



Sustainability Information 2018

Dear Reader,

Even with a 171-year history, we at Siemens keep asking ourselves: What kind of company do we want to be? What is it that drives our 379,000 employees to give their best every day? The answers to these questions lie in our purpose. We defined that purpose as our aspiration to provide innovations that improve quality of life and create value for people all over the world. We make real what matters. And every Siemens business will serve this purpose, for all our stakeholders – for investors, employees, customers, partners, and societies alike.

We put this purpose at the center of our Vision 2020+ company concept. It builds upon our Vision 2020 strategy program, which we started in 2014. With Vision 2020+, we're enforcing our commitment to sustainable practices. To measure the value we create for society, Siemens uses the United Nations' Agenda 2030 and its 17 **Sustainable Development Goals** (SDGs) as a guideline. The SDGs provide a comprehensive definition of sustainability, ranging from good health and well-being, affordable and clean energy and climate action to quality education, peace, justice and strong institutions.

Siemens can positively impact practically all of these, directly or indirectly, by defining what kind of business we want to conduct and how we conduct it. We have therefore developed the Business to Society approach to measure the value we create for societies. First, we identify issues that are relevant for the countries and communities in which we are active. Then, we assess the impact we're making as we strive to address these issues – through our portfolio as well as through our local operations and our corporate citizenship activities.

For example, this fiscal year, we completed the world's largest power plant project in **Egypt**. It will provide clean electricity to 40 million people. By using our efficient H-class gas turbine technology, the country will save more than \$1 billion annually on fuel costs through better fuel utilization. In the North Sea, we installed our HVDC converter station **BorWin3**. It will go into operation in 2019 and will provide more than 1 million German households with clean electricity from wind energy.

With **buildings** representing 40 percent of primary energy use globally, energy-efficiency measures enable a significant contribution to decarbonization. At Melbourne Museum, for example, our efficiency improvements have already helped reduce greenhouse gas emissions by 35 percent and bring electricity costs down by 32 percent. The investments within our Energy Performance Contracting agreement will be paid back over seven years through the energy savings achieved.

Decarbonization is a major lever in fighting climate change. The technologies in our **environmental portfolio** are a major element of our global decarbonization efforts. In fiscal 2018, the technologies in our environmental portfolio enabled customers all over the world to reduce their CO₂ emissions by 609 million metric tons, which translates to roughly 75% of the annual emissions of Germany.

But we are not only helping our customers achieve energy efficiency and reduce carbon emissions. We have also set an ambitious target for ourselves: We aim to become **carbon neutral** by 2030, as the first global industrial company to have set this goal. And we are firmly on track to achieve this target. Since fiscal 2014, we've managed to cut our CO₂ emissions by approximately 33 percent – from 2.2 million tons to 1.5 million tons in fiscal 2018. In Germany, 80% of the electricity consumption of our sites is already covered by renewables. Our total investment in these measures, which will total about €100 million by 2020, will pay off in the long run. We expect to achieve accumulated annual savings of €20 million by that date.

We're also making a difference for society in the way we conduct business. We firmly believe that developing local jobs and skills is a value in itself. Training is one of the pillars of our company's future. That's why we invest more than €500 million annually in **training and education** for our employees. We continually adapt our training courses to meet new requirements to make sure our employees are as fit as possible for the future. Today, digital skills such as data analytics, software development, and data security are part of all our curricula. And with approximately 11,000 young women and men worldwide currently enrolled in training or "two-track programs" at Siemens, which combine theory and practice, we are one of the world's largest private training companies.

But we're not just empowering our employees for future tasks. As of today, we have granted **software licenses** for our leading Product Lifecycle Management (PLM) software to more than 3,000 educational institutions in over 70 countries, allowing more than 1 million students and researchers to gain the skills and experience they need in the digital age.

We are also actively shaping our reputation as a thought leader. For example, in 2018, we launched the **"Charter of Trust"** in cooperation with the Munich Security Conference. So far, 16 global players have signed the Charter, which has three objectives: to protect data of individuals and companies, to prevent damage to people, companies and infrastructures, and to build confidence in digital technologies. Businesses and countries that want to play leading roles in the global digital markets have to jointly engage in cybersecurity to sustain the trust of societies, customers, and business partners. In 2017, 8.4 billion connected devices were in use – 31 percent more than in 2016. This number is projected to reach 20.4 billion by 2020. Modern regulations, protected environments, and clear standards for cybersecurity are essential prerequisites for people to place their trust in our digitalized world.

In one area, there'll be no compromises or changes – the area of **integrity and compliance**. Only clean business is Siemens business. Clarity and integrity: These are the responsibilities of each and every one of us. They're what we stand for as a company. Our integrity will never be negotiable. Compliance with the law will always be the foundation of all our businesses. This also applies to the integrity of our accounting processes and related functions.

Beyond the boundaries of our company, we are committed to **Collective Action**, an alliance to fight corruption collectively and promote fair competition. In its mid-term review in the summer of 2017, the Canadian Universalia Management Group acknowledged how the Siemens Integrity Initiative has positively promoted collective action agendas against corruption and fraud around the world by creating organizational capacities, enabling knowledge exchange, expanding alliances, strengthening the rule of law, and ultimately demonstrating the business case for Collective Action. During the German presidency of the G20 in 2017, our Chief Compliance Officer was appointed chairperson of the B20 Working Group on Responsible Business Conduct and Anti-Corruption, and was furthermore asked to continue as Co-Chair of the B20 Cross-Thematic Group Compliance and Integrity during the Argentinian G20 presidency in 2018. We will continue to support the Siemens Integrity Initiative by executing the third funding round in the spring of 2019.

Our commitment to sustainability has been well-received all over the world. In 2018, Siemens was rated the most sustainable company in its industry by RobecoSam/Dow Jones and was listed in the **DJSI World Index** for the 19th consecutive time. This recognition also inspires us to keep up our good work. However, we know that the UN SDGs can only be met if many stakeholders cooperate and contribute. Therefore, together with other companies, we also participate in the World Economic Forum's Systems Initiative, striving for the highest standards of governance. Within this initiative, we support the WEF's Alliance of CEO Climate Leaders among other efforts. We are committed to the We Mean Business coalition to accelerate the transition to a low-carbon economy. Additionally, our commitment to the 10 principles of the United Nations Global Compact for corporate sustainability is as firm as ever.

Sustainability, in all its dimensions – environment, society, and responsible business practices – will remain at the core of all our deliberations and activities. Together, we will make a real difference in the world by serving society and creating value for our stakeholders. This is, and will remain, our company's purpose.

Sincerely yours,



Joe Kaeser

Dr. Roland Busch

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Sustainability at Siemens

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1 – Sustainable Development of Societies

Megatrends like climate change, urbanization, demographic change, globalization and digitalization are stimulating change in our world, all of which needs to be driven toward a more sustainable future. The aim is to improve the prosperity and quality of life of all people, while keeping within the limits of the planet. To globally strive toward sustainable development, 193 UN member states adopted the Agenda 2030 and its 17 Sustainable Development Goals (SDGs), which came into effect in January 2016. The SDGs and their related targets address the most important economic, social, environmental and governance-related challenges of our times and stimulate transformational change. This requires governments, businesses, cities and civil societies to contribute their fair share. As a global industrial conglomerate with businesses along the energy value chain and in the healthcare sector, Siemens is in a unique position to touch on substantial business opportunities from several trillion euros worth of investment per annum needed to drive the UN Agenda 2030 toward the SDGs and related targets. We are having an impact on most of the SDGs in four important ways:

- through our products and solutions,
- by responsibly operating our business,
- through our expertise and thought leadership, and
- through our Corporate Citizenship activities and community engagement.

Nevertheless, the impact we have on the SDGs varies significantly. Therefore, we have clustered them into three categories: high, medium and low impact. For the most part, SDGs we consider ourselves to have a high impact on are strongly correlated to our products and solutions, often in combination with our thought leadership initiatives in collaboration with partners around the world.

Medium-impact SDGs are mainly goals related to responsible business practices, including the area of human rights, as well as compliance and supply chain management. Still others are impacted by our Corporate Citizenship and community engagement activities. SDGs on which we have a low impact are touched selectively by some parts of our business or indirectly via our customer industries. However, they may be rated differently according to specific business or country.

These are the SDGs rated high and medium impact by Siemens from a global perspective:

1 High Impact



Goal 3 – Ensure healthy lives and promote well-being for all, at every age

We impact SDG 3 through our business portfolio, be it by Siemens Healthineers or via the production technology we provide to pharmaceutical companies. In addition to the impact of our portfolio, we also care about the health and safety of our employees and contractors, and we participate in health-related community engagement activities, such as cancer awareness campaigns and mobile clinics.



Goal 7 – Ensure access to affordable, reliable, sustainable, and modern energy for all

We impact SDG 7, with our business portfolio being one of the largest providers of technologies along the energy value chain. With our technologies, we support customers from various industries to provide reliable, affordable and low-carbon energy and to permanently improve energy efficiency with a positive business case. In addition, we also strive for energy efficiency internally, especially via our CO₂-neutral program.



Goal 9 – Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation

We impact SDG 9 as a technological company and innovation leader in electrification, automation and digitalization. Siemens supports sustainable industrialization, helping our business partners via engineering, domain and digital know-how across the entire value chain, from design to production, from operations to maintenance. A large portion of our customers and suppliers are small and medium-sized enterprises (SMEs). We believe in international partnerships as key to innovations that make real what matters.



Goal 11 – Make cities and human settlements inclusive, safe, resilient, and sustainable

Siemens is a trusted partner to city authorities, offering solutions across many infrastructure domains to make cities more efficient, sustainable and resilient: for example, by means of intelligent transportation solutions, efficient and safe buildings, and smart cities initiatives leveraging the power of digitalization.



Goal 13 – Take urgent action to combat climate change and its impacts

Siemens is the first global industrial player that set itself the target of becoming CO₂-neutral in all of its operations by 2030. The company is thus underlining the need for businesses to lead by example and contribute to decarbonizing the economy in this century – as set out in the historic Paris Agreement. With our technologies, we help customers across various industries permanently improve energy efficiency and reduce CO₂ emissions with a positive business case.

2 Medium Impact



Goal 4 – Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all

Siemens believes that lifelong learning is key to securing employability for our own employees and beyond. We impact SDG 4 by providing access to education in multiple ways, including learning and education opportunities for all employees as well as vocational education and training (VET), delivered in partnership with schools and colleges. In addition, training of customers and suppliers is high on our agenda. We also aim to inspire young people to pursue careers in Science, Technology, Engineering and Mathematics (STEM) via numerous corporate citizenship engagements around the world.



Goal 5 – Achieve gender equality and empower all women and girls

Our main impact on SDG 5 is through the way we manage our own workforce. We believe that driving diversity creates a win-win for society and Siemens because diversity strengthens our innovative capacity, unleashes the potential of our employees and thereby directly contributes to business success. We also drive change in senior management, where there is significant potential for improvement, by recruiting more women into top positions, network activities, training and mentoring.



Goal 8 – Promote sustained, inclusive and sustainable economic growth, full and productive employment, and decent work for all

Siemens directly impacts SDG 8 through its global operations that contribute to GDP development in many countries, through our commitment to providing decent jobs and enabling employment, and by driving the decoupling of economic growth from energy usage as a thought leader.



Goal 12 – Ensure sustainable consumption and production patterns

Siemens is committed to responsibly using resources and acknowledges the opportunities of the Circular Economy as highly beneficial for business, environment and society. While having established global strategic initiatives for the design phase and the end of life phase of our products and operations, Siemens businesses use disruptive technologies and innovative business models to take part in the circular advantage. Our sustainability initiatives are an essential aspect of successfully implementing our company concept Vision 2020+, which builds upon our strategy program Vision 2020. Our understanding of sustainability is fully based on our company values – responsible, excellent and innovative.



Goal 16 – Promote peaceful and inclusive societies for sustainable development, provide access to justice for all, and build effective, accountable, and inclusive institutions at all levels

We contribute to SDG 16 by anchoring integrity and compliance in our entire company and by driving the Siemens Integrity Initiatives with external stakeholders. By these means and through our activities with other actors, we support fair competition and secure the long-term success of our company. Siemens is committed to propagating the requirements of the UN Global Compact, the Human Rights Declaration and all other relevant regulations into our supply chain and through our collaborations with external organizations and institutions.



Goal 17 – Strengthen the means of implementation and revitalize the Global Partnership for Sustainable Development

As a truly global company and advocate of free trade, we believe partnerships are key to sustainable development as they are to our company success. In addition, we recognize the importance of digitalization, financing and public-private partnerships for sustainable development, and in all of these areas, we are partnering with international organizations, business organizations, think tanks, non-governmental organizations (NGOs) and academia, including the UN Global Compact, World Economic Forum (WEF), EY, Transparency International and various universities.

We believe that companies need to evaluate their impact on sustainable development from various perspectives. That's why we have developed our Siemens – Business to Society (B2S) approach, which allows us to objectively measure the impacts of our projects, sites, and businesses – even activities in entire countries and their societies. Launched as a pilot project in fiscal 2015 and in the process of being rolled out globally since, the B2S approach consists of four steps:

- 1 Adopting an "outside-in" perspective on the most relevant development priorities in a given context (e.g., global, national, project);
- 2 Identifying and measuring our contribution in the priority areas;
- 3 Defining strategic actions to enhance our contributions and help shape further development;
- 4 Being transparent about our contributions by keeping external and internal stakeholders informed.

By the end of fiscal 2018, 31 countries had finished their analysis. In addition, we finished our global analysis resulting in the Siemens – Business to Society Global Value Map. We are being recognized globally as a thought leader with this approach. Customers and governments appreciate the information it provides for example, in the course of large infrastructure projects. Employee feedback on social media posts indicates that our contribution to societies makes our employees proud to work for Siemens. Hence, transparently contributing to society provides tangible business value to Siemens. In fiscal 2019, we will continuously apply the B2S methodology within customer projects and tenders while improving our impact measurement methodology. We drive the communication of our impact on sustainable development internally and externally. Further information on Business to Society is available at: www.siemens.com/b2s

2 – Sustainability Management

To us, being a sustainable business means ensuring profitable and long-term growth while balancing profit, people and planet. We believe that the SDGs are a responsibility, but that they also offer new business opportunities to Siemens, notably by opening doors for us to work with national and local governments that want to reshape their own development agenda. We hope to continue our collaboration with them in such areas as energy and decarbonization, transportation, infrastructure, industrial development, urban development, healthcare, innovation, job creation, education and the fight against corruption. Integrating the perspective of Siemens' contribution to the SDGs enriched the assessment of the most important issues and facilitated a well-informed materiality process.

2.1 Materiality Assessment

Analyzing our impact on the SDGs added a new perspective on our assessment of the most important issues for Siemens and confirmed our findings from the previous materiality assessments. In the course of this assessment process, 12 principles emerged from regular dialogues with external and internal stakeholders as they set priorities based on their importance for Siemens and its stakeholders. These principles are clustered under the three headings – profit, people and planet – and reflect our ambition to contribute to societies as well as develop new business opportunities together with our customers:

Profit

- We contribute to the competitiveness of our customers with our products, solutions, and services.
- We partner with our customers to identify and develop sustainability-related business opportunities.
- We operate an efficient and resilient supply chain by using a supplier code of conduct, risk management, and capacity building.
- We take the initiative to work with our stakeholders to manage project and reputational risks and identify relevant business trends.
- We adhere to the highest compliance and anti-corruption standards and promote integrity via the Siemens Integrity Initiative, which fights corruption and fraud through collective action, education and training.

Planet

- We help our customers increase energy efficiency, save resources and reduce carbon emissions.
- We develop our products, solutions and services using a life-cycle perspective and sound eco-design standards.
- We minimize the environmental impact of our operations through environmental management programs, and we aim to become carbon neutral by 2030.

People

- We contribute to the sustainable development of societies with our portfolio, local operations, and thought leadership.
- We foster long-term relationships with local societies through Corporate Citizenship projects with partners.
- We live a zero-harm culture and promote the health of our employees.
- We live a culture of leadership based on common values, an innovation mindset, people orientation and diversity.

These 12 principles are the key statements that describe how we implement sustainability at Siemens at the corporate level, in our businesses and at the regional level. The principles were discussed with our Sustainability Board and approved by our Managing Board and Supervisory Board.

In addition to our global materiality assessment, we select topics of particular relevance for the global Siemens organization, such as human rights or climate-related financial risks, in order to perform a more in-depth and comprehensive materiality screening throughout the fiscal year to supplement our materiality assessment with a second level of analysis. The materiality assessment for human rights, for instance, is performed on the basis of the likelihood that Siemens will become involved and the severity of impact depending on how grave and widespread the impact could be as well as how hard remediation would be.

2.2 Sustainability Governance and Organization

Sustainability management is a company-wide effort embedded in our corporate culture and linked with the new company concept Vision 2020+, which builds on our strategy program Vision 2020. All sustainability activities are led by our Chief Sustainability Officer (CSO). He also chairs the Siemens Sustainability Board (SSB), which consists of representatives of the Managing Board, Divisions, countries, and corporate functions. The SSB is the central steering committee for sustainability at Siemens. It meets quarterly to direct our sustainability activities as part of our corporate strategy and adopts appropriate measures and initiatives. The Sustainability Director directly reports to the Chief Sustainability Officer and manages the Sustainability Department, which is responsible for driving sustainability within Siemens and for coordinating the company-wide sustainability activities, programs and measures. Sustainability is further anchored throughout the organization by our global network of Sustainability Managers in our various Corporate Units, Operating and Strategic Companies and regional entities. Through this network, we coordinate the implementation of initiatives, programs and measures across the entire company.

2.3 Partnerships and Collaborations for Sustainability

As a truly global company, we enter into partnerships on various levels with a diverse set of actors. That is in line with SDG 17, which calls for a revitalized and enhanced global partnership that brings together governments, civil society, the private sector, the United Nations system, and other actors. Close collaboration with stakeholders helps us to address complex and intertwined challenges in the sustainability realm. We regularly adjust to trends and specific requirements in response to constant dialogue with key stakeholders such as investors, suppliers, employees, communities, policy-makers, media, non-governmental organizations, business organizations and academia. These engagements create value on all sides of the equation through the exchange of knowledge and information and creative partnerships. They help us improve business conditions and reduce risk externally and internally.

We are working with the Organization for Economic Co-operation and Development (OECD), the UN, the European Union, the International Chamber of Commerce (ICC), the World Economic Forum (WEF) and national and local governments. In the realm of systemic change, we engage in various initiatives with the WEF. We work closely with the United Nations Global Compact (UNGC), for example, during the UN climate conferences. We are committed to the UNGC's 10 principles and actively contribute to the CEO Water Mandate. We are committed to the UNGC Women's Empowerment Principles and signed the Diversity Charter, an initiative by the German government. We have long supported One Young World, a non-profit that champions young leaders around the globe. We are a Gold Member of the Global Reporting Initiative (GRI) and apply their Sustainability Standards in this report.

Our Chief Compliance Officer serves as chairman of the Anti-Corruption Task Force of the Business and Industry Advisory Committee of the OECD. He also served as chairman of the B20 Working Group on Responsible Business Conduct and Anti-Corruption during the 2017 German presidency of the G20. In addition, we continue our participation in the Partnering Against Corruption Initiative (PACI) of the World Economic Forum.

2.4 Sustainability Ratings

External ratings and rankings are an important tool to help us measure our sustainability performance both globally and within our industry. There are four reasons why ratings and rankings are important to us: Markets and customers increasingly require information from ratings and rankings and have started to include these assessments in our contractual stipulations. Secondly, investors increasingly develop their own ratings and rankings to

assess the sustainability performance of companies. Thirdly, we actively participate in external ratings to benchmark ourselves against peers and competitors, to derive reasonable improvement measures, and to track important trends in the sustainability field. And fourthly, strong performances in relevant and acknowledged ratings strengthen the Siemens brand and enhance employee satisfaction.

This fiscal year, with a score of 79 points, the Dow Jones Sustainability Index rated us as the most sustainable company in our industry. We were listed in the Dow Jones Sustainability World Index (DJSI World) for the 19th straight year. The Financial Times Stock Exchange (FTSE) included Siemens again in its FTSE4Good Index series for ethical investment, while the MSCI World ESG Index included Siemens for the second year in a row, too.

For EcoVadis, which provides supplier sustainability ratings for global supply chains, Siemens again received a rating of 59 points and reached the Silver recognition level. Here, too, we are among the top performers. Last but not least, with a score of 78 points, we are rated as a Leader in the Sustainalytics index, leading the industry and landing a position in the Top 3 on a global scale.

3 – Customers



Customers are our lifeblood. They are always at the center of our thinking with regard to technology, innovation and how to best consult and support them.

We provide products, solutions and services in almost every country in the world. The majority of our customers are small and medium-sized companies and organizations that are engaged at a local level. To meet their needs, we draw on a global sales force that receives orientation from our regional outposts. Our regional teams can also call upon our global network of partners, which includes consultants, distributors, integrators, engineers, procurement and construction companies, and machine builders.

With our portfolio along the energy value chain, from power generation and distribution, energy usage in buildings, industry and mobility, to products, solutions and services in the healthcare sector, we have a high and medium impact on numerous SDGs: SDG 3 – Good Health and Well-Being, SDG 7 – Affordable and Clean Energy, SDG 8 – Decent Work and Economic Growth, SDG 9 – Industry, Innovation and Infrastructure, SDG 11 – Sustainable Cities and Communities, SDG 12 – Responsible Consumption and Production, as well as SDG 13 – Climate Action.

For a select group of top customers, we have a Key Account Management system. Key Account Management enables us to provide key customers with the full spectrum of products and solutions in a coordinated way – thereby improving the ease of doing business. In addition, top managers focus on developing and maintaining long-lasting relationships. These efforts are managed through our Executive Relationship Program, which makes sure that our leading executives remain in direct contact with selected customers on a regular basis.

