



2017 SUSTAINABILITY REPORT

**OUR  
SOLUTIONS  
HELP OUR  
CUSTOMERS  
BUILD A  
BETTER WORLD**



# CATERPILLAR AT-A-GLANCE

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**171**  
Global Cat®  
Dealers

**59%**  
2017 Sales and Revenues  
Outside U.S.

**600K+**  
Connected  
Assets

**98,400**  
Employees

**\$45.5B**  
2017 Sales and  
Revenues

MEMBER OF  
**Dow Jones  
Sustainability Indices**  
In Collaboration with RobecoSAM   
**18-Year Member**

**3M+**  
Products at Work  
Around the World

## PRODUCTS

- Construction Equipment
- Mining Equipment
- Diesel & Natural Gas Engines
- Diesel-Electric Locomotives
- Industrial Gas Turbines

Forbes  
America's Best  
Corporate Citizens 2017  
**#38**

Interbrand  
Best Global Brands  
2017  
**#89**



A yellow and black Caterpillar skid steer loader is positioned in the center of a dense forest. The loader is facing forward, with its headlights on. The forest floor is covered in pine needles and some fallen logs. The trees are tall and thin, with green foliage. The overall scene is a natural, wooded environment.

**Caterpillar provides the talent, technology and solutions that protect our natural resources, support thriving communities and help build a world in which all people's basic needs are met in sustainable ways. That's our vision of a better world.**





**Jim Umpleby**  
Chief Executive Officer

## To Our Stakeholders

Caterpillar had an outstanding year in 2017, with achievements in many areas. Our ever-stronger sustainability record and our contributions to the circular economy were among our most important achievements this year.

As a leading global manufacturer of heavy equipment, we provide the solutions – the engines, locomotives, machines and services – our customers use to build a better world.

For more than 90 years, our customers have been using Caterpillar equipment to help improve living standards across the globe. Their work moves us closer to our vision of being a company that improves the communities where we live and work, and improves environmental quality. It also moves us closer to a world in which all people’s basic needs – such as shelter, clean water, sanitation, food and reliable power – are fulfilled in a sustainable way.

With this vision in mind, we help enable economic growth and provide solutions that support communities and protect the planet. Global economic growth helps put people on a path to prosperity and is important to Caterpillar’s future.

We provide work environments, products, services and solutions that make safe, productive and efficient use of resources. We know sustainable progress is possible through better systems that maximize life cycle benefits, systems that also minimize economic, social and environmental costs of ownership. Our operations are guided by our sustainability principles of preventing waste, improving quality and pursuing innovation to develop better systems.

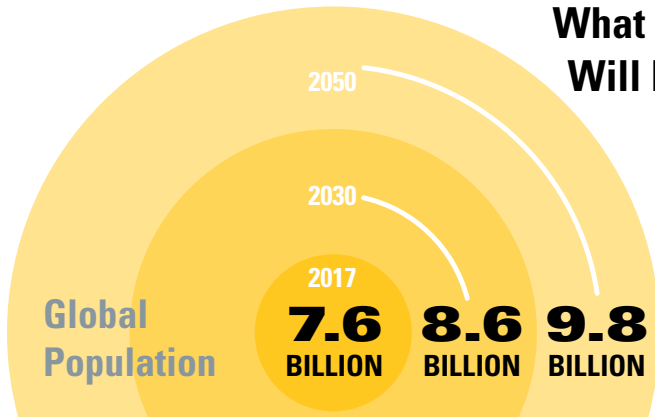
In 2017, we also developed and began implementing a new enterprise strategy; the primary goal of the strategy is long-term profitable growth. Our Values in Action – Integrity, Excellence, Teamwork, Commitment, and Sustainability – are the foundation of that strategy and all we do.

By 2040, world energy consumption is projected to

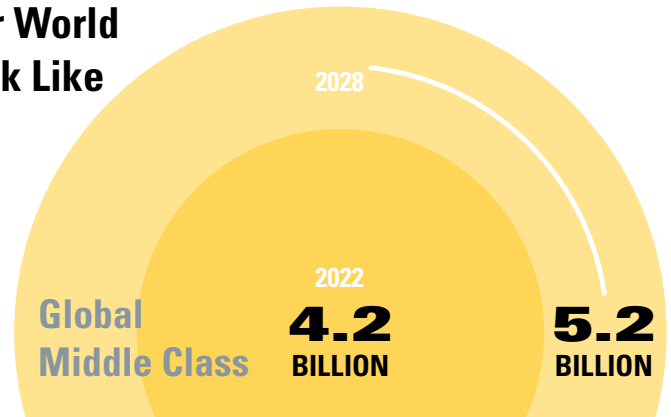
**INCREASE**  
**28%**

IEA World Energy Outlook 2017

## What Our World Will Look Like



(UN Estimates)



(Brookings Institute Estimates)

We have long been a company based on values. And, for more than thirty years, we have dedicated resources to remanufacturing and rebuilding products and components that meet multiple sustainability goals. Just as importantly, remanufacturing and rebuilding deliver economic value to our customers, by extending product life cycles and through more efficient use of resources. We are dedicated to remanufacturing and rebuilding opportunities across our company – from components to engines to turbines to rail.

In addition to extending product life, we look at the totality of our processes to manufacture our products as responsibly as possible. Our facilities focus on energy and water conservation, and reducing waste and greenhouse gas emissions to minimize environmental impacts. In many cases, the ingenuity of our employees brings some of the most innovative solutions, like the Focus Forward program in Athens, Georgia and the Zero-Incident Performance (ZIP™) Process developed by Caterpillar Safety Services.

We constantly look for ways to work smarter on the job, to reduce waste and conserve natural resources. This is also part of our commitment to our customers who want to improve their operations and competitiveness and realize the full value of their assets on job sites.



Caterpillar invests in innovation that both improves business opportunities and contributes to our sustainability goals. We have examples of this in high-efficiency energy conversion and electrification, the expanding use of alternative fuels, and the use of distributed power generation systems that help improve energy access while emitting fewer greenhouse gas emissions. We have the world's largest single autonomous fleet, which is moving hundreds of millions of tons of material for our mining customers, improving productivity, efficiency and safety.

