonstrate responsible and sustainable conduct and are expected to follow our Supplier Standards. Our interactions with them are based on the highest standards of integrity and compliance with all relevant laws and regulations. (See the Ethics and Compliance section of Arconic's website for additional information.)

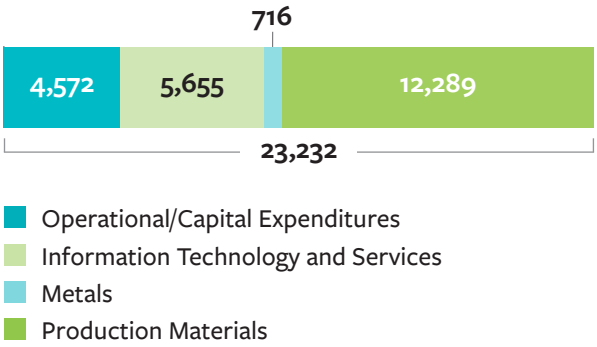
Before considering any potential new supplier, we perform due diligence to ensure the supplier is not on the United States Denied Party Listing. We do not partner with potential new suppliers who appear in the listing.

We are committed to the responsible sourcing of materials and components necessary to the production and functionality of the products that we manufacture. Additional information is available in our most current Specialized Disclosure Report and Conflict Minerals Report, which can be downloaded from Arconic.com.



2018 Suppliers by Major Category

Number



Global Supplier Sustainability Program

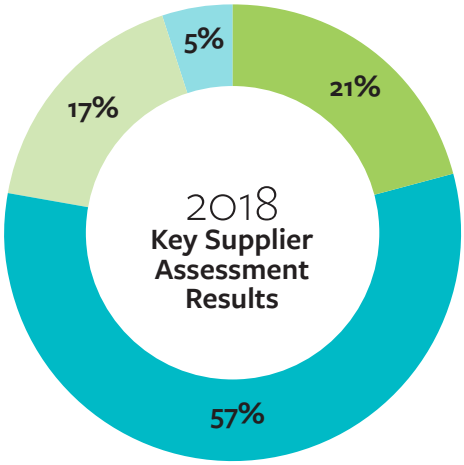
We again measured the sustainability of our key suppliers in 2018 through our Global Supplier Sustainability Program. These approximately 200 suppliers are companies that impact our carbon footprint, possess preferred status, are sole sources of supply, may be located in emerging or high-risk countries, or provide regulated commodities.

The program consists of four components:

- **Communicate expectations:** Our Supplier Standards outline our expectations regarding supplier sustainability.
- **Assess suppliers:** We conduct assessments of key suppliers to evaluate the maturity of their sustainability programs and determine where improvement may be needed.
- **Develop and educate:** We may share our perspective of a supplier's sustainability questionnaire results and discuss opportunities for improvement.

- **Monitor:** We periodically reassess our suppliers to evaluate if any changes have occurred that would influence a supplier's maturity level rating. It is our expectation that supplier sustainability should improve over time.

The 2018 assessment found that 78 percent of our key suppliers had sustainability programs considered leading or active compared to 70 percent in 2017.



Sustainability Maturity Rating

- Leading
- Active
- Emerging
- Lagging

Environmental

Emissions

Our manufacturing operations produce different types of air emissions depending upon the manufacturing process.

Climate Protection

We specialize in lightweight metals engineering and the manufacture of breakthrough products that help solve some of the world's toughest climate challenges. That puts us in a unique position to reduce our own climate impact and help our customers do the same through the use of our products.

Our greenhouse gas (GHG) strategy in 2018 focused on three main elements—energy management, product sustainability and supply chain management.

We've developed strategic energy-reduction goals and initiatives to minimize our energy use and, in turn, reduce our GHG emissions. (See the Energy section.)

Products that our customers manufacture from our advanced materials and technologies use less energy and emit fewer GHGs than those produced from heavier materials. GHG emissions avoided by using and recycling aluminum-based alloys are substantial relative to the emissions generated in the manufacturing phase because of the materials' light weight, infinite recyclability and other emissions-reducing benefits. (See the Products section.)

Since our most material emissions are related to our purchases of primary metals, it's imperative that we use suppliers that are focused on energy efficiency, renewable energy and advanced technologies to minimize their GHG impact and, in turn, our Scope 3 emissions. For example, one supplier's billet that we use is produced with up to 95 percent less energy. (See the Supply Chain section.)

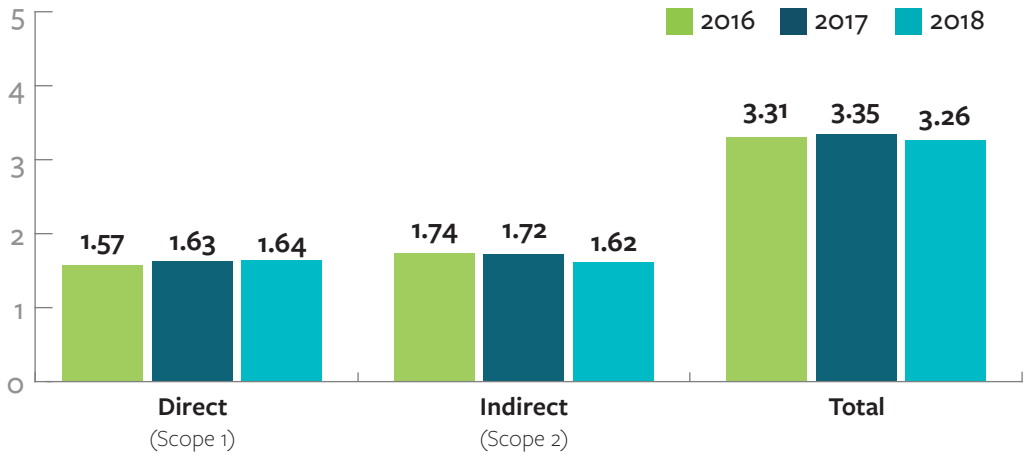
Our direct and indirect GHG emissions equaled 3.26 million metric tons in 2018—a 2.7 percent decrease from 2017. Although our energy consumption increased during the year due to higher production levels, a decrease in indirect emissions contributed to the overall reduction.

Our Global Rolled Products (GRP) segment, which consumes the most energy among our three segments, reduced its carbon emissions intensity by 22 percent between 2005 and 2018 due to improved energy efficiency and greener electricity supplies.

Additional details about our GHG emissions can be found in our CDP climate change disclosures.

Greenhouse Gas Emissions

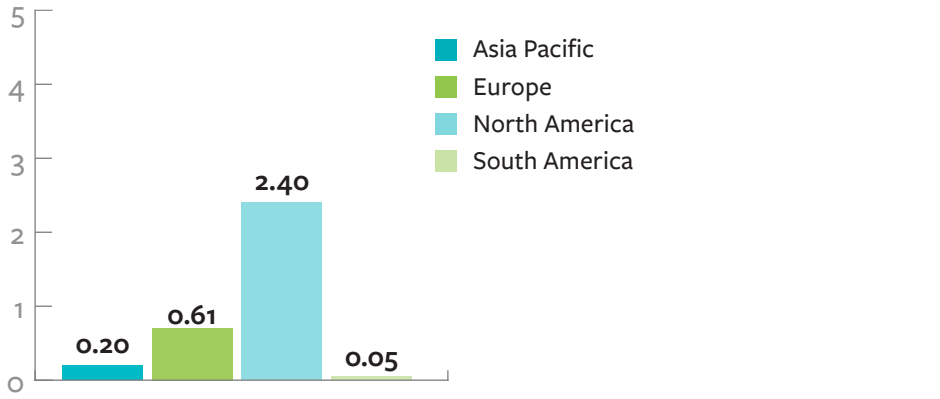
Million metric tons of carbon dioxide equivalents



Gases included in the calculations are carbon dioxide, methane and nitrous oxide. We had zero biogenic emissions in 2018. The source of all GHG emissions is energy consumption. The base year corresponds to the formation of Arconic in 2016. We used the WRI GHG protocol methodology based on operational control; regional or country Scope 1 and 2 emission factors; and 4th IPCC Assessment GWP factors. Data changes from prior reporting are due to updates using actual rather than estimated data.

