

**SIEMENS**

*Ingenuity for life*



Sustainability  
Information 2019

# Foreword

## Dear Reader,

Serving society while doing successful and sustainable business is at the heart of Siemens' strategy. It's our company's ultimate purpose.

The 17 Sustainable Development Goals (SDGs) set out in the United Nations' (UN) 2030 Agenda outline humanity's consensus on what constitutes progress. They're also our yardstick for measuring Siemens' impact on the world.

While Siemens' activities contribute to achieving all 17 SDGs, our company's impact is greatest on Good Health and Wellbeing (SDG 3), Affordable and Clean Energy (SDG 7), Industry, Innovation and Infrastructure (SDG 9), Sustainable Cities and Communities (SDG 11), and Climate Action (SDG 13). Climate Action – i.e. the fight against climate change – is one of the best-known SDGs. Siemens has contributed in multiple ways here.

To begin with, Siemens was the world's first major industrial company to publicly commit to achieving carbon neutrality by 2030. In this fiscal year alone, we reduced our emissions by more than 10 percent. Since fiscal 2014, emissions have dropped by around 41 percent – from 2.2 million tons to 1.3 million tons in fiscal 2019 – so that we are well on track to reach our intermediate goal to reduce emissions by half by 2020.

How are we doing that? One prime example is our transition to renewable energies. Since 2014, we eliminated almost all GHG emissions at Siemens facilities in five focus countries by switching to green sources when purchasing electricity. These five countries – the United States, the United Kingdom (UK), the Czech Republic, Austria and Germany – account for more than 60 percent of Siemens' total electricity consumption.

Another example of how Siemens has contributed to "Climate Action" is Siemens UK's carbon reduction investment fund. During fiscal 2019, a fund of £240,000 was created by charging our UK activities an internal carbon price of £13 per ton of carbon emissions from gas and electricity use. This specific price was set in order to raise enough seed funding for five to ten climate protection projects as part of a pilot phase. These projects range from innovative solutions, such as using digital twins for gas turbines, to energy-efficiency measures like funding new air curtains for factories.

Beyond our own company, we support our customers' efforts to reduce their carbon footprints with technologies from our environmental portfolio. In fiscal 2019, these technologies enabled customers all over the world to decrease their CO<sub>2</sub> emissions by 637 million metric tons (following a reduction of 617 million metric tons in fiscal 2018). This translates to more than 80% of Germany's annual carbon dioxide emissions.

And we're constantly working to find new ways to achieve carbon reductions. In Linz, Austria, for example, we launched the world's largest electrolyze test field to enable CO<sub>2</sub>-neutral steel production. With our partner Voestalpine, we replace the climate-damaging burning of coal and coke by using hydrogen generated from renewable energy. After successful completion of the testing phase, around one-third of emissions from operations of our customer could be saved in the future.

The SDG "Affordable and Clean Energy", i.e. the need to transform global energy systems, is closely related to "Climate Action". Here too, Siemens has been a leading force. In 2019, we developed a comprehensive concept – The Energy Value Charter (EVC). It's a blueprint for tailor-made energy transitions and the first such concept that takes into account and brings together not only technology, but also the relevant regulatory environment and social activities. The EVC aims to create customized solutions that will empower countries to make their energy systems fit for the future.

One country in which Siemens is modernizing the energy system is Iraq. In 2019, Siemens and the Ministry of Electricity of the Republic of Iraq signed an implementation agreement to secure reliable and affordable electricity for the Iraqi people. In total, implementing our roadmap will add more than 11 gigawatts of power capacity and ensure that all Iraqis have access to power. In addition to repowering Iraq, we're supporting the country's transformation in the areas of education, healthcare and the fight against corruption. This comprehensive approach for driving progress is what we call "Business to Society."

Today, a company has to be a thought leader with regard to topics that are relevant for society on a global level. Energy is such an area, and so is cybersecurity. At the Munich Security Conference in February 2018, Siemens teamed up with eight strong global partners to initiate the Charter of Trust – the first global charter for more cybersecurity. In the meantime, this organization has grown to include 16 members and three associated partners.

In less than two years, we can proudly say that the Charter of Trust has made a real difference. By helping shape laws at the national, European and global levels, for instance, the Charter of Trust partners have been driving advances in cybersecurity education and supply-chain security as well as in the harmonization of regulations and standards.

Making a positive difference in the world would be impossible without high standards of integrity and compliance. Among global companies, Siemens has been and will continue to be a world leader in this area. Only clean business is Siemens business. This commitment also applies to the integrity of our accounting processes and related functions.

Beyond the boundaries of our company, we're committed to Collective Action, which is building alliances to fight corruption and promote fair competition together with numerous organizations all around the world. We'll uphold our commitment to driving the Siemens Integrity Initiative with the Third Funding Round in 2020 and beyond. Furthermore, we'll continue to support international and national organizations and initiatives with our long-standing experience and global network to combat corruption worldwide.

For years now, Siemens' comprehensive commitment to sustainability has been well-received around the world. For the 20<sup>th</sup> consecutive time, RobecoSAM/Dow Jones listed Siemens in the DJSI World Index, confirming our standing as one of the most sustainable companies in our industry. In addition, the Carbon Disclosure Project recognized our performance in mitigating climate change by putting Siemens on its annual "A List" of the best companies driving decarbonization worldwide. We are also pleased to be ranked first in the Corporate Knight's "2019 Global 100 Most Sustainable Corporations in the World" ranking within our Industry and awarded by Fortune magazine in the U.S. to be "the most admired company" in our industry for the fourth year in a row.

This recognition inspires us to keep up our good work. However, we know that the SDGs can only be met if a multitude of stakeholders cooperate and contribute to an ecosystem. Therefore, together with other companies, we're also participating in the Systems Initiative launched by the World Economic Forum (WEF) to strive for the highest standards of governance. Within this initiative, we support – among other efforts – the WEF's Alliance of CEO Climate Leaders. We're continuing our commitment to the We Mean Business coalition to accelerate the transition to a low-carbon economy. Additionally, our commitment to the Ten Principles of the United Nations Global Compact as well as to the UN Guiding Principles for Business (UNGPs) and Human Rights are as firm as ever. Siemens has recently been ranked first amongst the 20 largest German companies in terms of meeting the requirements as defined by the UNGPs.

Currently, Siemens is implementing its strategic concept called Vision 2020+. We're giving our businesses the entrepreneurial freedom and flexibility to be more focused, adaptive and accountable in a rapidly changing environment. The next generation of Siemens will consist of three Companies: Siemens AG, representing the Industrial and Infrastructure Core of Siemens, with Digital Industries, Smart Infrastructure, and Mobility; Siemens Healthineers; and Siemens Energy.

Shaping a Siemens ecosystem consisting of Siemens companies, shareholders, customers and partners, employees, and society includes the aspiration to make an even bigger impact to the UN's 2030 Agenda for Sustainable Development. Sustainability, in all its dimensions – including the environment, society, and responsible business practices – will together with our strive for innovation and competitiveness, remain at the core of our priorities. Siemens, with its 385,000 employees, lived up to these elements in fiscal 2019 and will continue to do so in the future.

Sincerely,



Joe Kaeser



Dr. Roland Busch

# A

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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 for 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 have 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 CO<sub>2</sub>-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 CO<sub>2</sub>-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 CO<sub>2</sub> 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), eonsense, 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 2019, over 35 countries had finished their analysis. In addition, we continued to update our global analysis in the Siemens – Business to Society approach. 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 2020, we will continue to apply the B2S methodology within customer projects and tenders while further developing our impact measurement methodology to address value to all stakeholders. 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](http://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 and opportunities, 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. The materiality assessment for climate related financial risks and opportunities is based on the G20 Financial Stability Board Task Force on Climate-related Financial Disclosures (TCFD) framework, and includes assessment against the four recommended Disclosure Focus Areas of governance, strategy, risk management and metrics and targets (see Annex → **TASK FORCE ON CLIMATE RELATED FINANCIAL DISCLOSURE (TCFD)**).

### 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, regional entities, Operating Companies 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. For example, during fiscal 2019 the SSB decided on key topics such as decarbonization, climate-related risks and opportunities, human rights, and sustainability governance. The Sustainability Director directly reports to the Chief Sustain-

ability 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 Functions, 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, customers, 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. Some examples of these partnerships and collaborations are provided below.

We are working with the Organization for Economic Cooperation 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 and we joined the Carbon Pricing Leadership Coalition of the World Bank (CPLC) in 2016, and we advocate the introduction of carbon pricing globally.

We are committed to the UNGC's 10 principles and actively contribute to the CEO Water Mandate. We are also 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 to create a better world, with more responsible, more effective leadership.

We actively engaged with the Coalition for Inclusive Capitalism, a not-for-profit organization engaging leaders across business, government, and civil society to help make capitalism more dynamic, sustainable, and inclusive.

We are also a member of the Global Reporting Initiative (GRI) and apply their Sustainability Standards in this report. 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 the Dow Jones Sustainability Index (DJSI) rated us as one of the most sustainable companies in our industry, and we repeated our score of 79 points. We were listed in the DJSI World Index for the 20<sup>th</sup> straight year. We are considered a global leader on corporate climate action by CDP, achieving a place on the CDP Climate Change A List. 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 third year in a row, too.

For EcoVadis, which provides supplier sustainability ratings for global supply chains, Siemens received a rating of 61 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 our 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 how we are doing this has to 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, we have implemented a sales excellence work stream as part of our Operating Model. The Operating Model is a program designed to make the company more adaptable and flexible, putting us in a better position to adjust to constant shifts in the business environment. 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 Operating Model 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, and digitalization.

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 is based on a single question: “How likely is it that you would recommend Siemens 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.<sup>1</sup>

<sup>1</sup> In most cases, the survey questions will focus on Business Unit (BU) level. The overall score can be aggregated up to Company 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 18,660 interviews in 119 countries in 33 languages, the overall NPS (excluding the Strategic Companies Siemens Healthineers and Siemens Gamesa Renewable Energy as well as Portfolio Companies) score fiscal 2019 was up, with good results in the majority of Businesses, headquarters and in our lead countries. The result of 2019 clearly indicates a positive development to reach the Vision 2020+ target that expects 20 percent improvement over the next years. Improvements are mainly based on results from the Operating/Strategic Companies and regions and can also be attributed to the stronger focus on maintaining even closer contact with our customers.

But 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 strategy into one based on customer life cycle 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 2019, the company continuously focused on the following CCTs:

- **Power electronics** for inverters have always played a major role in industry. As the amount of 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.
- The **Digital Twin** concept involves 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.

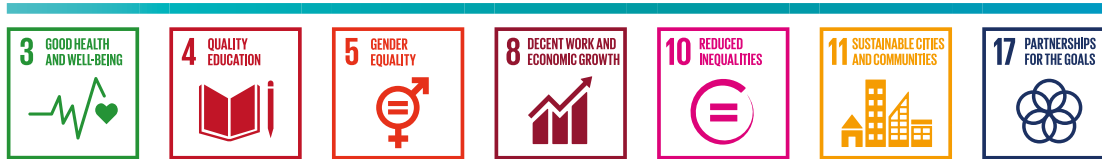
- **Industrial cybersecurity** is a key technology for digitalization. The security for industrial facilities and the protection of data and intellectual property are important requirements not only for customers, but also for governments and societies. These requirements must be fulfilled.
- **Blockchain** 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 2019, we reported research and development (R&D) expenses of €5.7 billion, compared to €5.6 billion in fiscal 2018. The resulting R&D intensity, defined as the ratio of R&D expenses to revenue, was 6.5%, thus below the R&D intensity of 6.7% in fiscal 2018. Additions to capitalized development expenses amounted to €0.4 billion in fiscal 2019, compared to €0.3 billion in fiscal 2018. As of September 30, 2019, Siemens held approximately 68,300 granted patents worldwide in its continuing operations. As of September 30, 2018, we held approximately 65,000 granted patents. On average, we had 45,100 R&D employees in fiscal 2019.

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 foreknowledge 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 founding in 1847, Siemens has been inspired by the desire to shape the future. Our innovative employees have made us who we are today. It is to them that we owe our continued economic success, because our top talents across the world stand for Ingenuity 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 support families through advisory and financial measures.

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. We increasingly collaborate with colleagues from across the globe, and digital solutions 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.

### VISION 2020+ AND OWNERSHIP CULTURE

**Vision 2020+** is our strategy to shape the next-generation Siemens. Underlying Siemens' strategy is our culture, our values and what we stand for. That's how we achieve sustainable success. We want to foster an **Ownership Culture** worldwide and aspire to empower all employees to take responsibility in their role. The motto of the Siemens Ownership Culture initiative is

"Always act as if it were your own company". In May 2019, we launched our redesigned Employee Engagement Survey<sup>1</sup> with a quarterly cycle and achieved a participation rate of 62%. The average approval for aspects of Innovation, Diversity, Openness and Leadership was 70%.