Our main goal is to establish ourselves as the partner of choice for our customers by fostering close and trusted partnerships. We aim to solidify long-term customer loyalty. Not only do loyal customers keep buying and even increasing their purchases, but they are also likely to recommend Siemens to peers, partners and associates.

Placing our customers at the core is a tradition and obligation within Siemens. But the way we do it must adapt to a world where change itself is accelerating. Growth markets can be volatile. Innovation and development cycles have been drastically shortened. Reduced barriers to entry are admitting nimble new competitors. Digitalization can be disruptive, but it also offers new opportunities. It has sparked wholesale operational changes – including, for example, lean management and agile software development. Data-driven business models and technology-based services are flourishing.

To meet these challenges, Siemens strives to become more flexible. We have implemented a sales excellence workstream as part of our Operating Model (OM). That helps us do several things: define a strong sales vision and key messages; use cutting-edge sales methods to streamline and optimize sales tools and processes; and increasingly focus on sales within digital-service and software-driven business models. The OM represents an important element of Vision 2020 and beyond, our strategic plan that aims to generate profitable growth through reliable customer relations and innovation in three core areas: electrification, automation, digitalization. The OM is an approach designed to make the company more adaptable and flexible, putting us in a better position to adjust to constant shifts in the business environment.

To measure customer satisfaction and, by extension, the quality of our partnerships, we use the Net Promoter Score (NPS). This systematic evaluation is based on comprehensive annual customer satisfaction surveys. The score itself is based on a single question: “How likely is it that you would recommend Siemens [Division] to a colleague or business partner?” But that is just the starting point. The survey has set in motion a holistic approach to customer relations that includes following up on implementing processes and systems designed to help foster long-term customer loyalty.¹

¹ In most cases, the survey questions will focus on Business Unit (BU) level. The overall score can be aggregated up to Division level, as well as to the level of Siemens overall.

There is follow-up, both internally and externally, regardless of the score. When a score is low and considered critical, we take immediate action to identify key issues and determine what measures need to be taken to upgrade the relationship.

As part of the survey, we receive feedback from customers about areas of possible improvement. In response, the relevant business and regional entities establish measures for improvement that are reviewed on a regular basis. By making these adjustments, we aim to improve our customer relations and make Siemens the partner of choice for all our customers.

Based on 22,022 interviews in 119 countries in 36 languages, the overall NPS score (excluding the Strategic Companies Siemens Healthineers and Siemens Gamesa Renewable Energy) fiscal 2018 was up, with good results in the majority of Divisions and headquarters and in our lead countries. The Vision 2020 target of at least a 20 percent improvement over the 2014 baseline was already achieved in 2016. Improvements are mainly based on results from the Divisions and regions, and can also be attributed to the stronger focus on maintaining even closer contact with our customers.

Our efforts don't stop there. We intensified our endeavors in the realm of customer satisfaction to take advantage of new opportunities to grow our existing business and tap into new areas. Specifically, we are transforming our current customer relationship management (CRM) strategy into one based on customer lifecycle management. This will place the customer journey, with its digital and non-digital touchpoints, at the center of our thinking and acting. (A "customer journey" is defined as the entire sum of experiences that a customer has when interacting with a company and its brand(s).)

4 – Research and Development



Our company purpose is defined as our aspiration to provide innovations that improve quality of life and create value for people all over the world, thus contributing to the Sustainable Development goals SDG 3 – Good Health and Well-Being, SDG 7 – Affordable and Clean Energy, SDG 9 – Industry, Innovation and Infrastructure, SDG 11 – Sustainable Cities and Communities, as well as SDG 13 – Climate Action. With this, we make real what matters.

Our research and development (R&D) activities are ultimately geared toward developing innovative, sustainable solutions for our customers – and Siemens businesses – and simultaneously safeguarding our competitiveness. In this work, we focus on central technology and innovations fields – **Company Core Technologies (CCT)** – that play an essential role in the success of Siemens and our customers. The joint implementation of CCT by the company's operative units and Corporate Technology ensures that research activities and business strategies are carefully coordinated, and that all units can profit both equally and quickly from technological developments. In fiscal 2018, the company focused on the following CCTs:

- **Power electronics** for inverters have always played a major role in industry. As the amount electricity produced by renewable energy sources grows, power grids will depend on advances in power electronics to facilitate stable operations.
- Large, economically sustainable **energy storage systems** are essential to the energy transition. In particular, power-to-X technologies – that is, the use of electricity to electro-chemically produce hydrogen and other chemical raw materials – will play a major role.
- **Decentralized energy systems** intelligently link local energy production with usage and intermediate storage. In doing so, they will create a path that leads to more stable and lower-priced power supplies.
- Turbo-machines, switching devices and other equipment will profit from innovative **materials** that will boost the efficiency of power generation.
- **Additive manufacturing processes** facilitate the flexible production of components that have completely new topologies and act as important innovation drivers. As a user of this technology, Siemens profits in such areas as gas turbine production. Siemens is also a leader in the development of a digital tool chain that supports the design and subsequent printing of components – flawless, single-piece parts.
- We are shaping the **future of automation**. Our goal is to reduce the resources needed for engineering, to increase flexibility – through the integration of autonomously acting production machines, for instance – and to improve our customers' productivity. **Advanced robotics** plays a key role, particularly in the area of manufacturing.
- Future **mobility systems** will increasingly be electrified and connected. We are working on the development of a national charging infrastructure and the digitally supported integration and management of multimodal transportation systems.
- The **Industrial Internet of Things (IIoT)** is being developed through the increasing connection of field devices. This work enables field devices to be equipped with additional software-based functions during ongoing operations, makes it possible for data produced by the devices to be evaluated on a local basis or in the cloud, and facilitates the development of new operational and business models in such areas as predictive remote maintenance. With MindSphere, we offer an open, cloud-based operating system for the IIoT.
- Industrial plants and infrastructures are generating a growing amount of data. With the help of **data analysis** and **artificial intelligence**, we help operators of plants increase availability, improve operational quality and minimize the stress placed on humans and the environment.
- **Digital twins** involve the modeling and simulation of systems and processes, including the development and manufacture of products. The digital twin is a key way to do such things as accelerate the commissioning of manufacturing plants, speed up the introduction of products to the market, and optimize operation of infrastructures throughout their life cycle.
- **Industrial cybersecurity** is a key technology for digitalization. The security for industrial facilities and the protection of data and intellectual property are important requirements not only for customers, but also for governments and societies. These requirements must be fulfilled.
- **Blockchain technology** enables transactions between equal partners to be documented in a forgery-proof and transparent manner. For industry, this technology also offers interesting applications that should be put to the test.

- Complex, massively distributed industrial software systems that integrate the software of various providers can be developed only by using new **methods and processes in software system development**.

In fiscal 2018, we reported research and development (R&D) expenses of €5.6 billion, compared to €5.2 billion in fiscal 2017. The resulting R&D intensity, defined as the ratio of R&D expenses to revenue, was 6.7%, thus above the R&D intensity of 6.2% in fiscal 2017. Additions to capitalized development expenses amounted to €0.3 billion in fiscal 2018, compared to €0.4 billion in fiscal 2017. As of September 30, 2018, Siemens held approximately 65,000 granted patents worldwide in its continuing operations. On average, we had 41,800 R&D employees in fiscal 2018.

We are further developing technologies through our open innovation concept. We are working closely with scholars from leading universities and research institutions, not only under bilateral research cooperation agreements, but also in publicly funded collective research projects. Our focus here is on our strategic research partners, especially the eight Centers of Knowledge Interchange we maintain at leading universities worldwide.

Siemens' global venture unit, next47, provides capital to help start-ups expand and scale. It serves as the creator of next-generation businesses for Siemens by building, buying and partnering with start-ups at any stage. next47 is focused on anticipating how technologies will impact our end markets. This fore knowledge enables Siemens and Siemens' customers to grow and thrive in the age of digitalization.

5 – People and Society



5.1 Working at Siemens

Ever since the company's foundation in 1847, Siemens has been inspired by the desire to shape the future. Our innovative employees have made us who we are today. Across the world, our people are top talents who work to foster ingenuity at Siemens, and we have our employees to thank for our continued success. At Siemens, we strive to attract the best candidates and work hard to retain our employees. Striving to be an employer of choice, we place value on creating a culture of learning, promoting diversity, and fostering equality. We want to be a family-friendly company where all employees are treated equally. We believe that everyone should be treated fairly and with respect, regardless of their ethnicity, sexual orientation, gender, age, disability status, or professional background. In terms of our family-friendly policy, we work to financially and emotionally support families.

Our world is in a state of constant flux, and this impacts our daily work. Globalization, urbanization and digitalization are all changing the way we conduct business. The transformations create both challenges and opportunities. For example, we increasingly collaborate with colleagues from across the globe, and digital solutions such as Circuit, Conceptboard, Syncplicity or EasyTimer help us to communicate. On a practical level, as a corporation, we are working to solve the challenges that these transformations pose.

We have highlighted certain UN Sustainable Development Goals as particularly relevant to Siemens Human Resources (HR). These are SDG 4 – Quality Education, SDG 5 – Gender Equality, SDG 8 – Decent Work and Economic Growth (which extends beyond mere job creation to encompass quality of work) and, SDG 10 – Reduced Inequalities.

As of September 30, 2018, we employed 379,000¹ employees worldwide, which represents an increase of approximately 2,000 compared to September 30, 2017. Of these, 61% were in Europe, C.I.S., Africa, the Middle East, 20% in the Americas, and 19% in Asia, Australia. More than 90% of our employees have a permanent contract. In Asia, Australia, about a quarter of the

contracts are temporary, while in the other regions far more than 90% of our employees are permanently employed.

Siemens employees

	September 30,	
	2018	2017
Siemens (in thousands)	379	377
Europe, C.I.S., ¹ Africa, Middle East (as a percentage of total employees)	61	61
Americas (as a percentage of total employees)	20	20
Asia, Australia (as a percentage of total employees)	19	19

¹ Commonwealth of Independent States.

The proportion of women as a percentage of the total workforce remained at 24%.

Proportion of women

	September 30,	
(as a percentage of total employees)	2018	2017
Siemens	24	24
Europe, C.I.S., ¹ Africa, Middle East	24	23
Americas	25	24
Asia, Australia	26	25

¹ Commonwealth of Independent States.

New hires were up by more than 4% compared to fiscal 2017, while exits increased by 15%. The percentage of all company dismissals – as a share of employee exits – was 20% for the year, compared with 19% in the previous year. All other variations result from changes on the basis of consolidation and other changes.

¹ All figures in this chapter represent headcounts, whereas in prior year full-time equivalents (FTEs) were reported. Fiscal 2017 figures have been adjusted accordingly.

Siemens employee hires

(in thousands)	Fiscal year	
	2018	2017
Siemens	40.8	39.1
Europe, C.I.S., ¹ Africa, Middle East	19.5	19.5
Americas	10.5	9.9
Asia, Australia	10.8	9.7

¹ Commonwealth of Independent States.

Women hired

(as a percentage of new hires)	Fiscal year	
	2018	2017
Siemens	27	26
Europe, C.I.S., ¹ Africa, Middle East	26	25
Americas	26	29
Asia, Australia	29	26

¹ Commonwealth of Independent States.

Siemens employee exits

(in thousands)	Fiscal year	
	2018	2017
Siemens	36.0	31.2

Employee turnover rate¹

(in %)	Fiscal year	
	2018	2017
Employee decision	4.5	4.0
Other reasons for exit	5.1	4.5
Total	9.6	8.5

¹ Employee turnover rate is defined as the ratio of voluntary and involuntary exits from Siemens during the fiscal year to the average number of employees.

Working hours and working arrangements

Average official weekly working hours¹

(in hours)	September 30,	
	2018	2017
Siemens	39.1	39.1
Europe, C.I.S., ² Africa, Middle East	37.8	37.7
Americas	41.2	41.1
Asia, Australia	41.4	41.4

¹ Contractually agreed upon weekly working hours at the end of the fiscal year.

² Commonwealth of Independent States.

Use of working hour programs at Siemens

(in thousands)	September 30,	
	2018	2017
Part-time	16.5	16.2
Employees on leave or absence	7.7	7.8

Changes in age structure

The distribution of employees by age group remained virtually unchanged compared to the year before. The median age in the year under review was 41.

Age structure in FY 2018

(as a percentage of total employees)	<35	35–44	45–54	>54
Siemens	30	29	25	16
Europe, C.I.S., ¹ Africa, Middle East	26	28	28	18
Americas	26	26	26	22
Asia, Australia	48	35	14	3

¹ Commonwealth of Independent States.

CHILD CARE BENEFITS

As part of our family-friendly corporate policy, Siemens AG assisted their employees in Germany with a tax-free childcare benefit for fiscal year 2017 up to €100 per child per calendar month for external care of children under school age in a pre-school or similar establishment. Additionally, Siemens AG assisted its employees in Germany who were working part-time (15-30 hrs per week) while on parental leave with a tax-free childcare benefit for the fiscal year 2018 with up to €500 per child per calendar month for external care of children in a pre-school or similar establishment, up to the age of 14 months.

DIVERSITY

Siemens is committed to fostering diversity – be it in terms of skills, ethnicity, cultural background, gender equality or sexual orientation. Diversity not only benefits individuals – encouraging open-mindedness and tolerance – it also makes us, as a company, stronger, ensuring a variety of perspectives, expertise and experience, so that we encourage innovation across all organizational levels.

Efforts to achieve diversity can contribute to the United Nations Agenda 2030 in several ways, notably by promoting equality, educational opportunities, job creation and high-quality employment. To help ensure progress in this area, a Managing Board

member is also Chief Diversity Officer as well as a member of the Siemens Sustainability Board.

Dealing with unconscious bias

The most important way to enable change toward a more inclusive and open culture within the company is to deal with the topic of unconscious bias. Understanding the possible impact of unconscious bias on the organization as a global conglomerate with diversified businesses and diverse stakeholders will be a benefit to Siemens and its customers.

A voluntary online training (for unconscious bias) was rolled out between October 2017 and February 2018, and as of July 2018, over 214,000 employees had successfully completed a 30 minute eLearning module called "Making Better People Decisions".

Over the last two years, more than 30 in-person training sessions with management participants have been organized. In addition, we have been initiating more effective measures at the level of individual decision-making. For example, we have been using the standard global tool of behavior-based interviews to reduce the potential impact of unconscious bias.

Women in the workforce

In 2018, the percentage of women in Siemens' workforce remained at 24%.

By June 30, 2017, Siemens successfully fulfilled the 10% target for the share of women in the two management levels below the Managing Board. The Supervisory Board fulfills the statutory gender quota of 30% women. Nevertheless, we aspire to bring about further improvements in gender balance. Our commitment to promoting women at all levels in the company doesn't end with complying with legal requirements. Siemens AG intends to increase the percentage of women in its top management positions.

For both of the company's top two management levels immediately below the Managing Board, the share has been set at 20%, applicable in each case until June 30, 2022. We furthermore continue to foster various initiatives, programs and measures to trigger a culture change toward gender parity, diversity and inclusion.

Employees in management positions¹

	September 30,	
	2018	2017
Siemens	31,300	35,600
Female employees in management positions (percentage of all management positions)	16.4	16.2

¹ Employees in management positions are employees with direct reports. The definition has been updated compared to the prior year and fiscal 2017 numbers have been adjusted.

A disability-friendly employer

6,500 disabled people currently work at Siemens in Germany, and the Ability@Siemens initiative is in place to foster a culture of inclusion. We continue to ensure our workplaces are accessible for people with disabilities. This is a reality in Germany, but we are eager to export Ability@Siemens globally. At Siemens, ability matters; disability should not matter. Therefore, we foster a barriers-free work environment. This can be as simple as an elevator, having subtitles underneath videos, or providing transcriptions that can be read out loud when using a computer. Siemens is committed to ensuring equal opportunities for people with disabilities, working for their inclusion in society and the workplace, and fostering their self-determined participation and respectful treatment.

Pride in diversity

Our LGBTI employees can connect across the globe thanks to Pride@Siemens, a network that allows people to ask questions about the LGBTI community – encouraging an open approach to employees who identify as lesbian, gay, bisexual, transgender or intersex.

Through our policy of inclusion, we aim to encourage and develop:

- a workplace environment that encourages high-quality performance and individual engagement as a function of diverse teams;
- a company with a richly diverse pipeline of people who are prepared to advance within the organization;
- an attractive image as a company that welcomes people who think differently.

We remain committed to fostering a culture of inclusion, and diversity remains one of our top priorities.

TRAINING AND PEOPLE DEVELOPMENT

The success of our company depends on our highly-qualified workforce: Having the right people with the right skills is essential for our continued growth.

Training and development expenditure

Over the past fiscal year, Siemens spent €280 million on employee training: an average of €744 per person.

Professional education

Through its educational institution **Siemens Professional Education (SPE)**, Siemens is one of Germany's leading providers of vocational education for secondary school graduates. 7,815 apprentices and dual students are in programs in Germany – 2,162 of these for third parties and 5,653 internally. In fall of 2018, 1,530 secondary school graduates accepted offers of apprenticeships or dual-study positions. In addition to those from Germany, more than 3,000 young people from around the world are enrolled in programs. The SPE program includes technical, IT and commercial work-based education programs.

In 2018, Siemens reserved at least 10% of trainee places for young people from disadvantaged backgrounds who had been unable to find opportunities elsewhere. SPE has also reserved slots for refugees as part of a specific integration initiative.

The **International Tech Apprenticeship@Siemens** program was launched in 2012 as the **Europeans@Siemens** program. Today, we welcome apprentices from 15 European and non-European countries. All in all, more than 100 young people from outside Germany are currently being trained at Siemens in Berlin as part of the **ITA@S** program. They are given full vocational training as electronics technicians or mechatronics engineers and take their official final exam through the Chamber of Industry and Commerce (IHK).

Siemens Global Learning Campus (SGLC) is a continuing Siemens-internal institute that offers training to employees around the globe. Its courses help people develop personal skills, support managers in team development, and assist those in charge of key operations to think strategically and change procedures and processes. The core curriculum provides the skills people need to perform their duties effectively, thereby systematically improving the quality of our workforce.

The **Siemens Core Learning Programs** form the basis for our competency-building initiatives for employees. They are geared specifically toward operations at Siemens, such as sales, project management, procurement, manufacturing and research and development. Within fiscal 2019, in total about 50 Core Learning Programs will be made available for its target groups worldwide. The acquired qualifications are internationally comparable and provide employees with career opportunities across the entire company, thus supporting and promoting systematic personnel development.

New learning techniques contribute to the company's digital transformation. All employees can access the new **Digitalization Learning World** platform, which offers digital education materials. Over 1,700 content and learning modules are currently pooled on this online platform, enabling users to easily access the large amount of available content. Users will find videos, e-learning modules, seminars, articles and tips for events. Content comes from a network of contributors within the company, making knowledge globally accessible to all employees.

Virtual learning environment: In order to facilitate collaboration and learning in a global company with employees at many different locations, we have piloted a virtual, interactive 3D environment. This virtual space creates the impression of a realistic meeting, which is achieved through the interplay of different immersive technologies. The realistic environment bridges emotional distances and makes the presence of the other person noticeable. The participants move as avatars in this common space, communicate with each other, interact with and learn from each other. Collaboration tools such as pinboards and flipcharts support this. We have successfully tested this 3D environment in a large number of events and have redesigned the first traditional face-to-face training courses for virtual use in order to make their content accessible to our employees worldwide.

Potential Development Programs: In addition to a variety of single development measures and training programs for our employees, Siemens offers about 45 Potential Development Programs (PDPs) for select groups of employees with potential. PDPs take about 1-2 years and foster the personal and professional development of the participants. Linking strategic business needs with the personal and competency development of the participants ensures maximum impact for both sides. Participants in a Siemens PDP will experience a comprehensive training and development program based on global Siemens quality standards. Benefits for participants include building up required skills, growing a professional network, and increasing visibility to management.

Global Leadership of Women@Technology & Innovation: **GLOW@TI** is an initiative to attract, develop and retain talented women with a background in technology and innovation. It empowers women to unleash their full potential and nurtures an innovation culture through strong networks across departments and organizations. **GLOW@TI** offers networking inside and outside Siemens, mentoring, coaching and leadership training. **GLOW@TI** aims to change the traditional perspective on innovation & leadership. We want to create new role models with drive and expertise, and ultimately build confidence that such changes could benefit all. We believe that having a greater diversity of talent at all levels of the company is the basis for achieving our company goals as well as attracting and retaining talent.

Siemens Social Network: Siemens connects employees around the globe through expert communities, development programs and social media groups that cover topics of shared interest. 48 % of our employees are active on our Siemens Social Network, where they can participate in over 18,000 active groups. The network fosters knowledge exchange, cross-cultural understanding and collaboration beyond national borders.

Leadership training

The **Siemens Leadership Excellence (SLE) program** is aimed at high-level managers and leading prospects for advancement. Guided programs help them learn how to identify sustainable, effective solutions. SLE also helps us establish a strong global network of managers and promote our corporate culture.

OWNERSHIP CULTURE AND EMPLOYEE ENGAGEMENT

"Always act as if it were your own company" is the motto of the Siemens Ownership Culture initiative.

Around 300,000 employees own company shares, which is approximately 80 percent of all employees. We believe that employees who hold shares in Siemens will identify more closely with the Company.

Siemens also contributes to the long-term financial stability of our employees through personal financial planning and awareness programs. Employees are an integral part of our culture, and ownership culture contributes to Siemens' continued success.

5.2 Occupational Health and Safety

Occupational health and safety management is an essential element of our sustainability principles and business practices. It is also reflected in our Business Conduct Guidelines, internal monitoring systems, risk management work and internal controls. In addition, it is covered by the international framework agreement between Siemens AG and labor organizations: the Central Works Council of Siemens AG, Germany's Industrial Union of Metalworkers (IG Metall), and IndustriALL, a global union that represents workers in the mining, energy and manufacturing sectors. Finally, we comply with all laws, regulations and procedures that govern workplace health and safety wherever we operate.