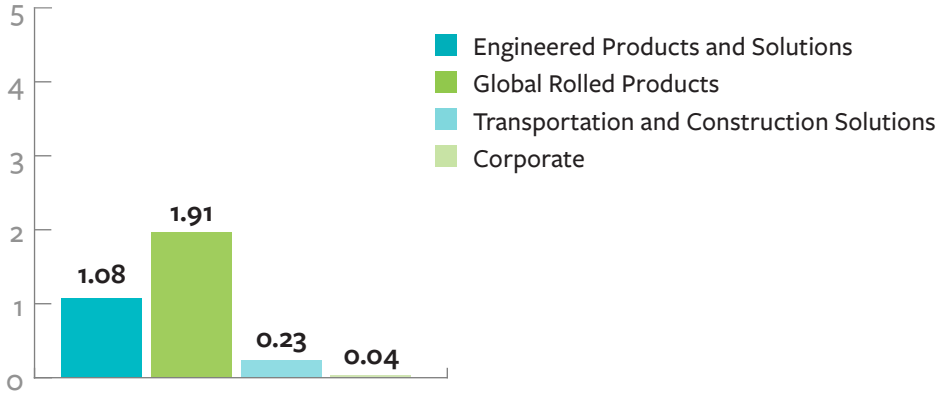
2018 Scope 1 and 2 Greenhouse Gas Emissions by Region

Million metric tons of carbon dioxide equivalents



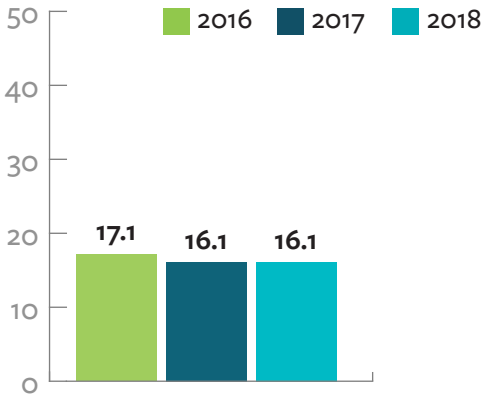
2018 Scope 1 and 2 Greenhouse Gas Emissions by Segment

Million metric tons of carbon dioxide equivalents



Scope 3 Greenhouse Gas Emissions

Million metric tons of carbon dioxide equivalents



These values are based on WRI Scope 3 methodology for purchased goods, fuel and energy-related activities, upstream and downstream transportation, and end-of-life treatment of sold products.

Air Emissions

In addition to greenhouse gases, other emissions that often are significant to specific operations or regions include nitrogen oxide, volatile organic compounds, particulate matter and toxic air pollutants, such as heavy metals and organic solvents.

Our approach to controlling and minimizing these emissions is driven by our internal air management standard and the regulatory requirements in the areas where we operate. In regions of the world where there are no regulations, we still impose controls to minimize emissions that could have an impact on human health and the environment.

Our efforts to minimize or eliminate air emissions include add-on pollution control equipment, changes in work practices, material substitutions or a combination of these strategies.

In 2018, we completed an analysis of our global footprint for toxic air emissions. Due to the business-specific nature of these emissions, we determined that corporate-wide reduction targets were not appropriate. Instead, we will be evaluating potential goals at the business and location levels in 2019.

We have initiated a project to centralize air emissions data from our sites. Concurrently, we are identifying the data our locations need to collect and report against to be in alignment with external disclosure standards, such as the Global Reporting Initiative and the Aluminium Stewardship Initiative.

For 2018, we are reporting air emissions data from our Global Rolled Products segment. We plan to report similar data on a global level beginning with our 2019 sustainability report.

Air Emissions—Global Rolled Products

	2016	2017	2018
Dioxin/Furan (grams)	9.53	10.00	9.89
Hydrochloric Acid (metric tons)	121.76	125.64	120.55
Nitrogen Oxide (metric tons)	1,013.00	1,098.15	1,057.85
Sulfur Oxide (metric tons)	40.23	40.77	28.62
Particulate Matter (metric tons)	625.63	582.75	539.63
Volatile Organic Compounds (metric tons)	1,193.22	1,171.50	1,229.87

CASE STUDY

Capturing helium, cost savings at Niles plant

Once the largest consumer of helium in the eastern United States, the Arconic Engineered Structures facility in Niles, Ohio, is now a major recycler of the gas. The 180-degree turnabout was the result of a focused effort to make a new titanium-aluminide casting furnace compatible with an emissions scrubber.

The Niles facility produces titanium-aluminide ingots that are made into aircraft engine blades by a major customer. To keep impurities in the air from interfering with the alloy composition, casting must occur in a sealed helium-only atmosphere.

The casting furnace's exhaust is connected to a wet scrubber system, which uses water and caustic to filter impurities from the emitted helium. The helium is further purified through a recycling system and reintroduced into the furnace.

Shortly after the facility installed the original wet scrubber in July 2017, it became clear that the scrubber's design was not compatible for the application. Without the scrubber operating efficiently, high amounts of helium—an inert, harmless but valuable gas—were being released into the atmosphere rather than recycled each month. The plant was spending a significant amount of money for fresh helium to keep production running.

After performing a root-cause analysis, the Arconic Technology Center's scrubber expert discovered the incompatibility between furnace and scrubber. As a result, the facility installed a completely redesigned scrubber system in record time and on budget. Today, about 45 metric tons of helium are recycled rather than emitted each month, delivering significant cost savings and a reduced environmental footprint.

Redesigned scrubber system

Energy

The amount and type of energy that we consume have a direct impact on our greenhouse gas emissions.

To reduce our energy consumption, we're improving our efficiency and evaluating strategies to increase our use of solar, wind and other renewable and low-carbon sources. We're also working to encourage compatible energy policies in regions where we're located.

We hold 12 site and multi-site certifications for the ISO 50001 energy management standard. These certifications provide independent assurance on our ongoing energy-efficiency improvements at our operations and underpin our commitment to reduce our Scope 1 and 2 GHG emissions.

Our overall energy consumption was 43.1 million gigajoules in 2018, which was a 0.7 percent increase over prior year despite our 8 percent increase in revenue.

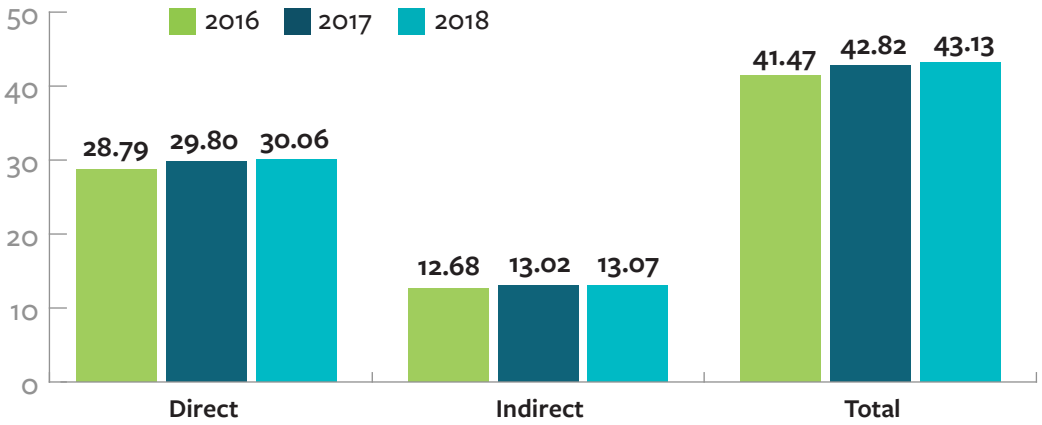
Global Rolled Products, which consumes about two thirds of our annual energy consumption, reduced its energy intensity in 2018 by 4.1 percent compared to 2017. Our 2030 target is a 30 percent reduction from a 2005 baseline, with the business achieving 22 percent in 2018.

A major initiative that already is significantly impacting our energy efficiency is the Energy Intelligence system that we began implementing in 2018. This automated system allows us to manage energy usage in the moment through access to real-time energy data for each plant and, at most locations, individual meters within a plant. Implementation was at 65 percent by the end of 2018.

The increased transparency into our energy consumption provides significant opportunities to identify usage patterns and pinpoint inefficiencies at the plant and department levels. We also can aggregate the data for benchmarking, analytics and tracking of key performance indicators.

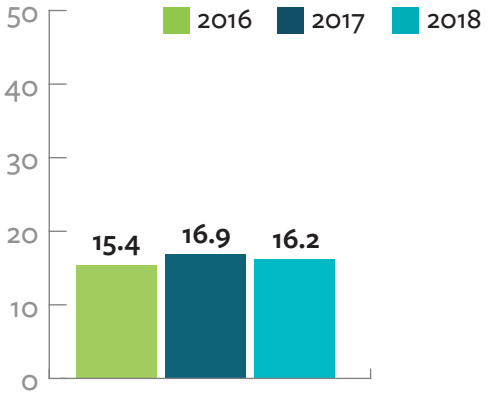
Global Energy Consumption

Millions of gigajoules



Energy Intensity—Global Rolled Products

Gigajoules per metric ton of production



Data represent all energy types consumed within Arconic. Data changes from prior reporting account for additional natural gas usage in 2017, which had a negative impact on energy intensity.