### Siemens Share Programs

Share ownership is and will remain a key aspect of Siemens' ownership culture, which aims to encourage every employee to take personal responsibility for his or her actions at the company. This approach is based on the conviction that employees have a stronger personal identification with their company if they own a part of it. Employee co-owners are more motivated and committed, assume responsibility and act in a way that supports their company's long-term success. Ownership culture remains an important aspect at Siemens' subsidiaries, too. This is the case, for example, at Siemens Healthineers, where eligible employees can participate in separate equity programs for Siemens Healthineers AG.

Ownership culture has a long tradition at Siemens: the company introduced its first employee **profit-sharing program** back in 1858. The redesigned Profit Sharing paid out in Siemens shares 2018 boosted our employee shareholder base to 300,000. The yearly offered Siemens' global Share Matching Program was launched in 2008 as the core of the company's Equity Culture. Today, it is one of the world's largest employee equity programs: More than 132,000 Siemens employees invested in Siemens in 2019 which means that almost 45% of all eligible employees took the chance to participate. Additionally, as part of its global Share Matching Program, Siemens awarded a total of around 702,300 free shares after a three-year holding period for employees who participated in the program offered in fiscal 2016.

### EMPLOYEE STRUCTURE AND DEVELOPMENT

As of September 30, 2019, we employed 385,000<sup>2</sup> employees worldwide, which represents an increase of approximately 6,000 compared to September 30, 2018. Of these 61% were in Europe, C.I.S., Africa, the Middle East, 20% in the Americas, and 19% in

<sup>1</sup> Without SGRE and Siemens Healthineers.

<sup>2</sup> All figures in this chapter refer to headcount.



Asia and Australia. More than 93% of our employees have a permanent contract. In Asia and 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,	
	2019	2018
Siemens (in thousands)	385	379
Europe, C.I.S., <sup>1</sup> 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

<sup>1</sup> Commonwealth of Independent States.

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

Proportion of women	September 30,	
	2019	2018
(as a percentage of total employees)		
Siemens	24	24
Europe, C.I.S., <sup>1</sup> Africa, Middle East	24	24
Americas	25	25
Asia, Australia	26	26

<sup>1</sup> Commonwealth of Independent States.

## Hires and exits

New hires were up by more than 6% compared to fiscal 2018, while exits decreased by 4%. The percentage of all company dismissals – as a share of employee exits – was 15% for the year, compared with 20% in the previous year. All other variations result from changes on the basis of consolidation and other changes.

Siemens employee hires	Fiscal year	
	2019	2018
(in thousands)		
Siemens	43.3	40.8
Europe, C.I.S., <sup>1</sup> Africa, Middle East	21.3	19.5
Americas	11.3	10.5
Asia, Australia	10.7	10.8

<sup>1</sup> Commonwealth of Independent States.

Women hired	Fiscal year	
	2019	2018
(as a percentage of new hires)		
Siemens	25	27
Europe, C.I.S., <sup>1</sup> Africa, Middle East	25	26
Americas	25	26
Asia, Australia	27	29

<sup>1</sup> Commonwealth of Independent States.

Siemens employee exits <sup>1</sup>	Fiscal year	
	2019	2018
(in thousands)		
Siemens	36.7	38.1

<sup>1</sup> Fiscal 2018 figure were adapted due to an adjustment in the consideration of partial retirements.

Employee turnover rate <sup>1</sup>	Fiscal year	
	2019	2018
(in %)		
Employee decision	4.4	4.5
Other reasons for exit	5.1	5.6
<b>Total</b>	<b>9.5</b>	<b>10.1</b>

<sup>1</sup> 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. Fiscal 2018 figures were adapted due to an adjustment in the consideration of partial retirements.

## Working hours and working arrangements

Average official weekly working hours <sup>1</sup>	September 30,	
	2019	2018
(in hours)		
Siemens	39.2	39.1
Europe, C.I.S., <sup>2</sup> Africa, Middle East	37.9	37.8
Americas	41.1	41.2
Asia, Australia	41.4	41.4

<sup>1</sup> Contractually agreed upon weekly working hours at the end of the fiscal year.

<sup>2</sup> Commonwealth of Independent States.

### Use of working hour programs at Siemens

(in thousands)	September 30,	
	2019	2018
Part-time	17.1	16.5
Employees on leave or absence	7.8	7.7

## 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 2019

(as a percentage of total employees)	<35	35–44	45–54	>54
Siemens	30	30	24	16
Europe, C.I.S., <sup>1</sup> Africa, Middle East	26	29	27	18
Americas	26	27	25	23
Asia, Australia	46	37	14	3

<sup>1</sup> Commonwealth of Independent States.

## CHILD CARE BENEFITS

As part of our family-friendly corporate policy, Siemens supported – as an example – their employees in Germany with a tax-free childcare benefit for fiscal year 2019 up to €100 per child per calendar month for external care of children under school age in a preschool or similar establishment. Additionally, Siemens supported 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 2019 with up to €500 per child per calendar month for external care of children in a preschool 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. Our Chief Diversity Officer as well as a member of the Siemens Sustainability Board help to ensure progress in this area.

## 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 in fiscal 2018, and as of September 2019, around 230,000 employees had successfully completed a 30-minute eLearning module called “Making Better People Decisions”.

Over the last three years, more than 50 group-training sessions with management participants and HR 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 2019, 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 drive forward a culture change toward gender parity, diversity and inclusion.

### Employees in management positions<sup>1</sup>

	September 30,	
	2019	2018
Siemens	32,800	31,300
Female employees in management positions (percentage of all management positions)	17.2	16.4

<sup>1</sup> Employees in management positions are employees with direct reports.

## A disability-friendly employer

More than 6,600 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 endeavor to export the idea of Ability@Siemens globally, for example with IT tools, accessible communications or trainings we rollout worldwide. 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 transcripts that can be read aloud 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. That's why, in fiscal 2019, we invested again more than €514 million in training and education for our employees.

### Training and development expenditure

Over the past fiscal year, Siemens spent €287 million just on employee training – an average of €749 per employee.

### 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 7,280

apprentices and dual students are in programs in Germany 2,059 of these for third parties and 5,221 internally. In fall of 2019 1,409 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 fiscal 2019, Siemens reserved in Germany about 10% of trainee spots 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 14 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).

## Further learnings

**Global Learning Campus (GLC)** 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. In average, each employee spend around 22 learning hours in the field of business, technical or product in fiscal 2019<sup>1</sup>.

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. In fiscal 2020, 46 Core Learning Programs will be provided in total to respective target groups. The acquired qualifications are internationally comparable and provide employees with career opportunities across the entire company, thus supporting and promoting systematic personnel development.

Keeping pace with the speed of change of knowledge is one of the greatest challenges of our time, both for the individual and for the company. Learning and working must therefore grow closer together. Our **new learning platform My Learning World** provides the infrastructure and supports all employees in their continuous and individual learning process, on-demand and directly at the workplace. Over 15,000 content and learning modules are currently pooled on this online platform, enabling users

<sup>1</sup> The calculation of around 60% of training hours was estimated, based on recorded costs for continuing education.

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. For example, we have integrated more than 10,000 learning modules from strategic external partners such as CrossKnowledge, Pluralsight, and Bookboon, into the platform. My Learning World makes suggestions for the search for the appropriate learning opportunity, matching the user's profile, search queries and browse behavior. With the mobile app, learning is possible any-time and anywhere.

**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 pin boards and flip-charts 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 40 Potential Development Programs (PDPs) for select groups of employees with potential. PDPs take about one to two 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. The offered leadership trainings, mentoring, coaching and networking activities inside and outside Siemens empower women to unleash their full potential. Moreover nurtures an innovation culture through strong interdisciplinary networks across departments and organizations. We want to create new role models with drive and expertise to change the traditional perspective on innovation and leadership, and ultimately build confidence that such a change benefits all. We believe that a greater diversity of talents at all levels of the company is the basis in order to achieve our company goals as well as to attract and retain talents.

## 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.

## 5.2 Occupational Health and Safety

Occupational Health and Safety management is an essential element of our sustainability principles and business practices. It is 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 work environment that is safe for everyone. Health and Safety is the basis and prerequisite for everything we do. This perspective does not end at the front doors of our premises but extends also into our collaboration with customers, suppliers, and other stakeholders. Working toward these goals, we are addressing Occupational Health and Safety through effective global and local policies as well as targeted programs to enable employees and contractors to put them into practice. Beyond these individual measures, we continuously maintain and foster a positive Health and Safety culture as an integral part of our approach to work. On this basis, employees develop local initiatives and implement innovative solutions that make their work not only healthier and safer but also smarter and more effective. Considering the new demands of a rapidly changing work environment, we increasingly focus on physical and psychosocial well-being and operate numerous health programs to enhance the long-term health of our employees.

### A Culture of Health and Safety

At Siemens, we pride ourselves on our consistent efforts to enhance our management systems and adopt a holistic approach to Health and Safety 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 program, we aim to transform the way management and employees

recognize Health and Safety as intrinsic property of their work and act accordingly. We understand Health and Safety as a mindset and key expression of our ownership culture. The Zero Harm Culture @ Siemens program is therefore not only focused on the implementation of technical safety measures. It is about creating a momentum to actively engage everyone in shaping a work environment that optimizes employee well-being and systems performance. The program contains three guiding principles:

- **Zero incidents – it is achievable!** Everyone must be able to work at Siemens without suffering an incident. Everywhere. At all times.
- **Health and safety – no compromises!** 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 and look after one another. Risky behavior is not acceptable – and we intervene when we see it. We lead by example!

To underscore the importance of the program, 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 comprehensively and systematically. The criteria include procedural, quantitative, and qualitative elements. A label panel reviews them, and an in-country assessment verifies this. Since the label was launched, 22 countries have earned this distinction.

We are continuously moving forward with the implementation of the Zero Harm Culture@Siemens program across all businesses: 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 systemic weakness in ensuring safe operations must 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, for example the “Safety Essentials”, 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.

### Sustainable Results

The Zero Harm Culture@Siemens program has been delivering lasting results through initiatives driven by employees and management at a local level. Many initiatives had made a significant impact with other parts of the business adopting them.

Two examples: Talk to Me is a program initiated in Siemens UK that makes a difference through better conversations. It is about promoting people to have the “courage to step in” when faced with safety or well-being challenges and fostering a “character to accept” when people speak up and intervene. Further training

and coaching initiatives have evolved to foster the understanding of behavioral psychology and the intrinsic and external motivational perspectives regarding Health and Safety. By strengthening this knowledge and applying it to EHS, the aim is to enable people to make better choices in situations of multiple, at times contradictory demands. In the UK, not only employees, but also our suppliers and customers, have attended the “Personal Choice and Safe Behaviours” training and the “Supervising and Coaching Safer Teams” day. These programs form the nucleus for adapted implementation in other regions also.

For Siemens Brazil, the high number of safety incidents was one trigger to launch the implementation of the Zero Harm Culture@Siemens program. Through consistent effort and engagement, a significantly reduced LTIFR was achieved. Management systems underwent intensive reviews and improvement. Increased visibility and communication on Health and Safety topics, along with improved training courses resulted in better decision making and tackling safety issues openly and transparently.

### Continuous Improvement

In 2019 Siemens introduced a new online tool for EHS incident reporting and management. With this tool, an incident can be recorded by every Siemens employee with just a few clicks. Investigation results and lessons learned can be shared in a consistent form. Moreover, tracking of metrics is streamlined due to easier interfaces.

The improvement of global EHS standards and recommended practices continues to be of high importance. In 2019 this included the review and development of hazard and risk management documentation. The new EHS Standard, Control of Occupational Health and Safety Risks, and the EHS Recommended Practice, Hazard Identification, Risk Assessment, and Risk Control, were issued to support and provide guidance on a global level.

In our Health and Safety management, we place increasing attention on psychosocial aspects. In 2017 we set up the global approach for conducting the psychosocial risk assessment. Since then, we continuously enhanced the guidance, tools, and practices around handling psychosocial risks, aimed at detecting and avoiding work-related stressors for employees. To minimize stressors and increase well-being and resilience we continuously enhance the numerous programs and services according to local needs and requirements.

### Auditing

In Auditing in fiscal 2019, 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 and externally conducted audits at Country and organization level, the Siemens internal audit department has been conducting occupa-

tional safety audits to analyze the effectiveness of safety risk management at our manufacturing, service 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, 42 occupational safety audits have been performed in nine lead countries in the following organizations: Gas and Power, Smart Infrastructure, Siemens Mobility, Digital Industries, Portfolio Companies, Real Estate.

### Accidents Worldwide

Our goal is “zero harm”. We are improving, but we have not yet achieved our ambition. We cannot be satisfied with operations in which Health and Safety risks are not minimized to an as low as reasonably practical level. And in which avoidable incidents still occur.

	Fiscal year	
	2019	2018
<b>LTIFR employees and contractors<sup>1</sup></b>		
Employees <sup>2</sup>	<b>0.36</b>	0.46
Contractors <sup>3</sup>	<b>0.21</b>	0.38

<sup>1</sup> 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.

<sup>2</sup> Incl. temporary workers.