Occupational Health and Safety and the Sustainable Development Goals (SDGs)

Occupational health and safety are directly related to SDG 3 – Good Health and Well-Being as well as to SDG 8 – Decent Work and Economic Growth. Both as a company and as individual employees, we are responsible for guaranteeing a workplace

environment that is safe for everyone. Ensuring this is also vital to customers, suppliers, regulatory authorities, and other stakeholders. Working toward these goals, we are addressing occupational health and safety through effective global and local policies as well as targeted training programs to enable employees and contractors to put them into practice. Beyond these individual measures, we are working toward establishing a "safety mindset" that emerges from personal values shaping behavior in regards to health and safety. To enhance the long-term health of our employees, we are also considering the new demands of a changing work environment and operate mental health programs to preserve psychosocial well-being.

A culture of Health and Safety

At Siemens, we pride ourselves on our consistent efforts to enhance management systems and adopt good practices to ensure the best possible results over the long term. In the occupational health and safety realm, we continued our Zero Harm Culture@Siemens program. With this company-wide program, we aim to increase awareness regarding health and safety at work as well as to foster safe behavior. As it is important that safety becomes a part of every employee's mindset, the program places the creation of a lived safety culture at center stage and does not just focus on the implementation of technical safety measures. The program contains three guiding principles:

- **Zero incidents – it is achievable!** Unrealistic? No, we are convinced that it is possible. Everyone must be able to work at Siemens without suffering an incident. Everywhere. At all times. That is our goal.
- **Health and safety – no compromises!** Deadline pressure? Yes. Cost pressure? Yes. Compromising safety? Absolutely not. The health and safety of all employees is our highest priority. This value comes first. No ifs ands or buts!
- **We take care of each other!** We work with our eyes open to recognize dangerous situations and look after one another. Risky behavior is not acceptable – and we intervene when we see it. We lead by example!

To move forward with the continuous implementation of the Zero Harm Culture@Siemens program across all Divisions and levels of the company, a variety of measures have been taken: The entire Top Management continuously stresses the importance of safety, acts as a role model and holds all managers accountable to do the same. Serious work-related accidents that indicate any weakness in our supervision and control have to be reported in person to the Managing Board by the CEO of the business unit concerned, including the corrective and preventive actions taken. Through global and local campaigns, the content and principles of our safety culture are being communicated to a broad range of employees and managers, using a variety of channels and formats.

Last year, we launched a Siemens-wide campaign to reemphasize the key requirements for employees and contractors performing higher-risk work activities. For each of these higher-risk work activities (e.g. electrical safety, cranes and lifting) the Safety Essentials illustrate in an easy and applicable manner the key requirements and expected behaviors. In each country, the implementation of the global campaign was complemented by country-specific implementation and communication activities. A regular tracking, feedback and practice exchange supported the rollout to all sites.

At the Country and Division level, further tailor-made programs and initiatives have been deployed to support employees and management in addressing relevant safety concerns in their respective work environments. These activities include training as well as awareness-raising activities, such as “safety moments” and “safety walk and talks.”

Management and employees implement the Zero Harm Culture@Siemens principles and together take measures to improve safety practices in accordance with local needs and requirements. Practical examples are hands-on training centers for employees of Siemens, its contractors and other partners. To date, three different types of training centers have been created, each of which has been set up to meet specific training needs:

Since 2015, a total of around 3,800 Siemens employees, contractors and other partners have received training at the Global Skill Center for Occupational Safety in Mumbai. For large project sites like in Egypt and Malaysia, we used mobile parks for customized safety training, which, after use, can be transported to the next project site. Since the opening of the mobile parks in Egypt, more than 50,000 employees and contractors have been trained.

To meet practical training requirements at even shorter notice, we introduced the concept of “safety containers.” They comprise a variety of different training elements and can be sent from project to project using case examples to support practical learning.

In many of our operations we work with contractors. There, we are highly attentive to their safety-related capabilities in the selection process. For contractors tasked with higher-risk activities, a safety expert is mandatorily involved in the contractor evaluation. Furthermore, we have developed and piloted a “Safe Start Program” for the proper induction of all partners prior to mobilizing a project site. This program is now to be deployed to all larger and construction projects.

To underscore the importance of the Zero Harm Culture, we introduced the Zero Harm Culture@Siemens label during fiscal 2015. To earn the label, organizational units around the world must prove they have deployed the program in a comprehensive and

systematic manner and that it covers over 80% of the employees in the country. The relevant criteria include procedural, quantitative and qualitative elements. They are reviewed by a label panel and verified by an in-country assessment. Since the label was launched, 16 countries have earned this distinction.

In our Health and Safety management, we place increasing attention on psychosocial aspects. Here, as an example, in 2017 we included questions regarding health and well-being in our biennial global employee survey. The special reports generated by this survey on departmental level are a basis for managers to conduct a psychosocial risk assessment aimed at detecting and avoiding work-related stressors for employees. To minimize these stressors and increase well-being and resilience, we established numerous programs and services according to local needs and requirements.

Auditing

In fiscal 2018, we continued the work from previous years with a series of occupational safety audits of high-risk activities. In addition to the numerous internal inspections at Country and Division level as well as audits by external certifiers, the Siemens internal audit department has been conducting occupational safety audits to analyze the effectiveness of safety risk management at our manufacturing and project sites. Although many audited sites demonstrated robust and effective safety controls, others fell significantly below our expectations and revealed a need for decisive corrective action and continuous improvement. All told, 48 occupational safety audits have been performed in 12 lead countries in the following Divisions: Power and Gas, Process Industries and Drives, Digital Factory, Mobility, Building Technologies, Energy Management and Power Generation Services.

Accidents Worldwide

Since our goal is “zero harm,” we cannot be satisfied with our safety performance. We are improving, but we have not yet achieved our ambition. Our employees and those of our contractors still suffer too many incidents of harm.

LTIFR employees and contractors¹

	Fiscal year	
	2018	2017
Employees ²	0.46	0.51
Contractors ³	0.38	0.55

¹ Lost time injury frequency rate: number of lost time injuries (LTI) x 200,000/work hours performed; LTIs are accidents that result in at least one lost day of work.

² Incl. temporary workers.

³ Contractors who bill by time, especially those who work on large project sites.

Fatalities

	Fiscal year	
	2018	2017
Fatalities at Siemens (work related)	2	2
Fatalities at Siemens (commuting related)	0	2
Total fatalities at Siemens	2	4
Fatalities at Siemens Contractors (work related)	3	4
Total¹	5	8

¹ Excluding cases beyond Siemens influence, e.g. force majeure, third-party violence, or outside of Siemens, scope of responsibility.

In fiscal 2018, we had to bemoan five fatal accidents. Three of these fatal accidents involved contractors; two of them Siemens employees. One of the fatal accidents occurred with a contractor of Siemens Gamesa Renewable Energy. One case involved a Siemens employee in a road accident during business travel. Another case involved a Siemens temporary employee and a contractor who crashed performing a test flight. The investigation ruled out any technical or procedural causes. During a tower erection, a steel leg buckled due to an invisible material defect, causing the contractor worker to fall from height.

Each serious or even fatal accident causes grief for families, friends and colleagues and is a call for us as a company to be unflinching in the pursuit of our ambition.

Occupational Illness

The number of cases of occupational illness relative to the number of employees has remained at a low level for many years. The relevant indicator (occupational illness frequency rate, or OIFR, relative to 1,000,000 hours worked) during the reporting period has further decreased to 0.48, compared with 0.52 in fiscal 2017.¹

Promoting Health

Digitalization and demographic change are changing the world of work and placing new demands on companies and employees. To support the long-term health of our employees, we have set up the company-wide Healthy@Siemens program. In a digital working environment, this enables us to identify health risks at an early stage and promote health resources. In fiscal 2014, we introduced the Healthy@Siemens label as a quality hallmark for sustainable health management. To obtain the label, Siemens country organizations must meet requirements in seven categories (e.g. management commitment, culture, planning, implementation and evaluation of health activities) and undergo a comprehensive on-site inspection. To date, 35 countries have been awarded the Healthy@Siemens label.

¹ Calculated solely for Siemens in Germany, including SHS but without SGRE on the basis of cases of occupational illness recognized by the Employers' Liability Insurance Association.

5.3 Corporate Citizenship

Good corporate citizenship has been embedded in our DNA since Werner von Siemens founded the company in 1847. It is reflected in our mission to provide technologies that improve quality of life and create lasting value for society. Present around the globe, Siemens has grown deep roots wherever we operate. While never losing sight of the bottom line, the company has voluntarily extended its commitment to the betterment of humankind by making our skills and knowledge readily available.

Our corporate citizenship activities extend beyond philanthropy. We mine our core competencies to find ways to contribute. Our work ranges from disaster relief, for example – providing immediate relief support on water, and delivering sanitation, hygiene and health kits plus non-food items to the flood-affected communities in the Wayanad district in Kerala (India) – to inclusive and innovative long-term initiatives such as Curiosity in the UK.

We have three focus areas for our corporate citizenship work: *Access to Technology*, *Access to Education* and *Sustaining Communities*. They emerged from our business strategy, core competencies, global targets for the betterment of society, global megatrends (demographics, urbanization, climate change, globalization and digitalization), and stakeholder dialog. They are rooted in our Business to Society approach and our strategy program Vision 2020.

Our activities in Corporate Citizenship contribute to advances in the SDGs across the board. By providing access to education, we have a medium impact on SDG 4 – Quality Education. The importance of our focus areas “Access to Technology and Sustaining Communities” is also highlighted in SDG 9 – Industry, Innovation and Infrastructure and SDG 11 – Sustainable Cities and Communities.

Corporate Citizenship focus areas

Access to Technology – We draw on our core competencies and scientific research to help improve living conditions through access to technology. One interesting example of our work in this realm is the “School of Excellence” project that includes technical and vocational education and training in Egypt. In cooperation with the German organization Gesellschaft für Internationale Zusammenarbeit (GIZ), Siemens aims to trigger a ripple effect across the entire system, inspiring other stakeholders to follow the same steps. Siemens supported a state-owned technical school with in-kind contributions amounting to €700,000, introducing new technologies such as Digital Control, Totally Integrated Automation, Product Lifecycle Management (PLM), Virtual Welding, and 3D Printing. This School of Excellence will enable 300 students each year to access the latest technologies and be up-to-date when it comes to the future of work. The school is

becoming a role model ready for replication by other stakeholders, which will ensure a wider circle of impact and sustainable added value.

Access to Education – We work to extend educational opportunities to more people and improve research, especially in science, technology, engineering, and mathematics (known as the STEM subjects). This improves education levels, boosts interest in STEM, and indirectly helps train our future workforce. Since these efforts often involve employees as volunteers, mentors, and advisors, they also enhance employee satisfaction and retention. In the UK, for example, the Curiosity Project provides career inspiration and aspirations for young people. Launched in 2015 as an initiative to bring STEM to life for children, teachers and adults, the project also addresses the growing skills gap in the UK. In fiscal 2018, more than 640 employees volunteered at science fairs across the UK, contributing a total of more than 1,040 days. Learning materials provided in initiatives supported by the Curiosity Project inspired 1.4 million children this year to continue STEM education. In total GBP 8.3 million of gross social benefit are created through a range of practical design programs and challenges, teacher trainings and science fairs. It runs alongside the Siemens education website, which provides resources for teachers, parents and young people.¹

Sustaining Communities – Access to basic provisions is essential for sustaining communities, but at the same time, equal importance is attached to local identification on the basis of cultural patterns. So the support of cultural and social activities forms part of our raison d'être as a socially responsible company protecting values, unleashing creativity, enhancing intercultural understanding and inspiring progress. Our social and environmental commitment includes humanitarian emergency aid and financial and technical assistance in the wake of natural disasters, such as the floods in Kerala (India), where our donations along with employee contributions totaled €73,700 and reached out to 3,100 flood-affected families in the Wayanad and Assam districts. Furthermore, a good example of our diverse cultural commitments is an initiative in the context of the Salzburg Festival, where we established an opera program especially tailored to children. Every year, about 2,000 children are introduced the topic "opera" at the "Siemens Children's Festival," which celebrated its 10th anniversary in 2018.

A further subject of importance on the topic of Corporate Citizenship at Siemens is employees taking responsibility. Corporate volunteering is an efficient and personal way to provide a commitment to society. In 2016, employee volunteering was identified as a strategic priority. This combines the company's desire to contribute to communities with our employees' wish to be more

engaged. To this end, we have started to roll out a global volunteering hub and have implemented global standards. These efforts will continue in fiscal 2019. Goals include creating a more structured approach, encouraging volunteerism, raising awareness, and broadening the impact on our communities and our business.

Donations

	Fiscal year	
(in millions of €; in %)	2018	2017
Total	21.2	23.0
Share of net income	0.3	0.4

Donations by region

	Fiscal year	
(in millions of €)	2018	2017
Europe, C.I.S., ¹ Africa, Middle East	9.6	9.6
Americas	8.7	10.0
Asia, Australia	2.9	3.5
Total	21.2	23.0

¹ Commonwealth of Independent States.

¹ Calculation performed by external consultancy Simetrica applying an cost benefit analysis for fiscal 2018.



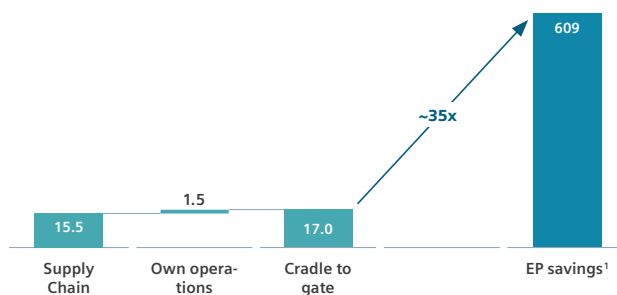
6.1 Decarbonization

Climate change is a key challenge that Siemens has been tackling for more than a decade. We are committed to making an important contribution to the decarbonization of the global economy, which according to experts must happen long before the end of the 21st century. Herewith we mainly contribute to SDG 7 – Affordable and Clean Energy, SDG 12 – Responsible Consumption and Production, as well as SDG 13 – Climate Action. There are several main ways to reach this goal, such as:

- use energy as efficiently as possible;
- increase the share of renewable energy and accelerate the switch from the remaining conventional electricity generation to low-carbon fuels;
- redesign electricity markets to ensure sufficient investment into a sustainable, secure and energy-efficient system;
- accelerate the uptake of highly flexible technologies to integrate renewable energies and ensure system stability;
- accelerate the decarbonization of other sectors with sector integration, including Power-to-X technologies.

Siemens also considers carbon pricing a must-have for effective decarbonization and believes a carbon price floor or corridor is the best way forward. Siemens is working to reduce greenhouse gas emissions along our entire value chain – in the supply chain, in our own operations, and through the goods and services we provide to our customers.

Value chain emissions and savings from Environmental Portfolio (EP) in fiscal 2018 (in Mt CO₂)



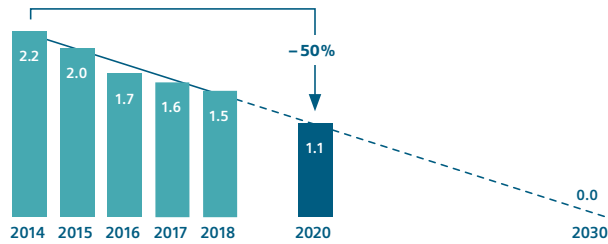
¹ Total annual savings of products installed since 2002 by our customers and still in use in fiscal 2018: 609 Mt CO₂.

Emissions in our supply chain stand at about 15.5 million metric tons of carbon dioxide equivalent (Mt CO₂). Emissions from our own operations are roughly 10% of that, at 1.5 Mt CO₂. This is because supply chain operations tend to be more energy-intensive, mainly owing to the processing of raw materials. We continue to work closely with our suppliers to help them improve energy efficiency and reduce their CO₂ footprints. Our environmental portfolio represents our biggest contribution to climate change mitigation. The Siemens Environmental Portfolio is part of Siemens' response to global challenges such as climate change, scarcity of natural resources and environmental pollution. It is therefore a key element of the sustainability focus area Decarbonization, as described in the chapter → **ENVIRONMENTAL PORTFOLIO** of this report.

CO₂-neutral Siemens

With regard to our own operations, in September 2015 Siemens launched the global CO₂-Neutral Program. On the basis of a positive business case, we planned to halve the footprint of our own operations by 2020 as compared with 2014 and become carbon neutral by 2030.

CO₂-neutral target trajectory (in Mt CO₂)¹



¹ As reported in respective fiscal year.

By fiscal 2018, we managed to reduce our CO₂ emissions by more than 700,000 metric tons versus 2014, putting us well on track to meet our 2020 interim goal. Our CO₂-Neutral Program not only enables us to protect the environment and reduce costs, but also to gain experience and strengthen our expertise in environmentally-friendly technologies that may well be useful for our suppliers and customers. The emission reductions are coming from a series of ongoing initiatives. We discuss each briefly below.

Drive Energy Efficiency Program

Between fiscal 2016 and 2020 we are investing €100 million to improve energy efficiency at our own sites. We expect this to result in approximately €20 million worth of energy cost savings per year once the program is completed. By fiscal 2018, 13 projects were completed in Europe, North America and Asia. In addition, 19 energy efficiency projects are ongoing.

In 2015, Siemens Real Estate launched a comprehensive sustainability program. Among other things, three complete building roofs were converted into a gigantic solar installation. Around 6,000 panels with a total area of 12,500 square meters have now been installed on the roofs in Kalwa in India. This solar installation has a total output of 2 MW, as much as the normal electricity consumption of 2,900 households in India. The installation in Kalwa covers approximately 13 percent of the production location's entire electricity consumption and cuts annual CO₂ emissions by 2,400 metric tons – which in turn equates to 62,000 newly planted trees. What's more, it is the world's largest Siemens project of its kind.

Leverage distributed energy systems

We are expanding our use of distributed energy systems at our own sites through combined heat and power plants, solar panels, wind turbines, small gas turbines, intelligent energy management systems, and energy storage solutions. Our long-term target is to satisfy 10% of our electricity demand through onsite power generation with a high renewable energy share. The Siemens Campus Erlangen will be one of the first showcases and will be carbon-neutral from day one. Another three projects were completed in fiscal 2018 and a further 14 are in concept development.

Reduce fleet emissions

We are working to reduce the emissions of our fleet of around 48,000 vehicles. Our goal is to reduce emissions and related fuel costs by 33% by 2025, i. e. a reduction to approximately 200,000 metric tons CO₂. In fiscal 2018, emissions stood at approximately 300,000 metric tons CO₂. On the basis of a survey of mobility requirements, e-car options are being given greater support. In some countries, individual economic behavior is coming into focus. We will continue to include CO₂ emission factors as an integral part of our local car fleet policies around the world.

Purchase "green" energy

We are increasing the share of electricity that we purchase from renewable sources such as wind farms. In fiscal 2018, a significant share of sites in Germany, the United States, the United Kingdom, Austria, Spain, the Czech Republic, the Netherlands and Denmark were already supplied with "green" electricity. The overall coverage of "green" electricity was 55% in fiscal year 2018. From this results that CO₂ emissions could be reduced by more than 500,000 metric tons through purchasing electricity from renewable sources.

6.2 Environmental Portfolio

Our environmental portfolio represents our biggest contribution to climate change mitigation. The Siemens Environmental Portfolio is part of Siemens' response to global challenges such as climate change, scarcity of natural resources and environmental pollution. The Environmental Portfolio consists of products, systems, solutions, and services (Environmental Portfolio elements) that meet one of our selection criteria, namely energy efficiency and renewable energy. While these elements reduce impact on the environment and emissions of carbon dioxide and other greenhouse gases (defined together in the following as carbon dioxide emissions) they directly influence SDG 7 – Affordable and Clean Energy, SDG 8 – Decent Work and Economic Growth, SDG 9 – Industry, Innovation and Infrastructure, SDG 11 – Sustainable Cities and Communities, SDG 12 – Responsible Consumption and Production, as well as SDG 13 – Climate Action. The reduced level of environmental impact is measured by carrying out comparisons with reference solutions (baselines). With our Environmental Portfolio we intend, among other things, to help our customers mitigate their carbon dioxide footprint, cut their energy costs and improve their profitability through an increase in their productivity. In addition to its environmental benefits, our Environmental Portfolio enables us to compete successfully in attractive markets and generate profitable growth, underlining Siemens' strategic focus on technologies for energy efficiency and climate and environmental protection. For fiscal 2018, about three-quarters of the revenue from our Environmental Portfolio was generated by products and solutions for energy efficiency.

Key results of the Environmental Portfolio

	Fiscal year	
	2018	2017
Revenue generated by the Siemens Environmental Portfolio (continuing operations, in billions of €)	38.6	38.7
Annual customer abatement of carbon dioxide emissions enabled by elements from the Siemens Environmental Portfolio newly installed in the reporting year (continuing operations, in millions of metric tons)	73	59
Accumulated annual customer reductions of carbon dioxide emissions generated by elements from the Siemens Environmental Portfolio within the reporting year (continuing operations, in millions of metric tons)	609	570

The Environmental Portfolio elements that contribute the most to the total mitigation of carbon dioxide emissions at our customers' sites are combined cycle power plants (CCPP), power plant modernization and upgrade activities, power generation from wind power, frequency converters and steam turbine driven compressor trains. Including revenue from newly developed and additionally qualified Environmental Portfolio elements, and excluding revenue from elements that no longer fulfill our qualification criteria, revenue from continuing operations relating to the Environmental Portfolio in the current year amounted to €38.6 billion. This means that in fiscal 2018 our Environmental Portfolio accounted for 46% of our revenue from continuing operations. Furthermore, with our Siemens Environmental Portfolio elements installed in fiscal 2018, we helped our customers mitigate their emissions by a further 73 million metric tons of carbon dioxide. With the total of our Siemens Environmental Portfolio elements installed at customer locations since the beginning of fiscal 2002 that remain in use today, we mitigated accumulated annual customer carbon dioxide emissions by 609 million metric tons in fiscal 2018. To learn more about the Siemens Environmental Portfolio, please visit: www.siemens.com/environmental-portfolio

6.3 Conservation of Resources

We strive to meet the needs of our customers while strengthening our position as a sustainable company, especially by improving energy and resource efficiency. We also work to meet a growing number of environmental protection requirements around the world. Our comprehensive Environmental Protection, Health Management and Safety (EHS) management system helps operating units comply with the applicable laws, regulations, and customer demands. It also helps us satisfy our corporate requirements and meet group-wide environmental targets.

