

# Shaping the Future

2016 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 the Company. The Company 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 changes in aluminum industry or global economic conditions generally, factors affecting Arconic's operations, such as unavailability of energy, equipment outages, natural disasters or other unexpected events, changes in the regulatory environment, the impact of reductions in Arconic's capital expenditures, 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, 2016 and other SEC reports.

# Sustainability at Arconic

We believe that truly sustainable organizations shape the future. Where fulfilling the needs of society in the present increases and expands the opportunities for generations to come.

Innovation is at the heart of everything we strive for, and this encompasses sustainability. Through process innovations, we're minimizing our environmental footprint. Through product innovations that reduce energy consumption, greenhouse gas emissions and resource use, we're helping our customers do the same. Our primary objective is integrating sustainability into our core business strategy. Working with our business leadership, we'll develop longer-term sustainability targets during 2017 that directly link to our material sustainability topics—greenhouse gas and toxic emissions, energy consumption, landfilled waste, water use and health and safety.

While 2016 was a year of transition, we continued building upon our sustainability legacy. This interim report highlights the progress we made during the year.

#### 2016 Progress



# Environmental

*Effective control of emissions. Efficient use of resources. Elimination of waste. This is how we're reducing our environmental footprint.* 

**3.2%** reduction in GHG emissions compared to 2015

## Climate Protection

We're a consumer of aluminum, titanium and other advanced materials, as well as a manufacturer 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 the impact up and down our value chain. Our direct and indirect greenhouse gas emissions equaled 3.25 million metric tons in 2016—a 3.2 percent reduction from 2015—with our casthouses and rolling mills responsible for the vast majority of these emissions.

Our emissions intensity was 2.18 metric tons of carbon dioxide equivalents per metric ton of production, which is a 2.2 percent decline from 2015.

#### Greenhouse Gas Emissions

Million metric tons of carbon dioxide equivalents



Year-over-year reduction of 3.2 percent is due to rounding. Gases included in the calculations are carbon dioxide, methane and nitrous oxide.

#### **Greenhouse Gas Emissions Intensity**

Metric tons of carbon dioxide equivalents per metric ton of production



Data are for Scope 1 and Scope 2 emissions. Calculations utilize 100-year global warming potentials provided by the Intergovernmental Panel on Climate Change.

## Energy

The amount and type of energy we consume have a direct impact on our greenhouse gas emissions. To reduce our consumption, we're improving our efficiency and developing a new strategy to increase our use of hydroelectricity, solar, wind and other renewable sources. We're also working to encourage compatible energy policies in regions where we are located.

We reduced our overall energy consumption by 1.2 million gigajoules, or 2.9 percent, in 2016 compared to prior year due to energyefficiency improvements at our Global Rolled Products and Engineered Products and Solutions businesses. This helped us achieve a 1.9 percent reduction in our energy intensity for the year.

#### **Energy Consumption**



### Water

Water is significantly valuable—to Arconic and to 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 from local sources.

Our casthouses are our largest users of water, followed by our rolling mills. We also have facilities located in water-stressed areas, primarily in the drought-prone U.S. states of Arizona, California, Nevada and Texas.

We withdrew 24 million cubic meters (6.3 billion gallons) of freshwater in our global operations during 2016, which is a 1.4 percent reduction from the prior year.

In 2016, we conducted a periodic global water-risk survey that includes an assessment of local and regional water stress. These location assessments are cross-referenced with global assessments from the World Business Council for Sustainable Development and the World Resources Institute to verify potential areas of stress. In addition to identifying our locations with the highest water risks, the survey also determined that for every gallon of water we bring into our facilities globally, we reuse it an average of five times before it's discharged.

#### Total Freshwater Withdrawal

Millions of cubic meters



Rainwater not included.



million

saved

to 2015

gigajoules

compared

## Waste and Emissions

Manufacturing creates waste and releases emissions. Our responsibility is to eliminate or effectively manage both, giving priority to those that have potential to significantly impact the environment.