<sup>3</sup> Due to a change in the reporting system a clear differentiation between incidents of large projects and incidents in smaller (service) projects is possible. The contractors LTIFR in this reporting period relates to incidents of large projects (with the exception of SGRE), while in the previous year, accidents of other contractors were included as well. This results in limited comparability between respective LTIFRs.

	Fiscal year	
	2019	2018
<b>Fatalities</b>		
Fatalities at Siemens (work related)	<b>2</b>	2
Fatalities at Siemens Contractors (work related)	<b>5</b>	3
<b>Total<sup>1</sup></b>	<b>7</b>	5

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

In fiscal 2019, we regretfully had seven fatal accidents. Five of these fatal accidents involved contractors; two of them involved a Siemens employee and a temporary employee.

Of the two fatal accidents involving employees, one suffered fatal injuries from an electric shock during testing of a transformer, and the second case involved a temporary employee, who was electrocuted due to unauthorized reenergization of an electrical circuit.

Of the five fatalities involving contractors, one contracted employee was fatally hit by a panel during installation. In another case a contractor employee fell from a conveyor belt. One of the fatal accidents occurred with a contracted worker being hit by a maintenance lift counterweight. In the fourth fatal accident, a contractor suffered burns from an electric shock. The final accident involved a contractor, who was fatally electrocuted.

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 was 0.54, compared with 0.48 in fiscal 2018.<sup>1</sup>

### Promoting Health

Health is one of the key resources in the digital world. Preventive strategies for the sustainable promotion of our employees' health are, therefore, a must in the modern working world. With Healthy@Siemens, we have developed a company-wide program that enables us to identify health risks at an early stage and promote health resources – even in the digital working world – to maintain the health and performance of our employees in the long term. In fiscal 2014 we introduced the Healthy @ Siemens Label as a quality mark for sustainable health management. To receive 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 assessment. To date, 44 countries have been awarded the Healthy@ Siemens Label.

<sup>1</sup> Calculated solely for Siemens in Germany, 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. There are three focus areas for our 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 other two focus areas: Access to Technology and Sustaining Communities is also aligned with SDG 9 – Industry, Innovation and Infrastructure and SDG 11 – Sustainable Cities and Communities.

### Corporate Citizenship focus areas

**Access to Technology** – We are facing a disruptive era of digitalization which fundamentally impacts the requirements for the workplace, too. We draw on our core competencies and scientific research to empower an academic ecosystem in order to prepare the next generation for a different set of digital STEM skills (science, technology, engineering, and mathematics).

The digital innovation platform of Siemens provides industrial strength software to improve mechanical, electrical and software engineering. Education, as well as best practice curriculum, training and certification including project-based learning and real-world competitions are a key element of the platform. The educational programs are rolled out globally to more than 3,000 academic partners and empowers roughly 1 million students, connecting them to the same software used by more than 140,000 customers and partners.

The Formula Student Germany competition is just one example of various initiatives of Siemens. Since many years various teams from international universities are supported to create formula racecars as well as electronic and driver-less vehicles. The global

STEM talent can take advantage of Siemens PLM software, artificial intelligence solutions as well as mentoring programs.

**Access to Education** – We work to extend educational opportunities to more people and improve research, especially in STEM subjects.

A good example in this realm is India. The country has a fast-growing working age population and is going to face a significant skill gap in the future. Siemens leverages its competencies to reduce this skill gap and to match industry requirements, creating industry ready youth and improving living conditions for Indian people. The entire initiative consists of three levels of interventions: The STEM Program is being implemented at almost 60 government schools targeting more than 18,000 students and generates interest and curiosity for science, technology, engineering and mathematics through pedagogical changes. The Dual VET Program (VET: Vocational Training and Education) at Government Industrial Training Institutes combines project-based learning with theory, and workshops augmented with soft skills training for holistic development. The program supports more than 5,500 trainees at 82 Government Technical Institutes. The Siemens Scholarship Program targets meritorious engineering students from low income families focusing on their education and holistic development through soft skills, internships, mechatronics and mentoring. The program benefits 587 Engineering Students from 67 colleges.

A shared-value approach engages key stakeholders – the community, local government, non-governmental organizations, knowledge partners, customers, suppliers and our employees. So far, close to 500 employee volunteers have contributed to the entire project life cycle right from assessment to in-plant training and mentoring.

**Sustaining Communities** – The protection of the environment and the conservation of natural resources are of utmost importance for sustaining communities. Siemens wants to tackle climate change also with measures in its social commitment. A good example for that is the cooperation with the Wildlife Trust in the United Kingdom. The specialty here is a long-term partnership, combining volunteering, donations, environmental education, and an overall joint management and measurement of the collaboration. This way Siemens makes a meaningful contribution to a strategic, nationwide environmental protection and nature development program that pursues and maintains goals such as CO<sub>2</sub> reduction, natural flood prevention, biodiversity and the development of resilient ecosystems. The program was accompanied by a £25,000 donation for the third time in 2019. More than 680 employees volunteered in nature conservation events throughout the United Kingdom and invested almost 5,000 working days in 2019.

Our commitment also includes humanitarian emergency aid and financial assistance in the wake of natural disasters, such as the tsunami following a massive earthquake on the island of Sulawesi in Indonesia in October 2018. There, our donations to the Red Cross and Caring Hands e.V. along with employee contributions totaled more than €150,000 and contributed to essential emergency aid, e.g. on water, food, sanitation, hygiene and health equipment to the affected communities.

At the same time, high importance is attached to local identification on the basis of cultural patterns. Therefore, 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. An example of our diverse cultural commitment is the Siemens Opera Contest in Turkey. It's a yearly competition that made a major contribution to reinvigorating Turkish opera. The contest is dedicated to promoting talented young musicians and their professional development. Another focus is on strengthening intercultural understanding.

A further subject of importance is employees taking responsibility. Corporate volunteering is an efficient and personal way to provide a commitment to society and to enhance employee satisfaction and retention. Since 2016 when the initiative was identified as a strategic priority, we have started to roll out a global volunteering hub and have implemented global standards. In 2020, these efforts will continue with a focus on encouraging volunteerism, raising awareness, and broadening the impact on communities and our business.

Another way to combine the company's desire to contribute to communities with our employees' wish to be more engaged are our employee donation programs. Besides local initiatives, the global Cents4Sense dividend donation program was implemented in fiscal 2019. Once a year, employee shareholders can donate one dividend of their Siemens shares to societal projects worldwide. In its first year, and including a matching by Siemens, €223,000 has been raised. Since then, Siemens has been in close interaction with the Siemens Stiftung as the chosen partner for 2019, to engage in a dialogue for the development and impact of funded projects.

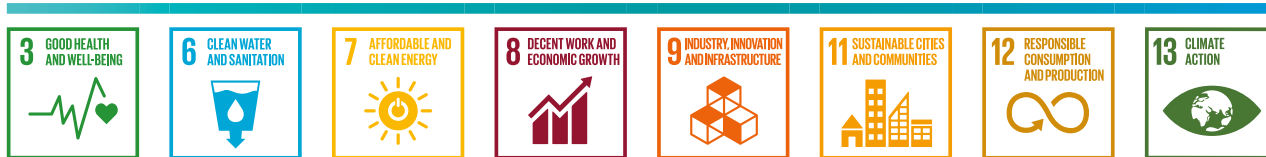
<b>Donations</b>		
	Fiscal year	
(in millions of €; in %)	2019	2018
<b>Total</b>	<b>21.4</b>	21.2
Share of net income	<b>0.4</b>	0.3

<b>Donations by region</b>		
	Fiscal year	
(in millions of €)	2019	2018
Europe, C.I.S., <sup>1</sup> Africa, Middle East	<b>8.0</b>	9.6
Americas	<b>9.0</b>	8.7
Asia, Australia	<b>4.4</b>	2.9
<b>Total</b>	<b>21.4</b>	21.2

<sup>1</sup> Commonwealth of Independent States.



# 6 – Environment



## 6.1 Decarbonization

Climate change is a key challenge that Siemens has been tackling for more than a decade and is managed through a dedicated governance structure with respective strategy and risk management as also recommended by the “Task Force on Climate-related Financial Disclosures” (TCFD) as described in → **ANNEX TASK FORCE ON CLIMATE RELATED FINANCIAL DISCLOSURE**. 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 21<sup>st</sup> 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.

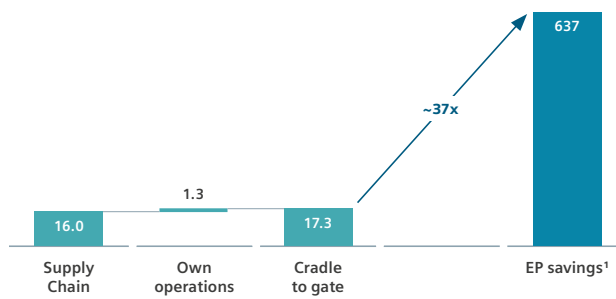
**Siemens also considers carbon pricing** a must-have for effective decarbonization and putting a price on carbon should capture the true cost associated with carbon emissions. It should be sufficiently relevant to trigger a shift towards low-carbon technologies in line with the commitments of the COP21 Paris Agreement. Accordingly, Siemens joined the Carbon Pricing Leadership Coalition of the World Bank (CPLC) in 2016 to advocate the introduction of carbon pricing globally and has launched two internal carbon pricing pilot projects.

Siemens UK has launched a carbon reduction Investment Fund of £240k which was created by charging UK businesses an internal carbon price of £13 per ton of carbon emissions from gas and electricity. This specific price was set in order to raise enough seed funding for 5-10 projects as part of the pilot project phase.

These range from innovation solutions, such as using a digital twin for gas turbines, to energy efficiency measures like funding new air curtains for factories.

Following a similar approach as the UK, Siemens Brazil has launched a carbon reduction Investment Fund as part of a pilot project launched in October 2019. To determine the internal carbon price for future investments, Siemens Brazil adopted the recommended level of the High-Level Commission on Carbon Pricing and set the price at US\$40 per ton of carbon emissions.

**Value chain emissions and savings from Environmental Portfolio (EP) in fiscal 2019 (in Mt CO<sub>2</sub>)**

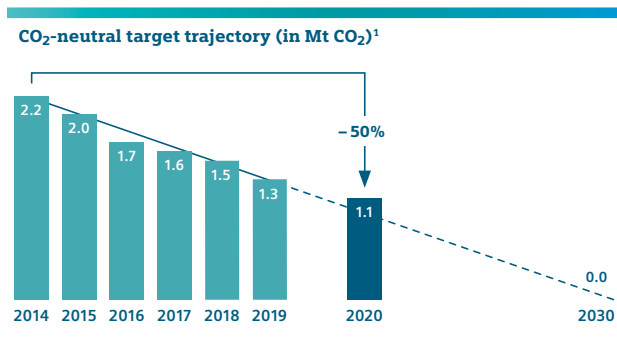


<sup>1</sup> Total annual savings of products installed since 2002 by our customers and still in use in fiscal 2019: 637 Mt CO<sub>2</sub>.

Emissions in our supply chain stand at about 16.0 million metric tons of carbon dioxide equivalent (Mt CO<sub>2</sub>). Emissions from our own operations are roughly 8% of that, at 1.3 Mt CO<sub>2</sub>. 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 CO<sub>2</sub> 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.

## CO<sub>2</sub>-neutral Siemens

With regard to our own operations, in September 2015 Siemens launched the global CO<sub>2</sub>-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.



<sup>1</sup> As reported in respective fiscal year.

By fiscal 2019, we managed to reduce our CO<sub>2</sub> emissions by around 900,000 metric tons versus 2014, putting us well on track to meet our 2020 interim goal. Our CO<sub>2</sub>-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

In 2015, Siemens Real Estate launched a comprehensive sustainability program for its major global sites. Between fiscal 2016 and 2020 we are investing €100 million to improve energy efficiency on our own premises. We expect this to result in approximately €20 million worth of energy cost savings per year once the program is completed. By fiscal 2019, 28 projects were completed in Europe, North America and Asia. In addition five energy efficiency projects are ongoing.

At the factory in Congleton, United Kingdom, we will introduce a gas turbine as a facility improvement measure. The investment is around €1.8 million and will reduce the CO<sub>2</sub> emissions at site by 134 tons per year.

At the factory in Mohelnice, Czech Republic, a comprehensive set of energy efficiency measures are implemented with support of EU subsidies. It is expected that the project measures will save approximately 2,000 tons of CO<sub>2</sub> emissions per year.

At two Chinese locations in Shanghai and Beijing, we demonstrate that energy efficiency measures deliver convincing business cases also for office locations – and hence expand the initial project scope.

### 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 nine projects were completed in fiscal 2019 and a further seven are in concept development.

### Reduce fleet emissions

We are working to reduce the emissions of our fleet of around 50,000 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 CO<sub>2</sub>. In fiscal 2019, emissions stood at approximately 300,000 metric tons CO<sub>2</sub>. 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 CO<sub>2</sub> 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 2019, a significant share of sites in Germany, the United States, the United Kingdom, Austria, Spain, Portugal, the Czech Republic, the Netherlands and Denmark were already supplied with “green” electricity. The overall coverage of “green” electricity was 58% in fiscal year 2019. From this results that CO<sub>2</sub> emissions could be reduced by more than 550,000 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 2019, about 70% of the revenue from our Environmental Portfolio was generated by products and solutions for energy efficiency.