All relevant production and office sites must therefore implement environmental management systems that meet the criteria of ISO 14001, the relevant standard of the International Organization for Standardization.

Siemens drives the conservation of resources with its Serve the Environment (StE) program. Within StE, objectives and activities are defined in order to reduce negative environmental impacts at all Siemens sites. Training and workshops in key markets, this year in Mexico and the Czech Republic, help boost employee engagement. And our "We say thank you" campaign honors outstanding individual contributions to environmental protection.

With these activities, we contribute to the goals of SDG 3 – Good Health and Well-Being, SDG 6 – Clean Water and Sanitation, SDG 7 – Affordable and Clean Energy, SDG 12 – Responsible Consumption and Production, as well as SDG 13 – Climate Action.

We have been able to significantly improve efficiency in primary energy by 49% and waste efficiency by 2.5% as compared to base year 2014, respectively by 12% for primary energy and 1% for waste efficiency this year. We were also able to further reduce waste to landfill by 29% compared with the base year, which underlines our "zero waste to landfill" ambitions.

Results on resource conservation through Serve the Environment

Our industrial environmental protection efforts focus on attaining optimal energy and resource efficiency at our sites. Serve the Environment (StE) and the CO₂-Neutral program complement each other and define Siemens-wide targets: StE through 2020 and CO₂-Neutral through 2030.

Other goals include improved primary energy and waste efficiency, reduced waste for disposal, and the assessment of water-related risks – with the subsequent application of adequate mitigation measures. With StE having reached half of its designed lifetime, we analyzed all sites around the world with respect to improvement potential to ensure target achievement by implementing the agreed upon local measures.

As the StE program moves forward, we are integrating energy and waste efficiency elements into our supply chain management, and assessing the total costs of ownership for energy-intensive products. Air pollution control will be considered holistically, taking into account local air conditions at our production plants and offices as well as our own volatile organic compounds (VOC) and ozone-depleting substances (ODS) emissions at most relevant sites. At sites where energy consumption is significant, we have examined the possibility of on-site generation to foster energy efficiency and provide a buffer against potential price increases. Since fiscal 2017, our water management strategy now includes

growing concerns, such as water scarcity, water pollution, climate change, and changing precipitation and flood patterns.

Environmental Management Systems

All our locations have environmental management systems in place. At least 262 are certified to ISO 14001, at least 260 of them have been audited by external auditors. The decision to pursue ISO 14001 certification is made by environmental protection executives of the business units and countries, in close consultation with environmental protection officers at group level.

The International Organization for Standardization revised its ISO 14001 standard for environmental management in 2015. In 2017, all of our locations had successfully transformed their environmental management system to the new version. This includes matrix certifications of several Divisions. A total of 65 Siemens locations have implemented energy management systems according to ISO 50001, and others are ready to follow. The above reported numbers for Environmental and Energy Management Systems do not include SGRE. However, SGRE has also implemented Environmental Management Systems (EMS), which cover 100% of relevance.

Energy consumption

In fiscal 2018, consumption of natural and liquid petroleum gases decreased by 10% due to lower heating demand. The use of other fossil fuels is minor in comparison to natural gas. Overall, primary energy consumption decreased by 11% compared with the previous year, basically due to lower heating demand and reduced activities at a test bay for turbines.

Primary energy		
	Fiscal year	
(1,000 gigajoules)	2018	2017
Natural gas/liquid petroleum gas	6,001	6,669
Fuel oil, coal, gasoline/diesel	482	639
Total	6,483	7,308

Electricity consumption remained at the same level. The share of renewable electricity amounted to 55% compared with 38% the year before. Energy consumption from district heat decreased by 8% due to reduced heating demand.

Secondary energy

	Fiscal year	
(1,000 gigajoules)	2018	2017
Electricity	8,937	8,938
District heating	1,953	2,126
Total	10,890	11,064

Energy consumed by company business vehicles is recorded centrally. Staff vehicles, service vehicles and trucks owned by Siemens are grouped together for this purpose. In fiscal 2018, the fleet consumed around 4.1 million gigajoules compared with 3.94 million gigajoules in the previous year. The increase of 4% is due to our higher mileage.

Greenhouse gas emissions

We report our greenhouse gas emissions on the basis of the Corporate Standard of the Greenhouse Gas Protocol of the World Resource Institute (WRI) and of the World Business Council for Sustainable Development (WBCSD). Direct greenhouse gas emissions (Scope 1) arise from sources in the company's ownership or under its control. Indirect greenhouse gas emissions (Scope 2) refer to the consumption of purchased electrical energy and district heating. Since fiscal 2016, we have also been reporting on upstream Scope 3 emissions from our supply chain, such as business travel (already disclosed in previous years), capital goods, fuel and energy-related activities and transportation. Scope 3 emissions from our supply chain have been calculated by means of a multiregional macroeconomic input-output model on the basis of our volume of purchased goods and services.

Greenhouse gas emissions		
	Fiscal year	
(in 1,000 metric tons of CO ₂ equivalents)	2018	2017
Scope 1	821	874
Scope 2 ¹	637	730
Sum Scope 1 and 2	1,458	1,604
Scope 3 ²		
<i>Purchases goods & services</i>	13,524	14,686
<i>Capital goods</i>	352	402
<i>Fuel and energy-related activities</i>	247	251
<i>Waste in operations</i>	39	44
<i>Transportation upstream</i>	959	782
<i>Business travel</i>	365	411
Total Scope 3	15,486	16,575

¹ We calculate our emissions resulting from electrical consumption based on the carbon emission factors of our local sites according to the market-based approach.

² Without Siemens Gamesa Renewable Energy.

For Scope 1 and 2 combined, we achieved a reduction in emissions by 147 kt CO₂e. Compared with fiscal 2017, this signifies a reduction of 9%. Direct greenhouse gas emissions (Scope 1) have been reduced by 6%. For the other Kyoto gases, including sulfur hexafluoride (SF₆), we have also seen a reduction. For SF₆ alone, we recorded emissions of 101 kt CO₂e (without Siemens Gamesa Renewable Energy), which is a reduction of close to 25%. This reduction results from an improved handling and emission control approach as well as from a reduced application at one site.

The significant reduction of Scope 2 emissions by 13% is mainly a result of our continued power purchasing policy. In fiscal 2018, we purchased green electricity from hydro and wind power mainly in Denmark, the Czech Republic, the UK, Spain and Austria, and increased the share of green electricity in the US and Germany. Compared to the average electricity mix of grids, our green electricity purchasing strategy saved 505 kt CO₂.

The reduction of Scope 3 emissions results from the fact that in fiscal 2017, the former Wind Power Division, which is now part of SGRE, was included for a period of 6 months. Furthermore, upstream transportation emissions increased due to a change in the calculation method.

Atmospheric pollutant emissions

Other industrial emissions are also relevant to environmental protection. Volatile organic compounds (VOCs) contribute to the formation of ozone close to the Earth's surface and are responsible for what is known as summer smog. We use these organic compounds as solvents in paints and adhesives, in impregnation processes, and for surface cleaning. We monitor ozone-depleting substances (ODSs) and comply with the Montreal Protocol, the international convention on the protection of the ozone layer, in addition to various national laws.

Atmospheric pollutant emissions

(in metric tons)	Fiscal year	
	2018	2017
Volatile organic compounds	865	840
Ozone-depleting substances in metric tons of R11 equivalent ¹	0.124	0.144

¹ R11 equivalent measures ozone depletion potential.

The volume of emissions of volatile organic compounds increased by 3% to 865 t. The volume of ODS emissions decreased by 0.02 t of R11 equivalents (R11 is one of the many substances that produce ODS). Overall, we are aware of the need for phase-out plans and substitution, especially for R22, the substance we use most.

In calculating nitrogen oxides, we have assumed typical combustion conditions in the relevant thermal processes, resulting in a figure of 184 metric tons for environmentally relevant locations in the year under review, without SGRE, compared with 206 metric tons the year before. The figure includes nitrogen oxides released during the incineration of fuels reported in the section on primary energy.

Waste

The environmental relevance of waste depends on the type of waste and the method used to dispose of it. Our waste performance indicator addresses both waste efficiency and absolute disposal waste reduction. Several sites, for instance Building Technologies in Zug in Switzerland, have already achieved a Zero Disposal waste status. We differentiate between hazardous, non-hazardous, and construction waste. The groups of hazardous and non-hazardous waste are each further divided into recyclable waste and waste for disposal. We report on waste from construction or demolition work separately, because this kind of waste material arises independently from production.

Waste

(in 1,000 metric tons)	Fiscal year	
	2018	2017
Non-hazardous waste	383	370
Hazardous waste	30	29
Construction waste ¹	61	171
Total	474	570

¹ Without Siemens Gamesa Renewable Energy.

Year-on-year, non-hazardous waste increased by 4%. Hazardous waste increased by 3%. Including all waste types, we decreased our waste volumes by 17% compared with fiscal 2017, since the construction waste volume have decreased markedly.

Recycling and Recovery

(in %)	Fiscal year	
	2018	2017
Share of recycling and recovery in total waste ¹	92	90

¹ Excluding construction waste.

The recycling & recovery rate increased slightly by 2 percentage points to 92%.

Water

The Siemens Water Strategy aims to reduce the local negative impact of our water use. It takes into account factors such as water stress, water pollution, and flooding. We have analyzed 305 of our environmentally relevant sites using the Global Water Tool of the World Business Council for Sustainable Development (WBCSD) business association. The results show that Siemens faces relevant risks. From the start of fiscal 2015 through end of fiscal 2018, 84% of our sites have implemented the water strategy.

Implementation of Water Strategy		
	Fiscal year	
(in %)	2018	2017
Sites with implemented water strategy	84	66

Our total water volumes have decreased significantly due to the reduction of chemically unchanged cooling water. This is the result of a site stopping the use of large quantities of lake water. Apart from this, water consumption without chemically unchanged cooling water has remained more or less stable over the last two years.

Water consumption		
	Fiscal year	
(in million cubic meters)	2018	2017
Water consumption	7.67	7.68
Ground and surface water for cooling water purposes (returned to receiving water body chemically unchanged, but warmed)	8.72	17.61
Total	16.38	25.29

Wastewater from manufacturing processes amounts to around one million cubic meters. Volume-wise, our main water use is for cooling processes; most of this water is returned to the receiving water body with the same chemical quality as when it was drawn from the environment.

Wastewater		
	Fiscal year	
(in million cubic meters)	2018	2017
Wastewater from employee facilities	4.67	4.76
Wastewater from manufacturing processes	1.06	0.86
Other (incl. losses)	1.52	1.41
Conditioned cooling water discharged as wastewater	0.38	0.47
Total waste water without chemically unchanged cooling water	7.61	7.49
Cooling water (returned to receiving water body chemically unchanged, but warmed)	8.72	17.61
Total	16.33	25.10

Environment-related incidents and penalties

In the year under review, we recorded 6 incidents excluding Siemens Gamesa Renewable Energy. Incidents are reported in the Siemens environmental reporting system. At two sites, soil contaminations were detected; one incident was due to noise pollution and one was caused by a spill of diesel. Two incidents were related to contamination of water bodies. Fines from penalties in the year under review were not reported.

Methodology, environmental reporting and collection of environmental data

In fiscal 2018, we used our environmental information system to analyze 305 reports from sites in all relevant countries where defined threshold values were exceeded for parameters such as energy use, resource consumption and emissions within environmental management. To measure and monitor our environmental impact, we use absolute values, such as energy consumption in gigajoules. We report environmental data for continuing operations. Extrapolation to 100% was applied to reflect complete consumptions in our figures. Overall, the extrapolation was significant for water (9%) and primary energy (16%). We monitor our environmental impact for all office and production sites of environmental relevance, using environmental data gathered quarterly.

We calculate environmental efficiency in industrial environmental protection on a portfolio-adjusted basis, equivalent to the adjustment used to calculate the comparable revenue change as stated in the annual report. Revenue change in this context means the change in revenue from fiscal 2017 to fiscal 2018, excluding currency translation and portfolio effects. This portfolio adjustment procedure for revenue was accordingly used for the environmental efficiency parameters of waste and energy as well as the percentage of revenue covered by life cycle assessments (LCAs) and

Environmental Product Declarations (EPDs). The approach therefore enables us to monitor and compare our environmental performance over time, regardless currency translations, acquisitions and disposals from year to year, and closely relates environmental performance to business performance.

6.4 Product Stewardship

Product stewardship means taking responsibility in order to minimize the environmental impact of a product throughout its entire life cycle. Within Siemens, our focus is set primarily on the optimal use of resources within the development and production process. This includes a smart product design, the right choice of materials and an efficient use of the deployed substances. Through internal eco-design processes and with the help of life-cycle assessments (LCAs), we take into consideration environmental aspects beyond development and manufacture that can influence all stages of our product life cycles. Besides internal assessment tools and workshops, we adopt methodologies, such as our internal environmental standard, to help us not only optimize development and manufacturing processes, but also minimize the environmental footprint throughout the use phase and into the end-of-life stage.

Circularity during the use phase and at the product's end of life has become more important as a result of increasing customer demand and stricter legal obligations. We address these priorities by establishing services for value retention of products and resources, e.g. extended life span activities, waste-to-value measurements and digital platform models. With a view to the future, we want to take further steps within the scope of the circular economy.

Our product-related environmental activities strongly reflect UN Sustainable Development Goal (SDG) 12, which aims to achieve economic growth and sustainable development by establishing sustainable consumption and production patterns.

Product Eco Excellence: 2020 Goals

The Product Eco Excellence (PrEE) program defines an integrated approach to improve the efficiency of resource use and increase transparency surrounding product-related environmental information for our stakeholders. As a result, it puts environmental awareness on a broader basis globally.

The program is not only a response to developments in various markets and the need to achieve sustainable products, but also a framework for ensuring compliance with legal and customer requirements in terms of eco-design, labeling and product environmental footprints. These efforts deliver added value to our customers and our business as well as for the environment. We strive to produce more products that are smart with less negative environmental impact. To achieve this, we adopt a sustainable

management approach over the entire product life cycle by conducting LCAs and environmental product declarations (EPDs).

The PrEE program has established several targets for fiscal year 2020. One target involves automating the collection and processing of data for declarable substances in order to increase transparency. This will help us meet future legal requirements and customer demand. To enhance best practice exchanges in this area, we conduct workshops and run projects geared toward substance management.

We continuously improve eco-design by increasing the overall numbers of LCAs and EPDs.

Both of these tools provide in-depth information about the environmental impact of products throughout their entire life cycle. We also conduct LCAs for whole industrial systems, to gain a holistic assessment of their environmental aspects. LCAs and EPDs help us meet customer demand for environmental performance.

Another key goal is to reduce the use of critical materials in Siemens products. To motivate stakeholders of the overall product life cycle management (PLM) process and EHS departments, we conduct workshops that clearly and transparently set out the benefits of dealing with LCAs and how to handle critical materials.

List of Declarable Substances (LoDS)

As part of their qualification process, suppliers must reveal whether their product parts, components, and/or compositions contain substances on the Siemens global List of Declarable Substances (LoDS). They are required to disclose relevant details about these substances. This systematic reporting helps establish a foundation for automated data collection and processing. In addition, Siemens has established an Internet database in which suppliers declare relevant substances. This database, BOMcheck, is used by several thousand companies worldwide.

Life cycle assessments (LCAs)

Within Siemens, we aim to identify the environmental load of our products so that we can reduce their environmental impact. To facilitate this process, we conduct full-scale LCAs and screening LCAs. Both approaches are in line with the requirements of ISO 14040/44, the standards of the International Organization for Standardization that cover the procedure for creating life-cycle assessments. Whereas screening LCAs cover environmentally relevant parts or phases of a product life cycle, full-scale LCAs adopt a more comprehensive approach, covering the environmental footprint of the entire life cycle.

As we continue to increase the amount of LCAs, we are expanding our knowledge of the environmental footprint caused by our

products throughout their entire life cycle. Moreover, findings from LCAs help us improve processes and internal production. With a focus on manufacture, additive manufacturing (AM) is emerging as a key means of producing parts and components in a resource-efficient and in turn environmentally-friendly way. AM technology boasts a wealth of benefits, from significantly lowering the quantity of resources needed during the production process to time savings, greater flexibility in design and reduced greenhouse gas emissions. For example, Siemens produces gas turbine blades purely on the basis of AM technology. As a result, roughly two-thirds fewer resources are needed in the production process, one third of greenhouse gas emissions can be saved and the lead time can be halved compared to ordinary manufacture.

In the energy sector, our Energy Management Division is breaking new ground with its “blue” product line. These innovative “blue” power grid products, systems and solutions facilitate eco-transparency by providing additional customer benefits throughout their life cycle in accordance with the highest environmental standards, while ensuring detailed documentation of a product’s environmental impact. For example, an LCA (ISO 14040/44) and/or EPD (ISO 14021) is available for each “blue” product, setting out the environmental benefits throughout the entire product life cycle, from production through use to end of life. There are several strict criteria for products to be classified as “blue,” such as an existing material declaration according to REACH/RoHS or a leading position in the market in terms of sustainability. These strict benchmarks – going beyond the state-of-the-art level of safety and applicable environmental standards – pave the way for environmentally friendly products with a longer life cycle and significantly reduced greenhouse gas emissions during operation compared to similar products, as documented in their LCAs and EPDs. If a “blue” product is damaged, it is designed not to harm people or the environment, e.g. it does not contain SF₆ or other F-gases. At the end-of-life stage, each “blue” product can be recycled easily, increasing the products’ recycling rates.

The current reporting period shows a continued high level of business unit revenue covered by LCAs (screening and full-scale) and EPDs. The coverage ratio of screening LCAs rose 3% and 4% in terms of full-scale LCAs. Besides, the total number of both LCA types increased by 6%. The coverage ratio of EPDs stayed strong at a high level from fiscal 2017 to fiscal 2018, while the detailed analysis shows an increase of 10% for the total number of EPDs. Figures for fiscal 2017 have been adjusted to reflect changes in the business structure and therefore differ slightly from last year’s report.

We aim to enhance our environmental impact assessment activities by further increasing the numbers of LCAs and EPDs in the future.

Life cycle assessments and environmental product declarations

(Percentage of revenue covered ¹)	Fiscal year	
	2018	2017
Full-scale LCAs	69	66
Screening LCAs	51	48
EPDs	66	66

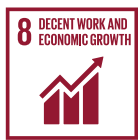
¹ We consider the revenue of a Business Unit in relation to Siemens revenue once we have carried out at least one “Full-scale LCA,” “Screening LCA,” or “EPD” for their products or systems. No product-related coverage is calculated.

Critical materials (CM)

In light of the current European list of critical raw materials – published by the European Commission on September 13, 2017 – and as part of its Circular Economy Package, the Commission submitted a new standardization request for the material-efficient recycling of electrical and electronic waste and spent batteries for consultation on May 31, 2018. Since the focus of the proposed measures is on critical raw materials, Siemens has already taken current developments into account through the corresponding CM module. Together with its assessment tool, this module ensures that we are on the right track for the future.

Compared with fiscal 2017, the purchasing volumes of critical materials could be reduced in fiscal 2018. However, Siemens conducted internal assessments, e.g. analysis of its purchasing activities, to achieve further reductions and to derive improved measures on this topic. During fiscal 2018, Siemens Divisions held critical material workshops with product managers and developers to identify appropriate ways to realign product development. Additionally, Siemens offers workshops to its Divisions for continuation of this program.

7 – Responsible Business Practices



Global value chains affect working environments and production processes, adding challenges to decision making, levels of authority and monitoring processes. The business practices we commit to are based on integrity, fairness, transparency, and responsibility. They build the core principles for all our compliance and anti-bribery, supply chain management, and human rights-related activities.

7.1 Compliance

At Siemens, we take a zero-tolerance approach to corruption, money laundering and violations of fair competition, data privacy, export control and human rights principles, as well as other breaches of applicable law. If these do occur, we respond vigorously. For us, integrity means acting in accordance with our values – responsible, excellent and innovative – wherever we do business. A key element of integrity is compliance: Adherence to the law and to our own internal regulations.

Sustainable Development Goal 16 (SDG 16) – Peace, Justice and Strong Institutions includes a call for companies to substantially reduce corruption and bribery in all their forms. This in turn promotes fair competition, which benefits innovation-driven companies such as Siemens. Efforts to combat corruption, coupled with strong compliance systems, protect companies, their employees and shareholders against the risks of misconduct. Governments as well as regions and their citizens stand to benefit greatly from reduced corruption. Since corruption is a drag on the economy and sustainable development, efforts to squelch it can contribute to progress in all the SDGs.

We have a specific program to anchor integrity and compliance in the minds and actions of all Siemens employees and external stakeholders, and we run Integrity Dialogs and Compliance Training programs globally. We require suppliers and business partners to meet our standards of conduct, including those for anti-corruption and fair competition. Beyond our Company's borders, we are committed to supporting the fight against corruption and promoting fair competition in our markets in cooperation with other organizations in the course of our Collective Action activities.

Our Business Conduct Guidelines describe how we fulfill our compliance-related responsibilities. They also serve as an expression

of our values and lay the foundation for more detailed internal regulations. The Business Conduct Guidelines are binding for all employees worldwide.

Our Compliance System aims to ensure that our worldwide business practices comply with these guidelines and obey all applicable laws. To this end, and to protect against compliance risks, our Compliance System is based on three pillars – prevent, detect and respond – and comprises the activity fields Anti-Corruption, Anti-Money Laundering, Antitrust, Collective Action, Data Privacy, Export Control and Human Rights.