We value diversity and inclusion, and welcome the diverse contributions every individual can make to our company. We are committed to fostering an environment where all employees know that their unique skills, abilities, experience and cultural background are respected.

We are also committed to investing time and resources in the communities where we work and live. Since 1952, the Caterpillar Foundation has been investing to transform lives across the globe through programs that support education, the environment and basic human needs. The Foundation is investing strategically, and in collaboration with partners, toward its goal of helping 50 million people rise out of poverty by 2020.

Collaboration is a watch-word for Caterpillar Foundation investments and our sustainability efforts worldwide. We know collaboration among our employees and with our customers, suppliers and dealers is necessary to achieve our vision of improved environmental quality and stronger communities around the world. We know working together we can make greater progress towards our sustainability goals and greater strides toward building a better world.

Jim Umpleby  
Chief Executive Officer

## Vision

A world in which all people's basic needs – such as shelter, clean water, sanitation, food and reliable power – are fulfilled in a sustainable way and a company that improves the quality of the environment and the communities where we live and work.



## Strategy

We provide work environments, products, services and solutions that make safe, productive and efficient use of resources as we strive to achieve our vision.

We apply innovation and technology to improve the sustainability performance of Caterpillar's products, services, solutions and operations.

We believe sustainable progress is made possible by developing better systems that maximize life cycle benefits, while also minimizing the economic, social and environmental costs of ownership, as reflected in our sustainability principles.

We are executing our strategy by working to meet our aspirational sustainability goals.

## Mission

Enable economic growth through infrastructure and energy development, and provide solutions that support communities and protect the planet.

## Sustainability Principles

- 1 Prevent Waste**  
(Improve Safety, Efficiency and Productivity)
- 2 Improve Quality**  
(Team, Community, Environment and Operations)
- 3 Develop Better Systems**  
(Innovate)



# HOW CATERPILLAR HELPS OUR CUSTOMERS BUILD A BETTER WORLD

A better world is within our reach. Caterpillar's new enterprise strategy allows us to grow profitably so we can continue to innovate solutions that help customers build critical infrastructure and meet people's basic needs. Though our strategy evolves with a changing marketplace, sustainability remains one of our foundational values, defining not only what we do, but how we do it.





# INNOVATING EFFICIENT TECHNOLOGIES

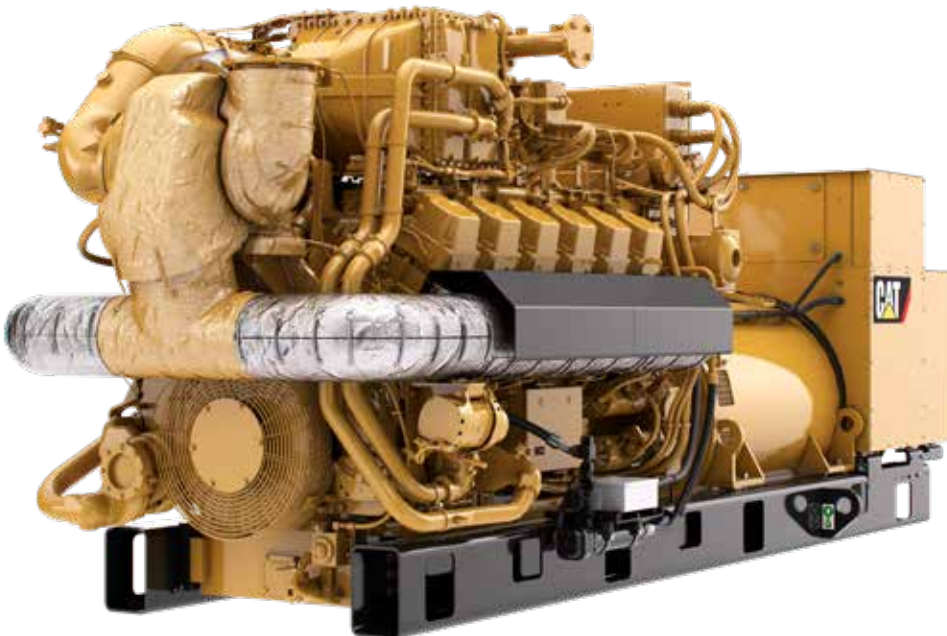
Caterpillar aims to help customers use less fuel and generate fewer greenhouse gas (GHG) emissions. These customer needs provide business opportunities for Caterpillar.

We continue to develop products with fewer direct emissions. In addition, we're increasing our investment in high-efficiency energy conversion and electrification – working to increase power density, expand the use of alternative fuels, maximize efficiency of power systems, and introduce electrification into our product lines while significantly decreasing owning and operating costs. In doing so, we help our customers improve their own operations, while also driving our industry to improve.

A significant part of our business is committed to the supply of energy through efficient power-generation solutions. With distributed generation solutions using diesel and natural

gas engines, as well as alternative fuels, we help get power where our customers need it. Caterpillar has implemented hundreds of distributed power generation systems all over the world, which contribute to improving energy access while emitting fewer GHG emissions compared with traditional power grid systems. We provide combined heat and power systems and combined-cycle power systems that can double the efficiency of power generation when compared with the efficiency of conventional power grids.

In addition, our power systems use fuels from diverse sources such as gas from landfills, livestock operations, wastewater treatment operations, mine methane, flare gas, syngas and biofuels. These systems provide energy diversity from plentiful (and in many cases, renewable) energy sources.



**Largest  
single  
autonomous  
fleet in the  
world**

**Autonomous  
solutions for trucks,  
drills, large tractors,  
underground loaders  
and longwall  
systems**

**700  
MILLION  
metric tonnes  
moved safely by  
autonomous trucks  
through 2017**





## Autonomous Fleets in Action

Nowhere is Caterpillar's autonomous technology making a bigger impact than at mine sites in Western Australia. In addition to safety benefits, the autonomous fleets have enabled significant cost and productivity improvements. Located in the Pilbara region, Fortescue Metals Group's Solomon mine, with 60 autonomous trucks connected across more than 100 square miles, has seen productivity gains of up to 30 percent.