#### Key results of the Environmental Portfolio

	Fiscal year	
	2019	2018
Revenue generated by the Siemens Environmental Portfolio (continuing operations, in billions of €) <sup>1</sup>	38.4	38.6
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)	48	73
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)	637	617

<sup>1</sup> For fiscal 2018 revenue and annual customer abatement were disclosed for businesses, that, due to the reorganization, are not part of the Industrial Business in fiscal 2019 anymore and therefore are not included in the 2019 figures. Comparable 2018 figures are: revenue €37.6 billion and annual customer abatement 64 metric tons.

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 generation from wind power, frequency converters, power plant modernization and upgrade activities and steam turbine driven compressor trains. Including revenue from newly developed 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 €38.4 billion. This means that in fiscal 2019 our Environmental Portfolio accounted for 44% of our revenue from the total continuing operations. Furthermore, with our Siemens Environmental Portfolio elements installed in fiscal 2019, we helped our customers mitigate their emissions by a further 48 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 637 million metric tons in fiscal 2019. To learn more about the Siemens Environmental Portfolio, please visit:

[www.siemens.com/environmental-portfolio](http://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. In 2019, training and individual support concentrated on water risk assessments. Here, we were able to almost conclude this topic.

We also developed our plastic strategy that includes taking care of purchasing more environmentally compatible plastic materials, fostering the use of chemically recycled or mechanically recycled plastics. Plastic waste reduction in our own facilities is planned to be achieved e.g. by abandoning the use of single-use-plastics in our canteens. Additionally, 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 58% and waste efficiency by 6% as compared to base year 2014, respectively by 6% for primary energy and 3% for waste efficiency this year. We were also able to reduce waste to landfill by 15% compared with the base year, which underlines our “zero waste to landfill” ambitions. The above reported numbers do not contain SGRE.

## Results in 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 CO<sub>2</sub>-Neutral program complement each other and define Siemens-wide targets: StE through 2020 and CO<sub>2</sub>-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 85% of its lifetime we see that sites around the world were able to ensure target achievement by implementing local measures.

We have integrated energy and waste efficiency elements into our supply chain management and assessing the total costs of ownership for energy-intensive products. Air pollution control is 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 253 are certified to ISO 14001, with at least 251 of them 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.

59 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 2019, consumption of natural and liquid petroleum gases decreased by 5% due to lower heating demand. The use of other fossil fuels is minor in comparison to natural gas. Overall, primary energy consumption decreased by 4% compared with the previous year.

Primary energy		
(1,000 gigajoules)	Fiscal year	
	2019	2018
Natural gas/liquid petroleum gas	5,702	6,001
Fuel oil, coal, gasoline/diesel	513	482
<b>Total</b>	<b>6,215</b>	<b>6,483</b>

Electricity consumption remained at the same level. The share of renewable electricity amounted to 58% compared with 55% the year before. Energy consumption from district heat decreased by 5% due to reduced heating demand.

Secondary energy		
(1,000 gigajoules)	Fiscal year	
	2019	2018
Electricity	9,051	8,937
District heating	1,855	1,953
<b>Total</b>	<b>10,906</b>	<b>10,890</b>

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 2019, the fleet consumed around 4.0 million gigajoules compared with 4.1 million gigajoules in the previous year. The decrease of 2% is due to our lower 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, 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		
(in 1,000 metric tons of CO <sub>2</sub> equivalents)	Fiscal year	
	2019	2018
Scope 1	768	821
Scope 2 <sup>1</sup>	512	637
<b>Sum Scope 1 and 2</b>	<b>1,281</b>	1,458
Scope 3 <sup>2</sup>		
<i>Purchases goods &amp; services</i>	14,023	13,524
<i>Capital goods</i>	346	352
<i>Fuel and energy-related activities</i>	259	247
<i>Waste in operations</i>	47	39
<i>Transportation upstream</i>	981	959
<i>Business travel</i>	349	352
<b>Total Scope 3</b>	<b>16,005</b>	15,472

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

<sup>2</sup> Without Siemens Gamesa Renewable Energy.

For Scope 1 and 2 combined, we achieved a reduction in emissions by 177 kt CO<sub>2</sub> e. Compared with fiscal year 2018, this signifies a reduction of 12%. Direct greenhouse gas emissions (Scope 1) have been reduced by 6%. For the other Kyoto gases, including sulfur hexafluoride (SF<sub>6</sub>), we have also seen a reduction. For SF<sub>6</sub> alone, we recorded emissions of 95 kt CO<sub>2</sub>e (without SGRE), which is a reduction of close to 6%. This reduction results from an improved handling and emission control approach.

The significant reduction of Scope 2 emissions by 20% is mainly a result of our continued power purchasing policy. In fiscal 2019, we purchased green electricity from hydro and wind power mainly in Denmark, the Czech Republic, the UK, Spain, France, Germany and Austria, and increased the share of green electricity in the US.

### 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	
	2019	2018
Volatile organic compounds	884	865
Ozone-depleting substances in metric tons of R11 equivalent <sup>1</sup>	0.353	0.124

<sup>1</sup> R11 equivalent measures ozone depletion potential.

The volume of emissions of volatile organic compounds increased by 2% to 884 t mainly due to increased production. The volume of ODS emissions increased by 0.23 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 198 metric tons for environmentally relevant locations in the year under review, compared with 199 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. 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	
	2019	2018
Non-hazardous waste	379	383
Hazardous waste	35	30
Construction waste <sup>1</sup>	25	61
<b>Total</b>	<b>439</b>	474

<sup>1</sup> Without Siemens Gamesa Renewable Energy.

Year-on-year, non-hazardous waste decreased by 1%. Hazardous waste increased by 16%. Including all waste types, we decreased our waste volumes by 7% compared with fiscal 2018.

#### Recycling and recovery

(in %)	Fiscal year	
	2019	2018
Share of recycling and recovery in total waste <sup>1</sup>	<b>89</b>	92

<sup>1</sup> Excluding construction waste.

The recycling and recovery rate decreased slightly by 3 percentage points to 89%.

#### 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 297 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 2019, 97% of our sites have implemented the water strategy, excluding strategic companies.

#### Implementation of Water Strategy

(in %)	Fiscal year	
	2019	2018
Sites with implemented water strategy	<b>97</b>	84

Our total water volumes have increased significantly due to the intensified use of chemically unchanged cooling water as cooling demands of buildings increased. Apart from this, water consumption without chemically unchanged cooling water has remained more or less stable over the last two years.

#### Water consumption

(in million cubic meters)	Fiscal year	
	2019	2018
Water consumption	<b>7.34</b>	7.67
Ground and surface water for cooling water purposes (returned to receiving water body chemically unchanged, but warmed)	<b>12.59</b>	8.72
<b>Total</b>	<b>19.93</b>	16.38

Wastewater from manufacturing processes amounts to around 0.9 million cubic meters. Concerning volume, 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

(in million cubic meters)	Fiscal year	
	2019	2018
Wastewater from employee facilities	<b>4.50</b>	4.67
Wastewater from manufacturing processes	<b>0.89</b>	1.06
Other (incl. losses)	<b>1.44</b>	1.52
Conditioned cooling water discharged as wastewater	<b>0.39</b>	0.38
<b>Total waste water without chemically unchanged cooling water</b>	<b>7.22</b>	7.61
Cooling water (returned to receiving water body chemically unchanged, but warmed)	<b>12.59</b>	8.72
<b>Total</b>	<b>19.81</b>	16.33

Further information on our water assessments and risks can be found via the Water CDP into which Siemens reports on a yearly basis.

#### Biodiversity

Biodiversity is the variability among all living organisms from all sources and all the ecological complexes, which they are part of. When biodiversity decreases, ecosystems services are threatened costing society time and money. Biodiversity is an aspect of the Siemens environmental management. 60 locations have reported measures to improve biodiversity at their sites in 2019. For example, nesting boxes for wild bees, insect-friendly meadows, support of birds nesting, several tree plantings at sites, roof greening measure and creation of nature pool. In addition to this Siemens supports local employee grassroots initiatives that feel a strong sense of ownership and responsibility for their locations and wish to implement biodiverse measures.

#### Environment-related incidents and penalties

In the year under review, we recorded six incidents excluding SGRE. Incidents are reported in the Siemens environmental reporting system. Two sites reported minor spills, one incident was due to nature conservation, one was caused by the identification of a contaminated site and two sites temporarily exceeded discharge limits. Fines from penalties in the year under review were not reported.

### Methodology, environmental reporting and collection of environmental data

In fiscal 2019, we used our environmental information system to analyze 297 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 (8%) 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 2018 to fiscal 2019, excluding currency translation and portfolio effects excluding SGRE. 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

Taking responsibility for the environmental impact of a product and minimizing it as far as possible over its entire life cycle is what Siemens means by product stewardship. Our focus is set primarily on the optimal use of resources within the development and production process. This includes an intelligent and forward-looking 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 – including the use phase – 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, which is regularly amended to include the latest economic and environmental topics, such as Circular Economy, which are identified with the help of our yearly Environmental Council. This standard does not only help to optimize development and manufacturing processes, but also minimize the environmental footprint throughout the use stage and into the end-of-life stage.

Due to increasing customer requirements and stricter legal requirements, Siemens' own claim to reconcile economy and ecology aspects of end-of-life management and circular economy are becoming more and more strategically and operationally important.

We are addressing these requirements by increasingly offering services to preserve the value of products and resources. We provide services that extend the life span activities, generate new materials from waste that would otherwise not be used and push forward our take-back programs. Digital platform models e.g. Siemens own machine and material platform, also help to mediate unused resources between the individual business units and thus reduce the consumption of new raw materials. In general, we attach importance to good transparency and communication, as this is a decisive step for a functioning circular economy. Through the constant exchange of information within the Siemens organization, but also with our suppliers and customers, we want to be in a position where we can react quickly to external wishes and requirements.

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, as well as other goals related to supply chain and production themes.

### Results in Product Stewardship through Product Eco Excellence

The Product Eco Excellence (PrEE) program defines an integrated approach to improve the efficiency of resource use and increases transparency surrounding product-related environmental information for our stakeholders. The transparency promoted also lays the foundation for good cooperation with our suppliers and improved customer satisfaction. As a result, PrEE puts environmental awareness on a broader basis worldwide.

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 claims (energy & non-energy related), 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 EPDs.

The PrEE program has established several targets until the fiscal year 2020. One target is to continuously improve eco-design by increasing the overall numbers of LCAs and EPDs, expanding environmental assessment requirements and addressing new

aspects such as the Material Circularity Indicator (MCI). Another target involves automating the collection and processing of data for declarable substances in order to increase transparency. This helps us meeting future legal requirements and customer demands. To enhance best practice exchanges in this area, we conducted workshops and projects geared toward substance management and offering dialogues to businesses on demand.

Both LCAs and EPDs provide in-depth information about the environmental impact of products throughout their entire life cycle. We also conduct LCAs for entire 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 and to replace them through alternative materials wherever possible. To motivate our internal stakeholders involved in the overall product life cycle management (PLM) process and/or EHS departments, we conducted workshops with the goal to transparently set out the benefits of using methods such as LCAs and which help to demonstrate potential environmental advantages of substitution of critical materials.

### List of Declarable Substances (LoDS)

As part of our product stewardship approach Siemens enlarged the number of material fields which require a dedicated assessment by our suppliers regarding the substances of the LoDS in products delivered to Siemens. 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. 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 applies an Internet database in which suppliers declare relevant substances. Several thousand companies worldwide use this database, BOMcheck.

### Life cycle assessments (LCAs) and Environmental Product Declarations (EPDs)

Within Siemens, we aim to identify the environmental load of our products so that we can reduce the environmental impact of products and solutions. To facilitate this process, we conduct full-scale LCAs and screening LCAs supported by software-based tools and externally verified data, for which we own special licenses. In some cases, we consider additionally own created data. Both LCA approaches are in line with the requirements of ISO 14040/44. The standards of the International Organization for Standardization cover the entire 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 comprehensive approach, covering the environmental impacts over the entire life cycle.

For better communication, we utilize EPDs based on the ISO Standard 14021, Type II and ISO Standard 14025, Type III. EPD Type II addresses the environmental relevant information to customers and can be expanded with other relevant environmental information, whereas EPD Type III is built on the given, life cycle based, result of a full scale LCA based on ISO 14041 and require an independent verification. To support the utilization of EPDs in business, we developed externally verified processes.

As we continue to increase the amount of LCAs, we are constantly expanding our knowledge of the environmental footprint caused by our products throughout their entire life cycle. Moreover, findings from LCAs help us improve processes like internal production. With a focus on manufacturing, 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. Already in 2018, Siemens managed to produce gas turbine blades purely on the basis of AM technology. As a result, around two thirds fewer resources are required in the production process, one third of greenhouse gas emissions can be saved and the lead-time can be halved compared to normal production.