We work with a myriad of international and national organizations around the world to help combat corruption and promote fair competition (see the section on Collective Action below). We work with external stakeholders in the private sector, government and civil society. These include our commitment to the United Nations Global Compact globally, an initiative to encourage businesses worldwide to adopt sustainable and socially responsible policies and to report on their implementation, and the World Economic Forum with its Partnering Against Corruption Initiative (PACI). We actively support the enactment of the United Nations Convention against Corruption and the Anti-Bribery Convention of the Organisation for Economic Co-operation and Development (OECD). We play a leading role in the Anti-Corruption Task Force of the Business and Industry Advisory Committee to the Organization for Economic Co-operation and Development (OECD-BIAC), and the Siemens AG Chief Compliance Officer, Dr. Klaus Moosmayer, has been acting as chairman of the task force since 2013. During the German presidency of the G20 in 2017, he was appointed chairman of the B20 working group on Responsible Business Conduct and Anti-Corruption. In 2018, he was requested to continue as Co-Chair of the B20 Cross Thematic Group Compliance and Integrity during the Argentinian G20 presidency. The 10 principles of the UN Global Compact and these other initiatives provide guidance for our work in this area throughout our organization.

Siemens operates in nearly every country in the world – with customers in both the private and public sectors, covering a wide range of industries. As of September 30, 2018, the Company had 379,000 employees worldwide. The environment in which Siemens conducts its business and thus its compliance

activities is correspondingly complex. Our global business activities are subject to numerous national legal systems, as well as diverse political, social and cultural frameworks, all of which are in a constant state of flux.

To be effective, the Siemens Compliance System must adapt to meet business-specific risks and multiple local legal requirements. Given that we develop new technologies and bring them to market, we need to stay ahead of the game with a Compliance System that is adaptable on that front as well. Tasks range from drawing up topic-specific compliance regulations and processes to supporting employees with information, training and advice about compliance. On-site compliance officers and experts lead the way in managing these efforts in our business units around the world.

Management approach

The global compliance structure combines strong governance at the group level with the presence of qualified compliance officers who ensure that the Compliance System is implemented around the world. They work closely with employees and managers who assume personal responsibility for compliance in their respective areas.

This responsibility extends beyond the unequivocal role of senior management. All managers must embody our commitment to compliance and ensure that business decisions and actions in their

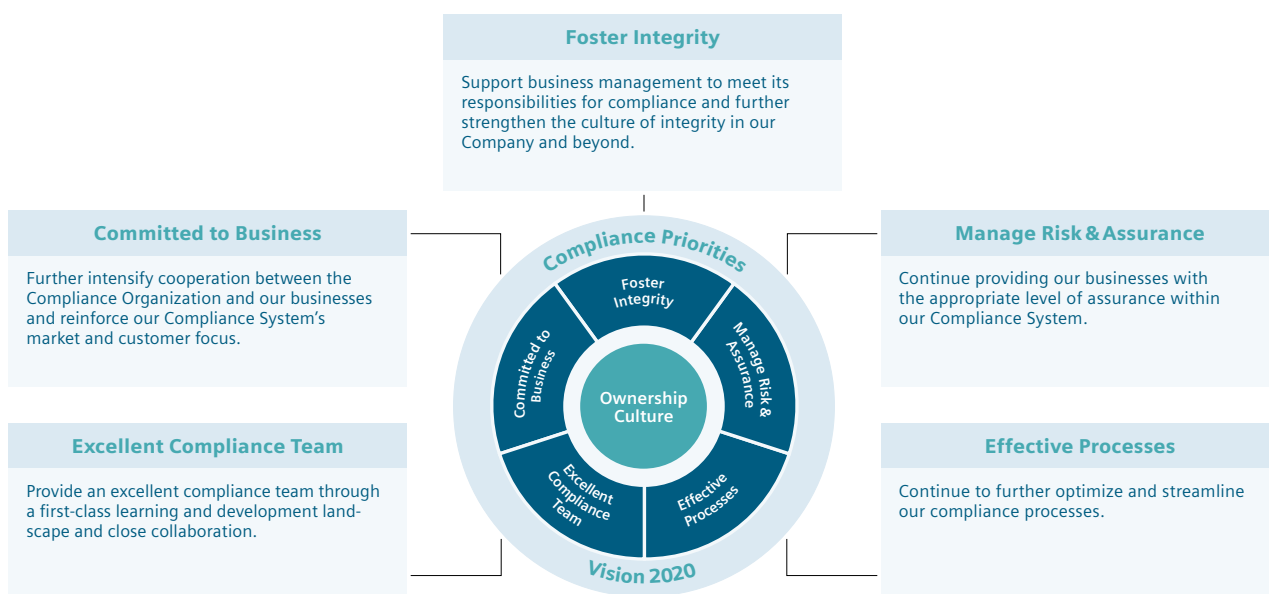
areas of responsibility are always in accordance with the relevant legal requirements and our values and guidelines. In general, Siemens' top and middle managers demonstrate strong commitment to compliance. A loud-and-clear message has been sent in the decade since the Siemens corruption scandal. Compliance and integrity are deeply rooted in the company culture.

Compliance Priorities in Fiscal 2018

Our compliance priorities provide the basis for the constant development and improvement of our system. We closely monitor the continuously evolving requirements in the compliance field and strive to fulfill them. The challenges include changes in market conditions and in the compliance risks of our business activities.

As of fiscal 2015, we defined our long-term compliance priorities as illustrated and briefly described in the figure below. They have been developed in line with Vision 2020, the Siemens strategic program to create a reliable long-term perspective for the development of our compliance efforts. Ownership Culture is a cornerstone of Vision 2020 and of compliance. These priorities are supplemented with focus areas and specific activities for each fiscal year and have continued to guide our work in fiscal 2018. Every compliance employee is actively encouraged and committed to making contributions to the further development of the Compliance System.

Compliance Priorities



Achievements in Fiscal 2018

Our Business Conduct Guidelines are the legal and ethical framework for all employees and Managing Board members worldwide. Given the continuous change and development of our organization and the environment we are working in, the Business Conduct Guidelines have been updated and extensively revised in fiscal 2018 in a cross-organizational process. Following the motto “by employees, for employees,” employees worldwide were given the opportunity to join the update process for our new Business Conduct Guidelines. The style of the new code of conduct is modern, up to date and understandable for everyone. Moreover, it has changed from a rule-based code of conduct to a both value- and rule-based code of conduct. The new Business Conduct Guidelines will come into effect in fiscal 2019.

Alongside the progress already made in the phase of project execution, the process of compliance in project sales was further enhanced in fiscal 2018. Two risk modules, human rights and anti-money laundering were added to the already existing anti-corruption module in the compliance risk evaluation.

Progress also continued in the above mentioned and several other areas, such as:

- Development of the continuous monitoring concept for export control risks, which was part of a combined assurance effort together with Corporate Finance Audit. It will be rolled out in fiscal 2019
- Development of a business and compliance dialog approach for the early identification and mitigation of specific compliance risks in the project pre-sales phase
- Reduced complexity, automation and intelligent screening in the due diligence process for Business Partners to manage third-party risks
- Integration of human rights into compliance due diligence for global project business
- As of October 2017, a comprehensive Anti-Money Laundering (AML) program was implemented globally.

Compliance Training and Compliance Performance

All managers and employees who hold positions with a particular risk profile must attend compliance training sessions. Compliance Officers from the relevant company units identify managers and employees who must participate and ensure that they attend the training sessions. They monitor and confirm the fulfillment of these requirements at regular intervals.

Our global compliance training program consists of in-person and e-learning training programs. The annual global Integrity Dialog aims to maintain integrity and compliance as top-of-mind subjects at Siemens. The initiative provides a forum to help managers discuss recent compliance matters with their teams. Furthermore,

they have the option of short “Integrity Moments” that can be shared during regular meetings or via other management communication channels.

The goal is continued awareness of compliance. It starts with the orientation received by new hires, and moves on to advanced training and refresher courses, followed by continuous reinforcement of the culture of integrity by managers. In 2018, a global web-based refresher training was rolled out. It covers the fundamental contents of the Business Conduct Guidelines and is provided in several languages including German, English, French and Chinese.

Compliance Risk Management

Compliance risks in individual Siemens entities worldwide are revealed through a Compliance Risk Assessment (CRA) process. CEOs, relevant managers, and Compliance Officers of the respective companies must systematically determine and assess compliance risks to their units on a regular basis. The core topics for analysis are anti-corruption, anti-trust, data privacy, anti-money laundering, human rights compliance and export control.

CRA results are incorporated in the group-level compliance risk analysis. The latter aims to identify systematic and globally recurring compliance risks as quickly as possible. The group-level analyses considers additional factors, such as insights from compliance controls and investigations into specific cases. The corporate compliance risks are derived from the consolidated results, which are shared with the company's business units. Relevant risks are reported to the company's Enterprise Risk Management (ERM). Risk-reduction measures are drawn up and implemented.

The identification of compliance risks in individual Siemens entities worldwide (CRA) and the group-level compliance risk analysis are complemented by an interdisciplinary exchange during quarterly Compliance Risk Radar meetings, and the yearly Corporate Compliance Risk Workshop, in which several stakeholders analyze systematic and reoccurring compliance risks.

Business Partners and Suppliers

Cooperation with third parties such as sales or non-sales related intermediaries, consultants and resellers is part of doing business, but the company may be liable for actions taken by these third parties. We have mandatory processes and tools for business partner compliance due diligence, which are constantly adjusted to cover emerging risks. Moreover, they are designed to help Siemens entities conduct risk-based integrity checks of business partners. Decisions about business partner relationships are transparent and take a risk-based approach, using high-quality and state-of-the-art compliance due diligence procedures. Depending on the risk level, they may include audits of the business partners conducted by Siemens internal auditors or external professionals.

Each Siemens unit is responsible for its own business partners. They must be carefully selected and appropriately monitored and managed throughout the course of the relationships. This is supported by a tool-based continuous monitoring process. As previously reported, suppliers and business partners have to sign pre-defined codes of conduct.

Compliance Indicators

Compliance indicators ¹		
	Fiscal year	
	2018	2017
Compliance cases reported	647	667
Disciplinary sanctions	229	217
<i>therein warnings</i>	85	120
<i>therein dismissals</i>	110	79
<i>therein other²</i>	34	18

¹ Continuing and discontinued operations.

² Includes loss of variable and voluntary compensation elements, transfer and suspension.

Whistleblowing

At Siemens we offer secure reporting channels for all employees and external stakeholders to report violations of external and internal rules. Reports made through these channels are forwarded to our Compliance Organization. Possible misconduct may also be reported directly via the Managing Board or supervisors to the Compliance Organization and, in particular, to the Compliance Officers in our individual company units.

Our employees make regular use of these channels. In fiscal 2018, 647 compliance cases requiring further inquiries or investigations came through them. We believe that the decrease from the 667 reported in fiscal 2017 lies within the normal range of variation. The total number of disciplinary sanctions for compliance violations in fiscal 2018 was 229, compared to 217 the year before.

Numbers for disciplinary sanctions in a fiscal year do not necessarily correspond to cases reported during that period: Sanctions are frequently not implemented in the same year in which the case was reported. This is because of an often lengthy period of investigation and due process. In addition, a single case may result in multiple sanctions, or none at all.

We believe that, once again, the evidence demonstrates that our Compliance System is well-designed and being implemented effectively. Based on the nature of our businesses, the environments in which we work, and the wide range of different geographical regions, we do not regard the number of incidents as unusual.

Collective Action and Siemens Integrity Initiative

If substantial progress is to be made in combating corruption and fostering fair competition, large numbers of stakeholders must act collectively. The global Siemens Integrity Initiative earmarks more than US\$ 100 million to support organizations and projects that combat corruption and fraud through Collective Action, education and training. The initiative focuses on supporting projects that have a clear impact on the business environment, can demonstrate objective and measurable results, and have the potential to be scaled up and replicated. Through to the end of fiscal 2018, we have committed more than US\$ 70 million to some 55 projects around the world. These are summarized in our Siemens Integrity Initiative Annual Reports.

March 2018 signals the halfway mark of the 15-year World Bank settlement period, and presents an opportune and fitting moment to include in our latest annual report (www.siemens.com/integrity-initiative/report2017) the Summary Report of the Mid-Term Review of the Integrity Initiative, independently conducted by the Canadian Universalia Management Group.

This unique feature not only looks back on seven years of remarkable Collective Action accomplishment, but it also endeavors for the first time to assess the overall contribution of the Integrity Initiative to the global fight against fraud and corruption.

We are indeed encouraged by the findings of the Mid-Term Review which are, overall, positive, particularly the observation that there is “strong evidence” that projects have “achieved their intended short-term results” and have made “significant contributions to change within their respective contexts,” for example through creating organizational capacities, enabling the exchange of knowledge, significantly contributing to expanding alliances, strengthening the rule of law, and pushing the anti-corruption and fraud Collective Action agendas.

It is the passionate and committed work of our Integrity Partners, supported by the Munich Project Office, that has “helped promote, enhance the visibility of, and contribute to learning on Collective Action, including demonstrating to the private sector that there is a business case for investing in Collective Action,” and in so doing, “the Integrity Initiative has made valuable contributions to the global fight against corruption.”

The independent Mid-Term Review also recognizes the effectiveness of the Project Office’s management and oversight approach, its strong focus on accountability, and the respect that the Integrity Initiative has gained from many anti-corruption actors around the world.

On March 13, 2018, we announced the launch of the Third Funding Round of the Siemens Integrity Initiative in a press release,

which will ultimately add around 25 new projects and a funding value of approximately US\$ 30 million in total to the existing project portfolio.


The Siemens Integrity Initiative constitutes one element of a 2009 settlement between Siemens and the World Bank and another 2013 settlement between Siemens and the European Investment Bank (EIB).

Fiscal 2019

Our compliance priorities described above will further guide our work and will be specified by focus areas for fiscal 2019. These focus areas for fiscal 2019 will cover our strongest aspiration to provide Siemens with the highest level of assurance in the field of compliance. In fiscal 2019, we will continue to improve our business partner due diligence and explore the possibilities of digitalization, including artificial intelligence and data analytics, for a better risk assessment.

“Our integrity will never be negotiable. Compliance with the law will always be the foundation of all our business,” said CEO Joe Kaeser with regard to the announcement of Vision 2020+, the new Company concept of Siemens. We will also continue to develop new e-learning compliance training courses for employees. These will focus on specific topics while reinforcing the emphasis on general topics.

Given the unprecedented rate of change, United Competency Management (UCM) is an ongoing project about making sure that we, as a Compliance organization, continue to be the respected experts with adequate leading-edge knowledge and skills in all Compliance areas. Following the analysis of the breadth and depth of competencies that are recommended for our Compliance roles today and in the years to come, our training offerings for Compliance employees will be tailored accordingly.

Finally, we plan to launch the individual projects of the Third Funding Round of the Siemens Integrity Initiative in fiscal 2019. ( WWW.SIEMENS.COM/INTEGRITY-INITIATIVE)

7.2 Supply Chain Management

Siemens strives to play an integral role in all the economies and societies in which we operate. The principal goal of supply chain management (SCM) at Siemens is to provide a substantial and sustainable value contribution for the success of our businesses. The four elements of this value contribution are: Productivity, Quality, Availability and Innovation. The roots of our network of suppliers run deep. Our company works with some 90,000 suppliers in about 150 countries. In fiscal 2018, the company purchased approximately €42 billion worth of goods and services. This figure is equivalent to about half of our total revenue.

Based on the priorities of the Siemens Divisions, the Siemens SCM Management Team defined several key levers to achieve the SCM value contribution in alignment with Vision 2020. Since the reorganization of the SCM function was concluded in 2015, there has been a stronger focus on the output-to-input ratio, i.e. the financial contribution of the SCM functions vs. its cost of organization.

All purchasing activities are executed within the boundaries of our Sustainability principles. These are the guiding principles for our supply chain management and form an integral part of all relevant supplier management processes – such as supplier selection, supplier qualification and evaluation, and supplier development. Responsible supply chain management can contribute to progress on the Sustainable Development Goals (SDGs) in a myriad of ways. According to the UN Global Compact, the “supply chain can make a significant impact in promoting human rights, fair labor practices, environmental progress and anti-corruption policies.” Some of the biggest contributions can be made especially with respect to SDG 8 on Decent Work and Economic Growth, which among other things addresses labor issues, and SDG 12 on Responsible Consumption and Production. SDG 12 specifically calls on companies to work to adopt sustainable practices and increase reporting on how they are progressing. Efforts can be made to address poor working conditions, ranging from minimum wage violations to extreme occupational hazards, and to eradicate all forms of forced labor and child labor. Unhealthy workplaces can be cleaned up. Improved waste management and waste reduction are essential. Circular consumption can help cut down on the use of natural resources.

We require all suppliers to follow our Code of Conduct for Siemens Suppliers and Third-Party Intermediaries (the Code). Established a decade ago, it draws on the United Nations Global Compact, a voluntary initiative based on CEO commitments to implement universal sustainability principles and to take steps to support UN goals, as well as the principles of the International Labor Organization (ILO). It is also based on the Siemens Business Conduct

Guidelines, which establish the fundamental principles of sustainability throughout the organization.

According to our Sustainability principles, all suppliers must adhere to the Code. Among other things, they must agree to respect the basic rights of employees, institute strong health and safety and environmental protection standards, and establish zero-tolerance policies against corruption and bribery. It also includes a clause about avoiding the purchase of “conflict minerals,” meaning minerals that are extracted in certain countries to the benefit of particular armed groups based there. For fiscal 2018, we initially planned to check the necessity of further updating our Code, but postponed this to fiscal 2019 in view of the update to our Business Conduct Guidelines on which our supplier Code is based. The Siemens Supplier Management Process provides a full range of interrelated procedures and tools to ensure transparency and awareness with regard to spending, suppliers, and risks and opportunities in the supply chain. It helps managers fully leverage the potential of our network of suppliers. Key aspects of the process include the application of rigorous criteria for supplier selection and qualification. The criteria include elements that are central to general risk management, such as financial stability, quality and availability – along with overall sustainability. They also spotlight potential opportunities by helping to identify the best-performing and most-qualified suppliers. With such a large and geographically dispersed supplier network, Siemens cannot maintain the same level of oversight for every supplier. For example, it would be impossible to perform site audits everywhere.

Instead we have established risk analysis procedures to systematically identify potential hazards in our supply chain. The main factors are:

- Risk identification and categorization for commodities;
- The establishment of risk levels for individual countries. These are determined by sustainability indicators for key areas such as legal compliance, corruption and bribery, workplace human rights, child labor, etc. Information for the indicators is culled from respected international organizations;
- Various individual strategic initiatives, such as special preparation for projects with large local procurement volumes.

This risk-based analysis includes data obtained from supplier self-assessments, risk evaluations conducted by our purchasing departments, supplier audits by internal quality auditors, and sustainability audits by external auditors.

Corporate Responsibility Self-Assessments (CRSA)¹

(Number)	Fiscal year	
	2018	2017
Europe, C.I.S., ² Africa, Middle East	1,527	833
Americas	480	351
Asia, Australia	1,681	1,243
Total	3,688	2,427
Agreed upon improvement³	1,585	
Legal Compliance/prohibition of corruption and bribery	261	
Respect for the basic human rights of employees	389	
Prohibition of child labor	93	
Health and safety of employees	164	
Environmental Protection	600	
Supply Chain	78	

¹ To be conducted mainly by suppliers from non-OECD countries with a purchasing volume > € 50,000 p. a. Questionnaires initiated and completed in the year under review.

² Commonwealth of Independent States.

³ Improvement measures agreed with suppliers relate either to actual deviations from the Code of Conduct for Siemens suppliers or to structural improvements of management systems and the lack of specific processes and guidelines at the supplier.

Corporate Responsibility Self-Assessments (CRSA) are part of the Siemens Supplier Qualification Process, which is regularly reviewed and, if necessary, updated to incorporate new norms and regulations. New potential suppliers go through the qualification process while existing ones are reevaluated every three years. Compared to fiscal 2017 – in which we had a reduced number of Self-Assessments due to implementation of our new Siemens-wide SCM platform – we managed to increase the number of CRSA again by 52% to 3,688 conducted Self Assessments, which represents the high level of the recent years.

The new SCM platform also provides additional benefits, which allowed us to synchronize CRSA reporting with the structure of the External Sustainability Audits report. Consequently, we replaced the former CRSA analysis with “green-yellow-red” categories, with a more detailed and content-related analysis of the CRSA measures that were started in fiscal 2018 according to the CRSA categories.

Supplier quality audits with integrated sustainability questions

(Number)	Fiscal year	
	2018	2017
Europe, C.I.S., ¹ Africa, Middle East	366	372
Americas	142	186
Asia, Australia	257	383
Total	765	941

¹ Commonwealth of Independent States.

Supplier quality audits include questions about sustainability that cover all aspects and requirements of the Code. In fiscal 2018, we conducted 765 on-site audits worldwide. This is a significant 19% decrease against fiscal 2017 due to an increased sourcing at already qualified and utilized suppliers in Asia and Australia.

External sustainability audits (ESA)		
	Fiscal year	
(Number)	2018	2017
Europe, C.I.S., ¹ Africa, Middle East	100	108
Americas	50	53
Asia, Australia	231	241
Total³	387	402

	Fiscal year	
(Agreed upon improvement measures) ²	2018	2017
Legal Compliance/prohibition of corruption and bribery	1,523	1,373
Respect for the basic human rights of employees	2,957	3,032
Prohibition of child labor	231	215
Health and safety of employees	3,281	3,605
Environmental protection	320	411
Supply chain	427	403
Total³	8,776	9,054

¹ Commonwealth of Independent States.

² Improvement measures agreed upon with suppliers relate either to actual deviations from the Code of Conduct for Siemens Suppliers or to structural improvements to management systems and the lack of specific processes and guidelines at the supplier.