CASE STUDY

Energy project gets the meter running

Unable to see and control energy usage on major pieces of equipment, the Arconic Wheel and Transportation Products location in Cleveland, Ohio, started running the meter. The results—a nearly 17 percent reduction in energy consumption and 31 percent decline in energy costs for each wheel the plant manufactures.

The business operates four plants at its Cleveland location. Although usage numbers were available at the plant level for natural gas consumption, they didn't provide enough information to pinpoint energy issues and opportunities. The solution was to install natural gas meters on large pieces of equipment, such as furnaces, to receive real-time energy usage data.

Using its smart manufacturing infrastructure to collect and analyze data, the location established normal operating parameters for each piece of equipment. When usage moves outside of the expected range, the problem is identified quickly, and corrections are made. The information is also used to determine upgrades for equipment that's not energy-efficient.

The location has started to install additional meters to monitor compressed air, water and electricity at the equipment level to gain further transparency into energy and water usage and identify opportunities for reductions.

Real-time energy data

Water

Water is significantly valuable—to Arconic and the communities where we're located around the world. We lessen our impact on local water supplies by consuming and discharging as little water as possible and reusing that which we do draw.

Our casthouses are our largest users of water, followed by our rolling mills. We also have facilities that are less water-intensive located in areas that can be prone to droughts, primarily in the U.S. states of Arizona, California, Nevada and Texas.

Most of our operations are located in industrialized areas, with the majority sourcing water from municipal supplies and discharging to local wastewater plants. As such, we operate within the stringent requirements set forth in our permits and consents with oversight from various stakeholders.

We lessen our impact on water resources by first designing our operations to minimize water consumption. Each of our locations is also required to set annual targets to reduce its water footprint in addition to maintaining an updated water-flow diagram that maps water intake, use and discharge. During the planning phase for equipment or processes changes, a location uses its diagram to identify opportunities to eliminate, minimize or reuse water.

All of our locations have access to water expertise and technical support through our Environmental Center of Excellence and the Arconic Technology Center.

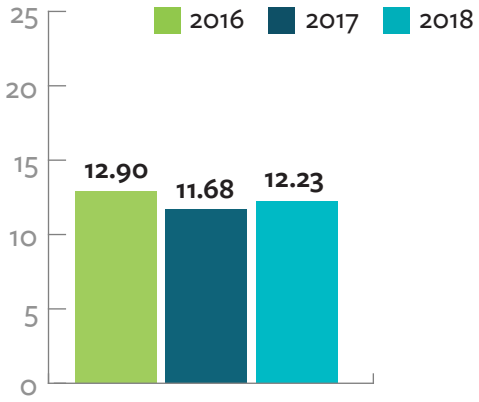
Our global operations withdrew 12.23 million cubic meters (3.23 billion gallons) of fresh water in 2018. The 4.7 percent increase from 2017 was mainly due to increased production.

At our Darley Dale operations in the United Kingdom, we began operating the Alcoa/Arconic-developed Natural Engineered Wastewater Treatment (NEWT™) system in 2018. The system treats 765.5 cubic meters (202,224 gallons) of the location's wastewater prior to discharge annually. NEWT systems, which use a natural, green design, are also operational at three of our U.S. facilities.

We completed our first CDP water disclosure in 2018. Our score of C represented an environmental stewardship level of "Awareness." The CDP disclosure provides further details on our Global Rolled Products segment, which represents the majority of our water-related impacts.

Total Freshwater Withdrawal

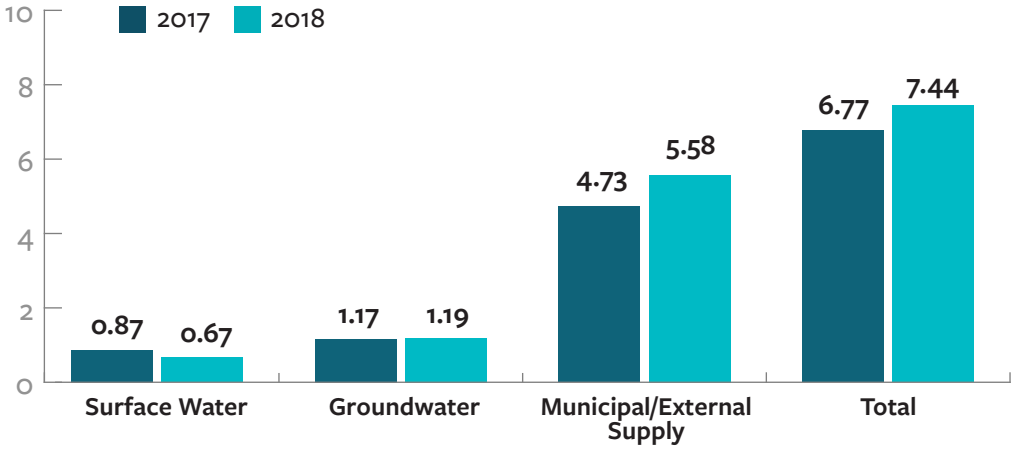
Million cubic meters



Rainwater not included.

Water Withdrawal—Global Rolled Products

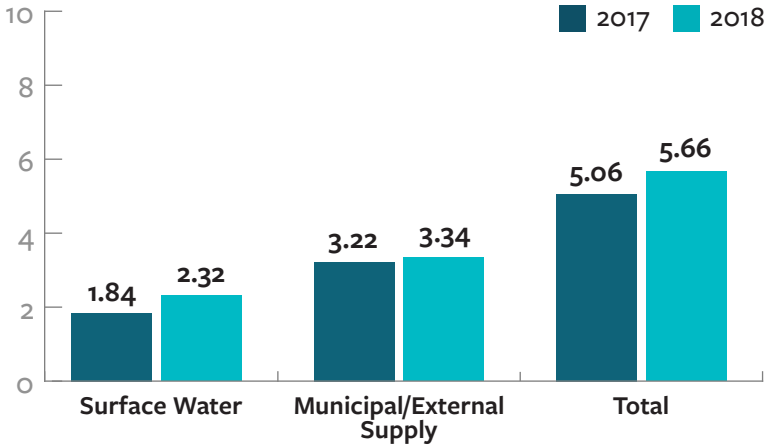
Million cubic meters



Total dissolved solids equaled the total water withdrawn.

Water Discharge—Global Rolled Products

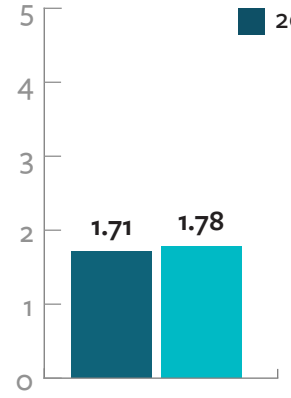
Million cubic meters



Total dissolved solids equaled the total water discharged. We define priority substances through permitting and follow agency-issued limits.

Net Water Consumption—Global Rolled Products

Million cubic meters



CASE STUDY

AFS locations mopping up the floor with recycled water

In water-stressed areas of the world, five Arconic Fastening Systems (AFS) locations are looking to squeeze every drop of water out of their operations to recycle and reuse. An unlikely source? Used mop water.

The Carson, City of Industry, Sylmar and Torrance locations in California and the Acuña location in Mexico have installed mop water recycling systems that together recycle an estimated 471,965 liters (124,680 gallons) of water annually, saving nearly $425,000 in water, soap, oil and disposal costs.

Used mop water at AFS locations typically contain oil and other contaminants. Disposal previously involved expensive, maintenance-heavy and often regulated treatment options, such as evaporation.

With the vacuum-based recycling system, used mop water runs through a series of increasingly fine filters that separate out the oil, contaminants and soap. Around 90 percent of the water, 70 percent of the oil and 70 percent of the soap are recovered and reused in the plants. A third party incinerates the remaining contaminants, turning them into energy.

Mop water recycling system

Waste and Spills

Our responsibility as environmental stewards is to eliminate or minimize our manufacturing waste, find alternative uses and recycling options for what we do generate, and effectively manage the safe disposal of what remains.

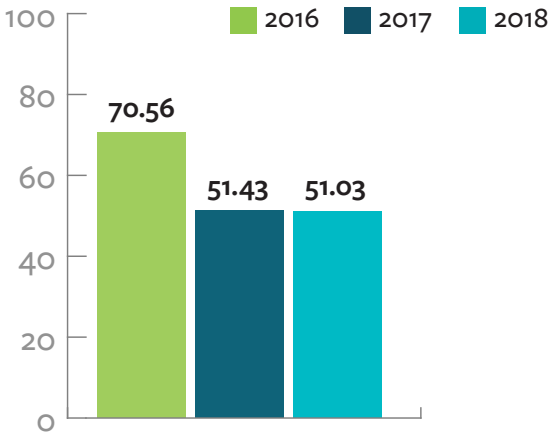
We give priority to higher-volume waste and waste that has the potential to significantly impact the environment. As part of our goal to eliminate landfilled waste by 2030, our locations analyze opportunities to reduce or eliminate such waste.