The Siemens Business Unit "Transmission Products" is breaking new ground with its "blue" product line from the former Energy Division. 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 additional criteria for products to be classified as "blue," such as the fulfillment of the EP-Standard requirements, the potential for improved recycling or a leading position in the market in terms of sustainability.

These very advanced 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 existing products, as documented in detail in their LCAs and EPDs. At the end-of-life, each "blue" product can easily be recycled, increasing the products' recycling rates.



The Siemens Group reorganization carried out in fiscal 2019 has resulted in a reduction of the total number of relevant business units carrying out LCAs and EPDs. The revenue coverage of existing LCAs and EPDs could be maintained almost at the previous year's level.

The coverage ratio of screening LCAs, as well as full-scale LCAs decreased by 1%, whereas the total number of both LCA types increased by 6%. The coverage ratio of EPDs decreased by 1% from fiscal 2018 to fiscal 2019 as well, but the detailed analysis shows an increase of 10% for the total number of EPDs. Figures for fiscal 2018 have been adjusted to reflect the changes in the business structure and therefore differ from last year's report.

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

#### Life cycle assessments and environmental product declarations

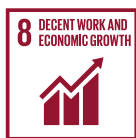
(Percentage of revenue covered <sup>1</sup> )	Fiscal year	
	2019	2018
Full-scale LCAs	65	66
Screening LCAs	58	59
EPDs	69	70

<sup>1</sup> 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 already on September 13, 2017 – and related to its Circular Economy approach the EU Commission set up 'non-energy related' criteria, to be used in various products, regulated under Eco-Design Directive. Since the focus of the proposed measures is also on critical raw materials and material efficiency, Siemens has already taken current developments into account through the corresponding CM module. Together with its assessment tool, it ensures an additional focus on important developments for future product criteria. Compared with fiscal 2018, the purchasing volumes of critical materials were reduced in fiscal 2019. Siemens conducted internal assessments, e.g. analysis of its purchasing activities, to achieve further reductions, derived from improved measures on this topic.

# 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 and other breaches of applicable law and our Business Conduct Guidelines. 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.

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 an impediment to economic and more broadly sustainable development, efforts to eliminate 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 business 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 others 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 Siemens 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). 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, 2019, the Company had 385,000 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 a strong commitment to compliance. The loud-and-clear message that

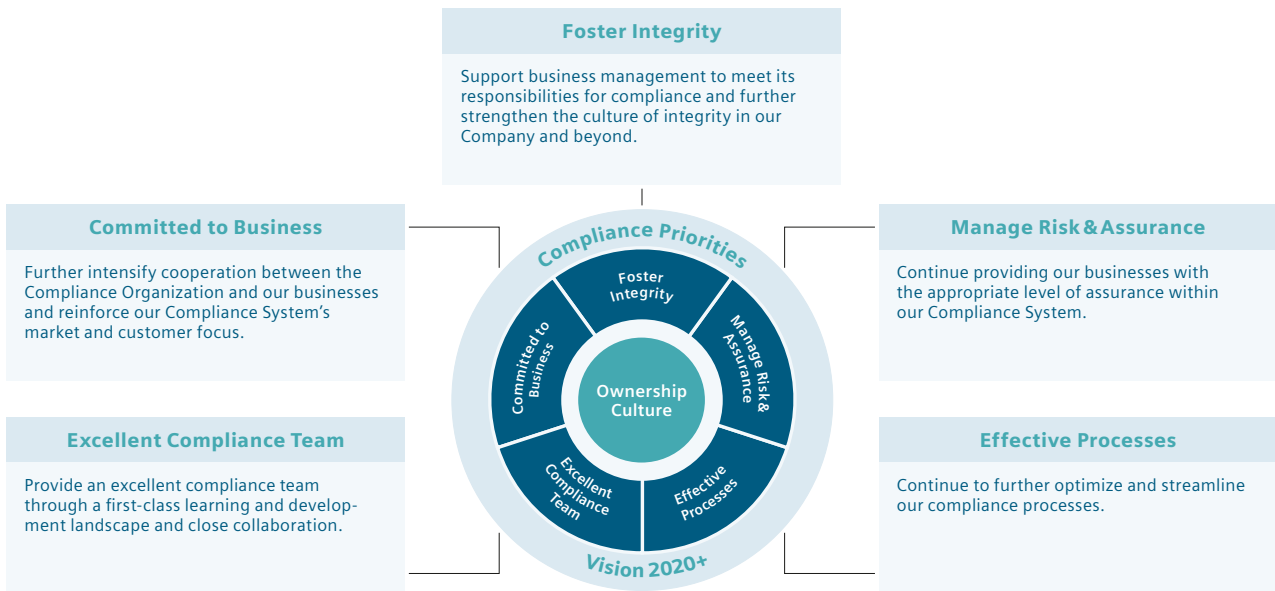
every single employee and in particular management has to respect the compliance rules has been sent in the decade since the Siemens corruption scandal. Compliance and integrity are deeply rooted in the company culture.

### Compliance Priorities in Fiscal 2019

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, and have been further developed reflecting the new strategic program Vision 2020+, 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 2019. Every compliance employee is actively encouraged and committed to making contributions to the further development of the Compliance System.

#### Compliance Priorities



## Achievements in Fiscal 2019

Alongside the achievements and progress made in many areas of the Siemens Compliance System during the past years, the following achievements, among others, have been made during fiscal 2019.

- The updated Business Conduct Guidelines, which are the legal and ethical framework for all employees and Managing Board members worldwide, have come into effect on January 1, 2019
- A new global web-based training has been developed which covers the fundamental contents of the updated Business Conduct Guidelines
- The Compliance Regulation Landscape has been restructured and revised to fit the new organizational structure and Vision 2020+ of Siemens
- Parts of our global Compliance Controls have been automated
- The export control due diligence process has been enhanced by extending the Sanctioned Party Screening to cover entities that are indirectly subject to sanctions because they are majority owned by designated natural or legal persons.

## 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 yearly global Integrity Dialogs aim 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.

We conduct regular surveys to receive direct feedback by Siemens employees. At the end of fiscal 2019, the recent Siemens Global Employee Survey (SGES) focusing on the topic of integrity and responsible business conduct has been conducted.<sup>1</sup> The results

demonstrate a continued positive compliance perception of our employees.

## Compliance Risk Management

At Siemens, a reliable compliance risk analysis is key for the success of the Siemens strategy and planned business goals. Identifying risks at an early stage allows us to make informed decisions about how best to avoid, reduce or transfer them. Bottom-up and top-down activities, business processes and tools are designed and integrated to quickly and consistently understand and respond to potential risk scenarios, which ultimately allows Siemens Compliance to support the business achieving its objectives. Compliance risk management is an integral part of the company-wide Siemens Enterprise Risk Management (ERM) program which creates further transparency of the overall risk environment. Each entity and region evaluates its business exposure to compliance risk areas such as, but not limited to, anti-corruption, anti-trust, export control, anti-money laundering, data privacy and human rights. The risks identified in individual Siemens entities worldwide are incorporated into a group-level analysis that is further supplemented by additional internal data sources information to create the compliance-risk-overview. Monitoring is also implemented to identify new, and emerging risks through interdisciplinary exchange during regular Risk Radar Meetings and the Corporate Compliance Risk Workshop. This is the foundation of our Compliance System.

## Business Partners and Suppliers

Collaboration with third parties such as sales or non-sales related intermediaries, resellers, cooperation and consortium partners 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.

<sup>1</sup> Not applicable for Siemens Healthineers and Siemens Gamesa Renewable Energy.

## Compliance Indicators and Whistleblowing

	Fiscal year	
	2019	2018
Compliance indicators <sup>1</sup>		
Compliance cases reported	514	647
Disciplinary sanctions	262	229
<i>therein warnings</i>	149	85
<i>therein dismissals</i>	69	110
<i>therein other</i> <sup>2</sup>	44	34

<sup>1</sup> Continuing and discontinued operations.

<sup>2</sup> Includes loss of variable and voluntary compensation elements, transfer and suspension.

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 to the Compliance Organization via the Managing Board or supervisors and, in particular, to the Compliance Officers in our individual company units.

Our employees make regular use of these channels. In fiscal 2019, 514 compliance cases requiring further inquiries or investigations came through them. We believe that the decrease from the 647 reported in fiscal 2018 lies within the normal range of variation, considering inter alia that starting in fiscal 2019 all information requests are reviewed and categorized under their respective risk topic and in case that no material risk is expected for Siemens are not counted anymore. The total number of disciplinary sanctions for compliance violations in fiscal 2019 was 262, compared to 229 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 or the investigation – that follows a due process – was completed. 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 2019, 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.

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 up to 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 2020

Our compliance priorities described above will further guide our work and will be specified by focus areas for fiscal 2020. These focus areas for fiscal 2020 will cover our strongest aspiration to provide Siemens with the highest level of assurance in the field of compliance. In fiscal 2020, 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 regarding the announcement of Vision 2020+, the new strategic program of Siemens.

We will continue to further develop a Compliance System that is tailored to the individual risks and opportunities of our businesses and the organizational structure of Siemens. A central continuous monitoring is one of the main planned enhancements for the Compliance Risk Management System and will be rolled out in 2020. Using data from defined processes and tools, analytics, and external environment information to support the identification of current, new and changing compliance risks in specific regions and businesses will allow a holistic compliance risk overview that serves as a basis for our compliance strategy and our internal regulatory environment. The final aim is to have better access to information which improves our decision-making and leads us to enhanced performance. In fiscal 2020 we will carry out our next Compliance Risk Assessment to assess the compliance risks globally, covering the defined scope of Siemens entities and regions worldwide.

Finally, we will continue to launch the individual projects of the Third Funding Round of the Siemens Integrity Initiative in fiscal 2020. ([www.siemens.com/integrity-initiative](http://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 around 150 countries. In fiscal 2019, the company purchased approximately €45 billion worth of goods and services. This figure is equivalent to about half of our total revenue.

Based on the priorities of the Siemens Group, 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. In addition, we put special focus on climate protection in our supply chain within the last years.

We, therefore, require all suppliers to follow our Siemens Group Code of Conduct for 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, the principles of the International Labor Organization (ILO), as well as the Siemens Business Conduct Guidelines.

In accordance with 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. In 2019, we reviewed our Code and updated its content on the basis of new legislation, social change and requirements born by our updated Business Conduct Guidelines. Besides others, we added sections for anti-money laundering and terrorism financing, export control and customs, and to ensure data privacy. We updated content in the human rights section and expect our suppliers to implement a protected grievance mechanism for their employees. The updated Code will be published and become mandatory for the Siemens Group at the beginning of fiscal 2020.

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. These 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 used 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 used is taken 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.

<b>Corporate Responsibility Self-Assessments (CRSA)<sup>1</sup></b>		
(Number)	Fiscal year	
	2019	2018
Europe, C.I.S., <sup>2</sup> Africa, Middle East	1,571	1,527
Americas	1,070	480
Asia, Australia	2,491	1,681
<b>Total</b>	<b>5,132</b>	<b>3,688</b>
<b>Agreed upon improvement<sup>3</sup></b>		
Legal Compliance/prohibition of corruption and bribery	304	261
Respect for the basic human rights of employees	410	389
Prohibition of child labor	125	93
Health and safety of employees	274	164
Environmental Protection	956	600
Supply Chain	90	78

<sup>1</sup> 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.

<sup>2</sup> Commonwealth of Independent States.

<sup>3</sup> Improvement measures agreed with suppliers relate either to actual deviations from the Siemens Group Code of Conduct for Suppliers and Third-Party Intermediaries 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. An update of the content is planned for the beginning of fiscal 2020 and will include the additional sections of the updated Code. New potential suppliers go through the qualification process while existing ones are reevaluated every three years. Compared to fiscal 2018, the number of CRSAs increased by almost 40% to 5,132 conducted self assessments. The increase reflects the repeating effect of the three-year-reevaluation of existing suppliers but also the long-lasting shift of our business relations to international markets.

<b>Supplier quality audits with integrated sustainability questions<sup>1</sup></b>		
(Number)	Fiscal year	
	2019	2018
Europe, C.I.S., <sup>2</sup> Africa, Middle East	458	437
Americas	248	210
Asia, Australia	306	297
<b>Total</b>	<b>1,012</b>	<b>944</b>

<sup>1</sup> Due to amendments of SGRE data, figures for fiscal 2018 were adjusted retrospectively.

<sup>2</sup> Commonwealth of Independent States.

Supplier quality audits include questions about sustainability that cover all aspects and requirements of the Code. In fiscal 2019, we conducted 1,012 on-site audits worldwide. 7% increase against fiscal 2018, caused by projects in new countries in the Mobility business and new product lines at Siemens Healthineers.