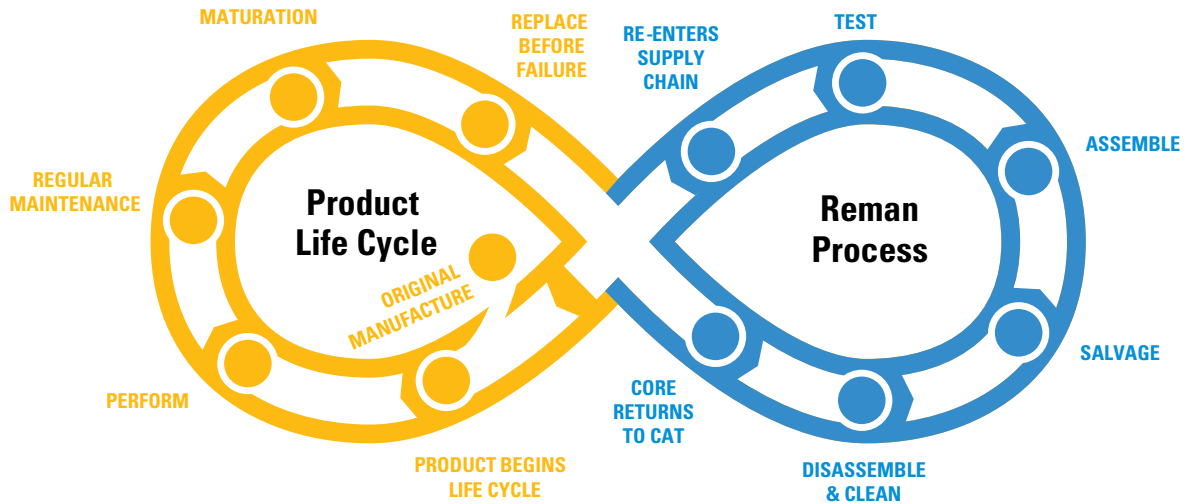
# EXTENDING PRODUCT LIFE

Caterpillar strives to provide customers with quality equipment that delivers the best economic proposition for their business. We remanufacture (reman) and rebuild products and components that provide customers not only with immediate cost savings, but also help extend life cycles and use materials more efficiently. Rebuild programs increase the lifespan of equipment by providing customers with a restored product for less cost than buying new.

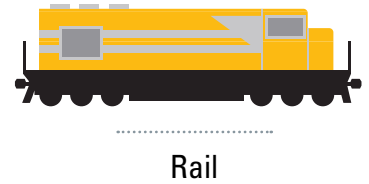
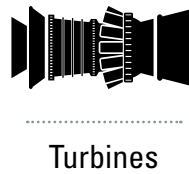
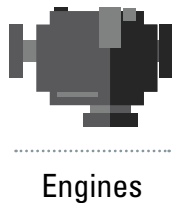
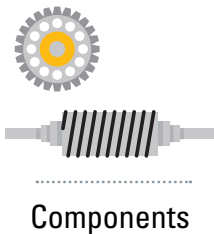
A complete Cat® Certified Rebuild includes more than 350 tests and inspections, automatic replacement of approximately 7,000 parts and a like-new machine warranty. In addition, trained dealer service professionals perform this work using genuine equipment and parts. Caterpillar provides information,

data, training and service tools to help dealers make the most appropriate decisions on which parts to reuse in order to achieve expected longevity of rebuilt components. Reuse of components helps us use materials and energy more efficiently.

Caterpillar takes a systems view of the life of our products. We design and manufacture them for multiple lives, our dealers support and service them to maximize their value to the customer, and we remanufacture them at the end of their useful life to deliver the next generation of value. Our engineering and manufacturing expertise, field population and dealer organization make this possible. This total life cycle approach allows us to provide sustainable solutions that help customers build a better world.



## REMAN & REBUILD OPPORTUNITIES







## A More Efficient Assembly Process

Through a collaborative effort involving team members from manufacturing, salvage, marketing and engineering, Caterpillar has developed a new engine prechamber assembly for the Cat® 3600 engine. The assembly uses state-of-the-art machining and laser weld technology. The process reuses over 25 tons of metal annually, reducing new raw material used and providing customers with savings in owning and operating costs.

# **WORKING SMARTER ON THE JOB**

Reducing waste and conserving natural resources on job sites are increasingly important goals of many of Caterpillar's customers as they seek to realize the full value of their assets on the job site. Our Job Site Solutions team works in partnership with Cat® dealers to help customers find innovative ways to improve their operations and be more competitive in the marketplace – solutions

that often deliver additional sustainability benefits. For instance, optimizing fleet efficiency not only reduces costs, but can also improve the maintenance and component replacement cycles of individual machines. Better maintenance execution can extend the life of a machine, which in turn reduces raw material consumption.



## **CAT® COMPACT**

Meets compaction targets faster, saving fuel and reducing rework and material costs.



## **CAT PAYLOAD**

Provides on-the-go load weighing to help operators hit precise load targets.



## **CAT DETECT**

Gives visibility into site conditions and assets, alleviating safety hazards for operators.



## **CAT COMMAND**

Enables remote control, semi-autonomous or fully autonomous mining equipment systems.



## **CAT GRADE**

Combines digital design data, in-cab guidance and automatic controls to enhance grading accuracy.



## **CAT LINK**

Uses a web interface to provide visibility into an entire fleet's performance.





# Helping Customers Reduce Their Impact

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## Enhanced Safety

Innovating technologies and training that protect operators and other workers onsite.

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## Increased Productivity

Helping customers work smarter, reducing the emissions they would otherwise generate with less efficient solutions.

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## Fuel Efficiency

Developing products that use less fuel or are powered by alternative energy sources.

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## Lower Emissions

Combining productivity and efficiency to yield a lower GHG footprint.

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## Resource Conservation

Creating a circular flow of materials, maximizing our products' life cycle value and conserving energy and water.