Dross from our casthouses remains our largest volume by-product, and we recycle 100 percent of this material. We send salt cake, which is slag generated during the recovery of aluminum from rotary furnaces, for recycling rather than landfilling. Some locations are also finding alternatives to landfilling polishing dust and sludge, grit blast and nickel sludge. Other types of waste that we continue to evaluate for reuse and recycling opportunities include garnet, aluminum hydroxide sludge, caustic and limestone.

In 2018, we landfilled 51,028 metric tons of waste. This slight reduction from 2017 can be attributed to divestitures, procedural efficiencies and continued incremental gains in finding alternatives to landfilling specific wastes.

Landfilled Waste

Thousands of metric tons



2018 Waste by Disposal Method—Global Rolled Products (Itapissuma, Brazil; Köfem, Hungary; and Samara, Russia, locations)

Metric tons

	Hazardous	Non-hazardous
Reuse	1.29	5,823.31
Recycling	6,512.49	14,881.43
Composting	693.00	50.75
Recovery	2,443.16	109.05
Incineration	682.58	0
Deep Well Injection	0	0
Landfilled	2.07	2,741.43

Data are provided only for these three Global Rolled Products locations due to collection and timing limitations. The waste disposal method was determined by the most effective and/or efficient option available to each facility.

CASE STUDY

Transformative process creates revenue stream from waste stream

Sludgy aluminum fines previously destined for the landfill are now transformed into solid aluminum pucks used by secondary smelters, eliminating more than 515 metric tons of landfilled waste annually while capturing scrap sale and disposal cost savings for Arconic.

Our Arconic Wheel and Transportation Products location in Barberton, Ohio, USA, machines aluminum forgings into wheels. Small aluminum chips, even smaller aluminum fines and processing fluids resulting from the machining process are collected together and spun dry. While this process separates out clean aluminum chips that can be reused in the location's casthouse, the resulting non-hazardous sludge contains aluminum fines that are too small to be captured.

Barberton and two nearby suppliers that also machine Arconic wheels now ship the previously landfilled sludge to a third-party processor, where a machine uses 50,000 pounds per square inch (psi) of pressure to compress the sludge. This squeezes out the liquid, creating a 1.2-kilogram (2.6-pound) solid aluminum puck measuring 12.7 centimeters (5.0 inches) in diameter and 8.9 to 10.2 centimeters (3.5 to 4.0 inches) thick. Around 90 percent of the fines are recovered, and the remaining small amount of liquid is landfilled.

While the recovered aluminum does not meet our casting standards for purity, it does meet those of secondary smelters that purchase the pucks for use in their casthouses. This creates a revenue stream from a waste stream.

Fines

Pucks

Spills

We use internal standards, safeguards and processes to prevent spills and then respond quickly and effectively to minimize the impact when one does occur.

Our locations are required to have a spill prevention control and countermeasure or similar plan in place if they meet specific volume thresholds for oil or oil products. This plan includes employee training on spill prevention and response that is provided upon hiring and annually thereafter. Every location must follow our spill-related engineering standards and audit guidelines and have a spill response plan in place.

All spills above 20 liters (5.3 gallons) and outside of a designated containment area must be reported in our internal incident management system. This system drives an analysis of root cause and contributing factors, and it also ensures corrective measures are put in place to prevent a reoccurrence.

Our very stringent reporting threshold increases the visibility of spills to our leadership to facilitate sharing information across facilities and enhancing incident awareness.

We define a significant spill as one that is in excess of 1,893 liters (500 gallons) and/or meets our definition of a major environmental incident. We had zero significant spills in 2018.

In 2018, we initiated a comprehensive inventory of sumps, pits and basements that handle oil and hazardous chemicals at all of our global plants, with the ultimate objective of understanding the risks associated with spills and releases. During 2019, we'll use the inventory data collected in 2018 to assess the risk potential and prioritize the implementation of controls.

Significant Spills

	2016	2017	2018
Number	1	1	0
Total Volume (liters/gallons)	37,854/10,000	2,000/528	0
Material	Potassium hydroxide mixed with rain	Coolant	–
Impact	Elevated pH impact to outfall not exceeding water quality standards; no noticeable impact to receiving waters.	Localized soil contamination within the plant site boundary.	–

A significant spill is one that is in excess of 1,893 liters (500 gallons) and/or meets our definition of a major environmental incident.

Environmental Compliance

Our true north is defined in our global Code of Conduct—Arconic is committed to operating in a way that respects and protects the environment wherever we are located.

This means we will not compromise our environmental values for profit or production. We will respond truthfully and responsibly to questions and concerns about our environmental actions and the impact of our operations on the environment.

As part of our corporate governance, we use an environmental compliance process and environmental management system. Both provide our management and employees, particularly our environmental professionals, with the information, tools and verification they need to ensure our compliance with environmental laws, regulations and requirements across the globe.

When an environmental incident occurs, our environmental compliance process helps ensure that we undertake an appropriate technical and legal review. We identify root causes, associated risks and corrective actions necessary to achieve sustainable compliance. We keep our senior management informed of our environmental compliance record and have on an ongoing dialogue with them. In return, they provide the resources and open-door culture that affirms environmental compliance as a top priority for the company.

We follow a six-step process as part of our environmental compliance process and management system:

1. We identify non-compliance issues through several mechanisms, including internal EHS audits, corporate environmental compliance reviews, self-assessments and external agency reviews, using the following hierarchy:
   - Determine the facts of the situation or incident;
   - Ascertain applicable law and regulation;
   - Apply the law or regulation to the particular facts; and
   - If the facts contravene the applicable law or regulation, identify the matter as a non-compliance in our environmental management system regardless of how the matter was discovered.
2. We log the non-compliances into our environmental management system and report the matter to internal stakeholders and, when appropriate, external regulators or government agencies.
3. We initiate a root cause analysis and develop a written action plan, which includes a schedule to remedy the incident and attain compliance.
4. The action plan is reviewed by internal and, if necessary, external environmental professionals to arrive at a consensus that we are taking appropriate corrective action.
5. We implement the action plan, and our team of environmental professionals monitor and track progress toward completion.
6. We close the matter once we have implemented all corrective actions, achieved compliance and verified that a system is in place to prevent reoccurrence and sustain compliance.

The likelihood or extent of any enforcement action is not a consideration when we identify non-compliances. Whether insignificant or significant, we identify and log all into our environmental management system.

In 2018, we had one environmental non-compliance incident that resulted in US$59,000 in significant fines, which we define as greater than US$25,000.

Non-Compliance Performance

	2016	2017	2018
Significant Fines (US$)	0	231,878	59,000
Number of Significant Non-monetary Sanctions	0	0	1
Number of Dispute Resolutions	0	0	0

Non-monetary sanctions include actions that we are ordered to take to ensure our operations return to, or remain in, compliance. Significant refers to sanctions that we consider high risk based on the costs required to address the issue.

Social

People

To pursue, attract, develop and retain world-class talent, we've created a culture that embraces diversity, drives inclusion and empowers and engages our employees.

We offer an integrated approach, which we call the People Experience, that enables our employees to own their development and create rewarding careers that draw on their aptitudes and support their ambitions. We provide learning and development opportunities and equip our managers to provide ongoing coaching and feedback so employees maximize their performance and potential, delivering success for Arconic.

Diversity and Inclusion

We earned a perfect score of 100 on the Corporate Equality Index 2019, a national benchmarking survey and report on corporate policies, benefits and practices related to lesbian, gay, bisexual, transgender and queer (LGBTQ) individuals. The index is administered by the Human Rights Campaign Foundation.

Our rating reflects the concrete steps we've taken on non-discrimination policies across business entities, equitable benefits for LGBTQ workers and their families, internal education and accountability metrics to promote LGBTQ inclusion competency and public commitment to LGBTQ equality.