<b>External sustainability audits (ESA)</b>		
(Number)	Fiscal year	
	2019	2018
Europe, C.I.S., <sup>1</sup> Africa, Middle East	122	100
Americas	42	50
Asia, Australia	262	231
<b>Total<sup>3</sup></b>	<b>426</b>	<b>387</b>
<b>(Agreed upon improvement measures)<sup>2</sup></b>		
Legal Compliance/prohibition of corruption and bribery	1,473	1,523
Respect for the basic human rights of employees	2,683	2,957
Prohibition of child labor	139	231
Health and safety of employees	3,608	3,281
Environmental Protection	348	320
Supply Chain	419	427
<b>Total<sup>3</sup></b>	<b>8,670</b>	<b>8,776</b>

<sup>1</sup> Commonwealth of Independent States.

<sup>2</sup> Improvement measures agreed upon with suppliers relate either to actual deviations from the Siemens Group Code of Conduct for Suppliers and Third-Party Intermediaries or to structural improvements to management systems and the lack of specific processes and guidelines at the supplier.

<sup>3</sup> Totals for fiscal 2018 include 6 ESA and 37 Agreed upon improvement measures from SGRE without further category breakdown.

Our strongest detection module, the External Sustainability Audit (ESA), 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 2019, we kept our high stable level of effort at Siemens AG and could add 30 ESAs conducted by SGRE. Together, we conducted 426 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 2019, we were able to keep our share of 32% although we were affected by a tendency of some national protectionism.

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 implement 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 continued this approach by aiming to find levers for implementation in our processes. Siemens collects and publishes data on its greenhouse gas emissions as part of our CO<sub>2</sub>-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 CO<sub>2</sub> footprint of all our Siemens suppliers. Based on this model, we approached suppliers generating high levels of CO<sub>2</sub> emissions. In fiscal 2018, a survey to obtain more detailed direct supplier information on their CO<sub>2</sub> footprints was conducted centrally with more than 5,000 suppliers in 75 countries generating approximately half of our Scope 3 CO<sub>2</sub> footprint. In 2019, we repeated this survey with 7,800 contacted suppliers in 93 countries. They equal 60% of our Scope 3 CO<sub>2</sub> footprint. In both years, we reached a response rate of 47% (2018) and 44% (2019). A comparison of the answers showed an increase of awareness and actions from 2018 to 2019 in the vast majority of countries. Step-by-step, we seek to make our supplier base aware of the importance of more CO<sub>2</sub> efficient production. For 2020, we plan to approach selected suppliers in order to start pilot projects for CO<sub>2</sub> reduction in our supply chain.

## 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 of the OECD. 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 (RMI), an industry group with more than 380 other members, such as companies and industry groups, that provides audits on smelter level.

When seeking information from our approx. 5,000 relevant suppliers we make use of the RMI’s “Conflict Minerals Reporting Template” (CMRT) for identification of smelters in our supply chain which are related to Tin, Tantalum, Tungsten and Gold (3TG).

We notify our RMI partners of the new smelters identified. The initiative then checks whether the smelters identified are eligible. Siemens is an active member of RMI’s “Responsible Minerals Assurance Process” and encourages any as yet uncertified eligible smelters to take part in audit programs, supporting them on the path toward the final audit and certification as a RMI conformant smelter. In each case the results are communicated via the RMI website: [WWW.RESPONSIBLEMINERALSINITIATIVE.ORG](http://WWW.RESPONSIBLEMINERALSINITIATIVE.ORG).

Based on risk sources which had been referenced by the European Commission, which cover armed conflicts, weak government and human right abuses, Siemens furthermore conducts its specific mineral risk assessment for identifying further relevant minerals for going beyond 3TG. For example, Cobalt has been identified for adding to Siemens Due Diligence processes.

As RMI additionally developed an audit standard and reporting template (CRT) for Cobalt, in addition to its 3TG related Due Diligence activities Siemens conducted its first Supply Chain Due Diligence for Cobalt this year, and which focused on our battery suppliers.

Further information and our Responsible Minerals Sourcing Policy can be found at: [WWW.SIEMENS.COM/RESPONSIBLEMINERALS](http://WWW.SIEMENS.COM/RESPONSIBLEMINERALS)



## 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 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 origin, culture, religion, age, disability, skin color, gender, sexual identity and orientation, or worldview.

As per the BCGs – a revised version of which has been published in January 2019 – Siemens is committed to operating in close alignment with the UN Guiding Principles on Business and Human Rights 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 in section K of our Business Conduct Guidelines:

We regard the 10 principles of the United Nations Global Compact and the Global IndustriAll Union framework agreement as binding for the entire company and therefore, expect our employees, suppliers and business partners worldwide to comply with – among others – the following guidelines:

- 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 on Human Rights,
- International Labor Organization (ILO) Tripartite Declaration of Principles Concerning Multinational Enterprises and Social Policy,
- ILO Declaration on Fundamental Principles and Rights at Work (in particular, on the following topics: elimination of child labor, abolition of forced labor, prohibition of discrimination, freedom of association, and the 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.

#### Global IndustriAll Union framework agreement

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 Group Code of Conduct for 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 businesses 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 topic of human rights receives top management attention through periodic updates to the Siemens Sustainability Board on both human rights advances and challenges. The Supervisory Board has also been informed on human rights challenges as well as on Siemens' focus topics as part of the Siemens' human rights framework.

As in the last fiscal year, a module on human rights has been included in the fiscal 2019 Integrity Dialogue (focusing on strict prohibition of sexual harassment and assaults in the company). This program involves awareness and management communication measures as well as discussions throughout the company about important compliance issues (see the → **COMPLIANCE** chapter of this report).

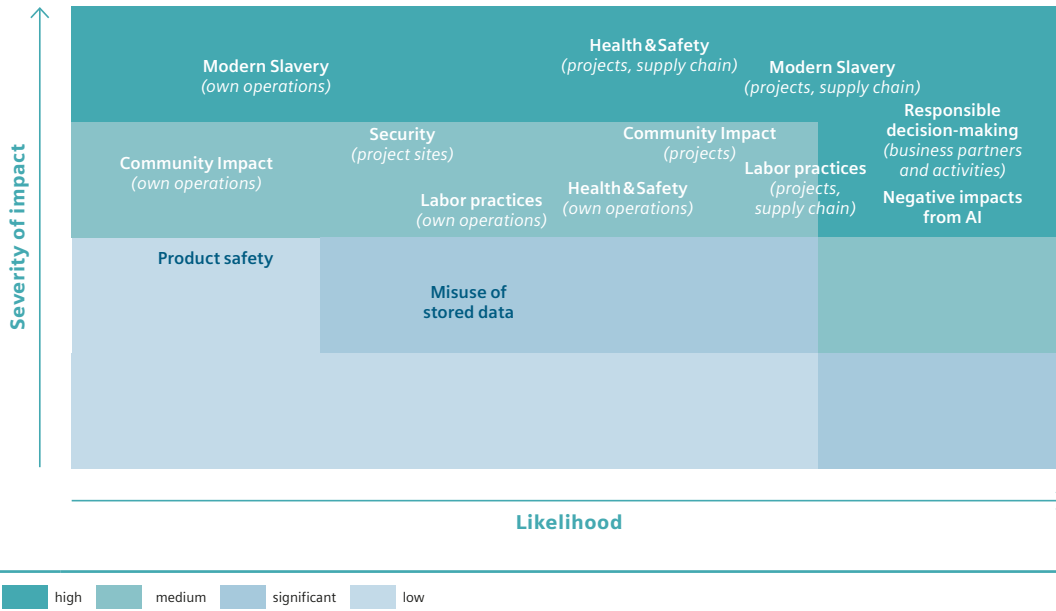
There are specific training programs for health and safety, suppliers and certain business partners. We also conduct awareness sessions on our Business Conduct Guidelines.

### Assessment of human rights topics with severe impact

In order to identify and assess emerging human rights challenges and in a next step raise awareness on those, Siemens makes use of a materiality survey to gather views from a wide range of stakeholders.

In fiscal 2019, Siemens has invited its stakeholders to share their perspective on which human rights topics should be high on the company's agenda. Over 500 stakeholders, including suppliers, customers, NGOs, think tanks, investors, shareholders, governmental representatives and employees have provided their individual and anonymous feedback via a web-based materiality survey on the company's human rights topic page [www.siemens.com/humanrights](http://www.siemens.com/humanrights). They were able to assign either pre-defined human rights topics and/or self-defined topics on the basis of a) likelihood that Siemens may become involved in a negative impact and b) the severity of impact on the basis of how grave and widespread the impact could be for the rightsholder, as well as how hard remediation would be. Human rights topics that have scored highest in terms of likelihood and severity were: modern slavery, health, safety and labour practices in projects and supply chain, potential negative impacts resulting from the increased deployment of artificial intelligence as well as the challenge of responsible decision-making, e.g. when interacting with business counterparts that violate human rights. In the course of next fiscal year, Siemens will be looking closer at these challenges and treat those as priority action fields in its endeavour to constantly advance human rights due diligence practices.

**Siemens' human rights topics with the severest impact**



**Human rights due diligence**

Large companies, such as Siemens, operating with diverse business models and global value chains in almost 200 countries are likely to face numerous human rights challenges.

In fiscal 2018, the Sustainability Office and the Legal Compliance department developed a human rights framework to raise the overall performance bar of human rights practices in full alignment with the UNGPs. Continuous advancements in respect of human rights due diligence practices play a pivotal role in the company's efforts to deliver upon the Siemens' human rights framework.

An innovative and AI-enabled human rights due diligence tool is being developed alongside with business, central functions and external human rights experts to allow proactive and systematic environmental and social risk assessments on a transactional level (for all business types, including projects, product, solution, software, service). This will allow the on-going risk identification

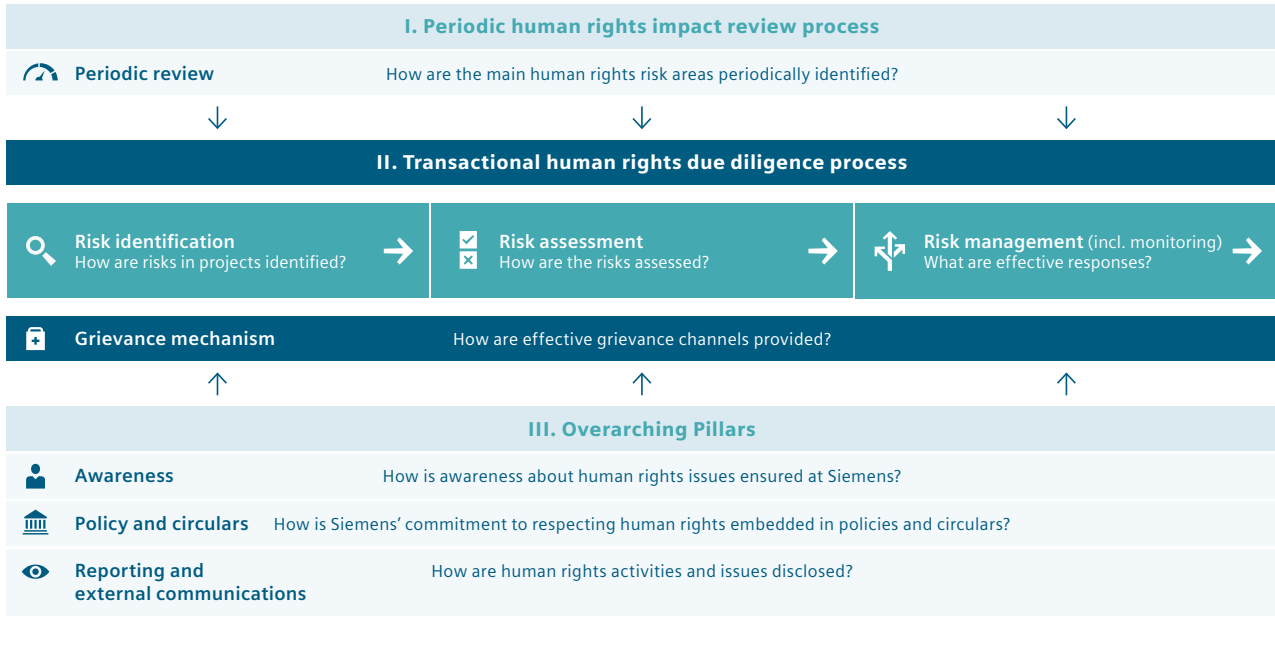
and risk assessment for all Siemens' business activities throughout the entire business life cycle as well as life cycle of business relationships. Depending on the identified risks, risk mitigation strategies are being developed with guidance of external human rights experts to prepare for responsible and preventive actions.

So far, with regards to project business, customer projects are identified on a risk-based approach and selected to undergo mandatory human rights project due diligence during project sales phase.

**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.

**Siemens' human rights framework**



**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. Since fiscal 2017, Siemens is a member of the Global Business Initiative on Human Rights (GBI), a non-profit organization led by a diverse group of 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). Besides regular dialogues with peer groups and think tanks, Siemens is in proactive exchange with advisers for responsible investments, investors, shareholders and NGOs.

# Annex

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## Reporting method

Sustainability is a fundamental principle for us, guiding our very actions. Our “Sustainability Information 2019” supplements our financial reporting in fiscal 2019. The reporting method described below, provides details of the underlying key elements on which our sustainability reporting is based.