³ Total does include 6 ESA and 37 "Agreed upon improvement measures" (fiscal 2017: 0 ESA and 15 "Agreed improvement measures") from SGRE without further category breakdown of agreed improvement measures.

Our strongest detection module, the External Sustainability Audit, has proven especially effective. Such audits are conducted by one of our external audit partners, and are used as control mechanisms for high-risk suppliers. In fiscal 2018, we kept our high stable level of effort and conducted 387 external sustainability audits. The constantly high number of External Sustainability Audits goes hand in hand with the development of our Global Value Sourcing activities. These activities aim to strengthen local presence in our supply chain and increase procurement volumes in emerging markets from 27% in fiscal 2017 to 35% by 2020. In 2018, we already reached a 32% share and we are on target with our planned ramp-up.

Monitoring activities may include re-audits or follow-up audits by our external audit partners. The relevant Siemens procurement units may also agree upon a series of remedial steps with suppliers. Throughout the process, we remain committed to our partnerships with our suppliers and to helping them improve. However, if problems persist and/or they are unwilling to imple-

ment the necessary measures, we exclude them from our list of suppliers.

Our "central warning message" system ensures fast and efficient responses to breaches of the requirements of the Code. Local removals are reported to executives who are in charge of the corporate supply chain management system. If necessary, the offending suppliers are blocked globally.

A contractor selection process has been developed through the joint efforts of supply chain managers and environmental, health and safety (EHS) experts and is now well established. EHS experts need to approve the health and safety responses on specialized questionnaires by potential contractors before they are included in our supplier base and utilized for business.

Continuing our Sustainability in the Supply Chain strategy, target areas will include human rights, carbon emissions, and workplace health and safety:

- In fiscal 2018, we started exploring possibilities which may enable us to dig into more specific Human Rights topics in our supply chain under consideration of information provided by national and international resources. In fiscal 2019, we will continue this, aiming to find levers for implementation in our processes.
- Siemens collects and publishes data on its greenhouse gas emissions as part of our CO₂-Neutral Program and our reporting for the CDP, a system that helps private and public organizations measure and manage their environmental impacts. In late 2017, we started our "Carbon Emissions@Suppliers" project, cooperating with an external service provider. Together we managed to develop an economic model that identifies the CO₂ footprint of all our Siemens suppliers.

Based on this model, we are currently planning to approach suppliers generating high levels of CO₂ emissions. In fiscal 2018, a survey to obtain more detailed direct supplier information on their CO₂ footprints was conducted centrally with more than 5,000 suppliers generating approximately half of our Scope 3 CO₂ footprint. Step-by-step, we seek to make our supplier base aware of the importance of more CO₂ efficient production.

Responsible Minerals Sourcing

Siemens is committed to working toward avoiding the use, within our supply chain, of minerals from conflict-affected and high-risk areas affected by the risks defined in Annex 2 of the Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas of the Organisation for Economic Co-operation and Development (OECD).

Siemens has developed a Responsible Minerals Sourcing Policy (former Conflict Minerals Policy) and integrated it into our procurement process. The Policy provides a uniform and enterprise-wide standard for supply chain management in this realm. Our approach is aligned with the risk-based requirements of the Due Diligence Guidance. To determine the use, sources and origin of certain minerals in our supply chains, we seek to identify the smelters that operate along them. Siemens is an active member of the Responsible Minerals Initiative (former Conflict Free Sourcing Initiative), an industry group that provides audits on smelter level. Siemens encourages smelters to take part in its programs and pursue certification.

7.3 Human Rights

Siemens adds value to society in nearly every country in the world through our products and solutions, sustainable and responsible business practices, thought leadership and strategic partnership activities, and targeted community initiatives. Our activities directly and indirectly affect huge numbers of people. We are aware of the responsibilities resulting from this global impact and fully accept our responsibility to ensure respect for human rights in our activities worldwide. For us, this is a core element of responsible business conduct and therefore an integral part of our Business to Society concept (see the → **SUSTAINABLE DEVELOPMENT OF SOCIETIES** chapter of this report).

In this context, Siemens is committed to pursuing the objectives of the leading international initiatives designed to promote human rights and sustainable development, including the United Nations Global Compact and the United Nations Guiding Principles on Business and Human Rights (UNGPs). They both set the tone for how companies can respect human rights and, in turn, promote sustainable development, both internally and externally along their value chains.

Furthermore, these human rights principles are strongly reflected in the 2030 Agenda for Sustainable Development with its 17 Goals. In line with the promise of the 2030 Agenda to 'leave no one behind,' Siemens strives to contribute to the SDGs through our responsible business practices, such as SDG 8 – Decent Work and Economic Growth and SDG 12 – Responsible Consumption and Production. Siemens is also convinced that the SDGs will only be fully reached by looking at and addressing potential negative impacts across the value chains. Therefore, Siemens also strives to assess potential negative impacts linked to its business activities. Siemens is committed to working in collaborative partnerships to progressively and jointly strive to reduce inequalities over time at local, national and global levels and to addressing the risk of adverse impacts linked to the company's business

activities within its value chain (thus leveraging the SDG 17 – Partnerships for the Goals).

Policies and Commitments

Business Conduct Guidelines

Our commitment to respect human rights is anchored in the Siemens Business Conduct Guidelines (BCGs), which clearly state: "We respect the personal dignity, privacy, and personal rights of every individual." Binding for all managers and employees worldwide, the BCGs add that Siemens is committed to working with individuals without regard to their ethnic background, culture, religion, age, disability status race, sexual identity, worldview, or gender.

Siemens is committed to implementing the UN Guiding Principles as the global standard for preventing and addressing the risk of adverse human rights impacts linked to the company's business activities within our value chain.

As stated on the last page of our Business Conduct Guidelines:

- We regard the ten principles of the United Nations Global Compact (as well as the rules laid down in the framework agreement of the International Metalworkers' Federation) as binding for the entire company and therefore, expect our employees, suppliers and business partners worldwide to recognize and apply the following conventions, along with others that may be relevant:
 - International Bill of Human Rights consisting of the:
 - Universal Declaration of Human Rights,
 - International Covenant on Civil and Political Rights and
 - International Covenant on Economic, Social and Cultural Rights,
 - European Convention for the Protection of Human Rights and Fundamental Freedoms,
 - International Labor Organization (ILO) Tripartite Declaration of Principles Concerning Multinational Enterprises and Social Policy,
 - ILO Declaration on Fundamental Principles and Rights at Work (especially regarding the following issues: elimination of child labor, abolition of forced labor, prohibition of discrimination, freedom of association and right to collective bargaining), and
 - OECD Guidelines for Multinational Enterprises (having adopted the key elements of the United Nations Guiding Principles on Business and Human Rights in 2011).

Global agreements

Siemens has been an active participant in the United Nations Global Compact since 2003. The Compact is a voluntary initiative based on CEO commitments to implement universal sustainability principles and to undertake partnerships in support of UN goals. Siemens has committed to other international standards, including some laid out by the ILO.

International agreement on fundamental employee rights

Siemens reaffirmed its commitment to fundamental employee rights in an international framework agreement signed with employee representatives and trade unions in 2012. It includes clauses on the elimination of forced labor, the prohibition of discrimination, the right to equal treatment, the abolition of child labor and the definition of a minimum age for employment, the right to collective bargaining, and freedom of association.

Code of Conduct for Suppliers and Third-Party Intermediaries

Relevant business partners must adhere to the Siemens Code of Conduct for Siemens Suppliers and Third-Party Intermediaries. It is based primarily on the principles of the UN Global Compact and the ILO, but contains further requirements. Specifically, in terms of human rights, it addresses respect for the fundamental human rights of employees, including fair remuneration, freedom of assembly, health and safety standards, and prohibition on discrimination, forced labor, and child labor.

Conflict Minerals Policy

Siemens has developed a Conflict Minerals Policy and integrated it into the company's procurement process (for details, see the → **SUPPLY CHAIN MANAGEMENT** chapter of this report).

Governance and management structures for human rights

Our commitment to respect human rights and to implementing the UN Guiding Principles on Business and Human Rights is led from the top. Our work in Human Rights is overseen by the Siemens Managing Board and the Siemens Sustainability Board, as well as by the Heads of our Divisions and countries. Additional Supervisory Board level oversight is provided by our Chief Compliance Officer.

In October 2016, the Siemens Sustainability Board directed the sustainability and compliance departments to work together to formally organize corporate leadership on the topic of human rights and to strengthen the human rights component throughout the company around the world. Since then, both departments have developed and agreed upon a coherent human rights framework that will be gradually implemented over the next few years (for further details, see → **SIEMENS' HUMAN RIGHTS FRAMEWORK**).

Human rights awareness and training

The annual Corporate Compliance Risk Workshop brings together several stakeholders to analyze systematic and recurring compliance risks. This workshop helps to identify areas that may need additional analysis or training. In fiscal 2018, the topic of human rights was defined as an "awareness topic," as like in previous fiscal years.

As in the last fiscal year, a module on business and human rights has been included in the fiscal 2018 Integrity Dialogue. This program involves discussions throughout the company about important compliance issues (see the → **COMPLIANCE** chapter of this report).

There are specific training programs for health and safety, suppliers and certain business partners. We also conduct sessions on our Business Conduct Guidelines.

Collaborative dialogues

Human rights issues can be challenging to identify and complex to prevent or mitigate. Open and constructive dialogs with peer-group companies help us discuss progress, challenges and solutions and identify potential for joint action. We believe this will enable us to go faster than we could go alone. In fiscal 2017, we joined the Global Business Initiative on Human Rights (GBI), a non-profit organization led by a core group of 18 major corporations around the globe. The GBI aims "to advance human rights in a business context through cross-industry peer learning, outreach and capacity building, and by informing policy." In fiscal 2018, Siemens joined the European Business and Human Rights Peer Learning Group of the Global Compact Network. It is designed as a human rights peer learning group for European companies from different sectors and sizes – on business and human rights.

A German business coalition we actively engage in is Econsense, a forum for the sustainable development of German business. Econsense has been involved in the consultation held by the German government on the implementation of the National Action Plan on Business and Human Rights (NAP).

Human rights due diligence

Large infrastructure companies, such as Siemens, operating with diverse business models and global value chains in countries with weak social and environmental governance or political instability, are likely to face numerous human rights challenges.

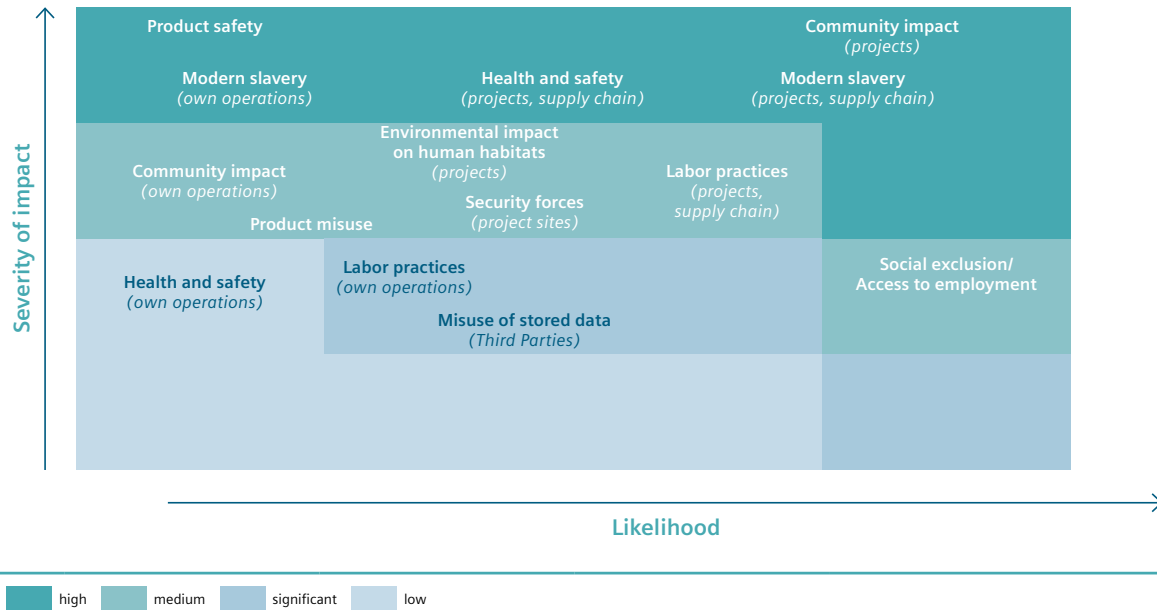
During fiscal 2018, the Sustainability Office and the Legal Compliance department developed a matrix mapping out the human rights that Siemens' activities are most likely to affect, either directly or through its value chain. The main purpose of this matrix is to assess impacts on rights holders and to identify priorities for thematic action fields. The document is based on the list of human rights as

Siemens will assess the possibility of reporting more closely on the basis of the UN Guiding Principles Reporting Framework.

Severity of impact	high	medium	significant	low
Right to equality before the law, equal protection, and rights of non-discrimination	Right to life	Right to liberty and security of the person	Right to freedom of opinion and expression	
Right to health	Right to freedom of movement	Right to adequate standard of living	Rights of minorities	
Right not to be subjected to slavery, servitude or forced labor	Right to work	Right of self-determination		
Right to protection for the child	Right to enjoy just and favorable conditions at work			
Right not to be subjected to torture, cruel, inhumane treatment or punishment				
Right to a fair trial	Right to be free from retroactive criminal law	Right of detained persons to humane treatment	Right to freedom of assembly	
Right to social security, including social insurance	Right to participate in public life	Right to form and join trade unions and the right to strike	Right to take part in cultural life	
Right to privacy	Right to freedom of association	Rights of protection of the family and the right to marry	Rights to freedom of thought, conscience and religion	
Right to freedom from war propaganda	Right to recognition as a person before the law			

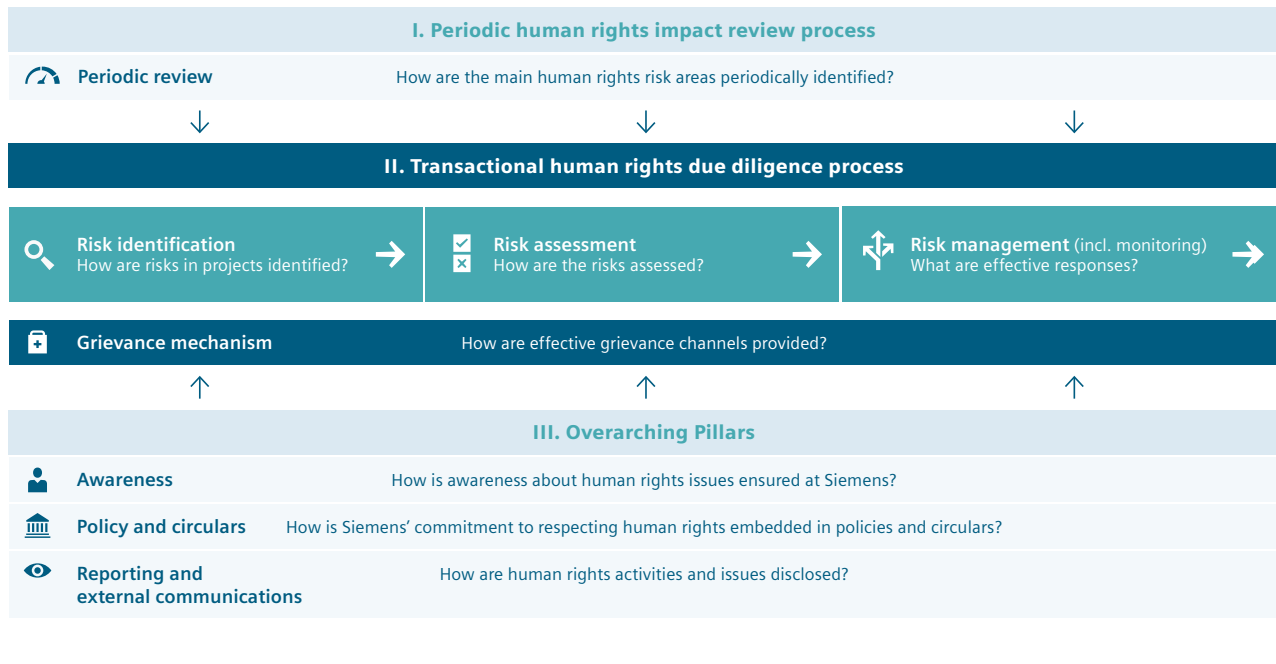
In the context of large infrastructure projects, it becomes apparent that human rights such as the right to an adequate standard of living, right to life, right to self-determination and right to freedom of expression are human rights potentially at risk for indigenous and vulnerable communities. On the basis of these human rights, Siemens has derived human rights-related focus topics, such as community impacts, labor practices and modern slavery in project business.

Siemens' human rights topics with the severest impact



Siemens has developed a human rights framework to be implemented over the coming years. The establishment of a proactive human rights-related due diligence system throughout the company's value chain is at the very core of this framework in order to cater for the human rights areas with the severest impact identified above and to assess the effectiveness of risk mitigation actions.

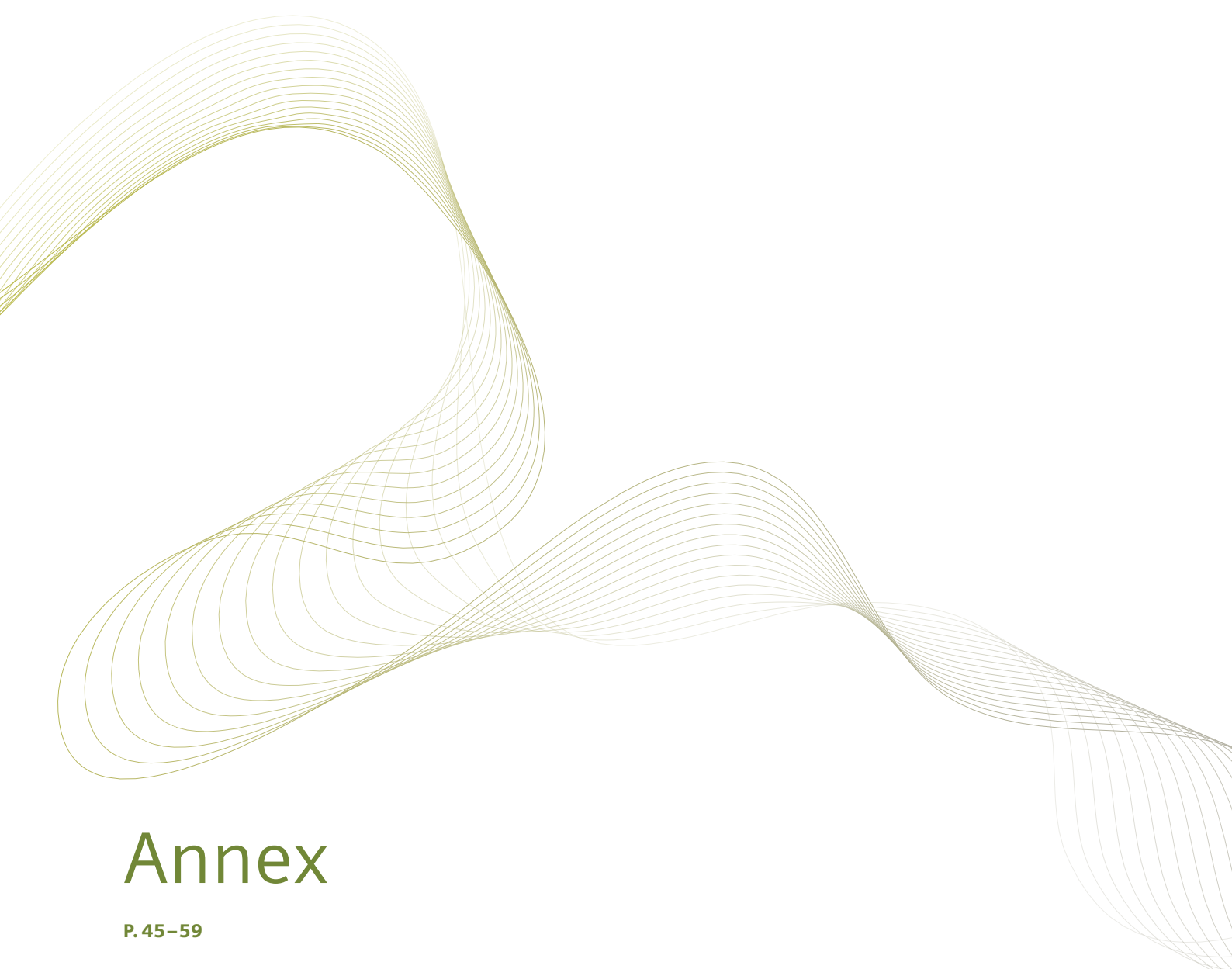
Siemens' human rights framework



During fiscal 2018, in collaboration with external human rights experts and sustainability consultants and on the basis of the above human rights framework, Siemens has developed a detailed concept describing key functionalities respecting a systematic human rights-related due diligence system, leveraging the insights of the human rights-related due diligence processes identified to date in our upstream and downstream activities (see also the → **SUPPLY CHAIN MANAGEMENT** and → **OCCUPATIONAL HEALTH AND SAFETY** chapter). Siemens is fully committed to implementing a proactive and comprehensive human rights-related due diligence system as well as to developing human rights risk-based mitigation strategies in alignment with the UNGPs, external stakeholder expectations (e.g. local government, investors, customers, NGOs) and regulatory requirements.

Grievance mechanisms and human rights-related query channels

Siemens offers anonymous channels for individuals, both internally and externally, to report alleged grievances. These are outlined in the → **COMPLIANCE** chapter of this report. Additionally, we provide an electronic mailbox for specific queries on human rights topics on our website WWW.SIEMENS.COM/CONTROVERSIES.



Annex

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Reporting method

Sustainability is a fundamental principle for us, guiding our very actions. Our "Sustainability Information 2018" supplements our financial reporting in fiscal 2018. The reporting method described below, provides details of the underlying key elements on which our sustainability reporting is based.