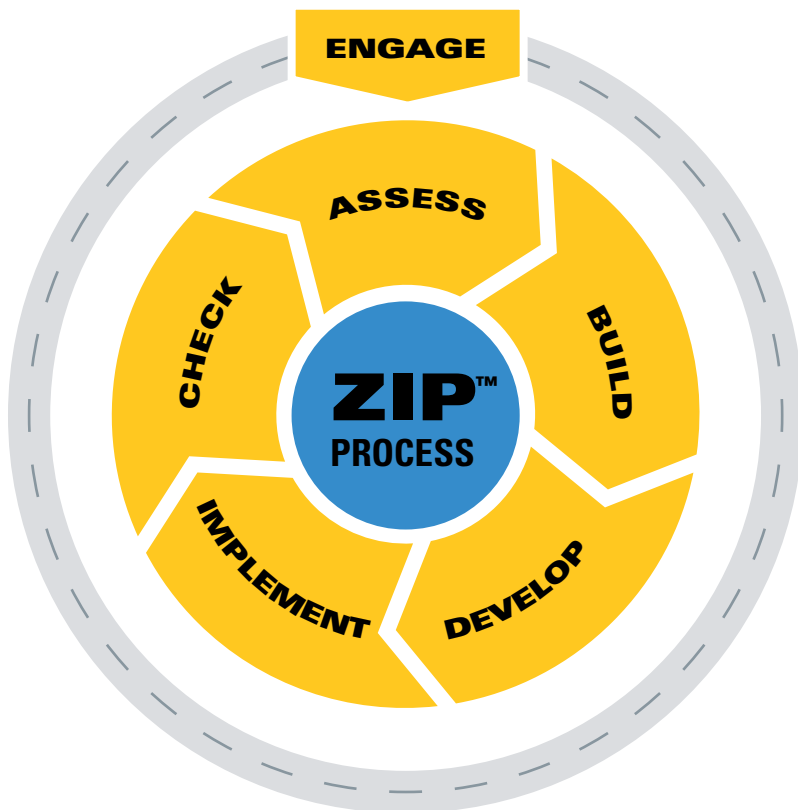
# ENABLING SAFER WORK

We are dedicated to the safety of everyone at Caterpillar, including that of the extended team of contractors, dealers, suppliers and customers. Our commitment to safety begins with the engineering of our products and manufacturing processes, and extends to operator training, job site solutions and promoting a culture of safety that guides the way we work.

In Caterpillar facilities, our Environment, Health & Safety (EHS) Assurance Manual establishes fundamental EHS requirements that apply globally, and Caterpillar's safety and health risk assessment process brings a global focus to the identification, measurement and reduction of safety and ergonomic risk. In addition to these global expectations, our facilities implement

innovative, local initiatives to positively impact our safety results. Caterpillar's EHS professionals play a key role in providing expertise and support to Caterpillar operations around the world.

Caterpillar Safety Services has helped promote a culture of safety in our customer organizations through the Caterpillar Zero-Incident Performance (ZIP™) Process. Our global EHS team leads the deployment of the process in our own facilities. The ZIP Process guides organizations in achieving the engagement and accountability required for world-class safety performance. The ZIP Process combines leadership buy-in, accountability, continuous improvement and evaluation to transform culture.



## Helping Customers Get to Zero

The ZIP Process provides a formula for continuous improvement by enabling organizations to achieve the engagement and accountability needed for safety improvements.

1. Engage Leadership
2. Assess the Culture
3. Build the Plan
4. Develop the Processes
5. Implement the Processes
6. Check the Processes





## A Forward-Focused Approach to Safety

Our facility in Athens, Georgia, developed a predictive safety model called Focus Forward that uses a scorecard to provide visibility into safety performance. Scorecards track incidents by value stream, shift, day of the week, time of day and other factors. In the event of an incident, managers may use “plays” on the back of a Focus Forward card to walk through proven courses of action and steer their teams back to safety.

# MANUFACTURING PRODUCTS RESPONSIBLY

At our facilities, we work to minimize our environmental impact by focusing on energy conservation, GHG emission reduction, water conservation and waste reduction. We have set energy-efficiency targets in our operations since 1998 and have set GHG emission-reduction targets since 2003. We currently have operational targets for an increased reliance on alternative and renewable energy and a reduction in energy intensity and GHG emissions intensity.

As a manufacturer of heavy equipment, some of Caterpillar's operations are energy-intensive. But even in our most energy-dense environments, Caterpillar employees have found ways to implement innovative energy solutions that reduce our energy costs as well as our environmental impacts.

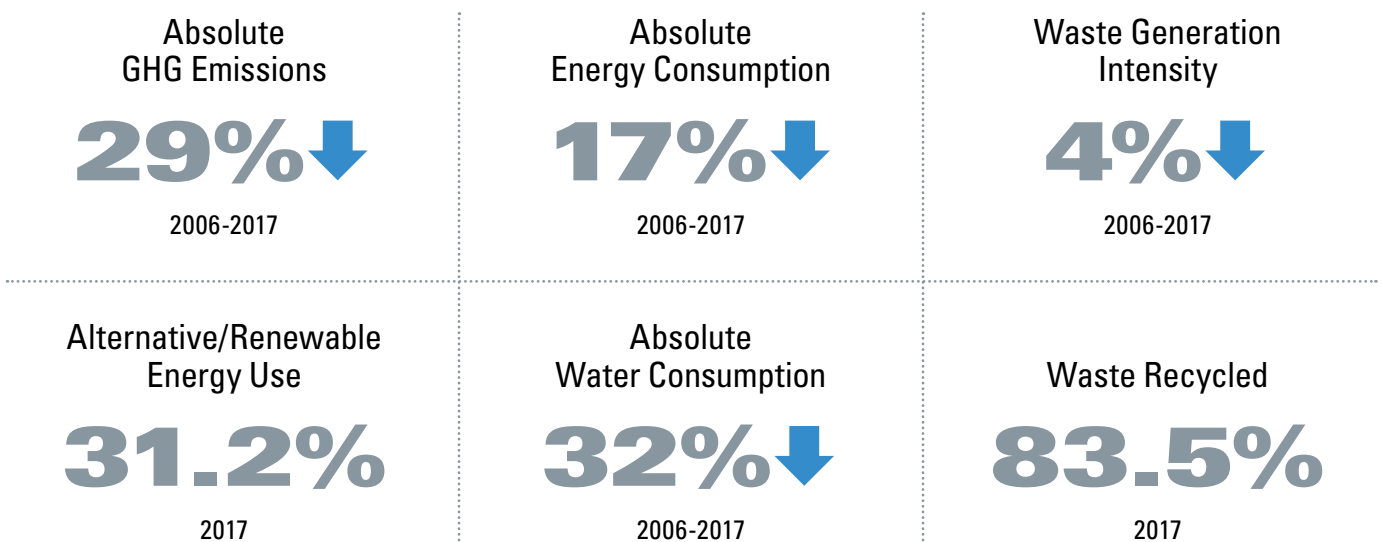
With respect to water, we recognize the far-reaching economic, social and environmental implications that water scarcity may have in the future, and have taken steps to reduce our consumption.