### REPORTING APPROACH

The “Sustainability Information 2019” (“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 2019 (October 1, 2018 – September 30, 2019). 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. Some Management approaches do not cover all Siemens entities or parts of the organization. Parts of the Siemens organization may have introduced specific programs or initiatives that differ from the overall approach described in this report, however they are guided by the 12 sustainability principles and are aligned with global Siemens non-financial programs and initiatives.

### 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, 2019](#).

### 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 our Industrial Business (all Operating and Strategic Companies) may qualify for the Environmental Portfolio. The entire Siemens Industrial Business portfolio is reviewed on an annual basis to ensure the appropriate qualification of Environmental Portfolio elements based on the criteria described hereafter. Newly integrated elements are shown in our reporting beginning with the reporting period, they have been included. 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 Companies 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 life cycle. If material adverse effects are known, the element is not included in the Environmental Portfolio.

If the revenue related to an Environmental Portfolio element can not 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 steam turbines for biomass powerplants 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, 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 substations with gas-insulated switchgears (20% efficiency improvement).

## Renewable energy

This criterion covers technologies in the field of renewable energy sources or smart grid<sup>1</sup> 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) or biomass.

Examples of the respective Environmental Portfolio elements are wind turbines as well as core components such as steam turbines for biomass power plants.

## 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 Company 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

<sup>1</sup> 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 which are improved or substituted by the employment 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 2019 are:

#### Emission factors for CO<sub>2</sub> abatement calculation

Category	Emission factor (g CO <sub>2</sub> /kWh)	Basis for comparison of Environmental Portfolio elements
Global power generation all primary energy carries	532	Power generation
Global power generation fossil energy carries	814	Renewables
Utilization of electricity (including transmission losses)	574	All types of utilization of electricity apart from trains

Source: IEA (IEA World Energy Outlook 2018)<sup>1</sup>, own calculations

<sup>1</sup> Emission factors were updated to IEA World Energy Outlook 2018 (prior year: IEA World Energy Outlook 2017).

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 814 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.

## Task Force on Climate-related Financial Disclosure (TCFD)

The G20 Financial Stability Board Task Force on Climate-related Financial Disclosure released a voluntary, consistent framework for companies to report on their climate-related risk and opportunities in order to disclose this information to investors, lenders, insurers and other stakeholders. This Annex outlines in brief Siemens disclosure to these recommendations with respective references, where more information can be found.

### Outline of Siemens disclosure to the TCFD recommendations with respective references, where more information can be found

Disclosure Focus Area	Recommended Disclosure	Comments and Examples	More Information
<b>Governance</b> Disclose the organizations governance around climate-related risks and opportunities	a) Describe the board's oversight of climate-related risks and opportunities.	Since sustainability and thus climate action, is a core element of our strategy Vision 2020+, our sustainability activities are led by the Chief Sustainability Officer (CSO), a member of our Managing Board, who is also the Chief Operating Officer (COO) and the Chief Technology Officer (CTO) for Siemens. Within this responsibility, this person is leading the Siemens Sustainability Board (SSB), which is the sustainability steering committee and consists of managing board representatives, businesses, countries, and corporate functions. The SSB is the central sustainability steering committee and the second highest institution in Siemens.	<b>SUSTAINABILITY INFORMATION</b> P. 10, 11  <b>CDP</b> <b>C1.1a &amp; b</b>
	b) Describe management's role in assessing and managing climate-related risks and opportunities.	Sustainability and thus climate action is managed from top down to bottom up. The CSO leads all sustainability activities and chairs the SSB. This committee monitors sustainability activities and takes appropriate action. In this respect, the SSB is responsible for our strategic response to climate change issues along the value chain e.g. setting targets, KPIs and reviewing climate change risk and opportunities. For this reporting year, climate change was on the agenda every single board meeting – which means on a quarterly basis – covering topics such as progress in our carbon-neutral program, environmental portfolio and scope 3 within our supply chain. The Sustainability Director reports directly to the Chief Sustainability Officer and manages the Department of Sustainability, which contains dedicated climate change experts assessing and managing climate change risk and opportunities on a day to day basis. Throughout the organization, sustainability is further anchored by our global network of Country Sustainability Managers as well as Businesses whose role is to support their CEOs in implementing sustainability at local level. This ensures the full and correct implementation of all measures and initiatives.	<b>SUSTAINABILITY INFORMATION</b> P. 10, 11  <b>CDP</b> <b>C1.2,</b> <b>C1.2a</b>

**Outline of Siemens disclosure to the TCFD recommendations with respective references, where more information can be found**

Disclosure Focus Area	Recommended Disclosure	Comments and Examples	More Information
<b>Strategy</b> Disclose the actual and potential impacts of climate related risks and opportunities on the organization's businesses, strategy and financial planning.	a) Describe the climate-related risks and opportunities the organization has identified over the short, medium and long term.	We do not see any substantial risk arising from climate change that have a material impact on Siemens, but rather consider the transition towards a low carbon economy as an opportunity. In fiscal year 2019, for instance, with our environmental portfolio, we managed to reduce 637 (million metric ton) CO <sub>2</sub> at customer sites, while 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. Nevertheless, we consider climate change risk in our ERM process covering e.g. legal, market, regulatory or physical risk and cluster them in one of the four dimensions – Strategic, Operations, Financial and Compliance. An example of a risk within compliance is the F-gas regulation (EU) 517/2014, which includes the reduction of SF <sub>6</sub> . Siemens is affected by this regulation. 24 sites are currently using SF <sub>6</sub> . The reduction of SF <sub>6</sub> is one element of our efforts to become carbon neutral by 2030. As such, we achieved a reduction of almost 6% to last year and 54% since 2014.	<b>SUSTAINABILITY INFORMATION</b> P. 25, 26, 27  <b>ANNUAL REPORT</b> P. 7 – 11  <b>CDP</b> C2.1, C2.3, C2.3 a, C2.4, C2.4 a, C3.1 c, C3.1 d
	b) Describe the impact of climate-related risks and opportunities on the organization's businesses, strategy and financial planning.	The impact of the projected increased investment in renewable energies and increased demand for energy-efficient products by our customers, is reflected in our environmental portfolio (EP), which accounts for 44% of revenue and as such continually outperforms the growth of our conventional portfolio. This trend affects the financial planning process of our Operating and Strategic Units, e.g. Siemens Gamesa Renewable Energy but also Gas and Power. Efficient gas turbines play a critical role in the energy transition, but we expect that market to remain challenging, with current low volumes, especially in the segment of large gas turbines. We encounter this trend for example with our new business fields e.g. in power-to-x technologies or related R&D activities e.g. dedicated core technologies fields in energy storage.	<b>SUSTAINABILITY INFORMATION</b> P. 14, 15, 25, 26, 27  <b>CDP</b> C2.3 a, C2.4 a, C2.5, C2.6, C3.1
	c) Describe the potential impact of different scenarios, including a 2°C scenario, on the organization's businesses, strategy and financial planning.	We use several climate related scenarios for different purposes: Corporate Strategy, Business Strategy or Decarbonization Strategy. For our global strategic assumptions, especially for energy- and mobility-related businesses, we use mainly IHS Autonomy, but also BNEF New Economic Outlook and Greenpeace e.g. for fossil energy prices, costs for renewables and regulation. Within our business, scenarios are used to compare, challenge or complement our own strategic planning processes. Here, we are using IHS Autonomy, as well as IEA NPS und IEA SDS, especially in the Gas and Power business. To be our customers and society's leading decarbonizing partner an understanding of the technological changes required for the next 30+ years is essential. To achieve this, we have applied a comprehensive multi-modal simulation and compare the results with external research studies such as IRENA or Fraunhofer.	<b>SUSTAINABILITY INFORMATION</b> P. 14, 15, 25, 26  <b>CDP</b> C3.1 a

**Outline of Siemens disclosure to the TCFD recommendations with respective references, where more information can be found**

Disclosure Focus Area	Recommended Disclosure	Comments and Examples	More Information
<b>Risk Management</b> Disclose how the organization identifies, assesses and manages climate-related risks and opportunities.	a) Describe the organization's process for identifying and assessing climate-related risks.	The management of our organizational units are responsible for identifying all relevant risks for the respective unit incl. documentation and explanation of cause and effect with impact and likelihood, to allow an independent expert a good understanding. Reporting generally follows a quarterly cycle. We complement this periodic reporting with an ad-hoc reporting process that aims to escalate critical issues in a timely manner. In order to provide a comprehensive view of our business activities, risks and opportunities are identified in a structured way combining elements of both top-down and bottom-up approaches. As we see climate change mitigation as a business opportunity for Siemens, it is integrated as a top-down topic since 2016.	<b>SUSTAINABILITY INFORMATION</b> P. 10, 11, 14, 15  <b>CDP</b> C2.2 b, C2.2 c
	b) Describe the organization's processes for managing climate-related risks.	The management of climate-related risks is integrated into our company-wide ERM system. Our ERM approach is based on the globally accepted COSO Standard (Committee of Sponsoring Organizations of the Tread-way Commission) "Enterprise Risk Management – Integrating with Strategy and Performance" (2017) and the ISO (International Organization for Standardization) Standard 31000 (2018) and is adapted to Siemens requirements. The frameworks connect the ERM process with our financial reporting process and our internal control system. They consider a company's strategy, the efficiency and effectiveness of its business operations, the reliability of its financial reporting and compliance with relevant laws and regulations to be equally important. ERM is based on a net risk approach and covers risks and opportunities remaining after the execution of existing control measures. Relevant risks and opportunities are prioritized in terms of impact and likelihood. Responsibilities are assigned for all relevant risks and opportunities, with the hierarchical level of responsibility depending on the significance of the respective risk or opportunity. The time horizon is typically three years, however with our long-term forward looking ERM radar feature, we monitor emerging risk and opportunities beyond 3 up to 100 years. Assessment is based on impact and velocity.	<b>ANNUAL REPORT</b> P. 28 – 36  <b>CDP</b> C2.2 d
	c) Describe how processes for identifying, assessing and managing climate-related risks are integrated into the organization's overall risk management.	Climate change risks are integrated into a multi-disciplinary company-wide comprehensive, integrated, interactive and management oriented ERM approach that addresses both risks and opportunities. With ERM, we describe risks that could have a material adverse effect on our business, financial condition, results of operations and reputation. The order in which the risks are presented in each of the four categories (Strategic Risks, Operational Risks, Financial Risks and Compliance Risks) reflects Siemens' estimated relative risk-related exposure and provides an indication of the current importance to us of these risks. Within the ERM framework, climate change is not a separate category but considered among these four areas under risk identification. For instance, Siemens considers shifting fossil fuels to renewable sources as strategic risk.	<b>ANNUAL REPORT</b> P. 28 – 36  <b>CDP</b> C2.2
<b>Metrics &amp; Targets</b> Disclose the metrics and targets used to assess and manage relevant climate-related risks and opportunities.	a) Disclose the metrics used by the organization to assess climate-related risks and opportunities in line with its strategy and risk-management process.	Siemens considers climate related risk and opportunities along the complete value chain and as such defines metrics to reduce greenhouse gases in supply chain, own operation and for goods and services we provide to our customers. Our biggest contribution to climate change mitigation lies within our green portfolio, where we mitigated accumulated annual customer carbon dioxide emissions by 637 millions of metric tons in fiscal year 2019.	<b>SUSTAINABILITY INFORMATION</b> P. 25, 26, 27  <b>CDP</b> C4 (C6, 8, 9) C4.2, 8 C9.1
	b) Disclose Scope 1, Scope 2 and, if appropriate, Scope 3 greenhouse gas (GHG) emissions and the related risks.	Please refer to the Sustainability Report and CDP disclosure on our scope 1-3 emissions.	<b>SUSTAINABILITY INFORMATION</b> P. 25, 26, 27  <b>CDP</b> C6
	c) Describe the targets used by the organization to manage climate-related risks and opportunities and performance against targets.	In September 2015, Siemens has been the first global industrial company to commit towards carbon neutrality. We plan to half our footprint by 2020 compared to 2014 and become carbon neutral by 2030. We are well on track to achieve these targets.	<b>SUSTAINABILITY INFORMATION</b> P. 25, 26, 27  <b>CDP</b> C4

## 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	<b>GRI Standard 201</b> Economic Performance <b>GRI Standard 202</b> Market Performance	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	<b>GRI Standard 201</b> 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	<b>GRI Standard 204</b> Procurement Practices <b>GRI Standard 308</b> Supplier Environmental Assessment <b>GRI Standard 408</b> Child Labor <b>GRI Standard 414</b> 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	<b>GRI Standard 201</b> Economic performance <b>GRI Standard 412</b> 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	<b>GRI Standard 205</b> Anti-Corruption <b>GRI Standard 206</b> Anti-Competitive Behavior <b>GRI Standard 307</b> Environmental Compliance <b>GRI Standard 408</b> Child Labor <b>GRI Standard 409</b> Forced or Compulsory Labor <b>GRI Standard 412</b> Human Rights <b>GRI Standard 419</b> Socioeconomic Compliance	8 16 17
<b>2. Planet</b>					
2.1.	We enable our customers to increase energy efficiency, save resources and reduce carbon emission.	own operations	Customers	<b>GRI Standard 302</b> Energy <b>GRI Standard 305</b> 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	<b>GRI Standard 301</b> Materials	12
2.3	We minimize the environmental impacts of our own operations by applying environmental management programs.	own operations	Society	<b>GRI Standard 301</b> Materials <b>GRI Standard 302</b> Energy <b>GRI Standard 303</b> Water <b>GRI Standard 305</b> Emissions <b>GRI Standard 306</b> 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	<b>GRI Standard 203</b> Indirect Economic Impacts <b>GRI Standard 412</b> Human Rights <b>GRI Standard 413</b> Local Communities	
3.2	We foster long-term relationships with local societies through Corporate Citizenship projects jointly with partners.	own operations	Society	<b>GRI Standard 203</b> Indirect Economic Impacts <b>GRI Standard 413</b> Local Communities	
3.3	We live a zero-harm culture and promote the health of our employees.	own operations	Suppliers	<b>GRI Standard 403</b> Occupational Health and Safety	
3.4	We live a culture of leadership based on common values, innovation mindset, people orientation and diversity.	own operations		<b>GRI Standard 401</b> Employment <b>GRI Standard 404</b> Training and Education <b>GRI Standard 405</b> Diversity and Equal Opportunity <b>GRI Standard 406</b> Non Discrimination <b>GRI Standard 408</b> Child Labor <b>GRI Standard 412</b> 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 2019", our online Communication on Progress at the UN Global Compact webpage and the following report index, describes the progress we have made during fiscal 2019.