Our six employee resource groups (ERGs)—Arconic African Heritage Network, Arconic Hispanic Network, Arconic Next Generation Network, Arconic Women's Network, Arconic Veterans Network and EAGLE (LGBTQ)—reflect an inclusive, respectful and values-based company culture. All of our employees are encouraged to participate in these grassroots, employee-led organizations that:

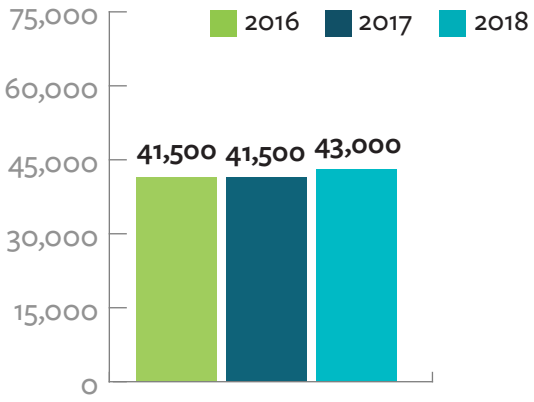
- Drive employee engagement through community outreach around science, technology, engineering and mathematics (STEM) education;
- Provide learning and development opportunities for employees;

- Help position Arconic as a global employer of choice through strategic recruiting activities;
- Inform company policies around diversity and inclusion; and
- Reinforce our brand through key external endorsements like the Human Rights Campaign and Catalyst.

For the second consecutive year, we published the results of a gender pay gap analysis on 16 of our locations in the United Kingdom.

We closed the hourly wage gap between men and women employed at these locations by 2.4 percentage points in 2018, taking the mean (average) hourly pay gap to 6.5 percent. Full details can be found in the Arconic UK Gender Pay Gap Report 2018.

Employees



2018 Women and U.S. Minority Representation

Global Women	**23%**	Female Executives
	28%	Female Professionals
	24%	Female Employees Overall
U.S. Minorities	**13%**	Minority Executives
	20%	Minority Professionals
	32%	Minority Employees Overall

2018 Employees by Employment Contract and Type

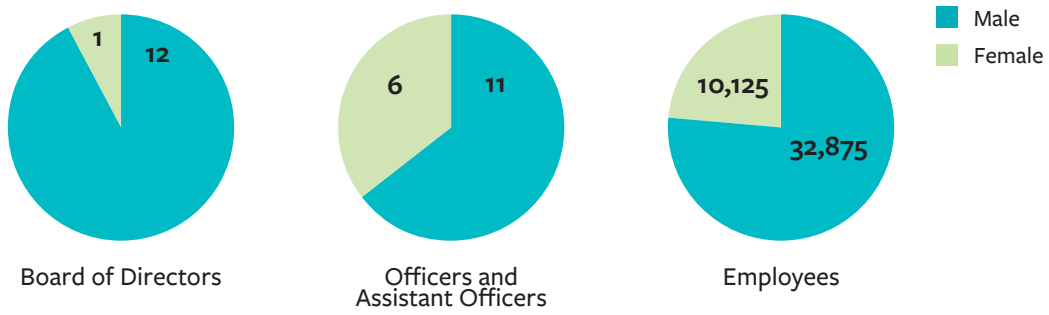
	Contract		Type	
	Permanent	Temporary	Full-time	Part-time
Male	32,504	371	32,761	189
Female	9,959	166	9,936	114
Total	42,463	537	42,697	303

2018 Employees by Region and Employment Contract

	Permanent	Temporary
Asia	2,031	57
Australia	88	2
Europe	12,528	327
North America	27,233	132
South America	583	19

Europe includes Middle East and Africa.

2018 Employee Diversity by Gender



2018 Employee Diversity by Age

	Board of Directors	Officers and Assistant Officers	Employees
Under 30	0	0	7,311
30-50	1	4	21,500
Over 50	12	13	14,189

2018 New Employee Hires by Age

	Male		Female		Total	
	Number	Rate (percent)	Number	Rate (percent)	Number	Rate (percent)
Under 30	2,448	44.58	821	40.89	3,269	43.59
30-50	2,372	43.20	952	47.41	3,324	44.33
Over 50	671	12.22	235	11.70	906	12.08

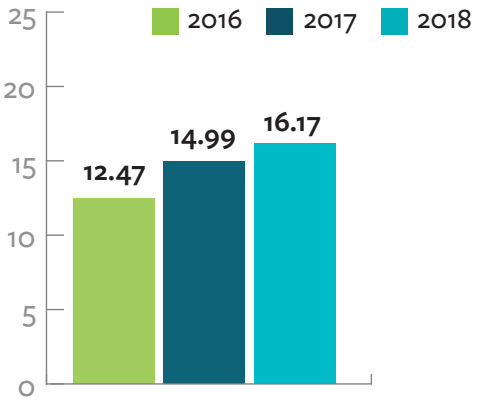
2018 New Employee Hires by Region

	Male		Female		Total	
	Number	Rate (percent)	Number	Rate (percent)	Number	Rate (percent)
Asia	234	4.26	56	2.79	290	3.87
Australia	5	0.09	1	0.05	6	0.08
Europe	1,003	18.27	301	14.99	1,304	17.39
North America	4,212	76.71	1,627	81.03	5,839	77.86
South America	37	0.67	23	1.15	60	0.80

Europe includes Middle East and Africa.

Turnover Rate

Percent



2018 Employee Turnover by Age

	Male		Female		Total	
	Number	Rate (percent)	Number	Rate (percent)	Number	Rate (percent)
Under 30	1,603	30.96	550	30.73	2,153	30.90
30-50	2,179	42.08	740	41.34	2,919	41.89
Over 50	1,396	26.96	500	27.93	1,896	27.21

2018 Employee Turnover by Region

	Male		Female		Total	
	Number	Rate (percent)	Number	Rate (percent)	Number	Rate (percent)
Asia	165	3.19	38	2.12	203	2.91
Australia	3	0.06	1	0.06	4	0.06
Europe	904	17.46	289	16.15	1,193	17.12
North America	3,564	68.83	1,318	73.63	4,882	70.06
South America	542	10.47	144	8.04	686	9.85

Europe includes Middle East and Africa.

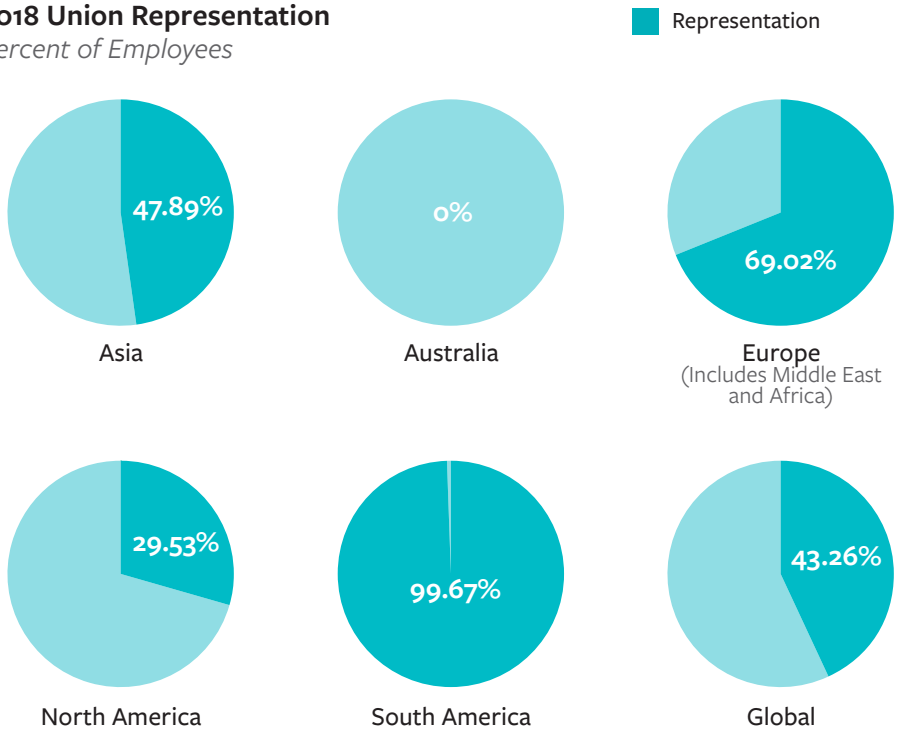
Labor Relations

We believe in freedom of association. We respect an individual's choice to be represented by—or not be represented by—a union in accordance with the laws of the countries in which we operate.

Where we have a union, we will respect and engage the union in candid discussions regarding the needs of the business and its impact on employees.

2018 Union Representation

Percent of Employees



Health and Safety

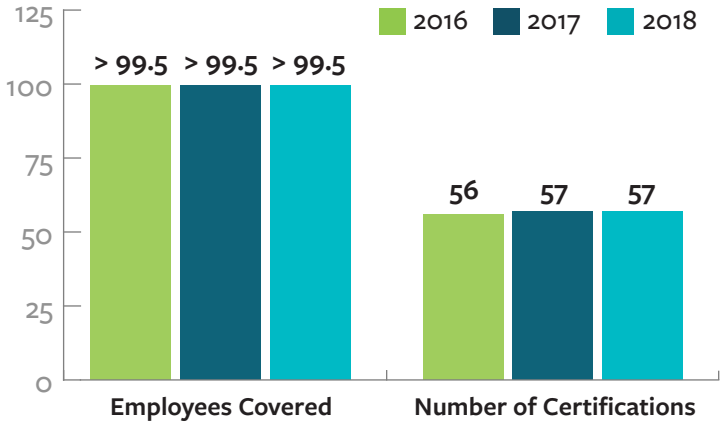
Our strong health and safety culture empowers our employees and contractors to take personal responsibility for their actions and the safety of their coworkers. This culture is supported by internal policies, standards, rules and procedures that clearly articulate our stringent requirements for working safely in all of our facilities worldwide.