Finally, we are minimizing waste in our processes not only to reduce costs, but also to reduce our use of materials, energy, water and land. We ultimately aim to reduce all waste generated by our production processes.

By taking a critical look at every phase of our operations, teams have been able to uncover unexpected methods to reduce our footprint while maintaining or improving performance and customer satisfaction.

## Improving Our Manufacturing Footprint

Caterpillar continued to make progress in reducing environmental impacts from our own operations.







## Making Better Use of Process Water

Our Seguin Engine Center in Texas manufactures, tests and paints diesel engines for Caterpillar customers, a process that requires large volumes of water. A micro-filtration system allows us to reuse water, reducing wastewater from the engine testing process by 90 percent.

## Yellow Paint With Less Water

Painting processes typically require a significant amount of highly treated process water. In our Xuzhou, China, facility, we were obtaining water from the city and treating it for use in the paint line. Now, we are collecting condensate water for reuse, reducing the fresh water needed for the paint line. Implemented in November 2016, this process is saving about 40,000 gallons of water per year.

## A Space-Age Solution for Acid Etching

Our Advanced Materials Technology team borrowed a technique from the aerospace industry to perform acid etch checks without methanol, improving the safety of the process while reducing hazardous waste and hazardous air pollutants. A new facility in Cienega de Flores, Mexico, was able to replicate the technique and was designed to use this process from the start.

## Bright Ideas for Energy Savings

The Material Handling & Underground Division at our Thiruvallur, India, facility leveraged its location's average of 2,700 hours of sun per year by installing a 285 kW Cat® microgrid – helping reduce GHG emissions 32 percent in two years.

# **CULTIVATING WORK THAT MATTERS**

Our employees are the backbone of Caterpillar's success. They provide the innovative and diverse thinking we need to serve our customers. We are committed to fostering a diverse, inclusive and safe environment where all employees can not only be successful, but also are actively encouraged to share their ideas. By leveraging each individual's skills, abilities, experiences and cultural background, Caterpillar people can achieve superior business and personal results.

As a company with hundreds of global locations that serve diverse industries such as transportation, construction, oil and gas, mining, marine and forestry, we are in a unique position to offer training and development opportunities for all employees.

This includes learning both inside and outside of Caterpillar, targeted leadership development, and building functional and market capabilities. We support a continuous learning environment and recognize the importance of multi-faceted experiences through a variety of formal and informal solutions for employees to grow skills, knowledge and capabilities.

Our formal leadership development programs provide high-potential leaders an opportunity for global exposure in diverse markets and go beyond classroom learning through participation in projects that address critical business challenges. We foster informal learning for all employees through technology-enabled systems that offer ease of access and enterprise collaboration.

## **Diversity & Inclusion Recognition**

MOGUL

**Top 100 Innovators**  
in Diversity and Inclusion  
**#34**

CAREERS & DISABLED MAGAZINE

**Top 50 Employers**  
**#2**

MINORITY ENGINEER MAGAZINE

**Top 50 Employers**  
**#37**

WOMAN ENGINEER MAGAZINE

**Top 50 Employers**  
**#38**

MILITARY FRIENDLY  
Employers  
**Silver Award**





## Empowering Women to Lead

Inclusion drives business results, and Caterpillar knows that when it focuses on having the best talent – including a more gender-balanced workforce – everyone benefits. The more diverse our global team, the better positioned we are to meet the needs of our customers. Our Women in Leadership initiative is an intentional, focused step on a continuous journey toward a globally diverse team, helping us meet our aspirational goals of 29 percent female employees and 25 percent female leaders by 2022.



# SHARING GENEROUSLY AROUND THE WORLD

Our success contributes to the social stability of regions around the world in many ways. Caterpillar’s products help build infrastructure for transportation, energy, telecommunications, waste and water. Our company and employees focus on contributing time and resources to promote the health and welfare of communities in which we work and live. We are committed to conducting our business in a manner that respects human rights individually, and employees are encouraged to actively engage in activities that contribute to the betterment of society through volunteering time and talents or investing monetary resources in worthwhile community projects and initiatives.

Caterpillar also supports the Caterpillar Foundation, which has been dedicated to transforming lives in communities around the world since 1952. The Foundation champions programs that support education, environment and basic human needs, investing strategically to alleviate poverty and making sustainable, scalable progress possible for all. The Caterpillar Foundation is on a mission to help 50 million people rise out of poverty by 2020. We believe no one individual or organization can do this work alone – collaboration is key to creating sustainable change. Through our collaborative impact platform known as Together.Stronger.™, we work through our partners to bring together businesses, non-profits, governments and citizens to alleviate poverty for millions of people worldwide.

## How We Make a Difference – The Caterpillar Foundation

### INVESTMENTS

#### 2017 Community Investments

**\$33M**

2017 Caterpillar Foundation  
Community Investments

**\$6M**

Caterpillar Foundation  
Matching Gifts Program<sup>1</sup>

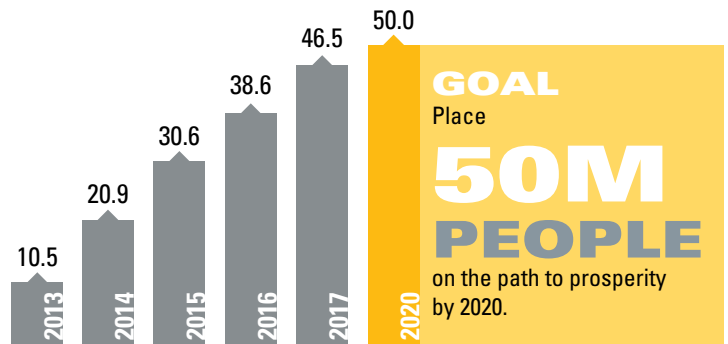
**\$11.4M**

2017 United Way  
Total Donations<sup>2</sup>

### PEOPLE IMPACTED

#### Direct (Cumulative)

Number of people in millions



**46.5M**  
**PEOPLE**

The Caterpillar Foundation impacts people through our non-profit partners’ work on the ground to directly address the root causes of poverty. Since 2013, we have helped put more than 46.5 million people on the path to prosperity.