We're shifting our focus to toxic and hazardous pollutants, such as hexavalent chromium, that are most relevant to our operations. During 2017, we'll establish air, water and waste baselines for all material toxic pollutants. These data are critical to fully understanding our current impacts and focusing improvement efforts to maximize environmental benefits.

Our largest volume waste is dross from our casthouses. We recycle and reuse nearly 100 percent of this waste and landfill the minimal amount that remains.

In 2016, our landfilled waste declined 10.2 percent from 2015.

Our manufacturing operations produce different types of air emissions depending upon the manufacturing process. In addition to greenhouse gas emissions, other emissions that we track globally, but which often are significant to specific operations or regions, include volatile organic compounds and nitrogen oxide.



**Air Emissions** 



metric tons less to landfill compared to 2015

#### Landfilled Waste

Thousands of metric tons



# Social

## 26,000 12,000 12,000 41,500 Employees 2016 Employees Asia Asia Australia Europe (Includes Middle East and Africa) North America South America

#### 2016 Women and U.S. Minority Representation

Global Women	<b>24.2%</b> Female Executives	
women	29.6% Female Professionals	
	<b>30.0%</b> Female Employees Overall	
U.S. Minorities	15.3% Minority Executives	
Willionteic	19.7% Minority Professionals	
	<b>30.0%</b> Minority Employees Overall	

## People

Our employees drive our success through their innovation, pursuit of excellence and commitment to upholding our Values everywhere we operate in the world. They are our sustainable advantage.

To 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 people experience that enables our employees to create rewarding careers that suit their aptitudes and ambitions. We also provide challenging opportunities and constructive coaching and feedback so our employees can maximize their performance to lead the company into a strong future.

Alcoa Inc., our predecessor, earned a perfect score of 100 on the Corporate Equality Index 2017, a national benchmarking survey and report on corporate policies and practices related to lesbian, gay, bisexual and transgender (LGBT) workplace equality. The index is administered by the Human Rights Campaign Foundation.

Our leaders are held accountable for inclusion and diversity, which are integrated into our overall business strategy. We tie the results to our annual variable compensation through four strategic targets to increase global female and U.S. minority employment in the professional and executive ranks. We exceeded three of our four targets in 2016.

## **41,500** innovators around the world

## Health and Safety

Zero injuries, illnesses and fatalities is possible in the workplace.

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

We had zero employee and contractor fatalities in 2016. While our key safety rates remained significantly below industry averages, we experienced a 39 percent increase in our days away, restricted and transfer (DART) rate and a 20 percent jump in our lost workday rate compared to 2015. The major factor behind the increases was the first-time inclusion of safety data from locations associated with the Firth Rixson acquisition.

A key focus area in 2016 was continuing the onboarding of these locations, as well as others new to Arconic through the acquisitions of Tital and RTI International Metals. The effort included implementing our foundational health and safety programs across each location. The reduction in DART rates at these locations ranged from 40 percent to nearly 70 percent in 2016 compared to prior year.

At the end of 2016, 79 percent of our locations globally had worked 12 consecutive months without a lost workday, 64 percent without a DART incident and 48 percent without a total recordable incident.

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 2016, thousands of our employees participated in wellness activities that ranged from weight-loss competitions to biometric screenings and tobacco-cessation programs.



#### **Incident Rates**

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.

## Zero fatalities

## Stakeholder Engagement

We engage formally and informally with a wide variety of stakeholders to solicit views on our sustainability initiatives and performance.

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 and measure 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 and accurately measures and compares their efforts. As part of the framework, many of our locations have formally established community advisory boards (CABs) comprising external community members, NGO leaders and local officials who are well-versed in the needs of their local communities. CABs meet regularly to provide open, two-way communication, ensuring that all challenges and opportunities are discussed and responded to in a timely manner.

Arconic Foundation also allocates one-half of its grantmaking each year to our worldwide operating locations so they can partner with local NGOs to develop relevant strategies to address specific community needs and interests. In addition, our employees volunteer their time, energy and skills to community programs and projects to help local nonprofit organizations.

Meaningful dialogue, concrete actions



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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