REPORTING APPROACH

The "Sustainability Information 2018" ("the Report") describes the strategy, organization, initiatives, programs, management systems and goals for ensuring sustainability. It supplements our financial reporting in the Annual Report, following on from last year's reporting. It also serves as our annual progress report on implementing the United Nations CEO Water Mandate and sums up our performance with regards to the 10 principles of the United Nations Global Compact.

Furthermore, this report has been prepared in accordance with the GRI Standards: Comprehensive option and the recommendations of the Global Compact and Transparency International regarding anticorruption reporting. We are using the UN Guiding Principles (UN GP) Reporting Framework and its narrative guidance as an orientation when reporting on our human rights activities. All key performance indicators of the Environmental Portfolio are reported according to the "Environment Portfolio Reporting Principles" included in this Annex.

REVIEW PERIOD AND REPORT BOUNDARIES

This Report is based on activities carried out during Siemens' fiscal 2018 (October 1, 2017 – September 30, 2018). Any exceptions are indicated as such. In general, our fully consolidated companies are all covered by the Report. Here, too, possible exceptions regarding the pool of data used are indicated. Minority equity investments are not included in our reporting. The indicators and information reported below relate to the Company's continuing operations, unless indicated otherwise. In order to ensure comparability of the details, those for the previous year were adjusted accordingly with any exceptions duly indicated.

DATA COLLECTION

Given Siemens' size and global spread, gathering data poses a major logistical challenge. Moreover, our companies throughout the world are required to comply with local regulations concerning the compilation and definition of performance figures, which means that the data generated is not always comparable. Where applicable, we point out any significant limitations in the information presented in the Report. As a rule, no company-wide standards exist for the information published in the Report. This applies in particular to specific financial figures, including, for example, the revenue attributable to the Environmental Portfolio. As a result, these figures may not be comparable with the data published under the same or similar designations by other companies.

The data published in this Report is collected through various internal reporting systems which, for the most part, are different from those applicable for the financial information presented in our Consolidated Financial Statements. In particular, the standards and controls applied and the computer systems used during the preparation of the data may be less comprehensive in comparison. We reserve the right to change our internal guidelines regarding the inclusion of data in the Report without prior announcement. Due to rounding, numbers presented throughout this Report may not add up precisely to the totals provided and percentages may not precisely reflect the absolute figures.

INDEPENDENT ASSURANCE REVIEW

We prepared our Report to high quality standards. Consequently, as in previous years, we again commissioned an independent accounting firm to conduct a limited assurance of the chapters in the → [SUSTAINABILITY AT SIEMENS](#) section of this Report. You can find the results of the assurance by Ernst & Young GmbH Wirtschaftsprüfungsgesellschaft in the Annex.

Environmental Portfolio reporting principles

ENVIRONMENTAL PORTFOLIO GUIDELINE

As there are currently no accepted international standards addressing the identification and reporting of so-called "green products", we report the revenue from our Environmental Portfolio and the accumulated annual customer reductions of carbon dioxide emissions generated by it in accordance with internal regulations defined in our Environmental Portfolio Guideline.

This Guideline sets out criteria and processes for the qualification of elements for the Environmental Portfolio, defines roles and responsibilities as well as processes to account for annual customer reduction of carbon dioxide emissions and refers to financial reporting guidelines for recognition of revenue. It is based on the Reporting Principles set forth in "A Corporate Accounting and Reporting Standard – Revised Edition" and "GHG Protocol for Project Accounting" issued by the Greenhouse Gas Protocol Initiative. These principles are relevance, completeness, consistency, transparency, accuracy and conservativeness. Revenue generated by the Environmental Portfolio is recognized in accordance with revenue recognition policies as described in → **NOTE 2** in → **B.6 NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS IN THE ANNUAL REPORT OF THE SIEMENS GROUP ("SIEMENS") AS OF SEPTEMBER 30, 2018.**

SCOPE OF REPORTING

To date, the Environmental Portfolio-related key performance indicators are revenue and customer reductions of carbon dioxide emissions generated by elements from the Siemens Environmental Portfolio.

Carbon dioxide emission reductions at our customers are calculated based on comparing the Environmental Portfolio element (e.g., a combined cycle power plant and the related carbon dioxide emissions per kilowatt hour) with a reference solution (e.g., a global average grid factor for power production). The annual reduction of carbon dioxide in the reporting year is calculated based on technical parameters (e.g., the installed capacity in gigawatts in the reporting year or load hours). For all Environmental Portfolio elements sold in a reporting year, the annual reductions are added up to calculate the annual carbon dioxide emissions reductions at our customers at the end of that year.

Our Environmental Portfolio elements are typically long-lasting products (e.g., motors) or infrastructure elements (e.g. power plants, trains) that contribute to the reduction of carbon dioxide emissions not only in the reporting year but for many years. We therefore also calculate the accumulated annual customer reductions of carbon dioxide emissions. The accumulated annual emission reductions are calculated as customer reductions of carbon

dioxide emissions generated by Environmental Portfolio elements installed in the current reporting period (see above) plus those elements installed since the beginning of fiscal 2002 that are still in use at the customer. If elements installed in previous reporting periods are no longer in use, they are no longer taken into consideration when calculating the accumulated annual customer reductions of carbon dioxide emissions in the respective reporting period.

For the Environmental Portfolio elements installed in a given reporting period, we consider the reductions of carbon dioxide emissions for the entire reporting period, irrespective of the actual date of installation during the year of first time recognition.

GOVERNANCE – PROCESSES AND DEFINITIONS

The qualification of our Environmental Portfolio elements as well as the respective reporting is based on clearly defined processes and criteria.

In principle, products, systems, solutions and services of operating units (Divisions and Strategic Units, Siemens Healthineers and Siemens Gamesa Renewable Energy) may qualify for the Environmental Portfolio. The entire Siemens business portfolio is reviewed on an annual basis to ensure the appropriate qualification of Environmental Portfolio elements based on the criteria described hereafter. This covers the inclusion of newly developed elements as well as the integration of additionally qualified elements where evidence of fulfillment of the qualification criteria was not available in prior reporting periods. For additionally qualified Environmental Portfolio elements, we report their prior-year revenue and prior-year contribution to the accumulated annual customer reduction of carbon dioxide emissions on a comparable basis. Elements that no longer fulfill our qualification criteria are excluded from our Environmental Portfolio; prior periods are not adjusted.

Prior to inclusion in the Environmental Portfolio, potential new Environmental Portfolio elements have to undergo a multilevel internal evaluation process which includes reviews in the respective Siemens Divisions as well as a review in the Sustainability department.

Within this process, Siemens verifies the completeness of documentation supporting the fulfillment of the qualification criteria. Furthermore, Siemens considers whether or not significant "adverse effects" exist. Adverse effects describe the situation that a potential Environmental Portfolio element, despite fulfilling the qualification criteria, might cause considerably higher environmental effects elsewhere in the element's lifecycle. If material adverse effects are known, the element is not included in the Environmental Portfolio.

If the revenue related to an Environmental Portfolio element cannot be accurately separated from our total revenue, the respective revenue will not be accounted for nor reported due to the principle of conservativeness.

The Siemens Sustainability Board, chaired by Siemens Managing Board member and Chief Sustainability Officer Dr. Roland Busch, annually acknowledges changes in the composition of the Environmental Portfolio. Another task of the Sustainability Board is to discuss potential concerns of stakeholders with regard to the inclusion or deletion of certain technologies in the Environmental Portfolio.

CRITERIA FOR INCLUDING ELEMENTS IN THE ENVIRONMENTAL PORTFOLIO

An Environmental Portfolio element can be a product, a system, a solution or a service, as defined above.

If all products, systems, solutions or services of a Siemens' organizational unit meet one of the selection criteria, this unit may be considered as an Environmental Portfolio element as a whole.

Furthermore, a core component of a system or solution may qualify as an Environmental Portfolio element if the component provided by Siemens is key to enabling environmental benefits resulting from the system's or solution's overall application. This means that the environmental functionality of the overall system or solution cannot be achieved without the component provided by Siemens. Examples of core components qualifying as elements of the Siemens Environmental Portfolio are gear boxes for wind turbines or thyristor valves for high-voltage direct current (HVDC) power transmission systems.

Service types are differentiated between "product-related service" and "value-add service". In cases in which a Siemens product, system or solution qualifies as an Environmental Portfolio element, the revenue, and if applicable, the annual customer reduction of carbon dioxide emissions of the "product-related service", shall generally be accounted for and reported on in line with the related Environmental Portfolio element. In cases of "value-add services" the revenue and, if applicable, the annual customer reduction of carbon dioxide emissions, shall be accounted for and reported on only if the service itself qualifies as an Environmental Portfolio element by meeting one of the selection criteria as defined below.

To qualify for inclusion in the Environmental Portfolio, an element must meet one of the following selection criteria. Products, systems, solutions, and services with planned application in military use or nuclear power are not included in the Environmental Portfolio.

Energy efficiency

The criterion for energy efficiency is an improvement in energy efficiency of 20% or more during the customer use phase compared to the applicable baseline, or a reduction of at least 100,000 metric tons of carbon dioxide equivalents per reporting period in the customer use phase compared to the applicable baseline. If an energy efficiency increase can only be reasonably defined as reduction of dissipation losses (e.g., as defined by the International Electrotechnical Commission (IEC) standards for energy efficiency classification of motors), a 20% reduction of dissipation loss would also qualify products for our Environmental Portfolio.

Examples of products and systems meeting the above mentioned energy efficiency criterion are combined cycle power plants, intelligent building technology systems (both reduce carbon dioxide emissions by at least 100,000 metric tons per reporting period) or ELFA Hybrid Drives for buses (20% efficiency improvement).

Renewable energy

This criterion covers technologies in the field of renewable energy sources or smart grid¹ applications and their respective core components. The scope of the renewable energy criterion is power generation and heat generation from, for example wind power (onshore and offshore), hydroelectricity or biomass.

Examples of the respective Environmental Portfolio elements are wind turbines as well as core components such as gearboxes for wind turbines.

DETERMINING THE REFERENCE SOLUTION – BASELINE METHODS

Energy efficiency and annual customer reduction of carbon dioxide are all assessed by carrying out a comparison with a reference solution (baseline). There are three different options for the reference solution: before-and-after comparison, direct comparison with a reference technology or comparison with an installed base. The final decision as to which baseline is used is taken by the respective Division within Siemens based on the following options:

Before-and-after comparison

A before-and-after comparison refers to the difference between an initial situation at the customer and the situation after installation of a Siemens product, system, solution or service. A before-and-after comparison implies the presence of a preexisting product, system, solution or service at the customer, the characteristics of which are improved or substituted by the employment

¹ According to the National Institute of Standards and Technology (NIST) – Smart Grid Interoperability Standards Project (USA), the term smart grid, "refers to a modernization of the electricity delivery systems so it monitors, protects and automatically optimizes the operation of its interconnected elements – from the central and distributed generation through the high-voltage transmission network and the distribution system, to industrial users and building automation systems, to energy storage installations and to end-use consumers and their thermostats, electric vehicles, appliances and other household devices."

of a Siemens product, system, solution or service. This comparison may be applied, for example, in cases in which a Siemens product, system, solution or service modernizes a power plant or optimizes the energy consumption of a building.

Direct comparison with a reference technology

Direct comparison with a reference technology refers to the difference between the Siemens product, system, solution or service and either an appropriate single other technology or a predecessor. Direct comparison with a reference technology implies the existence of one alternative or predecessor product, system, solution or service in the market which is employed for the same or a similar purpose. This comparison may be applied, for example, by using low-loss high-voltage direct current (HVDC) power transmission in comparison to conventional alternating current power transmission.

Comparison with an installed base

Comparison with an installed base refers to the difference between the Siemens product, system, solution or service and an average of several installations employed for the same or a similar purpose. Comparison with an installed base implies the existence of global or regional average data on several installed products, systems, solutions or services employed for the same or a similar purpose. This comparison may be applied, for example, to combined cycle power plants (CCPP) by drawing a comparison with the average global greenhouse gas emissions factor for electricity generation.

When calculating emission reductions compared to the baseline, we consider either direct savings (e.g., by power plants or efficient motors) or the indirect effects that occur when different products in a system interact and create emission reductions (e.g., components for building automation). If Siemens only delivers core components but not the entire system, annual customer reduction of carbon dioxide emissions will only be calculated for these parts.

The baselines are reviewed annually and, if necessary adjusted, such as when statistical data on the installed base is updated because of technical innovations or regulatory changes.

The calculation of the reduction of carbon dioxide emissions is based on a specific comparison for every relevant Environmental Portfolio element with a baseline. For this calculation, we focus on those elements that have a material impact on the overall carbon dioxide emissions reduction.

EMISSION FACTORS FOR CALCULATING THE ANNUAL REDUCTION OF CARBON DIOXIDE EMISSIONS

For some emission reduction calculations, the baseline reference for the installed base is determined using known global emission factors such as those for power production. The baselines used for our calculations are mainly based on data from the International Energy Agency (IEA) for gross power production and for grid losses, on data from the Intergovernmental Panel on Climate Change (IPCC) for fuel-based emission factors, and our own assessments of power production efficiency.

The most relevant emission factors applied in 2018 are:

Emission factors for CO₂ abatement calculation

Category	Emission factor (g CO ₂ /kWh)	Basis for comparison of Environmental Portfolio elements
Global power generation all primary energy carriers	554	Power generation
Global power generation fossil energy carriers	835	Renewables
Utilization of electricity (including transmission losses)	600	All types of utilization of electricity apart from trains

Source: IEA (IEA World Energy Outlook 2017)¹, own calculations

¹ Emission factors were updated to IEA World Energy Outlook 2016 (prior year: IEA World Energy Outlook 2016).

For consistency reasons, we generally apply global emission factors for calculating emission reductions unless specific conditions of a solution require application of local emission factors. For the calculation of annual customer reductions of carbon dioxide emissions e.g., for wind turbines, we apply the emission factor 835 g/kWh of global fossil power production as the baseline.

Generally, our approach includes all greenhouse gases covered by the Kyoto Protocol. However, for power production and electrical applications, we consider the only relevant greenhouse gas to be carbon dioxide. If other greenhouse gases occur in technical applications, they are included in our calculations.

For some Environmental Portfolio elements, we do not know the detailed parameters of use at our customers. We therefore apply internal and external expert estimates for these, following the principle of conservativeness.

REPORTING ESTIMATES

To date, there is no applicable international standard that applies across companies for qualifying products, systems, solutions, and services for environmental and climate protection, or for compiling and calculating the respective revenue and the quantity of reduced carbon dioxide emissions attributable to such products, systems, solutions, and services.

Thus, the inclusion of elements in the Environmental Portfolio is based on criteria, methodologies and assumptions that other companies and other stakeholders may view differently. Factors that may cause differences, among others, are: choice of applicable baseline methodology, application of global emission factors that may be different from local conditions, use patterns at customers that may be different from standard use patterns used for carbon dioxide emission reduction calculations, assessment of the life span of the Environmental Portfolio elements, internal assessments of our own power production efficiency factors, share of a core component and expert estimates if no other data is available.






Accordingly, revenue from our Environmental Portfolio and the reduction of our customers' annual carbon dioxide emissions may not be comparable with similar information reported by other companies. We report the annual carbon dioxide emissions reduction in the period of installation of the Environmental Portfolio element. The period of installation will be determined by milestones or based on estimated construction periods. This may differ from the timing of revenue recognition.

Furthermore, we subject revenue from our Environmental Portfolio and the reduction of our customers' annual carbon dioxide emissions to internal documentation and review requirements which are less sophisticated than those applicable for our financial information. We may change our policies for recognizing revenue from our Environmental Portfolio and the reduction of our customers' annual carbon dioxide emissions in the future without prior notice.

GRI Standards – key topics and boundaries

Siemens principles, key topics and boundaries					
No	1. Profit	Internal Boundaries	External Boundaries	GRI Standards	Sustainable Development Goals
1.1	We contribute to our customers' competitiveness with our products, solutions and services.		Customers	GRI Standard 201 Economic Performance GRI Standard 202 Market Presence	3 7 8 9 11 12 13
1.2	We partner with our customers to identify and develop sustainability related business opportunities.	own operations	Customers	GRI Standard 201 Economic Performance	3 7 8 9 11 12 13
1.3	We operate an efficient & resilient supply chain through supplier code of conduct, risk management, and capacity building.	own operations	Suppliers	GRI Standard 204 Procurement Practices GRI Standard 308 Supplier Environmental Assessment GRI Standard 408 Child Labor GRI Standard 414 Supplier Social Assessment	4 5 16 8 10 12
1.4	We proactively engage with our stakeholders to manage project and reputational risks and identify business relevant trends.	own operations	Customers, Suppliers, Society	GRI Standard 201 Economic performance GRI Standard 412 Human Rights	17
1.5	We adhere to the highest compliance & anti-corruption standards and promote integrity via the Siemens Integrity Initiative.	own operations	Customers, Suppliers, Society	GRI Standard 205 Anti Corruption GRI Standard 206 Anti-Competitive Behavior GRI Standard 307 Environmental Compliance GRI Standard 408 Child Labor GRI Standard 409 Forced or Compulsory Labor GRI Standard 412 Human Rights GRI Standard 419 Socioeconomic Compliance	8 16 17
2. Planet					
2.1.	We enable our customers to increase energy efficiency, save resources and reduce carbon emissions.	own operations	Customers	GRI Standard 302 Energy GRI Standard 305 Emissions	7 12 13
2.2	We develop our products, solutions and services based on a life cycle perspective and sound eco-design standards.	own operations	Customers	GRI Standard 301 Materials	12
2.3	We minimize the environmental impacts of our own operations by applying environmental management programs.	own operations	Society	GRI Standard 301 Materials GRI Standard 302 Energy GRI Standard 303 Water GRI Standard 305 Emissions GRI Standard 306 Effluents and Waste	3 6 7 12 13

Siemens principles, key topics and boundaries

No	3. People	Internal Boundaries	External Boundaries	GRI Standards	Sustainable Development Goals
3.1	We contribute to the sustainable development of societies with our portfolio, local operations, and thought leadership.		Society	GRI Standard 203 Indirect Economic Impacts GRI Standard 412 Human Rights GRI Standard 413 Local Communities	 
3.2	We foster long-term relationships with local societies through Corporate Citizenship projects jointly with partners.	own operations	Society	GRI Standard 203 Indirect Economic Impacts GRI Standard 413 Local Communities	
3.3	We live a zero-harm culture and promote the health of our employees.	own operations	Suppliers	GRI Standard 403 Occupational Health and Safety	
3.4	We live a culture of leadership based on common values, innovation mindset, people orientation and diversity.	own operations		GRI Standard 401 Employment GRI Standard 404 Training and Education GRI Standard 405 Diversity and Equal Opportunity GRI Standard 406 Non Discrimination GRI Standard 408 Child Labor GRI Standard 412 Human Rights	

The detailed GRI Standard Index – Comprehensive Option is available on our Sustainability website.

United Nations Global Compact

Siemens has been member of the UN Global Compact since 2003 and is committed to upholding the Compact's ten principles. Our "Sustainability Information 2018", our online Communication on Progress at the UN Global Compact webpage and the following report index, describes the progress we have made during fiscal 2018.