## Cat<sup>®</sup> Dealers Offer Helping Hands for Hurricane Relief

The 2017 hurricane season, as well as historic flooding in Peru, Sierra Leone and Bangladesh, and the earthquake in Mexico City, caused devastating and costly damage. As affected areas began the recovery process, Caterpillar and Cat<sup>®</sup> dealers were there each step of the way with equipment, hands-on support and donations that helped those affected get back on track. Teams across continents helped meet emergency customer requests, provided rental machines and worked with local authorities to offer relief. In addition, the Caterpillar Foundation donated \$300,000 to the American Red Cross for immediate relief efforts after Hurricane Harvey.

# GOALS & PROGRESS<sup>3</sup>

Caterpillar has set aspirational, long-term goals for its operations and product stewardship. We believe these standards affirm our determination to lead our industry to a more sustainable future.

We focus on efficiency improvements, and these efforts contributed to year-over-year performance gains in most areas in 2017. Improved sales and revenue, in addition to efficiency gains made in the last several years, are reflected in the improved performance toward our 2020 intensity targets.

## 2020 Operational Goals

### SAFETY GOAL

Reduce our recordable workplace injury rate to 0.6 and lost-time injury case rate to 0.15 by 2020.

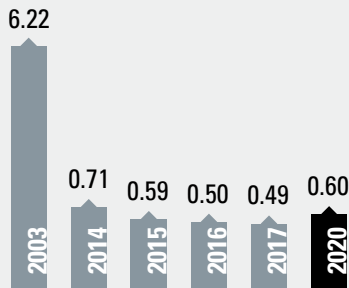
**Zero**  
2017 FATALITIES

#### Recordable Injury Frequency (RIF)<sup>4</sup>

Recordable injuries per 200,000 hours worked

**92%**

We have improved our Recordable Injury Frequency rate by 92 percent from our 2003 base year.

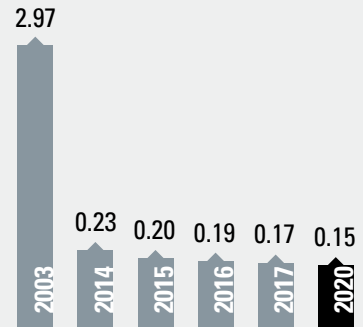


#### Lost-Time Case Frequency Rate (LTCFR)<sup>4</sup>

Work-related injuries resulting in lost time per 200,000 hours worked

**94%**

We have improved our Lost-Time Case Frequency Rate by 94 percent from our 2003 base year.



### ENERGY GOAL<sup>5</sup>

Reduce energy intensity by 50 percent from 2006 to 2020.

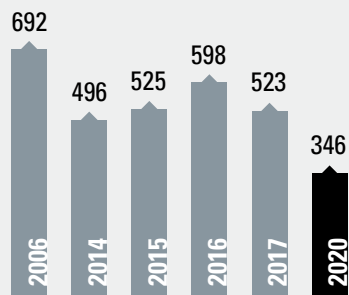
**17%** ABSOLUTE ENERGY REDUCTION 2006-2017

#### Energy Intensity

Absolute gigajoules energy use/million dollars of revenue

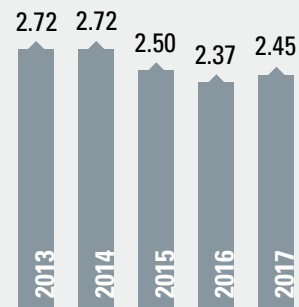
**24%**

Operational energy intensity decreased 24 percent from 2006 to 2017.



#### Total Electricity Consumption

Sum of purchased and self-generated electricity in million MWh





## ALTERNATIVE/RENEWABLE ENERGY GOAL

Use alternative/renewable sources to meet 20 percent of our energy needs by 2020.

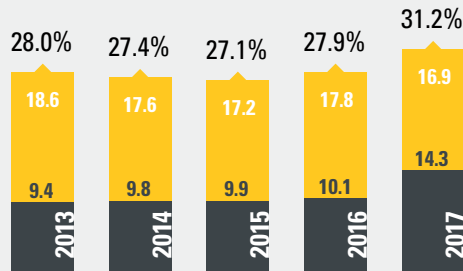
### Alternative/Renewable Energy<sup>6,7,8</sup>

Sum of alternative and renewable electrical energy use/total electrical use x 100

● Alternative ● Renewable

**31.2%**

In 2017, 31.2 percent of our electrical energy was from renewable or alternative sources.



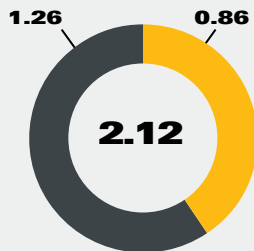
## GHG EMISSIONS GOAL

Reduce greenhouse gas emissions intensity by 50 percent from 2006 to 2020.

### 2017 Total Absolute GHG Emissions<sup>9</sup>

Million metric tons

- 0.86 million metric tons – Scope 1 (direct emissions)
- 1.26 million metric tons – Scope 2 market-based (indirect emissions from purchased electricity, heat or steam)



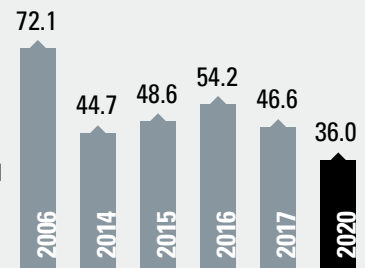
1.29 million metric tons – Scope 2 location-based<sup>10</sup>

### GHG Emissions Intensity<sup>9</sup>

Absolute metric tons of CO<sub>2</sub>e/million dollars of revenue

**35%**

GHG emissions intensity decreased 35 percent from 2006 to 2017. In addition, our absolute GHG emissions decreased by 29 percent from 2006 to 2017.