Our health and safety policy and the values contained in our Code of Conduct set requirements for which our businesses and locations are held accountable and measured against. Our leaders, from CEO through line management, are expected to communicate the policy to all employees and third parties, such as contractors, suppliers and visitors.

We embed annual health and safety goals and objectives in our operating plan to progress against our ultimate goal of zero incidents. The planning process addresses issues related to audit findings and non-compliances against internal and external standards and regulations. The plan is linked to our EHS management system and reviewed on a regular basis, including quarterly by our Executive Lead Team.

Our EHS management system is key to the successful implementation of our EHS policy. In 2018, we updated the system to align with the ISO 45001 (occupational health and safety) and ISO 14001-2015 (environmental management systems) standards. The standards' requirements are incorporated into our site-specific EHS management systems, which cover all of our production sites and our largest office site.

EHS Management System



Certifications include OHSAS 18001 and ISO 14001, 45001 and 50001.

Safety

We had zero employee and contractor fatalities in 2018, which was the third consecutive year that we achieved this important milestone.

Fatality prevention was a major focus during the year, with each business required to review its program at least once per quarter. We also conducted in-depth fatal and serious injury reviews for six of our highest-risk plants, with corrective actions deployed and tracked.

We have prioritized our risk management processes toward fatality and serious injury potential to focus on the most impactful hazards that have the potential for life-altering outcomes. Mobile equipment is the highest fatality risk within our global operations.

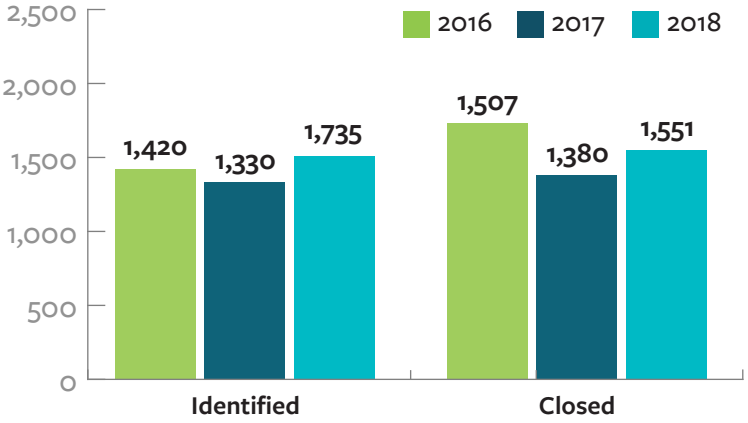
Under our fatality prevention program, multidisciplinary teams chaired by the location manager identify risk, look for root cause, ensure competent support and address gaps to reduce the risk to acceptable levels.

We support a speak-up culture in which employees feel comfortable raising questions and concerns and are encouraged to express their views and opinions so we can proactively identify and mitigate actual and potential risks. Our Anti-Retaliation Policy prohibits retaliation for employees who report a concern in good faith.

Fatalities

Fatalities
Employee/Contractor

Fatality Risks



The number of risks closed may exceed the number identified due to carry-over from the prior year.

All of our key safety rates remained significantly below the most recent U.S. industry averages. At 0.35, our 2018 days away, restricted and transfer (DART) rate was nearly 15 percent lower than prior year. We saw a 7 percent increase in our lost workday rate, and our total recordable incident rate declined 4 percent.

At the end of 2018, 64 percent of our locations globally had worked 12 consecutive months without a DART incident, 74 percent without a lost workday and 44 percent without a total recordable incident.

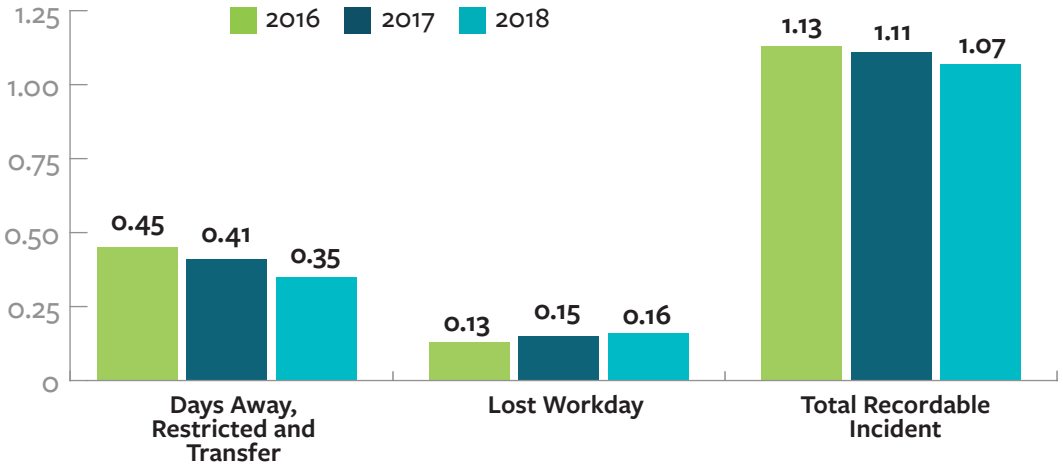
Incident Investigation

We have incident reporting and investigation requirements embedded in our policies and standards. When an incident occurs, the location must follow a pre-defined process to ensure root causes are identified and subsequently eliminated. Depending on the severity of an incident, management involvement is escalated.

Our incident performance is reviewed by our Executive Lead Team each quarter and once per year by the Arconic Board of Directors.

Incident Rates

Employees and Supervised Workers



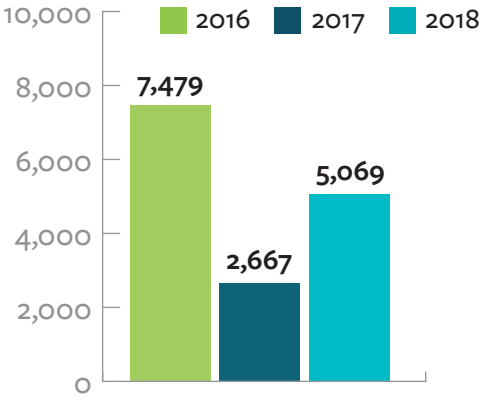
Firth Rixson locations were added to the rates as of Jan. 1, 2016, and RTI and TITAL locations were added as of Jan. 1, 2017. Lost workday rate represents the number of injuries and illnesses resulting in one or more days away from work per 100 full-time workers. Days away, restricted and transfer rate includes lost workday cases plus cases that involve days of restricted duty and job transfer per 100 full-time workers. Total recordable incident rate represents the number of injuries and illnesses resulting in days away from work, job transfer or restriction, medical treatment or other recordables per 100 full-time workers.

STOP Coin

Our employees have the authority to refuse or stop unsafe work. We expect them to exert that authority, and we reward them when they do through our STOP for Safety Coin Campaign. Our aim is to motivate employees to be vigilant in their work and always stop and seek help when presented with a potential safety hazard.

Employees who refuse or stop unsafe work for themselves or their colleagues are awarded an aluminum STOP coin and receive local and, in some cases, global recognition. We have distributed thousands of STOP coins to these safety advocates since the program's launch in 2016.

STOP Coins Shipped



Stopping for safety around the world

United Kingdom

Paul Brooks was attending to a delivery when he noticed that a delivery driver had climbed into the back of his box van to off-load computer equipment without following Arconic unloading protocol. Paul immediately approached the driver and explained that Arconic's unloading procedures do not allow drivers to stand on unprotected flatbed loads without securing the load from the ground or connecting to an approved anchorage point.

Korea

Hoyun Lee was working with a 2,200-ton press and switching containers when he noticed the container he wanted to use was stuck in the housing and could not be moved. He notified a team leader about the issue and stopped the process.

United States

Turning on the main power switch after completing a size change on a drawbench, Mark Bond, Mark A. Bond and Dale Thompson noticed the red test light was still lit. One of the operators proceeded to push all four of the emergency stops on the machine to shut it down.

Audits

Depending on a location's inherent and controlled risks, we conduct an internal corporate audit every one to five years to provide assurance on the location's implementation of the EHS management system and conformance with regulatory and Arconic requirements.