Index according to the ten principles of the Global Compact			
Principle	Systems	Measures	Achievements
Principle 1 Support of human rights	Our Siemens Business Conduct Guidelines (BCG) provide the ethical and legal framework within we conduct our business activities. They contain our basic principles and rules for our conduct internally and externally, for example on human rights core labor standards. The BCG are mandatory for all employees worldwide. With our Code of Conduct (CoC) for Siemens suppliers we ensure that these basic rights and principles are also observed in our supply chain. We have undergone a company-wide internal human rights risk assessment as part of our Compliance Risk Assessment (CRA).	Our Code of Conduct (CoC) for Siemens suppliers and third party intermediaries includes besides other: <ul style="list-style-type: none"> ➤ respect for basic rights of employees, ➤ strong "health and safety", ➤ environmental protection, ➤ zero tolerance on bribery and anti-corruption, ➤ avoid the purchase of conflict minerals. SUPPLY CHAIN MANAGEMENT THIS REPORT, PAGE 36 HUMAN RIGHTS THIS REPORT, PAGE 39	In the year under review, the number of sustainability self-assessments added up to 3,688. We conducted 765 supplier quality audits with integrated sustainability questions and 387 external sustainability audits. In the external sustainability audits, we identified a total of 8,776 potential improvements. Human rights is a continuous awareness topic. In fiscal 2018, Siemens joined the European Business and Human Rights Peer Learning Group of the Global Compact Network. It is designed as a human rights peer learning group for European companies from different sectors and sizes – on business and human rights.
Principle 2 Exclusion of human rights abuses			
Principle 3 Assurance of freedom of association			
Principle 4 Elimination of all forms of forced labor			
Principle 5 Abolition of child labor			
	SUSTAINABLE DEVELOPMENT OF SOCIETIES THIS REPORT PAGE 6 SUPPLY CHAIN MANAGEMENT THIS REPORT, PAGE 36 HUMAN RIGHTS THIS REPORT, PAGE 39		SUPPLY CHAIN MANAGEMENT THIS REPORT, PAGE 36 HUMAN RIGHTS THIS REPORT, PAGE 39
Principle 6 Elimination of discrimination	We do not tolerate discrimination and have anchored that in the Siemens Business Conduct Guidelines. We actively foster diversity within the Company by creating a working environment that is open to all people, independent of their cultural background, heritage, ethnicity, sexual orientation, gender identity and individual gender expressions. We are amongst signatories of the "Charta der Vielfalt". WORKING AT SIEMENS THIS REPORT, PAGE 16	Our global diversity networks promote and discuss diversity topics across the Company. These groups and programs include the Global Leadership Organization of Women (GLOW), Diversity Ambassador and GENE, our generation's network to foster cross-generation exchange. The success of all measures is assessed annually in the diversity scorecard. Diversity focus areas are: <ul style="list-style-type: none"> ➤ Consciously addressing unconscious bias, ➤ promoting gender balance, ➤ fostering the value of globality, ➤ encouraging diversity & inclusiveness. WORKING AT SIEMENS THIS REPORT, PAGE 16	A voluntary online training (for unconscious bias) was rolled out between October 2017 and February 2018. By July 2018, over 214,000 employees have successfully completed a 30 minute eLearning module called "Making Better People Decisions". WORKING AT SIEMENS THIS REPORT, PAGE 16

Index according to the ten principles of the Global Compact

Principle	Systems	Measures	Achievements
Women Empowerment	<p>In 2016, we committed to the UNGC Women's Empowerment Principles and signed the Diversity Charter, an initiative by the German government.</p> <p>SUSTAINABILITY MANAGEMENT THIS REPORT, PAGE 10</p>	<p>We encourage the use of the Women Empowerment Principles as guide posts for actions that advance and empower women in the workplace, marketplace and community, and communicate progress through the use of sex-disaggregated data and other benchmarks.</p> <p>WORKING AT SIEMENS THIS REPORT, PAGE 16</p>	<p>In the year under review, women accounted for 24% of our total workforce. The proportion of female employees in management positions at Siemens has risen continuously in recent years and is now 16%. In fiscal 2018 women hired amounted 27% of all new hires.</p> <p>WORKING AT SIEMENS THIS REPORT, PAGE 16</p>
Principle 7 Precautionary approach to environmental protection	<p>Siemens has an EHS management system in place to manage its environmental performance. All relevant production and office sites are obliged to implement an environmental management system which fulfills the requirements of the internationally recognized ISO 14001 standard as well as our own internal standard "Specifications on environmentally compatible product and system design".</p> <p>DECARBONIZATION THIS REPORT, PAGE 24</p>	<p>Our programs "Serve the Environment" (StE), "CO₂ neutral Siemens" and "Product Eco Excellence" address all our material environmental impacts for industrial environmental protection and product-related environmental protection respectively.</p> <p>We report direct greenhouse gas emissions (Scope 1), indirect greenhouse gas emissions (Scope 2) and since fiscal 2016, we also report Scope 3 from supply chain, such as business travel, capital goods, fuel and energy related activities and transportation.</p> <p>SUSTAINABILITY MANAGEMENT THIS REPORT, PAGE 10 DECARBONIZATION THIS REPORT, PAGE 24</p>	<p>In fiscal 2018, reduced our CO₂ emissions by 700,000 tons CO₂ compared to the baseline in fiscal 2014 and thus we are well on track to achieve our interim goal of 50% reduction by 2020. In Germany, about 80% of the electricity consumption of our sites is already covered by renewables.</p> <p>For Scope 1 and 2 combined we reached a reduction in emissions of 147 kt CO₂e.</p> <p>SUSTAINABILITY MANAGEMENT THIS REPORT, PAGE 10 DECARBONIZATION THIS REPORT, PAGE 24</p>
Principle 8 Specific initiatives to promote environmental protection	<p>Raising our employees' awareness of environmental and climate protection is an element of both our environmental strategy and our social commitment. With internal communications measures and our corporate citizenship focus on "environmental," we help create a greater sense of responsibility for ecological issues.</p> <p>SUSTAINABILITY MANAGEMENT THIS REPORT, PAGE 10 CORPORATE CITIZENSHIP THIS REPORT, PAGE 22</p>	<p>Siemens maintains a global environmental communications network to ensure that knowledge about environmental management, methods, solutions and experiences is communicated across locations, businesses and national borders.</p> <p>For years, we are an engaged member of One Young World, the World Business Council for Sustainable Development (WBCSD) and the World Economic Forum.</p> <p>SUSTAINABILITY MANAGEMENT THIS REPORT, PAGE 10</p>	<p>In the year under review, we donated €21.2 million for corporate citizenship activities. Siemens takes part at the Conference of Parties (COP) in Kaovice, Poland in November, where we will again give insights how renewable energy can contribute to the decarbonization of the industry. In September 2018, we also attended the UN New York Climate Week.</p> <p>SUSTAINABILITY MANAGEMENT THIS REPORT, PAGE 10 CORPORATE CITIZENSHIP THIS REPORT, PAGE 22</p>

Index according to the ten principles of the Global Compact

Principle	Systems	Measures	Achievements
Principle 9 Development and diffusion of environmentally friendly technologies	<p>As part of our Environmental Portfolio, we develop and market products, solutions and services that enable our customers to reduce their CO₂ emissions, lower lifecycle costs and protect the environment.</p> <p>ENVIRONMENTAL PORTFOLIO THIS REPORT, PAGE 25</p>	<p>We continuously review our portfolio with regards to newly developed or acquired portfolio elements that qualify as Environmental Portfolio elements or exclude elements that no longer fulfill our qualifications criteria.</p> <p>ENVIRONMENTAL PORTFOLIO THIS REPORT, PAGE 25</p>	<p>In the year under review, our Environmental Portfolio helped our customers and partners throughout the world reduce their CO₂ emissions by 73 million metric tons.</p> <p>Our Environmental Portfolio accounted for almost half of our revenue from continuing operations. Three-quarters of the revenue from our Environmental Portfolio was generated from products and solutions for energy efficiency.</p> <p>SUSTAINABILITY MANAGEMENT THIS REPORT, PAGE 10 ENVIRONMENTAL PORTFOLIO THIS REPORT, PAGE 25</p>
Principle 10 Measures against corruption	<p>The Siemens Business Conduct Guidelines (BCG) provide the ethical and legal framework within which we conduct our business activities. They also serve as an expression of our values and lay the foundation for more detailed internal regulations. The Business Conduct Guidelines are binding for all employees worldwide.</p> <p>Our Compliance System aims to ensure that our worldwide business practices comply with these guidelines and obey all applicable laws. To this end, and to protect against compliance risks, our Compliance System is based on three pillars – prevent, detect and respond.</p> <p>COMPLIANCE THIS REPORT, PAGE 32</p>	<p>Our compliance priorities are:</p> <ul style="list-style-type: none"> ➤ Foster Integrity, ➤ Manage Risk and Assurance, ➤ Effective Processes, ➤ Excellent Compliance Team, ➤ Committed to Business. <p>These guide our activities and are supplemented by focus areas and activities for each fiscal year.</p> <p>We actively support the enactment of the UN Convention against Corruption and the OECD Convention on Combating Bribery. Our Chief Compliance Officer has been appointed Chairman of the B20 Cross- thematic Group on Responsible Business Conduct and Anti-Corruption during the German G20 presidency 2017 and in 2018 he was asked to continue as Co-Chair of the B20 Cross Thematic Group Compliance and Integrity during the Argentinian G20 presidency.</p> <p>Activities in the World Economic Forum include the Company's participation in the Partnering Against Corruption Initiative (PACI).</p> <p>COMPLIANCE THIS REPORT, PAGE 32</p>	<p>In the year under review the Business Conduct Guidelines have been updated and extensively revised in a cross-organizational process. Employees worldwide were given the opportunity to take part in the update process for our new code of conduct which will come into effect in fiscal 2019. The process of compliance in project sales was further enhanced in fiscal 2018 by adding the two risk modules human rights and anti-money-laundering to the already existing anti-corruption module in the compliance risk evaluation for projects. Through the implementation of a new Compliance Due Diligence Tool we achieved reduced complexity, automation and intelligent screening in the due diligence process for Business Partners.</p> <p>COMPLIANCE THIS REPORT, PAGE 32</p>

United Nations Water Mandate

PROGRESS REPORT

Siemens became a signatory to the United Nations CEO Water Mandate in 2008. Our continuing support for the CEO Water Mandate reflects our commitment on two fronts: Firstly, managing water efficiently in our own facilities. Secondly, providing solutions that help our customers and societies handle water and wastewater more economically.

OUR OWN ACTIVITIES

For more information about the resource conservation and water consumption at Siemens locations, see the section → **ENVIRONMENT** in this report on page 25. We are pursuing a new approach to water resources management that was developed in 2012. At locations where there are increased water-related risks – for example, as a result of aridity, high wastewater loads, or poorly developed technical infrastructures – we define goals that are matched to local circumstances. This enables us to effectively reduce risks and negative impacts on the environment. With the Siemens Water Strategy, we aim to reduce the local negative impact of our water use, taking water stress and other risks into account, such as water pollution or flooding of environmentally relevant areas.

We use all our resources carefully and avoid waste of resources wherever it is possible. Amongst others, through Leadership in Energy and Environmental Design (LEED) certification for all our new buildings including our new global headquarters in Munich, where efficient use of water is a key element of building design criteria. Through collection and usage of rainwater, the water consumption of the new headquarters lies 50% below guide values of new buildings. Further examples are:

Drought resistant green spaces in Spain

A lot of water is used worldwide to irrigate green spaces – even in countries that have water stress. In the greater area of Madrid two of our sites have planted grass with a low water demand. With this they were able to reduce their water consumption by 1600 m³ in fiscal 2018.

Smart water management in Vadodera and Naroda in India

In areas where you have a high variability in water supply water management is of great importance: Water scarcity in summer and monsoons during the rainy season mean that collecting rainwater and using it to recharge groundwater makes absolute sense. And if you additionally treat the production and sanitary wastewater on site, you can use it to irrigate green spaces thus further mitigating local water stress.

Vadodera:

 [HTTPS://WWW.SIEMENS.COM/GLOBAL/EN/HOME/COMPANY/SUSTAINABILITY/RESOURCECONSERVATION/WATERMANAGEMENT-IN-INDIA.HTML](https://www.siemens.com/global/en/home/company/sustainability/resourceconservation/watermanagement-in-india.html)

Naroda:

 [HTTPS://WWW.SIEMENS.COM/GLOBAL/EN/HOME/COMPANY/SUSTAINABILITY/RESOURCECONSERVATION/BIODIVERSITY-IN-INDIA.HTML](https://www.siemens.com/global/en/home/company/sustainability/resourceconservation/biodiversity-in-india.html)

OUR SUPPLIERS

The environmental requirements that our suppliers must fulfill are defined in our Code of Conduct for Siemens Suppliers. The responsible use of water forms an integral part of this code. For more information on these requirements and on supply chain management please refer to → **SUPPLY CHAIN MANAGEMENT** in this report.

COMMUNITY ENGAGEMENT

As a member of various international organizations, we're involved in numerous initiatives and programs, including the Action 2020 Water Project of the World Business Council for Sustainable Development. We initiate and implement projects in various regions that promote efficient use of water.

In addition, the Siemens Stiftung drives an entrepreneurial approach to supply clean drinking water to communities. Project example include:

Safe Water Enterprises

With Safe Water Enterprises, Siemens Stiftung is committed to a sustainable supply of safe drinking water in rural regions in Kenya. Small kiosks are equipped with mobile SkyHydrant water filters, which remove suspended solids, bacteria, and viruses from water with hair-thin membrane fibers. The filtration process operates without electricity, requiring no grid connectivity. The purified water is sold at an affordable price; the earnings cover operational costs. In addition to expanding the supply of drinking water, Safe Water Enterprises create income opportunities for members and local communities. Community members receive technical and business training to become kiosk operators. Meanwhile about 27 kiosk operators are working at the 19 water kiosks in Kenya, Tanzani and Uganda.

For more information with regards to the projects of the Siemens Foundation, please refer to:

 [WWW.SIEMENS-STIFTUNG.ORG/EN/PROJECTS](http://www.siemens-stiftung.org/en/projects)

Independent auditor's limited assurance report

The assurance engagement performed by Ernst&Young (EY) relates exclusively to the German PDF-version of the section "Sustainability at Siemens" of the report "Sustainability Information 2018". The following text is a translation of the original German Independent Assurance Report.

TO SIEMENS AG, BERLIN AND MUNICH

We have performed a limited assurance engagement on the section "Sustainability at Siemens" in the report "Sustainability Information 2018" of Siemens AG for the reporting period from October 1, 2017 to September 30, 2018 (hereafter the report).

Our engagement exclusively relates to the German PDF-version of the section "Sustainability at Siemens" in the report. Our engagement did not include any prospective disclosures and links to other web pages. The report is published as a PDF-version at www.siemens.com/investor/en

MANAGEMENT'S RESPONSIBILITY

The legal representatives of Siemens AG are responsible for the preparation of the report in accordance with the reporting criteria and for the selection of the information to be assessed. As reporting criteria, the Company applies the Sustainability Reporting Standards of the Global Reporting Initiative (GRI) and, for the key performance indicators of the Environmental Portfolio, the reporting principles as outlined in the Annex "Environmental Portfolio Reporting Principles" and the underlying criteria set forth in "A Corporate Accounting and Reporting Standard – Revised Edition" and "GHG Protocol for Project Accounting" issued by the Greenhouse Gas Protocol Initiative.

This responsibility includes the selection and application of appropriate methods to prepare the report as well as making assumptions and estimates related to individual sustainability disclosures which are reasonable in the circumstances. Furthermore, the legal representatives are responsible for such internal controls that they have considered necessary to enable the preparation of a report that is free from – intended or unintended – material misstatement.

AUDITOR'S DECLARATION RELATING TO INDEPENDENCE AND QUALITY CONTROL

We are independent from the Company in accordance with the provisions under German commercial law and professional requirements, and we have fulfilled our other professional responsibilities in accordance with these requirements.

Our audit firm applies the national statutory regulations and professional pronouncements for quality control, in particular the by-laws regulating the rights and duties of Wirtschaftsprüfer and vereidigte Buchprüfer in the exercise of their profession [Berufssatzung für Wirtschaftsprüfer und vereidigte Buchprüfer] as well as the IDW Standard on Quality Control 1: Requirements for Quality Control in audit firms [IDW Qualitätssicherungsstandard 1: Anforderungen an die Qualitätssicherung in der Wirtschaftsprüferpraxis (IDW QS 1)].

AUDITOR'S RESPONSIBILITY

Our responsibility is to express a limited assurance conclusion on the information in the section "Sustainability at Siemens" in the report based on the assurance engagement we have performed.

We conducted our assurance engagement in accordance with the International Standard on Assurance Engagements (ISAE) 3000 (Revised): "Assurance Engagements other than Audits or Reviews of Historical Financial Information", issued by the International Auditing and Assurance Standards Board (IAASB). This Standard requires that we plan and perform the assurance engagement to obtain limited assurance about whether the section "Sustainability at Siemens" in the report of the Company for the reporting period from October 1, 2017 to September 30, 2018 has been prepared, in all material respects, in accordance with the reporting criteria. In a limited assurance engagement the assurance procedures are less in extent than for a reasonable assurance engagement and therefore a substantially lower level of assurance is obtained. The assurance procedures selected depend on the auditor's professional judgment.

Within the scope of our assurance engagement, which has been conducted between May and November 2018, we performed amongst others the following assurance and other procedures:

- Inquiries of employees concerning the sustainability strategy, sustainability principles and sustainability management including the stakeholder dialog of Siemens AG,
- Inquiries of employees in the central Corporate Development – Sustainability department responsible for the preparation of the sustainability reporting in order to assess the sustainability reporting system, the data capture and compilation methods as well as internal controls to the extent relevant for the limited assurance engagement,

- Inquiries of employees responsible in the Corporate departments for the topics customers, research and development, employees, occupational health and safety, corporate citizenship, environment, environmental portfolio, compliance, supply chain management and human rights to assess the data capture and compilation methods as well as internal controls to the extent relevant for the limited assurance engagement,
- Inspection of the relevant documentation of the systems and processes for compiling, analyzing, and aggregating sustainability data in the reporting period and testing such documentation on a sample of basis,
- Analytical measures at Group level, on the level of Divisions and the Strategic Units Siemens Healthineers and Siemens Gamesa Renewable Energy regarding the quality of the reported data,
- Inquiries and inspection of documents on a sample basis relating to the collection and reporting of the sustainability data from the topics environmental protection and occupational safety partly during site visits
 - at the location Berlin of the Division Power and Gas,
 - at the location Bad Neustadt a. d. Saale of the Division Digital Factory,
 - at the location Vienna (Austria) of the Division Mobility,
 - at the location Zug (Switzerland) of the Division Building Technologies,
 - at the location São Paulo of the Regional Company Brazil,
 - as well as at the Divisions Power and Gas, Digital Factory, Process Industries and Drives and Building Technologies,
- Inquiries and inspection of documents on a sample basis relating to the collection and reporting of the key performance indicators of the Environmental Portfolio including the procedures for determining the qualification of products, solutions and services for the Environmental Portfolio during site visits at the Divisions Process Industries and Drives, Mobility and the Strategic Units Siemens Healthineers and Siemens Gamesa Renewable Energy,
- Inquiries of employees from selected departments at the Group's headquarters, Corporate departments, Divisions and the Strategic Units Siemens Healthineers and Siemens Gamesa Renewable Energy and at the sites visited on material qualitative statements in the section "Sustainability at Siemens" as well as the inspection of selected underlying documents,
- Review of material qualitative statements in the section "Sustainability at Siemens" for plausibility and consistency.


ASSURANCE CONCLUSION

Based on our assurance procedures performed and assurance evidence obtained, nothing has come to our attention that causes us to believe that the disclosures in the section "Sustainability at Siemens" of the report "Sustainability Information 2018" for the period from October 1, 2017 to September 30, 2018 has not been prepared, in all material respects, in accordance with the reporting criteria.

INTENDED USE OF THE ASSURANCE REPORT

We issue this report on the basis of the engagement agreed with Siemens AG. The assurance engagement has been performed for the purposes of the Company and the report is solely intended to inform the Company as to the results of the assurance engagement and must not be used for purposes other than those intended. The report is not intended to provide third parties with support in making (financial) decisions.

ENGAGEMENT TERMS AND LIABILITY

The "General Engagement Terms for Wirtschaftsprüfer und Wirtschaftsprüfungsgesellschaften [German Public Auditors and Public Audit Firms]" dated 1 January 2017 are applicable to this engagement and also govern our relations with third parties in the context of this engagement  [SEE ATTACHMENT](#). In addition, please refer to the liability provisions contained there in no. 9 and to the exclusion of liability towards third parties. We assume no responsibility, liability or other obligations towards third parties unless we have concluded a written agreement to the contrary with the respective third party or liability cannot effectively be precluded.

We make express reference to the fact that we do not update the assurance report to reflect events or circumstances arising after it was issued unless required to do so by law. It is the sole responsibility of anyone taking note of the result of our assurance engagement summarized in this assurance report to decide whether and in what way this result is useful or suitable for their purposes and to supplement, verify or update it by means of their own review procedures.

Munich, November 26, 2018

Ernst & Young GmbH
Wirtschaftsprüfungsgesellschaft

Spannagl
Wirtschaftsprüfer
(German Public Auditor)

Johne
Wirtschaftsprüferin
(German Public Auditor)

Notes and forward-looking statements

There is no standard system that applies across companies for qualifying products and solutions for environmental and climate protection, or for compiling and calculating the respective revenues and the quantity of reduced carbon dioxide emissions attributable to such products and solutions. Accordingly, revenues from our Environmental Portfolio and the reduction of our customers' annual carbon dioxide emissions may not be comparable with similar information reported by other companies. Revenues from our Environmental Portfolio and the reduction of our customers' annual carbon dioxide emissions are derived from various internal reporting systems that are generally different from those applicable to the financial information presented in our Consolidated Financial Statements and are, in particular, subject to less sophisticated internal documentation as well as preparation and review requirements, including the IT systems in use and the general internal control environment. We may change our policies for recognizing revenues from our Environmental Portfolio and the reduction of our customers' annual carbon dioxide emissions in the future without previous notice.

This document contains statements related to our future business and financial performance and future events or developments involving Siemens that may constitute forward-looking statements. These statements may be identified by words such as "expect," "look forward to," "anticipate," "intend," "plan," "believe," "seek," "estimate," "will," "project" or words of similar meaning. We may also make forward-looking statements in other reports, in presentations, in material delivered to shareholders and in press releases. In addition, our representatives may from time to time make oral forward-looking statements.

Such statements are based on the current expectations and certain assumptions of Siemens' management, of which many are beyond Siemens' control. These are subject to a number of risks, uncertainties and factors, including, but not limited to those described in disclosures, in particular in the chapter Risks in this Annual Report. Should one or more of these risks or uncertainties materialize, or should underlying expectations not occur or assumptions prove incorrect, actual results, performance or achievements of Siemens may (negatively or positively) vary materially from those described explicitly or implicitly in the relevant forward-looking statement. Siemens neither intends, nor assumes any obligation, to update or revise these forward-looking statements in light of developments which differ from those anticipated.

This document includes – in the applicable financial reporting framework not clearly defined – supplemental financial measures that are or may be alternative performance measures (non-GAAP measures). These supplemental financial measures should not be viewed in isolation or as alternatives to measures of Siemens' net assets and financial positions or results of operations as presented in accordance with the applicable financial reporting framework in its Consolidated Financial Statements. Other companies that report or describe similarly titled alternative performance measures may calculate them differently.

Due to rounding, numbers presented throughout this and other documents may not add up precisely to the totals provided and percentages may not precisely reflect the absolute figures.

This document is an English language translation of the German document. In case of discrepancies, the German language document is the sole authoritative and universally valid version.

Further information and information resources

FURTHER INFORMATION ON THE CONTENTS IS AVAILABLE FROM:

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+49 (0) 89 636-1332474 (Investor Relations)

Email press@siemens.com
investorrelations@siemens.com
sustainability@siemens.com

ADDITIONAL INFORMATION

The Siemens Annual Report 2018 is available online at:

 [WWW.SIEMENS.COM/ANNUAL-REPORT](http://www.siemens.com/annual-report)

FURTHER SUSTAINABILITY INFORMATION

Further information on our commitment to sustainability and additional sustainability-related indicators are available at:

 [WWW.SIEMENS.COM/SUSTAINABILITY](http://www.siemens.com/sustainability)

Further information on research, development and innovation at Siemens is available at:

 [WWW.SIEMENS.COM/INNOVATION](http://www.siemens.com/innovation)

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