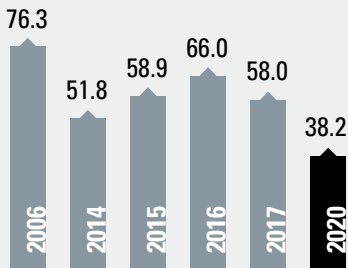


## WATER GOAL

Reduce water consumption intensity by 50 percent from 2006 to 2020.

### Water Consumption Intensity<sup>5,11</sup>

Absolute thousand gallons of water/million dollars of revenue

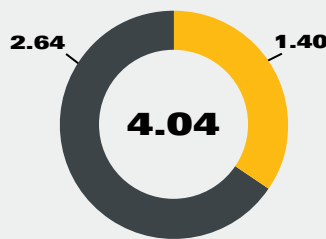


**24%**

Through 2017, we have reduced our water consumption intensity at our facilities by a total of 24 percent from 2006. In addition, our absolute water consumption decreased by 32 percent from 2006 to 2017.

### 2017 Total Absolute Water Consumption

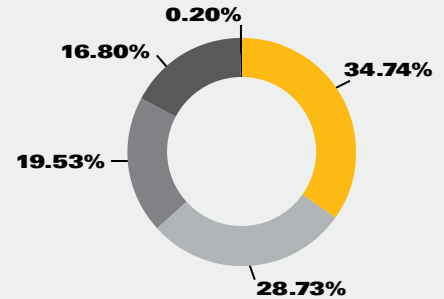
Billion gallons



- 1.40 billion gallons – non-contact cooling water
- 2.64 billion gallons – enterprise water consumption excluding non-contact cooling water

### 2017 Water Sources

Percent



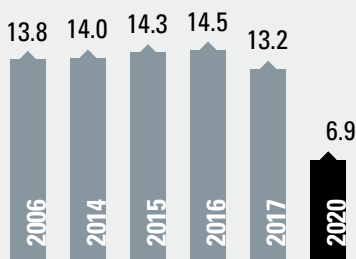
- Non-contact cooling water
- Municipal water
- Groundwater
- Surface water
- Other water

## BY-PRODUCT MATERIALS GOAL

Reduce by-product materials intensity by 50 percent from 2006 to 2020.

### By-Product Materials Intensity

Absolute metric tons of by-product materials/million dollars of revenue

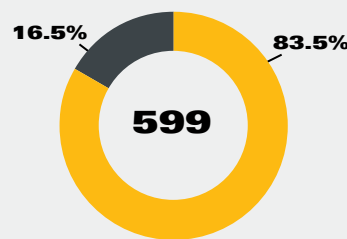


**4%**

Our by-product materials intensity decreased 4 percent from 2006 to 2017, and decreased 9 percent from the previous year. Our generation of total absolute by-product materials increased 4.4 percent from 2006 to 2017. Streamlining of production capacity has negatively impacted waste generation.

### 2017 By-Product Materials

Thousand metric tons



- Recycled
- Disposed (sent to landfill or incinerated)

## SUSTAINABLE CONSTRUCTION GOAL

Design all new facility construction to meet Leadership in Energy and Environmental Design (LEED) or comparable green building criteria.

Facilities designed to the LEED criteria are more energy- and resource-efficient than traditional construction. LEED facilities are also designed to create a healthier indoor environment for employees.

In 2017, the following Caterpillar facilities received certification in accordance with the U.S. Green Building Council's LEED BD+C (Building Design and Construction) certification process or comparable criteria:

LEED Gold: Monterrey, Mexico  
 Certifiable: Gauteng, South Africa

**100%**

Facilities that completed construction in 2017 met LEED or comparable green building criteria.



# 2020 Product Stewardship Goals

## SAFETY GOAL

Provide leadership in the safety of people in, on and around our products.

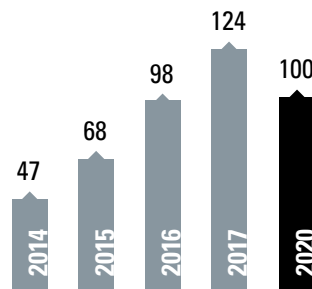


## SYSTEMS OPTIMIZATION GOAL

Increase managed fleet hours by 100 percent from 2013 to 2020.

### Fleet Hours

Percent increase from 2013

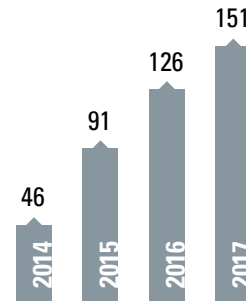


**124%** ↑

Increase in fleet hours managed by Job Site Solutions (2013 to 2017)

### Service Agreements

Percent increase from 2013



**151%** ↑

Increase in number of machines covered by service agreements with Job Site Solutions (2013 to 2017)

## REMAN & REBUILD GOAL

Increase remanufactured and rebuild business sales by 20 percent from 2013 to 2020.

**14%** ↑

### Rebuild

Percent Business Sales Growth Since 2013

**2%** ↑

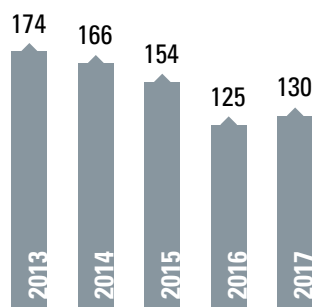
### Reman

Percent Business Sales Growth Since 2013

### Reman End-of-Life

#### "Take-Back" by Weight<sup>12</sup>

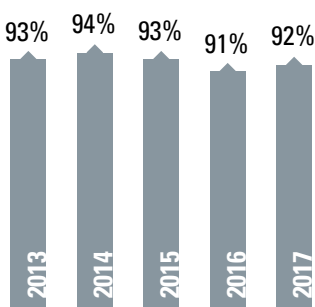
Millions of pounds of end-of-life material received



### Reman End-of-Life

#### "Take-Back" Percent<sup>12</sup>

Actual end-of-life returns/eligible returns x 100



## PRODUCT, SERVICES & SOLUTIONS GOAL

Leverage technology and innovation to improve sustainability of our products, services and solutions for our customers.