Audit Safety Results
Percentage of sites achieving the level of "Good"

Assessment Category	2016	2017	2018
Fatality Prevention	81	82	84
Tagout/Lockout	77	88	93
Fall Control	77	81	89
Mobile Equipment	81	81	92
Confined Space	78	81	91
Electrical Safety	59	46	42
Combustion System	69	56	57
Dusts and Fine Particles	43	40	42
Molten Metal	72	67	69
Machine Guarding	69	76	87
Contractor Safety	78	85	91
Crane Safety	67	72	76

A good rating is defined as meeting Arconic and government standards. Percentages are rolling based on a location's most recent audit score in each focus area regardless of the year of the audit.

Training

It's important to inform and educate our employees, contractors and visitors about workplace health and safety. Our training programs are based on a needs assessment that includes input on an individual's exposure, workplace, and legal and other requirements.

In 2018, more than 140 new Arconic leaders attended a two-day intensive course focused on EHS, including fatality prevention. The goal was to better inform and equip our leaders, who are key enablers for successful health and safety management.

Our EHS professionals spent more than 1,700 hours on professional development in 2018 through global Arconic EHS conferences on various topics.

Health

Regardless of the size of their location, all of our employees have access to occupational medicine services to optimize their health and well-being. These services include regulatory or Arconic risk-based chemical surveillance evaluations, fitness-for-duty assessments, hearing evaluations, lung-function testing, work-related injury and illness evaluation and treatment, substance abuse testing and job-related immunizations.

The key health risks within our operations are hearing conservation, working with chemical substances and ergonomic injuries.

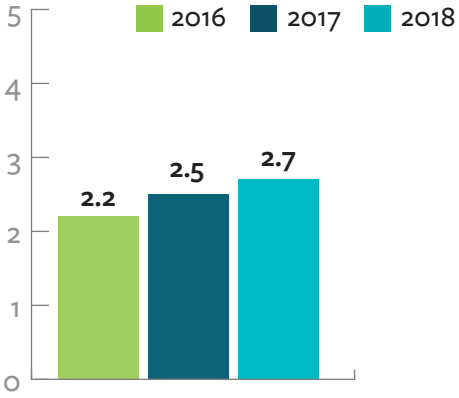
We set a long-term goal of a hearing shift rate among our employees of 1 percent or lower by 2020. To achieve this, all manufacturing

locations have implemented a robust hearing conservation program that builds on detailed noise exposure assessment and provides the correct hearing protection with the right noise-level reduction.

All manufacturing locations also will be required to either conduct hearing fit tests on individual employees to ensure hearing protection is effective or provide custom-molded ear plugs for a higher level of protection. Our 2018 goal was to have 70 percent of our U.S. locations and 50 percent of all other locations meet the requirement. We achieved 62 percent, falling short in the United States but exceeding the goal in other parts of the world.

Hearing Shift Rate

Percent



Our businesses and locations also continued efforts to reduce employee exposure to chemicals. Actions included eliminating specific chemicals, moving employees away from where chemicals are used and ensuring stringent adherence to requirements for personal protective equipment.

We are identifying and eliminating ergonomic risks through job analyses, workplace surveys and other proactive methods. We eliminated an additional 251 risks in 2018.

Our commitment to health and safety extends beyond the workplace. The Arconic Global Wellness Initiative focuses on the physical, mental and social well-being of our employees. Company-wide programs drive a healthier lifestyle and are supplemented by location-based programs and events that are specifically designed to address local needs, community expectations and cultural relevance.

In 2018, thousands of our employees participated in wellness activities that ranged from weight-loss competitions to biometric screenings and tobacco-cessation programs. We also became the first company in the United States to test the effectiveness of an onsite FDA-cleared biometric screening device for employees to proactively monitor their personal health numbers on a regular basis. More than 700 employees at five pilot locations completed nearly 1,600 sessions over a three-month period using this device.

Employees at the Winter Warrior race in Rochester, New York, USA

2018 Wellness Highlights

2,375
kilograms (5,236 pounds) lost by 672 employees and their families in weight-loss challenges

5,114
employees completing the Healthy Rewards program

7,392
biometric screenings for U.S. employees

46%
quit rate for 95 employees actively working on quitting tobacco

5,763
employee wellness profiles completed

2,200
employees actively engaged in a resiliency program

Chemical Management

A major focus within our company is avoiding supply chain disruptions linked to chemical management regulations, such as the European Union's Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH).

In 2018, we restructured our internal compliance approach for all chemical regulations by creating a formal chemical compliance team. Using our successful REACH management model, this global team ensures we maximize synergies and coordination and cover all relevant regulations and market/customer initiatives. Team members also work to provide the information our customers need for their own compliance programs.

While we do not manufacture chemicals, we use them in our production processes either directly or as ingredients in other products that we use. The chemical compliance team works with each of our businesses to ensure we are adhering to all requirements and actively seeking substitutions for chemicals that various regulations deem substances of very high concern. This can be challenging, as substitute substances ideally should not impact process efficiency or product quality and properties. That's why we work closely with our customers to validate a new substance before making a permanent substitution.

We have been successful in finding material substitutions for various applications, but others will require more time and effort. Until targeted chemicals are eliminated, we will continue to enforce our stringent requirements for their safe handling and use.

In support of our aerospace customers, we are an active member of the International Aerospace Environmental Group (IAEG). Formed by the major aerospace companies, the association addresses the complexity and variability of global laws and regulations impacting health and the environment, including REACH.

By serving on the IAEG board of directors, committees and working groups, our employees are contributing to the development of tools and voluntary consensus standards to address key chemical management and environmental issues. They are also gaining valuable insight on the needs of the aerospace industry.

IAEG®
INTERNATIONAL AEROSPACE ENVIRONMENTAL GROUP®

Stakeholder and Community Engagement

We earn our social license to operate through open dialogue with a broad range of stakeholders in an atmosphere of respect and trust and with the highest regard for human rights, economic opportunity and the natural environment.

Our stakeholders include shareholders and lenders who provide our financial capital; our customers, suppliers and employees; the people who live in the communities where we operate; the public agencies that regulate our businesses; government representatives; and the non-governmental organizations (NGOs) that are interested in what we are doing.

The Arconic Community Framework is the principal way we manage our engagement with stakeholders at the community level. The framework helps each of our locations define the stakeholder groups with which to engage and identifies tools and approaches to ensure that engagement with these stakeholders is robust, effective and transparent. It also accommodates the differing sizes and stakeholder engagement needs of our facilities.

Arconic Foundation, which is an independently endowed foundation and the charitable arm of Arconic, has assets of approximately $310 million. It allocates more than half of its grantmaking each year to our worldwide operating locations so they can partner with nonprofit organizations to develop relevant strategies that address specific community needs and interests.

Through collaboration with our nonprofit partners, our initiatives make quality science, technology, engineering and math (STEM) education opportunities available to students; support engineering and technical skills training through community colleges, technical schools and universities around the world; and help create access for underrepresented individuals to the STEM fields.

In addition, our employees volunteer their time, energy and skills to community programs and projects to help local nonprofit organizations.

CASE STUDY

Preparing unemployed youth for manufacturing careers

There are more than 75 million young people who are unemployed globally, according to the International Labor Organization. Concurrently, many entry-level jobs around the world remain unfilled because companies cannot find people with the right skills. Bridging the two is the Global Internship Program for Unemployed Youth.

Funded by Arconic Foundation and administered by the Institute of International Education, the program provides workforce readiness training, paid internships with local manufacturers, and career planning and placement for unemployed youth ages 18 to 24. The goal is to equip them with the skills and experience they need to start successful careers in the manufacturing sector.

Since 2013, the program has provided workforce development opportunities for more than 700 unemployed youth in Australia, Brazil, Canada, France, Russia, Spain, the United Kingdom and the United States. The results—93% of participants completed the program, with 78% of them finding employment or enrolling in a workforce training or education program after their internship.

"The internship through the Institute of International Education prepared me for what to expect in my day-to-day work and helped increase my confidence," said Jack Smyth, who now is a production operator at our Kitts Green location in the United Kingdom. "Transitioning into my current job at Arconic was also so much easier because of the connections I had already made."

Based on the program's success, Arconic Foundation launched a new cycle of workforce development opportunities in January 2018 to reach 225 unemployed youth in France, the United Kingdom and the United States.

Jack Smyth

Ethics, Compliance and Human Rights

As a global company with operations in diverse cultural, political and economic environments, we are committed to conducting business ethically and in compliance with all applicable laws.

Guiding our actions are our Values, Code of Conduct and key corporate policies, including Anti-Corruption, Human Rights, Anti-Harassment, Anti-Retaliation, EHS and Global Security.

Employees appointed as Arconic Integrity Champions help ensure integrity and compliance are operationalized at all levels and locations. They also serve as a resource to employees who may have ethical or business questions.