Index according to the ten principles of the Global Compact			
Principle	Systems	Measures	Achievements
<b>Principle 1</b> 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.	Our CoC for Siemens suppliers and third party intermediaries includes besides other: <ul style="list-style-type: none"> <li>› respect for basic rights of employees,</li> <li>› strong "health and safety",</li> <li>› environmental protection,</li> <li>› zero tolerance on bribery and anti-corruption,</li> <li>› avoid the purchase of conflict minerals.</li> </ul>	In the year under review, the number of sustainability self-assessments added up to 5,132. We conducted 1,012 supplier quality audits with integrated sustainability questions and 426 external sustainability audits. In the external sustainability audits, we identified a total of 8,670 potential improvements.
<b>Principle 2</b> Exclusion of human rights abuses			
<b>Principle 3</b> Assurance of freedom of association			
<b>Principle 4</b> Elimination of all forms of forced labor	We have undergone a company-wide internal human rights risk assessment as part of our Compliance Risk Assessment (CRA).	<p><b>SUPPLY CHAIN MANAGEMENT</b> <b>THIS REPORT, PAGE 38</b></p> <p><b>HUMAN RIGHTS</b> <b>THIS REPORT, PAGE 41</b></p>	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.
<b>Principle 5</b> Abolition of child labor	<p><b>SUSTAINABLE DEVELOPMENT OF SOCIETIES</b> <b>THIS REPORT, PAGE 6</b></p> <p><b>SUPPLY CHAIN MANAGEMENT</b> <b>THIS REPORT, PAGE 38</b></p> <p><b>HUMAN RIGHTS</b> <b>THIS REPORT, PAGE 41</b></p>	<p><b>SUPPLY CHAIN MANAGEMENT</b> <b>THIS REPORT, PAGE 38</b></p> <p><b>HUMAN RIGHTS</b> <b>THIS REPORT, PAGE 41</b></p>	<p><b>SUPPLY CHAIN MANAGEMENT</b> <b>THIS REPORT, PAGE 38</b></p> <p><b>HUMAN RIGHTS</b> <b>THIS REPORT, PAGE 41</b></p>
<b>Principle 6</b> 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".	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.	In fiscal 2019, Siemens reserved in Germany about 10% of trainee spots 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.
	<p><b>WORKING AT SIEMENS</b> <b>THIS REPORT, PAGE 16</b></p>	<p>Diversity focus areas are:</p> <ul style="list-style-type: none"> <li>› Consciously addressing unconscious bias,</li> <li>› promoting gender balance,</li> <li>› fostering the value of globality,</li> <li>› encouraging diversity &amp; inclusiveness.</li> </ul> <p><b>WORKING AT SIEMENS</b> <b>THIS REPORT, PAGE 16</b></p>	<p><b>WORKING AT SIEMENS</b> <b>THIS REPORT, PAGE 16</b></p>



**Index according to the ten principles of the Global Compact**

Principle	Systems	Measures	Achievements
<b>Women Empowerment</b>	<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><b>SUSTAINABILITY MANAGEMENT THIS REPORT, PAGE 10</b></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 indicators.</p> <p><b>WORKING AT SIEMENS THIS REPORT, PAGE 16</b></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 2019 women hired amounted 25% of all new hires.</p> <p><b>WORKING AT SIEMENS THIS REPORT, PAGE 16</b></p>
<b>Principle 7 Precautionary approach to environmental protection</b>	<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 standar as well as our own internal standard “Specifications on environmentally compatible product and system design”.</p> <p><b>DECARBONIZATION THIS REPORT, PAGE 25</b></p>	<p>Our programs “Serve the Environment” (StE), “CO<sub>2</sub> neutral Siemens” and “Product Eco Excellence” address all our material environmental impacts or industrial environmental protection and product-related environmental protection respectively. We report direct greenhouse gas emissions (Scope 1), indirect greenhouse gas emissions (Scope 2) and since fiscal 2016, we also report Scope 3 upstream emissions from purchased goods and services.</p> <p><b>SUSTAINABILITY MANAGEMENT THIS REPORT, PAGE 10</b></p> <p><b>DECARBONIZATION THIS REPORT, PAGE 25</b></p>	<p>In fiscal 2019, reduced our CO<sub>2</sub> emissions by 900,000 tons CO<sub>2</sub> 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, almost 100% 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 177 kt CO<sub>2</sub>e.</p> <p><b>SUSTAINABILITY MANAGEMENT THIS REPORT, PAGE 10</b></p> <p><b>DECARBONIZATION THIS REPORT, PAGE 25</b></p>
<b>Principle 8 Specific initiatives to promote environmental protection</b>	<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><b>SUSTAINABILITY MANAGEMENT THIS REPORT, PAGE 10</b></p> <p><b>CORPORATE CITIZENSHIP THIS REPORT, PAGE 23</b></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 Carbon Pricing Leadership Coalition of the World Bank (CPLC) and the WEF.</p> <p><b>SUSTAINABILITY MANAGEMENT THIS REPORT, PAGE 10</b></p>	<p>In the year under review, we donated €21.4 million for corporate citizenship activities. Siemens takes part at the Conference of Parties (COP) in Madrid/ Spain in November 2019, where we will again give insights how renewable energy can contribute to the decarbonization of the industry. In September 2019, we also attended the UN New York Climate Week and in October 2019 the One Young World Summit in London/UK.</p> <p><b>SUSTAINABILITY MANAGEMENT THIS REPORT, PAGE 10</b></p> <p><b>CORPORATE CITIZENSHIP THIS REPORT, PAGE 23</b></p>
<b>Principle 9 Development and diffusion of environmentally friendly technologies</b>	<p>As part of our Environmental Portfolio, we develop and market products, solutions and services that enable our customers to reduce their CO<sub>2</sub> emissions, lower life-cycle costs and protect the environment.</p> <p><b>ENVIRONMENTAL PORTFOLIO THIS REPORT, PAGE 26</b></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><b>ENVIRONMENTAL PORTFOLIO THIS REPORT, PAGE 26</b></p>	<p>In the year under review, our Environmental Portfolio helped our customers and partners throughout the world reduce their CO<sub>2</sub> emissions by 637 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><b>SUSTAINABILITY MANAGEMENT THIS REPORT, PAGE 10</b></p> <p><b>ENVIRONMENTAL PORTFOLIO THIS REPORT, PAGE 26</b></p>

**Index according to the ten principles of the Global Compact**

Principle	Systems	Measures	Achievements
<p><b>Principle 10</b> Measures against corruption</p>	<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. 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><b>COMPLIANCE</b> <b>THIS REPORT, PAGE 34</b></p>	<p>Our compliance priorities are:</p> <ul style="list-style-type: none"> <li>➤ Foster Integrity,</li> <li>➤ Manage Risk and Assurance,</li> <li>➤ Effective Processes,</li> <li>➤ Excellent Compliance Team,</li> <li>➤ Committed to Business.</li> </ul> <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. Activities in the World Economic Forum include the Company's participation in the Partnering Against Corruption Initiative (PACI).</p> <p><b>COMPLIANCE</b> <b>THIS REPORT, PAGE 34</b></p>	<p>In the year under review the updated Business Conduct Guidelines, which are the legal and ethical framework for all employees and Managing Board members worldwide, have come into effect. Additionally, a new global web-based training has been developed which covers the fundamental contents of the updated Business Conduct Guidelines. The Compliance Regulation Landscape has been restructured and revised to fit the new organizational structure and Vision 2020+ of Siemens. Moreover, parts of our global Compliance Controls have been automated and the export control due diligence process has been enhanced by extending the Sanctioned Party Screening to cover entities which are indirectly subject to sanctions because they are majority owned by designated natural or legal persons.</p> <p><b>COMPLIANCE</b> <b>THIS REPORT, PAGE 34</b></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 and placing similar expectations on our supply chain partners. 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 global headquarters in Munich, where efficient use of water is a key element of the building design. Through collection and usage of rainwater, the water consumption of the headquarters lies 50% below guide values of new buildings.

### OUR SUPPLY CHAIN PARTNERS

The environmental protection requirements that our supply chain partners must fulfill are defined in our Code of Conduct for Siemens Suppliers and Third Party Intermediaries. Among other things, we expect their environmental management policy to include the efficient use of energy and other resources, such as water. For more information on these requirements and on supply chain management please refer to → **7.2 SUPPLY CHAIN MANAGEMENT** in this report.

### OUR CUSTOMERS

Examples where we provide water management solutions to support our customers include:

#### Modern water extraction

Siemens has been commissioned by the A3C consortium to equip eight seawater desalination plants in Saudi Arabia with process automation, drive technology, process instrumentation and com-

munication technology. This is a follow-on order to an earlier contract, where Siemens were appointed as the the main Electrical Instrumentation and Control Engineering (EI&A) contractor for construction of the first large-scale solar-powered water desalination plant near the Saudi Arabian city Al Khafji. At that plant, efficient use of solar energy significantly reduces operational carbon dioxide emissions compared to plants using electricity from non-renewable sources. In addition to this, the Siemens technology ensures a plant availability of approximately 98%.

#### Partnership to reduce water losses, secure water supply and increase efficiency

Siemens and BuntPlanet have signed a sales distributorship agreement: enabling the two companies to provide a comprehensive portfolio on equipment, software, and services, offering advanced solutions for the water industry. Particularly in the area of leakage detection within water distribution networks, this partnership will allow Siemens customers to reduce water losses, secure water supply and increase efficiency significantly. With this cooperation, both partners will make a major contribution towards securing sustainable water supplies worldwide.

### SOCIETIES

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. The Safe Water Enterprises is the flagship program for such initiatives, and a recent example includes:

#### Safe Water Enterprises – Kenya

The Migori region in western Kenya is one of the regions south of the Sahara where people lack access to clean drinking water. In February 2019 a Siemens Stiftung water kiosk providing 20,000 liters of affordable filtered drinking water was launched in the community of Wath Onger. The kiosk provides a source of income for women and since its installation no new cases of cholera were reported. The kiosk is one of 20 Safe Water Enterprises initiated by the community group LAVISO (Lake Victoria AIDS Support Organization).

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

📄 [WWW.SIEMENS-STIFTUNG.ORG/PROJECTS](http://WWW.SIEMENS-STIFTUNG.ORG/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 2019". 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 2019" of Siemens AG for the reporting period from October 1, 2018 to September 30, 2019 (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](http://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, 2018 to September 30, 2019 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 December 2019, 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 and on the level of Operating and Strategic Companies 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 Duisburg (Gas and Power),
  - at the location Erlangen (Digital Industries),
  - at the location Marburg (Siemens Healthineers),
  - at the location Tianjin, China (Portfolio Companies) and
  - at the location Beijing of the Regional Company China,
- 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 Gas and Power, Digital Industries and Siemens Gamesa Renewable Energy,
- Inquiries of employees from selected departments at the Group's headquarters, Corporate departments, Operating and Strategic Companies 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 2019" for the period from October 1, 2018 to September 30, 2019 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 and 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 ([www.de.ey.com/general-engagement-terms](http://www.de.ey.com/general-engagement-terms)). 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, December 3, 2019

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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Fax +49 (0) 89 636-30085 (Media Relations)  
+49 (0) 89 636-1332474 (Investor Relations)

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

### ADDITIONAL INFORMATION

The Siemens Annual Report 2019 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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