**21%**

2017 reported sales and revenues derived from products, services and solutions that demonstrate an improved sustainability benefit over existing offerings.<sup>13</sup>

## Endnotes

- 1 This represents employee and retiree donations made in the calendar year 2016, and the Caterpillar Foundation's match made in the calendar year 2017.
- 2 This includes employee and retiree contributions, and the Foundation match, for campaigns in the United States, Mexico and Panama.
- 3 Information regarding reporting boundaries and data assurance are provided [here](#).
- 4 Caterpillar provides guidance that actual hours worked be used wherever possible. Where necessary, Management and Salaried employee hours should be estimated as 9 hours per day (may use another value with appropriate documentation). In some cases, vacation hours have not been subtracted from Management and Salaried employee estimates of hours worked.
- 5 Data prior to 2017 has been restated due to data updates realized from improved accuracy.
- 6 Total includes purchased and on-site generated alternative and renewable energy, as well as calculating the percentage of renewable energy from grid-purchased electricity using data obtained from the International Energy Agency.
- 7 Renewable Energy: Caterpillar defines renewable energy as energy resources that are naturally replenishing over a short period of time and virtually inexhaustible. Power generation examples include wind, solar, hydro, geothermal, tidal, wave, biomass and biogas from anaerobic digestion.
- 8 Alternative Energy: Caterpillar defines alternative energy as any source of usable energy that offers substantial environmental benefits compared to the conventional sources of energy that it replaces. Power generation examples include landfill gas, coal mine and abandoned mine methane, combined heat and power (cogen, trigen and quadgen), coal with carbon sequestration and localized power generation. Transportation fuel examples include pure methanol, ethanol blends of 85 percent or more with gasoline, pure natural gas, natural gas blends of 85 percent or more with diesel fuel, liquid fuels domestically produced from natural gas (compressed natural gas, liquefied natural gas and gas to liquid fuels), propane, coal-derived liquid fuels, hydrogen and electricity.
- 9 GHG emissions intensity reduction goal is based on our combined Scope 1 (direct) and Scope 2 (indirect, market-based) GHG emissions using a 2006 baseline year. Likewise, total absolute GHG emissions are a sum of Scope 1 and Scope 2 (market-based) emissions.
- 10 Location-based Scope 2 GHG emissions are provided in accordance with the GHG Protocol updated Scope 2 guidance. In 2015, the GHG Protocol provided updated Scope 2 calculation guidance. Our market-based Scope 2 emissions are calculated using the updated Scope 2 Quality Criteria. The following instruments were used in calculating our market-based Scope 2 emissions: Renewable Energy Guarantees of Origin, energy contracts, supplier specific emission rates, Caterpillar owned combined heat and power cogeneration facilities, and, for the remainder of our facilities, grid average emission factors from USEPA's eGRID and the International Energy Agency's data. For 2017 calculations, Caterpillar did not use residual mix factors.
- 11 Water consumption intensity does not include non-contact cooling water.
- 12 Data does not include Progress Rail or Solar Turbines. Product returned for remanufacture (called 'core') is not always returned within the same calendar year as sold.
- 13 This includes remanufacturing, component overhauls at Cat® dealers, power generation using alternative energy sources, customer job site optimization and innovative new products. The components are evaluated each year to adjust for acquisitions, divestitures, offerings that become standard and improvements to data accuracy.

## Legal Statements

Certain statements in this 2017 Sustainability Report relate to future events and expectations and are forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. Words such as "believe," "estimate," "will be," "will," "would," "expect," "anticipate," "plan," "project," "intend," "could," "should" or other similar words or expressions often identify forward-looking statements. All statements other than statements of historical fact are forward-looking statements, including, without limitation, statements regarding our outlook, projections, forecasts or trend descriptions. These statements do not guarantee future performance and speak only as of the date they are made, and we do not undertake to update our forward-looking statements.

Caterpillar's actual results may differ materially from those described or implied in our forward-looking statements based on a number of factors, including, but not limited to: (i) global and regional economic conditions and economic conditions in the industries we serve; (ii) commodity price changes, material price increases, fluctuations in demand for our products or significant shortages of material; (iii) government monetary or fiscal policies; (iv) political and economic risks, commercial instability and events beyond our control in the countries in which we operate; (v) our ability to develop, produce and market quality products that meet our customers' needs; (vi) the impact of the highly competitive environment in which we operate on our sales and pricing; (vii) information technology security threats and computer crime; (viii) additional restructuring costs or a failure to realize anticipated savings or benefits from past or future cost reduction actions; (ix) failure to realize all of the anticipated benefits from initiatives to increase our productivity, efficiency and cash flow and to reduce costs; (x) inventory management decisions and sourcing practices of our dealers and our OEM customers; (xi) a failure to realize, or a delay in realizing, all of the anticipated benefits of our acquisitions, joint ventures or divestitures; (xii) union disputes or other employee relations issues; (xiii) adverse effects of unexpected events including natural disasters; (xiv) disruptions or volatility in global financial markets limiting our sources of liquidity or the liquidity of our customers, dealers and suppliers; (xv) failure to maintain our credit ratings and potential resulting increases to our cost of borrowing and adverse effects on our cost of funds, liquidity, competitive position and access to capital markets; (xvi) our Financial Products segment's risks associated with the financial services industry; (xvii) changes in interest rates or market liquidity conditions; (xviii) an increase in delinquencies, repossessions or net losses of Cat Financial's customers; (xix) currency fluctuations; (xx) our or Cat Financial's compliance with financial and other restrictive covenants in debt agreements; (xxi) increased pension plan funding obligations; (xxii) alleged or actual violations of trade or anti-corruption laws and regulations; (xxiii) international trade policies and their impact on demand for our products and our competitive position; (xxiv) additional tax expense or exposure; (xxv) significant legal proceedings, claims, lawsuits or government investigations; (xxvi) new regulations or changes in financial services regulations; (xxvii) compliance with environmental laws and regulations; and (xxviii) other factors described in more detail in Caterpillar's Forms 10-Q, 10-K and other filings with the Securities and Exchange Commission.





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## LEARN MORE.

More information about Caterpillar's 2017 sustainability initiatives, including stories of progress in our focus areas and a Global Reporting Initiative (GRI) content index, can be found at [reports.caterpillar.com/sr/](https://reports.caterpillar.com/sr/).





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