Our Integrity Line is available 24/7 to all employees and external stakeholders who wish to seek advice or raise a concern. In 2018, we received 835 new concerns, questions and comments through the hotline, which was a 2 percent increase over the prior year. As a result of issues raised, we put 201 corrective actions in place during the year that included discipline, training, coaching and process improvements.

In 2018, we reassessed and validated current, near-term and future projects aimed at advancing and integrating our ethics and compliance program into our business operations, all with an eye toward risk prevention, detection and mitigation.

New and ongoing initiatives in 2018 included:

- A new Ethics and Compliance Charter;
- A refreshed Code of Conduct;
- A cross-functional initiative to update and standardize the format and content of key corporate policies;
- Increased employee communication regarding ethical business practices, especially by our chief ethics and compliance officer;
- A speak-up toolkit that includes a variety of materials that leaders can use to facilitate discussions with employees about the importance of speaking up, the help chain resources available and Arconic's zero tolerance for retaliation;
- Our annual Business Conduct Survey, which was distributed to more than 10,000 employees with a 100 percent completion rate; and
- Employee training on topics that included the Code of Conduct, global workplace harassment, anti-corruption and international trade compliance.

Additional information on our ethics and compliance program can be found on arconic.com.

Global Reporting Initiative Content Index

This index helps readers compare the information from our sustainability report, annual report and website with the Global Reporting Initiative GRI Standards.

This report has been prepared in accordance with the GRI Standards: Core option.

GRI 102 General Disclosures 2016

Disclosure	Description	Location
Organizational Profile		
102-1	Name of the organization	Arconic Inc.
102-2	Activities, brands, products, and services	Who We Are
102-3	Location of headquarters	New York, New York
102-4	Location of operations	Locations
102-5	Ownership and legal form	Arconic Inc. is a publicly traded company listed on the New York Stock Exchange (NYSE: ARNC).
102-6	Markets served	What We Do
102-7	Scale of the organization	Annual Report (pages 1-13, 66-70)
102-8	Information on employees and other workers	People
102-9	Supply chain	Supply Chain
102-10	Significant changes to the organization and its supply chain	Annual Report Supply Chain
102-11	Precautionary Principle or approach	Environmental Management at Arconic
102-12	External initiatives	Stakeholder Engagement
102-13	Membership of associations	Stakeholder Engagement

Disclosure	Description	Location
Strategy		
102-14	Statement from senior decision-maker	CEO Statement
102-15	Key impacts, risks, and opportunities	Annual Report (pages 1-51)
Ethics and Integrity		
102-16	Values, principles, standards, and norms of behavior	Our Values Human Rights Policy Ethics and Compliance
102-17	Mechanisms for advice and concerns about ethics	Integrity Line
Governance		
102-18	Governance structure	Corporate Governance 2019 Proxy Statement (pages 22-24)
102-19	Delegating authority	Corporate Governance Guidelines (Corporate Citizenship section)
102-20	Executive-level responsibility for economic, environmental, and social topics	Corporate Governance Guidelines (Corporate Citizenship section)
102-21	Consulting stakeholders on economic, environmental, and social topics	2019 Proxy Statement (pages 21, 28, 41, 46, 77)
102-22	Composition of the highest governance body and its committees	Board of Directors Board Committees
102-23	Chair of the highest governance body	2019 Proxy Statement (pages 3, 22)
102-24	Nominating and selecting the highest governance body	2019 Proxy Statement (pages 13-14) Articles of Incorporation Bylaws Governance and Nominating Committee Charter
102-25	Conflicts of interest	2019 Proxy Statement (pages 28-30) Governance and Nominating Committee Charter
102-26	Role of highest governance body in setting purpose, values, and strategy	Corporate Governance Guidelines
102-27	Collective knowledge of highest governance body	2019 Proxy Statement (pages 7-12, 24)
102-28	Evaluating the highest governance body's performance	2019 Proxy Statement (page 25) Governance and Nominating Committee Charter
102-29	Identifying and managing economic, environmental, and social impacts	2019 Proxy Statement (pages 23, 27) Audit Committee Charter Finance Committee Charter Corporate Governance Guidelines (Corporate Citizenship section)
102-30	Effectiveness of risk management processes	2019 Proxy Statement (pages 23, 27) Audit Committee Charter Finance Committee Charter Corporate Governance Guidelines (Corporate Citizenship section)

Disclosure	Description	Location
102-31	Review of economic, environmental, and social topics	Corporate Governance Guidelines (Corporate Citizenship section)
102-32	Highest governance body's role in sustainability reporting	Corporate Governance Guidelines (Corporate Citizenship section)
102-33	Communicating critical concerns	2019 Proxy Statement (page 28)
102-35	Remuneration policies for the highest governance body and senior executives	2019 Proxy Statement (pages 15-16, 40-62)
102-36	Process for determining remuneration	2019 Proxy Statement (pages 43-48)
102-37	Stakeholders' involvement in remuneration	2019 Proxy Statement (pages 46-47)
102-38	Annual total compensation ratio	2019 Proxy Statement (pages 59-60)
Stakeholder Engagement		
102-40	List of stakeholder groups	Stakeholder and Community Engagement
102-41	Collective bargaining agreements	People
102-42	Identifying and selecting stakeholders	Stakeholder and Community Engagement
102-43	Approach to stakeholder engagement	Stakeholder and Community Engagement
102-44	Key topics and concerns raised	2018 Annual Report (pages 30-32, 97-99) Grasse River Project
Reporting Practice		
102-45	Entities included in the consolidated financial statements	2018 Annual Report (page 116) All entities included in the consolidated financial statements are included in the sustainability report.
102-46	Defining report content and topic Boundaries	Reporting and Materiality
102-47	List of material topics	Reporting and Materiality
102-48	Restatements of information	Found throughout the report.
102-49	Changes in reporting	Changes in reporting from prior year are indicated throughout the report
102-50	Reporting period	2018
102-51	Date of most recent report	2017
102-52	Reporting cycle	Annual
102-53	Contact point for questions regarding the report	Marcel van der Velden Global Director of Sustainability
102-54	Claims of reporting in accordance with the GRI Standards	This report has been prepared in accordance with the GRI Standards: Core option.
102-55	GRI content index	Global Reporting Initiative Index
102-56	External assurance	Reporting and Materiality

Material Topics

Disclosure	Description	Location
GRI 201: Economic Performance 2016		
201-1	Direct economic value generated and distributed	Annual Report (pages 54-58)
GRI 302: Energy 2016		
302-1	Energy consumption within the organization	Energy
302-2	Energy consumption outside of the organization	Energy
302-3	Energy intensity	Energy
302-4	Reduction of energy consumption	Energy
302-5	Reductions in energy requirements of products and services	Energy
GRI 303: Water and Effluents 2018		
303-3	303-3: Water withdrawal	Water
303-4	303-4: Water discharge	Water
303-5	303-5: Water consumption	Water
GRI 305: Emissions 2016		
305-1	Direct (Scope 1) GHG emissions	Climate Protection
305-2	Energy indirect (Scope 2) GHG emissions	Climate Protection
305-3	Other indirect (Scope 3) GHG emissions	Climate Protection
305-4	GHG emissions intensity	Climate Protection
305-5	Reduction of GHG emissions	Climate Protection
305-7	Nitrogen oxides (NOX), sulfur oxides (SOX), and other significant air emissions	Emissions
GRI 306: Effluents and Waste 2016		
306-2	Waste by type and disposal method	Waste and Spills
306-3	Significant spills	Waste and Spills
GRI 307: Environmental Compliance 2016		
307-1	Non-compliance with environmental laws and regulations	Environmental Compliance
GRI 403: Occupational Health and Safety 2018		
403-1	Occupational health and safety management system	Health and Safety
403-2	Hazard identification, risk assessment, and incident investigation	Health and Safety
403-3	Occupational health services	Health and Safety
403-4	Worker participation, consultation, and communication on occupational health and safety	Health and Safety
403-5	Worker training on occupational health and safety	Health and Safety
403-6	Promotion of worker health	Health and Safety
403-8	Workers covered by an occupational health and safety management system	Health and Safety
403-9	Work-related injuries	Health and Safety
403-10	Work-related ill health	Health and Safety
GRI 405: Diversity and Equal Opportunity 2016		
405-1	Diversity of governance bodies and employees	Corporate Governance People
405-2	Ratio of basic salary and remuneration of women to men	People

ARCONIC

Arconic Inc. (NYSE: ARNC) creates breakthrough products that shape industries. Working in close partnership with our customers, we solve complex engineering challenges to transform the way we fly, drive, build and power. Through the ingenuity of our people and cutting-edge advanced manufacturing techniques, we deliver these products at a quality and efficiency that ensure customer success and shareholder value. For more information: www.arconic.com.

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